

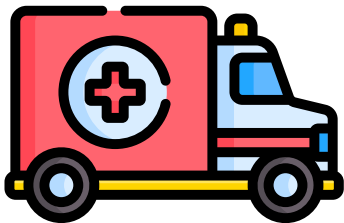
Placement of ambulances

Identify where best to place ambulances to minimise travel time

Benefit

More efficient use of expensive ambulances and paramedics.

Increased probability of saving lives by responding to emergencies faster.



Context

This fleet of ambulances usually starts a day's shift in strategic positions to ensure ambulances can get to a call as quickly as possible but once the day's chaos began the structure fell away and the strategic planning is not sustained. The ambulance controllers are then forced to send the nearest available ambulance no matter how far they are from the scene.

Methodology

For this use case it is important not only to predict where to place an ambulance but also when to place the ambulance there. So, the historical data was divided into hours and postal codes. Different kinds of ambulance calls (trauma, inter-hospital transfers and medical) were all considered separately. Then various methods were used to predict where each ambulance should go at the beginning of each hour.

Results

30.8%

Improvement in distance travelled to a call

3.9km

reduction in distance travelled to get to a call