

Logistics for Emergency Medical Services

Speaker: Changle Song

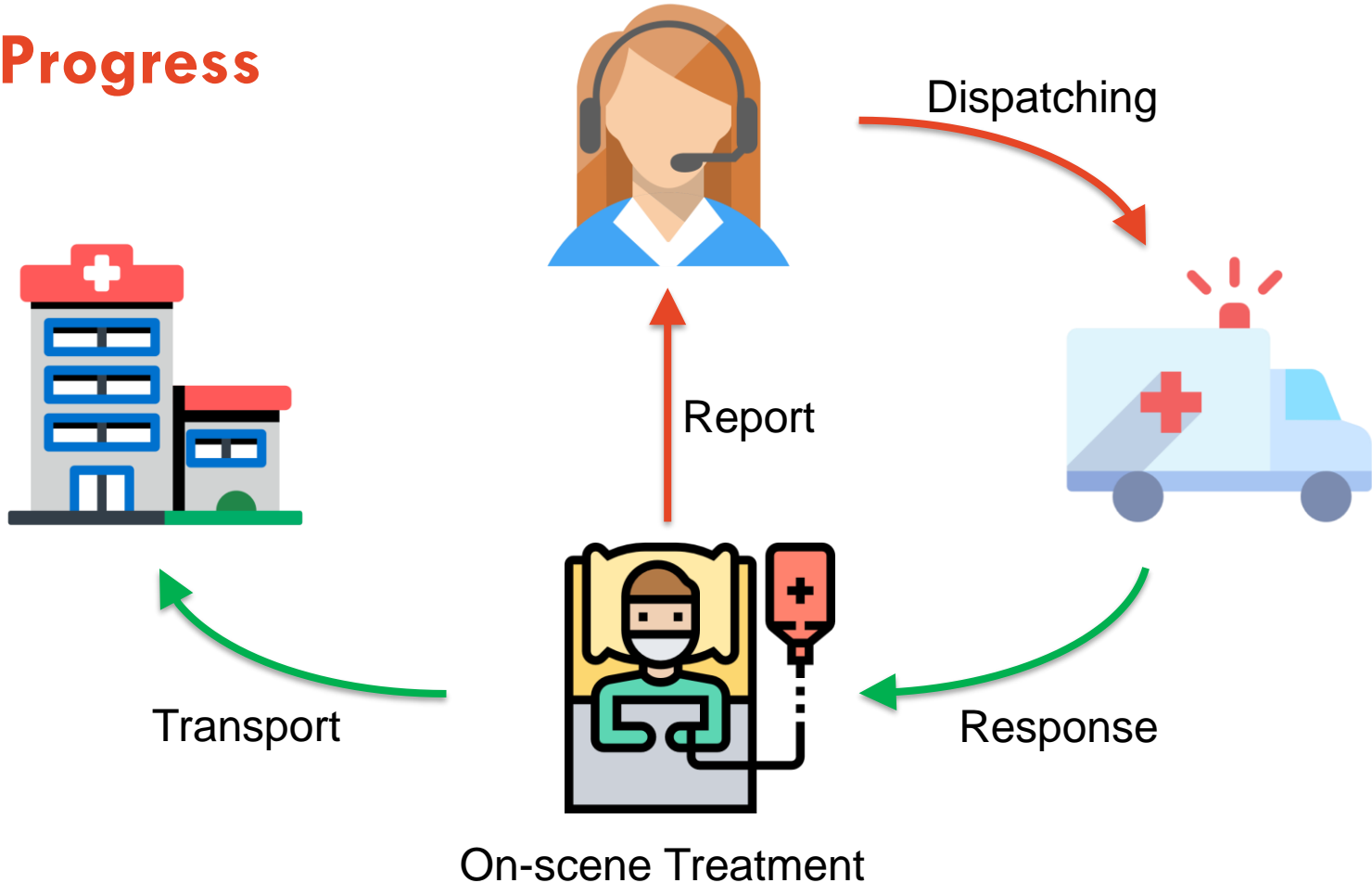
Supervisors: Emily Moylan, David Levinson



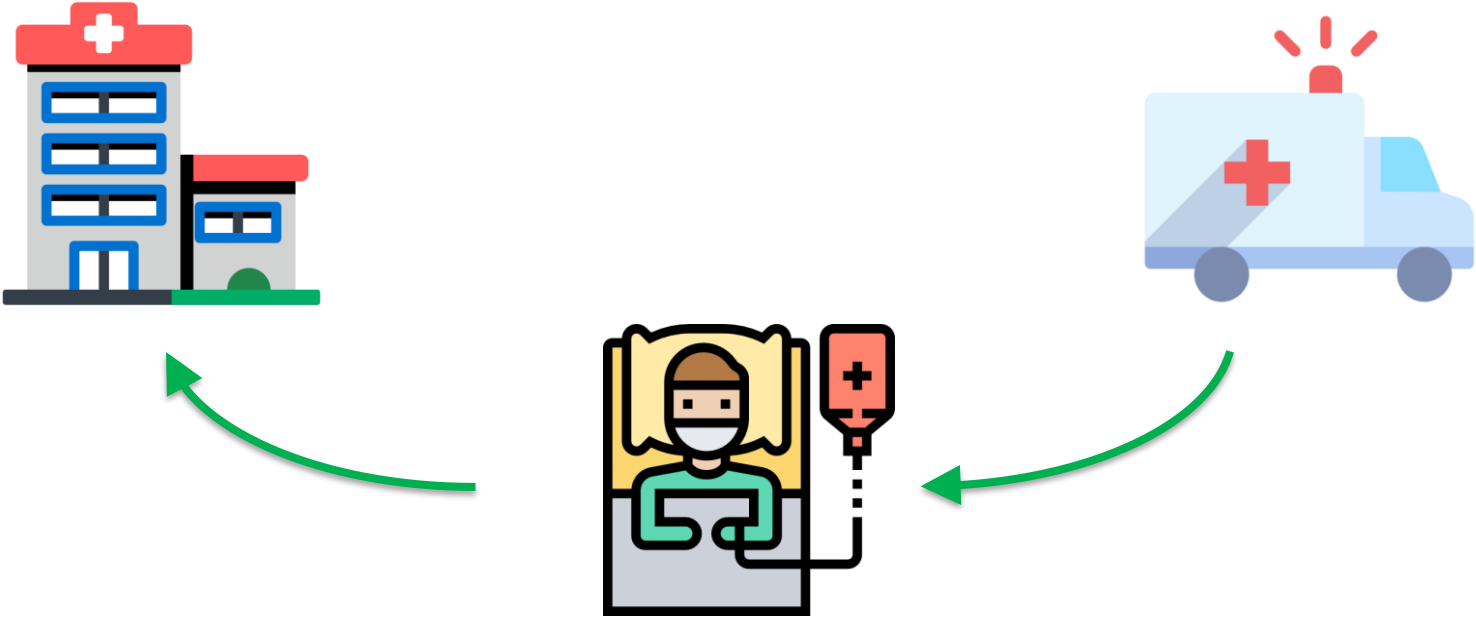
The background of the slide is a blurred photograph of a road scene. In the foreground, a white taxi with a black and white checkered pattern on its side is moving from left to right. Behind it, a dark-colored car is also visible, moving in the same direction. The background is heavily blurred, suggesting motion and a fast-paced environment. The overall color palette is dominated by dark tones with a strong orange-red overlay, particularly in the central text area.

