

ANNUAL REPORT

FY 2019 - 2020

WHAT IS LERN?

The Louisiana Emergency Response Network (LERN) is an agency of state government created by the Louisiana Legislature in 2004 charged with the responsibility of developing and maintaining a statewide system of care coordination for patients suddenly stricken by serious traumatic injury or time-sensitive illness (such as heart attack or stroke). It is a system also designated to serve as a vital healthcare resource in the face of larger-scale emergencies and natural disasters.

For the patients LERN serves – victims of trauma, heart attack, stroke, and individuals caught in large-scale emergencies and natural disasters – getting to the right place at the right time to receive the right care is a matter of life or death. LERN's mission is to build and continuously improve systems that help make sure Louisiana citizens have timely access to the care they need.

Stay informed with up-to-date information on the LERN organization, statistics from the LERN Communications Center, and an archive of past LERN Annual Reports and LERN e-newsletters at the LERN website: www.lern.la.gov.

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LETTER FROM THE EXECUTIVE DIRECTOR

One year ago, when LERN released its last annual report, I can say with great confidence that none of the 26 LERN Board members, none of the 147 LERN Regional Commissioners, and none of the three LERN staff medical directors could have imagined what we would face together as an organization, and as individuals, across the next 12-month period. COVID-19 would soon spread across the globe in a matter of months.

The onset of COVID-19 forced the whole healthcare sector into unprecedented short-term change. All patient care that could be delayed was as physicians' offices and outpatient centers temporarily locked down to help slow the COVID spread. Hospitals, however, had to do the opposite – ramping up to treat a growing wave of very sick COVID patients while also continuing to provide acute surgical and other hospital care that could not be safely postponed. And, our EMS professionals have pushed through unprecedented challenges throughout this COVID crisis to answer the call and deliver the care needed.

LERN too was impacted by COVID. During the first COVID wave in the spring of 2020, physicians participating in the LERN network began to report significant declines in the number of patients presenting to hospital emergency rooms with diagnoses of stroke and STEMI (heart attack). LERN quickly polled STEMI and Stroke network physicians to measure the prevalence of this experience and found reported declines across the state.

By April and May of 2020, the data was quite clear. In many parts of the country, Stroke and STEMI patient volumes were indeed significantly decreased. At least some of this decrease was due to patients avoiding hospitals out of COVID fear.

LERN joined with other healthcare organizations and agencies in sounding the alarm about this decline and urging patients not to avoid time-sensitive care.

Later in 2020, the COVID epidemic would complicate LERN's mission in other ways. When Hurricane Laura made landfall in Southwest Louisiana (Cameron and Calcasieu Parishes), it was recorded as the strongest hurricane to make landfall in the U.S. since 1856. LERN activated the Emergency Medical Service Tactical Operation Center (EMS TOC). The EMS TOC is responsible for the coordination of all assets during a declared emergency event. All response efforts from evacuations to sheltering had to be altered to adhere to COVID mitigation efforts.

To properly cover Hurricane Laura's increased call volume, evacuations, and transports, Louisiana's state health officer activated the federal ambulance contract and the state ambulance surge contract. This provided an additional 346 ambulances for the response. LERN managed these ambulance assets.

LERN also assisted in the coordination and evacuation of 127 patients from Lake Charles Memorial Hospital. The LERN Communication Center (LCC) expanded operations as well to meet the challenge posed by Hurricane Laura. In normal conditions, the LCC facilitates Emergency Department to Emergency Department transfers for trauma, stroke, STEMI, and burn. The LCC expanded to assist all transfers for patients needing inpatient admission recognizing the limitations in inpatient bed space in Region 5 (Southwest Louisiana) hospitals. This expansion more than tripled the LCC transfer volume when compared to the same time-frame the previous year.

Across the whole year, LERN experienced a 21% increase in LERN Communication Center facilitated transfers (1,217 in CY 2019 to 1,595 in CY 2020). This was very impactful given the difficulty in moving patients to definitive care amid the COVID-19 crisis. COVID's impact on LERN was profound but did not halt the progress in building bigger and better care coordination systems. Here are a few examples:

- LERN added four new Acute Stroke Ready Hospitals (ASRHs) to the LERN Statewide Stroke System which now has a total of 56 Acute Stroke Ready Hospitals.
- LERN's ASRH's have moved the door to needle time in Louisiana from a median of 90 minutes to 51 minutes, after excluding patients with documented reasons for delays in treatment. Every second matters during a stroke as almost two billion brain cells die every minute during an ischemic stroke. Restoring blood flow as fast as possible provides the best opportunity for patients to achieve an independent outcome.
- LERN designed a data collection tool and data dictionary for STEMI (heart attack) Receiving Center data collection. Already, 26 of LERN's 37 STEMI Receiving Centers are submitting data to the state. LERN now has a state report that compares the state performance to national benchmarks. LERN hospitals receive individual feedback reports that compare their performance to the rest of the state and to the national benchmarks.

The LERN staff and medical directors, working collaboratively with the thousands of EMS professionals, physicians, nurses, other health care professionals, and our state and local emergency response officials who voluntarily support LERN's mission, successfully navigated a most unusual year. I am exceedingly proud to serve with them.

Paige Hargrove, BSN, RN Executive Director



COVID-19 HEART AWARENESS INFOGRAPHIC

CORONAVIRUS AND YOUR HEART

Most of us are worried about the new coronavirus.
DON'T IGNORE HEART SYMPTOMS, ESPECIALLY IF YOU HAVE A HEART CONDITION.

GETTING CARE IS CRITICAL → You'll get better faster.
You'll limit damage to your health.

HEART ATTACK

- Chest pain
- Difficulty breathing
- Discomfort in chest, arms, back, neck, shoulder or jaw

STROKE

- Numbness, weakness or loss of movement in your face, leg or arm, especially on one side
- Confusion, trouble speaking or understanding
- Loss of balance

CALL 911

If you think you are having a **HEART ATTACK** or **STROKE**.
Heart attacks and strokes don't stop during a pandemic.
Hospitals have safety measures to protect you from infection.

CALL YOUR DOCTOR if you have a heart condition and have questions or think you need a health visit.
DON'T DELAY routine care. You may be able to get advice over the telephone or use telehealth for a virtual visit.

For more information about the new coronavirus for people with heart conditions, visit [CardioSmart.org/Coronavirus](https://www.cardiosmart.org/Coronavirus)

CardioSmart
American College of Cardiology

LERN BOARD OF DIRECTORS

EXECUTIVE COMMITTEE MEMBERS

Karen O. Wyble, RN, BSN, MHA, MBA

Chair of the Board

Vice President of Rural Health and Workforce
Development

Lafayette General Health System

Nominating Entity: Rural Hospital Coalition

William Freeman, MD

Immediate Past Chair of the Board
Medical Director

Professional Emergency Physician Associates

(PEPA)
Nominating Entity: Louisiana American College of
Emergency Physicians

Deiandra J. Garrett, MD

Vice-Chair of the Board

Pediatric Surgeon

Our Lady of Lourdes Women's and Children's
Hospital

Nominating Entity: Louisiana State Medical Society

John P. Hunt, MD, MPH, FACS

Executive Committee Member

Professor of Surgery

Louisiana State University Health Sciences
Center - New Orleans

Nominating Entity: Louisiana State University Health
Sciences Center - New Orleans

