Data Source: CP-MI Registry: 11.15.24

MISSISSIPPI
Healthcare Alliance

SYSTEMS OF CARE UPDATE

HARPER STONE, MD, FACC
MHCA PRESIDENT
MISSISSIPPI HEALTHCARE ALLIANCE

NEUROCARDIAC CONFERENCE

MISSISSIPPI
Healthcare Alliance

Data Source: CP-MI Registry. 11.15.24

2009

MHCA was founded in August 2009 with 5 Hospitals with the mission to improve the health status of Mississippians. MHCA's vision was to unite stakeholders and align efforts that reduce morbidity, mortality, and cost associated with problematic disease process that plague our community.

2010

MHCA established the STEMI System of Care. The North, Central and South Regions were created to help coordinate and improve the quality of care delivered to STEMI patients, reducing related mortality and morbidity. The SOC was adopted by the Mississippi Department of Health (MSDH) in 2011.

2013

MHCA established the Stroke System of Care, that was adopted by the MSDH. The Stroke SOC was divided into the three regions to help unite local area stakeholders provide timely diagnosis and treatment to decrease mortality and morbidity in Mississippi.

2025

MHCA has developed into a collaborative team throughout the State of Mississippi, comprising various EMS agencies, STEMI Receiving Hospitals, and Stroke Hospitals. Our ongoing commitment to educate healthcare professionals and communities, provide funding for quality registries, and foster strategic partnerships with the American Heart Association®, American College of Cardiology®, myCares™, and MSDH.

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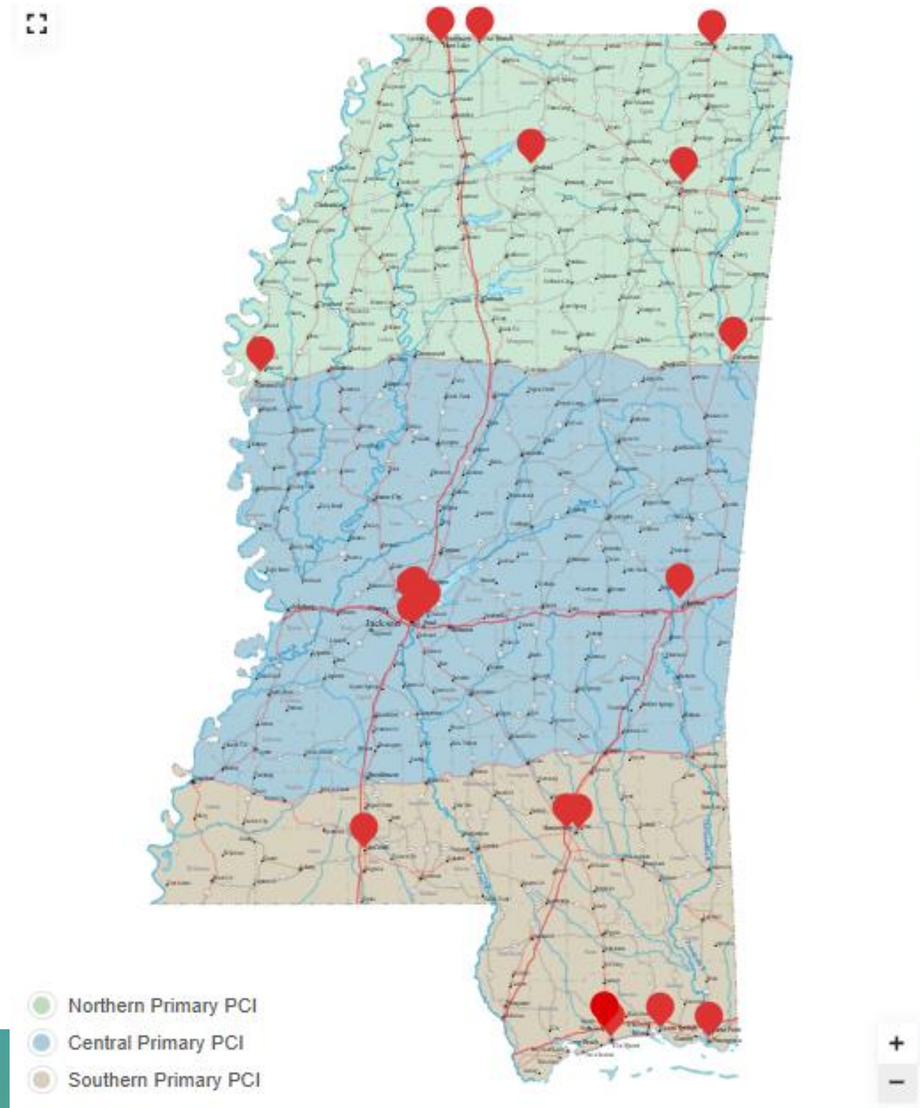
Data Source: CP-MI Registry. 11.15.24



Northern STEMI Receiving Hospitals

Baptist Memorial Hospital DeSoto
Baptist Memorial Hospital North Mississippi
Baptist Memorial Hospital Golden Triangle
Delta Regional Medical Center
Magnolia Regional Health Center
Methodist Olive Branch Hospital
North Mississippi Medical Center

Central STEMI Receiving Hospitals

Merit Health River Oaks
Mississippi Baptist Medical Center
St Dominic Hospital-Jackson Memorial Hospital
University of Mississippi Medical Center

Southern STEMI Receiving Hospitals

Forrest General Hospital
Memorial Hospital at Gulfport
Merit Health Wesley Medical Center
Singing River Gulfport
Singing River Health System Ocean Springs
Singing River Health System Pascagoula
Southwest Regional Mississippi Medical Center

MS STEMI RECEIVING CENTERS

Data Source: CP-MI Registry. 11.15.24

ELEMENTS OF THE STEMI SYSTEM OF CARE

STEMI Receiving Centers are designated by site visits or by reciprocity and must follow the STEMI SOC Rules and Regulations.

STEMI Receiving Centers collect and submit data to the ACC/NCDR Chest Pain-MI Registry™ .

STEMI PI Committee reviews key metrics from ACC/NCDR Chest Pain-MI Registry™ Executive Dashboard on an aggregate and individual hospital level.

The STEMI Advisory provides guidance and technical assistance for the application and operation of the state STEMI Plan.

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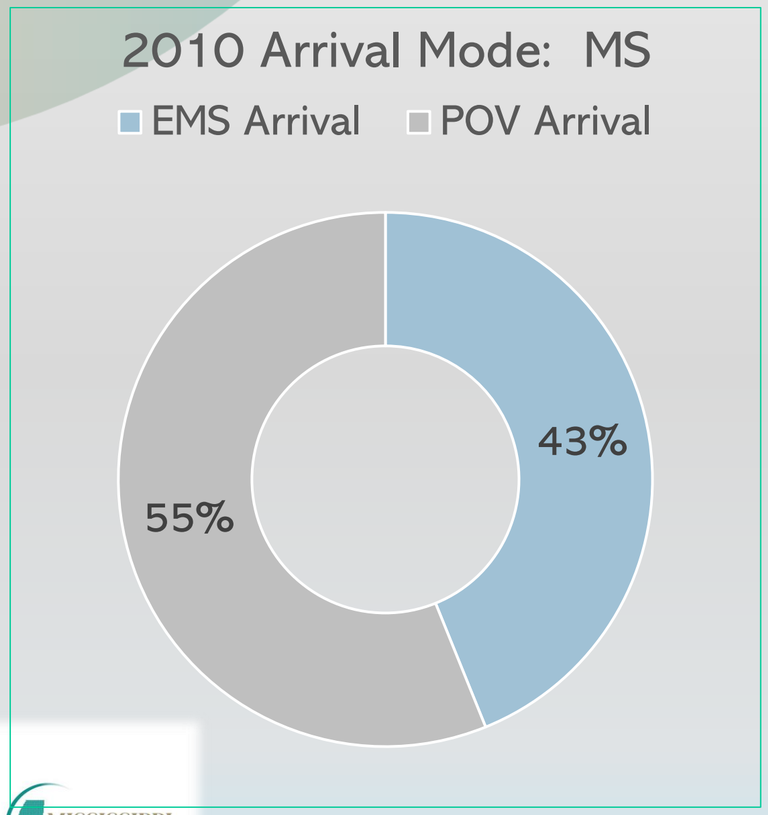
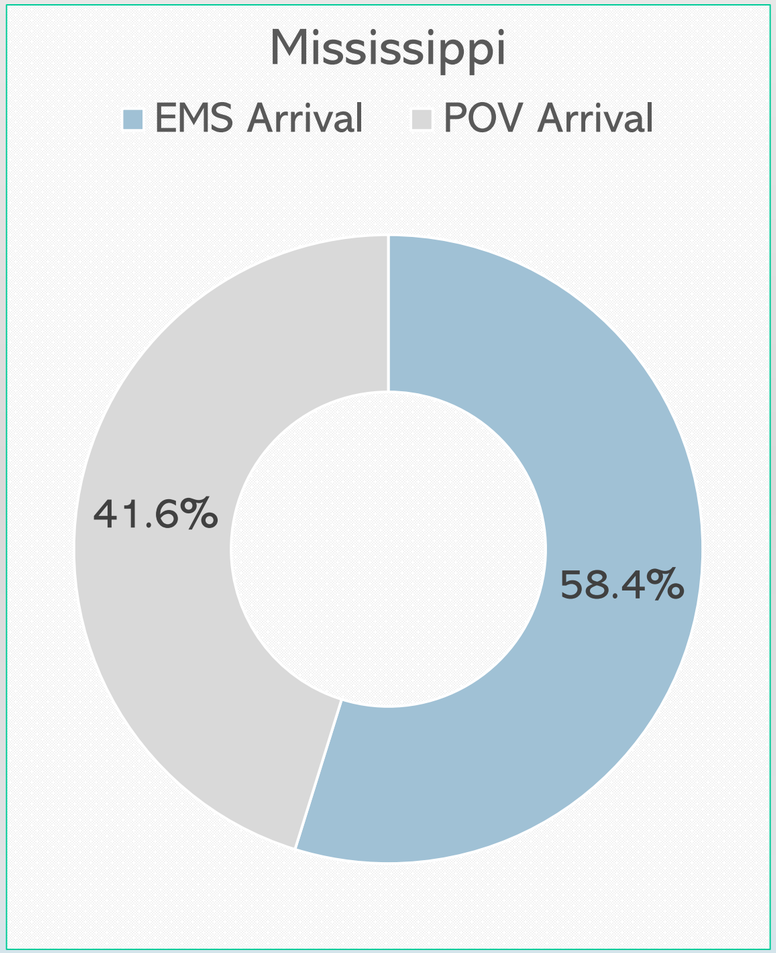
Data Source: CP-MI Registry. 11.15.24