Preserve Life, Prevent Further Injury, and Promote Recovery

EMS Progress



Service Delivery



In-hospital E-CPR



Call Center



Ambulance Base

Patient Location

ECPR Hospital



Rendezvous Strategy



Call Center

Ambulance Base

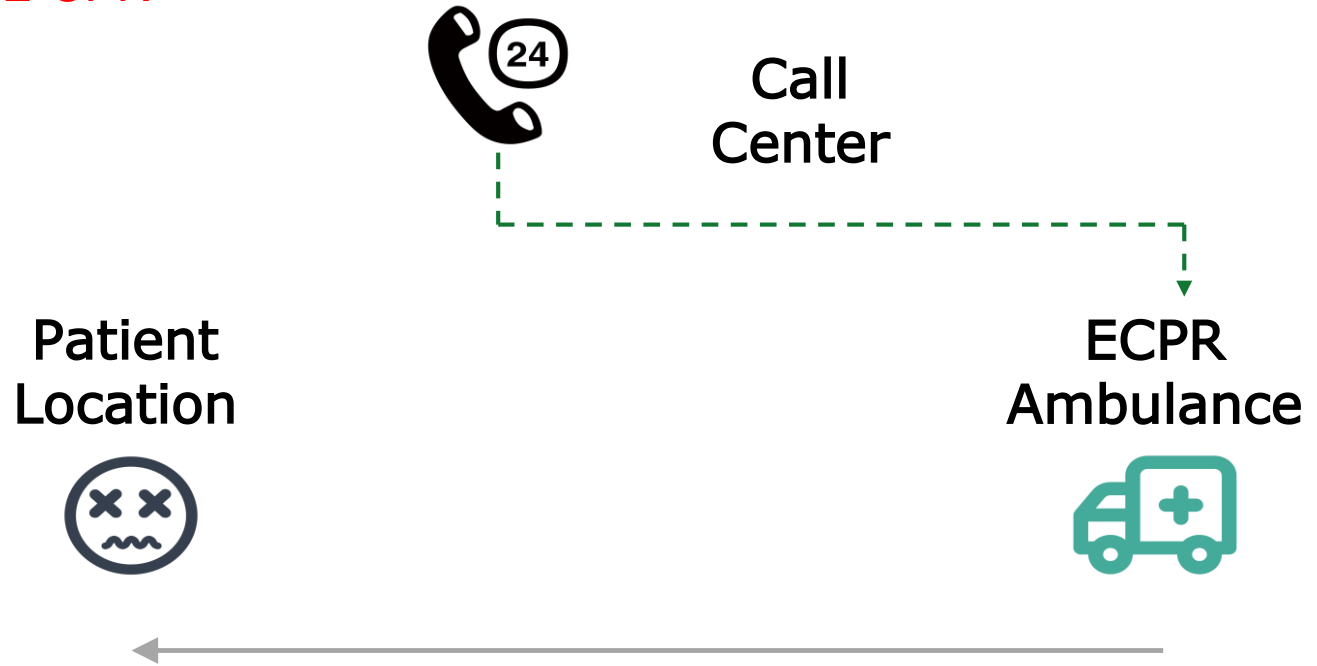
Patient Location

Emergency Department

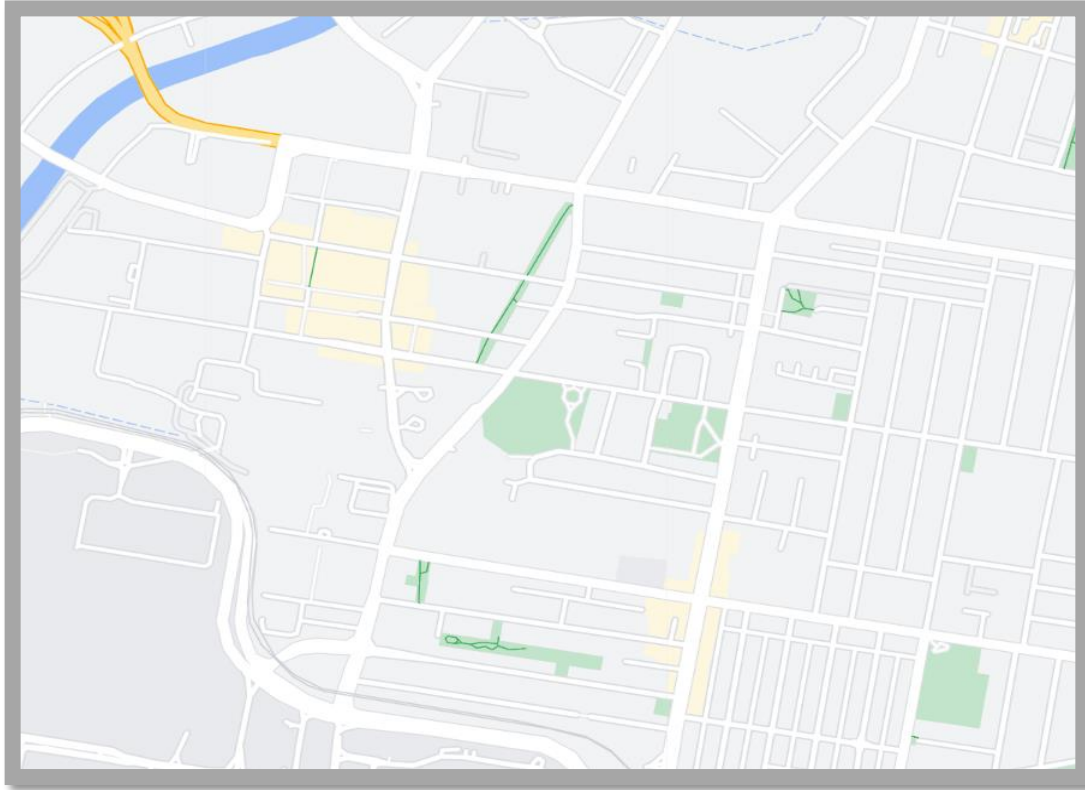
