**Analyzing the effect of poor quality medicine procurement, storage and dissemination in developing countries: Implications for technology development**

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Poor quality medicines are responsible for nearly a 100,000 deaths annually and make up 16% of all pharmaceuticals globally. In several developing countries in Africa, Asia and Latin America, they can contribute upwards of 30-40% of all drug sales. Counterfeit and substandard drugs lead to loss of life, long-term morbidity, financial burden and development of drug resistant pathogens that can affect generations of multiple societies. Despite global efforts, the problem continues to affect millions of people worldwide. Substandard drugs enter the market due to a combination of poor governance, corruption, poor storage and lack of awareness about the problem.

My current work aims to examine the socio-economic aspects of manufacture, procurement and dissemination of poor quality drugs. In particular, I am interested in analyzing the role of governance and policy in managing procurement as well as strength of supply chains. My current work looks at case studies both in Asia (in Pakistan) and in Africa (Ghana and Kenya) and examines the presence of government level policies that contribute to the proliferation of the problem. Finally, I am examining the role of new technologies, that are both aimed at the final consumer as well as the government regulatory authorities. What are some of the bottlenecks for these technologies to make an impact? How can the local stakeholders be engaged and what are some of the incentives for technology developers to address this issue.

Finally, I will also talk about some of the work currently going on in my own research group that aims to address this problem and the challenges at the interface of policy and technology development that we and other technology developers are facing.