

## Dissemination of Automated External Defibrillators in the Community



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2026

# Disclosures

## Research Grants

TrygFonden

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## Steering Committee Member/Consultant

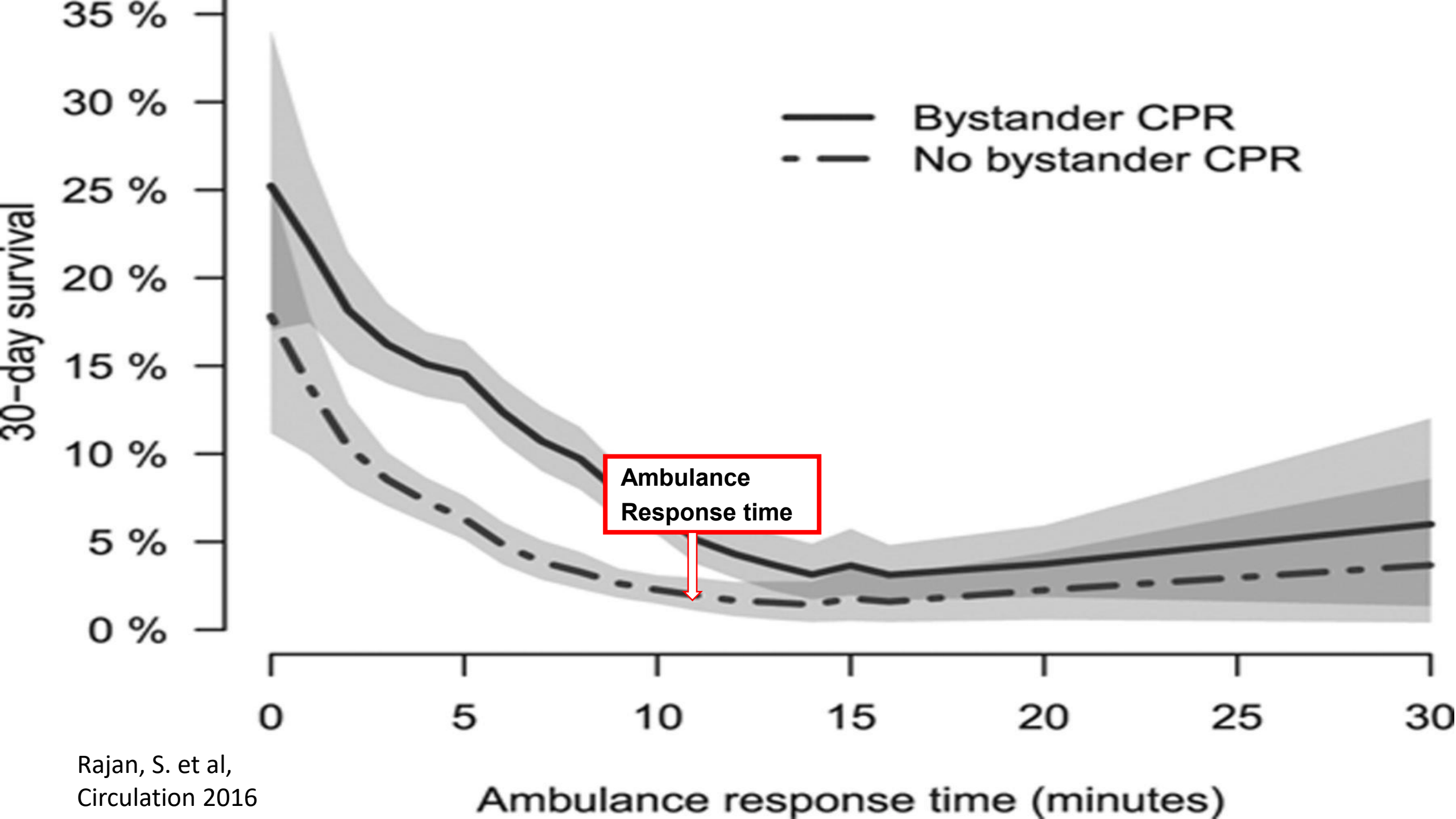
Duke Clinical Research Institute

AED donation from Zoll (CARAMBA trial)

