

American Heart Association®
Get with the Guidelines.®
Stroke

Prehospital Data Collection and Metrics

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Stroke Systems of Care Quality Improvement

Mission: Lifeline Stroke is a program for transforming stroke care by focusing efforts on connecting all of the components of acute stroke care into a smoothly integrated system that reinforces use of evidence-based guidelines, measures performance, identifies gaps, and engages in improvement projects at a systems level.

2019 Guidelines for the Early Management of Patients with Acute Ischemic Stroke

Recommendations for EMS Assessment & Management

1. 911 Dispatchers should make stroke a priority dispatch, and transport times should be minimized. (Class I; LOE B–NR)
2. The use of a stroke assessment system by first aid providers, including EMS Dispatch Personnel, is recommended. (Class I; LOE B–NR)
3. EMS Personnel should begin the initial management of stroke in the field. Implementation of a stroke protocol to be used by EMS Personnel is strongly encouraged. (Class I; LOE B–NR)
4. EMS Personnel should provide pre-hospital notification to the receiving hospital that a suspected stroke patient is en-route so that the appropriate hospital resources may be mobilized before patient arrival. (Class I; LOE B–NR)

Recommendations for EMS Systems

1. Regional systems of stroke care should be developed. These should consist of the following: A) Healthcare facilities that provide initial emergency care, including administration of IV Alteplase AND B) Centers capable of performing endovascular stroke treatment with comprehensive periprocedural care to which rapid transport can be arranged when appropriate. (Class I; LOE A)
2. Patients with a positive stroke screen and/or a strong suspicion of stroke should be transported rapidly to the closest healthcare facilities that can capably administer IV Alteplase. (Class I; LOE B–NR)

Stroke

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<https://doi.org/10.1161/STROKEAHA.120.033228>



SPECIAL REPORTS

Recommendations for Regional Stroke Destination Plans in Rural, Suburban, and Urban Communities From the Prehospital Stroke System of Care Consensus Conference: A Consensus Statement From the American Academy of Neurology, American Heart Association/American Stroke Association, American Society of Neuroradiology, National Association of EMS Physicians, National Association of State EMS Officials, Society of NeuroInterventional Surgery, and Society of Vascular and Interventional Neurology: Endorsed by the Neurocritical Care Society

Edward C. Jauch, MD , Lee H. Schwamm, MD , Peter D. Panagos, MD, Jolene Barbazzeni, RN , Robert Dickson, MD, Robert Dunne, MD, Jenevra Foley, MSL, RHIA, CCP, Justin F. Fraser, MD, Geoffrey Lassers, PMD, AAS, Christian Martin-Gill, MD, Suzanne O'Brien, MSN, BSN, RN, Mark Pinchalk, MS, Shyam Prabhakaran, MD , Christopher T. Richards, MD , Peter Taillac, MD, Albert W. Tsai, PhD, Anil Yallapragada, MD, and on behalf of the Prehospital Stroke System of Care Consensus Conference

Coordinated QI

“All participating prehospital agencies should engage in QI programs coordinated with the SSOC as a whole, with an emphasis on dispatch, response, field triage, and transitions of care. Agencies should assess their adherence to recommended prehospital performance goals in acute stroke care.”

(Jauch, *Stroke*. 2021. Online) <https://www.ahajournals.org/doi/10.1161/STROKEAHA.120.033228>

(Powers, *Stroke*. 2019. Online) <https://www.ahajournals.org/doi/10.1161/STR.0000000000000211>



Consensus-Based Quality Improvement or Performance Measures

1. 911 dispatcher use of suspected stroke algorithms
2. Identification of suspected strokes
3. Documentation of last known well and symptom discovery times
4. Evaluation of blood glucose
5. Stroke screen performed and reported
6. Advanced notification with triage findings
7. EMS use of regional destination protocol
8. On-scene times for suspected stroke
9. DIDO at the first hospital before transfer
10. Time from EMS first medical contact to stroke alert notification
11. Time from EMS first medical contact to brain imaging:
12. Time from first medical contact to EVT

SPECIAL REPORT

Recommendations for Regional Stroke Destination Plans in Rural, Suburban, and Urban Communities From the Prehospital Stroke System of Care Consensus Conference

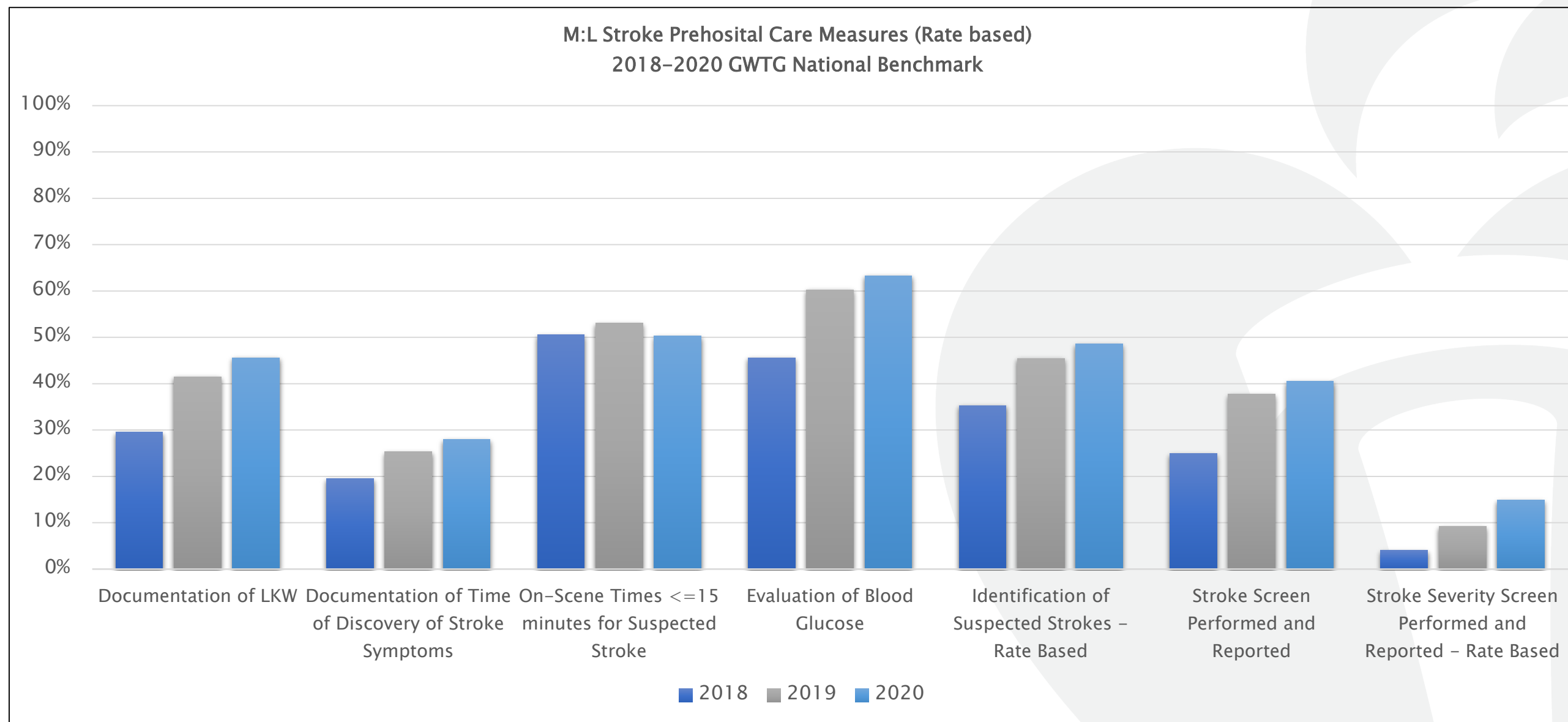
A Consensus Statement From the American Academy of Neurology, American Heart Association/American Stroke Association, American Society of Neuroradiology, National Association of EMS Physicians, National Association of State EMS Officials, Society of NeuroInterventional Surgery, and Society of Vascular and Interventional Neurology: Endorsed by the Neurocritical Care Society

