

The Peninsula Collaboration for Health Operational Research & Development

Using geographic modelling to assess the impact of Minor Injury Unit closures on travel time and attendances

Summary:

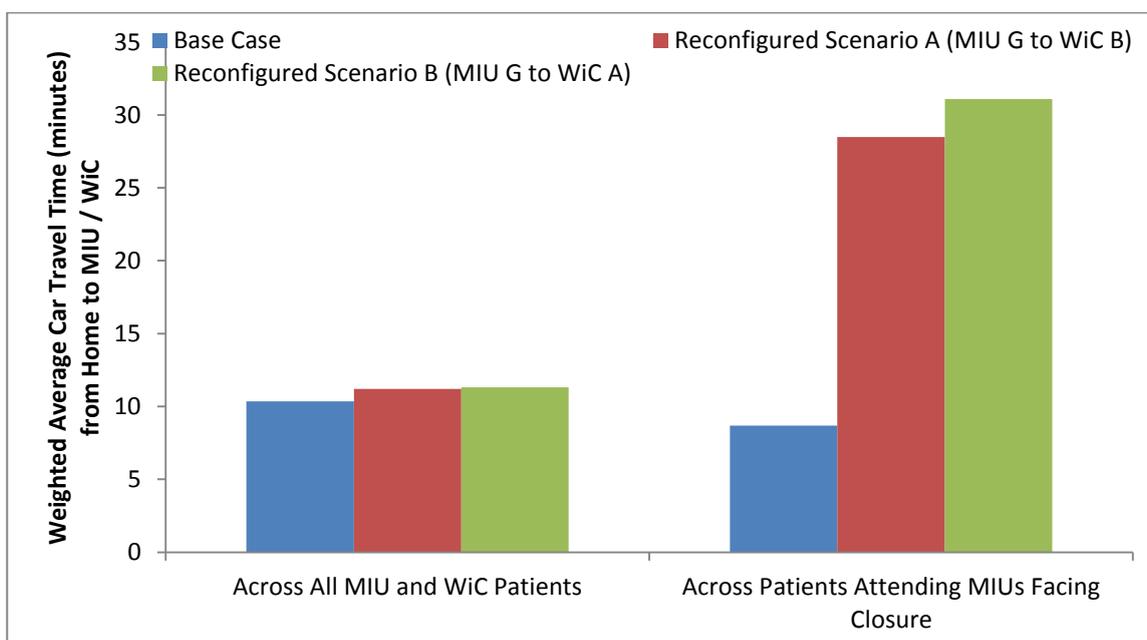
A local commissioning group were looking to close four Minor Injury Units (MIUs) due to low numbers of attendances. However, in order to better inform their decision, they wanted to understand the potential impact on patient travel times and displacement to other services if these closures went ahead. A geographic model to predict the impact of these closures was built.

Context:

The collaborators on this project have requested anonymity. The project was undertaken in 2014 over a period of three weeks.

Method:

We used data of MIU attendances to build a geographic model of patients attending MIUs, calculating average travel times. We then removed the proposed closure MIUs from the model and, assuming that patients would access their next most local MIU service, predicted the impact of the closures on average patient travel times, and the increased burden on remaining services.



Outputs:

The model predicted that the closure of the MIUs would result in a very small increase in travel times when viewed across all MIU patients but an increase of around 20 minutes for those patients directly affected by the closures. In addition, the closure of three of the MIUs was predicted to increase the number of attendances to a single remaining MIU by 1,364 attendances per year. The closure of the fourth MIU was predicted to result in an additional 2,104 attendances per year at the nearest acute hospital.

Evaluation and Impact:

Based on the results of this study, the commissioners decided to close only three of the four MIUs originally identified for closure. A decision was taken to keep open the MIU whose closure may have resulted in significant increased attendances to the local acute hospital.

Contact and more information:

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