ECPR Hospital

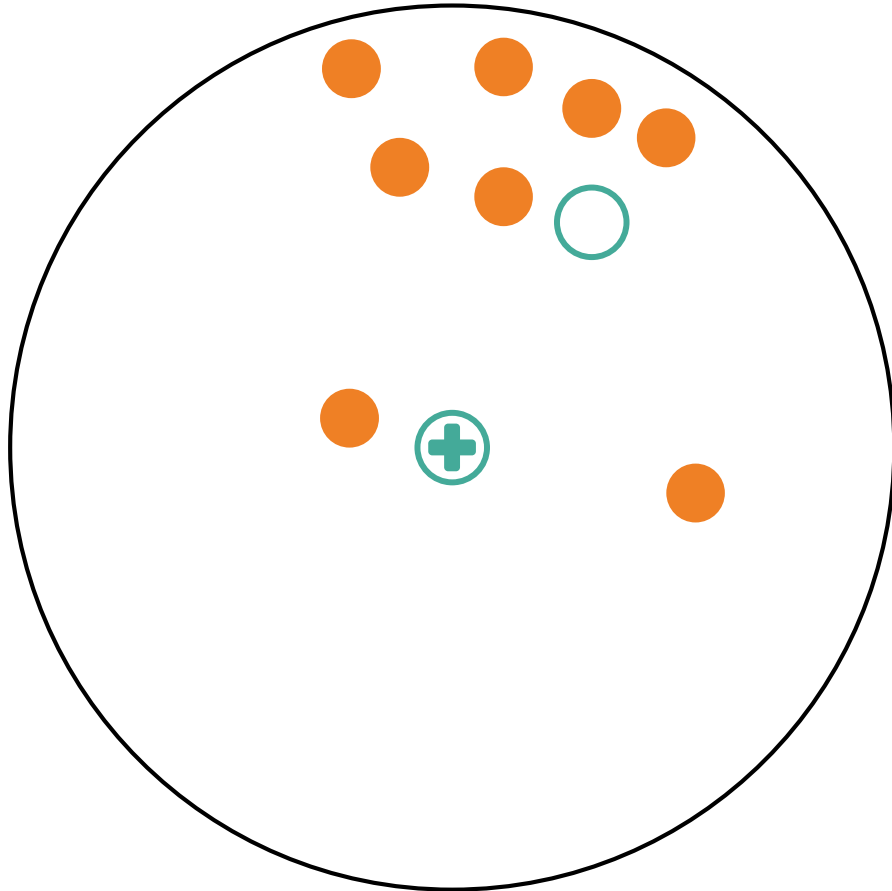


Pre-hospital E-CPR

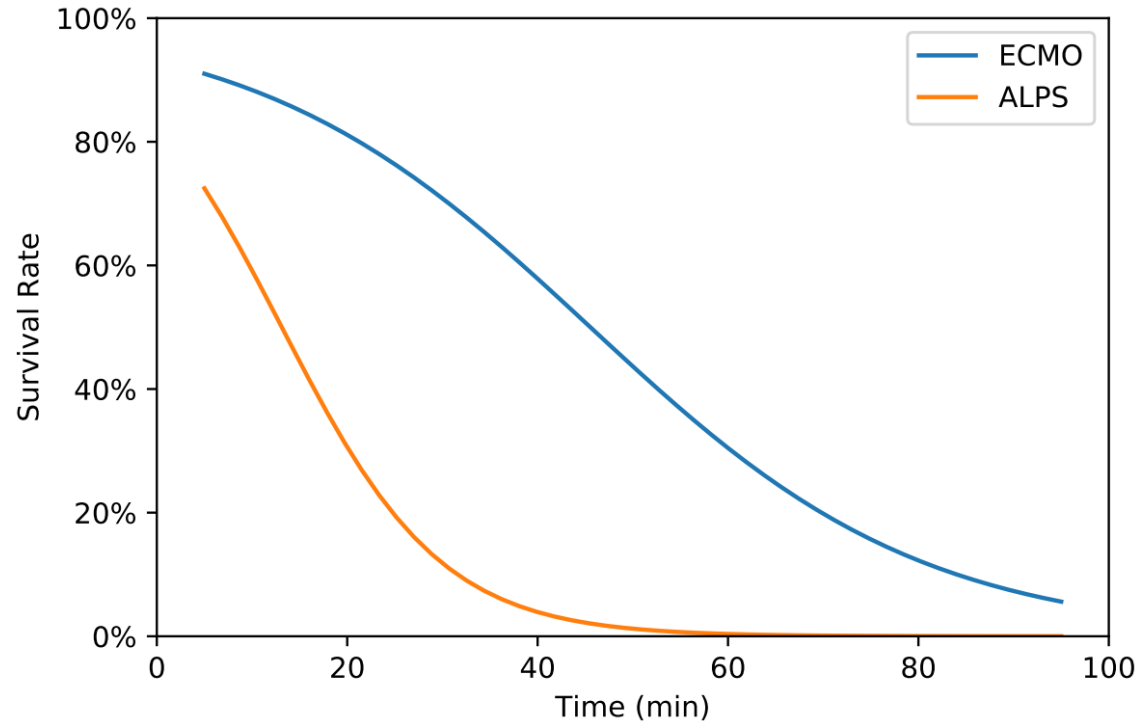


Facility Location





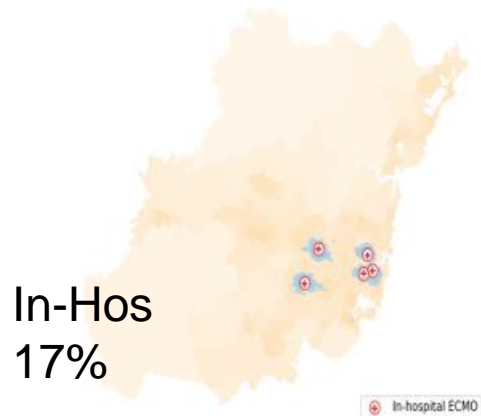
Survival Function



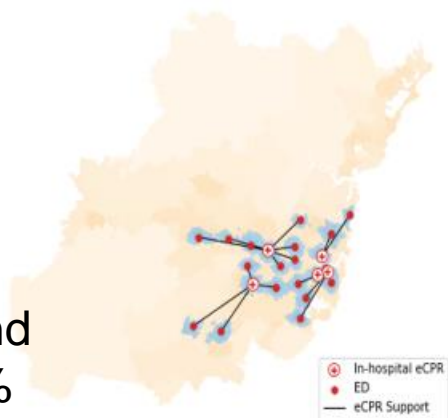
CCPR
13%



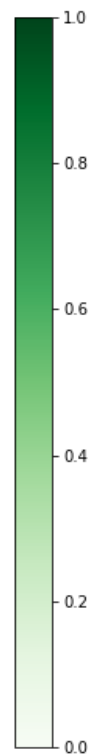
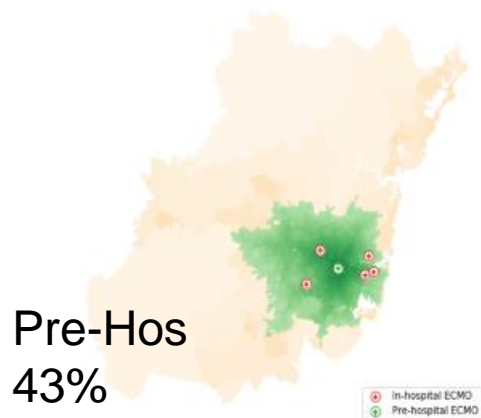
In-Hos
17%



