Success Stories - Using Data to Save Lives

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Presenter Disclosure Information

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Using Data to Save Lives

FINANCIAL DISCLOSURE:

- none

UNLABELED/UNAPPROVED USES DISCLOSURE:

- none

Why does data matter?

- It doesn't- if you don't use it.
- It doesn't- if the boots on the street don't see it
- Or if it sits in a drawer
- BUT
    - IT DOES IF YOU PAY ATTENTION TO IT
    - It does if your first responders and medics get feedback (outcomes, etiologies)
    - It does if it reinvigorates your team
    - It does if you watch it for trends
    - It does if you celebrate success with your community

"The only way to improve a system is to measure what you are doing"

-Dr. Mickey Eisenberg

If you don't know where you are-you can't know where you need to go!

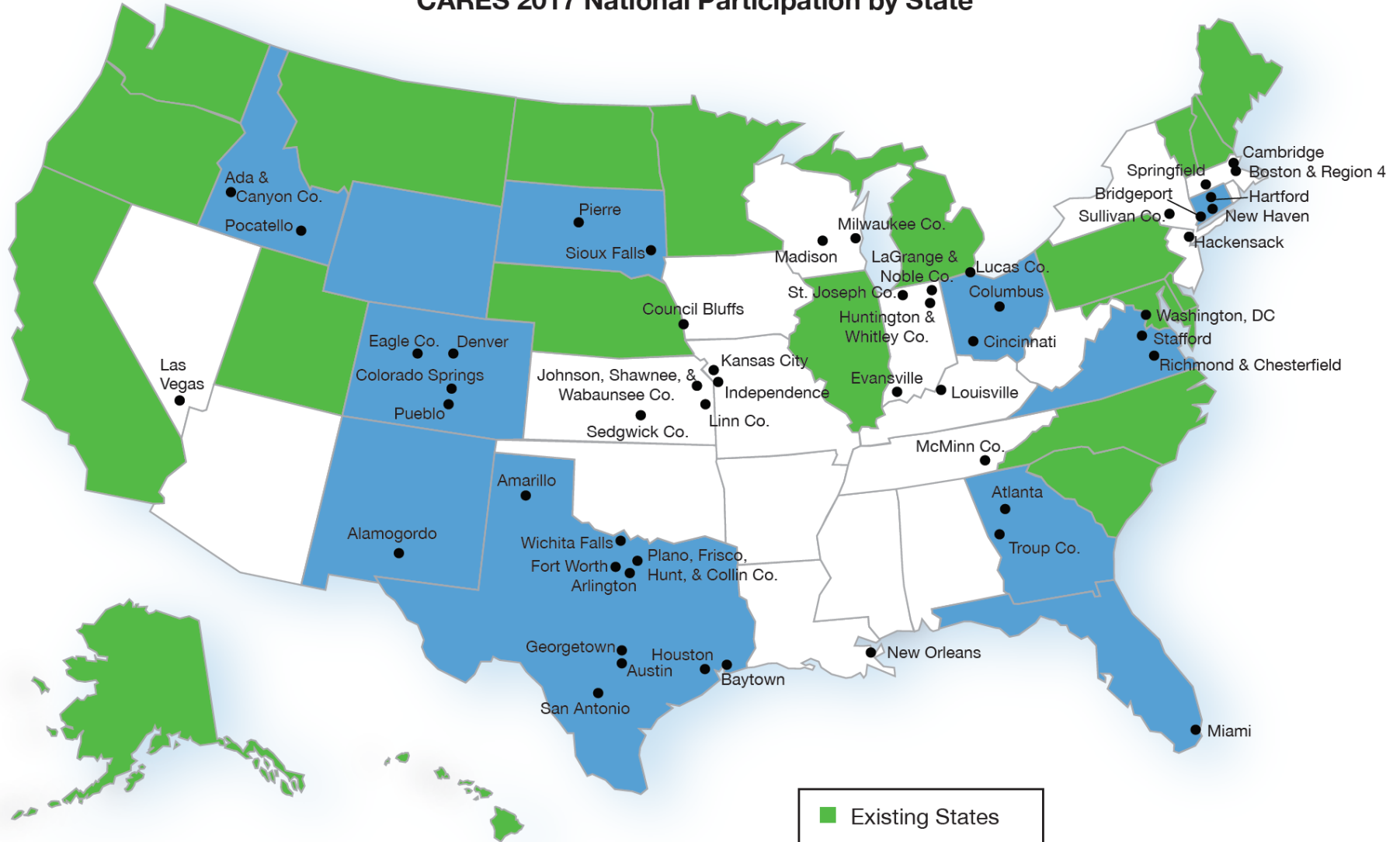# How do we collect data for Cardiac Arrest??

