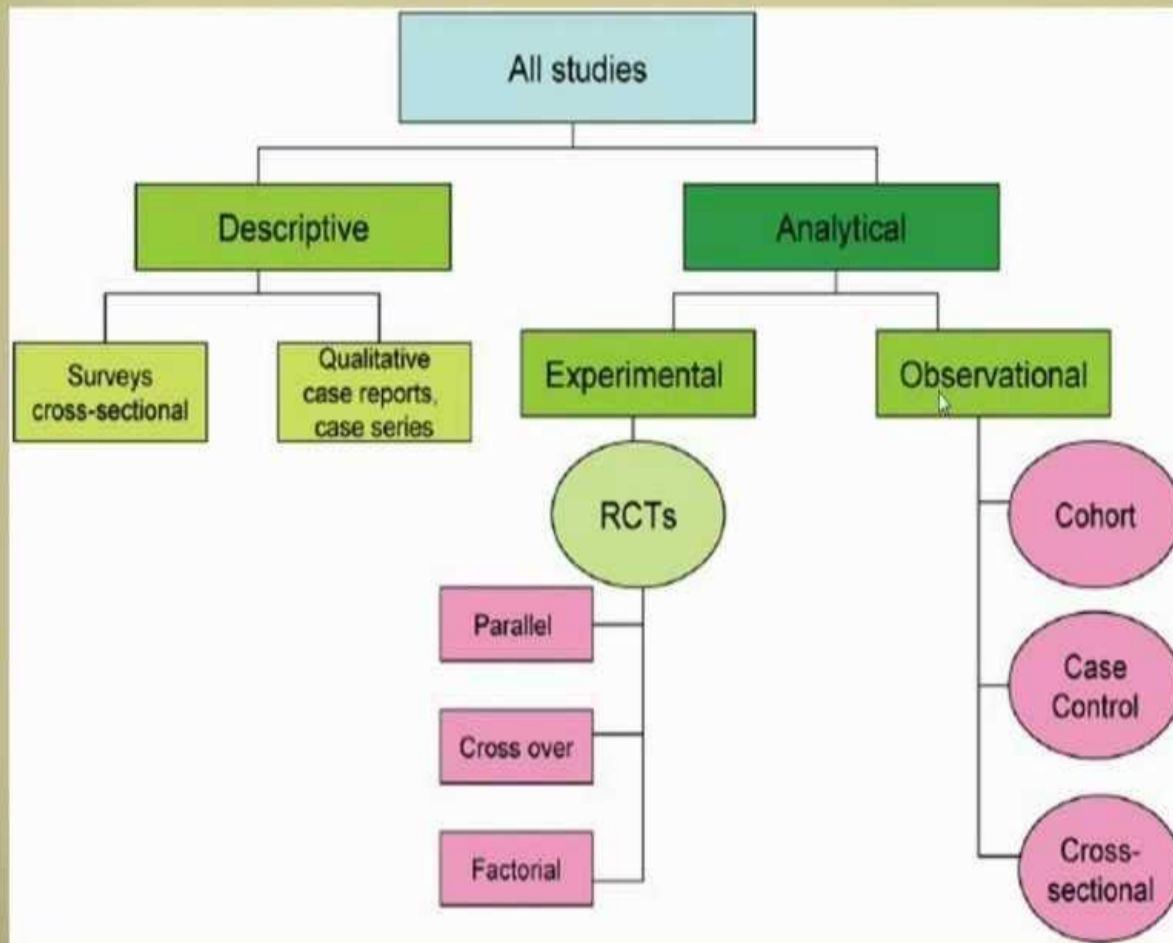


Cohort Studies

Done by: Tengizbay Dinara

Overview of Study Designs



What is Cohort?

