

Graduate Interdisciplinary Program in

STATISTICS

COLLOQUIUM

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**The Association of Insurance-Based
Wellness Incentives with Hospitaliza-
tions and Medical Care Use**

Monday, September 13, 2010

12:00 noon

Presidio Room, Student Union Memorial Center

Background: Smoking, cardiovascular disease and diabetes are leading causes of disability and death. Some employers and insurers have sought to reduce the impact of these illnesses by using health insurance eligibility as a financial incentive for health promotion. Little is known about the efficacy of this approach. Starting in 2005, a hospital system required that employees wanting access to the most generous health plan complete a health risk assessment and provide biometrics. We assess the impact of this intervention using 2003–06 data for the hospital system and two comparison employers.

Methods: We use propensity-score weighted logit and Poisson regressions and a quasiexperimental “difference-in-difference” design. Outcomes include hospitalizations, other medical visits, and medication use, overall and for conditions most plausibly targeted by the program, specifically diabetes mellitus, hypertensive heart disease, cerebrovascular disease, ischemic heart disease, acute pulmonary infections and chronic obstructive pulmonary disease. Controls include baseline predicted health service usage, age, gender, salary, demographic characteristics, and month and employer indicators.

Results: The intervention was associated with a 26% decrease in odds of hospitalization for targeted conditions (OR 0.737, $P=0.026$). The largest decreases were for diabetes mellitus (OR 0.389, $P=0.010$) and hypertensive heart disease (OR 0.515, $P=0.034$), with no significant change in hospitalizations for non-targeted conditions (OR 0.939, $P=.360$). There were increases in prescription-days for antihypertensive (IRR 1.027, $P=0.074$), anticholesterol (IRR 1.050, $P=0.047$), diabetes mellitus (IRR 1.064, $P=0.029$) and overall medications (IRR 1.031, $P<0.001$).

Conclusions: Employer-based financial wellness incentives were associated with a 26% reduction in hospitalizations for targeted conditions.

Light refreshments will be served. Feel free to bring your lunch.