

# Temporary ambulance locations reduces response times and may save lives

November 9 2015

---

Ambulances deployed at temporary locations that can be changed depending on the time of day and accident statistics can reduce response time and may save lives on the way to the hospital. Researchers at Sahlgrenska University studied fluid deployment of ambulances in Shiraz, Iran.

While there is no doubt that rapid commencement of care saves lives, Emergency Medical Services are struggling to meet the predesignated [response time](#), world-wide.

## Compared ambulance services

Researchers at the Prehospital and Disaster Medicine Center in Gothenburg and the Shiraz University of Medical Sciences examined [ambulance services](#) in the Iranian city of Shiraz. Published in the *International Journal of Emergency Medicine*, the study compared [ambulances](#) deployed at temporary locations during peak traffic hours with those at permanent stations.

"Fluid deployment reduced response time by an average of two minutes," says Amir Khorram-Manesh, MD, PhD, at Sahlgrenska University. "Patients transported in ambulances dispatched from temporary locations were also less likely to die."

## 80,000 ambulance dispatches

The research team looked at almost 80,000 ambulance dispatches in 2012-2013. The findings were confirmed by a follow-up prospective study in 2015.

Given that the 1.7 million Shiraz population is roughly equivalent to that of Greater Gothenburg, the results are readily applicable to Sweden.

"The selection of temporary locations should be based on a risk analysis and statistics of previous dispatches," Dr. Khorram-Manesh says.

## **Topic of discussion**

Fluid deployment has been a previous topic of discussion in Gothenburg. A project conducted at Chalmers University of Technology in 2013 identified the importance of deploying ambulances in a more conscious manner and contributed calculations to the choice of the new station at Gullbergsvass in Gothenburg.

According to Per Örnings, Senior Consultant at Prehospital and Disaster Medicine Center, the Ambu-Alarm unit at the Prehospital and Disaster Medicine Center in Gothenburg has been working for a while on analyzing movement and deployment patterns.

The average Swedish county has approximately 20 ambulances. Stockholm has approximately 50, while Västra Götaland has the most – approximately 80 (Source: SOS Alarm).

Eight of the 24 ambulances in Shiraz were deployed at temporary locations during the study. Choice of the locations was based on statistical data showing areas with peak incidents, as well as the distance to the closest hospital. The other 16 ambulances were deployed at permanent stations throughout the city. A follow-up prospective study in

2015 confirmed the findings.

**More information:** Mahmoudreza Peyravi et al. Does temporary location of ambulances ("fluid deployment") affect response times and patient outcome?, *International Journal of Emergency Medicine* (2015). DOI: [10.1186/s12245-015-0084-1](https://doi.org/10.1186/s12245-015-0084-1)

Provided by University of Gothenburg

Citation: Temporary ambulance locations reduces response times and may save lives (2015, November 9) retrieved 18 June 2024 from <https://medicalxpress.com/news/2015-11-temporary-ambulance-response.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.