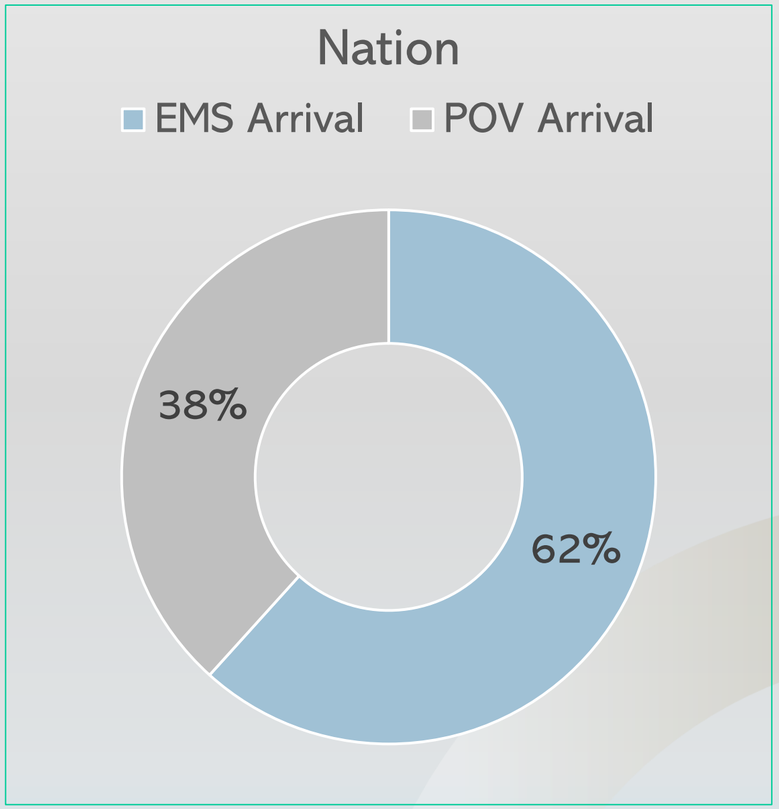
STEMI PATIENTS: ARRIVAL MODE

MEASURED BY PERCENTAGE

ROLLING 4Q 2Q2024







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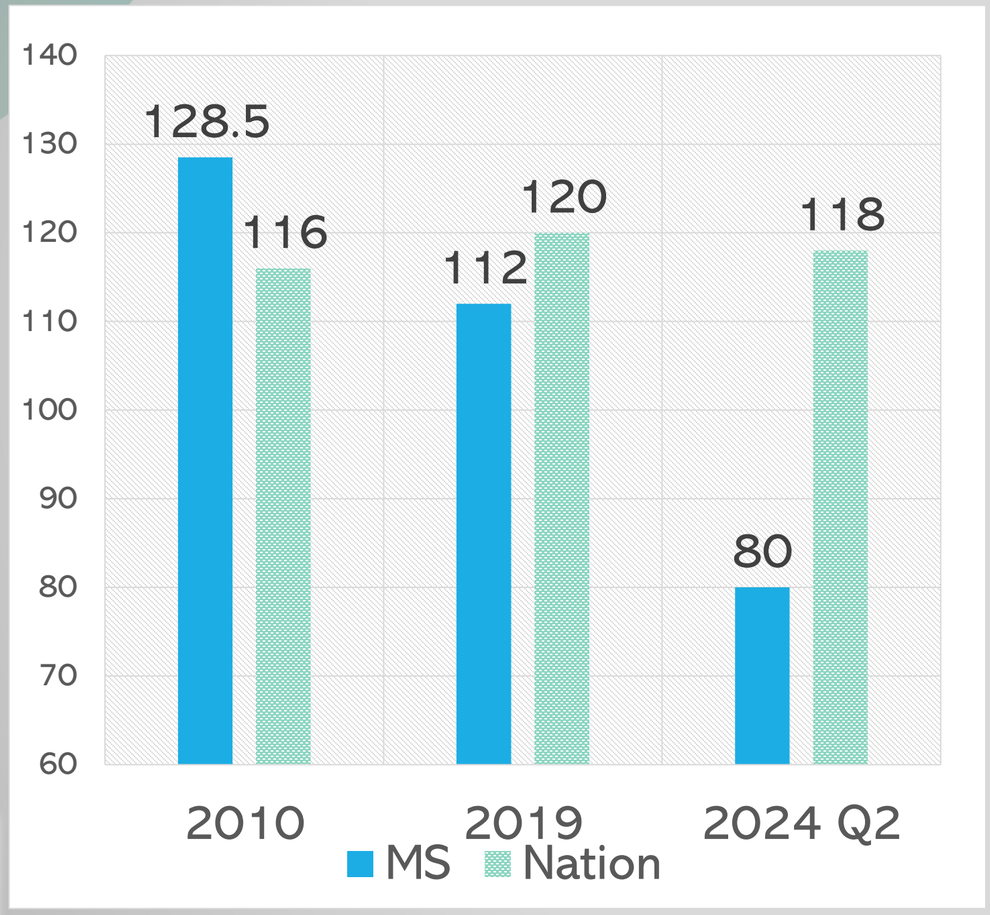
SYMPTOM ONSET TO ARRIVAL:

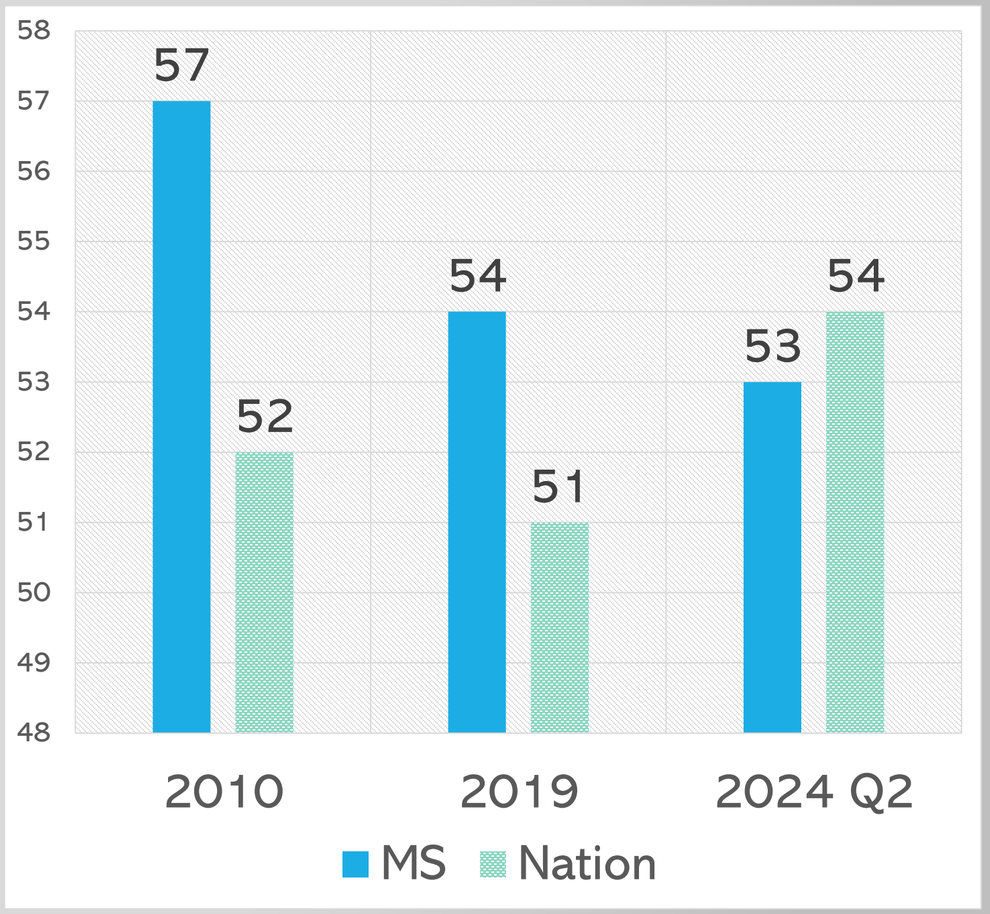
MEDIAN MINUTES
ROLLING 4Q

Data Source: CP-MI Registry. 11.15.24

STEMI Patients: POV Arrival



STEMI Patients: EMS Arrival



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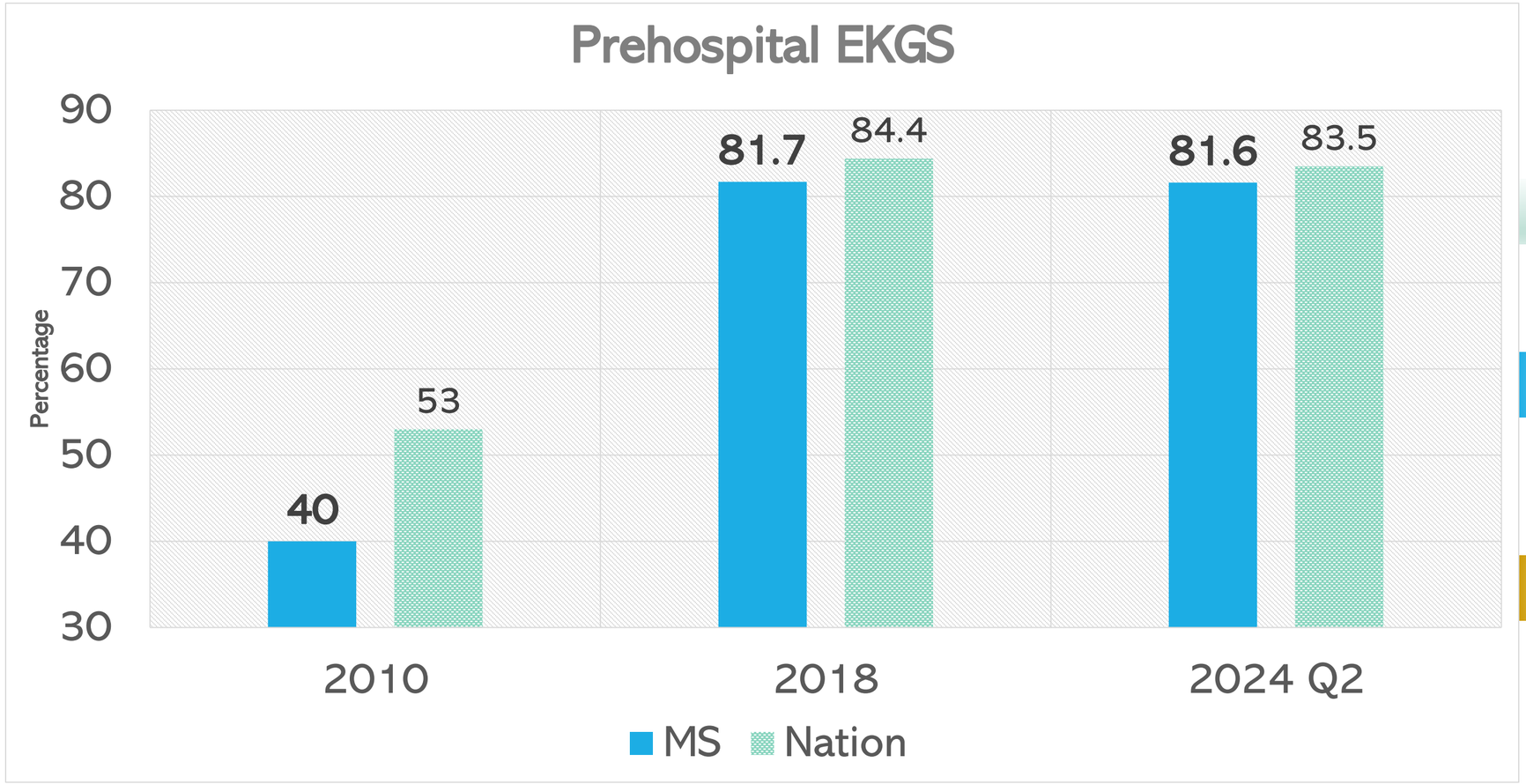
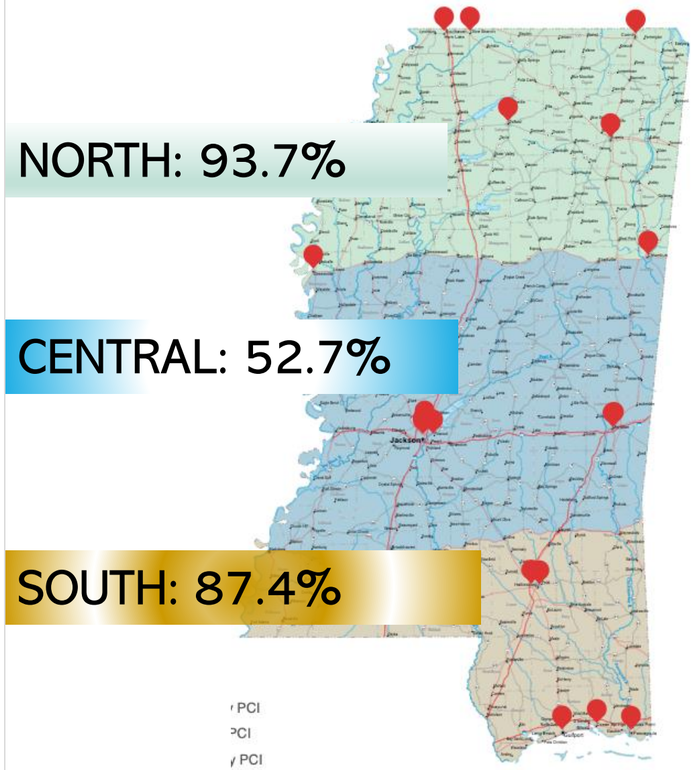
Data Source: CP-MI Registry. 11.15.24





