<u>Programme</u>
Epidemiology and Statistics for HCAI Surveillance

25th-27th May 2010
HSE Employers Agency, 63-64 Adelaide Road, Dublin 2

Speakers

- Teresa Horan, MPH - NHSN Training and User Support Team Lead, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention

- Jonathan R. Edwards, MStat - Statistics Team Lead, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention

Course Objectives

This course is designed for individuals who conduct HCAI surveillance and research wishing to gain additional understanding and insight in the principles of epidemiology and statistical methods. A brief listing of the learning objectives are below.

Learning Objectives

1. Describe the role of probability and statistics and discuss the three main types of statistical inference.
2. Outline the two main types of epidemiologic studies; describe the two most common designs: case-control and cohort studies; discuss the two most important aspects that help distinguish common study designs.
3. Describe common measures of effect or association.
4. Review study designs and methods of risk-adjustment used in HCAI surveillance; discuss examples of comparing infection rates.
5. Describe a variety of statistical methods and tests including correlation, regression, accuracy assessment and statistical process control charts.

Tuesday 25th May 2010

	Description	Speaker
9.30	Probability, Statistics and Inference	Jonathan Edwards
10.45	Break	
11.00	Exercises/Discussion	
11.30	Study Design	Jonathan Edwards
12:00	Lunch	
1.00	Study Design	Jonathan Edwards
2.30	Break	
3.00	Exercises/Discussion	
3.30	Measures of Effect	Jonathan Edwards
4.30	Exercises/Discussion	

Wednesday 26th May 2010

9.00	Prospective Cohort and Case Control Study Designs, 2x2 Table, and Relative Risk and Odds Ratio	Teresa Horan
9.30	Risk Adjustment Strategies for Surgical Site Infections	Teresa Horan
10.15	Break	
10.30	Risk Adjustment Strategies for Device-associated Infections	Teresa Horan
11.30	Comparing Surgical Site Infection Rates	Jonathan Edwards
12.00	Lunch	
1.00	Standardized Infection Ratios and Comparisons	Jonathan Edwards
2.45	Break	
3.00	Comparing Device-associated Infection Rates and Device Utilization Ratios	Jonathan Edwards

Thursday 27th May 2010

9.00	Statistical Methods and Tests	Jonathan Edwards
10.45	Break	
11.00	Measures of Accuracy and Statistical Process Control	Jonathan Edwards
12.15	Lunch	
1.15	Application of Concepts	Jonathan Edwards
3.30	Wrap-up	Teresa Horan