





# **RACE CARS**

## **Regional Approach to CV Emergencies**

### **Community**

**Lisa Monk MSN, RN, CPHQ**  
**Director NC RACE CARS**

<https://racecars.dcri.duke.edu/>  
<http://www.heartrescueproject.com/>



# Mission Lifeline and RACE CARS

- Discuss community strategies to improve Cardiac Arrest Care
- Review Grants Program



© Original Artist  
Reproduction rights obtainable from  
[www.CartoonStock.com](http://www.CartoonStock.com)



"Is it just me or is it a bad idea to eat at a place that prints CPR instructions on their placemats?"

search ID: mbcn1388



# Public Health Crisis:

- Have significant impacts on community health, loss of life, and on the economy
- Need transparency of data
- Creates accountability
- Can help leverage resources



# North Carolina: RACE CARS



- Challenges
  - EMS response times vary from 4-10 minutes, rural communities even longer
  - Victim's need CPR started within 4 minutes or brain damage begins to occur
  - At 10 minutes, without CPR, survival is not likely
- You can help by learning:
  - Early recognition of SCA
  - Early Access – call 911
  - Early CPR



Cardiac Arrest Resuscitation System



# Cardiac arrest in North Carolina

## From the CARES Registry:

Bystander CPR 23%

AED Use 1.3%

Public CPR training 3% / year

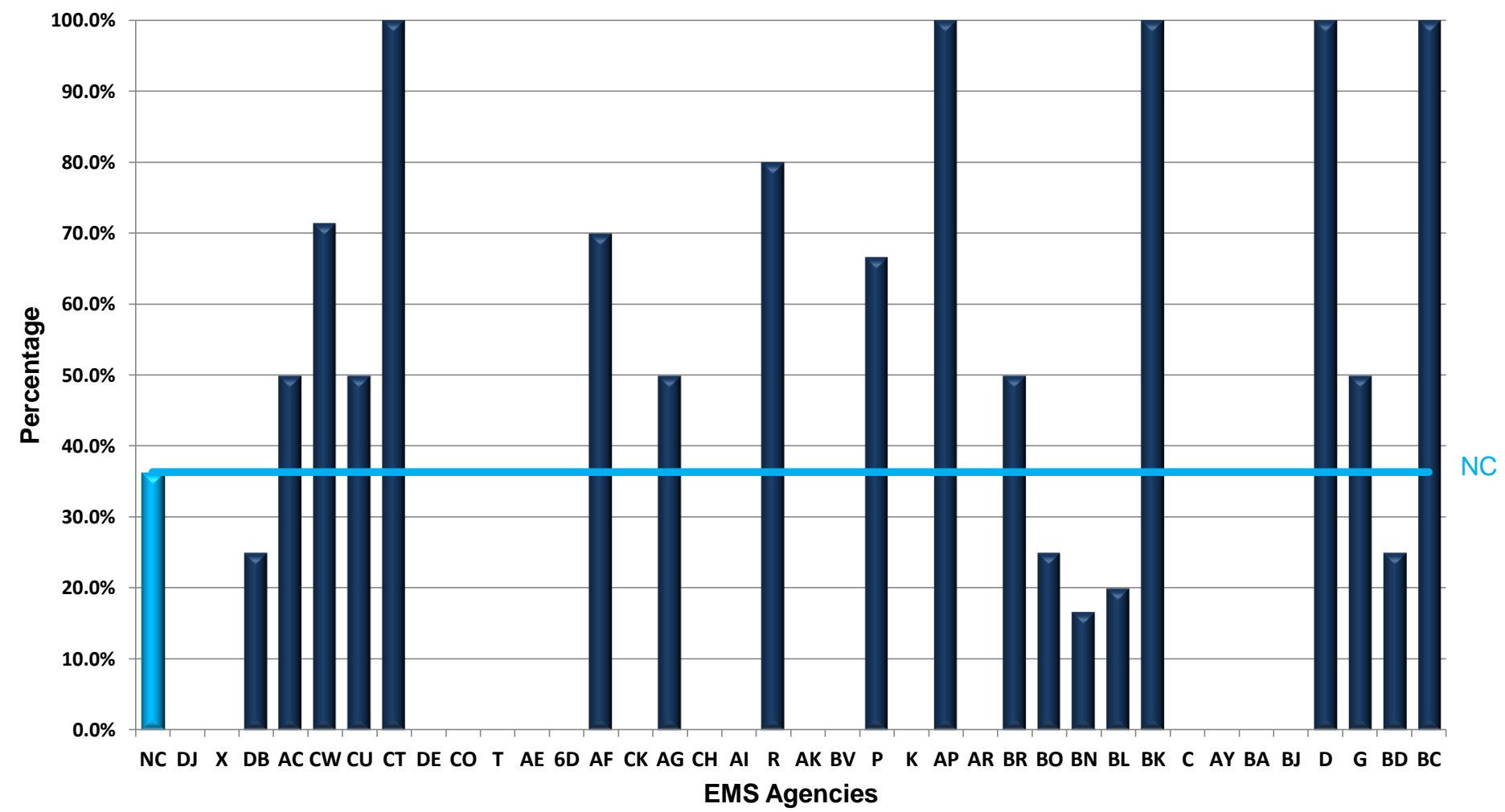
**32% Survival Rate**

(Utstein criteria)