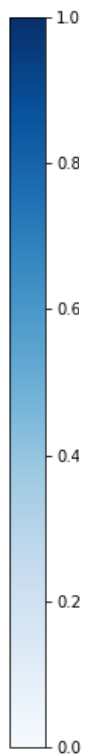
Rend
22%



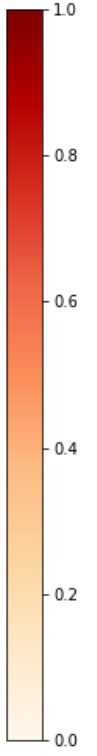
Pre-Hos
43%



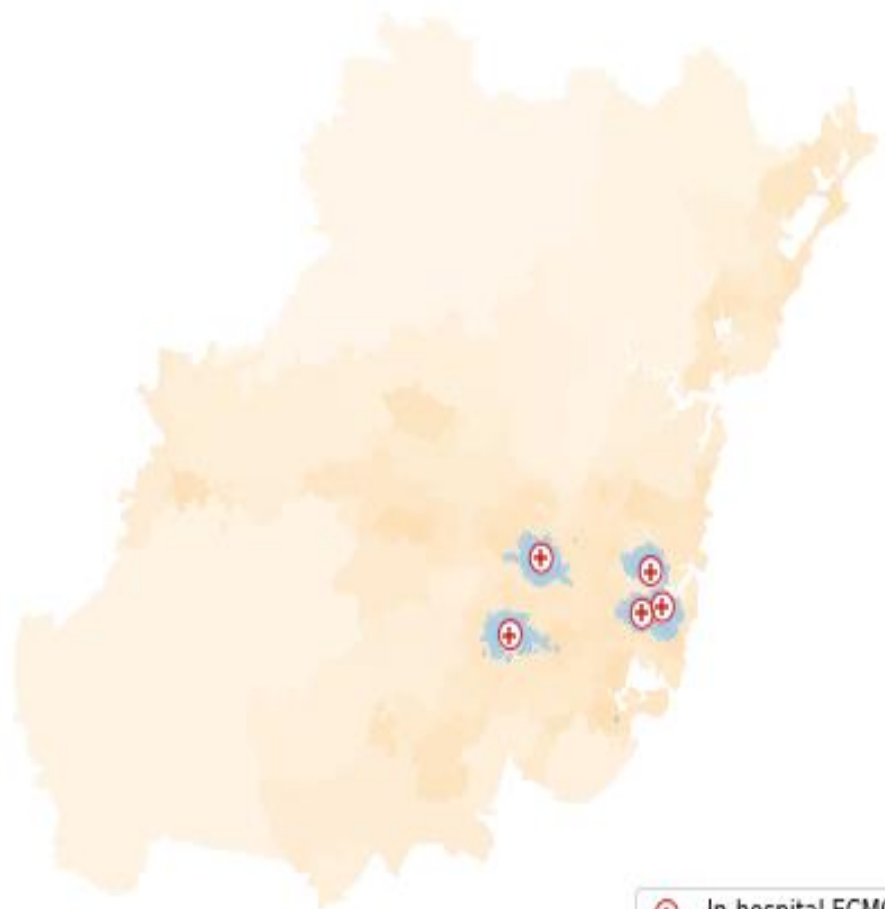
Pre-Hos Survival Rate



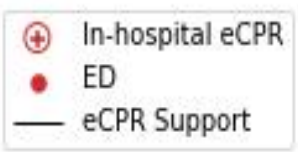
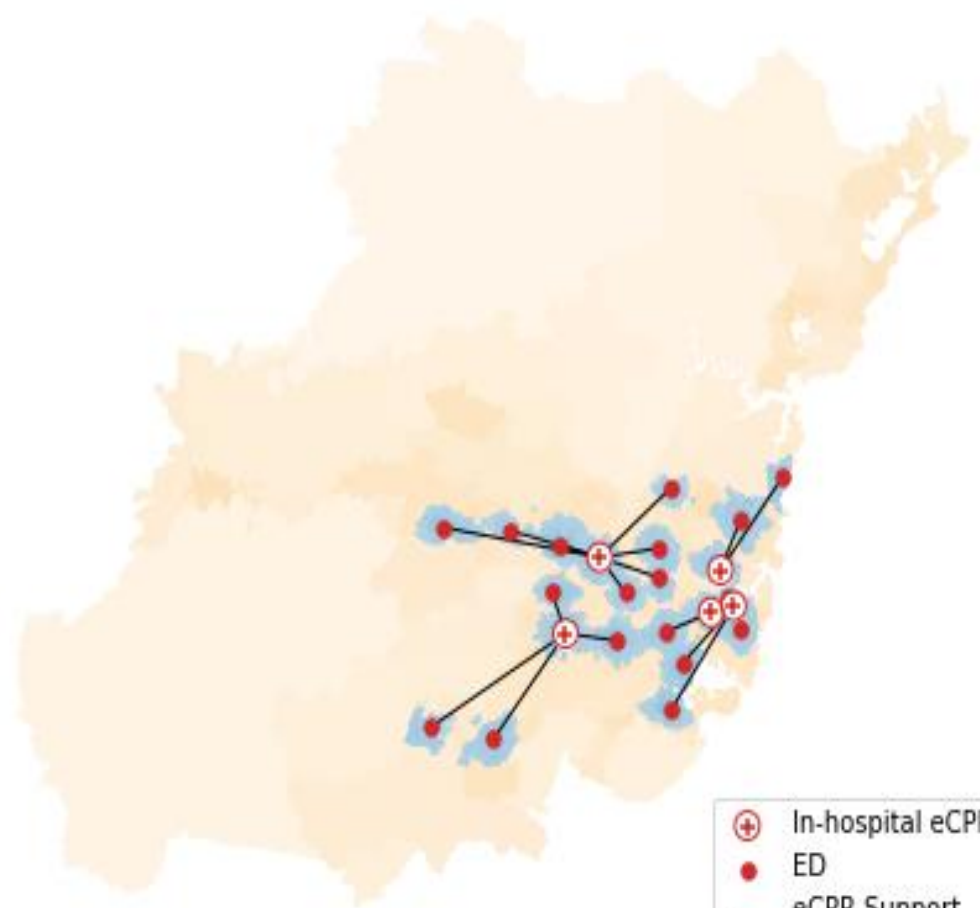
In-Hos Survival Rate