ILCOR BLS Task Force member

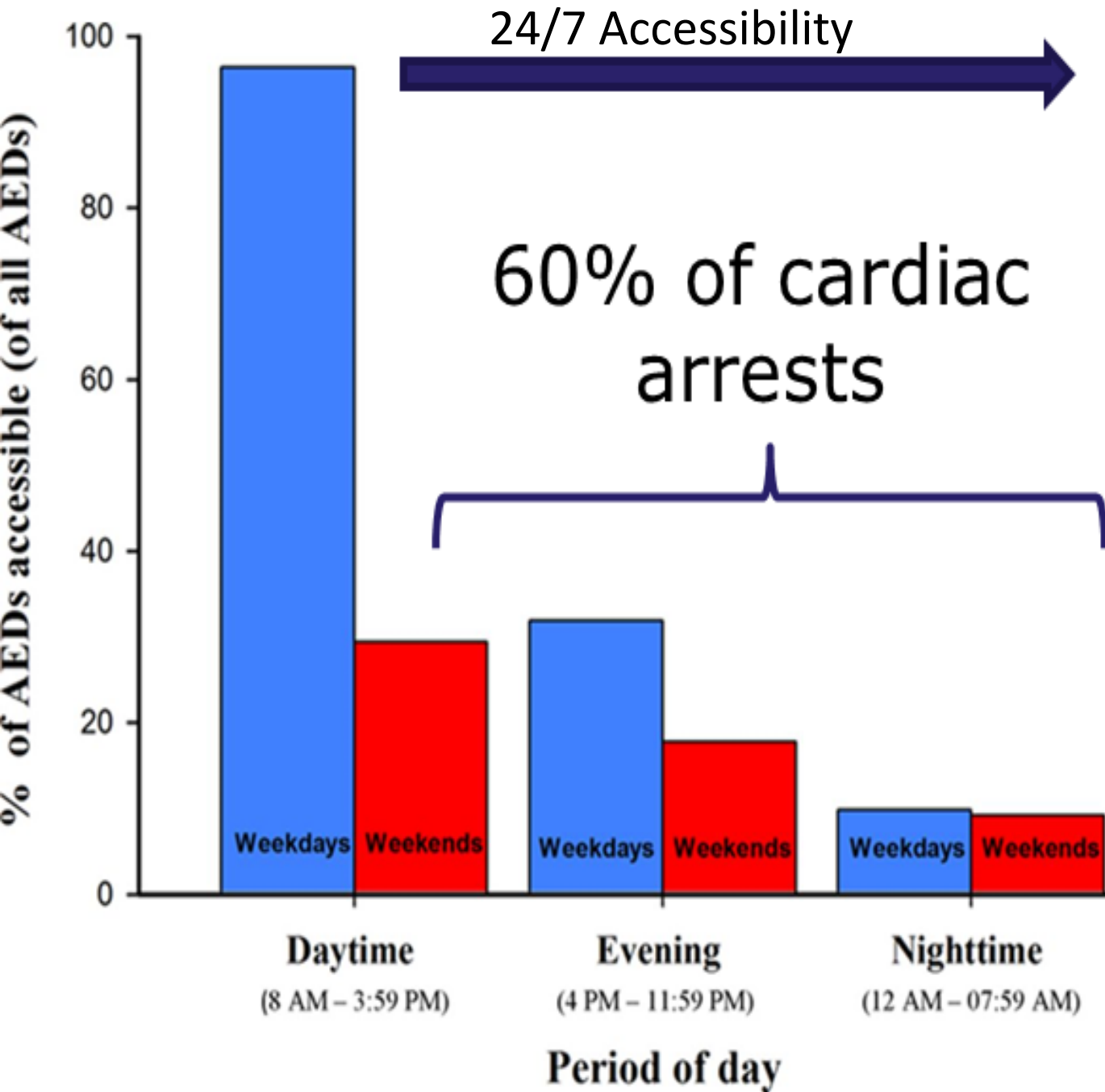
AHA Lay Responder Readiness Task Force member





