From: Hudes, Estie

Subject: Reminder: Methods Core Seminar 4/19/13 - Dr. Gregorich

Date: Tuesday, April 09, 2013 5:39:37 PM

If you are coming from outside CAPS, please make sure you read the information at the end of this message. Please make sure you RSVP to Estie Hudes prior to the seminar date.

Dear Methods Core seminar participants,

Our April seminar will take a week from this coming Friday.

Topic: Models of binary outcomes with 3-level data:

A comparison of some options within SAS

Presenter: <u>Steve Gregorich, PhD</u>

Adjunct Professor of Medicine

UCSF / CAPS

Time & Place: Friday, April 19, 10-11:30

McKusick Conference room 50 Beale Street, 13th floor San Francisco, CA 94105

Abstract: Common research designs call for modeling binary outcomes in the context of 3-level data. Cluster-randomized trials and multicenter trials with repeated binary outcomes are two examples (e.g., clusters/centers, participants within clusters/centers, repeated measures within participants). Additionally, 3-level data arise from observational studies where interest lies in estimating the effects of stochastic X variables. I consider three modeling options available in SAS for such data: (i) alternating logistic regressions (ALR; PROC GENMOD); (ii) mixed models via Laplace estimation (PROC GLIMMIX); and (iii) given that the number of top-level clusters is not 'large,' GEE with fixed effects of top-level clusters (only for multicenter trials and observational studies; PROC GENMOD). To compare the competing modeling approaches, limited Monte Carlo simulations varied intracluster correlation of outcomes and, for observational designs, intracluster correlations of level-1 and level-2 X variables. Results are summarized with emphasis on bias of standard error estimates as well as relative power.

Short bio: Dr. Gregorich holds a PhD from the University of Texas at Austin. He is an applied statistician with interest in models for clustered/dependent data; structural equations with latent variables; psychometrics, including tests of psychometric invariance across population groups; statistical power for complex sampling designs; missing data; and Monte Carlo simulation.

Hope to see many of you at the next seminar,

--Estie

CAPS address is 50 Beale Street, Suite 1300. The building is between Market and Mission. Directions to 50 Beale Street can be found at

http://caps.ucsf.edu/about/directions-parking/

Please also note that our building has very tight security; in order to be provided with visitor passes, you will need to RSVP to me, preferably at least 2 days before the seminar. If you are even considering attending the seminar, please do RSVP, so your name will be left with the security stuff at the main building entrance.

RSVP to Dr. Estie Hudes

The CAPS Methods Core activity can now be checked directly on the website:

http://caps.ucsf.edu/about/structure-cores/methods-core/

Materials from recent seminars are put on the website. You can go directly to http://caps.ucsf.edu/about/structure-cores/methods-core/methods-core-seminars/

for seminar announcements and past seminars materials. The information is being updated regularly.

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--Estie

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