

### **CARES Registry**

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## W Objectives:

- Review current NC and National Statistics for Cardiac Arrest
- Discuss the RACE CARS Project



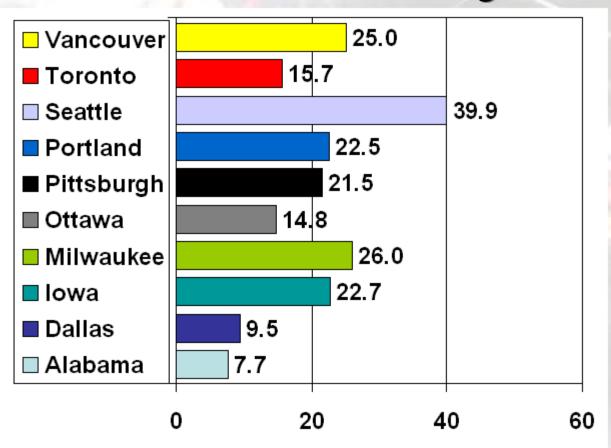
### Out of Hospital Cardiac Arrest in U.S.

- 236 000 to 325 000 people in the United States each year
  - 600-1000 Americans will suffer OOHCA today
  - 20+ during this talk
- 3<sup>rd</sup> leading cause of death
- High morbidity and mortality
  - ~80% die before hospital admission

# M

#### Variation in survival VF arrest Resuscitations Outcomes Consortium

#### Survival to discharge



Nichol JAMA. 2008;300(12):1423-1431

### **Quality Improvement:**

- You cannot improve what you do not measure.
- You must measure what matters:
  - -1) Survival
  - -2) Neurological Outcome

# Cardiac Arrest Registry to Enhance Survival: CARES

- Sponsored by CDC
- Administered by Emory University
- Arrest through Discharge data
- EMS web site entry hospital email
- National and state bench marks
- Dashboard, reports, and export capabilities



## M Data Collected:

- Basic Demographics
- Basic Incident / Response Details
- Arrest Details
- CPR Details
- AED Usage
- EMS Interventions
- Outcome

# **CARES** Participation:

Francisco Contraction of the Con	Number	% Population	Cumulative Population
EMS Systems in NC	100	100%	
Counties reporting into CARES	51	72.59%	
Countiess in Progress	3	1.44%	74.02%
Future Counties	46	25.98%	100
			4000
Cases in the CARES (audited)			
Total 2010	1762		- 17
Total 2011	1940		
Total 2012 (219% increase over 2011)	4244		
Grand Total to date	7822		
Hospitals in CARES			
Total Hospitals Needed for CARES NC data	140		
Hospitals identified by EMS as destination	96		
Hospitals Trained	83		
Hospitals with data in system	75		

### **CARES Participation:**

Participating
Contract in Progress
Being Recruited
Future Site



# **CARES Participation:**



# Demographics:

		NC	National	
Volume	Volume	3,283	25,811	
Age	100			
Median	Age	65	65	
Gender				
percentage	Male	61%	61%	
RACE	White	65%	45%	
percentage	Black/African American	30%	20%	
	Home/residence	70%	70%	
Location	HC Facility	6%	4%	
percentage	Nursing Home	12%	12%	
Event	Witnessed	43%	49%	
percentage	UnWitnessed	47%	51%	
CPR				
percentage	Bystander CPR	40%	38%	