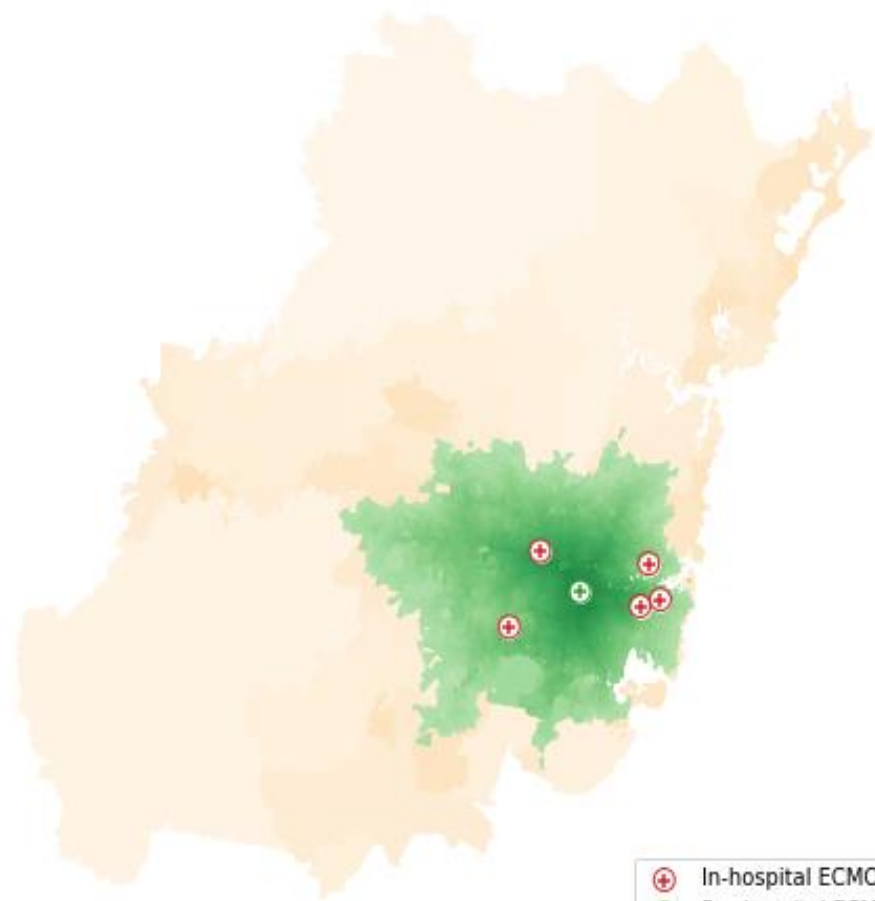




CCPR Survival Rate



⊕ In-hospital ECMO



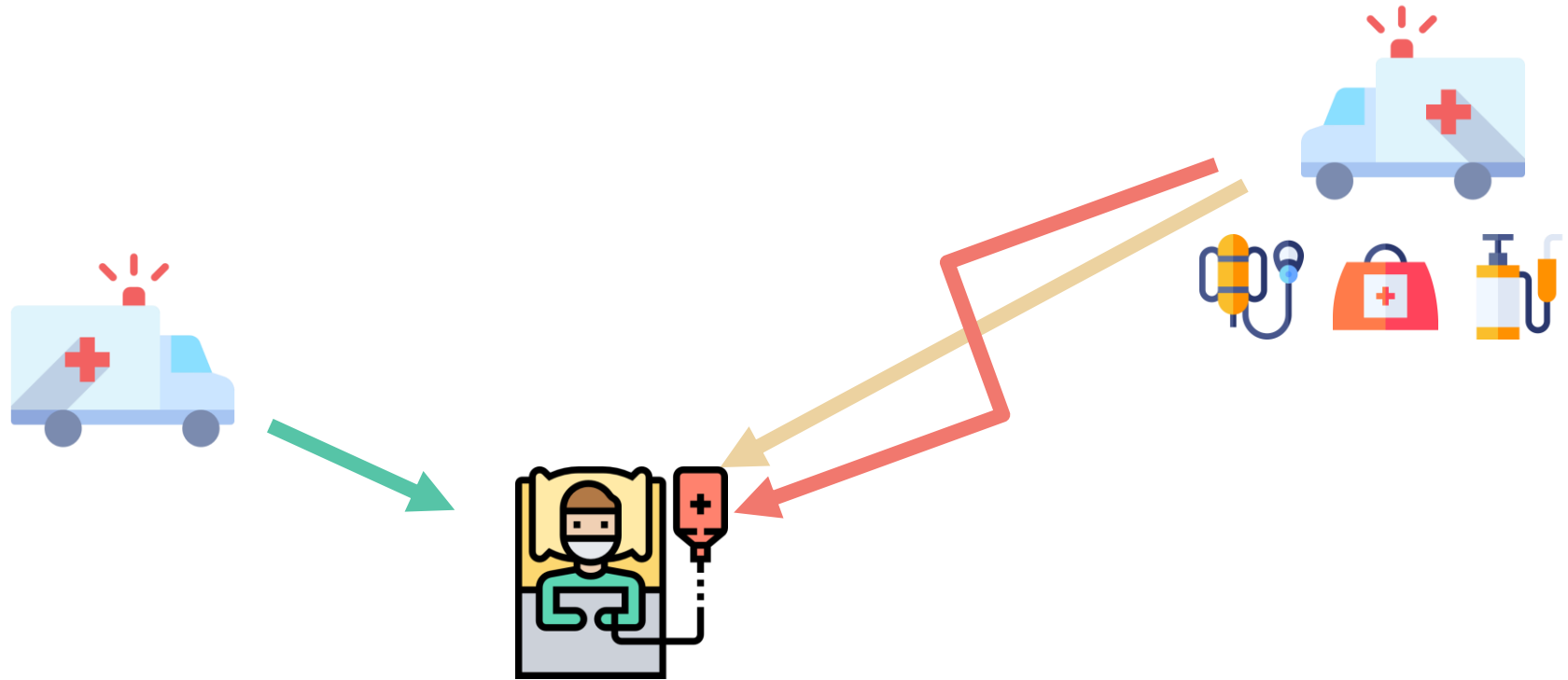


-  In-hospital ECMO
-  Pre-hospital ECMO

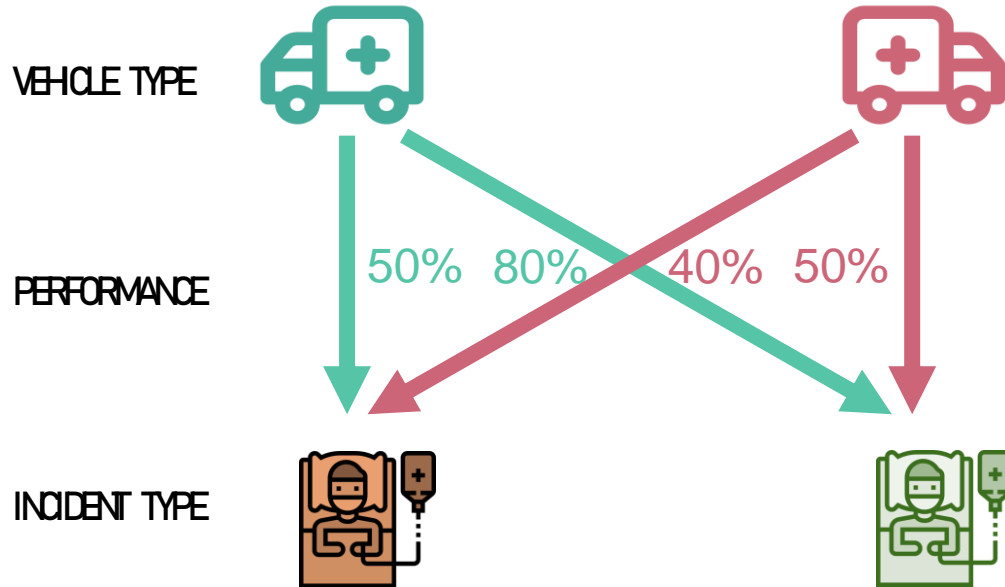