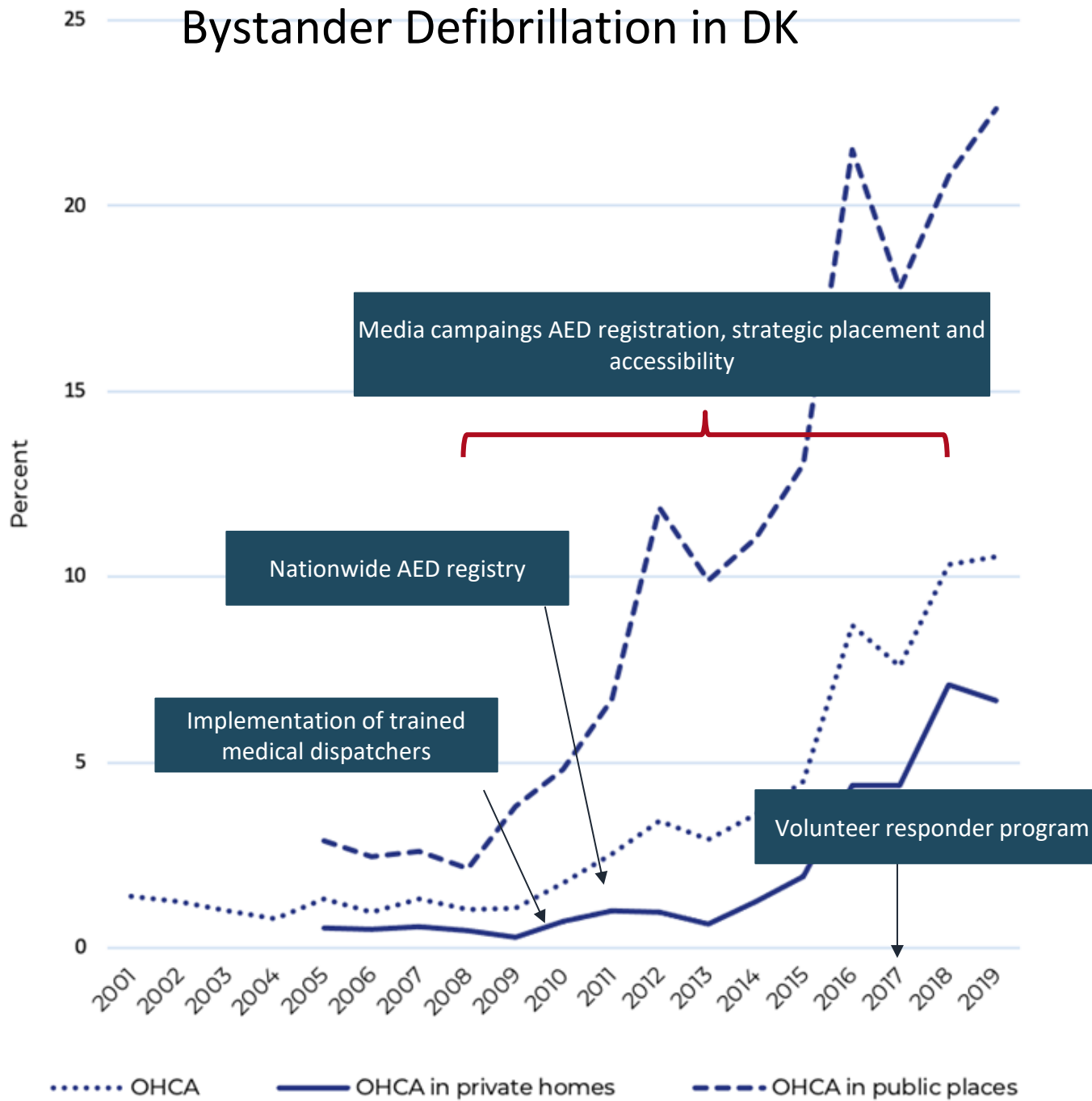








# Bystander Defibrillation in DK



# Find hjertestartere

## 26839

Registrerede hjertestartere i Alle regioner

Skriv fx vej eller by

Alle regioner

Alle kommuner

### Filtrering

Tilgængelig døgnet rundt: **19344**

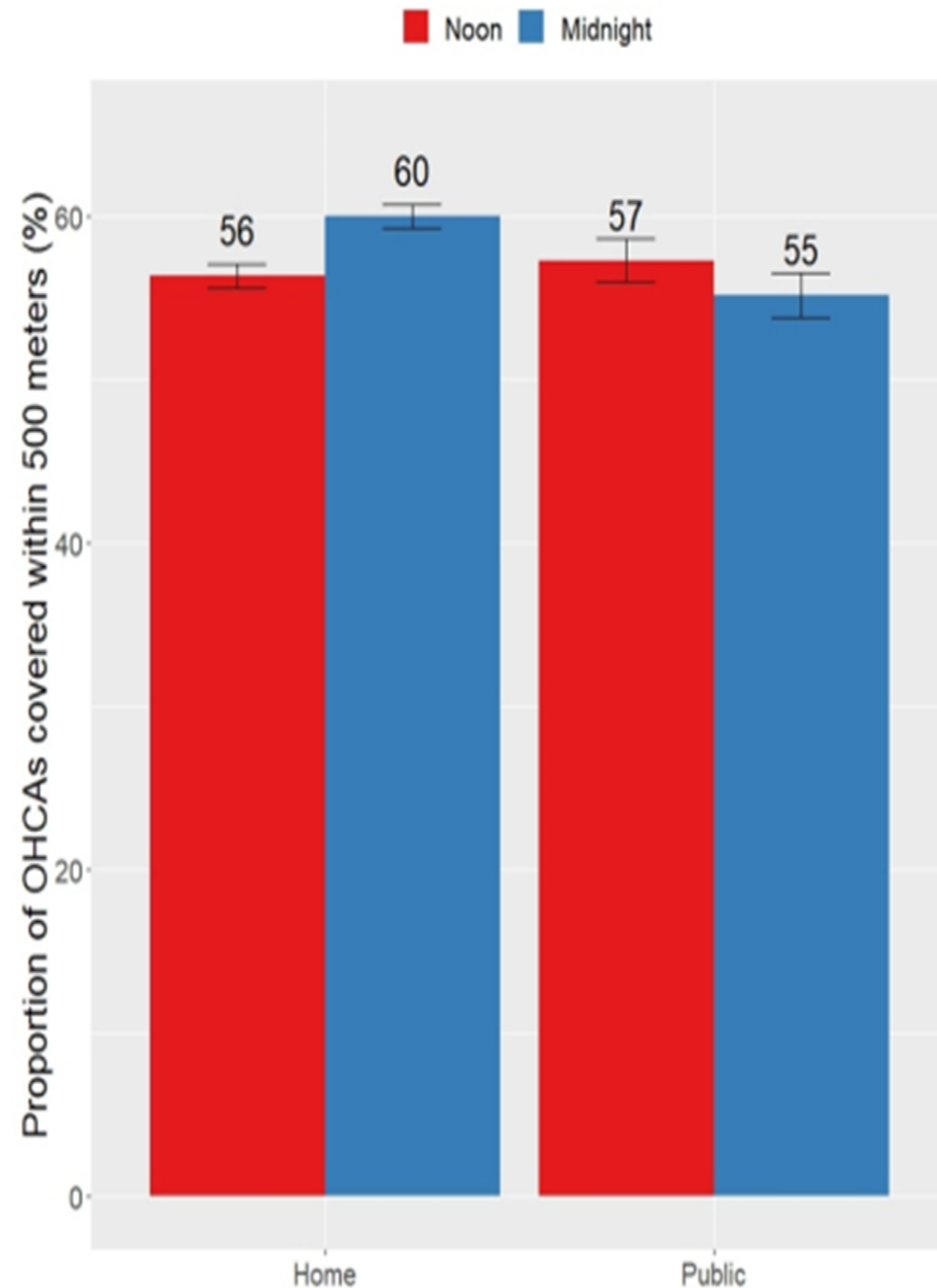
Tilgængelig i åbningstiden: **5077**

Låst inde: **1522**

Pt utilgængelig: **896**

Tip os om en hjertestarter, der ikke virker eller mangler på kortet

Tip os



Coverage: OHCA <500m of 1 AED + 4 community first