CARES=

Cardiac Arrest Registry to Enhance Survival

- Current funders above
- 2004- CDC collaborated with Emory University & AHA to develop a registry that could help increase OHCA survival rates
- 2010 expanded into entire states (HeartRescue)
- 2017 there are approximately:
  - EMS Agencies: over 1,100
  - Hospitals: 1500 (approx. 20% of all hospitals in the US)
  - 16 statewide registries
  - 55 communities in 23 states
  - GROWING RAPIDLY

CARES 2017 National Participation by State

Ada & Canyon Co.
Pocatello
Pierre
Sioux Falls
Milwaukee Co.
Madison
LaGrange & Noble Co.
Lucas Co.
Columbus
St. Joseph Co.
Huntington & Whitley Co.
Council Bluffs
Cincinnati
Eagle Co.   Denver
Las Vegas
Colorado Springs
Kansas City
Pueblo
Johnson, Shawnee, & Wabaunsee Co.
Independence
Evansville
Louisville
Sedgwick Co.
Linn Co.
McMinn Co.
Amarillo
Atlanta
Alamogordo
Wichita Falls
Troup Co.
Plano, Frisco, Hunt, & Collin Co.
Fort Worth
Arlington
Georgetown
Houston
Austin
Baytown
New Orleans
San Antonio
Miami

Cambridge
Springfield   Boston & Region 4
Bridgeport   Hartford
Sullivan Co.   New Haven
Hackensack
Washington, DC
Stafford
Richmond & Chesterfield

■ Existing States

■ Focus States

MN Resuscitation Consortium

UNIVERSITY OF MINNESOTA
Driven to Discover™

- CARES (mycares.net) is not the only game in town
  - Spreadsheet
  - Create your own database
  - Etc…

- Only way to get comparison data

HOW DOES CARES WORK and what does it cost?

- Web based, HIPAA compliant and IRB exempt

- Provide timely access to data through a state/ local coordinator

- Provide personalized training and help

- Subscription fee for States (so free for agencies)

- <u>Entirely Confidential</u>

  – CARES receives all de-identified data for national database

  – NO ONE will see your data

Common questions about the data

- Is it all inclusive? Almost…
  - Includes all ages
  - All etiologies except trauma are collected
- What is collected?
  - 55 prehospital and 20 hospital data points
  - Everything from 911 dispatch to discharge
- What is a CARES case?
  - Out of hospital arrest
  - EMS CPR <u>or</u> AED defib
- Why isn't this research?
  - Not source data verified
  - QA/QI purposes