Tracy Wold

Treasurer of the Board

Director of Operations

Pafford Emergency Medical Services

Nominating Entity: Louisiana Rural Ambulance Alliance

John D. Jones, MD

Executive Committee Member

Emergency Department Medical Director

Baton Rouge General Medical Center - Bluebonnet

Nominating Entity: Verified Burn Center

Joseph Kanter, MD

Executive Committee Member

State Health Officer

Louisiana Department of Health

Nominating Entity: Louisiana Department of Health

BOARD MEMBERS

Honorable Regina Ashford Barrow

Senator

Louisiana State Senate

Nominating Entity: Louisiana State Senate

Jeffrey E. Carter, MD

Medical Director – UMC Burn Center

University Medical Center – New Orleans

Nominating Entity: Metropolitan Hospital Council

Schaun Chevis, MSW

Program Manager/Emergency Preparedness
Coordinator

Louisiana Department of Health

Nominating Entity: Louisiana Department of Health

Janet D. Clark

Director of Inpatient Rehabilitation Programs
Touro

Nominating Entity: Louisiana Hospital Association
Rehabilitation Constituency Group

Gerald A. Cvitanovich, MD

Coroner

Jefferson Parish

Nominating Entity: Louisiana State Coroners Association

David Daly, Jr., MD

Cardiologist

Cardiology Specialists of Acadiana

Nominating Entity: Louisiana Chapter of the American
College of Cardiology

Paul Gladden, MD

Associate Professor and Chief of Orthopedic
Trauma Surgery

Tulane University School of Medicine

Nominating Entity: Louisiana State Medical Society

Honorable Jonathan Goudeau

Representative

Louisiana House of Representatives

Nominating Entity: Louisiana House of Representatives

Christopher Guilbeaux

Deputy Director of Preparedness, Response, &
Interoperability

Louisiana Governor's Office of Homeland
Security and Emergency Preparedness

Nominating Entity: Louisiana Governor's Office of
Homeland Security and Emergency Preparedness

Thomas H. Jacome, MD

Trauma Medical Director

Our Lady of the Lake Regional Medical Center

Nominating Entity: Committee on Trauma, American
College of Surgeons

Brandon J. Mauldin, MD

Chief Medical Officer

Tulane University Hospital and Clinic

Nominating Entity: Tulane University Health Sciences
Center

Honorable Buddy Mincey, Jr.

Representative

Louisiana House of Representatives

Nominating Entity: Louisiana House of Representatives

Charles Nassauer, OD

Optometrist and Owner

All Vision and All Care Eye Center

Nominating Entity: Optometry Association of America

Monica S. Nijoka, MHA, BSN, RN

Chief Nursing Officer

Baton Rouge General Medical Center

Nominating Entity: Louisiana State Board of Nursing

Greg K. Stock

Chief Executive Officer

Thibodaux Regional Health System

Nominating Entity: Louisiana Hospital Association – Service District Hospital

Other Nominating Entities:

Louisiana Association of EMS Physicians – Medical
Louisiana Medical Association

Carl J. Varnado, Jr.

Captain

National Emergency Number Association

Nominating Entity: National Emergency Number Association

Honorable Mack "Bodi" White

Senator

Louisiana State Senate

Nominating Entity: Louisiana State Senate

Robert K. White, MD

Chairman and Professor, Department of Surgery

Ochsner LSU Health Shreveport

Nominating Entity: LSU Health Sciences Center – Shreveport

Richard M. Zweifler, MD

Chairman, Department of Neurology

Ochsner Health Systems, Neurology Department

Nominating Entity: American Stroke Association

TRAUMA SYSTEM UPDATE

A MESSAGE FROM

MICHAEL J. SUTHERLAND, MD, FACS

LERN TRAUMA MEDICAL DIRECTOR



It is my pleasure to offer this report as LERN's Medical Director for Trauma. The Trauma System remains strong and has grown in 2020 even in the face of the COVID pandemic. LERN has spent a great deal of effort in maturing the Trauma Quality Improvement Program Collaborative. This Collaborative helps drive statewide performance improvement processes and sharing of best practices to enhance the care of the injured patient. The maturation of the Pediatric Trauma Programs and the Burn Center collaboration throughout the state have made access to care for these critical populations better than ever.

Building on the framework of the existing Trauma System, LERN has realized numerous successes in growing the system, including:

- A renewed interest in the development of a Level III Trauma Center in Region VIII (Northeast/Monroe). LERN is actively working with the region to work through gap analysis and opportunities for the implementation of a new trauma center in this region.
- Trauma Programs have been established in Baton Rouge, New Orleans, and Shreveport for Pediatric Level II Trauma Centers. These programs are expanding the access to specialized care for the critically injured child.
- Louisiana's four Burn Centers have continued their collaborative efforts across the state. They developed online education on the care of the burn patient and formalized the destination protocol for burn patients used by the LERN Communications Center to route these patients to the most appropriate facility.

The Trauma Quality Improvement Program (TQIP) Collaborative has continued to meet, and LERN is working to engage all trauma centers with the data in their individual TQIP reports to enhance the performance of the state as a whole. This effort allows our trauma system to use risk-adjusted data to identify best practices and improve outcomes throughout Louisiana. Sharing best practices and working together to improve care delivered to the injured patient is accelerating the maturation of the trauma programs throughout the state. Meetings throughout the year bring together leaders (physicians, nurses, and registrars) from all of Louisiana's trauma centers to share these best practices and identify the best way forward for Louisiana's growing trauma system.

The new year (2021) will be a busy year for our trauma centers. In addition to the steady increase in the number of patients seen in the system, five of our trauma centers will undergo American College of Surgeons Committee on Trauma reverification visits this year. These reverification visits were scheduled for 2020 but pushed back due to the COVID pandemic. These visits evaluate the program characteristics and effectiveness in performance improvement to ensure that the trauma programs are operating under the rules of the Optimal Resources for the Care of the Injured Patient. This year, and likely for the foreseeable future, these visits will be completed utilizing a virtual format. This change adds a layer of complexity to these evaluations. We are partnered with our state's trauma programs to ensure that they are prepared and successful with this process.

Our trauma system is strong and has grown rapidly in recent years to now cover most geographic areas of the state. We are using the expertise of our trauma centers and the power of our data to define goals and look to future opportunities to improve the care of the critically injured patient in Louisiana. We remain dedicated to building on our existing strength, demonstrating the value of Louisiana's trauma system, improving care for our citizens, and expanding the system to best serve all people in the state.

Michael J. Sutherland, MD, FACS
LERN Trauma Medical Director

STATEWIDE COVERAGE

COVID-19 halted the American College of Surgeons (ACS) verification process, and as a result, the Louisiana state trauma system did not expand to include a verified Pediatric trauma center as planned. ACS extended current verifications by one year for all existing trauma centers in the country. During this time, LERN continued to support the nine verified trauma centers and two trauma programs to prepare them for their next site survey. Our growth in the past 10 years is impressive. In 2011, Louisiana had two Level I trauma centers located on opposite ends of the state in Shreveport and New Orleans. These two centers provided 40% of the state’s population access to a trauma center with a one-hour drive time – otherwise known as the “golden hour.” Today, Louisiana’s Trauma System includes nine trauma centers, providing 83% of the population with access to a trauma center within the “golden hour.” Figures 1 and 2 provide a visual of trauma center expansion in Louisiana.

