



Cancer and Aging Program



Methods Workshop Announcement

Estimating Treatment Effects with Observational Data using Instrumental Variable Estimation: The Extent of Inference

Date & Time: Friday, September 30, 2005, 1:00 pm to 3:00pm

Location: 283 EMRB, Seebohm Conference Room

John Brooks, PhD, Associate professor in the Program in Pharmaceutical Socioeconomics in the College of Pharmacy and in the Department of Epidemiology, College of Public Health is a health economist interested in applying econometric methods to assess healthcare treatment effectiveness in practice. His presentation on *instrumental variable estimation* is offered as a methods workshop at the annual meetings of AcademyHealth. All interested faculty, staff and students are invited to attend this presentation on campus and to join in a lively discussion about these methods.

Workshop Summary: As treatment rates expand with new insurance mechanisms, treated patients will less resemble patients in control trials and the consequences of treatment for these patients will be uncertain. Policymakers need to evaluate the treatment consequences for these patients to assess whether treatments are over- or underutilized in practice. Observational health care databases contain substantial treatment variation that can be used to assess treatment consequences in practice, but treatment selection issues limit the inferences that can be made from these data using analysis methods that control for observed differences among patients. Instrumental variable estimation can possibly overcome the treatment selection biases innate in observational data and yield estimates that are appropriate to assess questions of over- or underutilization in practice. Using applied examples, this session will 1) define treatment selection bias and describe how instrumental variable estimation can overcome this problem; 2) provide the appropriate interpretation of estimated instrumental variable treatment effects; and 3) emphasize the assumptions underlying instrumental variable estimation and approaches (statistical and theoretical) for finding instrumental variables that satisfy these assumptions.

This workshop is sponsored by the **Cancer and Aging Program's Database Core** within the **Health Effectiveness Research Center (HERCe)** and the **Department of Epidemiology**.

For further information contact Margaret D. Voelker, PhD at (319) 335-9751 or margaret-voelker@uiowa.edu or visit the CAP website at <http://www.cancerandaging.uiowa.edu> and the HERCe website at <http://www.public-health.uiowa.edu/herce/>.

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