## Measuring Survival:

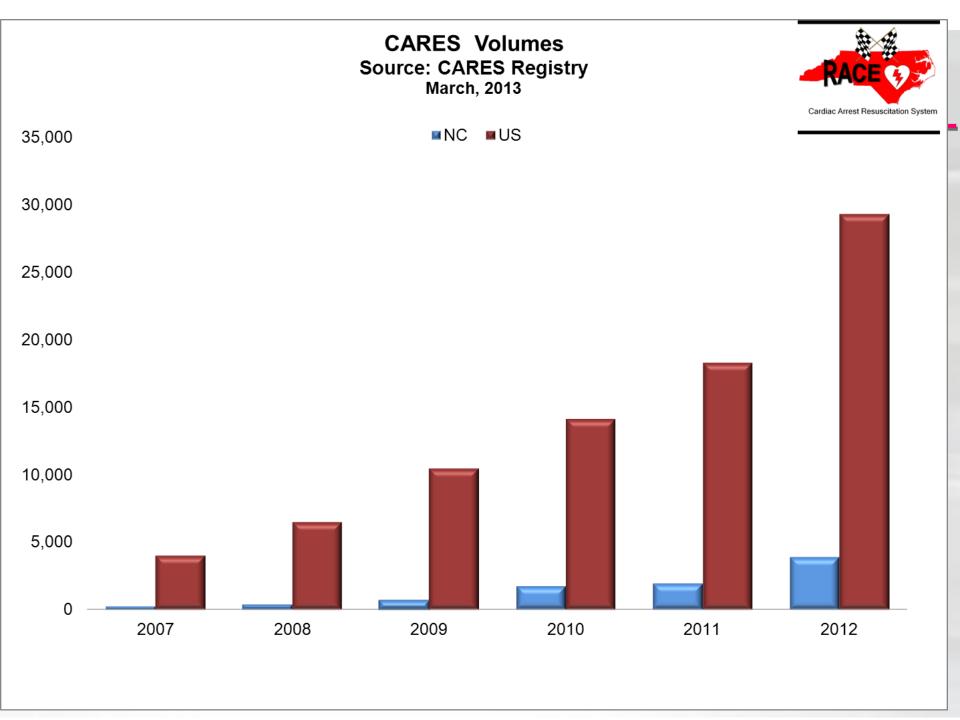
#### Overall

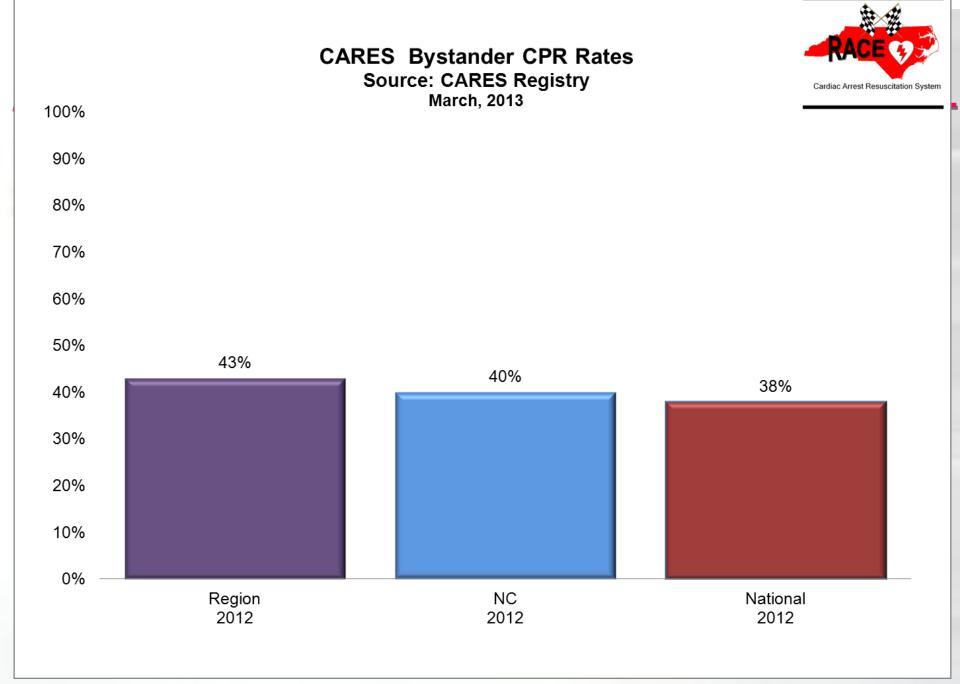
Cardiac Etiology

#### Utstein

- Cardiac Etiology
- Witnessed Arrest
- Found in V-fib / V-tach rhythm