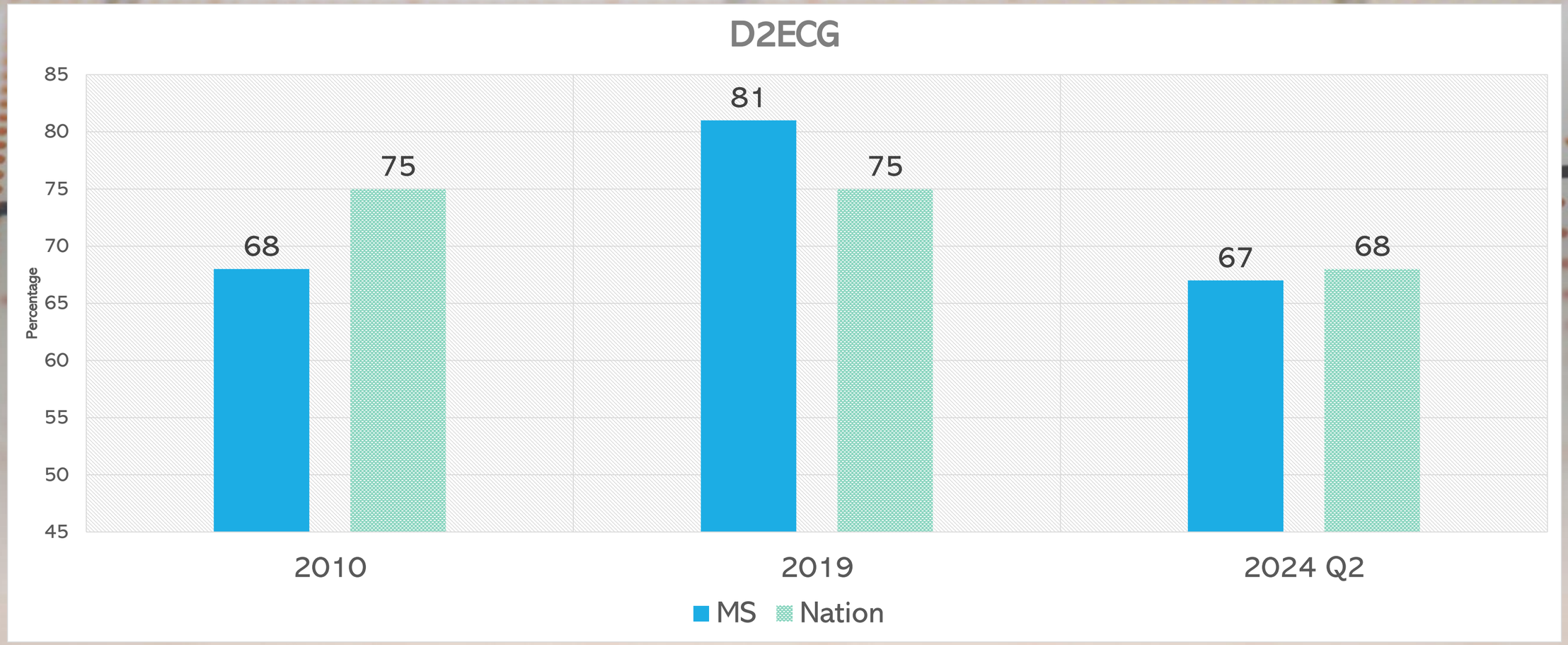
STEMI PATIENTS WITH PRE-HOSPITAL ECG: IN PERCENTAGE

