Abstract:

Despite remarkable and successful recent improvements efforts by the government and its partners, the current public distribution system of essential medical drugs in Zambia still results in low availability to patients relative to private sector standards. We present an original explanation of this performance gap based on extensive field data, and develop an alternative system design involving mobile devices and optimization. We report simulation results suggesting that this proposal would improve drug availability at the clinics and reduce inventory and drug expiry costs, and ongoing field implementation efforts. (joint work with Prashant Yadav and Zachary Leung)