



Population Metrics and Reporting

OHCA Registry Meeting

29th October 2018

Singapore

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What are Population Metrics?

metric

/'mɛtrɪk/

1. TECHNICAL

a system or standard of measurement.

What is the Population of Interest?

THE OWNERS OF THE HOSPITAL

C/ST

F!



**Is the OHCA Population the Same in
Every Country?**

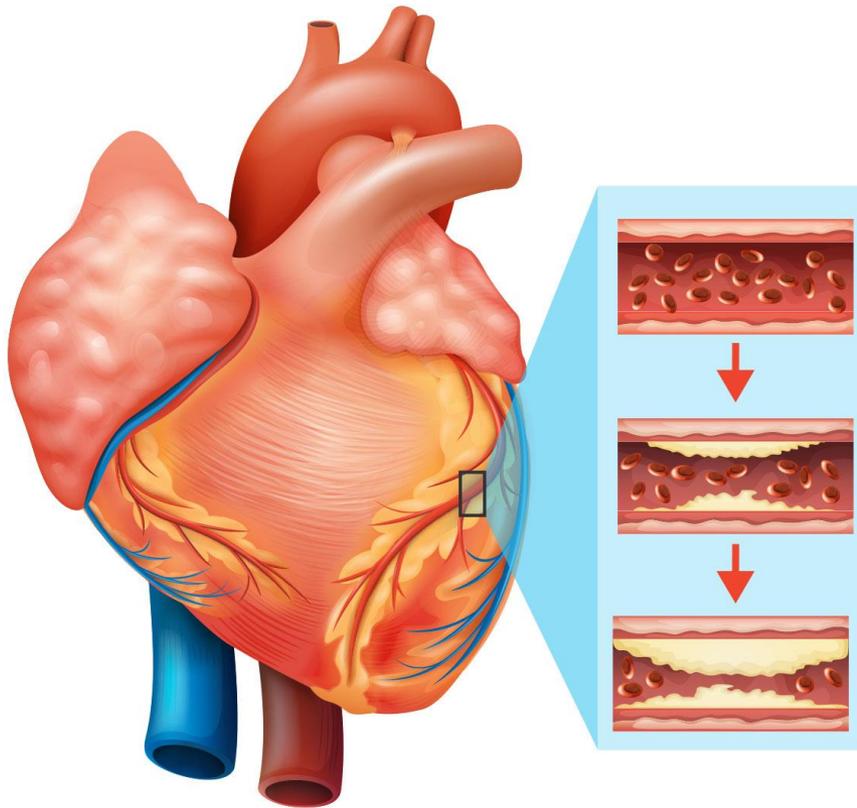
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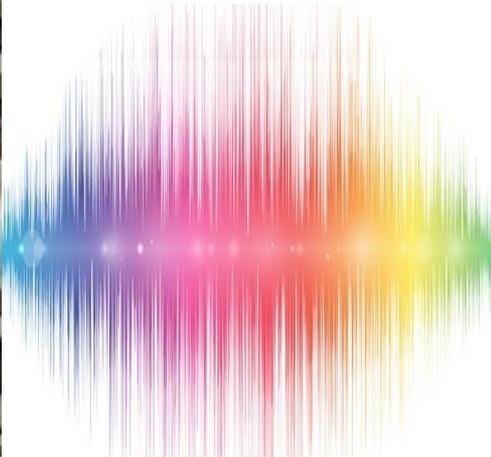
What drives differences between OHCA Populations?

- Modifiable Patient Factors
- Area-Level Response to an Emergency Event
- Methods of Case Ascertainment
- Patient Selection
- Resuscitation (or not)
- Rescuer Influence
- The Research Question

Modifiable Patient Factors



Area-Level Response to an Emergency Event



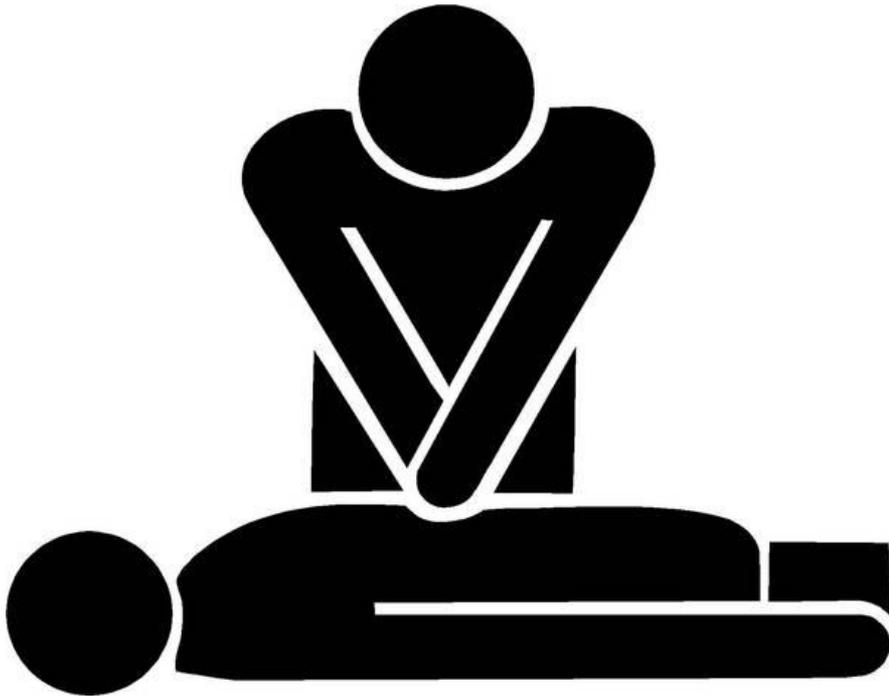
Methods of Case Ascertainment



Patient Selection



Resuscitation (or not)