The Louisiana Trauma System Centers are:

LDH REGION	HOSPITAL NAME	TRAUMA CENTER LEVEL
1	UNIVERSITY MEDICAL CENTER - NEW ORLEANS	LEVEL 1
2	OUR LADY OF THE LAKE REGIONAL MEDICAL CENTER	LEVEL 2
4	LAFAYETTE GENERAL MEDICAL CENTER	LEVEL 2
5	LAKE CHARLES MEMORIAL HOSPITAL	LEVEL 3
6	RAPIDES REGIONAL MEDICAL CENTER	LEVEL 2
7	OCHSNER LSU HEALTH SHREVEPORT	LEVEL 1
9	NORTH OAKS MEDICAL CENTER	LEVEL 2
9	LAKEVIEW REGIONAL MEDICAL CENTER	LEVEL 3
9	ST. TAMMANY PARISH HOSPITAL	LEVEL 3
7	OCHSNER LSU HEALTH PEDIATRIC TRAUMA PROGRAM	L2 PROGRAM
2	OUR LADY OF THE LAKE CHILDREN'S HOSPITAL TRAUMA PROGRAM	L2 PROGRAM

FIGURES 1 & 2

STATEWIDE TRAUMA COVERAGE EXPANSION 2011 - PRESENT

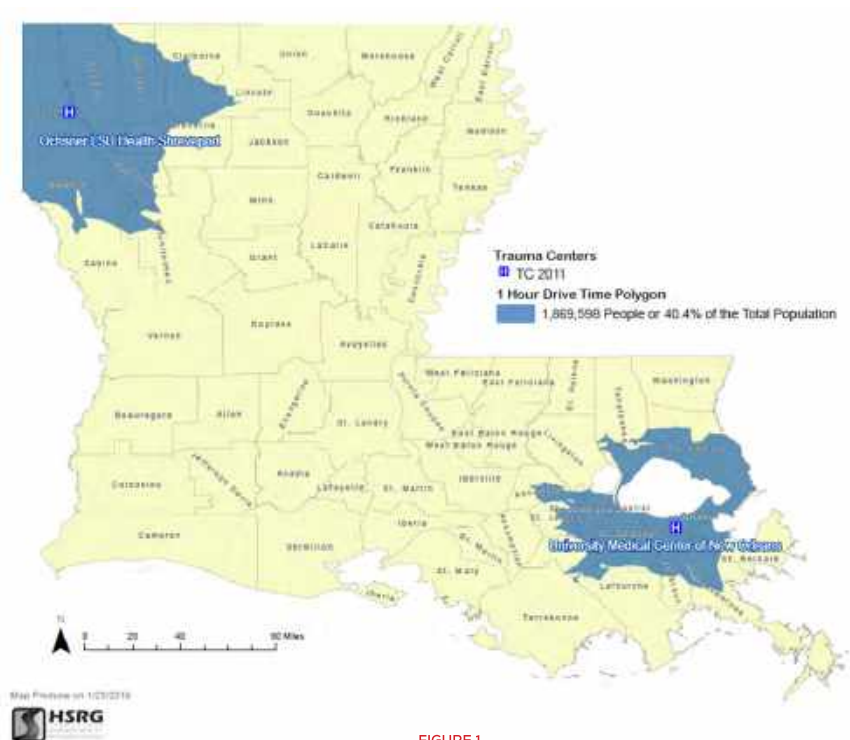


FIGURE 1

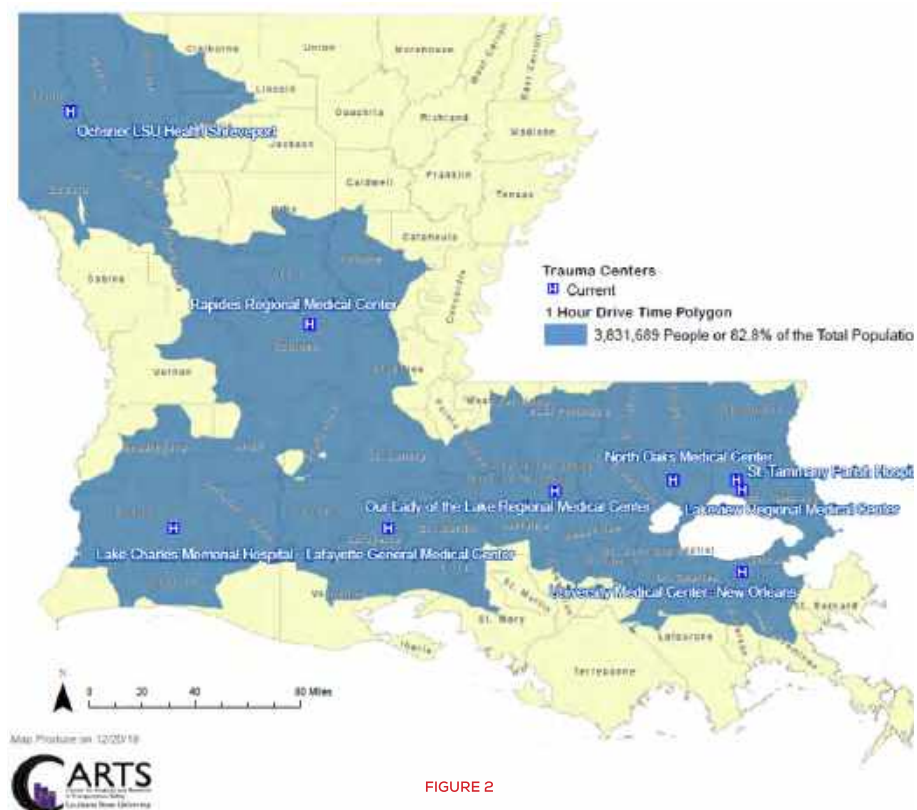


FIGURE 2

PEDIATRIC TRAUMA SYSTEM

The LERN Board is proud of the progress made in building out the state trauma system, but also recognizes the uniqueness of the pediatric trauma patient. More children die of injury than of all other causes combined. Many injured pediatric patients have special needs that are optimally provided in the environment of a children's hospital with demonstrated expertise in, and commitment to, pediatric care and trauma care. For these reasons, LERN focused on the need for pediatric trauma centers strategically located in Louisiana.

In 2019, LERN collaborated with our hospital partners to establish these advanced pediatric centers. Ochsner LSU Health Shreveport and Our Lady of the Lake Children's Hospitals have both attested to meeting LERN's Pediatric Trauma Program benchmarks, which are based on criteria set by the American College of Surgeons. We expect Children's Hospital New Orleans to fully implement their Pediatric Trauma Program in early 2021. The LERN Executive Committee has approved their program to move forward pending the adoption of a pediatric destination protocol in Region 1.

The "trauma program" label is an interim status until fully verified by the American College of Surgeons. Per state rules and regulations LAC 48: I, Chapter 197, § 19707(D): "To maintain trauma program recognition, the hospital must request an ACS verification or consultation site visit at the time of the attestation or within 30 days thereafter, with the consultation or survey to occur within 12 months of the attestation or as close to 12 months as the ACS schedule allows. Written documentation of the request and scheduling must be submitted to LERN."

Figure 3 provides a visual of the pediatric trauma program expansion in Louisiana.

FIGURE 3

LOUISIANA TRAUMA PROGRAMS - 2020



LERN BOARD'S VISION & NEXT STEPS

The LERN Board's vision is to achieve an ACS verified trauma center in each LDH region. As depicted in Figures 1 and 2, we have made significant progress towards this goal. We continue to strive to fill the biggest void in Region 8, the Monroe area. For patients injured in Northeast Louisiana, there is a significant distance to the Level I Trauma Center in Shreveport or to the Level II Trauma Center in Alexandria. The table below indicates the number of trauma patients transferred within and out of Region 8 by the LERN Communication Center in CY 2020. The time-sensitive nature of trauma requires that we fill this void. LERN is committed to our vision, and we will continue efforts to establish a trauma center in Region 8 and Region 3 (Houma/Thibodaux). Figure 5 depicts a map of the existing trauma centers and the regions where a trauma center is needed.

