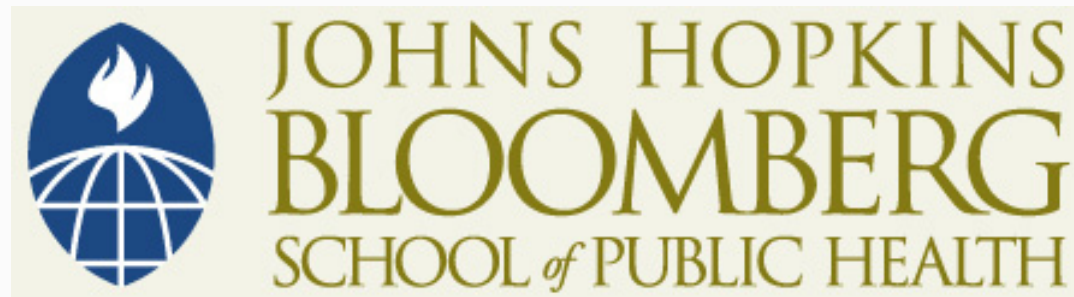


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JOHNS HOPKINS  
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## Section B

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### Types of Data

# Binary Data

- Binary (dichotomous) data
  - Yes/no
  - Polio: Yes/no
  - Cure: Yes/no
  - Sex: Male/female (or as yes/no, “is subject male?”)

# Categorical Data

- Categorical data (*place individuals in categories*)
- *Nominal categorical data: no inherent order to categories*
  - Race/ethnicity
  - Country of birth
  - Religious affiliation
- *Ordinal categorical data: order to categories*
  - Income level categorized into four categories, least to greatest
  - Degree of agreement, five categories from strongly disagree to strongly agree

# Continuous Data

- Continuous data (*finer measurements*)
  - Blood pressure, mmHg
  - Weight, pounds (kilograms, ounces, etc.)
  - Height, feet (centimeters, inches, etc.)
  - Age, years (months)
  - Income level, dollars/year (Euro by year, etc.)

# Time to Event Data

- Data that is a hybrid of continuous data and binary data
  - Whether an event occurs and time to the occurrence (or time to last follow-up without occurrence)

# Different Methods for Different Data Types

- To compare the number of polio cases in the two treatment arms of the Salk Polio vaccine, you could use . . .
  - Fisher's Exact Test
  - Chi-Square Test
- To compare blood pressures in a clinical trial evaluating two blood pressure-lowering medications, you could use . . .
  - 2-Sample t-Test
  - Wilcoxon Rank Sum Test