Must compare apples to apples

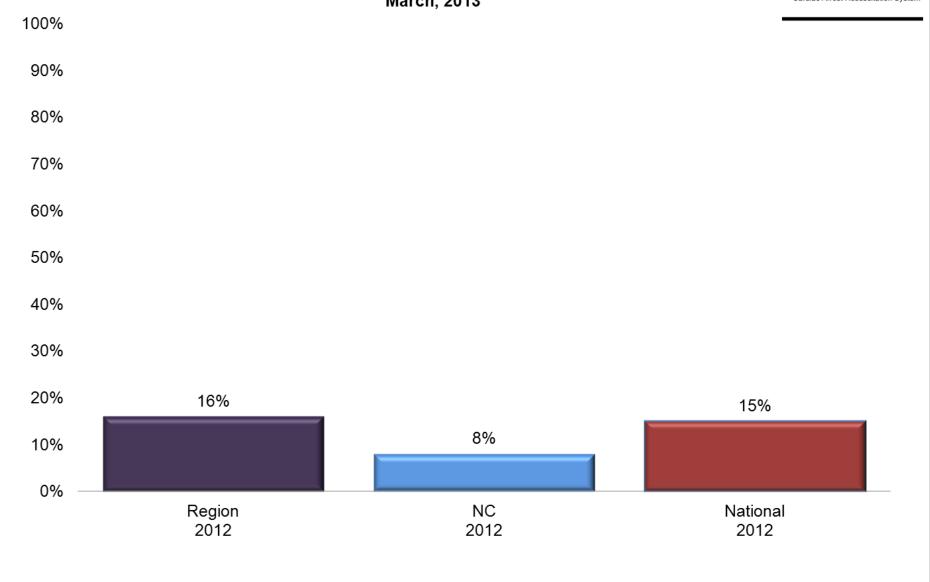






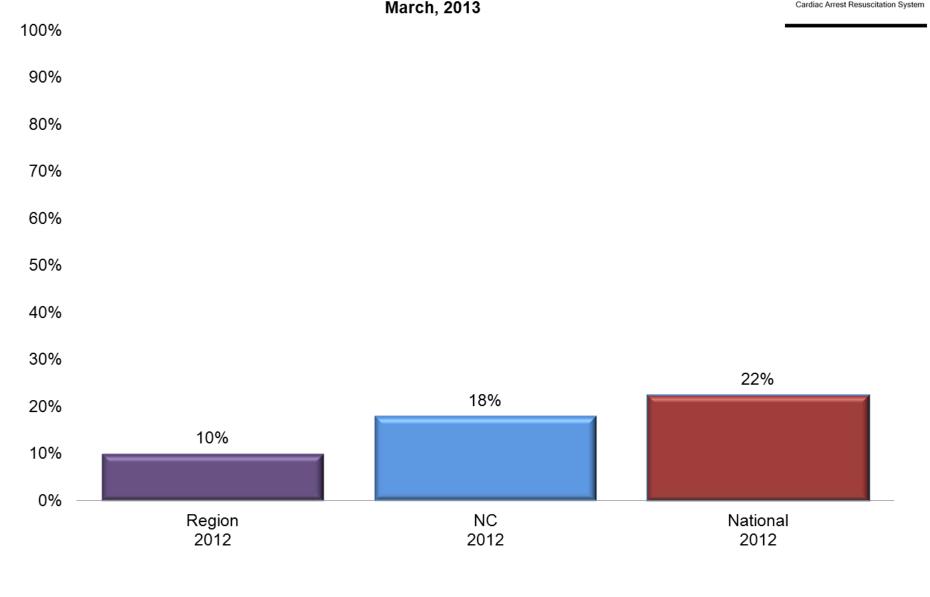
#### CARES AED Applied by a Bystander Rates Source: CARES Registry March, 2013