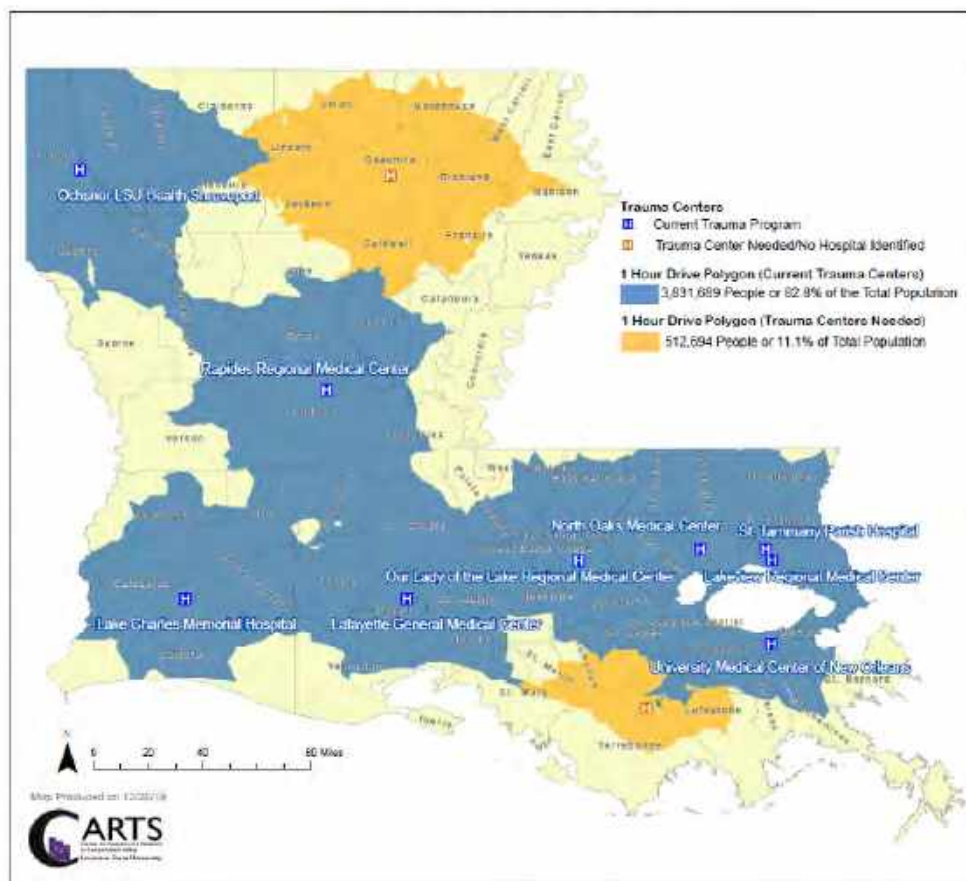
FIGURE 4

REGION 8 (MONROE AREA) TRAUMA TRANSFERS

SERVICE	TRANSFERRED OUT OF REGION	TRANSFERRED WITHIN THE REGION	TOTAL
NEUROSURGERY	200	3	203
ORTHOPEDIC SURGERY	56	11	67
STROKE CARE	60	7	67
MULTI-SYSTEM TRAUMA	63	1	64
OTHER	51	6	57
SURGERY	44		44
CARDIAC CATHETERIZATION	4	29	33
PEDIATRIC SERVICES	21		21
ENDOVASCULAR SERVICES	13		13
BURN CARE	4		4
ED EVALUATION	1		1
TOTAL	517	57	574

FIGURE 5

LOUISIANA'S IDEAL TRAUMA SYSTEM
(WITHIN 60 MINUTE DRIVE TIME)



TRAUMA EDUCATION

Trauma is the leading cause of death for Americans between the ages of one and 46 years, and the third cause of death across all age groups*. Irrespective of one's age, economic status, or race, injuries occur to almost everyone in their lives**. Trauma centers and trauma systems support the integration of high-quality prehospital and hospital care by participation in trauma training. Each trauma center needs to develop and maintain a competent workforce, ensuring that all clinical healthcare providers are trained in appropriate trauma principles and procedures***. LERN provided trauma education across the state to facilitate an educated trauma workforce. In the calendar year 2020, our education efforts were slowed due to COVID-19 and social distancing requirements. Despite this, LERN led 65 trauma courses. This effort resulted in 772 students receiving trauma education. The following figures capture our efforts in 2020 and the cumulative efforts spanning 2012 - 2020.

LERN education efforts were greatly enhanced by The Living Well Foundation, which awarded LERN a \$21,000 grant to teach the Emergency Nurse Pediatric Course (ENPC) in all hospitals located in their service area. The service area does not have access to a trauma center within a 60 minute drive time and includes the following parishes: Caldwell, Franklin, Jackson, Lincoln, Morehouse, Ouachita, Richland, and Union. The intent of this project was to equip emergency nurses with the specific knowledge and skills required to recognize and respond to life-threatening emergencies in children. LERN values our partnership with The Living Well Foundation.

FIGURE 6

LERN FACILITATED TRAUMA EDUCATION CY 2020

COURSE NAME	NUMBER OF CLASSES	NUMBER OF STUDENTS	REGIONS
TRAUMA NURSE CORE CURRICULUM	25	251	1, 2, 3, 4, 5, 6, 7, 8, 9
EMERGENCY NURSE PEDIATRIC COURSE	25	203	2, 3, 6, 7, 8, 9
RURAL TRAUMA TEAM DEVELOPMENT COURSE	1	34	4
HEMORRHAGE CONTROL (LAW ENFORCEMENT)			
HEMORRHAGE CONTROL (PUBLIC)			
STOP THE BLEED	13	252	2, 3, 7, 8, 9
AIS 15 COURSE	1	32	TRAUMA CENTERS & PROGRAMS
ATCN			TRAUMA CENTERS
EMS EDUCATION DAY			
TOTAL	65	772	

*Centers for Disease Control and Prevention. (2015). Injury prevention & control: Data and statistics (WISQARSTM). Retrieved from <http://www.cdc.gov/injury/wisqars/>

**Centers for Disease Control and Prevention. (2014). Injury prevention and control: Saving lives and protecting people from violence and injuries. Retrieved from <http://www.cdc.gov/injury/overview/index.html>

***Resources for Optimal Care of the Injured Patient <https://www.facs.org/-/media/files/quality%20programs/trauma/vrc%20resources/resources%20for%20optimal%20care.pdf>

FIGURE 7

LERN EDUCATION FOOTPRINT 2012 - 2020

COURSE NAME	NUMBER OF CLASSES	NUMBER OF STUDENTS
TRAUMA NURSE CORE CURRICULUM (TNCC)	233	2,438
EMERGENCY NURSE PEDIATRIC COURSE (ENPC)	94	851
RURAL TRAUMA TEAM DEVELOPMENT COURSE (RTTDC)	94	851
PRE-HOSPITAL TRAUMA LIFE SUPPORT	11	162
TRAUMA & PEDIATRIC CARE AFTER RESUSCITATION	7	246
TRAUMA CERTIFIED REGISTERED NURSE	1	80
AIS COURSE FOR TRAUMA REGISTRARS	2	46
12 LEAD EKG COURSE	74	2,140
HEMORRHAGE CONTROL (LAW ENFORCEMENT)	34	946
HEMORRHAGE CONTROL (PUBLIC)	3	1745
STOP THE BLEED	165	4,890
ADVANCED TRAUMA CERTIFIED NURSE (ATCN)	1	14
TOTAL	719	14,409

LERN COMMUNICATION CENTER

La. R.S. 40:2845, states that the LERN Board shall establish and maintain a statewide trauma system that shall include a centralized communication center for resource coordination of medical capabilities for participating trauma centers as defined by R.S. 40:2171 and emergency medical services. As such, LERN has operated a communication center since 2009.