# Smartphone Activated Volunteer Responders for Out-of-Hospital Cardiac Arrest in Private Homes and Public Locations



1271 patients



Swedish CPR Registry and Danish Cardiac Arrest Registry



Years 2017–2019



## Bystander defibrillation in private homes

Volunteer responders arrive first:  
15.5% (95% CI 12.0 - 19.5)



Emergency medical services arrives first:  
2.2% (95% CI 1.2 - 3.6)



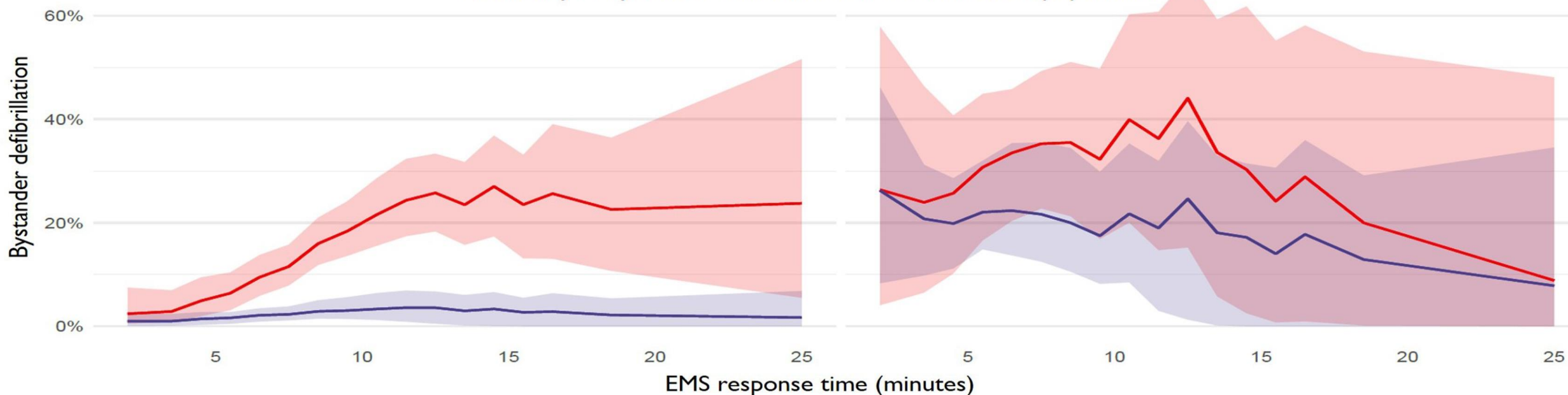
## Bystander defibrillation in public locations

Volunteer responders arrive first:  
32.1% (95% CI 22.4 - 43.2)



Emergency medical services arrives first:  
19.6% (95% CI 13.7 - 26.7)

Probability of bystander defibrillation in a standardized population



# Dual dispatch early defibrillation in out-of-hospital cardiac arrest: the SALSA-pilot

Get access >

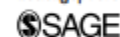
Jacob Hollenberg , Gabriel Riva, Katarina Bohm, Per Nordberg, Robert Larsson

Original scientific paper

## The implementation of a dual dispatch system in out-of-hospital cardiac arrest is associated with improved short and long term survival

