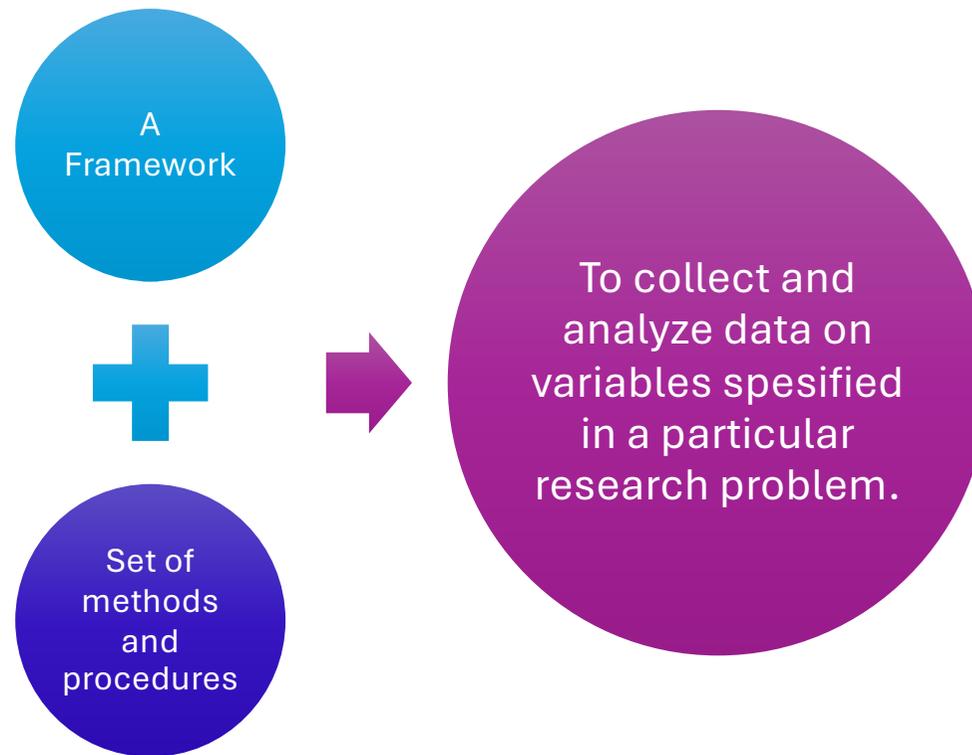


Week 6

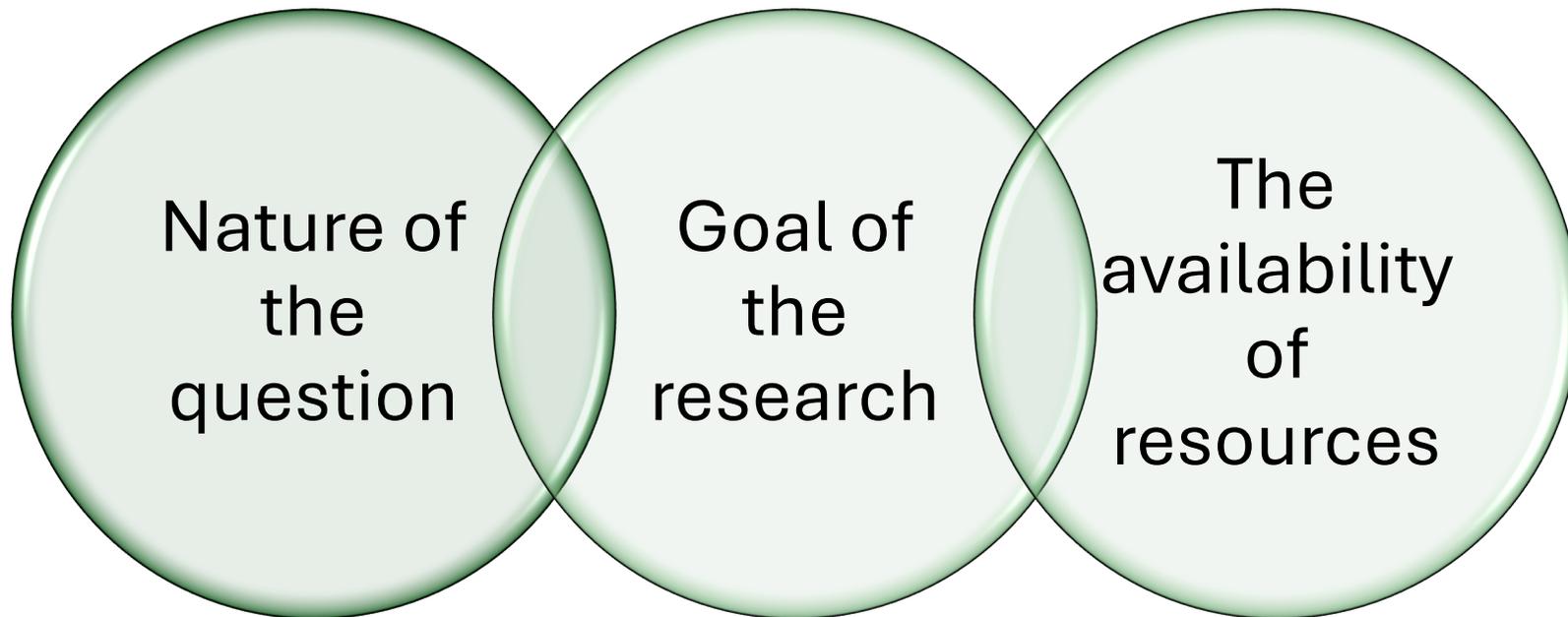