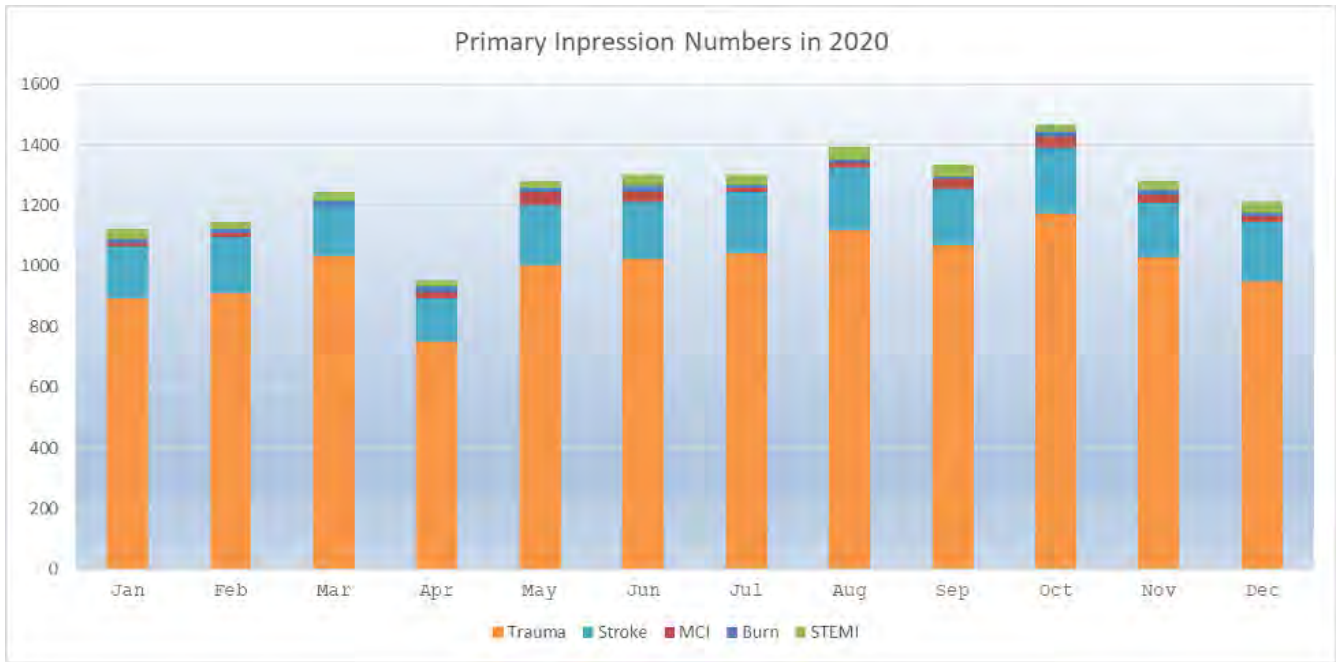
The LERN Communication Center (LCC) serves as the core resource of LERN's logistical operation. When a pre-hospital provider (EMS) or hospital determines a patient meets trauma criteria as defined in the LERN Trauma Destination Protocol, the LCC is engaged to match the patient to the hospital with the most appropriate level of care. The LCC utilizes the Resource Management Tool in Louisiana's ESF-8 Portal to match patients to the most appropriate hospital resources. Trauma patients typically need the specialized care of general surgeons, orthopedic surgeons, or neurosurgeons. These resources are not readily available across the state, especially in rural areas. Because time is critical for trauma patients, the LCC matches each patient's clinical needs to the resources required for treatment. Often, this requires bypassing the closest hospital to get the patient to the definitive care he/she needs. In 2014, the LCC began providing this same service for patients experiencing two time-sensitive illnesses – stroke and STEMI (heart attack). In April 2019, we began providing the same services for burn patients.

The LCC communications infrastructure is designed to interface with the state's current communications technology systems – to support LERN's day-to-day network operations and the statewide interoperability mission in times of disaster. The LCC continues to serve as the "first call" helpdesk and the 24/7/365 information coordinator for unfolding events in Louisiana. This task ranges from resetting passwords so hospitals, nursing homes, and others can report bed statuses during disasters to notifying administration and response teams of events.

LERN COMMUNICATION CENTER VOLUME

The LERN Communication Center routed 15,034 patients in CY 2020. There was a 6% increase in call volume between CY 2018 to CY 2020. Trauma patients account for the majority of patients routed via the LCC, followed by stroke, STEMI, and mass casualty incidents.

FIGURE 8
PATIENTS ROUTED BY LCC IN 2020



*THE MAJORITY OF THE LERN COMMUNICATION CENTER VOLUME IS TRAUMA, FOLLOWED BY STROKE, STEMI, BURNS, AND MASS CASUALTIES.

FIGURE 9
LCC VOLUMES: THREE-YEAR TREND



Three-Year Trend: CY 2018 = 14,133, CY 2019 = 14,873, CY 2020 = 15,034

SECONDARY TRANSFERS

Through our efforts we continue to meet our performance metric goal of a less than 5% secondary transfer rate. Research indicates that a considerable number of transferred trauma patients undergo potentially preventable, repeated CT scans, adding radiation doses to patients and costs to the healthcare system. More consequently, time is critical for trauma patients. The ideal is treatment within the golden hour. Since CY 2015, the LCC consistently reports a secondary transfer rate (of LERN-directed patients) of less than 3%. In CY 2020, the LERN secondary transfer rate increased to 4%, but still met our performance metric. We believe the increase is due to the hospital capacity issues from COVID-19 which resulted in higher diversion rates. The multiple hurricanes also restricted the transportation capabilities of EMS services in the affected areas. A secondary transfer of 31% is reported for trauma patients not directed by the LCC, an increase from 24% last year.

FIGURES 10 & 11

PATIENTS REQUIRING TRANSFER IN 2020

SECONDARY TRANSFER FOR LERN DIRECTED PATIENTS INCREASE FROM 3% TO 4% IN CY 2020.

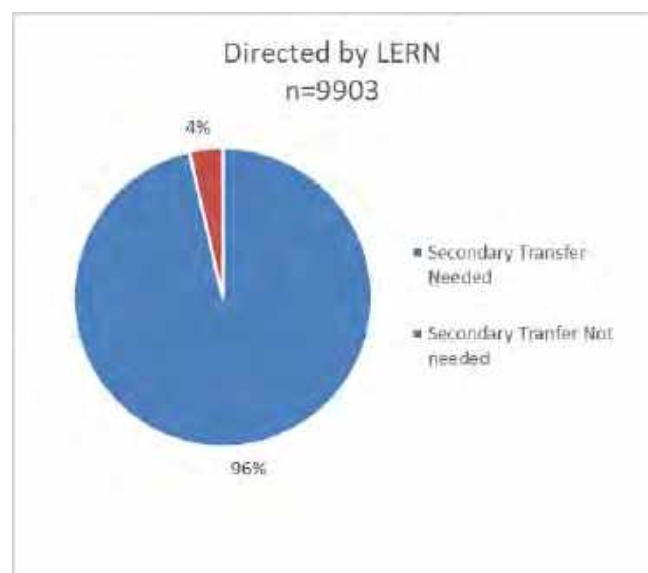


FIGURE 10

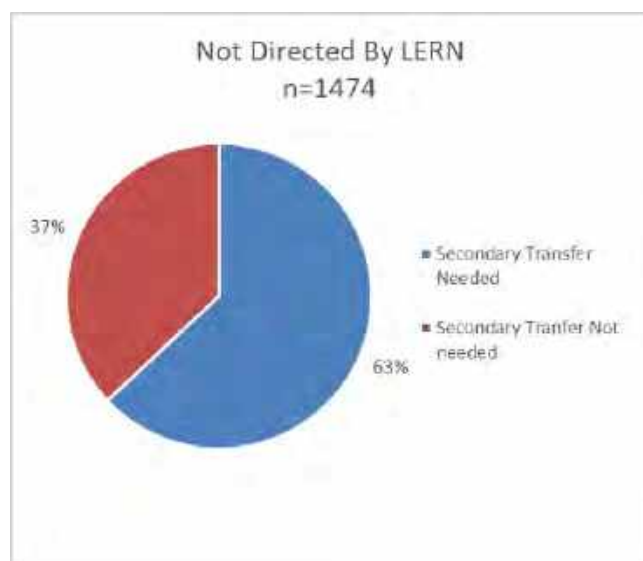


FIGURE 11

PATIENTS NOT DIRECTED BY LERN COMMUNICATION CENTER AND REQUIRED TRANSFER WAS 24% IN 2018, 31% IN 2019, AND 37% IN 2020.