Per Nordberg<sup>1</sup>, Jacob Hollenberg<sup>1</sup>, Mårten Rosenqvist<sup>2</sup>, Johan Herlitz<sup>3,4</sup>, Martin Jonsson<sup>1</sup>, Hans Järnbert-Petterson<sup>5</sup>, Sune

European Heart Journal  
2014, Vol. 3(4) 293–303  
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sagepub.co.uk/journalsPer  
DOI: 10.1177/20488726  
acc.sagepub.com



CLINICAL PAPER · Volume 90, P143-149, May 2015

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The survival benefit of dual dispatch of EMS and fire-fighters in out-of-hospital cardiac arrest may differ depending on population density – A prospective cohort study

Per Nordberg <sup>a</sup>  · Martin Jonsson <sup>a</sup> · Sune Forsberg <sup>b</sup> · Mattias Ringh <sup>a</sup> · David Fredman <sup>a</sup> · Gabriel Riva <sup>a</sup> · Ingela Hasselqvist-Ax <sup>a</sup> ·

Jacob Hollenberg <sup>a</sup> 

Affiliations & Notes  Article Info 



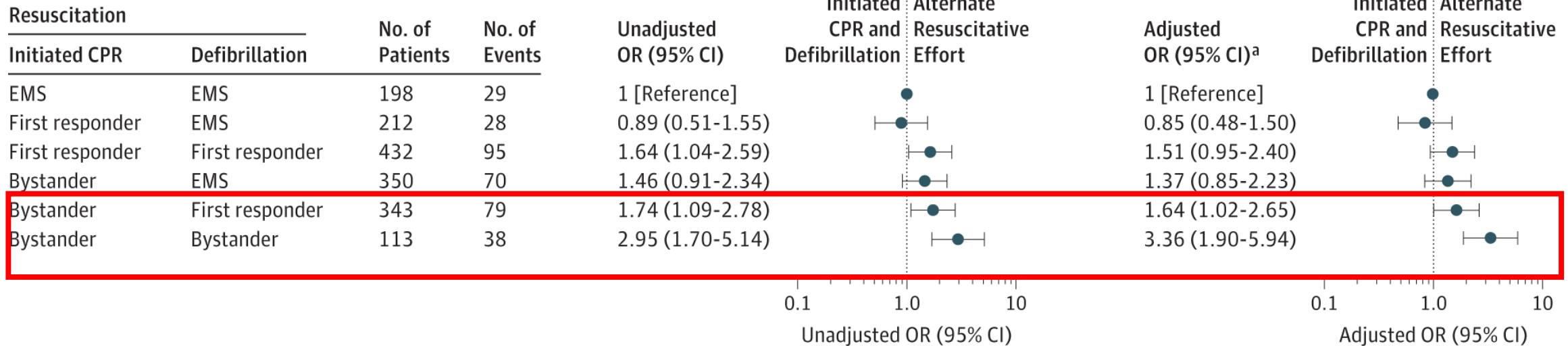


July 21, 2015

# Association of Bystander and First-Responder Intervention With Survival After Out-of-Hospital Cardiac Arrest in North Carolina, 2010-2013

Carolina Malta Hansen, MD<sup>1</sup>; Kristian Kragholm, MD<sup>1</sup>; David A. Pearson, MD<sup>2</sup>; *et al*

**C** Favorable neurological outcome





The NEW ENGLAND JOURNAL of MEDICINE

## CORRESPONDENCE



### **Use of a Drone-Delivered Automated External Defibrillator in an Out-of-Hospital Cardiac Arrest**

Sofia Schierbeck, M.D.

Leif Svensson, M.D., Ph.D.