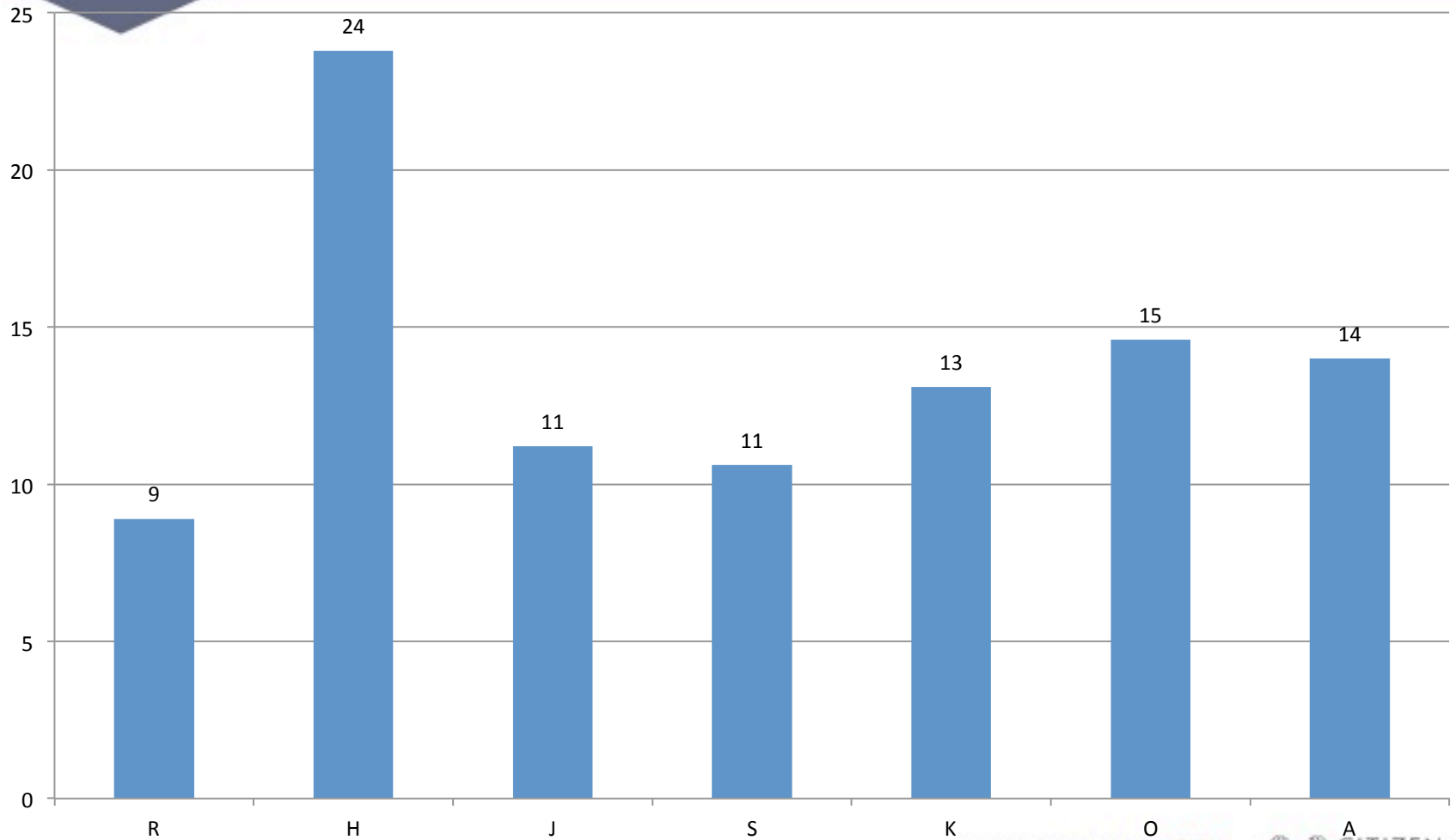- The purpose of measurement in QI work is for _learning not judgment!_

What do you get out of it- ie: how does this save lives?????

- Reports
- Data entry requires attention
- Coordinator alerts to trends
- Ability to give outcome and etiology feedback

- Ability to send reports up the food chain=$$
- Resources from other agencies also trying to do better.
- Points you toward areas of further research

