



Overview of Biostatistics

**Dr. M.M. Mweu,
MBChB Level V Biostatistics,
18 May, 2018**

Overview

- Introduction to biostatistics:
 - Definitions, types of data, Descriptive statistics for Quantitative & Qualitative data: Measures of central tendency, dispersion, data presentation (frequency tables, graphs)
- Probability distributions
 - Introduction to probability (mutually exclusive & independent events), Normal, Binomial & Poisson distributions
- Inferential statistics
 - Sampling variability of a **single** mean and proportion including confidence intervals and hypothesis tests, decision errors (Type I & II errors)
- Comparing two means and proportions
 - Confidence intervals and hypothesis tests for **two** means and proportions, paired t-test for paired data
- Association of two categorical variables
 - Chi-squared test & Fisher's Exact test