SAMPLE PROPOSAL

RESEARCHING COMPLEXITY

I. ABSTRACT: There is growing recognition that complexity science can contribute to our understanding of primary care issues such as practice variation, dynamics of health and illness, and health care delivery. However, little research based on chaos theory or complexity science has appeared in the primary care literature. This seminar will review the characteristics of complex systems and outline three approaches to studying complexity. Although the overview will include methods for estimating complexity and issues related to modeling systems, the seminar will focus on methods for studying the characteristics of complex systems, emphasizing quantitative approaches. Examples will be used to demonstrate the application of these methods and to facilitate the interpretation of results.

II. PRESENTER: David A. Katerndahl, M.D.

III. EDUCATIONAL GOALS AND OBJECTIVES: Upon completion of this seminar, the participant should be able to:

1. Understand three approaches to researching complex systems
2. Outline qualitative and quantitative methods for studying complex systems
3. Determine the dynamics exhibited in a time series

IV. CONTENT OF PRESENTATION: Although this seminar will emphasize quantitative methods, qualitative methods and modeling will be addressed. The content will be organized as follows:

1. Review of characteristics of complex systems
2. Overview of three approaches to research on complexity
   A. Estimating complexity
   B. Studying characteristics of complex systems
      - Conceptual (Qualitative)
      - Analytical (Quantitative)
   C. Modeling / Simulations
3. Interpretation of results

V. METHOD FOR AND EXTENT OF AUDIENCE PARTICIPATION: In addition to question-and-answer opportunities, participants will be involved in the course of the seminar. The characteristics of complex systems will be derived through group discussion. Sample data will be used by participants to practice applying the techniques presented.

VI. PREREQUISITE KNOWLEDGE: basic statistics

VII. BIBLIOGRAPHY:


VIII. AUDIOVISUAL EQUIPMENT: Laptop Computer With PowerPoint, Projection Unit
IX. TYPE OF PRESENTATION: Seminar
X. SEATING ARRANGEMENT: Classroom
XI. ADDRESS, PHONE / FAX / EMAIL OF PRESENTER:
    David A. Katerndahl, M.D.
    Department of Family and Community Medicine
    University of Texas Health Science Center at San Antonio
    7703 Floyd Curl Drive, mailcode 7795
    San Antonio, TX  78229-3900
    Phone: (210) 358-3930
    Fax: (210) 223-694
    Email: katerndahl@uthscsa.edu