

## Research field Supply Chain Healthcare

How to create and maintain efficient and sustainable healthcare networks?

1) Understand stakeholders, 2) understand best-practices in healthcare supply chains in different countries, 3) develop a simulation model of healthcare networks and 4) run scenarios based on best-practices and stakeholder interests.

Healthcare has a profound impact on public welfare and on our quality of life, however long term affordability has been in doubt due to rapidly rising healthcare costs across the world. One alternative to cope with these healthcare challenges is to adapt advancements in supply chain management to healthcare supply chains, leading to improved efficiencies, enhanced customer service, removing barriers, greater harmonization among healthcare players potentially reducing costs while saving lives and a more sustainable system. There is a great potential for the healthcare sector to benefit from the lessons learned and the best practices found in supply chain management.

### Comparative Stakeholder Analyses

The adaption of supply chain management to the healthcare sector has to start with a basic understanding of how healthcare systems are structured and relationships are managed. To do so and in order to understand why some healthcare systems are more efficient than others, and if stakeholder power helps to improve efficiency, we conduct comparative stakeholder analyses. The specific objectives are 1) to conduct stakeholder analyses in different countries, 2) to conduct comparative analyses as well as the benchmarking of the current status of the healthcare systems, 3) to identify best-in class processes and optimization potentials, and 4) to identify critical nodes and edges in healthcare networks.

### Healthcare Network Analyses

Does network structure play a significant role and does network centrality help to improve efficiency? Based on the findings of the stakeholder analyses and considering sustainability, costs and quality aspects, scenario-based analyses are conducted. These allow the derivation of recommendations for action and provide decision-making support with regard to the further development of healthcare networks. The specific objectives are to develop 1) a simulation model and run different scenarios, and 2) statistical benchmarking tools to evaluate the current configuration of the healthcare network and its applicability to satisfy stakeholder needs.

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