# Improving volunteer response to out-of-hospital cardiac arrest using mobile automated external defibrillators

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# Background

**Existing Problem for EMS**

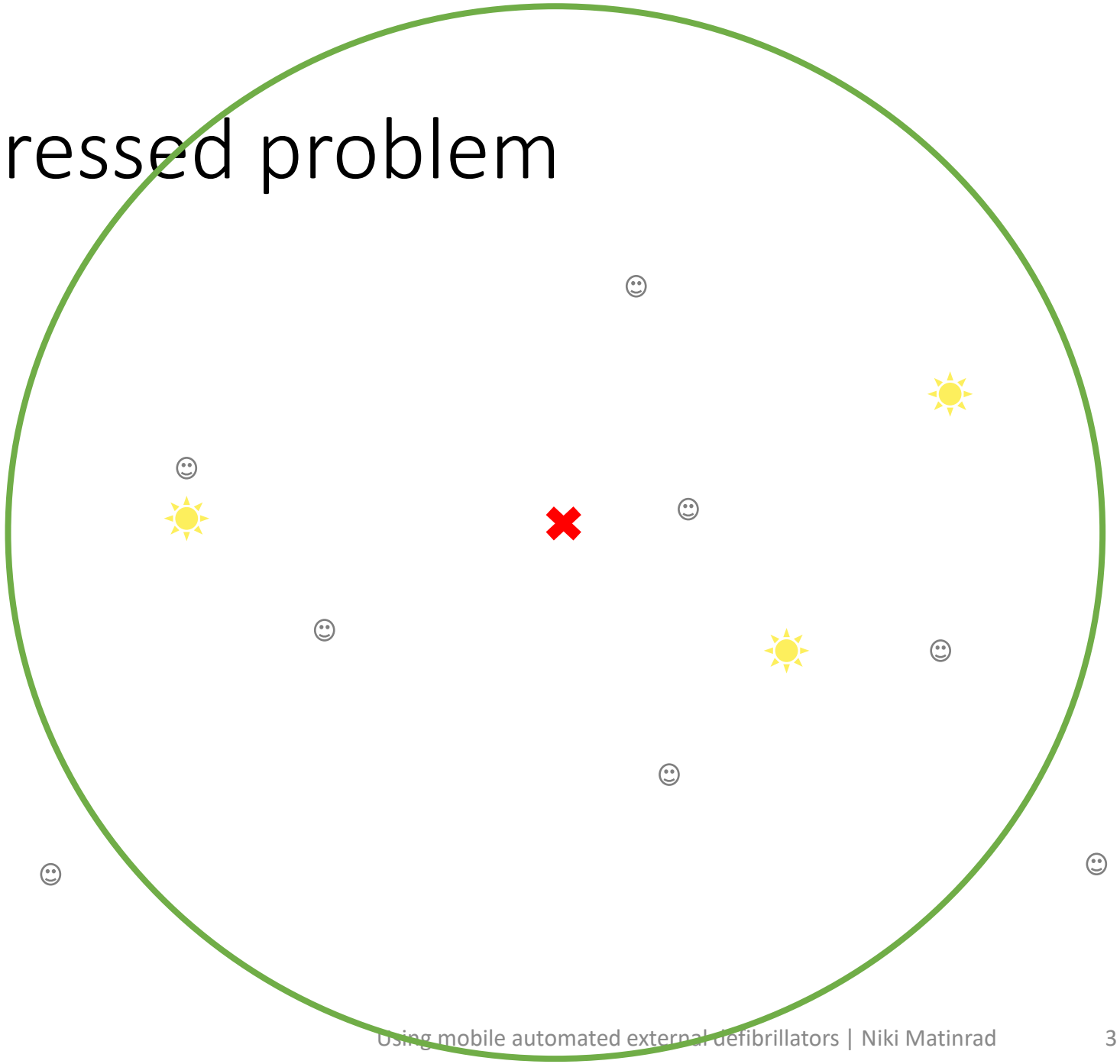
Almost all EMS systems worldwide face an increasing cost pressure