# Research Designs: Descriptive Studies

Assoc.Prof. Dr. Dođukan ÖZEN

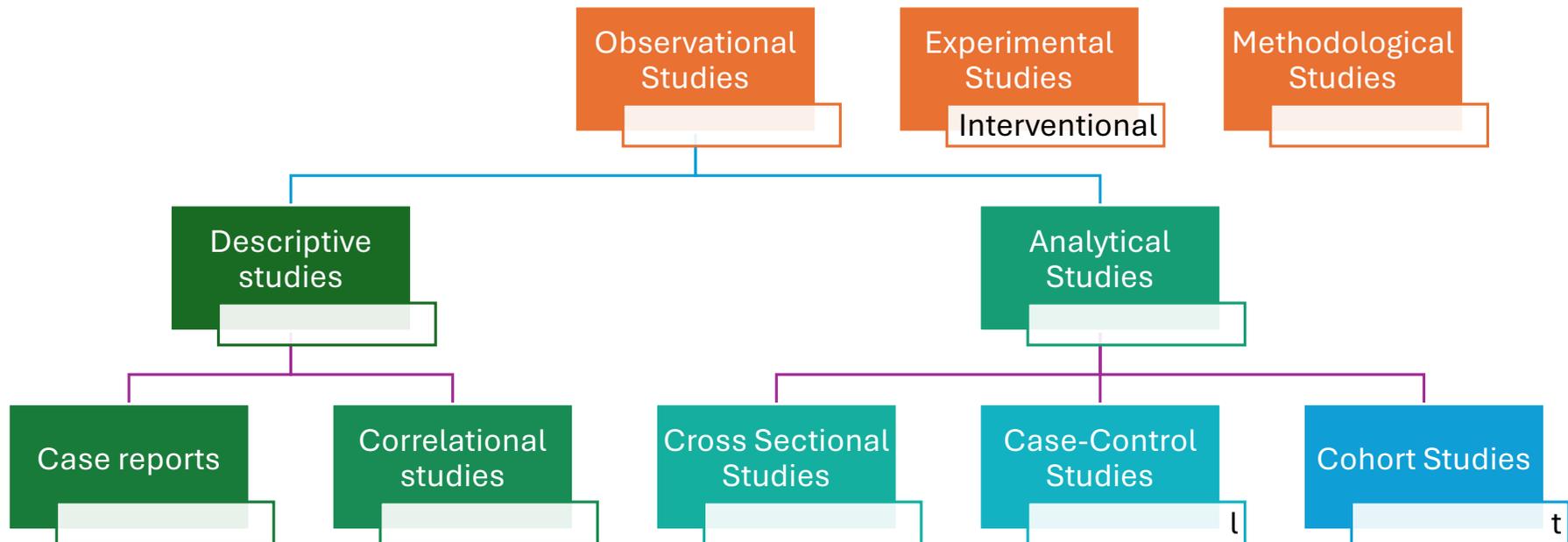
