



Sourav Bose

Sourav Bose is a graduate of the Academy for the Advancement of Science and Technology in northern New Jersey and a student at Penn in the Vagelos Program in Life Sciences and Management (LSM), majoring in Biology and Crisis Management. Annual summer visits to his parents' native India inspired Sourav to help alleviate the country's severe health and poverty problems. In high school, he founded a non-profit agency which sponsors a local HIV education and research center in Gopalpur, India. He also conducted research on the variable sequences of the gp120 protein of the HIV-1 envelope at the Public Health Research Institute and complemented his medical and service commitments by volunteering as an EMT with his local fire department. At Penn, Sourav fostered his interests in disaster management and pre-hospital healthcare by serving as Chief of the Penn Medical Emergency Response Team, which provides medical services for the Penn campus and surrounding areas. He is also involved in research with the Department of Emergency Medicine at the Hospital of the University of Pennsylvania on resource needs in the Philadelphia ambulance system and on the pricing of pre-hospital healthcare in rural Guatemala under Penn's Guatemala Health Initiative and participates in Wharton's Risk Management Research Group on corporate risk management strategies. In addition, Sourav is extremely involved in animal rights and fosters dogs and cats on behalf of the Philadelphia Animal Welfare Society. Sourav is the recipient of the prestigious Thouron Fellowship for study in Great Britain.

CAPSTONE PROJECT

Determinants of Pricing for Emergent Inter-hospital Ambulance Transfer in a Developing Setting: a Geographically Randomized Study

Faculty Advisor: Dr. Roger Band, School of Medicine, Department of Emergency Medicine

This paper recently received the Rose Undergraduate Research Award.

Objectives: To identify the determinants of willingness-to-pay (WTP) for government ambulance referral transports from a rural municipality to a regional hospital to provide information on access to emergency health-care in a developing country setting.

Methods: A geographically randomized survey instrument comprised of socioeconomic indicators, system usage statistics, and three-case bidding game was administered. Multiple linear regression and comparison of means were used to stratify the sampled population and identify the primary and secondary components of WTP for referral transport.

Results: The primary quantitative determinants of WTP for ambulance transport in Santiago Atitlan include the socioeconomic measure, household daily income, the sociogeographic measure, rural vs. municipal, and the respondent characteristic, formal schooling. Although bottom-tier socioeconomic strata had lower WTP for severe and medium-grade emergencies, they had higher WTP for simple emergencies than the wealthy. Those of lower socioeconomic status were also more likely to be excluded from transport at the current price. In addition, we discovered that the community was not only generally unaware of recent changes in transport pricing, but also faced a number of cultural barriers in engaging with emergency transport decisions.

Conclusions: WTP for referral transport primarily represents the combinatorial effect of family capacity to pay and respondent perspective. Respondents are willing to pay a significant portion of transport costs but also consider cultural barriers, non-transport costs, and value-to-family of the sick and injured in determining their WTP. Respondents were best stratified by rural and municipal divisions, suggesting that awareness of medical resources plays a large role in WTP for services. Future work should consider the role of public education campaigns and subsidies for emergency referral transport in improving access-to-care.