ROLLING 4Q

Data Source: CP-MI Registry. 11.15.24

HOSPITAL ARRIVAL TO ECG ≤10 MIN IN PERCENTAGE

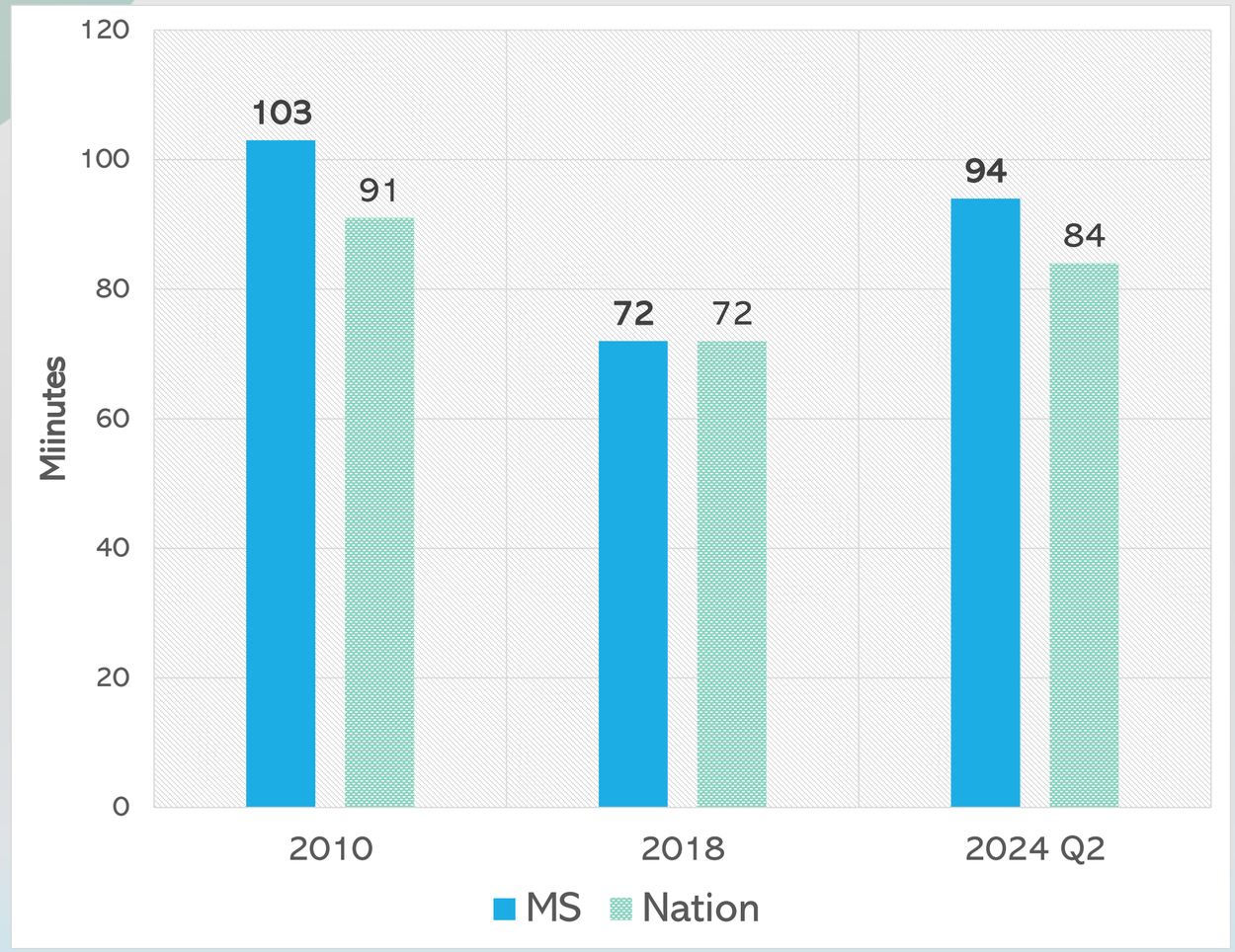
ROLLING 4Q DATA

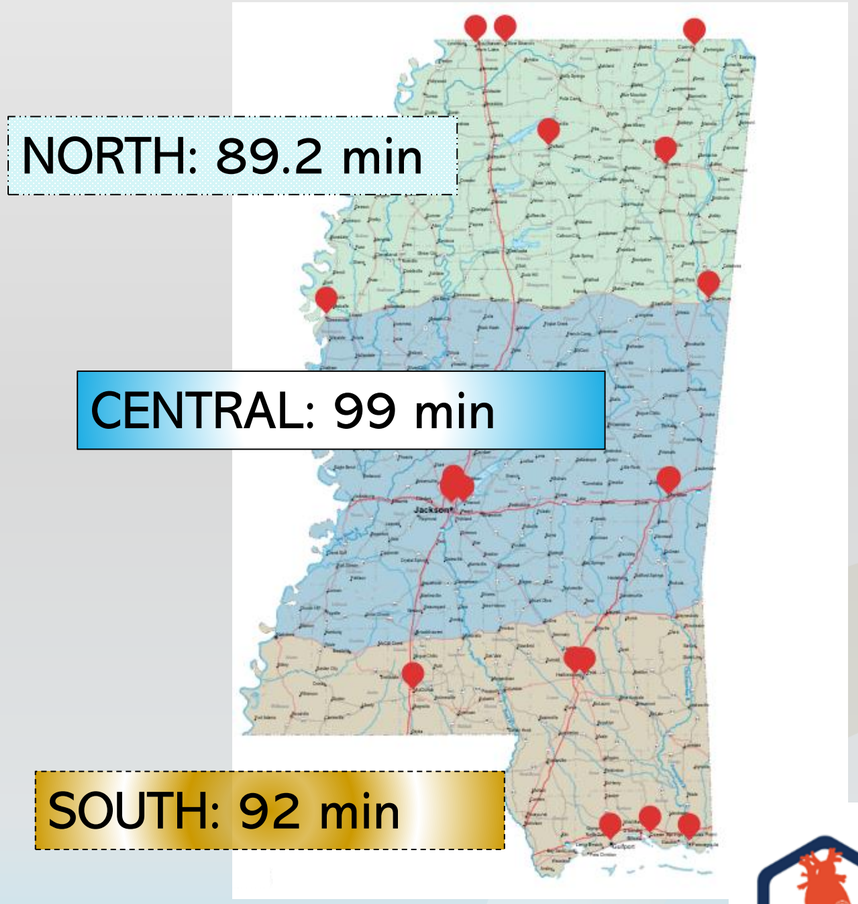


FIRST MEDICAL CONTACT TO DEVICE TIME WITH EMS PATIENTS

MEASURED BY MEDIAN MINUTES

GOAL: ≤90 MIN





MISSISSIPPI Healthcare Alliance

CHEST PAIN - MI REGISTRY

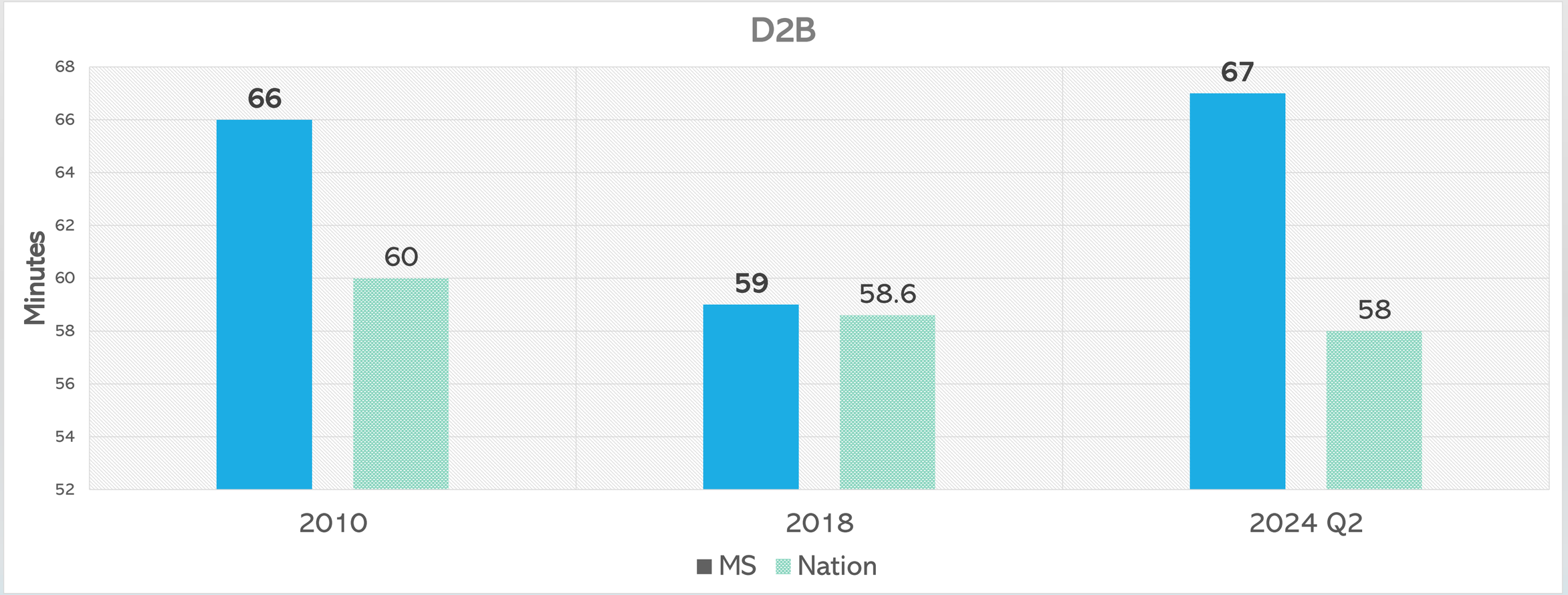
Data Source: CP-MI Registry. 11.15.24

Data Source: CP-MI Registry. 11.15.24

HOSPITAL ARRIVAL TO DEVICE TIME: EMS AND POV PATIENTS

MEASURED IN MEDIAN MINUTES

GOAL: < 90 MIN.

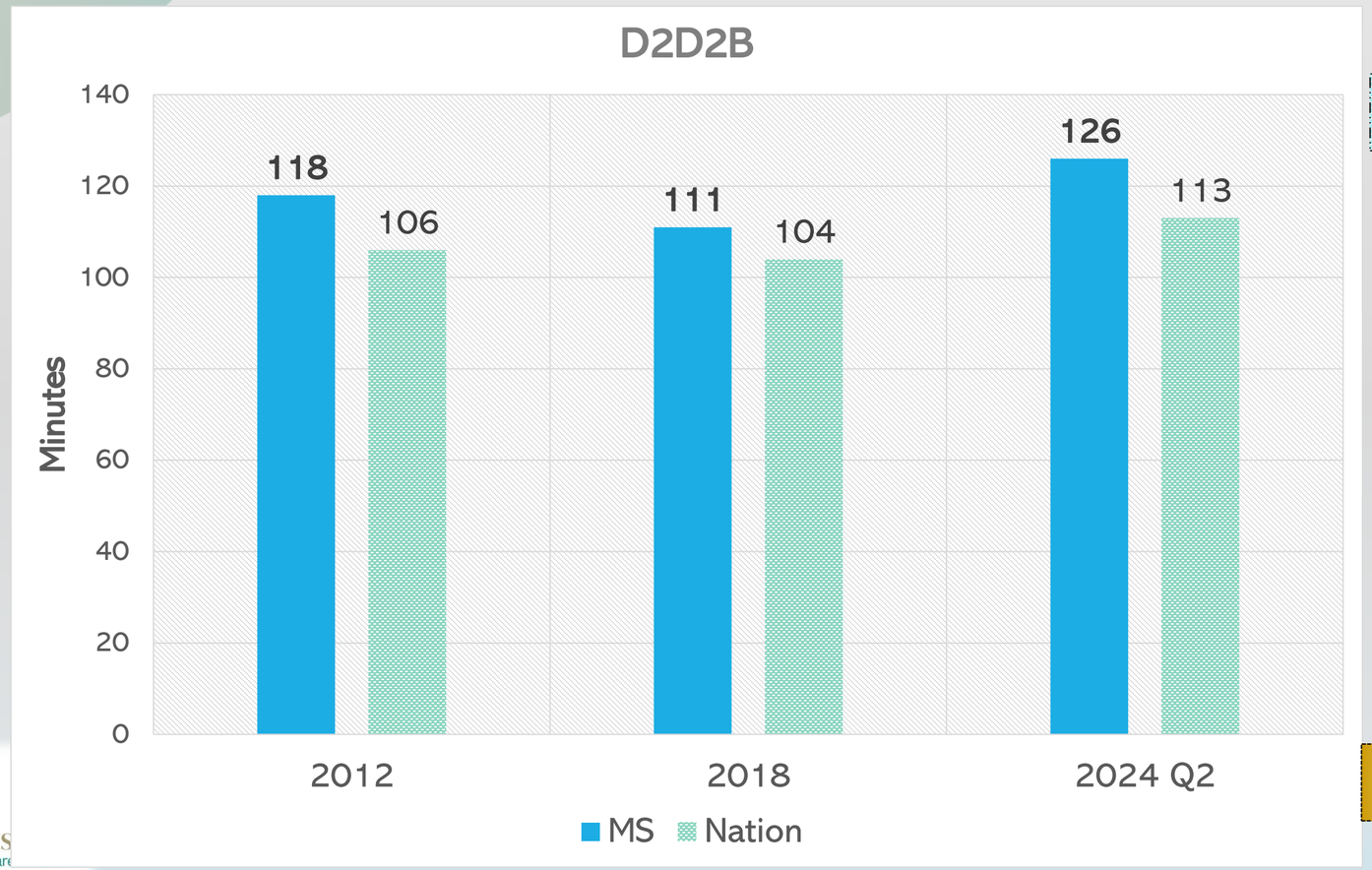


Data Source: CP-MI Registry. 11.15.24

TRANSFERRED STEMI PATIENTS: FIRST FACILITY ED ARRIVAL TO DEVICE

MEASURED IN MEDIAN MINUTES

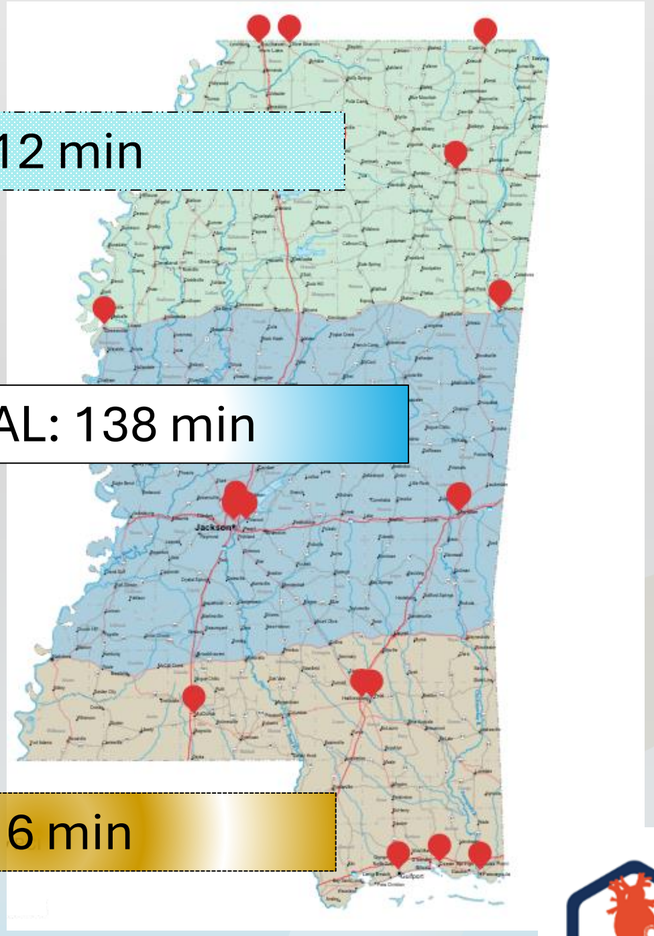
GOAL: ≤120 MIN.