Original CARES data from Wake, Durham and  
Mecklenburg Counties



# North Carolina CARES By-Stander CPR Rate in Public Places\* 2012 May 29, 2013

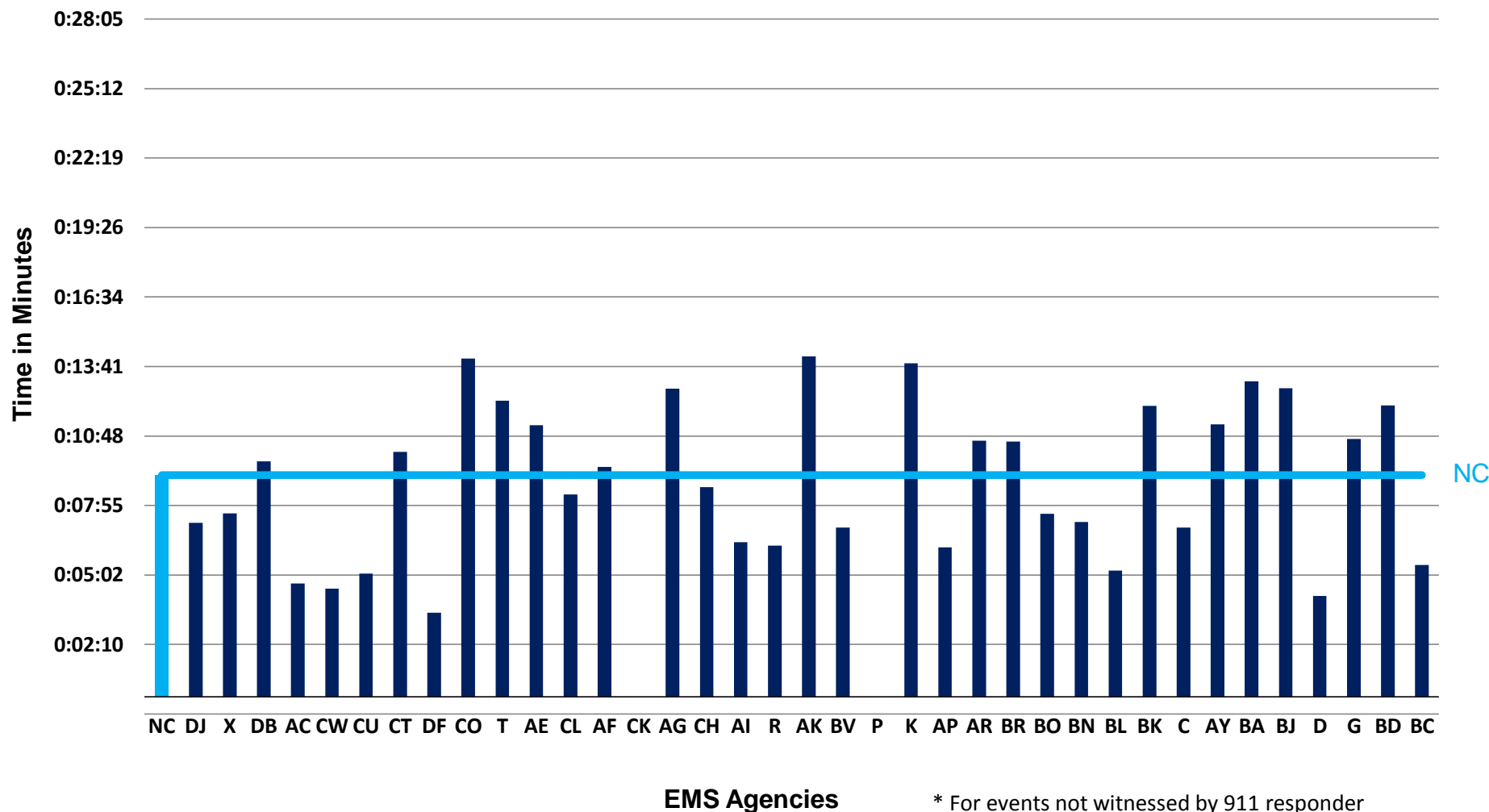


\* Location Types Public/Commercial, Industrial, Recreation & Transportation





# North Carolina CARES Mean Time to CPR\* 2012 May 24, 2013



\* For events not witnessed by 911 responder

# Adult Chain of Survival



1. Immediate recognition of cardiac arrest and activation of the emergency response system
2. Early CPR with an emphasis on chest compressions
3. Rapid defibrillation
4. Effective advanced life support
5. Integrated post–cardiac arrest care



# HeartRescue Flagship Premier Partner Program:

## **1st Chain: Community Response**

- i. Early SCA Recognition
- ii. Early 911
- iii. Early and effective bystander CPR or CCC
- iv. Early Public Access to AED

## **2nd Chain: Pre-Hospital Response**

- i. Enhanced dispatch
- ii. Enhanced/high performance CPR or CCC
- iii. Defibrillation care (e.g. one shock therapy for VF patients)
- iv. Pre-hospital hypothermia
- v. Drug delivery (e.g. Intra-osseous drug delivery)

## **3rd Chain: Hospital Response**

- i. Patient triage to Resuscitation Center of Excellence
- ii. Hypothermia as indicated by local protocol
- iii. 24/7 Cath Lab
- iv. Patient indicated therapies provided (e.g. ICD, PTCA, stent, CABG)
- v. Post survival patient and family education and support



# Community Plans:

Goal: Increase the rate of bystander CPR and AED use

- Coordination by hospitals
  - Survey to understand what resources exist today
- Certification vs Education
  - AHA/Red Cross
  - RACE CARS developed materials
- AED devices – funding and identification
- Train all hospital employees of some level of CPR
- Train all heart patients and families on discharge

EMS, First Responders, and Hospitals will work together to off community education

# Community Updates:

- [House Bill 837](#) -passed
