TRAINING DESCRIPTION

Time Trend Analysis for MCH Outcomes

Overview:
This workshop will provide instruction and hands-on training for analyzing time trends in maternal and child health (MCH) outcomes. The focus of the training will include data cleaning, data setup, data analysis, interpretation of analyses, and preparation of results for reports and manuscripts. Selected modeling techniques will be used to identify predictors associated with MCH outcomes. The primary focus of the workshop will involve time trends, but some spatial trend analytical techniques will also be covered. These methods are intended for use in developing health policy and to advance the delivery of maternal and child health services.

Training Goal:
Provide a two-day training workshop for analyzing time trends of MCH data in both large and small populations. The target audience includes epidemiologists, statisticians, and other analysts working in state and local health agencies.

Trainers:

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<tr>
<th>Frances Mather, PhD</th>
<th>Jeffery G Shaffer, PhD</th>
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<tr>
<td>Adj. Associate Professor</td>
<td>Post Doctoral Fellow</td>
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<tr>
<td>Tulane University School of Public Health and Tropical Medicine</td>
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Participant Requirements:
This workshop is intended for individuals involved in analyzing and summarizing MCH data. Ideal participants will have:

- Responsibility in their current positions for performing data analysis
- Experience in SAS programming, particularly data and procedure step processing

To participate in this workshop, experience in the following areas is preferred:

- Basic use of the SAS Windows-based interface
- Libname statements and data step processing for reading SAS datasets
- Basic SAS procedure step processing (e.g., MEANS, FREQ procedures)
- Basic descriptive measurements (e.g., frequency tabulations, means)
- Basic concepts of cross-sectional and cohort data
- Basic regression techniques (e.g., simple & multiple linear regression)
- Basic temporal and spatial clustering concepts
- Basic changes in health indicators over time
- Using trend data to examine characteristic disparities between groups
- Using trend data to monitor progress toward national, state, or local objectives

For more information contact: Brynn Rubinstein (brubinstein@amchp.org) or Henry Maingi (hmaingi@amchp.org) or visit www.amchp.org.
Content Areas:
The content areas will be provided in greater detail throughout the training. The focus areas will include:

- Time trend analyses using cross-sectional data
  - Time trend plots
  - Basic descriptive measures of trend
  - Chi-square test for trend
  - Ordinal measures of association
  - Linear regression techniques
  - Nonlinear regression techniques
  - LOESS smoothing
  - Joinpoint regression

- Time trend analyses using cohort data
  - Data set linkage
  - Predictor identification
  - Poisson regression
  - Time series techniques

- Spatiotemporal analyses using cohort data
  - Displaying spatiotemporal patterns
  - Variance-stabilizing transformations for modeling proportions
  - Quantifying spatial dependence
  - Spatial regression
  - Cluster detection methods

Upon completion of the workshop, participants will be able to

- Effectively perform and communicate trend analyses
- Quantify time trends using several modeling approaches
- Identify predictors and predict time trend estimates
- Model and interpret spatiotemporal patterns
- Present trend results for dissemination to public health officials, professional publications, and the general public

Format:
The workshop will be interactive in nature. A formal presentation of the material will be complemented with examples and hands-on exercises. Conceptual, analytical, and technical issues will be covered with emphasis on interpretation. The SAS software (v 9.1.3) software will be used for data management and analysis. The Joinpoint software (http://srab.cancer.gov) will also be used. Datasets will be provided in SAS long extension format (*.sas7bdat) and ASCII format (*.dat). Computers will be provided for pairs of participants.
Application and Selection Process:
A maximum of thirty (30) participants will be selected to attend the training. The application and selection process will vary for each individual attending the training. Beginning July 18, 2008, the application will be available online at: http://www.amchp.org/topics/a-g/2008mchepi_datatrainings.php

Applications must be submitted by Friday, August 22, 2008. Applications will not be accepted after this date.

Training Scholarships:
Partial scholarships of up to $500 will be made available to reimburse a portion of participant’s airfare and/or lodging expenses. Since scholarship funds are limited, participants will be encouraged to seek support from their agencies before applying for financial support from AMCHP. Individuals wishing to request a partial training scholarship will be required to complete the scholarship application form online by August 22, 2008.

Notification of Acceptance:
The selected training participants will be notified via email by September 12, 2008.

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