NORTH: 112 min

CENTRAL: 138 min

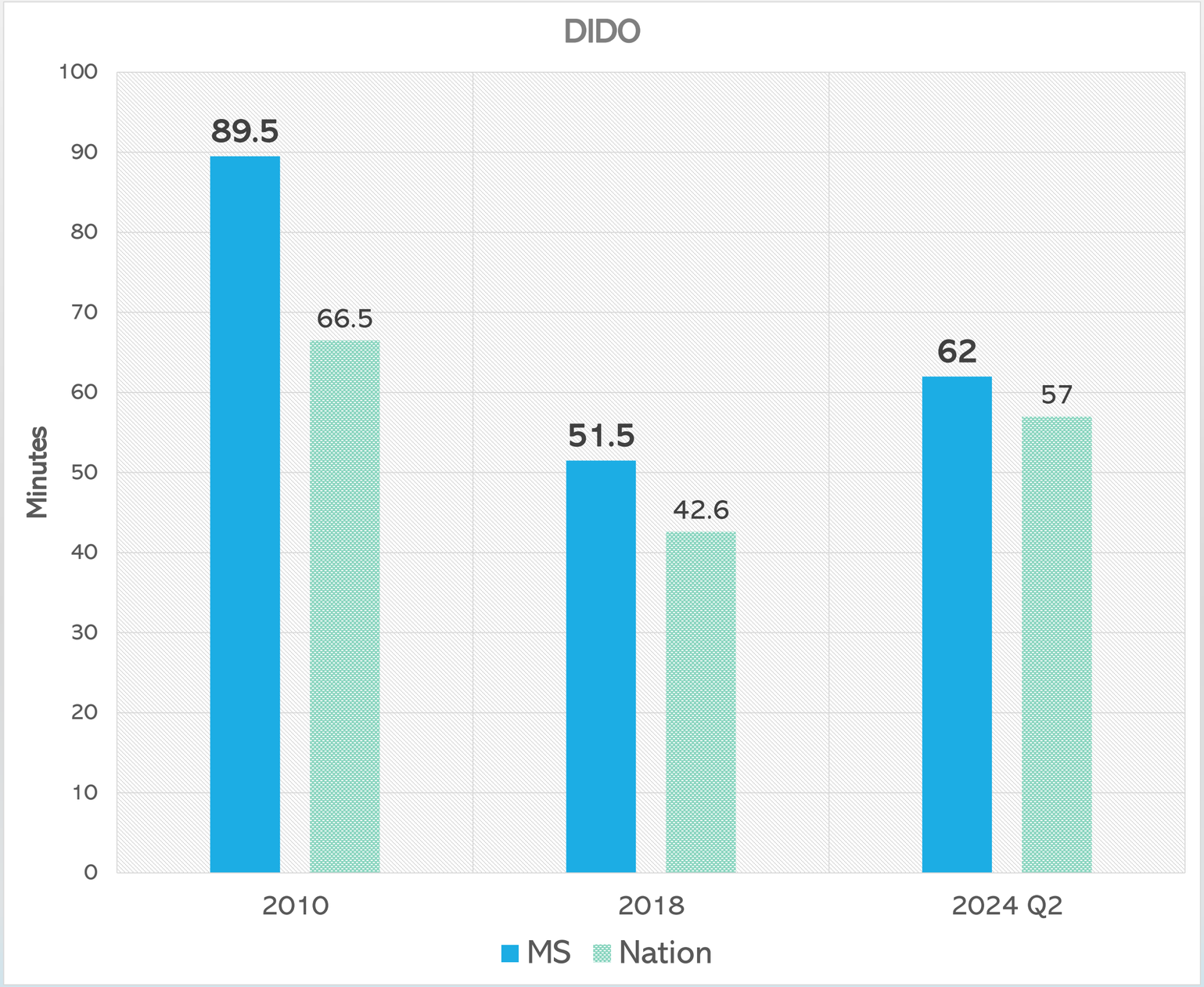
SOUTH: 116 min



Data Source: CP-MI Registry, 11.15.24

FIRST FACILITY ED ARRIVAL TO TRANSFER OUT: DOOR IN DOOR OUT

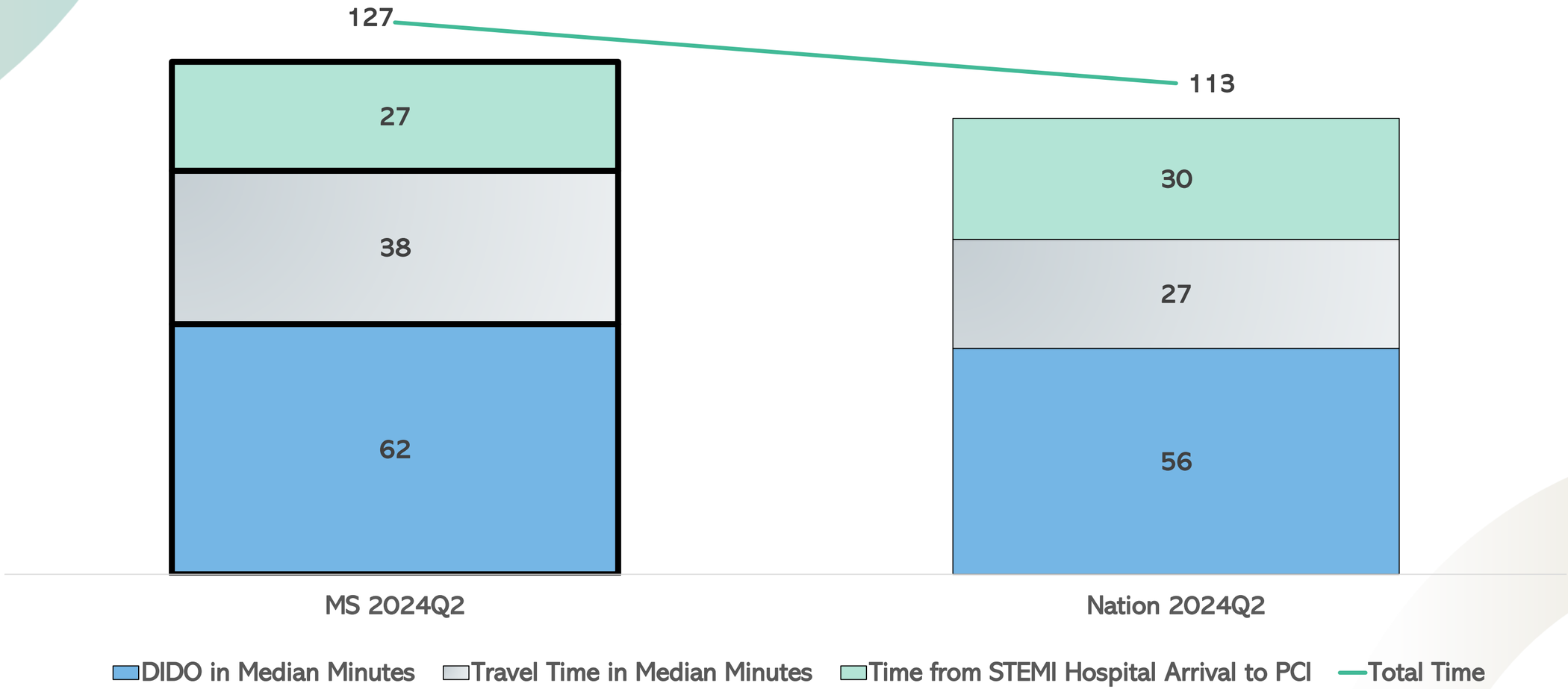
MEASURED IN MEDIAN MINUTES
GOAL: ≤ 45 MIN



Data Source: CP-MI Registry: 11.15.24

D2D2 REPERFUSION: TRANSFERRED STEMI PATIENTS

IN MEDIAN MINUTES ROLLING 4Q (2024Q2)



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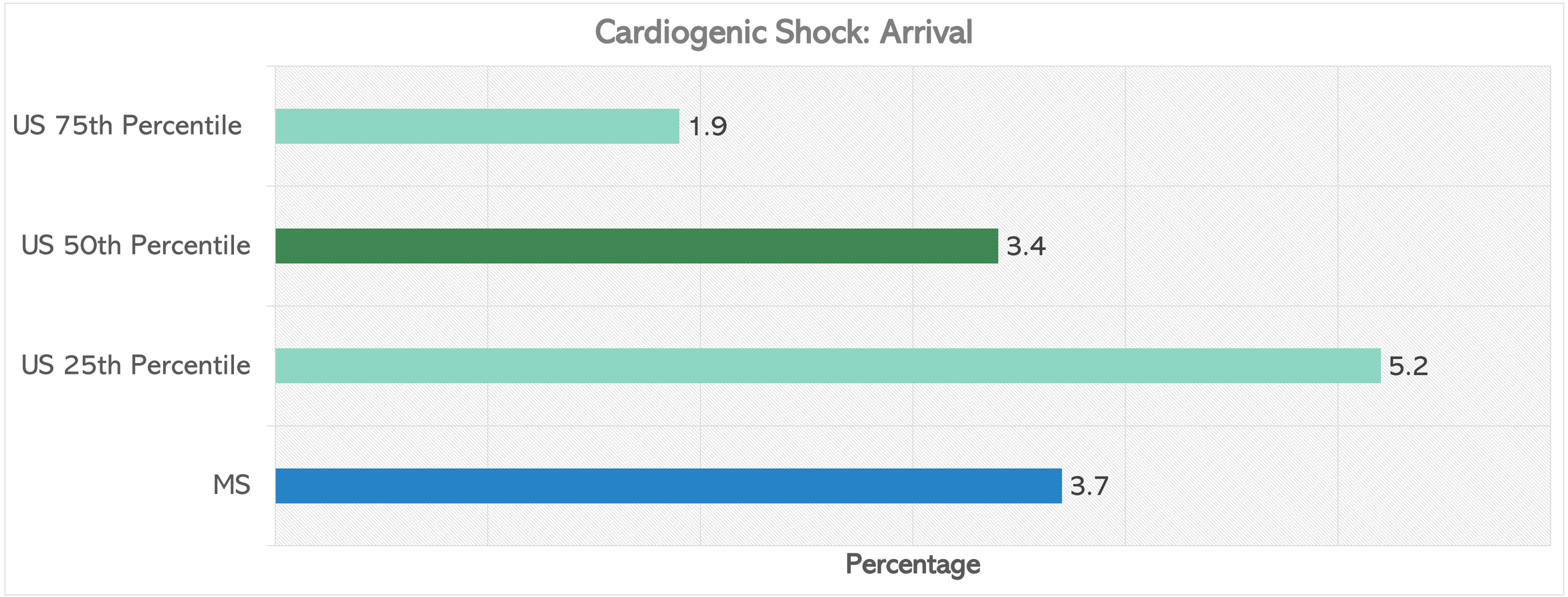
Data Source: CP-MI Registry. 11.15.24

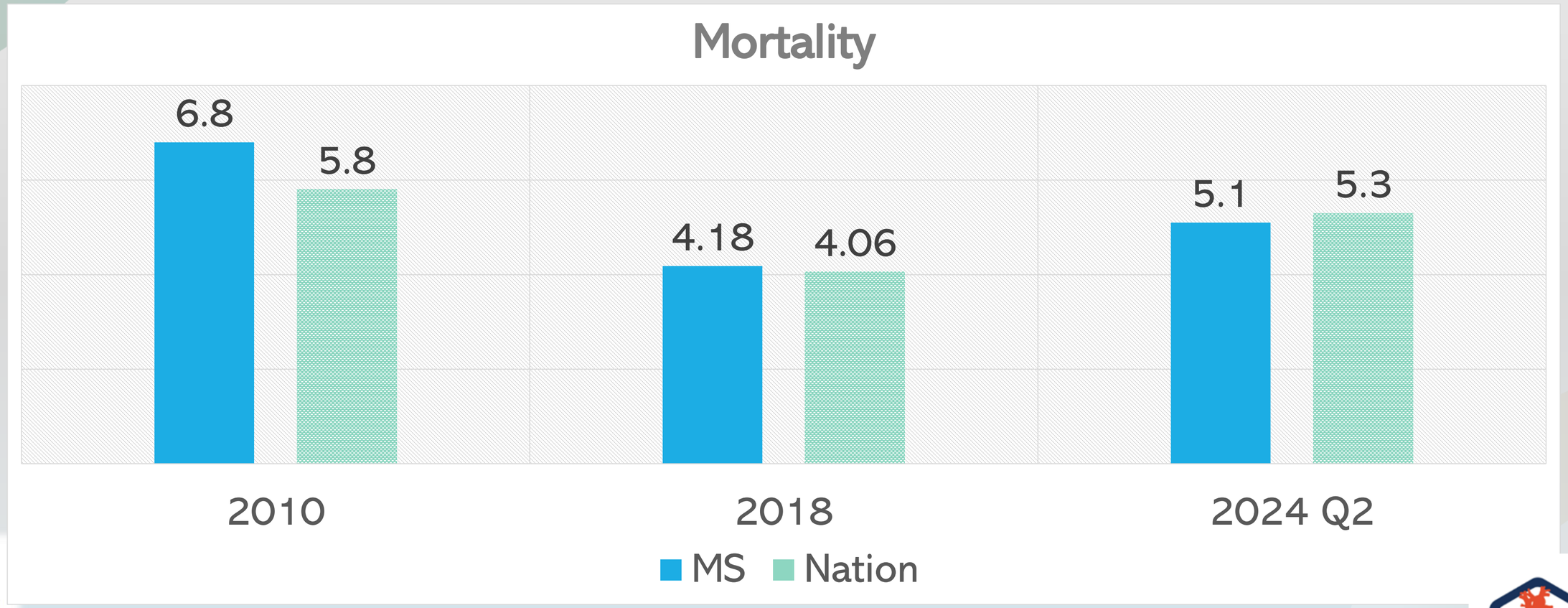
CARDIOGENIC SHOCK ON ARRIVAL FOR MS STEMI PATIENTS

MEASURED IN PERCENTAGE
ROLLING 4Q DATA(2023Q3-2024Q2)