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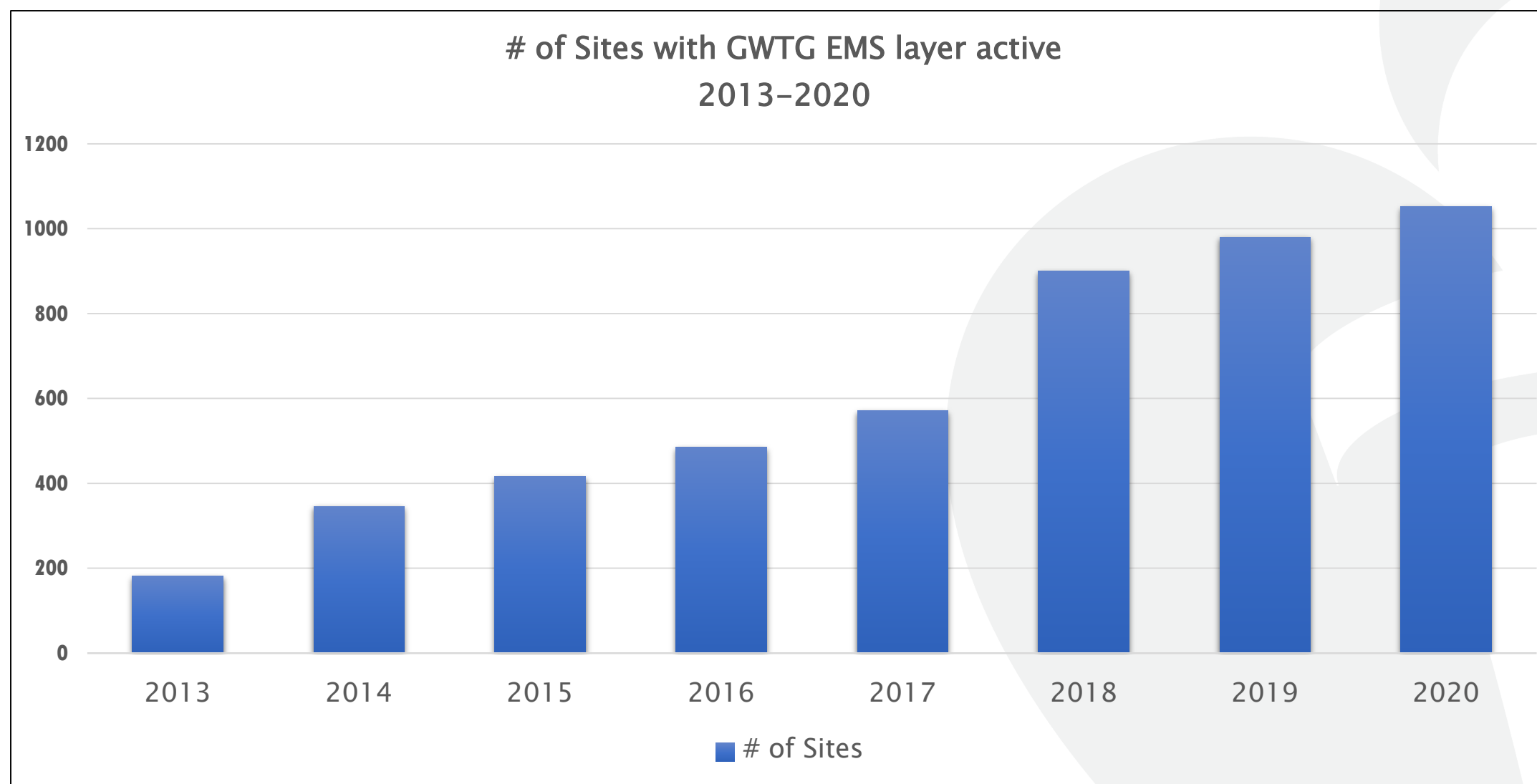
M:L Stroke Prehospital Care

Aggregate GWTG – EMS Layer Active National Benchmark



GWTG–Stroke EMS Layer use

Site counts with records with EMS layer active by year





GWTG–Stroke Prehospital Layer

GWTG – Stroke Prehospital Layer

Data collection, performance, and feedback



EMS Data Collection Form

27 elements related to EMS care and times



14 Prehospital Care Measures

EMS process measures

Outcome measures



EMS Feedback Log

Single click feedback document in PDF

Includes outcome elements and time metrics



EMS Time Tracker

Segmented time calculations from FMC to treatment



Centralized EMS Agency List

Unique ID for all EMS agencies across platforms and sites

Prehospital Care Elements

- Organized from patient timeline for faster abstraction.
- Coding instructions include NEMESIS v3.4 data elements definitions
- Form is activated when patient arrived by EMS or MSU
- Data Collection:
 - 27 elements total
 - 8 required
 - 2 conditional

