Cross-Sectional Case-Control Study

A **cross-sectional case-control study** is an observational study design that combines elements of both cross-sectional and case-control methodologies.

Definition

A study that:

- Compares individuals with a particular condition (cases) to those without it (controls).
- Collects data on exposures and outcomes at a **single point in time**.
- Aims to find **associations**, not causality.

Key Characteristics

Feature	Description
Timeframe	Single time point (cross-sectional)
Groups	Cases (with condition) vs. Controls (without condition)
Purpose	Assess association between exposure and outcome
Temporality	Cannot determine what came first: exposure or outcome
Data collection	Often via questionnaires, interviews, or records

Example

Study investigating the relationship between childhood trauma and alcohol use disorder:

- `'Cases'`: Patients with alcohol use disorder
- `'Controls'`: Individuals without alcohol use disorder
- `'Data'`: Collected at one time using structured interviews

Advantages

- Relatively quick and inexpensive
- Useful for studying rare outcomes
- Good for hypothesis generation

Limitations

- Cannot establish causality
- Risk of recall and selection bias
- Unclear temporal relationship between exposure and outcome