

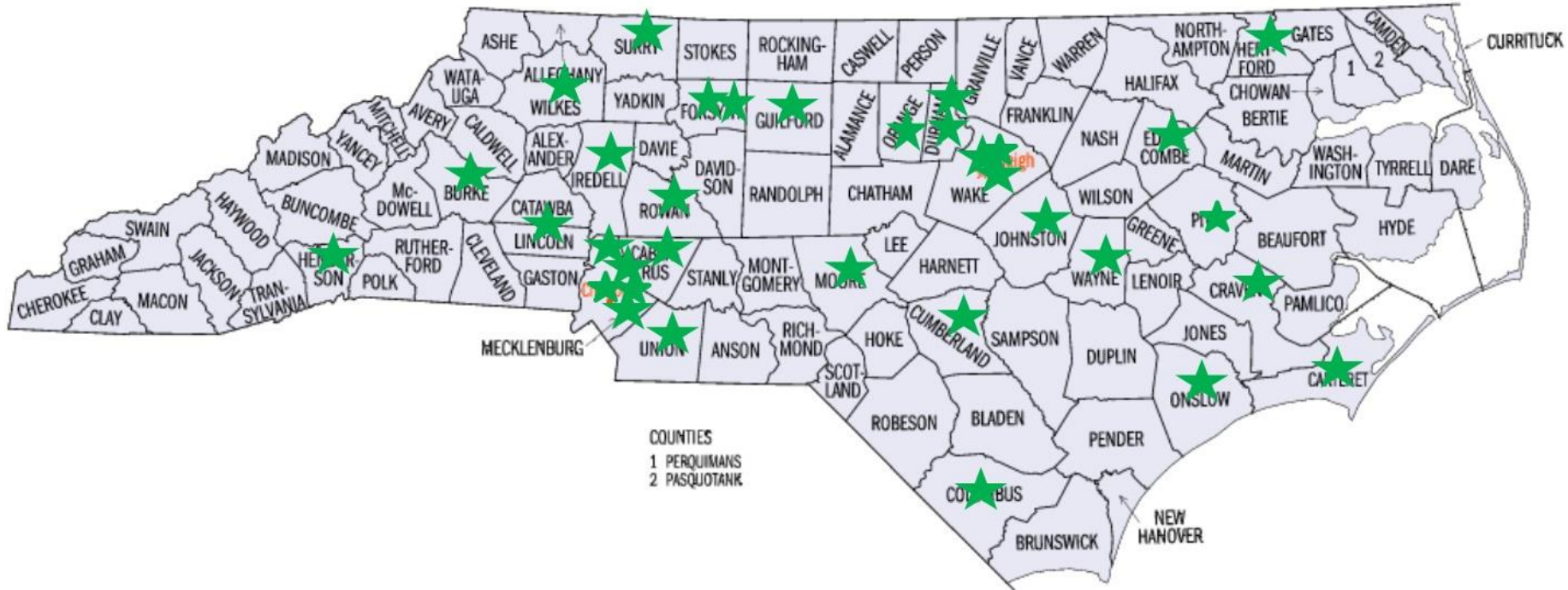
# North Carolina Stroke Systems of Care Survey

Presented on behalf of the Integrating & Accessing Care Work Group  
of the Stroke Advisory Council

# Survey Overview

- ▶ The survey was developed with input from the Integrating & Accessing Care WorkGroup at our last face-to-face meeting and then reviewed by a small group of stroke coordinators prior to sending
- ▶ The final survey was sent electronically to stroke contacts at 70 hospitals across North Carolina
- ▶ Survey open from April 14, 2017 to May 2, 2017
- ▶ 18 questions
- ▶ 34 hospitals responded to the survey