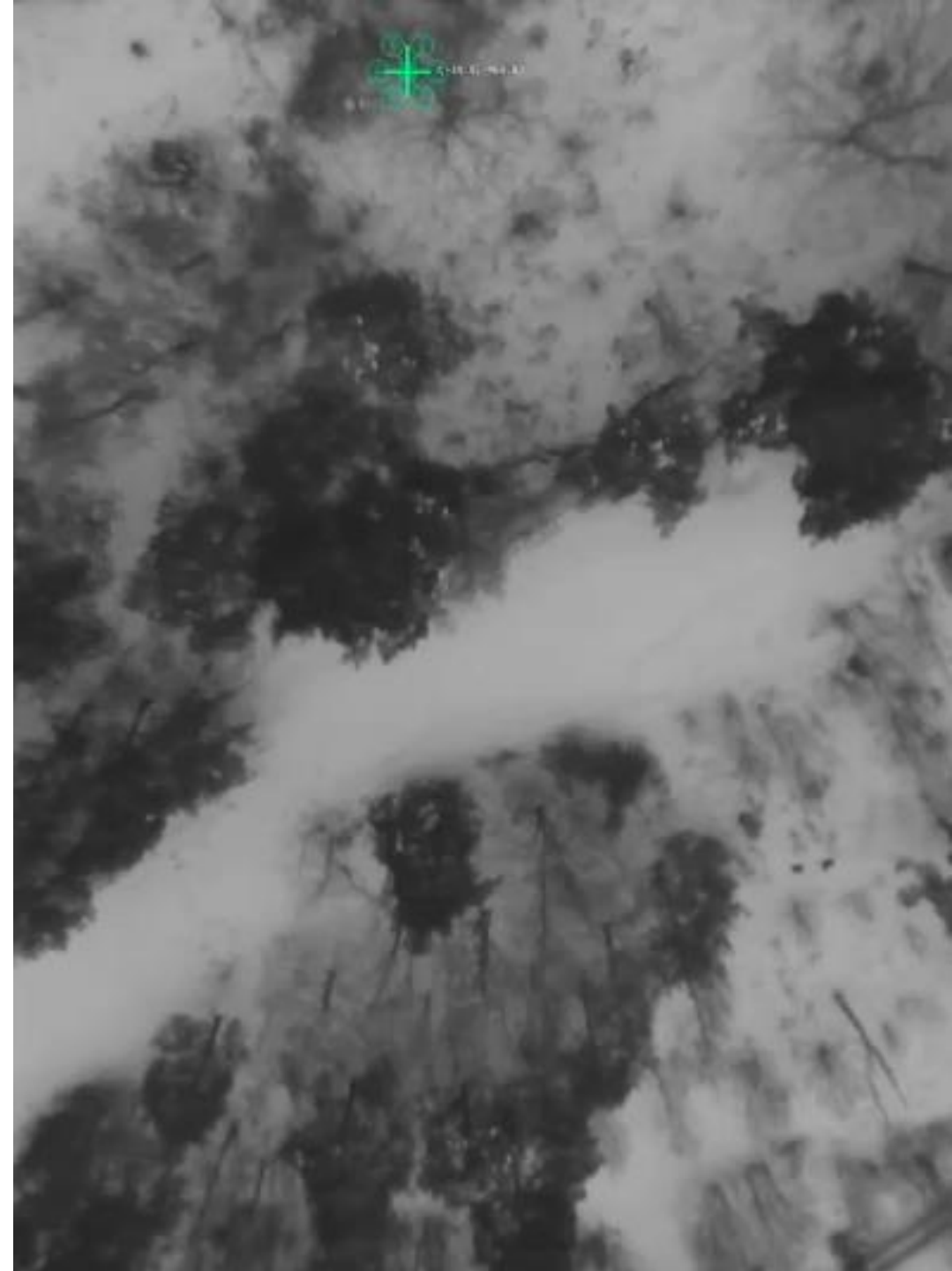
Andreas Claesson, R.N., Ph.D.

