

The Hong Kong Polytechnic University
Department of Logistics and Maritime Studies
Research Seminar

Managing Multichannel Healthcare Delivery: Evidence from a Large Eye-care Network in South India

by

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Date: 12 January 2018 (Friday)
Time: 10:30am - 11:30am
Venue: M802, Li Ka Shing Tower
The Hong Kong Polytechnic University

(Conducted in English)

Abstract:

Telemedicine—remote provision of clinical services through the use of digital technologies—has the potential of significantly improving access to healthcare in rural areas across several low- and middle-income countries. However, evidence regarding the impact of this new channel of healthcare delivery on access and health outcomes is sparse. We contribute to this important and emerging stream of literature by studying the impact of introduction of telemedicine-equipped “vision centers” that are connected to a tertiary care “base hospital” in one of the world’s largest eye care networks situated in South India. analyzing data on more than 2.5 million visits over a period of 10 years from. We exploit spatiotemporal variation in the opening of the vision centers using quasi-experimental difference-in-differences approach to estimate the impact on multiple outcomes including patient visit volumes to this new channel as well as existing healthcare facilities, revenues and patient outcomes. We find that vision centers substantially improve access to care, leading to a 16% increase in patient visits, of which more than 90% are from simple patients (refractive errors, cataracts, general check-ups). We do not find significant evidence for corresponding reduction in hospital visits by patients with simple needs or an increase in visits by patients with complex needs. These findings suggest that the new channel is perhaps used as an additional point of access by patients but is not very effective in its potential role as gate keeping, i.e., to facilitate substitution of simple patient visits away from the base hospital and referral of complex patients toward the base hospital. These results highlight multifaceted and a heterogenous impact the new healthcare delivery channel and have important implications for management of multi-channel healthcare networks.

Bio:

Sarang Deo is Associate Professor of Operations Management at the Indian School of Business. His primary area of interest is health care operations with special emphasis on investigating the impact of operations decisions on population level health outcomes. He has studied the influenza vaccine supply chain and the phenomenon of ambulance diversion (in the US), the adult HIV treatment supply chains and the infant HIV diagnosis networks in sub-Saharan Africa, and more recently the TB diagnosis pathway in rural India. He frequently collaborates with international agencies such as the Clinton Health Access Initiative and the Bill and Melinda Gates Foundation and his research has been funded by the US National Science Foundation and Grand Challenges Canada.

Prior to joining the ISB, Sarang was Assistant Professor at the Kellogg School of Management. He was a management consultant in the Accenture’s Mumbai office before embarking on an academic career. Sarang has a PhD from UCLA Anderson School of Management, MBA from IIM Ahmedabad, and BTech from IIT Bombay.

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All are welcome!