IN-HOSPITAL RISK STANDARDIZATION MORTALITY: ALL AMI PATIENTS

MEASURED IN PERCENTAGE
INCLUDING CARDIAC ARREST
ROLLING 4Q



MISSISSIPPI Healthcare Alliance

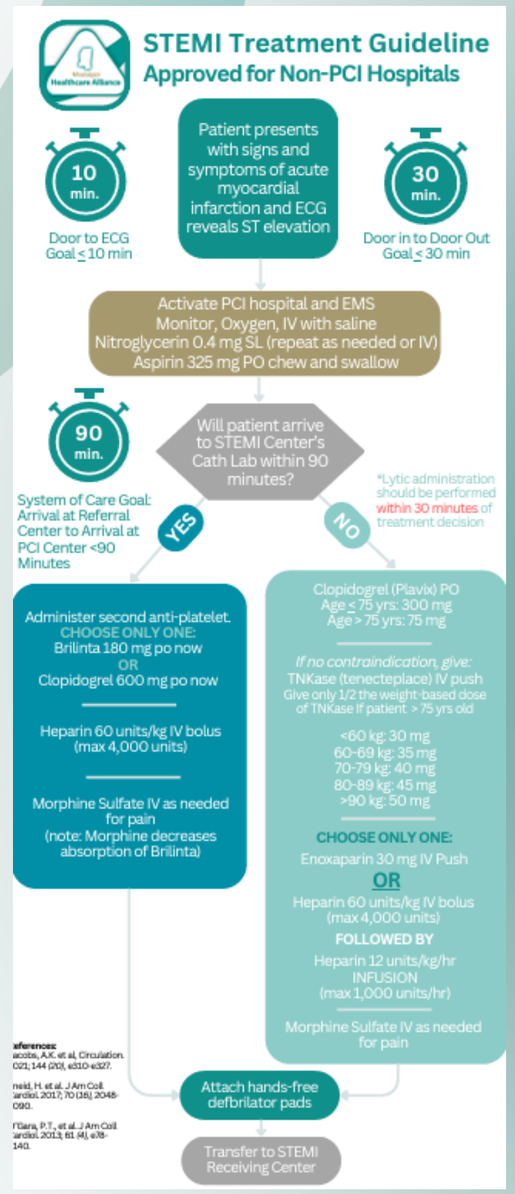
CHEST PAIN - MI REGISTRY

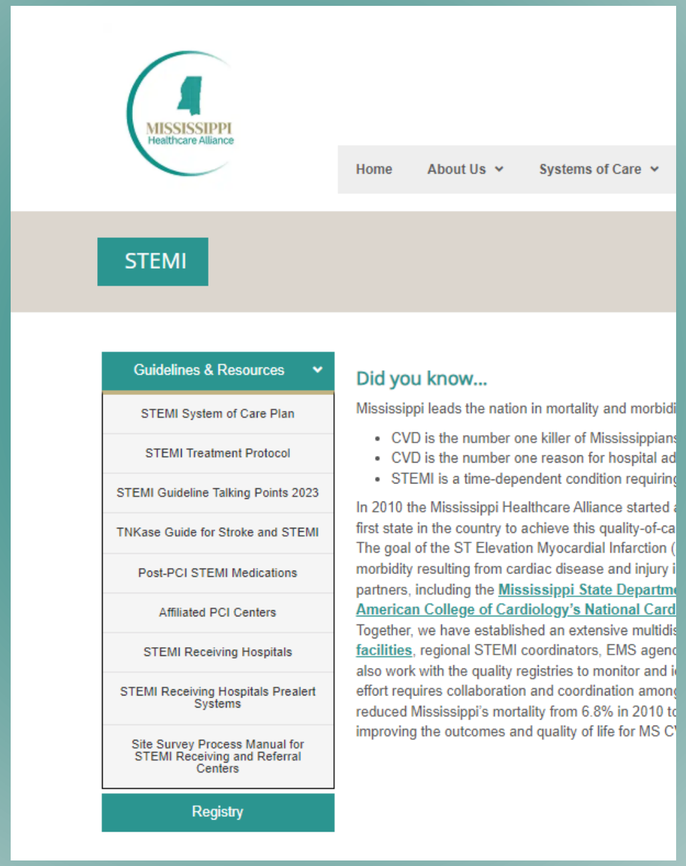
Data Source: CP-MI Registry. 11.15.24

Data Source: CP-MI Registry: 11.15.24

STEMI RESOURCES

mshealthcarealliance.org





MISSISSIPPI Healthcare Alliance

STROKE SYSTEM OF CARE

Data Source: CP-MI Registry 11.15.24

MISSISSIPPI Healthcare Alliance

MISSISSIPPI STROKE HOSPITALS:

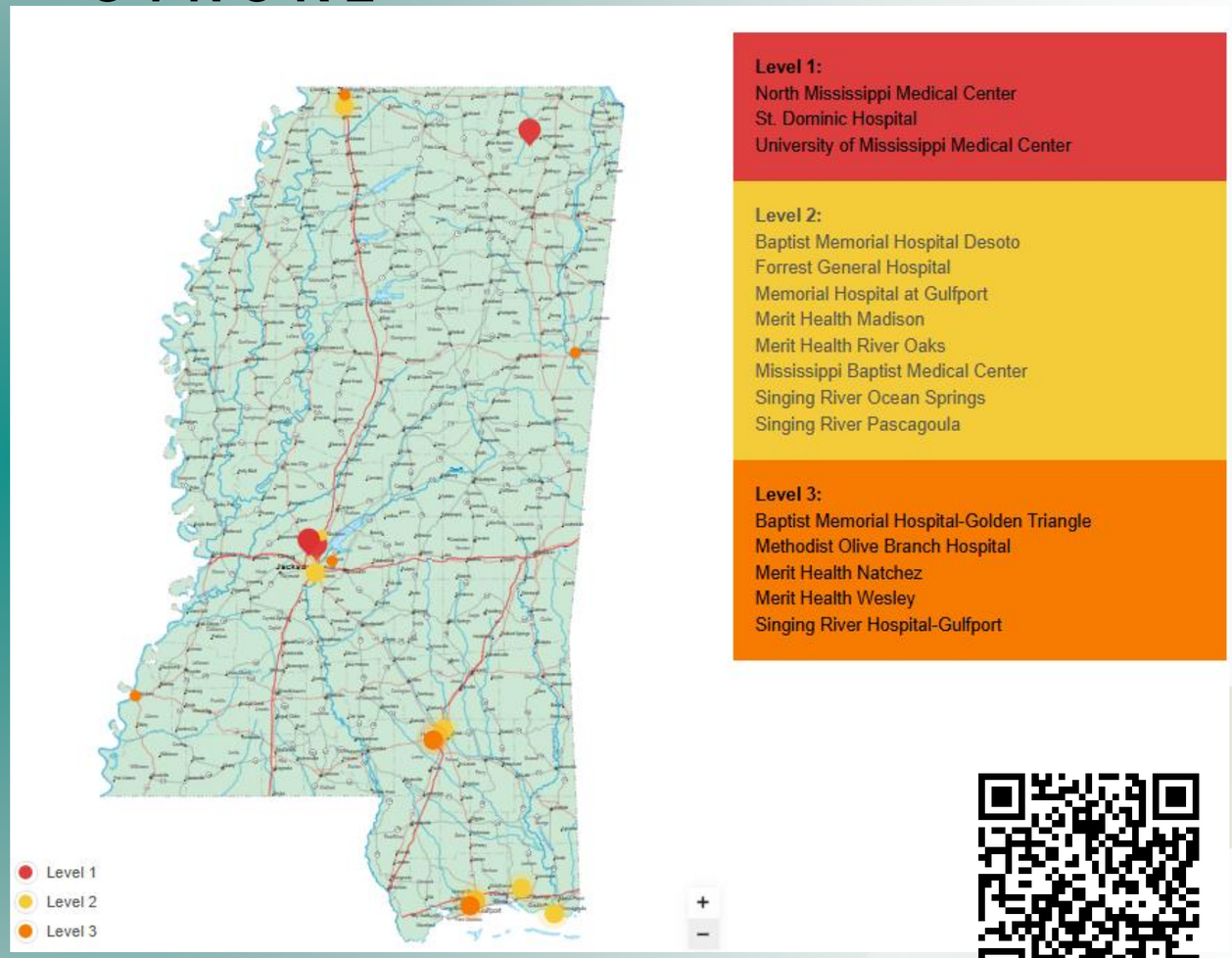
58 PARTICIPANTS IN GWTG® STROKE

Level 1 Stroke Center (3)
Capable of diagnosing and treating stroke patients who require intensive medical, surgical, and interventional vascular care

Level 2 Stroke Center (7)
Capable of diagnosing and treating stroke patients who require intensive medical and surgical care

Level 3 Stroke Center (58)
Capable of diagnosing and stabilizing stroke patients for transfer to Level 1 or 2 Stroke Centers

Level 4 Stroke Center
Capable of assessing and evaluating for possible stroke but lacks essential components to treat patient with IV thrombolytics



Level 1:
North Mississippi Medical Center
St. Dominic Hospital
University of Mississippi Medical Center

Level 2:
Baptist Memorial Hospital Desoto
Forrest General Hospital
Memorial Hospital at Gulfport
Merit Health Madison
Merit Health River Oaks
Mississippi Baptist Medical Center
Singing River Ocean Springs
Singing River Pascagoula

Level 3:
Baptist Memorial Hospital-Golden Triangle
Methodist Olive Branch Hospital
Merit Health Natchez
Merit Health Wesley
Singing River Hospital-Gulfport

MISSISSIPPI Healthcare Alliance

American Heart Association.

STROKE SYSTEM OF CARE

Local Stroke Participation

- All participating hospitals collect and submit data to the Get With The Guidelines® Stroke

Stroke PI Committee

- Monitors and Trends Key Metrics from Get With The Guidelines® Stroke
- Review unblinded data in secure and confidential setting
- Provide feedback as needed for systems improvement at local and regional levels

Stroke Advisory Committee

- A multidisciplinary team that offers oversight, ensures the guidelines are regularly updated, and provides expert advice for the implementation, execution, and compliance with the Stroke plan.

MISSISSIPPI Healthcare Alliance

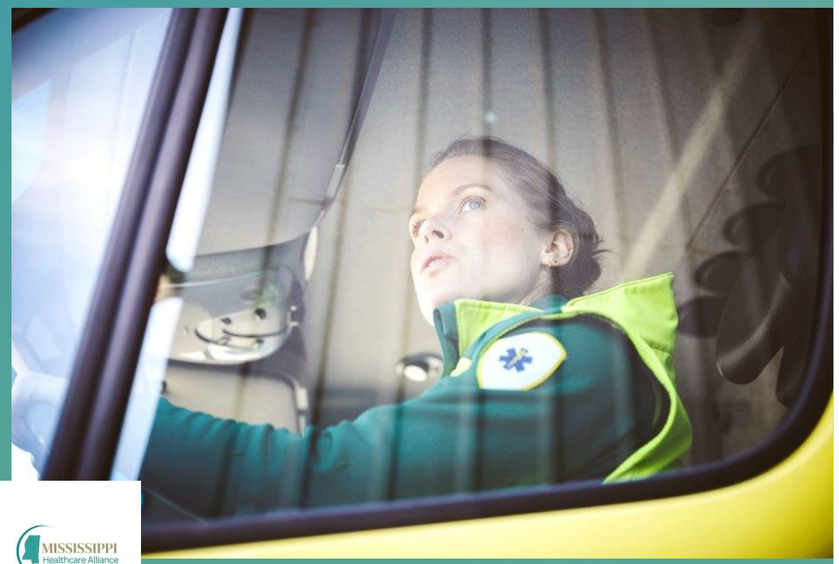
American Heart Association.