# Survey Responses



# Certified Stroke Centers

Is your hospital a certified stroke center?	Percent	#
Yes, Comprehensive Stroke Center	11.1%	4
Yes, Primary Stroke Center and applying for Comprehensive Stroke Center in the next 6 months	5.9%	2
Yes, Primary Stroke Center and applying for Comprehensive Stroke Center in the next year	5.9%	2
Yes, Primary Stroke Center	38.2%	13
Yes, Acute Stroke Ready Hospital	5.9%	2
No	32.4%	11
TOTAL # OF HOSPITALS		34

- 34 hospitals participated in the survey
- Of the 11 who are not currently certified, 5 intend to apply for Primary Stroke Center certification and 1 for Acute Stroke Ready Hospital certification in the next year

# Interventional Stroke Centers

Does your hospital offer interventional stroke services?		
	Percent	#
No	67.6%	23
Yes, 24/7	26.5%	9
Yes, but not 24/7. Please describe when your services are provided:		
1 – Mon-Fri 8:00am-5:00pm in a few months	5.9%	2
2 – Every other week 24/7		
TOTAL # OF HOSPITALS		34

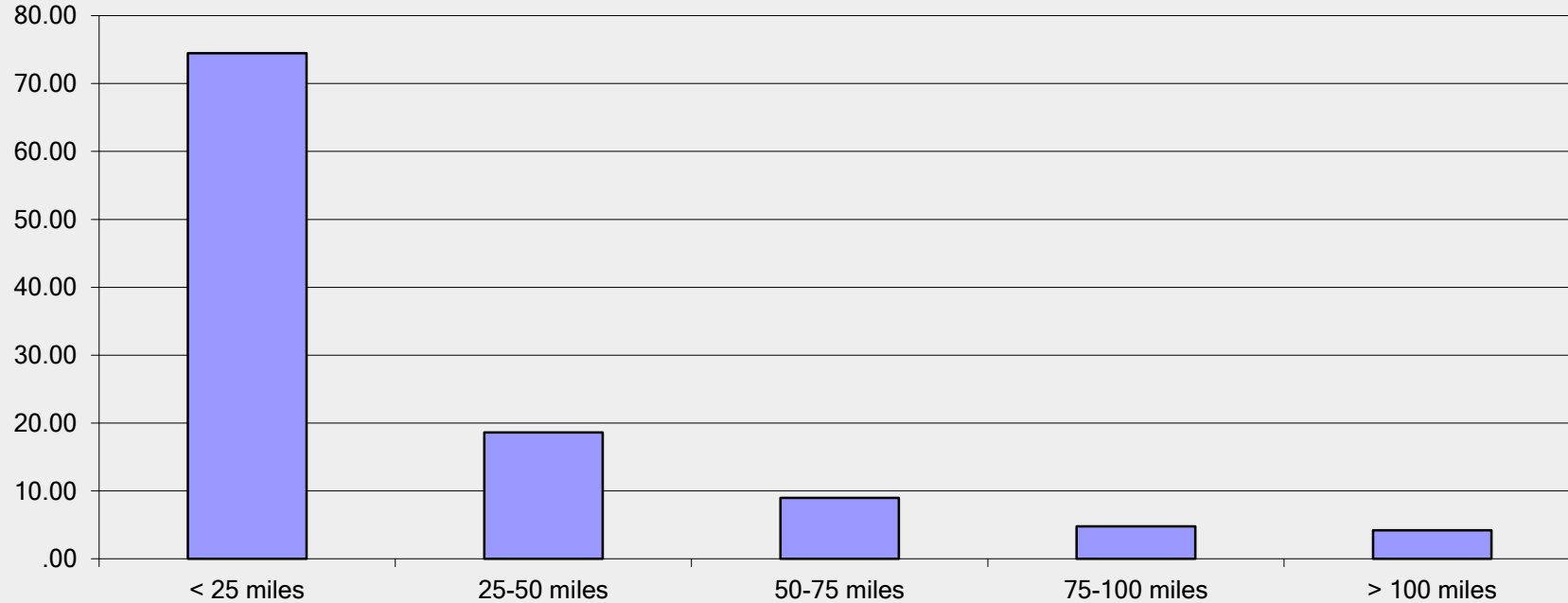
- 11 interventional hospitals responded to the survey
- 9 hospitals are 24/7
- 2 hospitals provide interventional services but are not 24/7