Dispatching



Importance of Dispatching

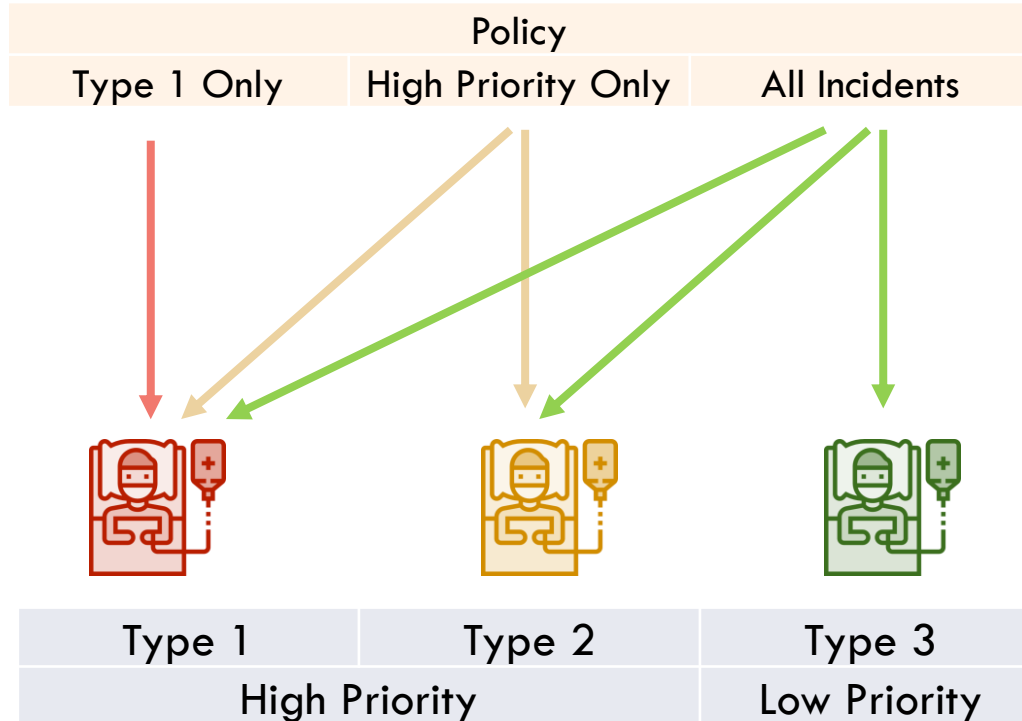


Dispatching with considering vehicle types

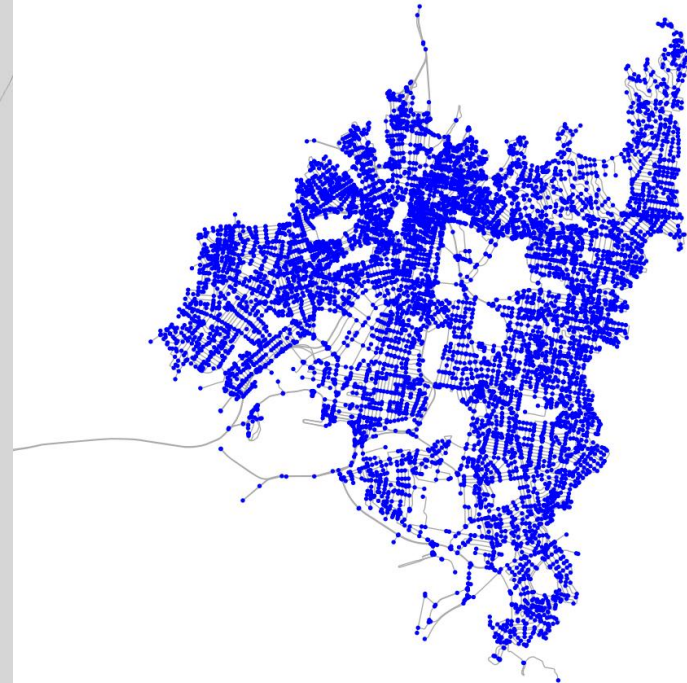
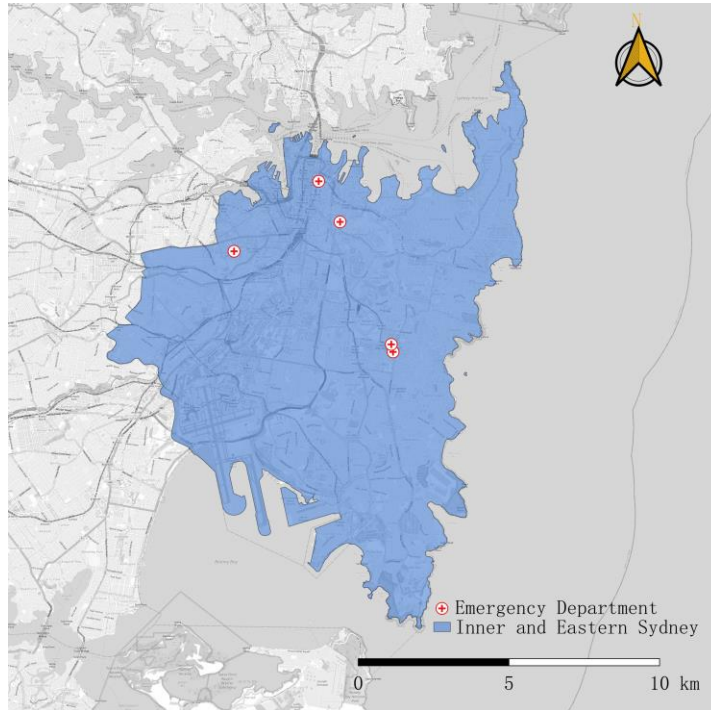


