

## **Design of a healthcare service network for vulnerable regions in Mexico**

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### **Abstract**

Health inequities are those dimensional, measurable, and avoidable differences between socially, economically, demographically, or geographically defined population groups. In Mexico, there are health inequities in rural communities, particularly those with indigenous population. In these communities there are limited or non-existent healthcare facilities, equipment, personnel and transportation networks. In this work, a conceptual design of a healthcare network is formulated for several rural communities in Puebla, Mexico. The network allocates communities to the most appropriate facilities based on a vulnerability community index, and a facility service index. The results can support the decisions to improve already existent facilities, replace small facilities with larger facilities.

### **Keywords**

Vulnerable communities, medical supply, distribution networks, facility planning.