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**POTENTIAL FOR PREVENTION OF
POWERED-TWO-WHEELER FATALITIES IN THREE
EUROPEAN CITIES: AN ESTIMATION IN THE CONTEXT
OF EUROPEAN SAFER URBAN MOTORCYCLING (ESUM)
PROJECT**

doi:10.1136/injuryprev-2012-040590s.21

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Background 'European Safer Urban Motorcycling' (ESUM) constitutes a collaborative initiative of academic/institutions/industry/local authorities in European principal motorcycle cities to identify, develop and promote measures designed to deliver safer urban motorcycling.

Purpose CEREPRI sought to maximise the 'quick wins' of PTW casualty reduction, by benchmarking the proportion of fatalities that could have been averted if all riders complied with existing regulations regarding helmet use, drink driving and licensed driving.

Methods Road traffic police data on number of PTW drivers involved in traffic accidents in Athens, Barcelona and Paris during 2005–2007 by outcome and investigated risk factors, were collected. We estimated the OR for death rather than non-injury by adoption of safety measures and behaviours and, subsequently calculated the population attributable fractions.

Results Each year in Paris 37% fatalities could have been averted if all riders were sober while driving and 12% if all PTW riders drove with a valid driving license, whereas in Barcelona the potentially avoidable PTW fatalities attributable to alcohol, indicating the pattern of savings by improved enforcement, reached 26%. Compliance with helmet legislation seems to have reached almost 100% in Barcelona and Paris and hence the potential fraction for prevention is close to zero, whereas in Athens 42% of human lives could have been saved if all drivers had respected and police assisted enforcement of existing helmet wearing laws.

Significance Considerable savings in premature deaths are anticipated with implementation of an array of existing effective interventions aimed to improve urban PTW safety in the EU.