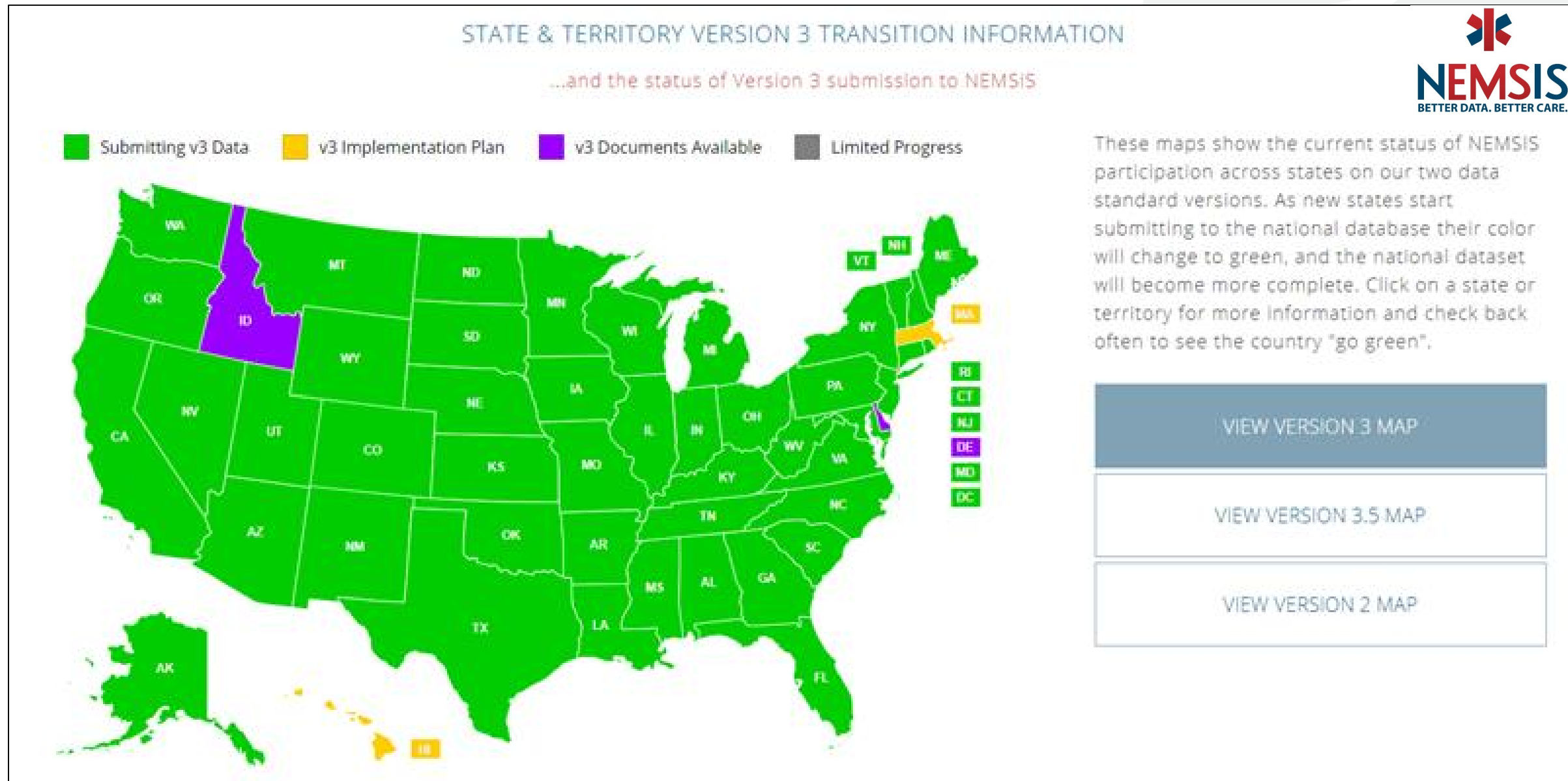
Demographics	Admin	Clinical Codes	Admission	Hospitalization	Advanced Stroke Care	Discharge	Optional
Special Initiatives Historic							
ePCR Patient Finder Patient Picker							
Patient care record available at time of patient arrival? Patient care record available at a later time during hospitalization? ☒ Yes ☐ No/ND ☐ ☐ Yes ☐ No/ND ☐							
EMS Agency List Sarasota County Fire Department, Sarasota, FL - 9879 Unknown							
Run/Sequence number Unknown							
Set all EMS dates to the Arrival Date MM/DD/YYYY HH24:MI							
Date/Time Brain Imaging initiated by MSU: MM/DD/YYYY HH24:MI MM DD YYYY HH MI							
Date/ Time IV alteplase administered by MSU: MM/DD/YYYY HH24:MI MM DD YYYY HH MI							
EMS Unit Notified by Dispatch: Unknown MM/DD/YYYY HH24:MI MM DD YYYY HH MI							
Dispatched as suspected stroke? ☐ Yes ☐ No ☐ Not Documented ☐							
EMS Unit Arrived on Scene: MM/DD/YYYY HH24:MI 01/10/2021 09:40 MM DD YYYY HH MI							
EMS Arrived at Patient: MM/DD/YYYY HH24:MI 01/10/2021 09:40 MM DD YYYY HH MI							
EMS Unit Left Scene: MM/DD/YYYY HH24:MI 01/10/2021 09:52 MM DD YYYY HH MI							
Last Known Well as Documented by EMS: MM/DD/YYYY HH24:MI 01/10/2021 09:30 MM DD YYYY HH MI Unknownable							
Discovery of Stroke symptoms by EMS: MM/DD/YYYY HH24:MI 01/10/2021 09:40 MM DD YYYY HH MI Unknownable							
Date/Time Pre-Notification provided to Hospital: MM/DD/YYYY HH24:MI 01/10/2021 09:52 MM DD YYYY HH MI ☒ Blood Glucose value ☒ Blood Pressure ☐ Result of Stroke Screen/Severity Score ☐ LKW time per EMS ☐ Seizure Activity							
Additional Information provided as part of pre-notification? ☐ Result of Stroke Screen/Severity Score ☐ LKW time per EMS ☐ Seizure Activity							

What is NEMSIS?

National Emergency Medical Services Information System

“The NEMSIS is the national database that is used to store EMS data from the U.S. States and Territories. NEMSIS is a universal standard for how patient care information resulting from an emergency 911 call for assistance is collected.”

[NEMSIS.org](https://nemsis.org)



GWTG vs. NEMESIS Data Collection

Alignment of GWTG–Stroke Coding Instructions with NEMESIS Data Dictionary

EMS Unit Arrived on Scene
Required Field for GWTG and Coverdell users

Collected For: GWTG Pre-hospital care measures

Definition: Enter the date/time the responding unit arrived on scene; that is, the time the vehicle stopped moving at the scene.

Data Collection Question: What is the date/time the responding EMS unit arrived on the scene?

Format: Single-select. Dropdown menu.

Allowable Values:

- Date and Time (military time): MM/DD/YYYY HH:MM
- Date: MM/DD/YYYY
- Unknown

Notes for Abstraction:

- Record the time the EMS vehicle arrived at the scene per the EMS documentation.
- ~~Please note that date/time arrival at scene is not the same time as when the EMS agency arrived at the patient.~~
- This information can be found in the patient care report under the "Times" section. Look for "EMS Unit Arrived on Scene Date/Time"
 - EMS Unit Arrived On-Scene: eTimes.06 - NEMESIS/ePCR

Suggested Data Sources:

- EMS Run Sheet
- Admission data
- Electronic patient care report (e-PCR)



NEMESIS Data Dictionary

eTimes.06

State National

eTimes.06 - Unit Arrived on Scene Date/Time

Definition

The date/time the responding unit arrived on the scene; that is, the time the vehicle stopped moving at the scene.

National Element	Yes	Pertinent Negatives (PN)	No
State Element	Yes	NOT Values	Yes
Version 2 Element	E05_06	Is Nillable	Yes
Usage	Required	Recurrence	1 : 1

Associated Performance Measure Initiatives

Airway	Cardiac Arrest	Pediatric	Response	STEMI	Stroke	Trauma
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Attributes

NOT Values (NV)

7701001 - Not Applicable	7701003 - Not Recorded
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Constraints