2020 TRANSFER DATA

Dr. Michael Sutherland, LERN Trauma Medical Director, and the LERN staff worked with hospitals statewide to educate on the advantages of utilizing the LERN Communication Center to facilitate transfers to a higher level of care for trauma, stroke, STEMI, and burns. Our efforts resulted in an increase in LCC facilitated transfers in all systems.

FIGURE 12

LCC FACILITATED TRANSFERS 2019 - 2020

LERN SYSTEM	2019	2020	% DIFFERENCE
BURN	10	21	110%
MCI	3	6	100%
STEMI	40	78	95%
STROKE	290	350	20.7%
TRAUMA	974	1,140	17%
TOTAL	1,317	1,595	21.1%

Transfer volumes increased significantly during the active 2020 hurricane season. Hospitals depended on the LCC to find definitive care hospitals.

FIGURE 13

**LERN FACILITATED TRANSFER VOLUME BY MONTH
(2019 - 2020)**



FIGURE 13 INDICATES THE IMPACT OF HURRICANES LAURA AND DELTA ON REGION 5 (LAKE CHARLES) HOSPITAL TRANSFERS. TYPICALLY, THE LCC ONLY DIRECTS TRAUMA, STROKE, STEMI, AND BURN PATIENTS. DUE TO THE DAMAGE TO THE MEDICAL INFRASTRUCTURE AND LACK OF RESOURCES IN THE LAKE CHARLES AREA, THE LCC VOLUNTEERED TO ROUTE ALL PATIENTS IN THE REGION AND TO HELP FACILITATE TRANSFERS FOR ALL PATIENTS NEEDING HOSPITALIZATION. THE SPIKE IN TRANSFERS IS CLEARLY INDICATED FROM JULY THROUGH DECEMBER.

FIGURE 14

LCC FACILITATED REGION 5 MEDICAL TRANSFERS



STATE BURN SYSTEM

Recognizing the uniqueness of the burn patient population and the scarceness of resources to care for severe burns, in 2018 the LERN Board directed the Executive Director to work with our burn partner hospitals to formalize a system for burn care in Louisiana. Given this directive, we turned to the experts: the physician Burn Medical Directors from the Baton Rouge General Burn Center, Ochsner LSU Health Shreveport, Our Lady of Lourdes, and University Medical Center New Orleans. Under their guidance, we developed a Burn Destination Protocol, a Pre-Hospital Burn Guideline, and an ED Burn Guideline. All can be accessed on the LERN website at <http://lern.la.gov/trauma/lern-trauma-protocols/>.

The LERN Communication Center routed 167 burns in CY 2020. Figure 15 indicates the LDH regions that received these patients.

FIGURE 15

BURN PATIENTS BY REGION RECEIVED

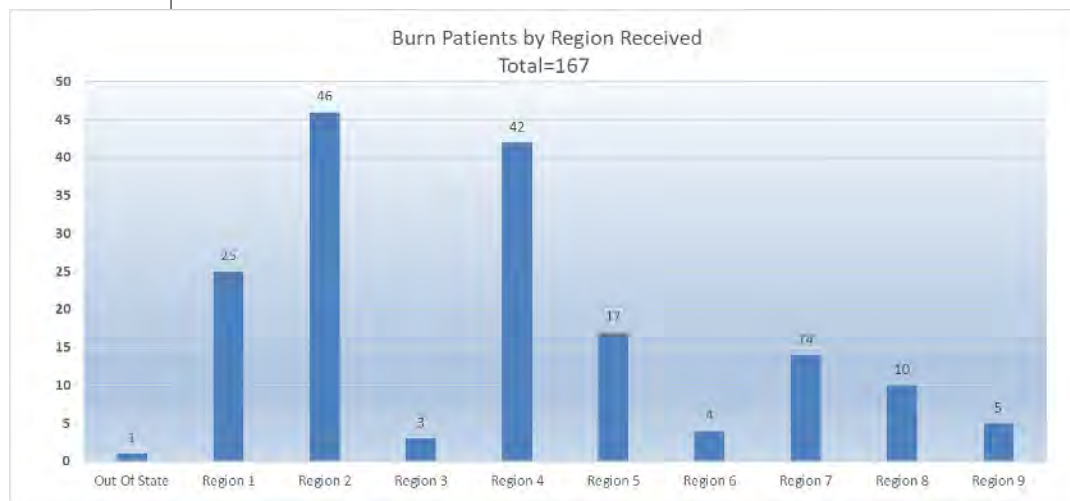


FIGURE 16

MAP OF LOUISIANA BURN CENTERS

In collaboration with the medical directors of the four state burn facilities, LERN developed a computer-based training course for Louisiana licensed EMS practitioners. The Burn Basics for EMS course consists of six modules designed to cover various pre-hospital burn topics including the state protocol for routing burn patients through the LERN Communication Center.

The Burn Basics for EMS course modules include:

- Airway and Inhalation Injury - Dr. Jeffrey Carter, University Medical Center New Orleans
- Cardiac and Burn Resuscitation – Dr. Tracee Short, Baton Rouge General
- Electrical Burn Injuries – Dr. Joey Barrios, Our Lady of Lourdes Regional Medical Center
- Chemical Burn Injuries – Dr. Kevin Sittig, Ochsner LSU Health Shreveport
- Pediatric Burn Injuries – Dr. Jeffrey Carter, University Medical Center New Orleans
- LERN Burn System – Jason Allemand, LERN

Each module is an informative presentation centered around the pre-hospital care of that specific type. Following the presentation is a brief quiz to test understanding of the material discussed. Once the entire course is successfully completed, users can print out a certificate. This course was accredited through the Commission on Accreditation for Pre-Hospital Continuing Education (CAPCE) allowing Louisiana EMS practitioners three hours of continuing education.

This course was funded by LERN and there was no cost to the student. CE hours are only available for Louisiana EMS practitioners.

DISASTER RESPONSE UPDATE

A MESSAGE HONORING

JIMMY GUIDRY, MD

FIFTEEN YEARS OF STERLING SERVICE TO LERN

Dr. Jimmy Guidry was there in 2004 – one of the healthcare leaders who helped the state legislature appreciate the need to create a comprehensive, coordinated statewide trauma system. He was there again in 2006 – leading the effort to secure state funding for the newly created Louisiana Emergency Response Network (LERN). And Dr. Guidry was there every day thereafter – guiding, advising, encouraging, and protecting LERN’s ongoing development through over 15 years of service on the LERN Board of Directors and the Board’s Executive Committee while serving as Louisiana’s State Health Officer.

Dr. Guidry was instrumental in establishing LERN’s disaster response role as the “first call” helpdesk and 24/7/365 information coordinator for unfolding events statewide. Today, due in large part to Dr. Guidry’s vision, LERN is an indispensable component of the state’s disaster response during hurricanes, floods, explosions, and large-scale accidents.

From the beginning, Jimmy Guidry could see LERN’s potential and through the years he effectively made the case for LERN with physicians, hospital leaders, EMS leaders, first responders, policymakers, legislators, and governors alike as LERN’s potential steadily became reality.

LERN’s future as a vital Louisiana healthcare resource has been secured in no small measure by the professional integrity and unwavering dedication of Dr. Jimmy Guidry.

Thank you, Dr. G.

STANDING L TO R: ROSANNE PRATS, PHD,
JIMMIE STEVENS, SHEREE TAILLON, AMANDA
AMES, AND PAIGE HARGROVE.