ECCU2017 Emergency Cardiovascular Care Update

CITIZEN CPR FOUNDATION
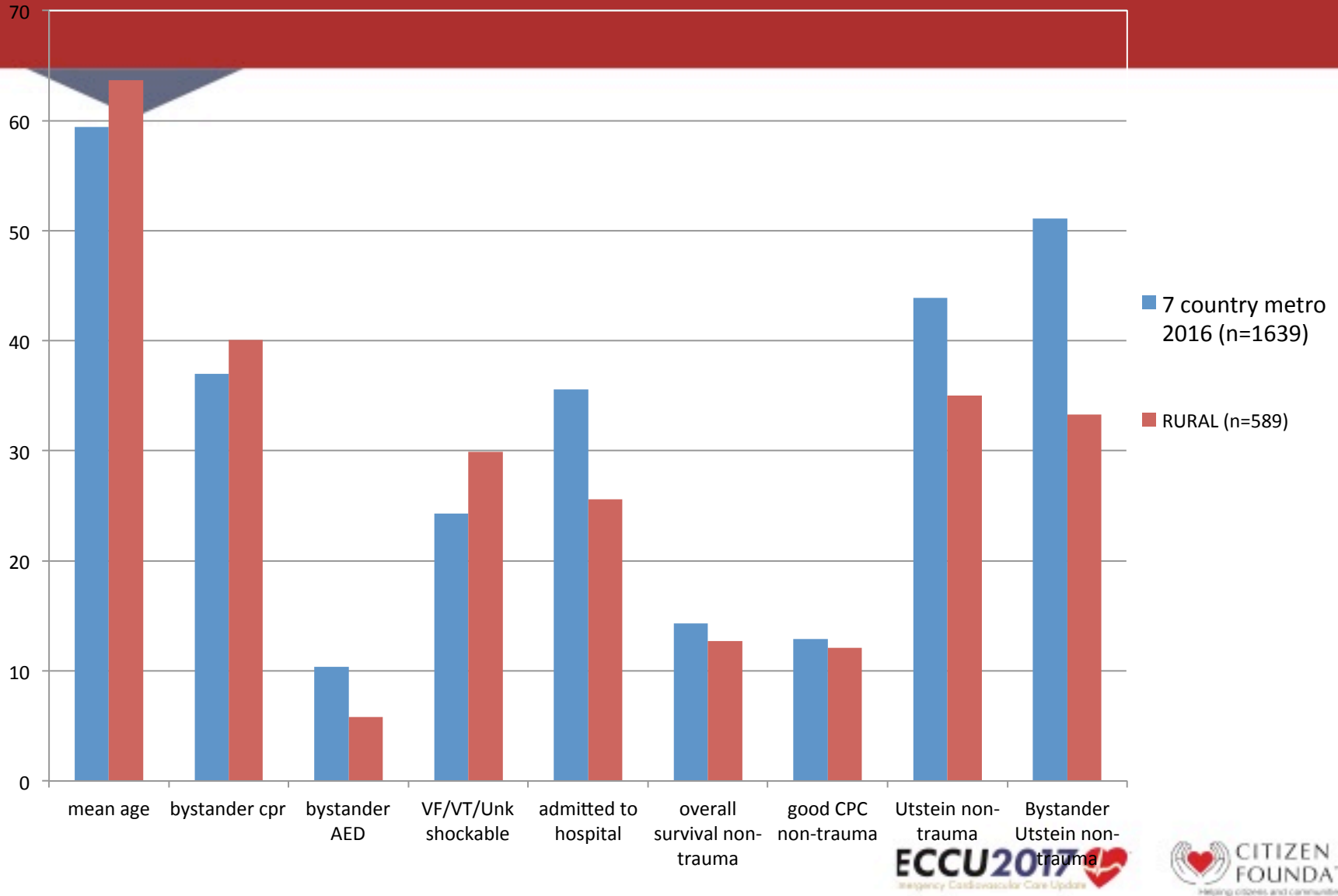Helping citizens and communities save lives