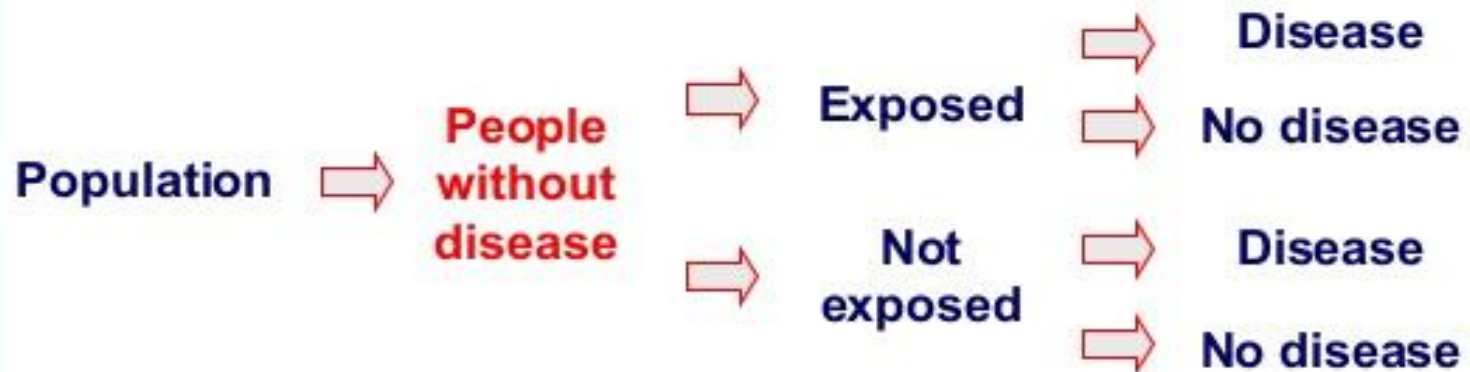
The term was introduced by Frost in 1935



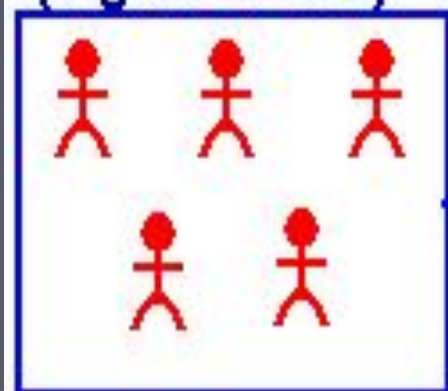
WHAT IS A COHORT?

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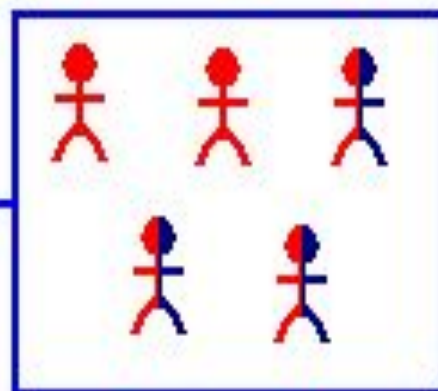
Cohort Studies



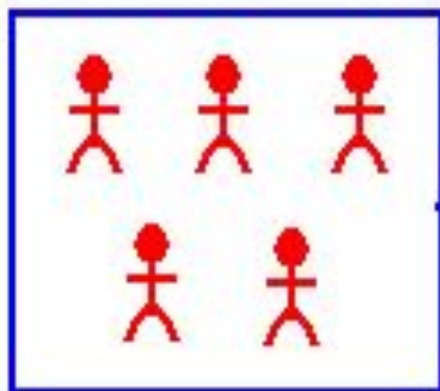
Group of interest
(e.g. smokers)



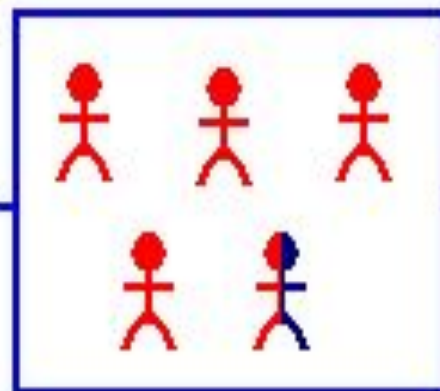
Follow
over time



Comparison group
(e.g. non-smokers)



Follow
over time



Compare
outcomes

	Cancer of the pancreas	No disease	Total	Incidence rate
Smokers	42	27,000	27,042	1.5/1000/yr
Non-smokers	7	63,000	63,007	0.1/1000/yr
Total	49	90,000	90,049	