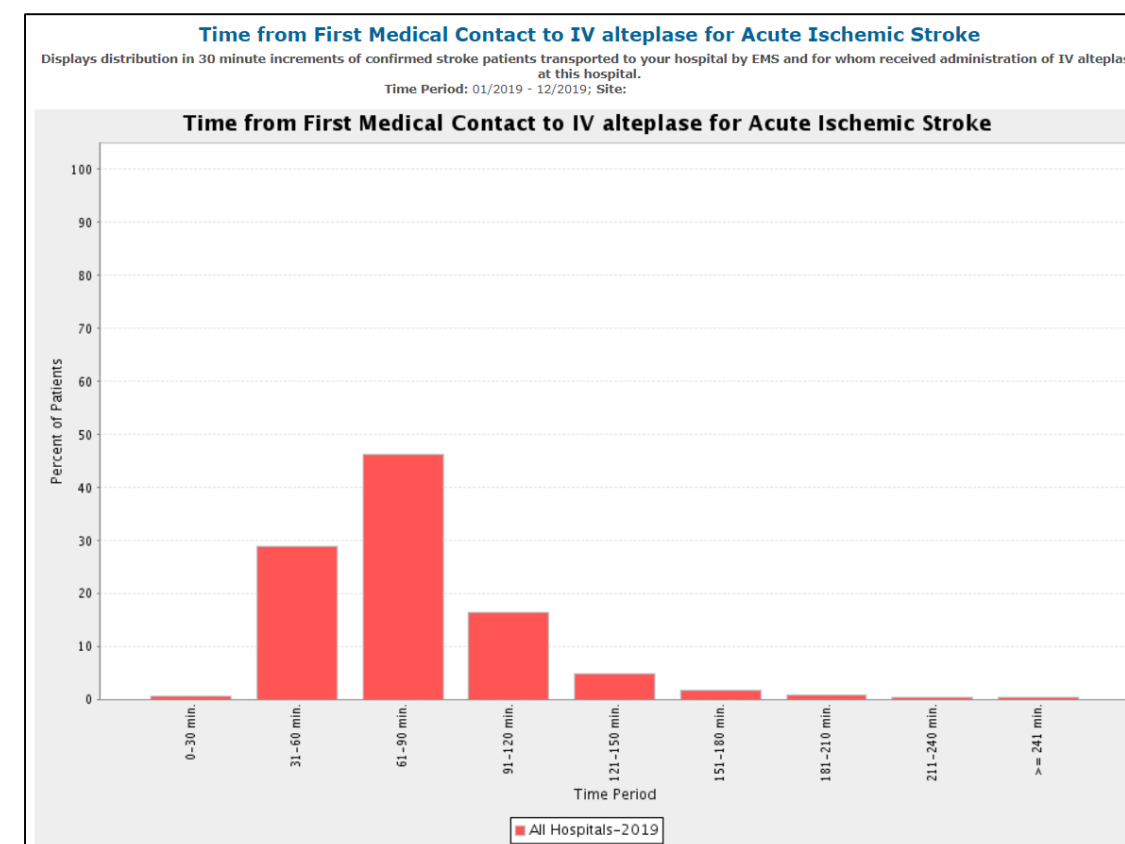
Data Type	minInclusive	maxInclusive
dateTime	1950-01-01T00:00:00-00:00	2050-01-01T00:00:00-00:00
Pattern	[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(\.\d+)?(\+ -)[0-9]{2}:[0-9]{2}	

GWTG–Stroke Coding Instructions

Prehospital Care Measures

Mission: Lifeline Stroke

1. Door-in-Door-Out Time $\leq$ 60 Minutes at First Hospital Prior to Transfer for Acute Therapy
2. Documentation of Time Last Known Well
3. Documentation of Time of Discovery of Stroke Symptoms
4. EMS First Medical Contact to ED Arrival
5. Evaluation of Blood Glucose
6. Identification of Suspected Strokes– Rate Based
7. On-Scene Time for Suspected Stroke
8. On-Scene Time $\leq$ 15 Minutes for Suspected Stroke – Rate
9. Stroke Screen Performed and Reported
10. Stroke Screen Performed and Reported Distributed
11. Stroke Severity Screen Performed and Reported– Rate Based
12. Stroke Severity Screen Performed and Reported– Distribution
13. Time from First Medical Contact to Thrombectomy for Acute Ischemic Stroke
14. Time from First Medical Contact to IV alteplase for Acute Ischemic Stroke



Other EMS Layer Features

EMS Feedback Form & Time Tracker Report

- Sites expressed a need for a single, standardized form to provide key performance variables and time metrics to EMS and referral sites.
- The EMS feedback log is automatically created for all EMS and transfer arrivals after case abstraction. A single click will produce a PDF. This log also includes “EMS Comments” from the Special Initiatives Tab in the PMT for a more personal feedback note to the providers.
- Establishes a **standard format** for feedback to EMS and other stakeholders across hospitals/ systems that participate in GWTG–Stroke.

Site-Level Reports
Configurable Measure Reports Build your own Quality Measure Reports
Pre-Defined Measure Reports Select from the Most Common Measure Reports or run your previously saved report types.
PMT Patient List Provides a list of patient records entered for this study.
Comprehensive Stroke: List of Patients Expected to Have a Follow-Up Provides a listing of CSTK patients that require a follow up form entered.
Stroke (STK) Initial Patient Population Report STK Initial Patient Population and Sample Count Report
Patient Time Tracker Report Provides time tracking for patient records entered for this study. Due to the size of this report, unfortunately, our Print to PDF feature is not well supported for this report at this time. In order to print this report more effectively, please use the "Export to Excel" feature in the top right hand corner of the report and print from Excel.
Stroke InSights Data Quality Report
Stroke Mortality Report
EMS Feedback Log Provides the feedback details of the patients entered for the study
EMS Time Tracker Displays relevant information for patients at a site.

EMS Additional Comments

Fast scene time and excellent documentation. Door to CT 12 minutes!!

Provide custom feedback with new “EMS Additional Comments” text box in the EMS form.

EMS Feedback Form

From
02/01/2020
MM/DD/YYYY

To
03/04/2021
MM/DD/YYYY

Submit

EMS Feedback Log

Provides the feedback details of the patient entered for the study.

Show filters This report shows all records. 31 of 31

ID	Form Dates		Form Information					Form Status
	Admit Date	Discharge Date	Diagnosis	Discharge Disposition	EMS Agency name	Referring Hospital		
uat12345	n/a	01/10/2021	Ischemic Stroke	4 Acute Care Facility			Complete	
EMS803	02/04/2020	02/08/2020	Ischemic Stroke	5 Other Health Care Facility			Incomplete	
EMS802	02/04/2020	02/08/2020	Ischemic Stroke	1 Home	Sarasota County Fire Department_Sarasota_FL - 9879		Complete	
EMS801	02/04/2020	02/08/2020	Ischemic Stroke	1 Home	Sarasota County Fire Department_Sarasota_FL - 9879		Complete	
EMS800	02/04/2020	02/08/2020	Ischemic Stroke	1 Home	Sarasota County Fire Department_Sarasota_FL - 9879		Complete	
EMS799	02/04/2020	02/08/2020	Ischemic Stroke	5 Other Health Care Facility	Sarasota County Fire Department_Sarasota_FL - 9879		Complete	

Print PDF

Feedback Log Export

Feedback Log Export

Feedback Log Export

Feedback Log Export

Feedback Log Export

Feedback Log Export

Mission: Lifeline Stroke Feedback Form

American Heart Association
Mission:Lifeline
Stroke

Hospital: AHA Demo test-Stroke + EMS

How Patient Arrived at your hospital: EMS from home/scene

If transfer from another hospital, specify hospital name:

Suspected stroke? Yes

Blood Glucose Level: 90

Advanced notification by EMS/Mobile Stroke Unit? (Traditional Responder or Mobile Stroke Unit): Yes

Additional Information provided as part of pre-notification? Blood Glucose value, Blood Pressure, Result of Stroke Screen/Severity Score, LKW time per EMS, Seizure Activity

Stroke screen tool used: DPSS

Stroke Screen Outcome: Positive

Severity scale used? FAST ED

EMS score Positive for LVO? No

EMS Agency Name or Number: Sarasota County Fire Department_Sarasota_FL-9879

EMS Run/Sequence number: 111111

Patient location when stroke symptoms discovered: Not in a healthcare setting

Arrival Date/Time: 02/04/2020 14:00

Age: 59

Gender: Female

Initial Blood Pressure by EMS: 180/90

Final clinical diagnosis related to stroke: Ischemic Stroke

How was destination decision made? Directed to designated stroke center by protocol

If severity scale used, did result alter hospital destination (e.g. CSC vs. PSC)?

