**Hand amputations constitute a major cause of disability and public health concern with significant socio-economic dimensions.**

**Aim** To investigate hand amputation epidemiology, identify risk groups and estimate the potential for prevention.

**Methods** EDISS in Greece, comprising four hospitals across the country, captures patient and injury information (demographics, accident conditions, injury description, outcome). During 1996–2004, among ~0.5 million cases recorded, 86,211 were hand injuries resulting in 964 amputations (1.1%). To identify preventable amputation causes detailed injury descriptions regarding injury mechanism were examined.

**Results** Among hand amputations 937 involved fingers, 23 palms and 4 wrists. The estimated (extrapolated) number of amputations was 3,940 and the calculated overall incidence rate (IR) 3.62 per 10,000 person-years. The highest IR (8.02) was recorded among males 15–64 years old. The three most common mechanisms involved: tools in 445 (57.8%), doors in 172 (22.3%) and materials in 50 (6.5%) cases; of note, 148 victims were woodworkers (15.3%). The least common causes were animals, jewellery and fireworks (10, 7 and 6 cases respectively). Analysis of the accident conditions revealed the most common causes: lack of preventive measures/appropriate training and work overload. Most amputations due to doors were attributed to non-use of door handle while closing the door or could have been prevented by a chocking door closing mechanism.

**Conclusions** Amputations of the hand constitute a small but non-negligible percentage of all hand injuries. The main risk group is young males and woodwork professionals, whereas doors pose a significant risk. Raising awareness and implementing simple measures could reduce the burden of this disabling injury.