# Research Design



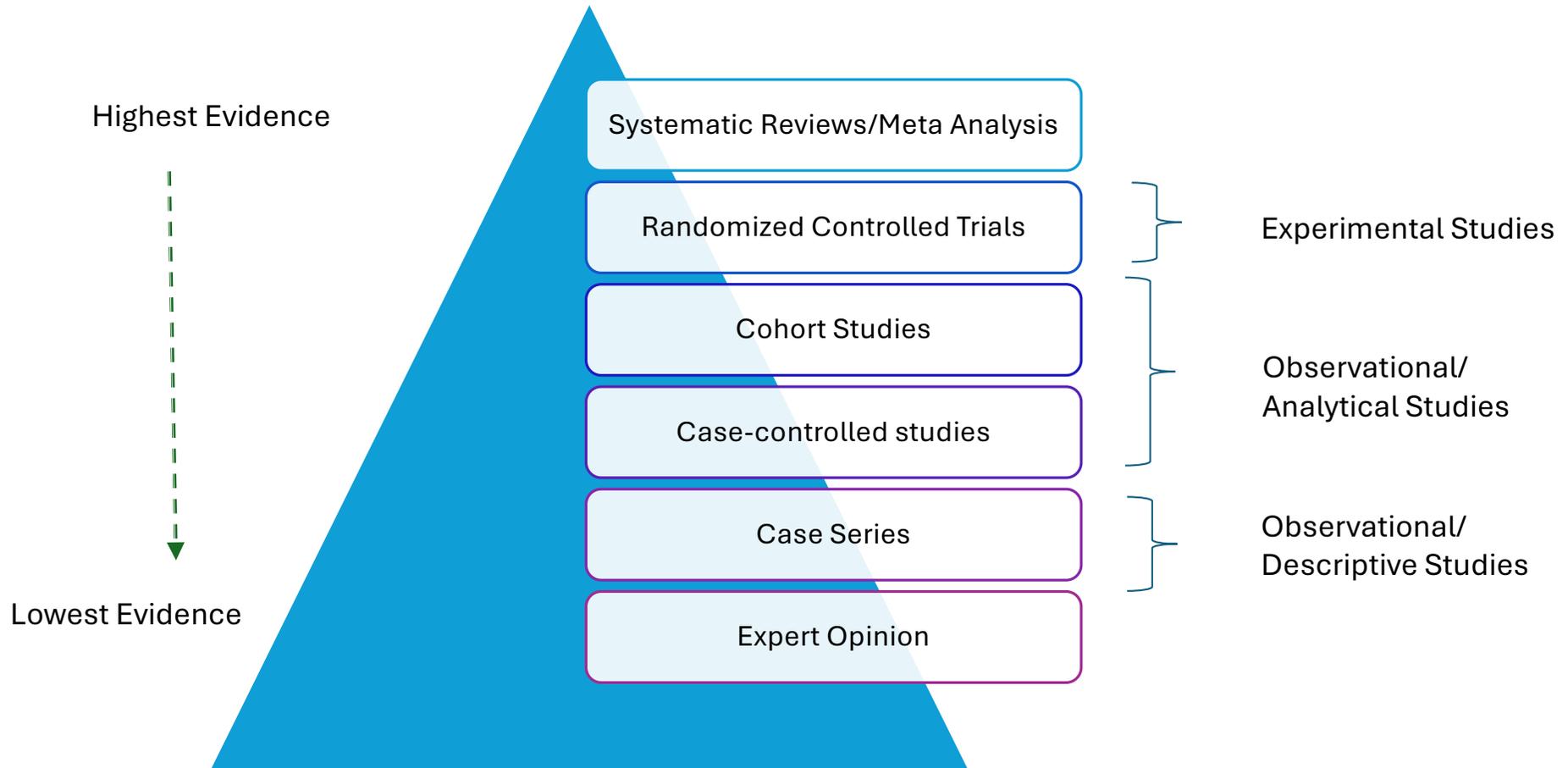
## How to determine the research design?