ALL DISASTER RESPONSE AND THE LERN COMMUNICATION CENTER

LERN’s dedication to the citizens of Louisiana during disasters and mass casualty incidents remains a high priority of the LERN Communication Center (LCC). LCC staff continually work with EMS, hospital, and emergency preparedness partners to ensure proper coordination throughout these unfortunate events. LERN also manages the EMS Tactical Operations Center (EMS-TOC) during large-scale events that require a larger prolonged response.

The LERN Communication Center assists in the management of MCI’s by:



In CY 2020, the LERN Communication Center managed 60 Mass Causality Incidents (MCIs) events statewide involving 263 patients.

Responsibilities of the EMS-TOC:

- Coordinate ambulance assets during a declared event
- Collaborate with Bureau of EMS Ambulance Processing Site regarding number of available assets
- Communicate with and track all ground ambulances provided under state contract from staging, to assigned, post-mission, and back to staging upon completion or demobilization
- Coordinate federal assets with federal liaison
- Communicate with Designated Regional Coordinators throughout the state to process mission requests
- Document in real-time all assets assigned to state operations in each region
- Provide situation report to leadership as requested

LERN works closely with our stakeholders throughout the state to develop, implement, and practice response plans. Our success revolves around participation in drills that challenge our roles and the coordination of the system as a whole. In 2020, due to COVID and a very active hurricane season, the opportunity to conduct drills with our stakeholders did not present itself. The EMS TOC released an educational presentation on the LERN Learning Management System to provide instruction to EMS and the Designated Regional Coordinators (DRCs) pertaining to EMS TOC operations. We are always looking for additional opportunities to exercise our procedures for mass casualty. If you have an upcoming drill and would like LERN to participate, please contact our office at (225) 756-3440.

During the 2020 hurricane season, Louisiana had five storms make landfall, three of which were hurricanes. The EMS Tactical Operation Center was under partial activation during the two tropical storms and went to full activation on August 25, 2020. The EMS TOC remained activated for 73 days until the final demobilization of assets on November 6, 2020. During the response, a total of 359 ambulances and 131 paratransit vehicles were utilized across the state.

LERN leadership chose to co-locate the EMS TOC in the same building as the LERN Communication Center during the 2016 flood. This proved to be advantageous in the response to the multiple hurricanes of 2020. The EMS TOC faced several challenges in managing resources due to the devastation in the Lake Charles area. Many facilities had to be evacuated. Lake Charles Memorial Hospital evacuated 127 patients post landfall. The EMS TOC, LERN Communication Center, and multiple DRCs from other regions of the state executed a mass evacuation that sent patients to 22 hospitals across regions 1, 2, 4, and 9.

The LERN Communication Center also activated an emergency contingency plan to route patients that fell outside of normal operations. This was necessary due to the limited number of facilities able to care for patients post storm. Many facilities were left without power, water, staff, and/or HVAC. Facilities that managed to stay open were very limited in their capabilities. During this time, the LCC directed movement of 87 patients to resourced hospitals in other regions.

COVID made traditional congregant sheltering very different in 2020. To reduce the spread of COVID-19, evacuees were placed in several hotels across the state with most in the New Orleans area. Due to the higher volume of people in the city, the volume of 911 calls grew quickly. The state activated a unique plan to supply ambulances at each of the 33 hotels in New Orleans to help be a front line of medical consultation. The state also provided additional ambulances to New Orleans EMS to assist in increased call volume.

Unfortunately, COVID also created issues with local EMS services. Many EMS professionals became ill leaving their agencies low on staff to meet the increased needs of their communities. State and federal ambulance assets were supplied to many EMS agencies to assist, allowing them to continue daily operations. Lafourche EMS suffered greatly with COVID affecting many of their medics. State surge units were assigned to their service and ran their operations for 22 days until employees were able to return to work.

Due to storm-related issues at the mega shelter in Alexandria, the state Medical Special Needs Shelter (MSNS) had to be placed at Lamar Dixon Expo Center in Gonzales. The EMS TOC supplied ambulance crews and paratransit vehicles to the MSNS to support their needs. Another unique operation arose from this. The LERN Communication Center provided patient routing for patients requiring transport to area hospitals. This was necessary as many of the shelter staff and transporting EMS crews were unfamiliar with local facilities and their capabilities. This also ensured that the patients were distributed equitably among hospitals, who were already facing bed capacity issues.

REFERENCES

1. Centers for Disease Control and Prevention. (2015). Injury prevention & control: Data and statistics (WISQARSTM). Retrieved from <http://www.cdc.gov/injury/wisqars/>
2. Centers for Disease Control and Prevention. (2014). Injury prevention and control: Saving lives and protecting people from violence and injuries. Retrieved from <http://www.cdc.gov/injury/overview/index.html>
3. Resources for Optimal Care of the Injured Patient <https://www.tacs.org/-/media/files/quality%20programs/trauma/urcc%20resources/resources%20for%20optimal%20care.pdf>

STROKE SYSTEM UPDATE

A MESSAGE FROM

SHERYL MARTIN-SCHILD, MD, PHD, FANA, FAHA LERN STROKE MEDICAL DIRECTOR



The world of acute stroke care has evolved faster in the last five years than it had in the preceding 15 years. With no residual doubt, thrombectomy increases the odds of surviving with independence from the most severe ischemic strokes, caused by large vessel occlusions (LVO), compared with standard medical care, even up to 24 hours after the last time a stroke victim is seen normal.

While continuing to work with all stroke centers across Louisiana to improve appropriate and timely treatment with intravenous thrombolytic, our focus has expanded to reducing the time from arrival to departure (door-in-door-out, or DIDO) at a center without thrombectomy. A reduction in DIDO will improve the chance of receiving effective treatment at a thrombectomy center, but requires timely recognition of patients with LVO, early initiation of transfer, and rapid and safe interhospital transfer by ground or air ambulance.

Effective 2020, all participating stroke centers without thrombectomy submit quarterly data which allows analysis of LVO screening, DIDO, and reasons for delay in DIDO. Hub hospitals will be working with their spoke hospitals to reduce arrival to transfer request time and LERN will be working with our interhospital EMS services to reduce transfer request time to departure time.

Louisiana's maturing Stroke System of Care continues to thrive despite the substantial challenges in the delivery of acute stroke care imposed by the COVID-19 pandemic. Here are some of the highlights of the stroke system's progress.

- LERN's care coordination system includes five different levels of hospitals prepared to receive and rapidly treat stroke patients. A total of 79 hospitals are included in these five levels.
- 98% of Louisiana's citizens now have 60-minute drive time access to a certified Stroke Center (PSC, TSC, or CSC)* or Acute Stroke Ready Hospital (ASRH).
- 79.4% of Louisiana's citizens can access a thrombectomy capable center (CSC, TSC, or PSC-E) within a 60-minute drive time.
- The percentage of patients with ischemic stroke who received recanalization therapy in ASRHs during 2020 was 9.1%. In Q1 and Q2 2020, the median door-to-needle time (DTN) in ASRHs was 51 minutes; over 80% were treated within 60 minutes of arrival; almost 40% within 45 minutes.
- During Q2 2020, the median DTN in CSC, TSC, and PSCs was 45 minutes.
- The Phase 1 target DIDO is 90 minutes. In Q3 2020, PSCs had a median DIDO of 112 minutes; when last analyzed, ASRHs had a median DIDO of 113 minutes. LERN has identified room for improvement.

*CSC - Comprehensive Stroke Center, TSC - Thrombectomy Capable Stroke Center, PSC - Primary Stroke Center, PSC-E - Primary Stroke Center with Endovascular

The American Stroke Association endorses a target of under 45 minutes for median door-to-needle time. For the last two quarters, our higher-level stroke centers (CSC, TSC, and PSCs) have met this target. Continuing our work together, I am confident Louisiana's ASRHs will hit that significant target soon.

