**Figure S1:** Process flow diagram illustrating the statistical modelling approach. Ovals contain starting and ending points; rectangles contain action/analysis steps; parallelograms contain intermediate output. When there is room, we include formulas and definitions in the output steps, with additional information in the footnotes below.

*Probabilistic linkage factors include incident date, sex, age, date of birth, first and last name, seat position, hour of incident, vehicle type, and home zip code.

†In this example, the linear component of the regression model is:

$$\log\left(E(Y_{ij})\right) = \beta_{0j} + \beta_1 Restraint_{ij} + \boldsymbol{\gamma}\mathbf{x}_{ij},$$

where $Y_{ij}$ is an indicator of the outcome of interest for occupant $i$ in vehicle $j$ (either fatal, MAIS3+, or torso injury), $Restraint_{ij}$ is an indicator of restraint use, and $\mathbf{x}_{ij}$ is a covariate vector which encodes information about age, sex, seating position, and air bag deployment. $\hat{\beta}_1^{OH(1)}$ is the estimate of $\beta_1$ based on the 1st linked data set in Ohio, etc.