  - requires students to learn CPR
  - pass a test showing proficiency in order to graduate
  - Effective with the Class of 2015
- [House Bill 914](#) -passed
  - requires at least one AED in every state building
  - state workers must be trained to use them





# Community Training

**Objective: To improve the rate of bystander CPR**

## Education

- |                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Identify leaders and interested community members to join your team. This should also include local hospitals, EMS agencies, fire, police, and community colleges  |
| <input type="checkbox"/> | Survey the community to understand what education exists around cardiac emergencies including CPR training, health fairs, hospital offerings, other health agency offerings  |
| <input type="checkbox"/> | Seek funding from local businesses, find grant opportunities on line, or partner with existing offerings   |
| <input type="checkbox"/> | Use RACE CARS material and/or AHA materials  |
| <input type="checkbox"/> | Train the Trainer – identify volunteers who are willing to teach community offerings and train them how to run a community education offering  |
| <input type="checkbox"/> | Participate in existing offerings or schedule your own – YMCA's, churches, Rotatory, Kiwanis, sporting events, events at the local stadiums/coliseums, schools-be creative   |
| <input type="checkbox"/> | Advertise: send emails, ask to post signs, talk to local TV/radio stations, be creative  |
| <input type="checkbox"/> | Count how many are trained at each event:<br>Use this link to provide your event information:<br><b><u><a href="https://duke.qualtrics.com/SEI?SID=SV_e4FROMWMPQ8DqNC">https://duke.qualtrics.com/SEI?SID=SV_e4FROMWMPQ8DqNC</a></u></b><br>This information includes: event name, location, numbers trained, and type of training |
| <input type="checkbox"/> | We will be tracking bystander CPR rates and survival rates in every community across NC  |

