

Project title: Sourcing and stockpiling strategies of PPE (Personal Protective Equipment) in India under COVID-19 global supply disruption

Research Area: PPE supply chain

Expected Outcome: A scenario based modelling approach to project the capacity required over a period (8-12 weeks) to minimize the stockout or (stockout probability) is being developed based on the projected demand (e.g. Covid 19 pandemic predictions for India based on SIR/SEIR/Agent model).

Expected Timeline: 8 weeks

Remarks: Global PPE supply chain is severely disrupted due to Covid-19. Reactive strategies such as exploiting the decentralized local sourcing/manufacturing and stockpiling from the available global sources during an epidemic outbreak is being practiced. However, the uncertainty associated with the timing and quantity of peak demand, supply uncertainty due to raw material shortage, increased lead time due to shipping and transportation delay during lockdown poses a significant challenge. PPE shortage may lead to mortality in health care workers which could further strain the capacity of health care system to respond to the pandemic.

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