Karolinska Institutet

Stockholm, Sweden

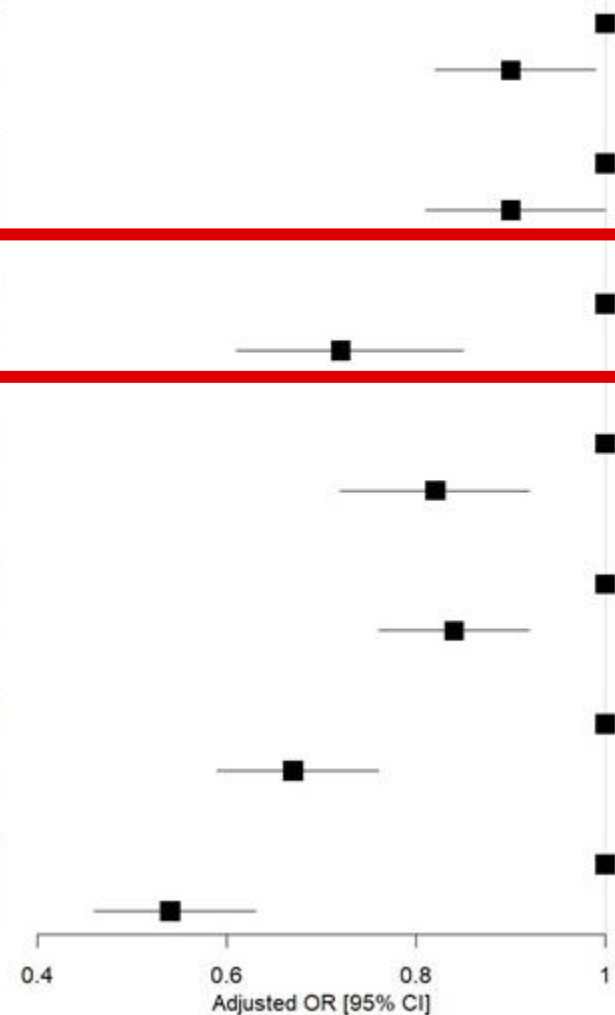
[andreas.claesson@ki.se](mailto:andreas.claesson@ki.se)

Supported by the Swedish Heart–Lung Foundation.





	No. of patients	No. of events	Unadjusted OR [95% CI]	Adjusted OR [95% CI]
<b>CPR*</b>				
Other Residential areas	5886	4083 (69.4%)	1.0 [ref.]	1.0 [ref.]
Public Housing areas	2926	1975 (67.5%)	0.91 [0.84-1.01]	0.90 [0.82-0.99]
<b>AED attachment*</b>				
Other Residential areas	5886	1885 (32.0%)	1.0 [ref.]	1.0 [ref.]
Public Housing areas	2926	894 (30.6%)	0.93 [0.85-1.03]	0.90 [0.81-1.00]
<b>Defibrillation*</b>				
Other Residential areas	5886	584 (9.9%)	1.0 [ref.]	1.0 [ref.]
Public Housing areas	2926	224 (7.7%)	0.76 [0.64-0.89]	0.72 [0.61-0.85]
<b>Early EMS dispatch**</b>				
Other Residential areas	5837	2291 (39.2%)	1.0 [ref.]	1.0 [ref.]
Public Housing areas	2890	1085 (37.5%)	0.93 [0.85-1.02]	0.82 [0.72-0.92]
<b>Early EMS arrival***</b>				
Other Residential areas	5797	2646 (45.6%)	1.0 [ref.]	1.0 [ref.]
Public Housing areas	2883	1195 (41.4%)	0.84 [0.77-0.92]	0.84 [0.76-0.92]
<b>Shockable rhythm</b>				
Other Residential areas	5801	1339 (23.1%)	1.0 [ref.]	1.0 [ref.]
Public Housing areas	2874	497 (17.3%)	0.70 [0.62-0.78]	0.67 [0.59-0.76]
<b>30-day survival</b>				
Other Residential areas	5476	780 (14.2%)	1.0 [ref.]	1.0 [ref.]
Public Housing areas	2747	239 (8.7%)	0.57 [0.49-0.67]	0.54 [0.46-0.63]









# Thank you

AED Dissemination in the Community

- Takes multifaceted and tailored efforts (on-site/dispatched)
- Clear standpoint and support from PUBLIC HEALTH AUTHORITIES
- Population engagement
- Many challenges remain (cost, disparities, LMICs..)
- Strong research tradition to document progress and lead future efforts