## RACE CARS Community Report May 22, 2013

	July 1, 2012 To June 30, 2013	July 1, 2011 to June 30, 2012	July 1, 2011 to June 30, 2013
<b>Metric</b>	<b>Count</b>	<b>Count</b>	<b>Total</b>
# of participants trained:	8,426	10,230	18,656
Events	86	125	211
	<b>Percentage</b>	<b>Percentage</b>	
<b>Method</b>			
Discussion	21%	20%	
Lecture			
Demonstration	26%	21%	
Scenario		16%	
Handouts	24%	19%	
DVD	7%	3%	
Practice	22%	21%	
answers n=322			
<b>Content</b>			
Stroke	12%	13%	
Heart Attack	15%	15%	
Cardiac Arrest	17%	17%	
Recognition of Emergency	17%	17%	
Calling 9-1-1	17%	17%	
Compression Only CPR	17%	17%	
Breathing and compression CPR	2%	3%	
AED	4%	2%	
<b>Counties Represented</b>	16%	22%	



# Public Access Device:

## **Public Access Defibrillation Program**

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Identify leaders and interested community members to join your team. This should also include local hospitals, EMS agencies, fire, police, and community colleges |
| <input type="checkbox"/> | Survey the community to identify locations of AED's.  |
| <input type="checkbox"/> | Obtain contact information for the responsible party for each AED   |
| <input type="checkbox"/> | Work with local EMS to get the AED locations into their 911 system (ability to track AED info – when pads expire, battery expiration, etc)                        |
| <input type="checkbox"/> | Seek funding from local businesses or find grant opportunities to fund AED's for locations with >250 people   |

## **American Heart Association and American Red Cross CPR Training**

- |                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Identify AHA and ARC classes for communities |
|--------------------------|--|



# AED Challenges:

- AED's already placed in community
- Maintenance:
  - Battery and Pad life
- Location reported to 9-11
- How do we find, report, and track existing AED's?



# Strategies:

- Investigate national, local, and school AED tracking systems
- Call businesses, schools, churches, health clubs
- Media campaign to locate
- Other: intern, HOSA project, club project



# Celebrate Success?



Why is it important to Celebrate Success?

- Provides positive feedback
- Energizes all parties involved
- Builds support for your program
- Provides solid examples of success – for others to copy.



# Ways to Celebrate

- Early outcome feedback to **all** parties involved.
- Annual Survivor Dinners
- Individual Case Celebrations
- Certificates for all involved.
- Invite/Inform Press as appropriate.
- Videos



# Grant Program:

- Grant Objectives:
  - Increasing bystander CPR rates
  - Increasing bystander AED use
  - Improving high quality CPR and Pit Crew approach to resuscitation
- Funding Priorities:
  - Strengthen the “Community Response” in the Chain of Survival
  - Improve System of Care in Community
  - Implement sustainable and measurable strategies
  - Collaborate with external partners across multiple agencies



# Eligibility Criteria:

- Actively participating in initiatives that improve outcomes of SCA
- The region from which the grant covers must be actively submitting data into the CARES Registry and agree to continue for at least one year after grant awards are made
- Funding requests for equipment must include a plan to implement education, training and/or outreach programs, as well as a maintenance plan to ensure sustainability



# Process

- **Size and Term:**
  - Grants shall range in size from \$2000-\$5000
  - Grants are for a one year period
  - If your program requires IRB approval, the approval must be obtained before grant funds can be issued.
- **Application:**
  - No more than 2 pages (excluding budget)
  - Sample Budget worksheet included
  - Will send by email
  - Post on website after first round (pilot/feedback)
- **Deadlines:**
  - **March 31, 2014** – notification of award by April 30
  - **April 30, 2014** - notification of award by May 30
  - **May 30, 2014** - notification of award by June 30
  - **June 30, 2014** - notification of award by July 31

