President’s Report

Greetings, fellow members. Welcome to 2010 and thank you for your continuing support of the NIC-ASA. I’d like to start by thanking Sandra Sinisi for accepting the position of President Elect/Program chair. Sandra is a Research Statistician at Abbott and has been involved in various leadership roles of the NIC-ASA since 2008.

I would like to recognize two former members of the Executive Committee for their service to the chapter: Zhen Zhao was Treasurer and Membership Chair from 2007-2009, and Anita Ross completed the presidential rotation as Past President in 2009. I’d also like to thank new and continuing 2010 officers for volunteering their time to the chapter, including Xuejun Peng, Clint Lovell, Serena Chan, Eric Song, Melvin Munsaka, Jeff Isaacson, Carl Slenk, and Carole Bernett. We do have an open position for Workshop Publicity; anyone interested in getting involved should contact Clint Lovell via email at clint.lovell@gmail.com.

The Spring meeting is coming soon, on March 11th at the Crowne Plaza Northbrook. We have an exciting program planned with presentations from Professor Ajit Tamhane of Northwestern University on gatekeeping strategies, Professor Mirjam Moerbeek of Utrecht University, the Netherlands, on power analysis for trials with discrete time survival endpoints, and Dr. Chihche Lin of Astellas Pharma on methods for relative risk analysis. We look forward to seeing all of you there for these interesting talks.

A survey at the Fall 2009 Meeting identified mixed-effects models as the topic with the greatest interest, and so we are very happy to announce that the Summer Workshop will feature Dr. Walter Stroup. Dr. Stroup is Professor and head of the Department of Statistics at the University of Nebraska-Lincoln and co-author of The SAS System for Mixed Models. The workshop is planned for Thursday, June 3, 2010; further details will be available soon.

~ M. King

Spring Meeting Presentations

Please join us for the Spring Meeting on Thursday March 11 at the Crowne Plaza Northbrook located at 2875 N. Milwaukee Avenue, Northbrook. Lunch is at 11:30 am with presentations starting at 12:30 pm. If you have not received a registration form via the email list one can be obtained from the chapter web site.

Title: Gatekeeping Procedures

Speaker: Ajit C. Tamhane, Northwestern University

Abstract: Gatekeeping procedures address the problems of testing hierarchically ordered...
and logically related null hypotheses that arise in clinical trials involving multiple endpoints, multiple doses, noninferiority-superiority tests, subgroup analyses, etc. while controlling the familywise type I error rate. Because of the practical importance of these problems, gatekeeping procedures have become an active area of research in the last decade. This talk will trace the developments in this field concluding with a summary of two current research topics.

Speaker’s Bio: Ajit Tamhane is Senior Associate Dean of McCormick School of Engineering at Northwestern University and Professor of Industrial Engineering & Management Sciences (IEMS) with a courtesy appointment in the Department of Statistics. He was Chairperson of the Department of IEMS from 2001 to 2008. He received Ph.D. in Operations Research and Statistics from Cornell University and B.Tech. in Mechanical Engineering from I.I.T. Bombay. He has been with Northwestern University since 1975.

Professor Tamhane has authored three books: Multiple Comparison Procedures, with Yosef Hochberg (Wiley, 1987), Statistics and Data Analysis with Dorothy Dunlop (Prentice Hall, 2000), and Statistical Analysis of Designed Experiments (Wiley, 2009). He has edited two volumes of collected papers and chapters: Design of Experiments: Ranking and Selection with Tom Santner (Marcel-Dekker, 1984) and Multiple Testing Problems in Pharmaceutical Statistics (Taylor & Francis, 2009) with Alex Dmitrienko and Frank Bretz. He has published over 85 papers in the areas of multiple comparisons, multiple testing problems in clinical trials, design of experiments, chemometrics, quality control and clustering. His research is funded by NIH and by NSA. He is a fellow of ASA.

Personal Website: http://users.iems.northwestern.edu/~ajit/

Title: Power Analysis for Trials With Discrete Time Survival Endpoints.

Speakers: Mirjam Moerbeek and Kasia Jozwiak, Utrecht University, the Netherlands

Abstract: Studies on event occurrence aim to investigate if and when subjects experience a particular event. The timing of events may be measured continuously, using thin precise units, or discretely, using time periods. The latter metric of time is often used in social science research and the generalized linear model is an appropriate model for data analysis.

While the design of trials with continuous time survival endpoints has been extensively studied, hardly any guidelines are available for trials with discrete time survival endpoints. This presentation will explore the relationship between sample size and power to detect a treatment effect in a trial with two treatment conditions. The exponential and Weibull survival functions will be used to represent constant and varying hazard rates, along with logit and complementary log-log link functions. It will be seen that for constant hazard rates the power depends on the event proportions at the end of the trial in both treatment arms and on the number of time periods. For varying hazard rates the power also depends on the shape of the survival functions and different power levels are observed in each time period in the case where the logit link function is used.

Speakers Bios: Dr. Mirjam Moerbeek is associate professor at the department of Methods and Statistics, Utrecht University, the Netherlands. She specializes in statistical power analysis and optimal design, in particular for trials with hierarchical or
longitudinal data, such as cluster randomized trials. She has received various research grants from the Netherlands Organization for Scientific Research and is supervisor of a project on "Improving statistical power analysis for trials on event occurrence by using an optimal design". She currently supervises three Ph.D. students.