Reports from CARES

- Utstein
- Summary (all metrics)
- Survival Report (broken down by ages and other metrics)
- CAD times
- Demographics
- Cardiac only
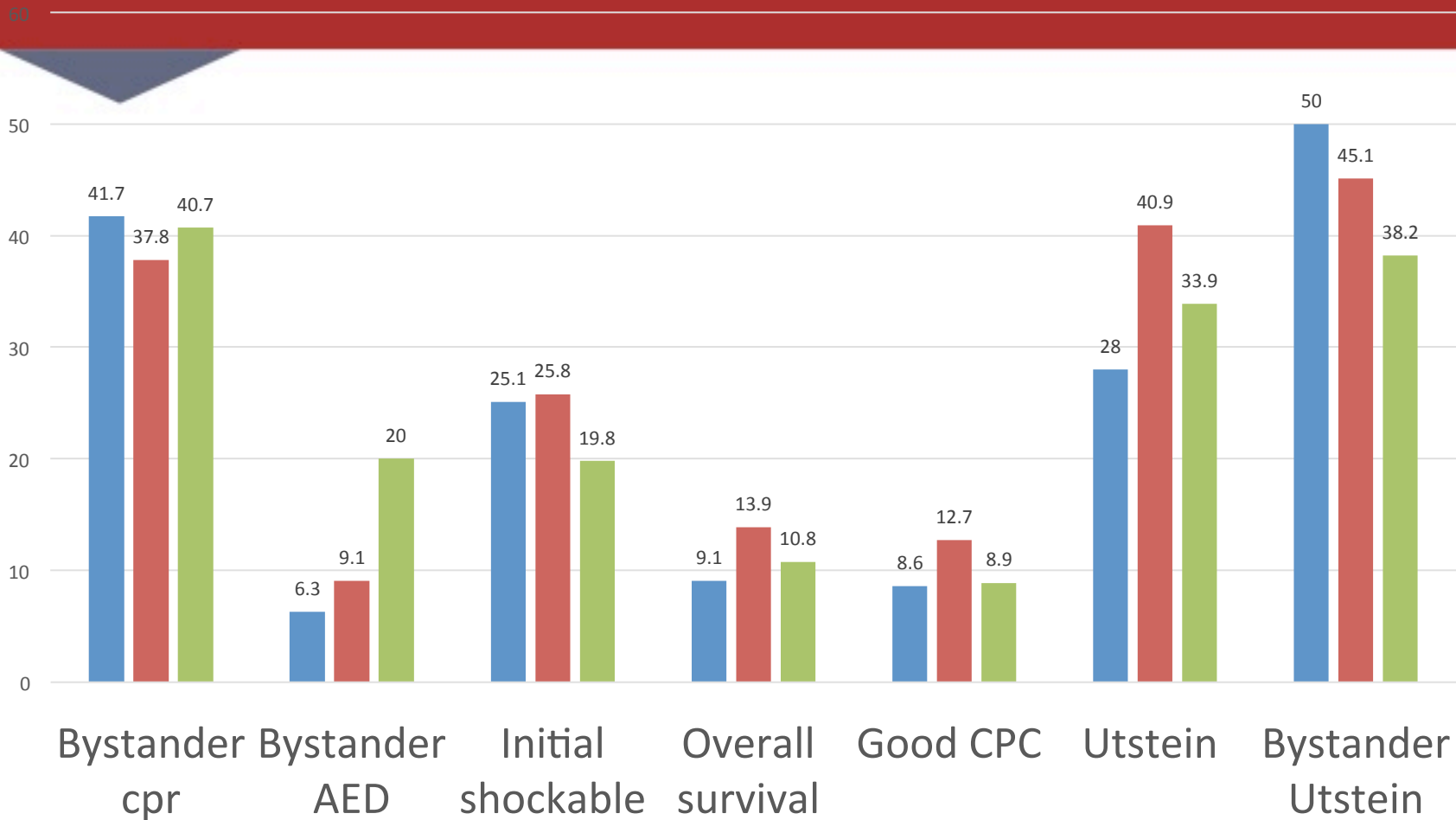- All non-traumtic
- By First Reponder, County, Regions etc…