*SUBMIT TO: [Kathy.montero@duke.edu](mailto:Kathy.montero@duke.edu)*

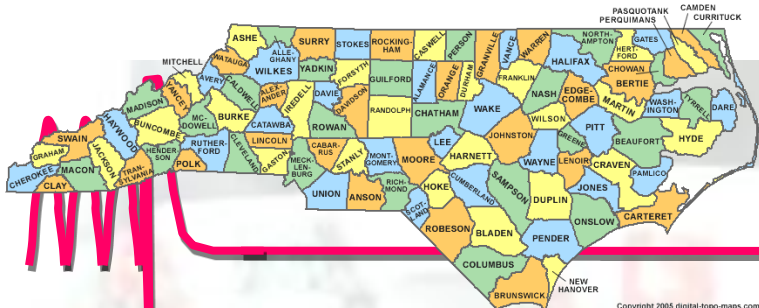


# Improving outcomes in cardiac arrest

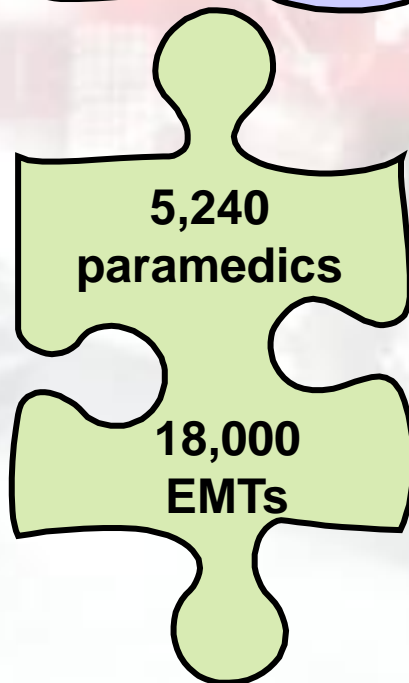
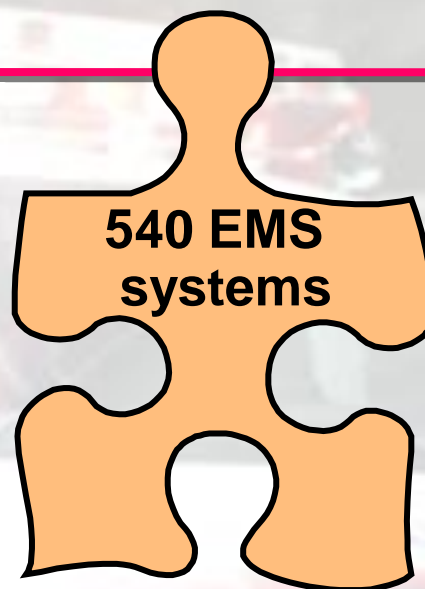
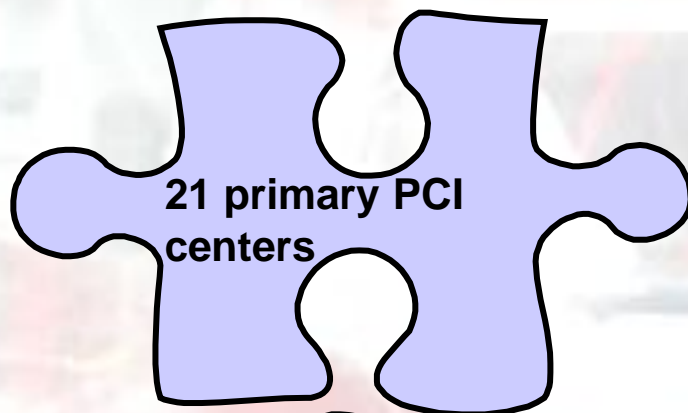
## Conclusions:

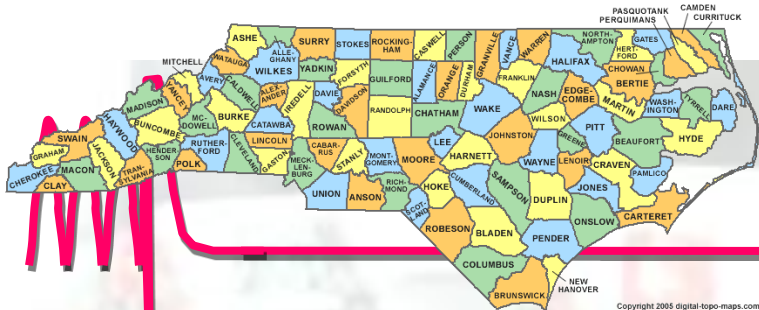
- Cardiac arrest is common and the third leading cause of death.
- Victims of out of hospital cardiac arrest are unlikely to survive
- Simple interventions in the chain of survival are likely to improve survival
- Data drives change

