



The American Statistical Association

Connecticut Chapter

Connecticut Chapter of ASA announces two exciting events: a short course on patient-reported outcomes (PROs), and the annual chapter banquet. Both events will be held on September 18th 2014 at the **Pond House Grill** in Glastonbury, CT. Registration fees are \$45 (\$25 for students) for the short course and \$35 for the banquet. Both events are open to chapter members and non-members alike.

You can register for each event separately at <https://www.123signup.com/register?id=yfnjt>. We hope to see you at both events!



Short Course

PATIENT-REPORTED OUTCOMES:
MEASUREMENT, IMPLEMENTATION
AND INTERPRETATION

Joseph C. Cappelleri, Ph.D., M.P.H. &
Andrew G. Bushmakin, M.S.
Pfizer Inc, Groton, CT

1:00-5:30 pm

Annual Banquet

Guest speaker: Nathaniel Schenker,
Centers for Disease Control & Prevention,
ASA President

Chapter Achievement Award: Prof. Dipak
Dey, University of Connecticut

6:00 – 7:00 pm Reception
7:00 - 8:30 pm Dinner

Course Description:

This short course will provide an exposition on health measurement scales – specifically, on patient-reported outcomes. Patient-reported outcomes (PROs) is an umbrella term that includes a whole host of subjective outcomes such as pain, fatigue, depression, aspects of well-being (e.g., physical, functional, psychological), treatment satisfaction, health-related quality of life, and physical symptoms such as nausea and vomiting. PROs are often relevant in studying a variety of conditions—including pain, erectile dysfunction, fatigue, migraine, mental functioning, physical functioning, and depression—that cannot be assessed adequately without a patient’s evaluation and whose key questions require patient’s input on the impact of a disease or a treatment. To be useful to patients and other decision makers (e.g., clinicians, researchers, pharmaceutical companies, regulatory agencies, reimbursement authorities), who are stakeholders in medical care, a PRO must undergo a validation process to confirm that it measures what it is intended to measure reliably and accurately.

Some key elements in the development of a patient-reported outcome (PRO) measure will be noted. The core topics of validity and reliability of a PRO measure will be discussed. Exploratory factor analysis and confirmatory factor analysis, techniques to understand the underlying structure of a PRO measure, will be described. The topic of mediation modeling will be presented as a way to identify and explain the mechanism that underlies an observed relationship between an independent variable and a dependent variable via the inclusion of a third variable, known as a mediator variable. Approaches to interpret PRO results will be elucidated in order to make results useful and meaningful. Other topics such as item response theory and longitudinal analysis will be considered if time permits. Illustrations will be provided mainly through real-life examples and also through simulated examples using SAS.