Biostatistical Resources for Pediatric Research

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Outline for Today

Today we are going to discuss:

• Data resources in DOP / CHOA
• Biostatistics Group in DOP
• Procedure for obtaining statistical support for pediatric research projects
• Examples of the types of services we provide
• Our business model
• When to get a biostatistician involved
Resources available to help you:
- Query data out of EPIC
- Build Research Databases Using REDCap
- Analyze Data for Grants, Abstracts and Manuscripts
- Extract and analyze data from PHIS or other large pediatric databases
Who Should I Contact?

CLINICAL RESEARCH

QUALITY IMPROVEMENT / OUTCOMES RESEARCH

Biostatistics Core

Quality/ Transformation Division
Getting Data from EPIC for Analysis

- Manually extract data on your own

- Use informatics core (Cores)

- Use CHOA IT, e-mail data@choa.org
  - CORPH Seminar: Using Electronic Medical Records for Research at Children’s: How to Turn Myth into Reality -- Mike Thompson
    - 12/3/2014 (12-1)
We are a mighty N = 4 and growing!

- Traci Leong, PhD - Assistant Research Professor, Department of Biostatistics, RSPH
- Courtney McCracken, PhD - Senior Biostatistician, Emory Department of Pediatrics, SOM
- Scott Gillespie, MS - Biostatistician, Emory Department of Pediatrics, SOM
- Michael Kelleman, MSPH - Biostatistician, Emory Department of Pediatrics, SOM

- 2 new statisticians coming in early 2015 (TBD)
Today’s topic is “Mining and Analyzing Data. Help is Here”.

Our biostatistics core is well equipped to help analyze data.

We don’t do data mining…..
How to Involve a Biostatistician for Pediatric Research

- How to involve a biostatistician for pediatric related research
  - Go to:
    - http://www.pedsresearch.org/cores/detail/biostats
    - Fill out a request form under “How to Access”
Types of Services We Provide

• We provide an *initial 1 hour* session for any requested assistance. During this session, the scope of the request and needed resources are determined.

• Study design and planning for grants
• Protocol development
• Sample size calculations for grants and studies
• Analysis for abstracts, manuscripts, and grants
• Insight for proper data collection given the study design
• Database modeling and data management
• Validating Instruments
• Randomization Schematics
The business model of this core provides a pre-set number of subsidized hours for various types of pre-award projects.
Beyond the subsidized allotment, additional support is available at ~ $50/hour.

It is expected that PI’s will budget appropriate Biostatistical staff effort for funded research activities.
When to Involve a Biostatistician

• There are 2 main stages we (the biostatisticians) “like” to be involved:
  • 3-6 months out during the initial development of your research hypotheses and study design.
  • During/after the data have been collected to work on analysis for abstract and manuscript submissions

3-6 MONTHS PRIOR

Development of research hypotheses and design of study. Sample size calculations, database design, etc.

Following Data Collection

Analysis of data for abstracts and manuscripts. About 1-2 months before target submission date.