EMS AGENCY overall survival good CPC % 2016, 50 or more cases

Rural V. Metro
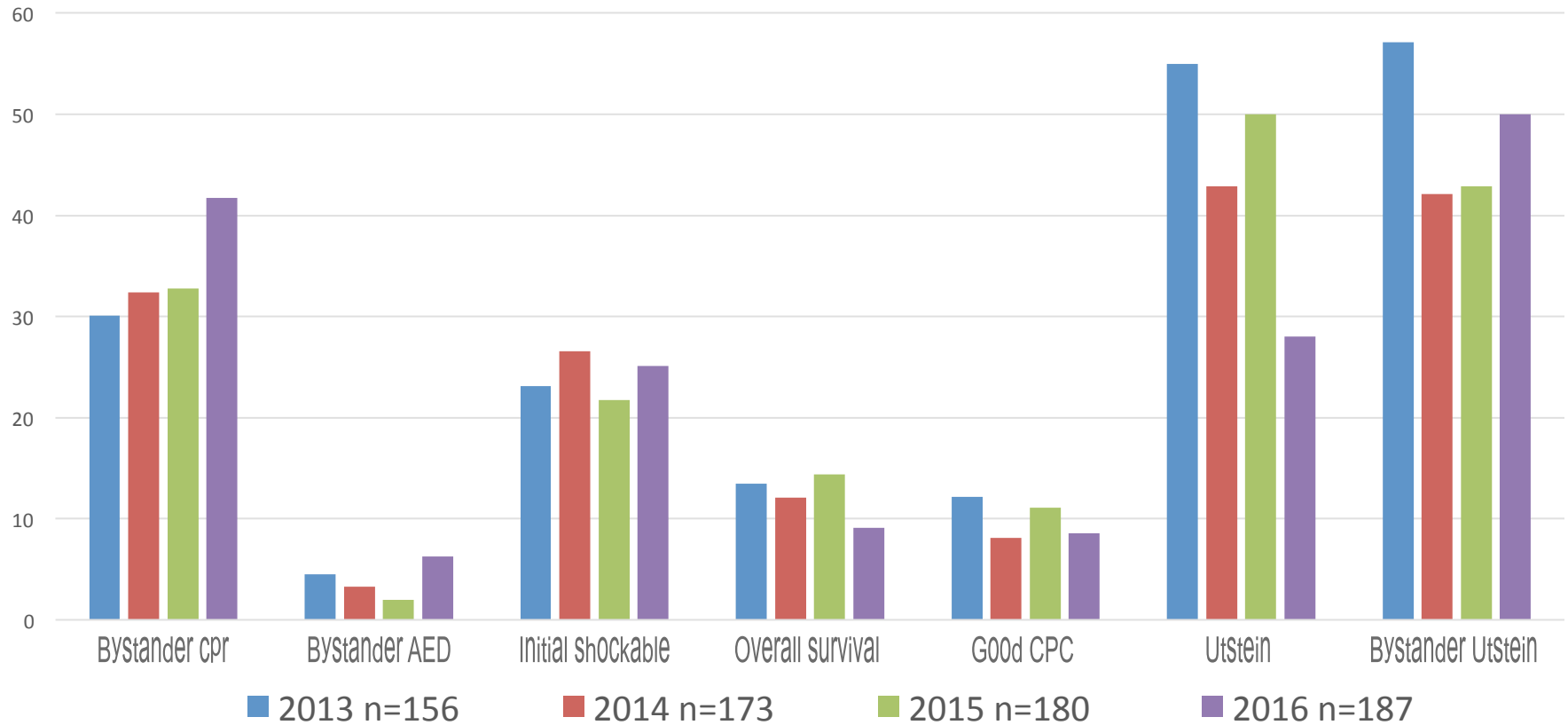
2016 summary statistics (%)
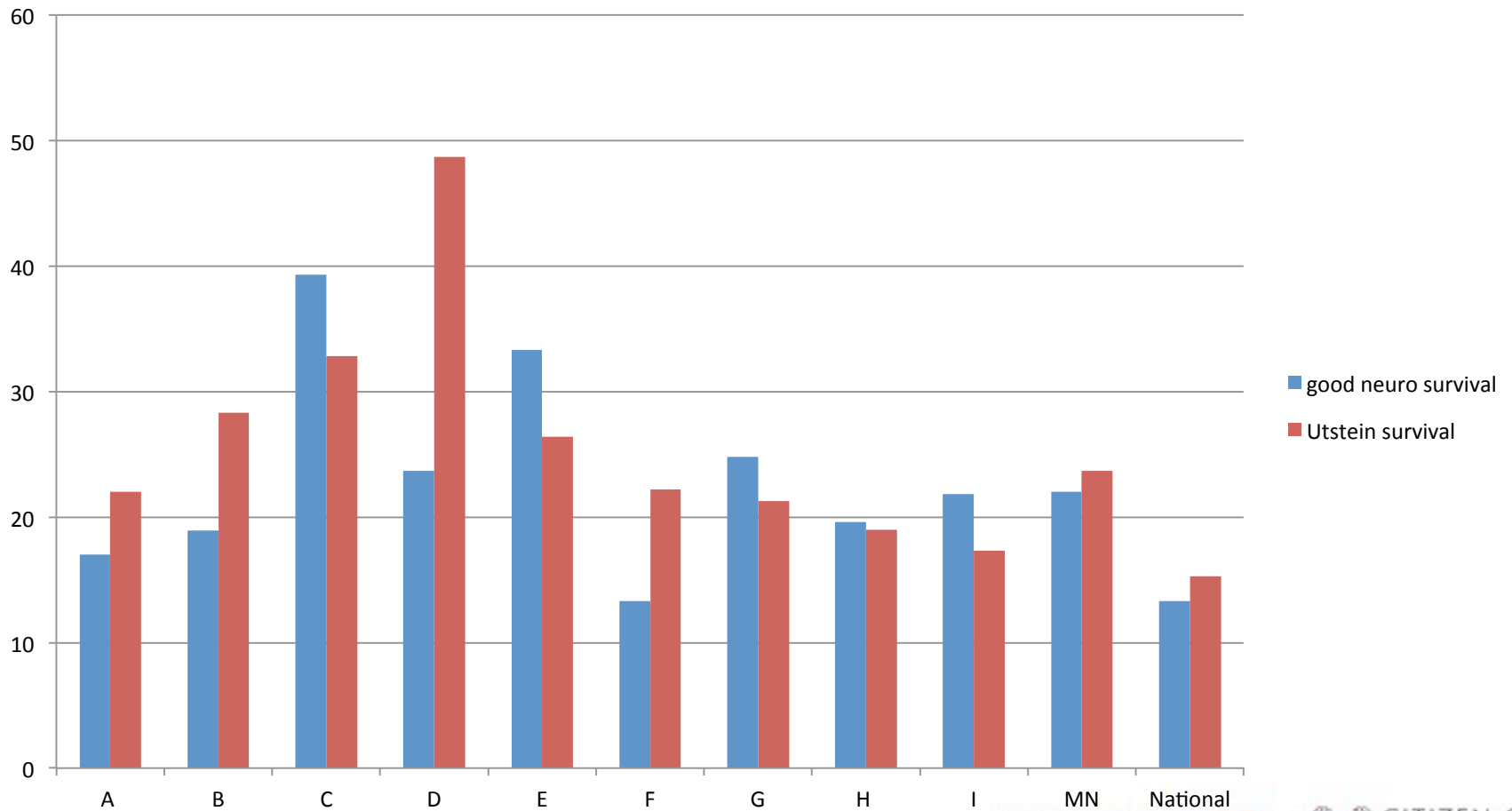

