Data collected through a cross-sectional approach

Purpose: ‘causal’ inference

Outcome is rare

\[ \text{POR} = \text{PR} = \text{CIR} = \text{IDR} \ldots \]

Purpose: study prevalence in subgroups

Outcome is frequent / common

\[ \text{Uni- or bivariate analysis} \]

\[ \text{‘Prevalence projection’ modeling} \]

Structuring assumptions are all met

At least one structuring assumption is unmet

\[ \text{Stop!} \]

Time frame of an underlying followed population is identifiable (including \( t_0 \) and \( \Delta t \))

Exposure refers to \( t_0 \) and the potential time of follow up is common to all subjects \( \Rightarrow \) underlying cohort (fixed population) is identifiable

\[ \text{Analysis as in a retrospective cohort study} \]

\[ \text{Cases are incident in a fixed population} \]

\[ \text{CI}_i \Rightarrow \text{CIR} \]

\[ \text{Poisson or Cox PH or log-binomial models adequate} \]

Data refers to a dynamic population

Time frame of an underlying followed population is not identifiable

Exposure refers to \( t_0 < t_e < t_1 \) and/or exposure changes status along \( \Delta t \) and/or the potential time of follow up may be different across subjects

\[ \text{Analysis as in a density sampling case-control study} \]

\[ \text{Prevalent cases (given } T_i = T_I = T_0) \text{ are proportional to respective incident cases in stratum } i \]

\[ \text{Non-prevalent cases are proportional to respective person-time quantities in stratum } i \]

\[ \text{CPR (POR) } \Rightarrow \text{IDR} \]

\[ \text{Logistic model adequate} \]