## Research Designs



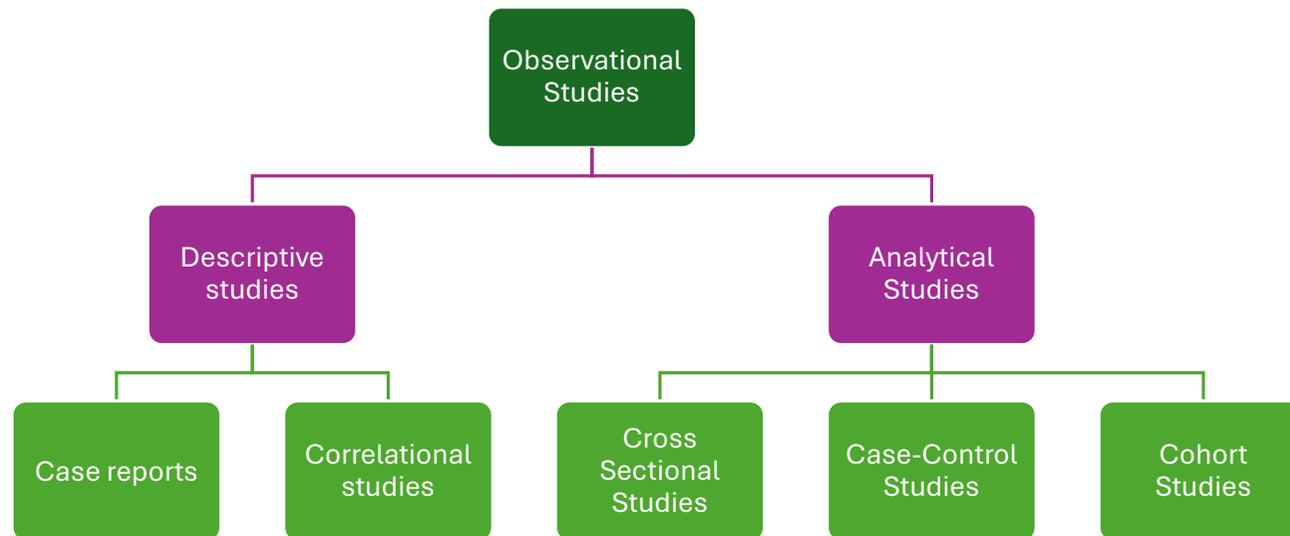
# Evidence Pyramid



## 1.OBSERVATIONAL STUDIES

Observational studies are those where the researcher is documenting a naturally occurring\* relationship between the exposure and the outcome that he/she is studying.

\*no active intervention of researcher !