IV alteplase initiated at this hospital? Yes

IV alteplase at an outside hospital or Mobile Stroke Unit? No

Endovascular attempted: No

ICD-10-CM Principal Diagnosis Code: I639 - Cerebral infarction, unspecified

ICD-10-PCS Principal Procedure Code:

ICD-10-CM Discharge Diagnosis Related to Stroke:

Physician/Provider NPI:

Data Elements	Date/Time	System Metrics	Time
Date/Time of discovery of stroke symptoms?	02/04/2020 13:00	Last Known Well to Arrival @ Hospital:	60 Minutes
Discovery of Stroke Symptoms by EMS:	02/04/2020 13:00	Last Known Well to IV Alteplase:	116 Minutes
Date/Time patient last known to be well?	02/04/2020 13:00	Last Known Well to first pass of a clot retrieval device:	0 Minutes
Last Known Well as Documented by EMS:	02/04/2020 13:00	First Medical Contact to IV Alteplase:	84 Minutes
EMS Unit Notified by Dispatch:	02/04/2020 13:20	First Medical Contact to first pass of a clot retrieval device:	0 Minutes
EMS Unit Arrived on Scene:	02/04/2020 13:30	First Medical Contact to Brain Imaging Initiated:	68 Minutes
EMS Arrived at Patient:	02/04/2020 13:32	First Medical Contact to Stroke Team Activation:	0 Minutes
EMS Unit Left Scene:	02/04/2020 13:43	EMS	Time
Arrival Date Time:	02/04/2020 14:00	EMS Unit Notified by Dispatch to Arrival at Scene:	10 Minutes
Date/Time Prenotification Provided to Hospital:	02/04/2020 13:55	EMS At Patient Side to Date/Time Pre-Notification provided to Hospital:	23 Minutes
Date/Time Brain Imaging Initiated:	02/04/2020 14:40	EMS Unit Arrived on Scene to EMS Unit Left Scene:	13 Minutes
Date/Time IV alteplase initiated:	02/04/2020 14:56	EMS Depart Scene to Hospital Arrival:	17 Minutes
What is the date and time of the first pass of a clot retrieval device at this hospital?		EMS At Patient Side to Brain Imaging initiated By MSU:	0 Minutes
		EMS At Patient Side to Date Time IV alteplase initiated by MSU:	0 Minutes
Date/Time Stroke Team Activated:		Stroke Center	Time
Date/Time Stroke Team Arrived:		EMS Pre-Notification to Stroke Team Activated:	0 Minutes
Date/Time IV t-PA Ordered:		Referring hospital discharge to Receiving hospital arrival:	0 Minutes
Date/Time Brain Imaging Interpreted:		Patient Arrival to first NIHSS score performed:	10 Minutes
		Patient Arrival to ED Physician Assessment:	0 Minutes
		Stroke Team Activation to Stroke Team Arrival:	0 Minutes
		Patient Arrival to Brain Imaging Initiated:	40 Minutes
		Patient Arrival to IV alteplase Initiated:	56 Minutes
		Patient Arrival to first pass of a clot retrieval device:	0 Minutes

Comments: This was a stroke alert not an LVO alert.

About the EMS Feedback Form

- Created in PDF format and contains both in-hospital and pre-hospital elements.
- Time metrics are also calculated for both system of care and the stroke center.
- Form is generated for a single patient for those transported by EMS or transferred from another facility.
- Form can be emailed to EMS agencies or referral hospitals to provide both outcome information and time metrics.

EMS Time Tracker

- Modeled after the Hospital Time Tracker Report that exists in the PMT
- The EMS time Tracker starts at First Medical Contact and provides an export of data for the EMS Agency that participated in the care of the patient.
- Useful for presenting time metrics across the system of care

EMS Time Tracker

Select Module : EMS ▼

Generate Report

Existing files:

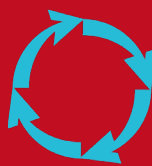
[EMS_TIME_TRACKER_REPORT_EMS_2021_03_05_09_28_34.csv](#)
[EMS_TIME_TRACKER_REPORT_EMS_2021_03_02_10_30_53.csv](#)
[EMS_TIME_TRACKER_REPORT_EMS_2020_06_26_09_59_53.csv](#)
[EMS_TIME_TRACKER_REPORT_EMS_2020_04_30_12_45_02.csv](#)
[EMS_TIME_TRACKER_REPORT_EMS_2020_04_27_04_21_46.csv](#)
[EMS_TIME_TRACKER_REPORT_EMS_2020_04_27_03_57_46.csv](#)
[EMS_TIME_TRACKER_REPORT_EMS_2020_04_15_11_49_09.csv](#)
[EMS_TIME_TRACKER_REPORT_EMS_2019_10_14_11_58_49.csv](#)

Refresh

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	Patient ID	Discharge	Final Clini	Principal I	Discharge	Gender	Age	EMS Agen	EMS Run c	Dispatche	Advanced	Date/Time	Last Know	Hospital C	Discovery	Hospital C	Arrival Da	Time from	Time from	Date/Time	Date/ Tim	EMS Unit	EMS Ur
2	141	#####	Ischemic S	I639 Cere	1 Home	Female	61	Test 2 EMS	35634	Yes	Yes	#####	Unknown	Unknown	#####	Unknown	#####					#####	#####
3	131	#####	Subarachn	I639 Cere	4 Acute Ca	Female	59	Test 1 EMS	356321		Yes	#####		#####		#####	#####					#####	#####
4	133	#####	Intracereb	I619 Nont	2 Hospice	Female	81	Test 1 EMS	35638		Yes	#####	#####	#####	#####	#####	#####	120	120			#####	#####
5	134	#####	Ischemic S	I639 Cere	4 Acute Ca	Male	31	Test 1 EMS	35632	Yes	Yes	#####	#####	#####	#####	#####	#####	65	65			#####	#####
6																							
7																							

Regional Reports

.....
Mission: Lifeline Stroke



Mission: Lifeline Stroke Regional Report

Background

- The concept of Mission: Lifeline was first implemented in STEMI care in 2007 with the first Mission: Lifeline STEMI Report debuting in 2010.
- Since inception, the reports have been the standard for administering System of Care Quality Improvement by providing a single view of multiple care settings for multiple system stakeholders.
 - By participating in a mission lifeline report, system of care stakeholders see both site level and aggregated view of a Regions stroke care performance.
 - Enabling these reports allow for scalable quality improvement initiatives to be initiated at the state, local, regional, or site level.
 - Reports are generated in real time and are refreshed on the fly to ensure the most up to date data is available and facilitate rapid cycle quality improvement.

Report Configuration

- When the ML Report layer is added to a site, a new link, “Stroke Mission: Lifeline Reports” will appear in the Reports Tab.
- Reports can be configured by:
 - Date Range
 - Measure
 - ML Region (Blinded sites)
 - ML Region Aggregate
 - Other Benchmarks (All hospitals, State, Region, STK, TJC Certified, etc.)

Site-Level Reports

Configurable Measure Reports

Build your own Quality Measure Reports

Pre-Defined Measure Reports

Select from the Most Common Measure Reports or run your previously saved report types.