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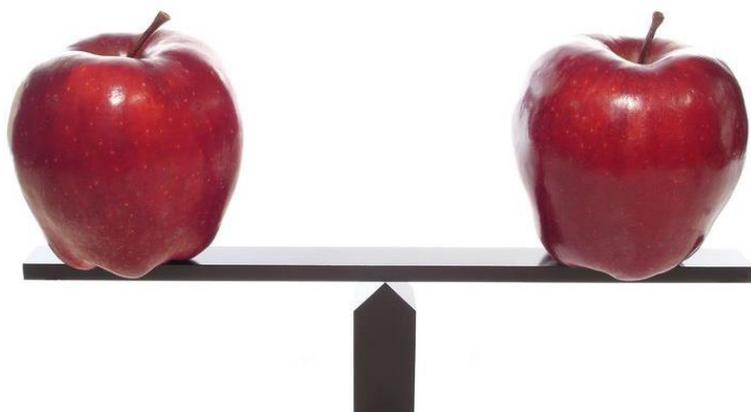
Rescuer Influence



The Research Question



Can We Compare with Confidence?



Metrics and Reporting

metric

/'mɛtrɪk/

1. TECHNICAL

a system or standard of measurement.



Cardiac Arrest and Cardiopulmonary Resuscitation Outcome Reports: Update of the Utstein Resuscitation Registry Templates for Out-of-Hospital Cardiac Arrest



A Statement for Healthcare Professionals From a Task Force of the International Liaison Committee on Resuscitation (American Heart Association, European Resuscitation Council, Australian and New Zealand Council on Resuscitation, Heart and Stroke Foundation of Canada, InterAmerican Heart Foundation, Resuscitation Council of Southern Africa, Resuscitation Council of Asia); and the American Heart Association Emergency Cardiovascular Care Committee and the Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation^{☆,☆☆}

Gavin D. Perkins, Ian G. Jacobs[†], Vinay M. Nadkarni, Robert A. Berg, Farhan Bhanji, Dominique Biarent, Leo L. Bossaert, Stephen J. Brett, Douglas Chamberlain, Allan R. de Caen, Charles D. Deakin, Judith C. Finn, Jan-Thorsten Gräsner, Mary Fran Hazinski, Taku Iwami, Rudolph W. Koster, Swee Han Lim, Matthew Huei-Ming Ma, Bryan F. McNally, Peter T. Morley, Laurie J. Morrison, Koenraad G. Monsieurs, William Montgomery, Graham Nichol, Kazuo Okada, Marcus Eng Hock Ong, Andrew H. Travers, Jerry P. Nolan, for the Utstein Collaborators

Utstein Data Elements



C
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R
E

Population served
Cardiac arrests attended
Resuscitation attempted
Resuscitation not attempted
System description

Dispatcher-identified cardiac arrest
Dispatcher CPR instructions

Age
Gender
Witnessed arrest
Arrest location
Bystander CPR/AED
First monitored rhythm
Etiology

Response times
Defibrillation time
Target temp management
Drugs
Reperfusion attempted

Survived event
Any ROSC
30-day survival / survival to discharge
Neurological outcome

S
U
P
P
L
E
M
E
N
T
A
R
Y

Prehospital resuscitation followed
Data quality activities
Prehospital ECG capability

ECMO
IABP

Cardioverter-defibrillator

Resuscitation process type
Mechanical CPR
Targeted oxygenation / ventilation / BP
ECMO
IABP
pH, lactate, glucose
12-lead ECG
Neuroprognostication
Hospital type / volume

Primary registered outcomes measures
Quality of life measures
12-month survival

Fig. 1. Data element domains. Core and supplemental elements are shown for each of the 5 domains. AED indicates automated external defibrillator; BP, blood pressure; CPR, cardiopulmonary resuscitation; DNAR, do not attempt resuscitation; ECMO, extracorporeal membrane oxygenation; IABP, intra-aortic balloon pump; ROSC, return of spontaneous circulation; STEMI, ST-segment-elevation myocardial infarction; and temp, temperature.

DISCUSSION

Question One

**What is the OHCA
POPULATION OF
INTEREST
in your country?**

Question Two

What SUBGROUP of the OHCA Population should be reported on internationally?

Question Three

You have been asked to design a one-page OHCA report.

What are the DATA ELEMENTS that you would consider essential to include FOR YOUR COUNTRY?

Population Metrics and Reporting

- 1. What is the OHCA POPULATION OF INTEREST in your country?**
- 2. What SUBGROUP of the OHCA Population should be reported on internationally?**
- 3. You have been asked to design a one-page OHCA report. What are the DATA ELEMENTS that you would consider essential to include FOR YOUR COUNTRY?**