## **Descriptive Studies**

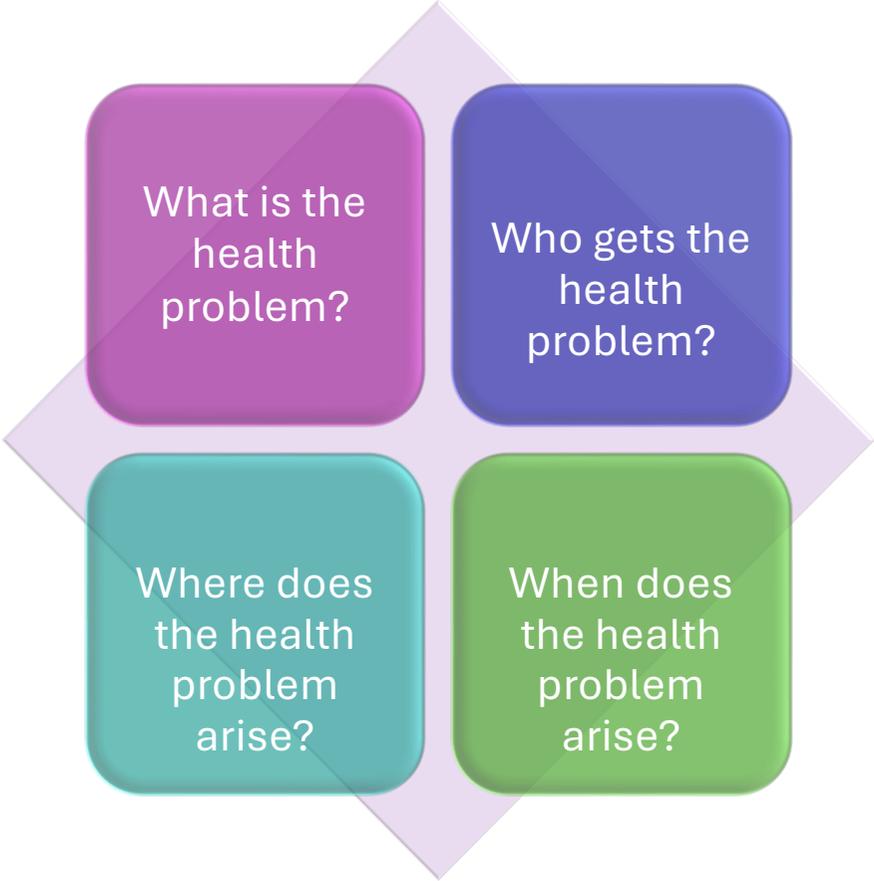
The purpose of descriptive studies is to define a health event in terms of person, time and place. In such studies, only the at-risk group is examined without any intervention.

A control group is not necessary as there will be no comparison.

## **Characteristics of Descriptive Studies**

- There is no hypothesis
- With descriptive epidemiology, hypotheses can be developed about the causes of health problems that can be tested in the future.
- Usually statistical analysis is not used.
- No criteria are obtained.

Descriptive studies



## **EXAMPLE**

Identification of patients admitted to the obstetrics and gynecology clinic according to their various characteristics;

Age, breed of animal

Animal owner's occupation, education level, socioeconomic status, etc.

## Descriptive Studies:

### Case Reports / Case Series

- Case reports describe information for a single patient, and case series describe information for a group of patients with a similar diagnosis.
- These types of research give rise to establish new hypotheses.
- Since they are used only in hypothesis formulation, they cannot be used to test the existence of a true statistical relationship.

## Descriptive Studies: Case Reports / Case Series

Examples of the most cited descriptive studies in the literature :

- Conspicuous lesions in domestic ruminants infected with the so-called Schmallenberg virus originating in Germany
- Pathology of *Clostridium perfringens* type C enterotoxemia in horses
- First case reports of cancer in mice

## Descriptive Studies:

### Correlational Studies

- Sometimes called as ecological studies
- Individuals are not examined one by one, but all the data of the society are taken into consideration.
- Data about the whole society are compared and correlated with each other.
- The "correlation coefficient" denoted by "r" is used as the descriptive measure of the relationship.
  - r ranges from -1 to +1.
- On the positive side: They can be done quickly and cost-effectively, using the available information.

## Descriptive Studies: Correlational Studies

### An example:

- Association between veterinary antimicrobial use and antimicrobial resistance in food-producing animals: a report on seven countries

## Descriptive Studies



### PROS

- Very easy to conduct
- Data are already available
- Inexpensive
- Do not need much effort
- Do not face serious ethics scrutiny

### CONS

- Can not be a representative for population
- Results may be unreliable