PMT Patient List

Provides a list of patient records entered for this study.

Stroke (STK) Initial Patient Population Report

STK Initial Patient Population and Sample Count Report

Patient Time Tracker Report

Provides time tracking for patient records entered for this study.

Due to the size of this report, unfortunately, our Print to PDF feature is not well supported for this report at this time. In order to print this report more effectively, please use the “Export to Excel” feature in the top right hand corner of the report and print from Excel.

Stroke InSights Data Quality Report

Stroke Mortality Report

EMS Feedback Log

Provides the feedback details of the patients entered for the study

Data Quality Review

Submission Error Report

Submission Errors identified by QualityNet and The Joint Commission.

GWTC On Demand Trend Reports

GWTC - Stroke On Demand Trend Reports and Slides

Mission: Lifeline® Reports

Stroke Mission: Lifeline® Report

This report provides the ability to select your own parameters for the Mission:Lifeline® regional report.

Stroke Mission: Lifeline® Report

This report provides the ability to select your own parameters for the Mission:Lifeline® regional report.

TIME PERIOD

Interval: ☒ Monthly ☐ Aggregate

From: 2021 Jan

To: 2021 Mar

MEASURES

- ☒ My Facility M:L Report
- ☒ M:L Prehospital Rate-Based Measures
- ☒ IV Thrombolytic Arrive by 3.5 Hour, Treat by 4.5 Hour Means of Arrival
- ☒ Time to Intravenous Thrombolytic Therapy - 60 min Means of Arrival
- ☒ Median Door to CT Time and Means of Arrival
- ☒ FMC to Thrombolytic (Stacked Median)
- ☒ Door to Device in <= 60 minutes for transfers, OR <= 90 minutes for direct presentation
- ☒ EMS FMC to Device Time (Stacked Median)
- ☒ Median Door-in-Door-Out Time and Means of Arrival
- ☒ Stroke Screen Performed and Reported
- ☒ Stroke Severity Screen Performed and Reported - Rate Based
- ☒ On-Scene Times <= 15 minutes for Suspected Stroke
- ☒ Median On-Scene Time for Suspected Stroke
- ☒ Documentation of Time LKW
- ☒ Identification of Suspected Strokes - Rate Based
- ☒ Evaluation of Blood Glucose

☒ All Reports

MISSION: LIFELINE REGION(S)

☐ Example ML Region

☐ Regional Aggregate

☐ Blinded Facilities

BENCHMARKS

☐ My Hospital

☐ 0 - 100 Discharges Hospital

☐ 0 - 99 Bed Hospital

Report Design

- Page one of the report presents the site with a tabular view of demographics, care, and outcomes
- The data is presented next to State, Regional, and National aggregate distributions
- Page two displays a break down of performance by your facility, State, and national benchmarks on a group of specific System of Care metrics (Prehospital and TS)

My Facility M:L Report				
-: Annually				
Main Category	Sub Category	AHA ML Stro... 2020.00	All TX Hospit... 2020.00	My Hospital 2020.00
Advanced Notification by EMS/MSU	%	81%	24%	79%
	Total	80	10591	27
Arrival Mode	% EMS from home/scene	81%	42%	79%
	% Mobile Stroke Unit	0%	0%	0%
	% Transfer from other hospital	5%	18%	6%
	% Walk-ins	11%	34%	12%
Arrival to Device (EVT)	% EMS or patients directly presenting within 90 min	55%	9%	75%
	% Transfers from outside hospital/MSU within 60 min	0%	14%	0%
Arrival to Thrombolytics	% Within 30 minutes	22%	23%	100%
	% Within 30 minutes (EMS Arrival)	25%	27%	0%
	% Within 45 minutes	44%	62%	100%
	% Within 45 minutes (EMS Arrival)	50%	67%	100%
	% Within 60 minutes	97%	86%	100%
	% Within 60 minutes (EMS Arrival)	100%	89%	100%
Door-in-door out within 90 minutes	For MSU	0%	0%	0%
	For Patients Arriving by EMS	0%	10%	0%
	For Walk-in patients	0%	6%	0%
EMS FMC to EVT	Median	118	160	111
EMS FMC to Thrombolytics	Median	84	69	84
Gender	% Female	34%	49%	38%
	% Male	66%	51%	62%
	% Unknown	0%	0%	0%
Ischemic Stroke Treatment	% Alteplase	47%	13%	62%
	% EVT	17%	7%	15%
	% No Treatment	26%	48%	32%
	% Tenecteplase	3%	0%	0%
IV thrombolytic at an outside hospital or EMS / Mobile Stroke Unit?	%	0%	2%	0%
	Alteplase	0	9	0
	Tenecteplase	0	0	0
	Total	0	1082	0
Median Time from LKW	To Arrival (EMS)	60	273	60
	To Arrival (Mobile Stroke Unit)		117	
	To Arrival (Transfer from other hospital)	60	779	165
	To Arrival (Walk In)	60	791	120

Report Design

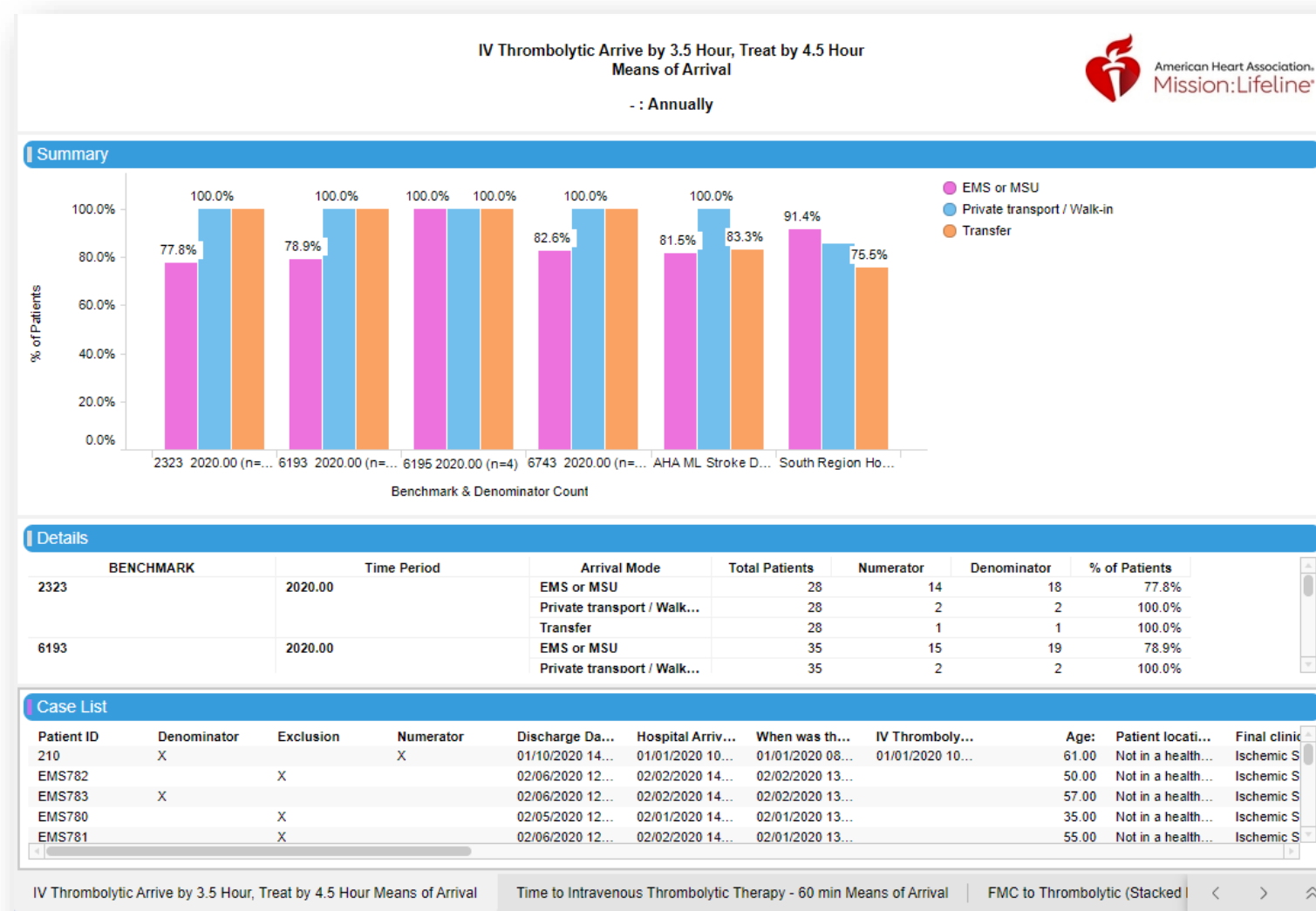
- Page one of the report presents the site with a tabular view of demographics, care, and outcomes
- The data is presented next to State, Regional, and National aggregate distributions
- Page two displays a break down of performance by your facility, State, and national benchmarks on a group of specific System of Care metrics (Prehospital and TS)

