

Appendix table: Formulas used in calculating Potential Years of Life Lost (PYLL), Standardized Mortality Ratios (SMR) and Standardized Incidence Ratios (SIR), with their confidence intervals

Formula	Description of parameters
<p>PYLL:</p> $\sum_{i=1}^{\omega} d_i a_i$ $a_i = 100 - x_i$	<p>i = age group (ten year age groups as very small numbers would arise from finer disaggregation; separate groups for infants and for those aged 1-4 years were formed to accommodate differences in average age of death)</p> <p>ω = open-ended age group (85 years or over)</p> <p>d = number of injury deaths and</p> <p>a = number of years remaining</p> <p>x = average age at death</p>
<p>Age Standardized PYLL rate:</p> $\sum_{i=1}^{\omega} \frac{d_i a_i}{n_i} \cdot \frac{N_i}{N}$	<p>n = Irish Travellers population number</p> <p>N = General population number</p>
<p>Confidence interval for age-Standardized PYLL rate ratio (27):</p> $V = Var(z) = \sum_{j=1}^2 \left[\frac{\sum a_i^2 N_i^2 \pi_{ji} (1 - \pi_{ji})}{n_{ji}} \right] / (r_j^2 N^2)$ $CLL, CLu (r_2/r_1) = \exp(Z_0 \pm 1.96\sqrt{V}) - 1$	<p>z = age-standardized PYLL ratio</p> <p>π =</p> <p>r_1 = PYLL rate of the general population</p> <p>r_2 = age-standardized PYLL rate ratio of Irish Travellers</p> <p>CLI = Lower Confidence Limit</p> <p>CLu = Upper Confidence Limit</p>

Formula	Description of parameters
<p>SMR and SIR:</p> $SMR/SIR = 100 \times \frac{o}{e}$ $e = \sum_{i=1}^k n_i R_i$	<p>o = observed number of Traveller deaths for SMR or Traveller respondents with injury for SIR</p> <p>e = expected number of deaths or respondents with injury</p> <p>i = age group (ten year age groups)</p> <p>k = open-ended age interval (85 years or over for SMR and 75 years or over for SIR)</p> <p>n_i = number of Travellers in the i^{th} age group</p> <p>R_i = mortality rate (for SMR) or retrospective incidence rate (for SIR) in the i^{th} age group of the general population. Incidence rate was based on those who responded to the injury question</p>
<p>Confidence intervals for SMR/SIR (28):</p> $Lower\ Limit = \frac{\left(\chi^2_{\frac{\alpha}{2}, 2o}\right)}{2e} \times 100$ $Upper\ Limit = \frac{\left(\chi^2_{1-\frac{\alpha}{2}, 2(o+1)}\right)}{2e} \times 100$	<p>χ^2 = Chi-square value at degrees of freedom of $2o / 2(o+1)$</p>