**USE YOUR CARES DATA  
TO IT'S FULL POTENTIAL!**

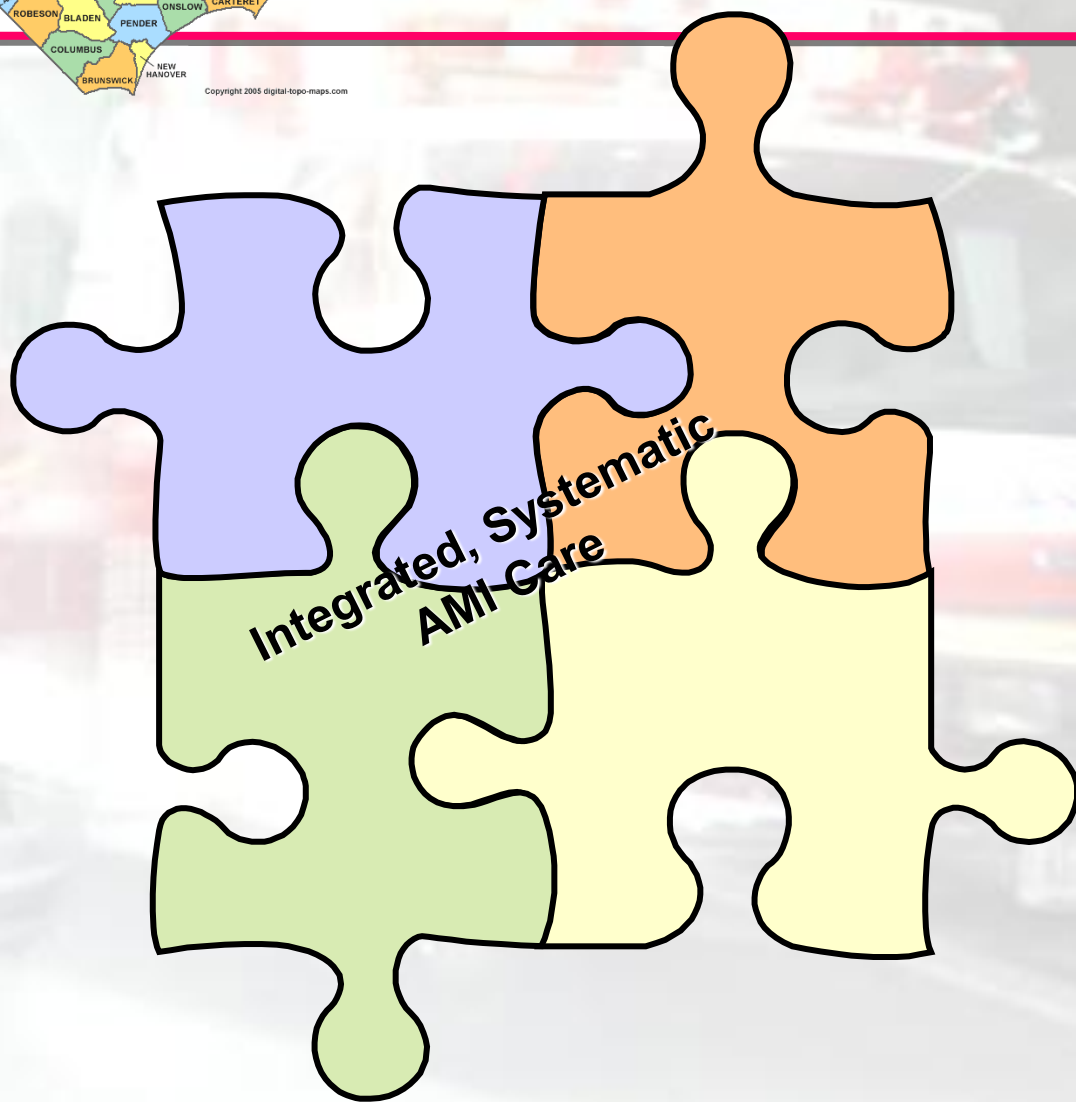


Copyright 2005 digital-topo-maps.com





Copyright 2005 digital-topo-maps.com



**Integrated, Systematic  
AMI Care**