M:L Prehospital Rate-Based Measures					
- : Annually					
Summary					
Measure Name	My Hospital Care Opportunities	My Hospital Adherence Score	M:L Region Care Opportunities	M:L Region Adherence Score	S
Documentation of Time LKW	27	78%	0	0%	
Documentation of Time of Discovery of Stroke Symptoms	27	78%	0	0%	
Door-in-Door-Out Times at First Hospital Prior to Transfer for Acute Therapy	0	0%	0	0%	
Evaluation of Blood Glucose	27	67%	0	0%	
Hospital Pre-Notification with Triage Findings	20	100%	0	0%	
Identification of Suspected Strokes - Rate Based	27	74%	0	0%	
IV Thrombolytic Arrive by 3.5 Hour, Treat by 4.5 Hour	23	83%	0	0%	
On-Scene Times <=15 minutes for Suspected Stroke	20	100%	0	0%	
Pre-notification	27	100%	0	0%	
Stroke Screen Performed and Reported	27	70%	0	0%	
Stroke Severity Screen Performed and Reported - Rate Based	27	67%	0	0%	
Time to Intravenous Thrombolytic Therapy - 30 min	1	100%	0	0%	
Time to Intravenous Thrombolytic Therapy - 45 min	2	100%	0	0%	
Time to Intravenous Thrombolytic Therapy - 60 min	19	100%	0	0%	

Report Design

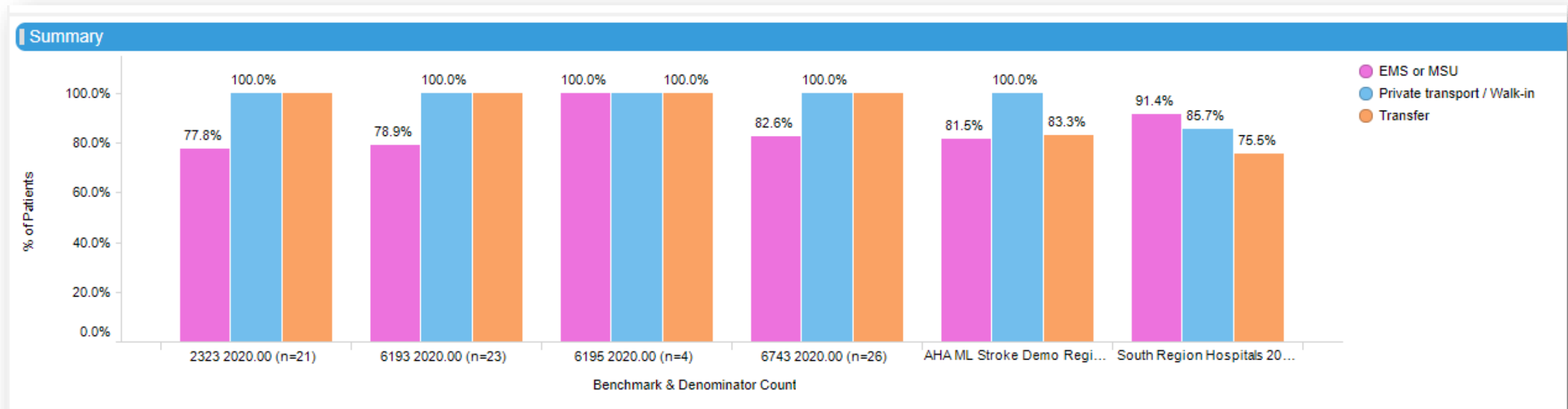
Each tab of the M:L Stroke Regional Report includes a visualization, measure details, and case list for the following metrics:

1. IV Thrombolytic Arrive by 3.5 Hour, Treat by 4.5 Hour Means of Arrival
2. Time to Intravenous Thrombolytic Therapy – 60 min Means of Arrival
3. Median Door to CT Time and Means of Arrival
4. FMC to Thrombolytic (Stacked Median)
5. Door to Device Time
6. EMS FMC to Device Time (Stacked Median)
7. Median Door-in-Door-Out Time and Means of Arrival
8. Stroke Screen Performed and Documented
9. On Scene time ≤ 15 minutes for Suspected Stroke
10. Median On-Scene Time for Suspected Stroke
11. Documentation of LKW
12. Identification of Suspected Stroke
13. Evaluation of Blood Glucose



Visualizations

- Visualizations include blinded site performance and aggregate for the “Region” as well as National, State, or other Benchmark as applied during configuration.
- Participating sites are blinded a number that is only known by the site.
- Some Standard rate-based measures (ex: DTN <60) are presented with distributions of performance by arrival method (EMS/Private transport/Transfer) for enhanced QI review and system improvement



Measure Results

- Measure details include the total patients, Numerator, Denominator, and rate of performance for each facility and/or Benchmark selected.
- Table is easily exported to .csv/.xls for external analysis or review.
- Use of the measure results provides for easy performance break down of the measure and benchmark in a tabular format
- Measure details are designed to supplement the graphs and visualizations

Details						
BENCHMARK	Time Period	Arrival Mode	Total Patients	Numerator	Denominator	% of Patients
2323	2020.00	EMS or MSU	28	14	18	77.8%
		Private transport / Walk...	28	2	2	100.0%
		Transfer	28	1	1	100.0%
6193	2020.00	EMS or MSU	35	15	19	78.9%
		Private transport / Walk...	35	2	2	100.0%
		Transfer	35	2	2	100.0%
6195	2020.00	EMS or MSU	4	1	1	100.0%
		Private transport / Walk...	4	2	2	100.0%
		Transfer	4	1	1	100.0%
6743	2020.00	EMS or MSU	33	19	23	82.6%
		Private transport / Walk...	33	2	2	100.0%
		Transfer	33	1	1	100.0%
AHA ML Stroke Demo Region	2020.00	EMS or MSU	134	66	81	81.5%
		Private transport / Walk...	134	10	10	100.0%

Integrated Case List

- For individual site data, each Measure also comes with a Case List.
- The Case Lists make it easy to identify performance outliers. This allows the system to zero in on cases where performance is below standard.
- Every element used for the calculation of a specific measure are included in the corresponding measures case list, including time calculations.
- The Case List is easily exported to .csv/.xls for external filtering, analysis, or combination with other data sets.