Dispatching Policy

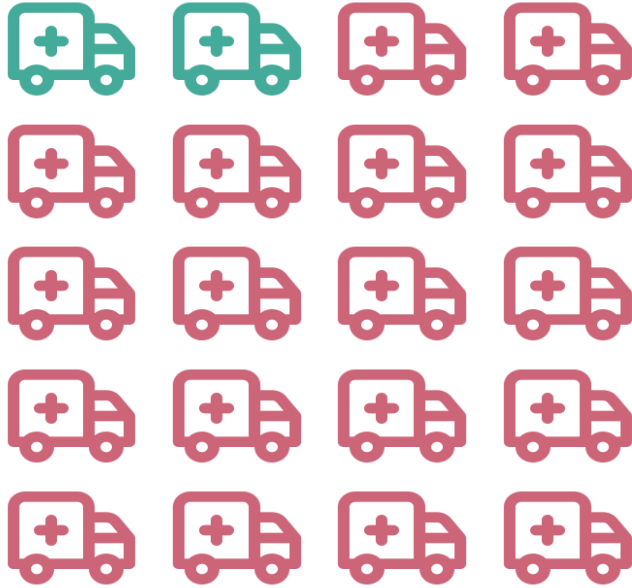
Special Vehicle



Geographical Scope



8-hour Simulation

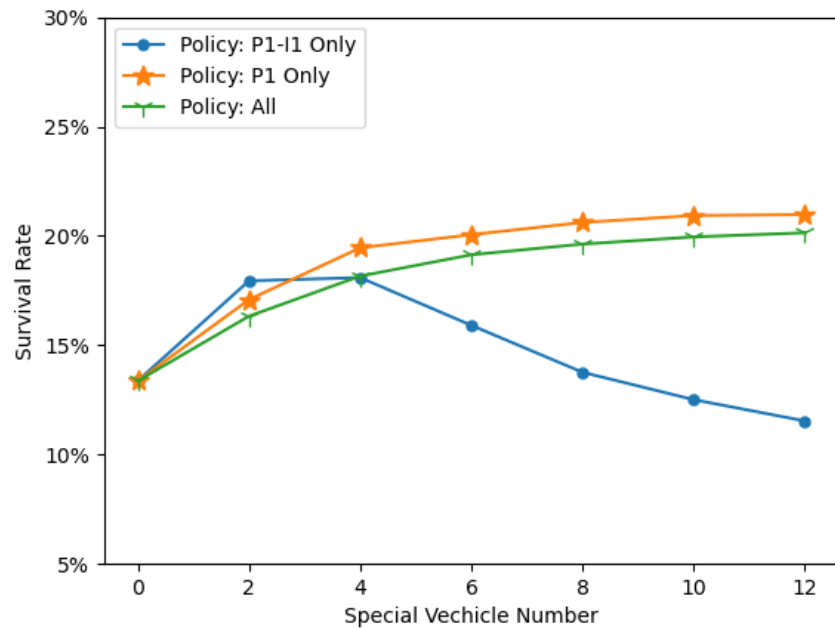


20 vehicles in total

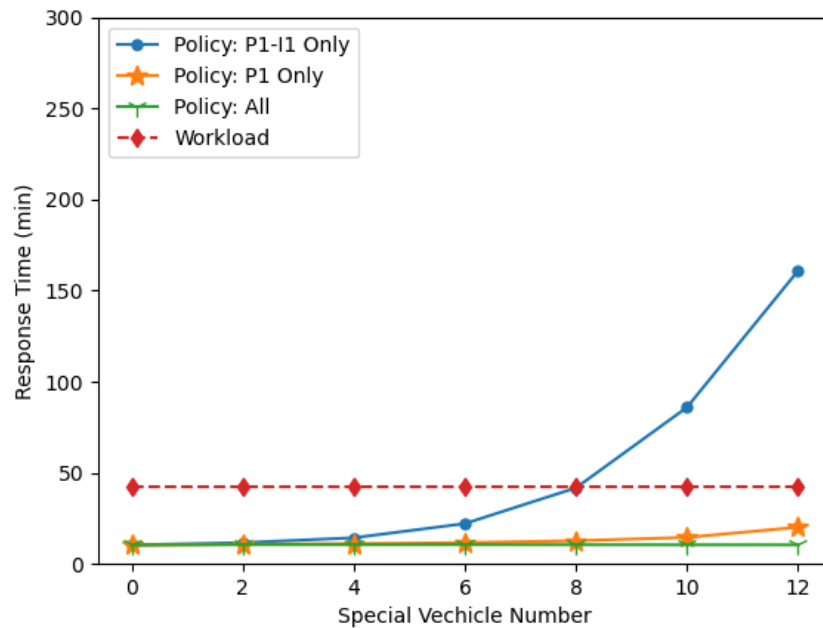


100 incidents in total

Result