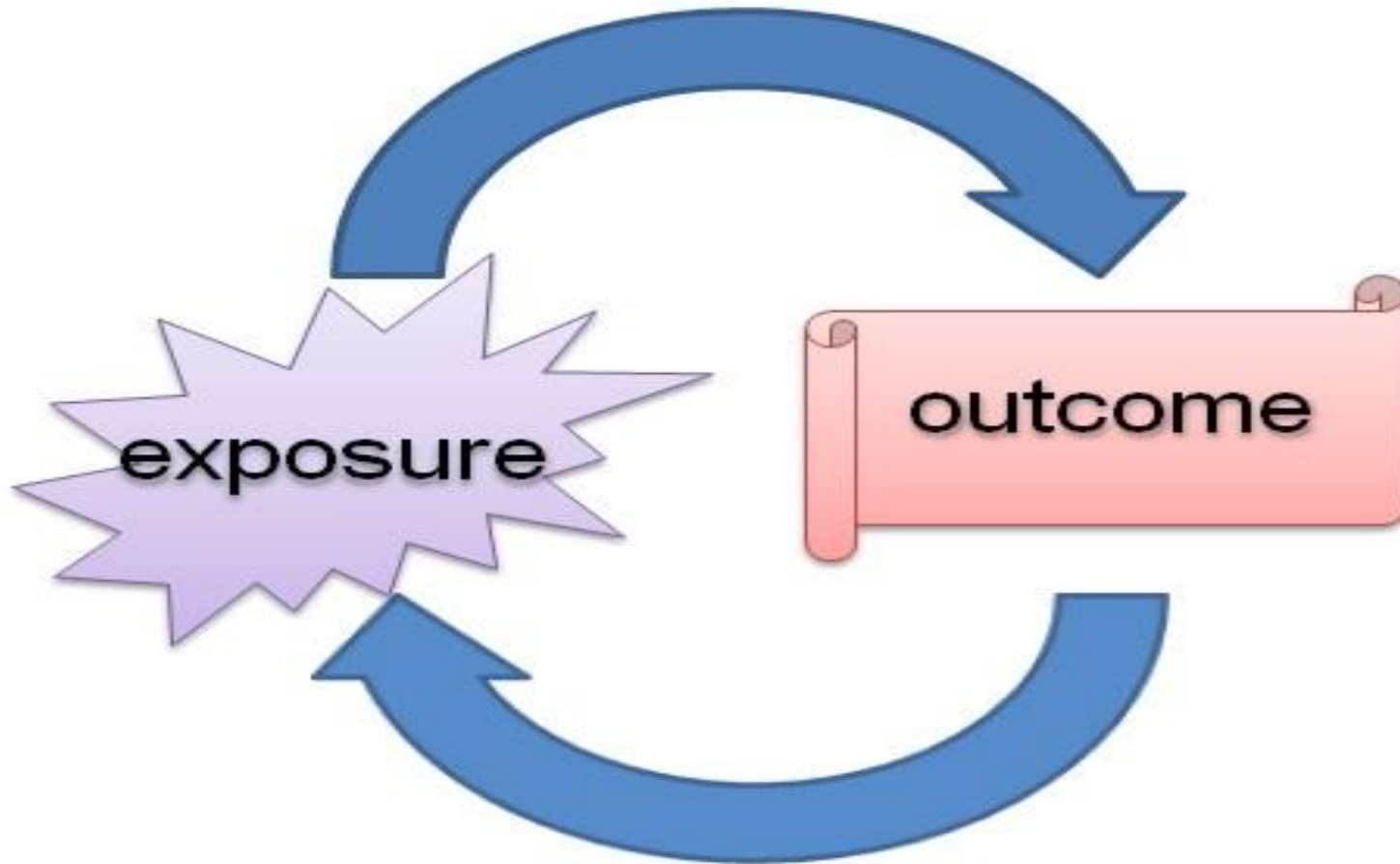
Types of Cohort Studies

- ▶ **Prospective** (concurrent)
- ▶ **Retrospective** (historical)

Prospective vs. Retrospective Cohort Studies

	Exposure	Outcome
Prospective	Assessed at the beginning of the study (present)	Followed into the future for outcome
Retrospective	Assessed at some point in the past	Outcome has already occurred

Prospective Study



Retrospective Study

TIME



Advantages and disadvantages of cohort studies

- Advantages

- Can study rare exposures
- Can measure incidence and risks
- Several outcomes calculated
- Direct estimate of relative risk
- Less subject to selection bias

- Disadvantages

- Requires a large sample size
- Long period
- Lost to follow-up
- Ethical considerations-obliged to intervene to reduce or eliminate risk factor
- Expensive

Thank you for your attention