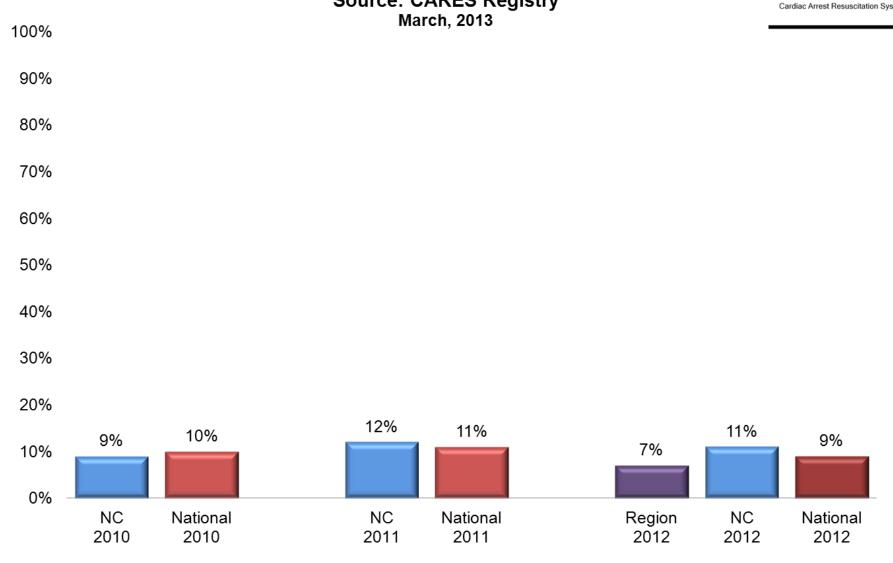
#### CARES Return of Spontaneous Circulation Source: CARES Registry March, 2013





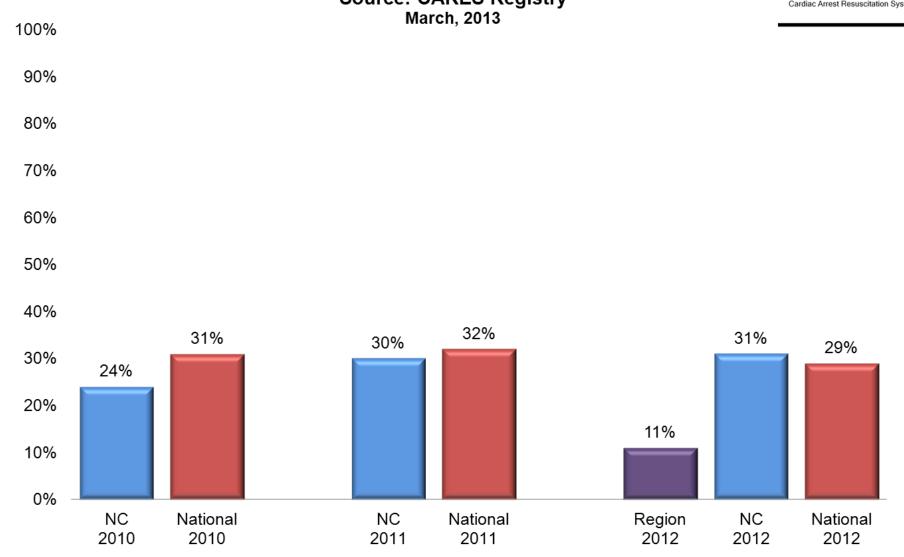
#### CARES Overall Survival Rates Source: CARES Registry March, 2013





#### CARES Utstein Survival Rates Source: CARES Registry March. 2013





### M North Carolina

- Estimated Cardiac Arrest 2012
  - 7189
- Estimated Survivors Overall 2012
  - -755
- A 1% change in survival = 72 lives

Extrapolated from 2012 CARES Data based upon population reporting per month.





#### HeartRescue Partners







#### **Program Goals:**

**Goal 1:** Improve Survival of Cardiac Arrest by 50% over 5 years in geographies we fund.

Goal 2: Increase and improve measurement of Sudden Cardiac Arrest.

**Goal 3**: Expand and improve national and global impact of the HeartRescue Project.

#### Program Results FY12- Q1FY13:

- Partner programs now covering 50% or more of state populations, and reported on baseline and 2011 survival outcomes. 900 survivors reported in 2011.
- New partners in FY12 (AMR), and FY13 (University of Illinois)
- All partners hosted 25 Resuscitation Academies and eLearning webinars reaching 1,000+ EMS/Hospital leaders with best practice education
- Partners presented to 1,200 EMS leaders at 8 events to date.
- 3 million people saved a life virtually with Save-a-Life Simulator on HeartRescueNow.com



Let's make NC the best place in the country to have a heart attack or a cardiac arrest!

