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An open database enabling a refit of the road noise annoyance function and other exposure response functions

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ABSTRACT

Among others, the European Noise Guidelines, virtually any estimation of (environmental) burden of disease and many noise policy decisions explicitly or at least implicitly rely on the absolute values and the slope of exposure response functions for different noise source – outcome pairs. An important reference are the WHO-reviews published in 2014. Starting with the “full-WHO” road noise annoyance function, which claims a decreasing annoyance for a range of increasing L_{DEN}, I present open questions concerning – among others - the fitting method. I show the status of a developing database with data from primary studies, our suggestions for a different fitting approach and an outlook on extending this work to other exposure-outcome pairs.

Keywords (3-6): Exposure Response Function, Burden of Disease, Annoyance, Meta Analysis, Database