Week 2 Review

Cindy J. Pang BIOSTAT 100A Summer Session C 2024 August 16, 2024

Probability (Random) Sampling

Type of Sampling	When/Why do this type of Sampling	Selection Mechanism, or How to conduct this type of Sampling

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Data Display

- We can estimate the **Frequency Distribution** with: (1) Tables and Graphs ٠
 - - Frequency Table
- Histogram ("Bar Graph")Information from a histogram
 - Cumulative Frequency Polygon •
 - percentiles
 - Boxplot •
 - rank statistics
 - parts of a boxplot
 - skewness, right vs left skew
 (2) "Theoretical" Description
- Normal (Gaussian) Distribution Log-Normal Distribution Why is this distribution useful?
 - Exponential Distribution
 - When is this distribution useful?
 - (3) Numerical (next lecture)
- Sensitivity vs Specificity
 - Tradé-off between Sensitivity and Specificity \rightarrow What happens when you move the line?
- Outliers •
 - how to identify outliers
 - what do you do about outliers? ۲

Tables and Graphs						
	What it looks like	What does it tell us / Utility?				
Frequency Tables						
Histogram						
Cumulative Frequency Polygon						
Boxplot						
Theoretical Descriptions						
Normal Distribution						
Log-Normal Distribution						
Exponential Distribution						

Numerical Descriptions of Data

- Measures of Location
 - (1) Arithmetic Mean (average)
 - (2) Median how to find the median when it is even vs odd
 - (3) Geometric Mean
 - (4) Mode
 - (5) Midrange

Measure of Location							
	Formula/ How to calculate it	When to use it	Statistic	Parameter			
Arithmetic Mean							
Median							
Geometric Mean							
Mode							
Midrange							