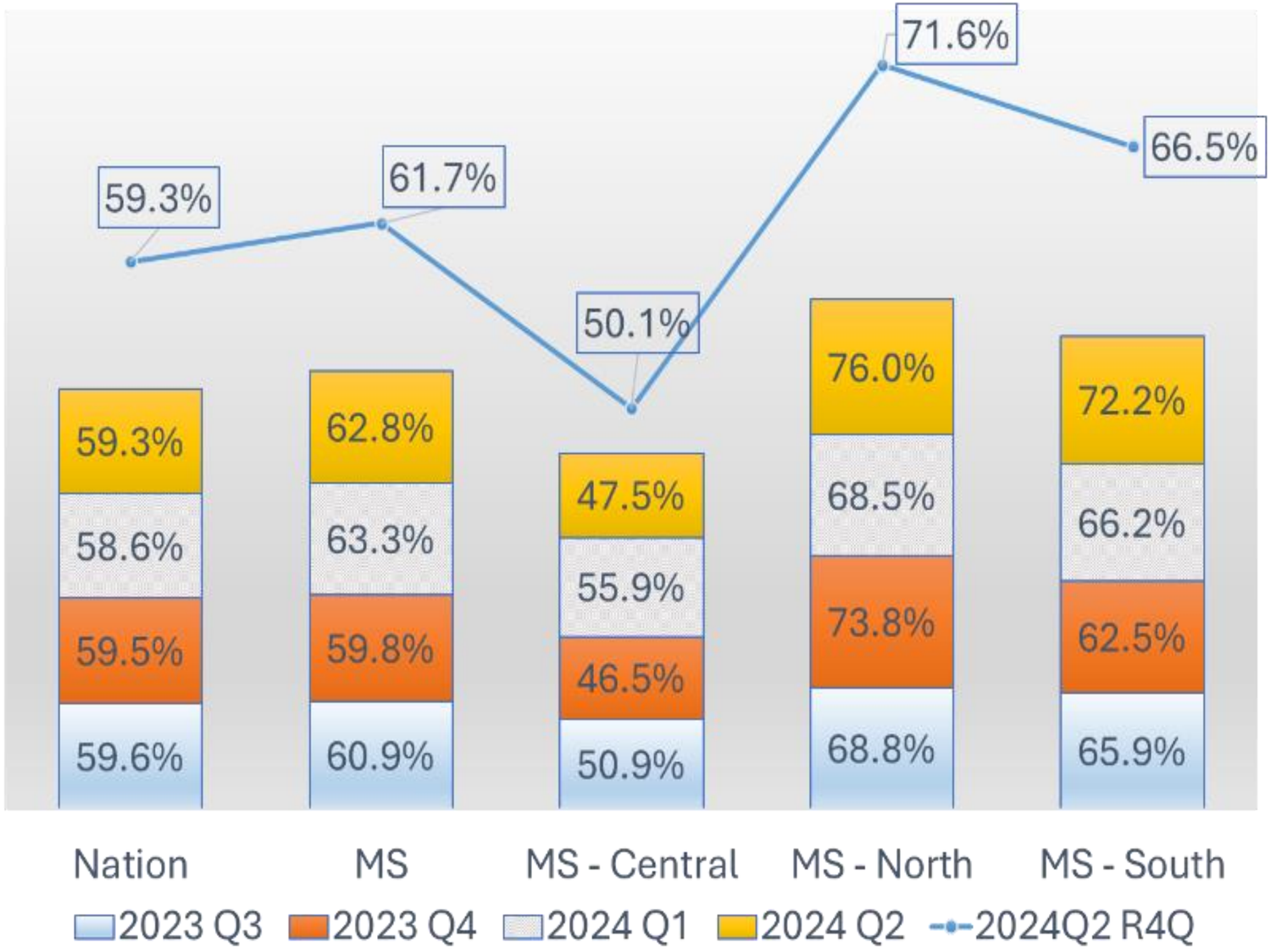
Data Source: GWTG Stroke 10.30.24

PRE-NOTIFICATION BY EMS

BY PERCENTAGE

QUARTERLY DATA (2022Q4-2023Q3)



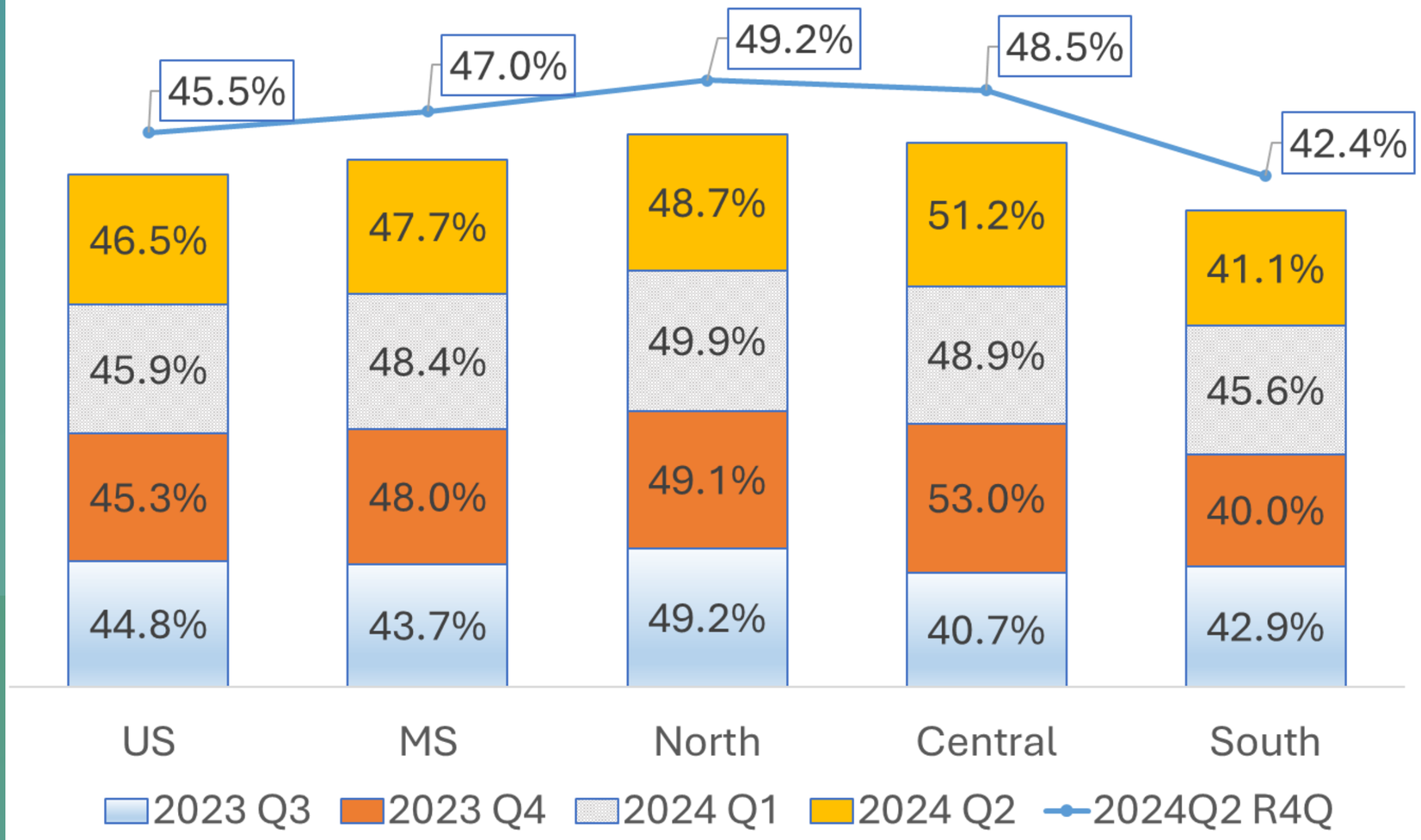


Data Source: CP-MI Registry. 11.15.24

DOOR TO CT < 20 MINUTES

BY PERCENTAGE

QUARTERLY DATA (2023Q3-2024Q2)

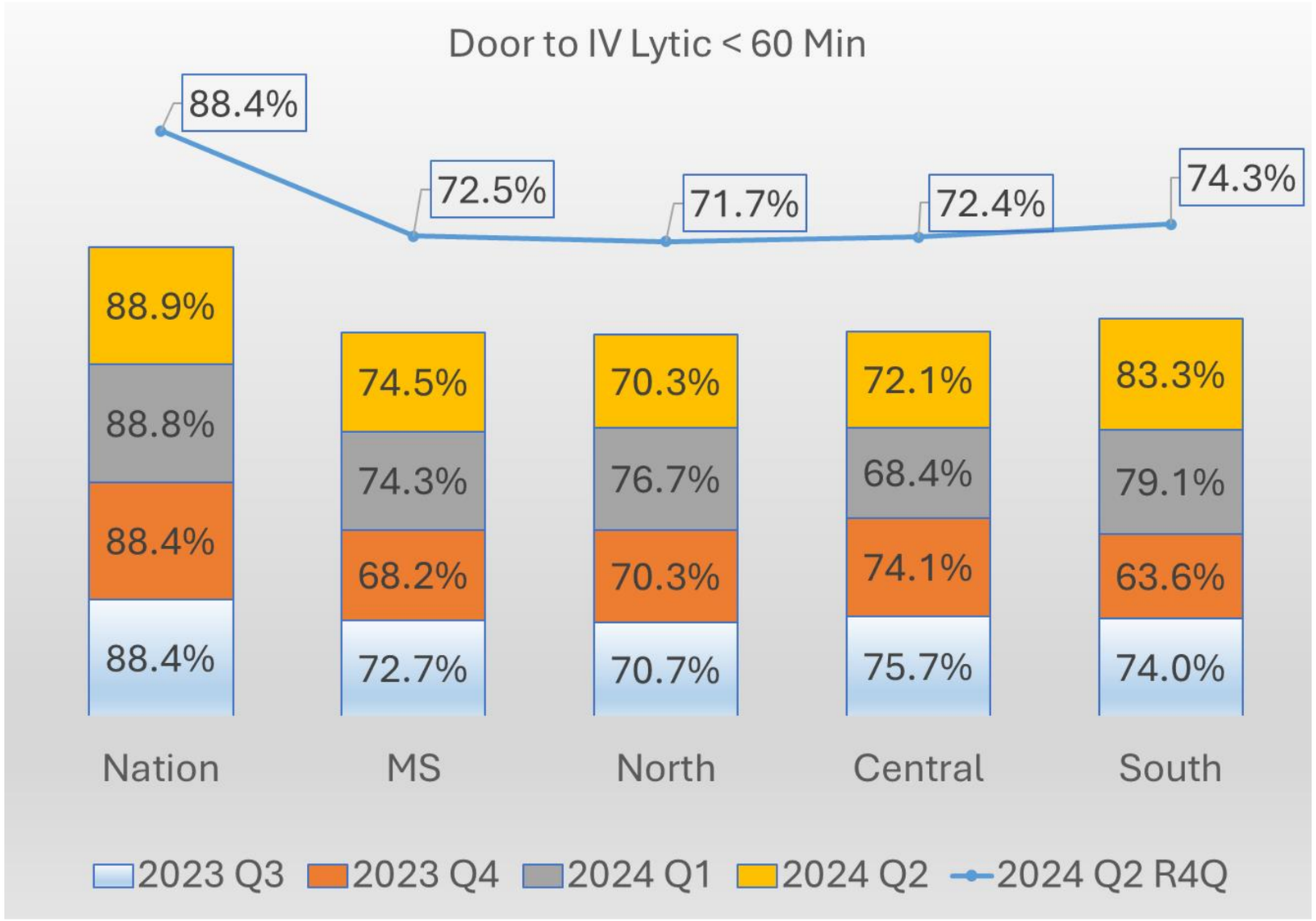


GWTG Report Run 10.30.24

DOOR TO IV LYTIC ≤ 60 MINUTES

BY PERCENTAGE

QUARTERLY DATA (2023Q3-2024Q2)