# Who is performing the procedures?

If yes, who is performing your interventions?		
	Percent	#
Neurosurgery	72.7%	8
Cardiology	0.0%	0
Neurology	9.1%	1
Interventional Radiology	81.8%	9
Other (please specify)	0.0%	0
TOTAL # OF INTERVENTIONAL HOSPITALS		11

# How far are patients traveling for stroke care?

Using your best estimate, what percentage of your stroke patients travel to your hospital from:



# Telestroke Services

Does your hospital participate in telestroke services?		
	Percent	#
Yes, my facility is a hub (provides telestroke services)	20.6%	7
Yes, my facility is a spoke (receives telestroke services)	44.1%	15
No	35.3%	12
TOTAL # OF HOSPITALS		34



# Transfer Policy to Interventional Facility?

If your hospital has a policy for transfer to interventional facility, do you have a door-in-door out goal? If so, what is it?

	Percent	#
My hospital is an interventional facility.	26.5%	9
I am not sure if my hospital has a transfer to interventional facility policy in place.	5.9%	2
My hospital is in the process of putting a transfer to interventional facility policy in place.	20.6%	7
My hospital DOES NOT HAVE a transfer to interventional facility policy in place.	11.8%	4
My hospital HAS a transfer to interventional facility policy in place, and our door-in-door-out goal is:	35.3%	12

- Of those hospitals with a transfer to interventional facility policy:
  - 5 hospitals = No door-in-door-out goal
  - 4 hospitals = 2 hours
  - 1 hospital = 60 minutes
  - 2 hospitals = 30 minutes

# EMS: Stroke Screening Tools

	Percent	#
Cincinnati Pre-Hospital Stroke Scale (CPSS)	50.0%	17
Los Angeles Pre-Hospital Stroke Scale (LAPSS)	32.4%	11
NIH Stroke Scale (NIHSS)	8.8%	3
Miami Emergency Neurological Deficit (MEND)	23.5%	8
Other: FAST FAST-G	5.9%	2

# EMS: Stroke Severity Tools

Do your primary EMS agencies utilize a stroke severity scale for assessment of a large vessel occlusion?

	Percent	#
Yes	13.5%	5
No	51.4%	19
Unknown	35.1%	10

	#
Cincinnati Stroke Triage Assessment Tool (CSTAT)	2
Field Assessment Stroke Triage for Emergency Destination (FAST-ED)	0
Los Angeles Motor Scale (LAMS)	3
Rapid Arterial Occlusion Evaluation Scale (RACE)	2
Vision, Aphasia Neglect Assessment (VAN)	0
Other: FAST-G	1

- The sensitivity and specificity of these severity tools vary greatly.
- There should be much thought and consideration given to the severity tool used to consider potential for over-triage.

# Regions Currently Reassessing EMS Stroke Triage Algorithm?

Is your region currently in the process of reassessing your EMS stroke triage algorithm to include destination protocols for suspected large vessel occlusions?

	Percent	#
Yes	41.2%	14
No	11.8%	4
Unknown	47.1%	16

# Current Challenges

- ▶ Leadership
- ▶ Multiple EMS agencies
- ▶ Standardization of protocols
- ▶ Strict adherence to protocols
- ▶ Weather
- ▶ Traffic
- ▶ Availability of transfer ACLS vehicles and helicopters
- ▶ Education

# Current Challenges

- ▶ Time to transfer
- ▶ Delay in telestroke process
- ▶ Possible need for telemedicine stroke ambulance
- ▶ Staff resources
- ▶ Lengthy process to implement change
- ▶ Delay in patient arrival to hospital
- ▶ Geography (large rural area, etc)
- ▶ Competitive hospitals
- ▶ Reliable tool for identification of LVOs in the field

# Questions & Comments