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Building telemedicine supply chains for disaster recovery

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TREO
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Natural disasters are an unfortunate reality of life. Some world locations are prone to repeated hurricanes, tornadoes, floods, and earthquakes. It is in the public interest to design healthcare supply chains in such regions to be effective in providing disaster relief. The key requirement for such supply chains is to be able to operationalize relief efforts and restore access to health care in affected areas (Gulzari and Tarakci, 2021). This research examines health care supply chain issues in a disaster relief setting and explores the risks it faces, investigate the supply chain's effectiveness, and suggests appropriate strategies to mitigate risks to healthcare access and assist with recovery efforts (Govindan et al., 2020). A key element of this research is to integrate the use of telemedicine for diagnostic purposes with logistics arrangements to move appropriate health care supplies (Kasemsap, 2017). To fulfill such needs, supply chain network needs to incorporate the number and location of telemedicine centers, and allocation of healthcare supply capacity. It also requires allocating potential customers (affected population) and suppliers (healthcare professionals) to telemedicine centers (Ishfaq and Raja, 2015). This research will use simulation to evaluate different arrangements of a telemedicine supply chain for disaster relief. We will explore different facets of relevant performance criteria, e.g., saving lives, monetary and infrastructure needs, maximizing healthcare access, and how these criteria impact the structure of a healthcare disaster relief supply chain.

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