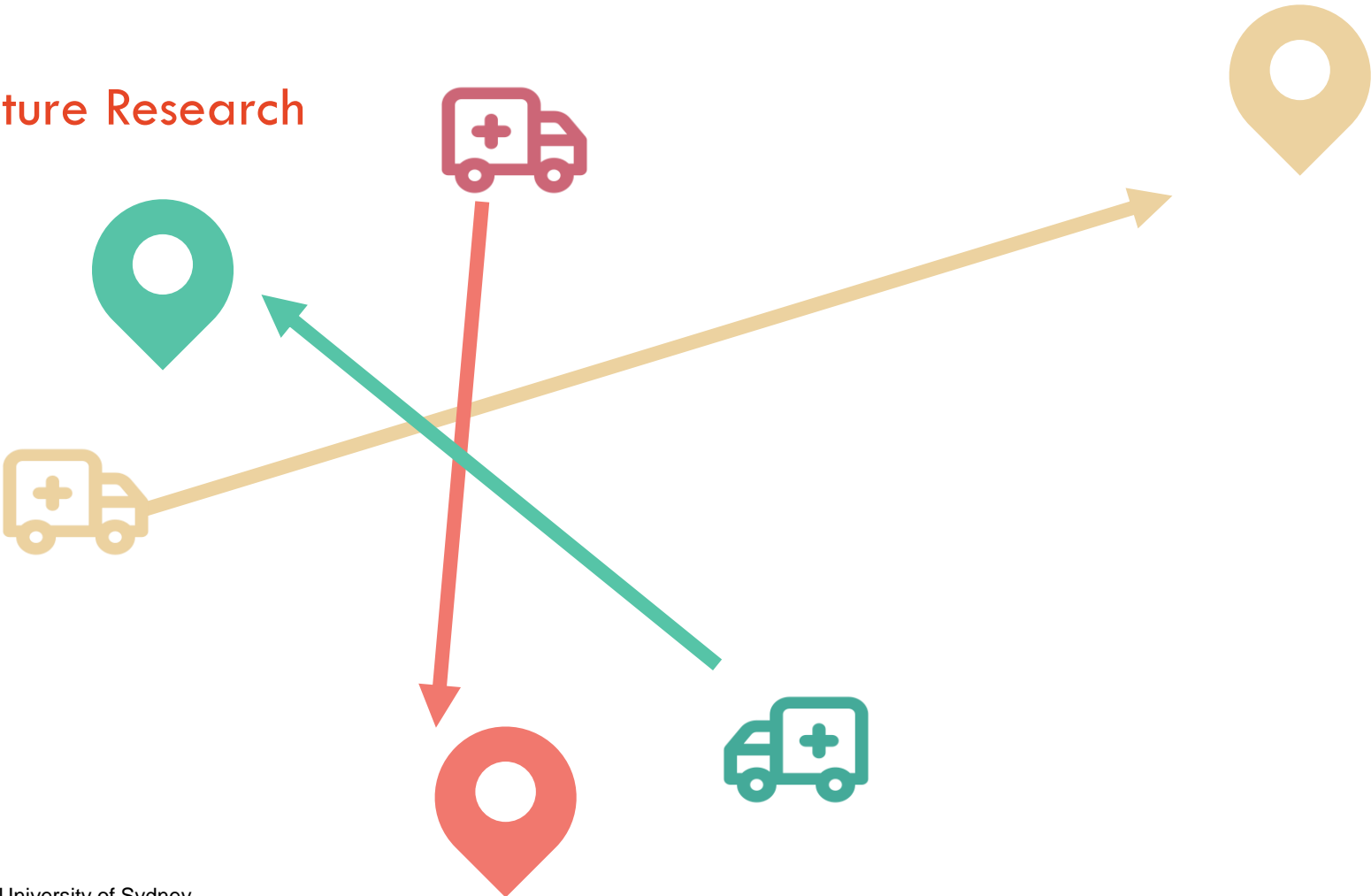


Survival Rate



Response Time

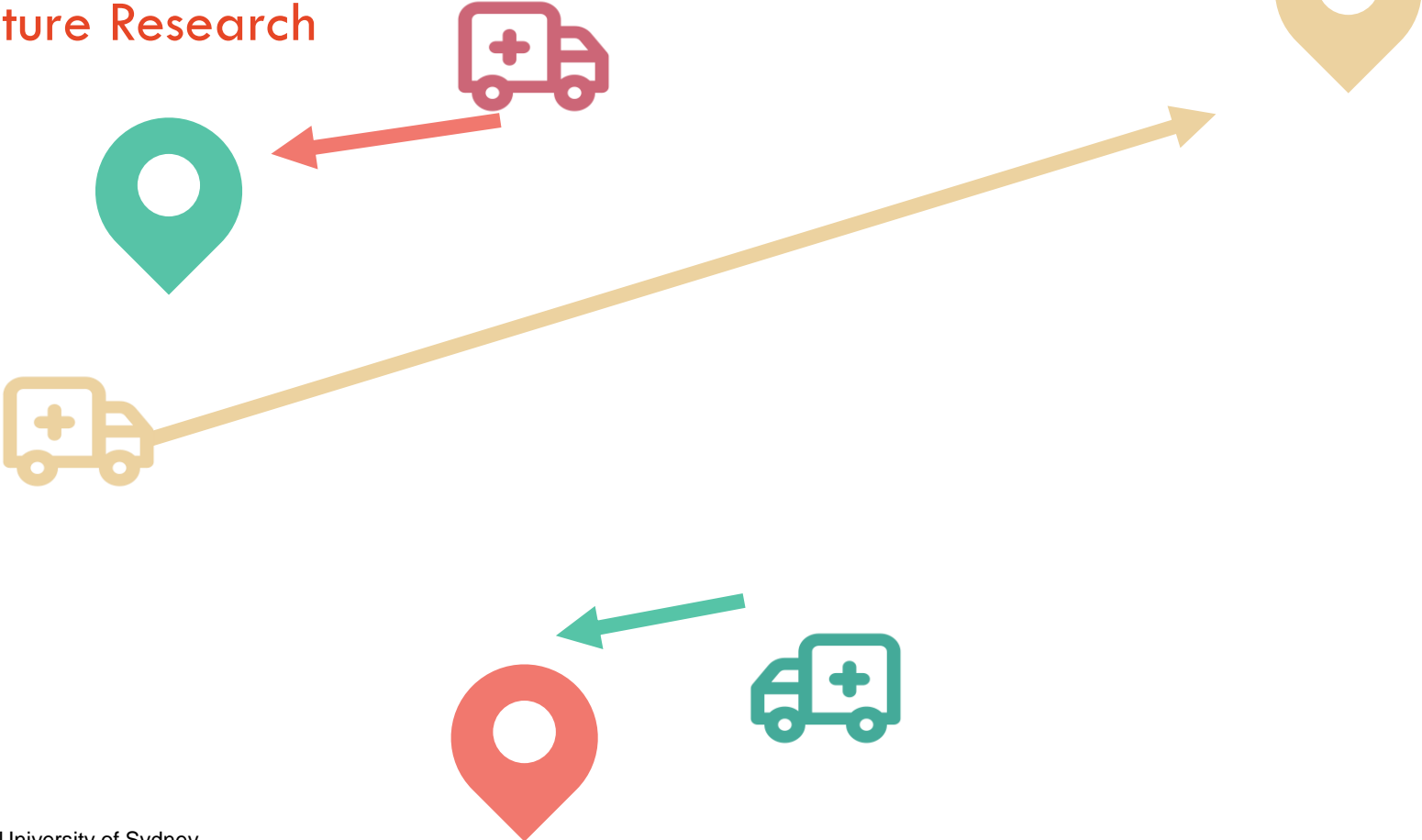
Future Research



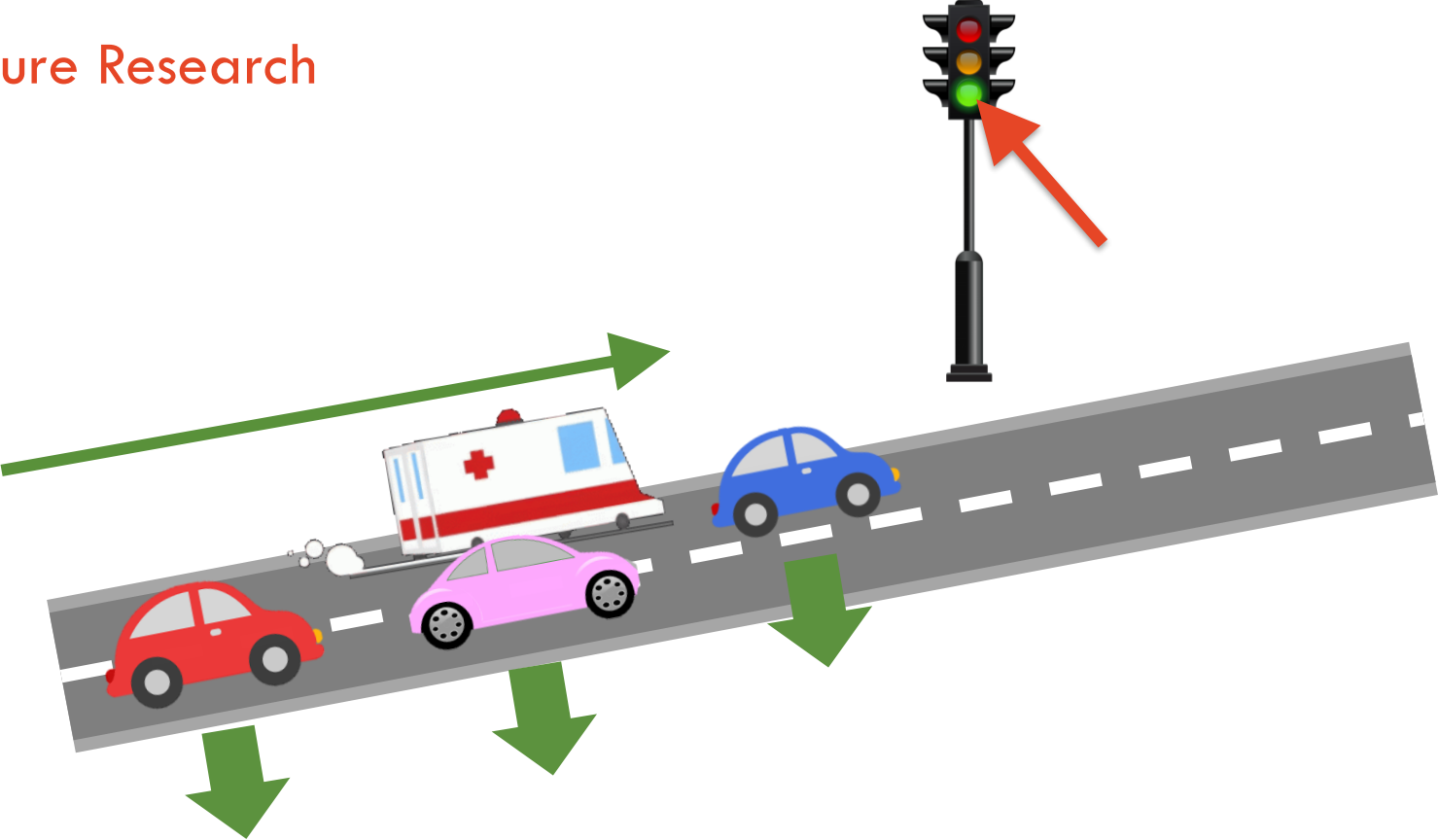
Future Research



Future Research



Future Research



Thanks

END

END

Email: changle.song@sydney.edu.au