Eligible population → Randomisation

Randomisation generates two populations with identical baseline risks except for random fluctuations

Invitation to screening → Decision to participate

Decision to participate → Screening

Screening → Participants’ outcomes

Decision to participate → No participation

No intervention

No participation → Non-participants’ outcomes

Non-participants’ outcomes → Controls’ outcomes

Intention-to-treat analysis

Individual decision-making

Proposed per protocol analysis

\[(\text{Self-selection bias participants}) + (\text{Self-selection bias non-participants}) = 0\]

\[(\text{Risk in non-participants})-(\text{Risk in control}) = \text{self-selection bias in non-participants}\]