	Dakota County n=187	MN n-2228	National n=61647
Bystander cpr	41.7	37.8	40.7
Bystander AED	6.3	9.1	20
Initial shockable	25.1	25.8	19.8
Overall survival	9.1	13.9	10.8
Good CPC	8.6	12.7	8.9
Utstein	28	40.9	33.9
Bystander Utstein	50	45.1	38.2

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Aggregate OHCA Statistics (%)
all non traumatic arrests

Categories (x-axis): Bystander CPR, Bystander AED, Initial Shockable, Overall Survival, Good CPC, Utstein, Bystander Utstein

Legend: 2013 n=156, 2014 n=173, 2015 n=180, 2016 n=187

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Emergency Cardiovascular Care Update

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Hospitals data

Success Story

CARES in ACTION- Real Life Community Examples

- Low survival rate within "survivable arrest" group

- Community with **no** AED use!!!!

- Issue discovered via CARES data

- Result: AED training in community improved- **survival rate increased**!

CPR
TION
es save lives

- Good survival rates….

- But poor community involvement and poor bystander CPR rates

- Result: CARES data highlighted the issue
  - Agency addressed issue
  - **CARES validated improvement**

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- Mid Sized agency

- Didn't know they had anything to celebrate!

- CARES data was able to show great survival rates

- Identify excellence
  - This agency translated all that into $$$$$$
  - AND community pride

- Protocol change… agency with decreased survival looked at what changed
- CARES data brought issue to front

- CARES provided the markers to send us toward the problem

Hospital Example

- Working with a hospital on reviewing the data on the pt's they receive from OHCA.

- Looking at:
  - Possible disparities in care.
  - Demographics
  - Ebb and flow issues

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TAKE HOME MESSAGE….

- If you follow your cardiac arrest data
  - all of your patients will benefit not just cardiac arrest patients
  - Your crews will feel engaged, empowered and invigorated
  - Your community will know what you are doing and why!
  - This all leads to lives saved.
  - In my state and in other CARES states and communities their survival rates keep going up.

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Questions?
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