Introduction to Statistics and Epidemiology in Infection Prevention

Presented by the Rhode Island HAI Prevention and Antimicrobial Stewardship Coalition

Statistics and epidemiology are crucial tools in infection prevention and control. Clinical best practices are cultivated from rigorous statistical and public health tools, such as disease surveillance, data collection, statistical tests, and results reporting.

The Rhode Island Department of Health, in collaboration with Healthcentric Advisors, developed this **FREE**, web-based course to increase knowledge and improve understanding of statistical and epidemiologic concepts that will facilitate best practices.
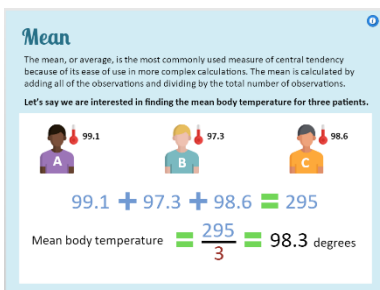
Current Modules

Module 1: Introduction to Statistics

Statistics is a fundamental component of healthcare and infection prevention. It provides a way to quantify the spread of disease and can inform infection prevention practices. After completing this module, participants will be able to:
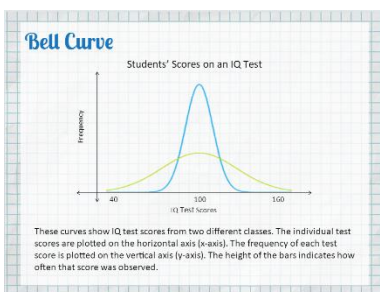
- Describe core elements of statistics and how they are used
- Define and differentiate between different types of data

Module 2: Mean, Median and Mode

The mean, median and mode are often helpful when quantifying the spread of disease and can inform infection prevention by highlighting where the data clusters. After completing this module, participants will be able to:

- Define and differentiate between mean, median and mode
- Calculate the mean, median and mode of a data set

Module 3: Standard Deviation and Range

When evaluating data, it is important to know how much variability there is and how to interpret that variability. After completing this module, participants will be able to:

- Define dispersion
- Define range and standard deviation
- Calculate range and standard deviation
- Analyze the mean and standard deviation using graph

Access this series on The Learning Center: www.Learning4Quality.org

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