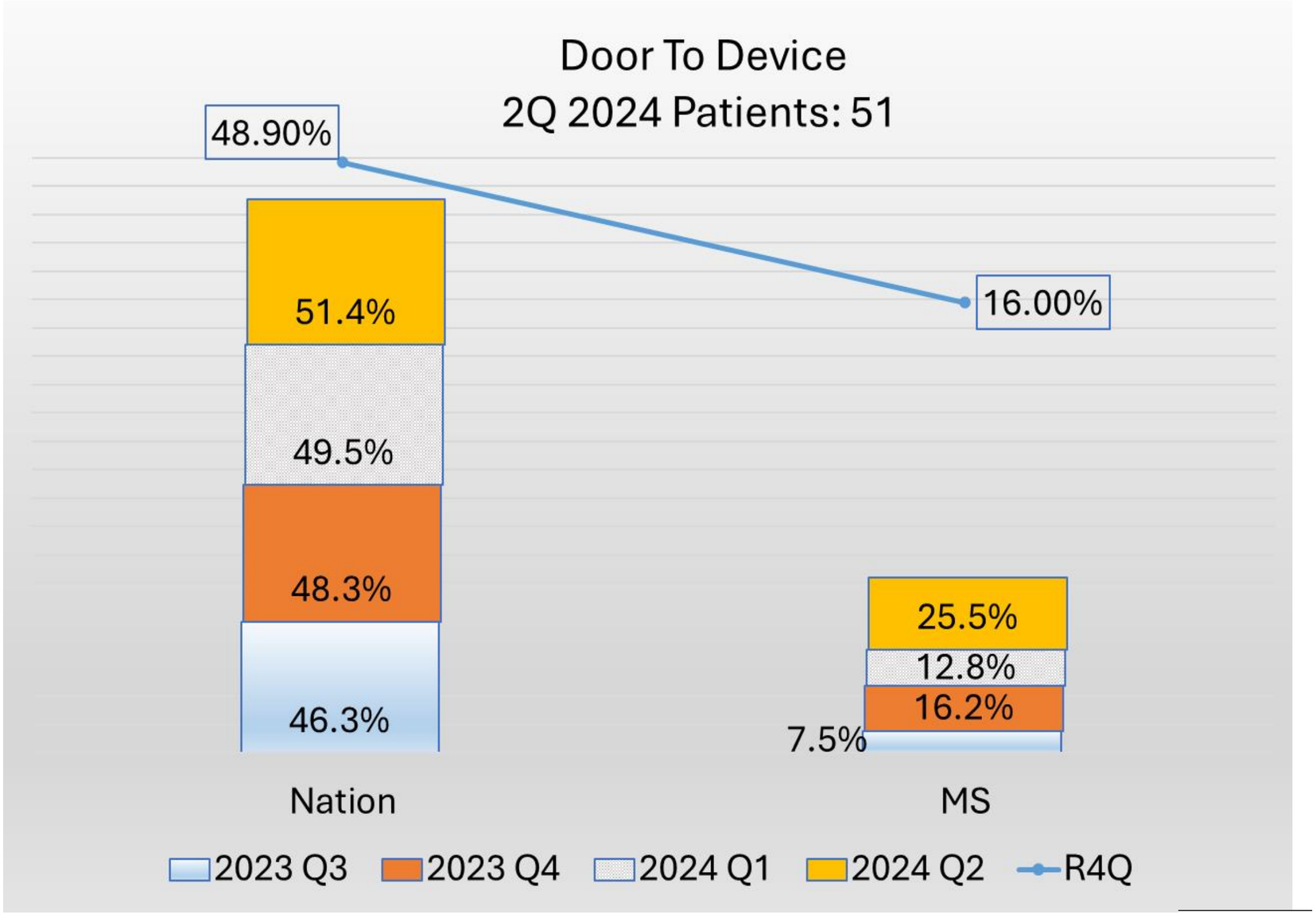


Data Source: GWTG Stroke 10.30.24

DOOR TO DEVICE WITHIN 60 MIN FOR TRANSFERRED PTS OR 90 MINS FOR PTS PRESENTING DIRECTLY

BY PERCENTAGE

QUARTERLY DATA (2023Q3-2024Q2)

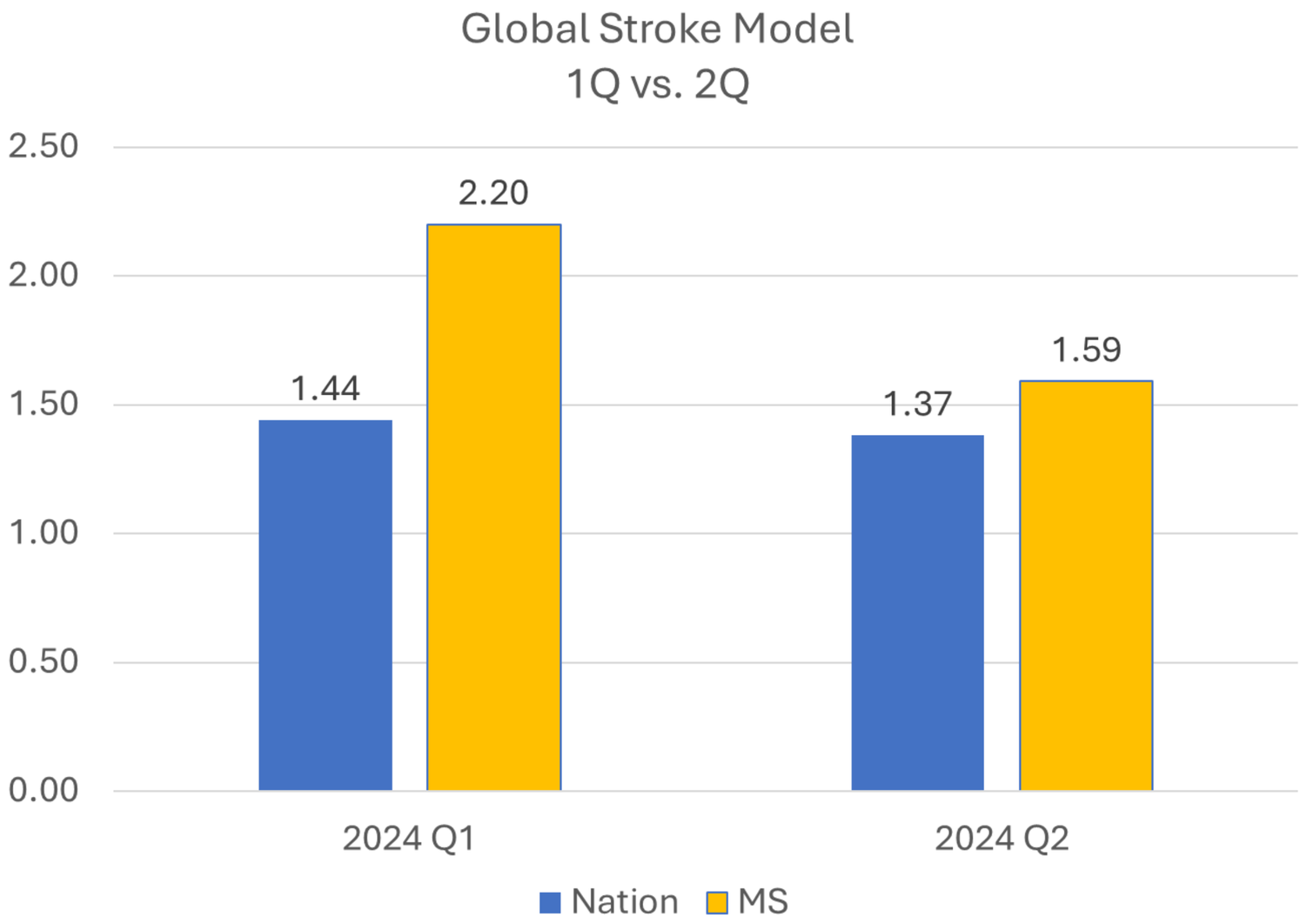


Data Source: GWTG Stroke 10.30.24

RISK-ADJUSTED MORTALITY ISCHEMIC STROKE AND HEMORRHAGIC STROKE

BY PERCENTAGE

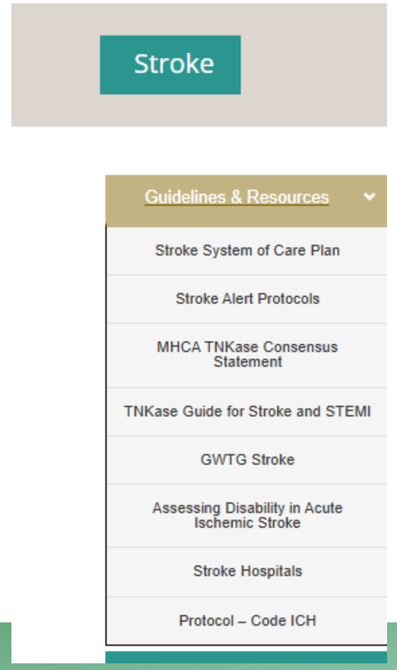
GLOBAL STROKE MODEL

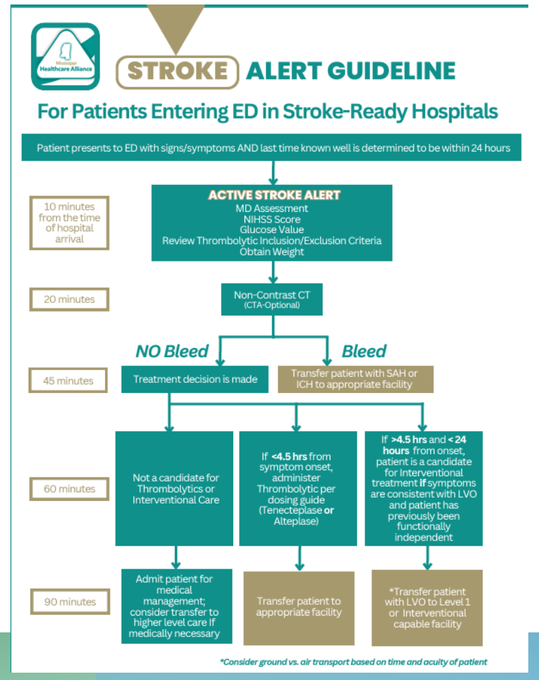


RESOURCES

FOR STROKE PROVIDERS

mshealthcarealliance.org/systems-of-care/stroke/





TNKase Guide for Stroke and STEMI

MHCA Tenecteplase (TNKase) Guide for Stroke and STEMI

Caution: The dosing tenecteplase for stroke is NOT the same as the dose protocol for administration in STEMI (ST-Elevation Myocardial Infarction)

Acute Ischemic Stroke Patient

(For patients with **no evidence of hemorrhage** per Head CT and no contraindications for fibrinolytic therapy administration)

Obtain weight in kg

Monitor VS and oxygen levels

- SBP <185
- DBP <110

IV (x2 if possible) with saline *(TNKase not compatible with D5W solutions)*

Verify last known well for treatment decision

If > 4.5 hrs and < 24 hours from symptom onset, patient is a candidate for endovascular intervention if symptoms consistent with LVO and pt has previously been functionally independent, **contact an interventional capable facility and EMS for transfer of patient**

Ensure imaging is sent to accepting facility

If <4.5 hours from symptom onset:

-TNKase IV Push

0.25mg/kg with a MAX of 25 mg total (see *AIS TNKase dosing guide*)

-Admit patient for medical management, consider transferring to high level of care if medically necessary

STEMI Patient

(For patients **unable** to arrive at PCI Center within 90 minutes for Primary PCI and no contraindications for fibrinolytic therapy administration)

Activate PCI hospital and EMS

Obtain weight in kgs

Monitor VS and oxygen levels

IV (left side preferred) with saline

Nitroglycerin 0.4 mg SL (repeat as needed)

Aspirin 325 mg PO chew and swallow

Clopidogrel PO

- Age ≤ 75 yrs: 300 mg
- Age > 75 yrs: 75 mg

TNKase IV Push (*Give ONLY 1/2 of the weight-based dose of TNKase if patient >75 years old*)

- <60 kg: 30 mg
- 60-69 kg: 35 mg
- 70-79 kg: 40 mg
- 80-89 kg: 45 mg
- > 90 kg: 50 mg

CHOOSE ONLY **ONE** ANTICOAGULANT to follow TNKase

- *Enoxaparin 30 mg IV Push*
- ***OR***
- *Heparin 60 units/kg IV **bolus** (max 4000 units) FOLLOWED BY Heparin 12 units/kg/hr **infusion** (max 1000 units/hr)*

MHCA Educational Guide for TNKase 2023

Acute Ischemic Stroke TNKase Dosing

ROUND DOSE TO THE NEAREST MG

Pt wt (kg)	TNKase dose (mg) to give over 5 min	*TNKase IVP Volume (ml)*
40-41	10 mg	2 ml
42-45	11 mg	2.2 ml
46-49	12 mg	2.4 ml
50-53	13 mg	2.6 ml
54-57	14 mg	2.8 ml
58-61	15 mg	3 ml
62-65	16 mg	3.2 ml
66-69	17 mg	3.4 ml
70-73	18 mg	3.6 ml
74-77	19 mg	3.8 ml
78-81	20 mg	4 ml
82-85	21 mg	4.2 ml
86-89	22 mg	4.4 ml
90-93	23 mg	4.6 ml
94-97	24 mg	4.8 ml
>98	25 mg	5 ml

Users can verify through their EHR or a medical calculator, such as MDCalc.

Tenecteplase (TNK) Dosing for Ischemic Stroke Calculator (mdcalc.com)

MISSISSIPPI Healthcare Alliance

ONGOING INITIATIVES

- Statewide implementation of Pulsara activation platform
- RapidAI to aid with LVO detection for rapid diagnosis and treatment decisions
- Reduction of Door to Intervention for Stroke patients
- Ongoing education and training for abstractors and coordinators (classroom, virtual, and individual)
- Maternal-Fetal Collaboration with MSDH

Data Source: CP-MI Registry. 11.15.24

Questions?

MISSISSIPPI
Healthcare Alliance