- Shortage of resources
- Inadequate response time for all patient

**Potential solution**

Initiatives in which new types of resources are employed

# Addressed problem

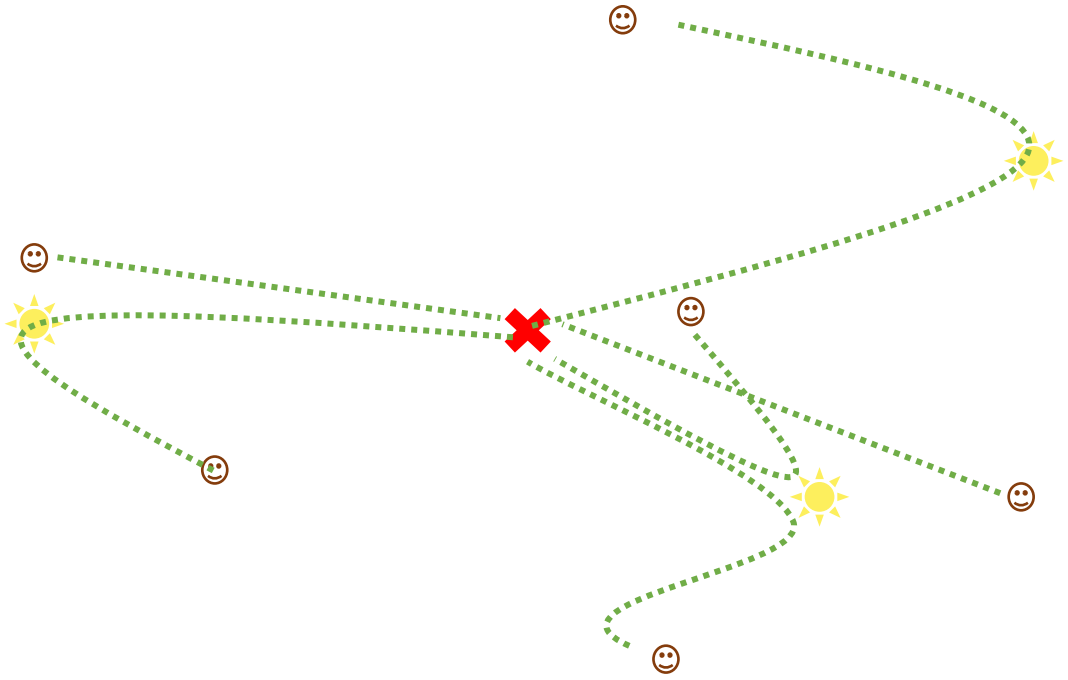


OHCA incident

AED

Volunteer

# Addressed problem (Cont.)

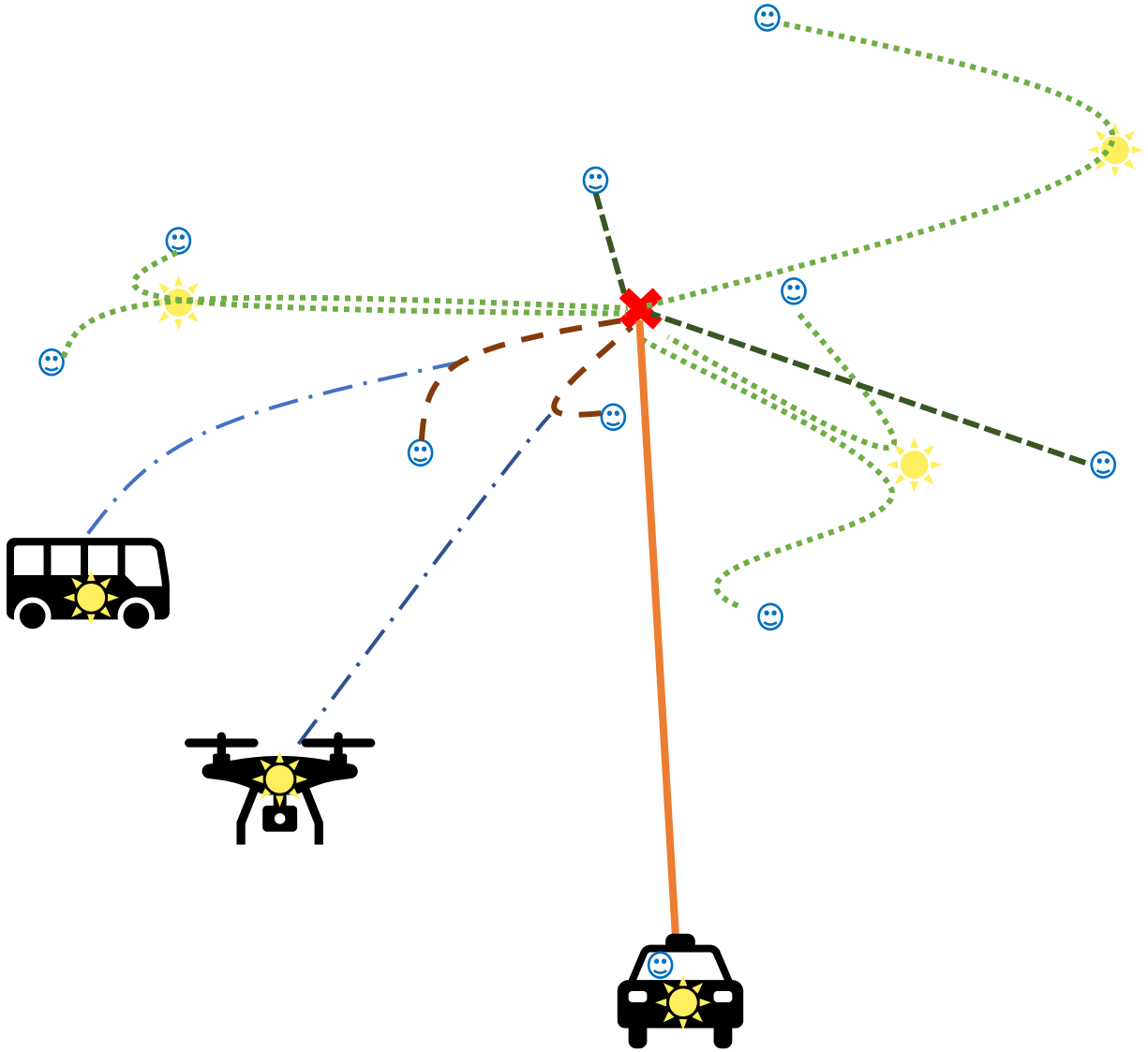


OHCA incident

AED

Volunteer

# Inclusion of mobile automated external defibrillators (AEDs)



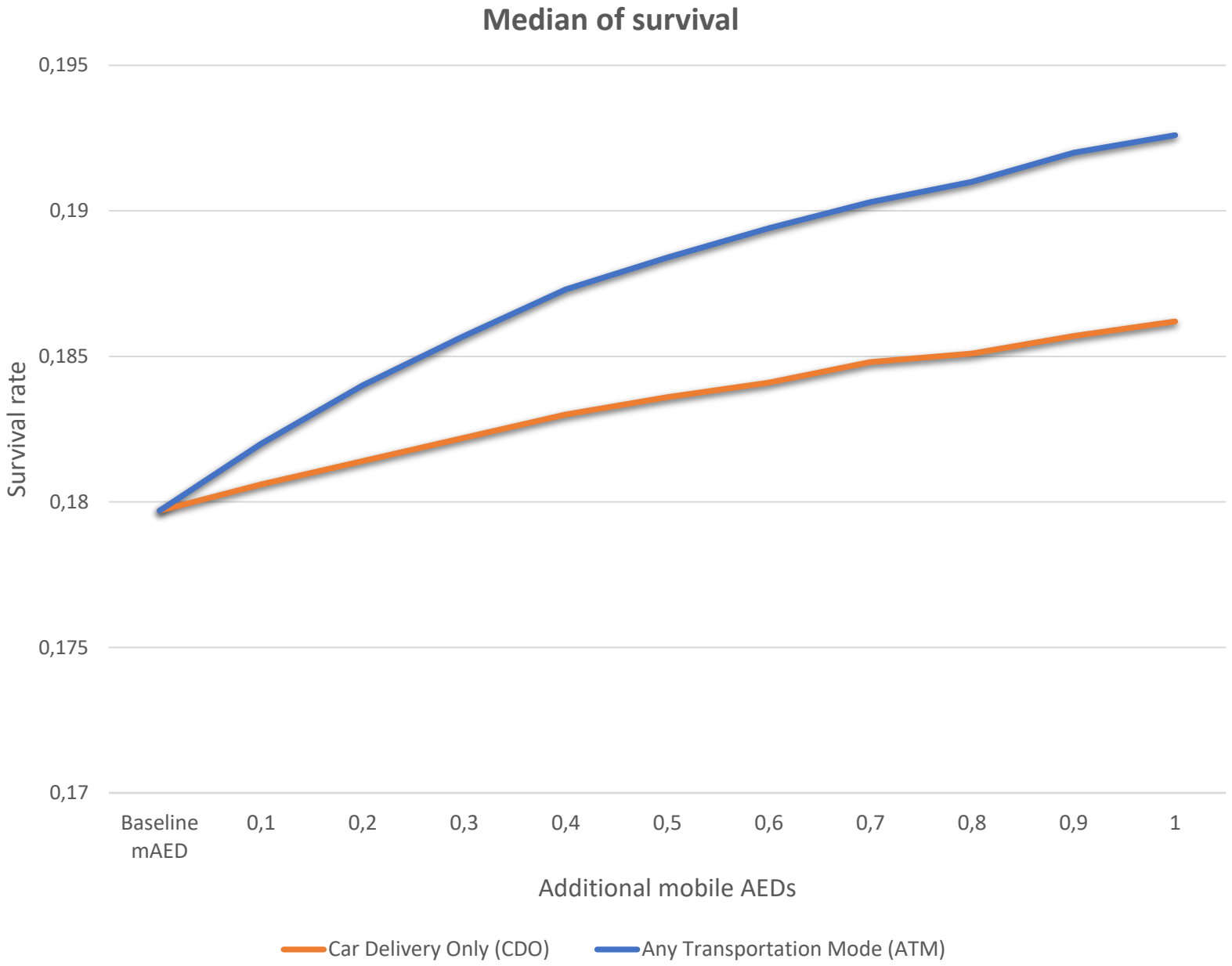
OHCA incident

AED

Volunteer

| | |
|---|---|
| Considering | HartslagNu project in the Netherlands<br>• An ongoing trial in which privately-owned vehicles are equipped with AEDs |
| Using | Computer simulation to<br>• Assess the benefits of including mobile AEDs<br>• Propose a new task assignment strategy |

# Preliminary results



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# Conclusion

The results show that both changes lead to increases in the average survival rate of patients. For example, if we consider that 40 percent of regular volunteers will be instead mobile AEDs, in the CDO and the ATM alternatives, the survival rate increases by two percent and four percent, respectively. Such increases would translate to saving 38 and 87 more lives per year in the Netherlands, respectively.

*Thank you!*

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