Katarzyna (Kasia) Jozwiak is Ph.D. student at the department of Methods and Statistics, Utrecht University, the Netherlands. She studies optimal designs for trials with survival endpoints that are measured in discrete time. Relevant design issues are the optimal number of subjects, the optimal number of measurements and the optimal duration of the trial.

Title: Application of The Delta Method and Poisson Process on Relative Risk

Speaker: Chihche Lin, Astellas Pharma Global Development

Abstract: The concept of relative risk has been a prevailing way to describe the comparison of event rates, especially when the reference event rate is small. Although many statistical strategies have been approached to realize relative risk, there are pros and cons, connections and disconnections among those approaches in practical studies.

This presentation will review several methods for relative risk analysis and discuss the following topics:

- Confidence intervals of relative risk by using the delta method
- Application of the delta method: An example on constrained confidence interval for survival rate
- Relative risk adjusted to risk factors.
- Robust analysis of relative risk
- Study design for relative risk analysis with the stopping criterion on the number of events.
- An application of Poisson processes on the estimation of population size.

Speakers Bio: Dr. Chihche Lin is a senior statistician at Astellas Pharma Global Development. Chihche is currently working in the Oncology group for late phase studies. Before joining Astellas in 2008, Chihche received statistics education and accumulated consulting experience in the School of Statistics, University of Minnesota, where he was also awarded his Ph.D. degree in 2007. His academia research interests include machine learning, model selection/combining and empirical processes. Along with his recent exposure to clinical trial studies, Chihche's research interests turn to Bayesian Analysis, Survival Analysis and Adaptive Design.

Summer Workshop

Please plan on attending the NIC-ASA Summer Workshop on Thursday, June 3, 2010.

Upcoming Meetings and Presentations

On Friday, March 12, 2010, Professor Moerbeek will be presenting on “Design and analysis of pseudo-cluster randomized trials,” 2:00pm at UIC (Room 132 SPHPI Building, 1603 W. Taylor St., Chicago).

Joint Statistical Meeting, ASA (Vancouver, July 31 - August 5 2010)

Eastern North American Region (ENAR) Spring Meeting of the IBS (New Orleans, March 21-24)
SAS Global Forum April 11-14, 2010 in Seattle
PharmaSUG May 23 to 26, 2010 in Orlando

The Chicago ASA usually has a Statistical Lunch each month. For details see the Chicago ASA web site (http://www.chicagoasa.org/).

Stats Seminars at UIC: The Mathematics, Statistics, and Computer Science Department of the University of Illinois at Chicago hosts statistical seminars throughout the year. For more information, see the seminars website (http://www.math.uic.edu/seminars/).

May 24 - 26 Thirty-Third Annual Midwest Biopharmaceutical Statistics Workshop

This workshop is co sponsored by Ball State University and the Biopharmaceutical Section of the ASA. Plenary speakers will address how the role of statistics is adapting to recent changes within the pharmaceutical industry, as well as the impact of these changes. Invited talks will follow a similar theme and will be presented in four parallel tracks: Clinical, Discovery/Pre-Clinical, Non Clinical, and Post-Approval.

Abstracts for the Poster Session must be submitted by April 19, 2009; students are encouraged to submit posters for the Charlie Sampson Award.

The workshop will be preceded by a half-day short course titled "Predictive Modeling with R."

For more information, visit www.mbswonline.com or contact the Publicity Chair, Melvin Munsaka, Takeda Global Research & Development, Inc.; (847) 582 3533; mmunsaka@tgrd.com.

Volunteers Opportunities

Volunteers are needed to serve as special judges at local science fairs:

Region 6 Science Fair
Christian Liberty School
Arlington Heights
Saturday, March 20th, 2010
Judging from 8:30 to around noon
We give a special Award for Best Use in Statistics

Region 2 Science Fair
Museum of Science and Industry
Chicago
Saturday March 13th, 2010
Special Judging from 9 to around noon

If you are interested in volunteering for either of these, please contact Carole Bernett via email at cbernett@ix.netcom.com.

Please see the chapter website for any additional opportunities.

Getting Involved

The chapter currently has a need for volunteers to assist in promoting our meetings and workshops. If you are interested in volunteering, please contact Clint Lovell via email at clint lovell@gmail.com.

Volunteers are needed to help with registration at the Spring Meeting. Registration volunteers will be expected to arrive about a half-hour prior to the start of the registration period and will work at the registration desk as directed by the Chapter
Treasurer, Serena Chan. This is a great way to connect faces with names and get to know other Chapter members. If you would like to volunteer to assist in registration, please contact Serena Chan via email at schan@tgrd.com or by phone at (847) 582-3956.

Job Opportunities

Please see the chapter website for any opportunities.

Chapter Website

Our Chapter’s website has the latest news on the Chapter.

Find it at: www.amstat.org/chapters/NortheasternIllinois

The website contains lots of information about our Chapter, including events, program information, and contact information for Chapter officers and committee members. You can also peruse current and past Chapter newsletters. Finally, if the speaker provides them, slides/notes from previous presentations are available to view or download.

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If you are unable to subscribe or experience any problems with the listserv, please contact Clint Lovell at clint.lovell@gmail.com.

The Chapter’s purpose, as stated in its Constitution, is “to foster statistics and its applications and promote the interests of the statistical profession…”. Accordingly, diverse views are presented. They do not necessarily reflect the opinions of the officers or the policies of the Chapter.