Case List														
Patient ID	Denominator	Exclusion	Numerator	Age:	Patient locati...	Hospital Arriv...	IV Thromboly...	Clinical Trial	Cause for IV t...	Cause for IV ...	Cause for IV ...	Final clinical ...	IV thrombolyt...	When was th...
210	X		X	61.00	Not in a health...	01/01/2020 10...	01/01/2020 10...	No				Ischemic Stroke	Yes	01/01/2020 08...
EMS782		X		50.00	Not in a health...	02/02/2020 14...		No				Ischemic Stroke	No	02/02/2020 13...
EMS783		X		57.00	Not in a health...	02/02/2020 14...		No				Ischemic Stroke	No	02/02/2020 13...
EMS780		X		35.00	Not in a health...	02/01/2020 14...		No				Ischemic Stroke	No	02/01/2020 13...
EMS781		X		55.00	Not in a health...	02/02/2020 14...		No				Ischemic Stroke	No	02/01/2020 13...
EMS786	X		X	69.00	Not in a health...	02/02/2020 14...	02/02/2020 14...	No		Initial refusal		Ischemic Stroke	Yes	02/02/2020 13...
EMS787	X		X	72.00	Not in a health...	02/02/2020 14...	02/02/2020 14...	No		Initial refusal		Ischemic Stroke	Yes	02/02/2020 13...
EMS784		X		51.00	Not in a health...	02/02/2020 14...		No				Ischemic Stroke	No	02/02/2020 13...
EMS785		X		84.00	Not in a health...	02/02/2020 14...		No				Ischemic Stroke	No	02/02/2020 13...
EMS801	X		X	57.00	Not in a health...	02/04/2020 14...	02/04/2020 14...	No		Initial refusal		Ischemic Stroke	Yes	02/04/2020 13...
EMS802	X		X	59.00	Not in a health...	02/04/2020 14...	02/04/2020 14...	No		Initial refusal		Ischemic Stroke	Yes	02/04/2020 13...
EMS788	X		X	73.00	Not in a health...	02/03/2020 14...	02/03/2020 14...	No		Initial refusal		Ischemic Stroke	Yes	02/03/2020 13...
EMS789	X		X	59.00	Not in a health...	02/03/2020 14...	02/03/2020 14...	No		Initial refusal		Ischemic Stroke	Yes	02/03/2020 13...

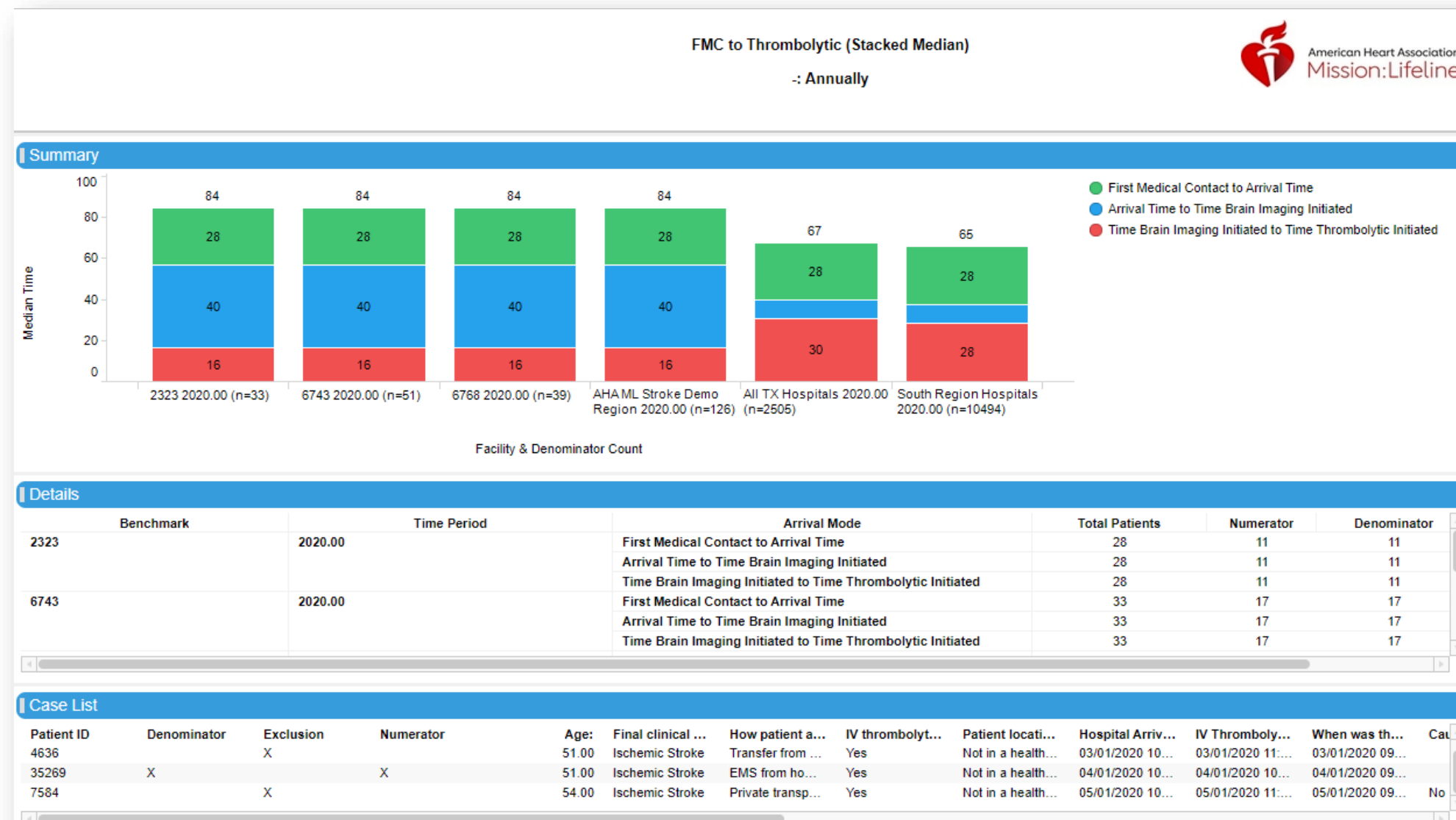
IV Thrombolytic Arrive by 3.5 Hour, Treat by 4.5 Hour Means of Arrival

Time to Intravenous Thrombolytic Therapy - 60 min Means of Arrival

FMC to Thrombolytic (Stacked Median)

Stacked Medians

- To better understand the treatment times, Stacked Median graphs and Measure Details are used for specific FMC to Treatment goals.
- Each segment of the graph displays a section of the Stroke Systems of Care
 - FMC to Hospital Arrival
 - Arrival to Brain Imaging
 - Brain Imaging to Treatment



Thank You

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*For more information,
contact your Local AHA Quality Manager,
or email GWTGSupport@heart.org*