Our goals in 2021 include a further increase in recanalization therapy rates, further reduction in median door-to-needle time, improvement in door-in-door-out for patients transferred for thrombectomy with ischemic stroke due to large vessel occlusion, establishing Primary Stroke Centers in Regions 3 and 8, and improving access to thrombectomy in Central Louisiana to minimize brain lost in lengthy secondary transfers.

I look forward to continuing to lead these efforts.

Dr. Sheryl Martin-Schild, MD, PhD, FANA, FAHA
LERN Stroke Medical Director

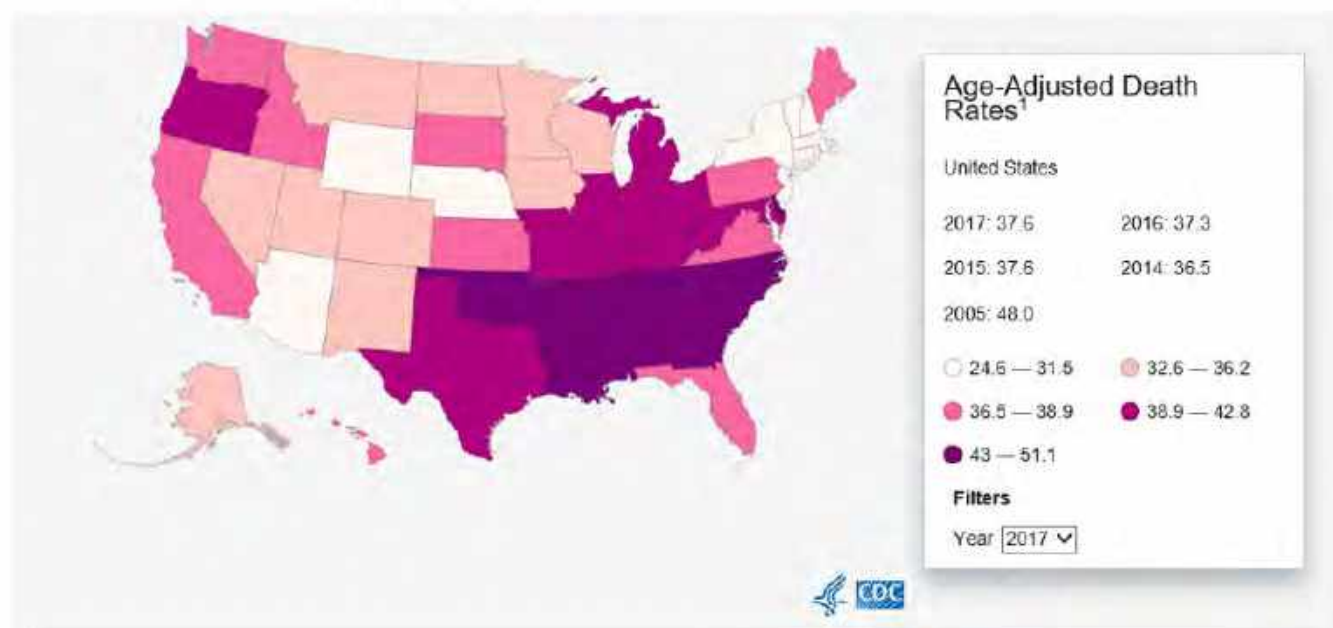
LOUISIANA STROKE SYSTEM

In 2010, the Louisiana Legislature expanded the LERN Board's functions, powers, and duties to include working with the Department of Health to develop a stroke system designed to promote rapid identification of, and access to appropriate stroke resources statewide. LERN works with our EMS and hospital partners to implement this system and to improve stroke outcomes for our citizens. This work cannot be understated as Louisiana ranks among the highest states in the country for stroke mortality.

FIGURE 17

STROKE MORTALITY BY STATE

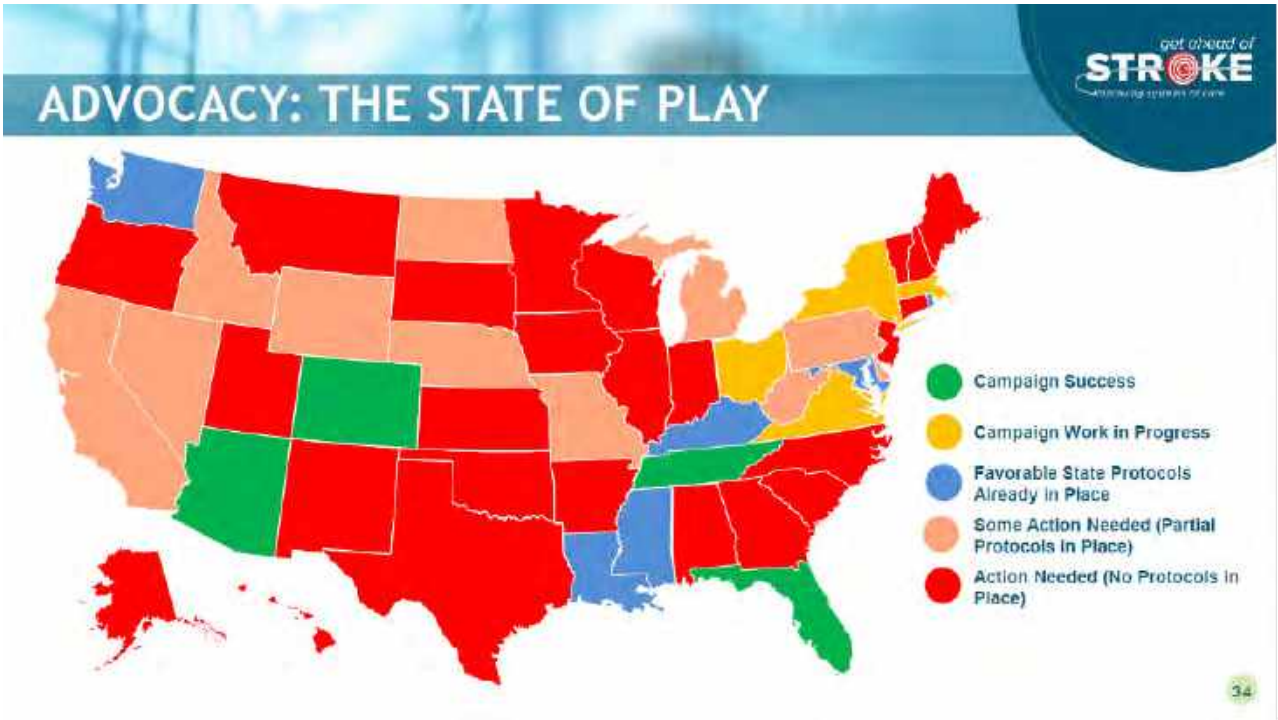
Stroke Mortality by State



Per the CDC, in 2017, stroke was the fifth leading cause of death in Louisiana and ranked third in the country for stroke mortality.

The LERN Board and our partners are working hard to improve stroke care in Louisiana. Recently, Louisiana was highlighted by the National EMS Advisory Council as one of only a few states having favorable state protocols in place to rapidly identify and transport stroke patients to the appropriate resourced hospital.

FIGURE 18



WHY IS STROKE CONSIDERED A TIME SENSITIVE ILLNESS?

Whenever a stroke occurs, the time between the onset of symptoms and access to definitive care is critical. The term “window of opportunity” is often used to describe the first four and a half hours after the onset of symptoms. Stroke patients receiving definitive care within this four-and-a-half-hour window have an increased chance of independence, but it is important to understand that with every minute that passes, millions of brain cells die and the effectiveness of the treatment is reduced. Tissue plasminogen activator (tPA) is the only FDA-approved medication for the treatment of an occlusive stroke within the first few hours. In the setting of ischemic stroke, tPA causes the components of a clot to break apart, restoring blood flow to the brain, but it must be administered within the first few hours of onset to be effective and to minimize injury due to reperfusion.

FIGURE 19

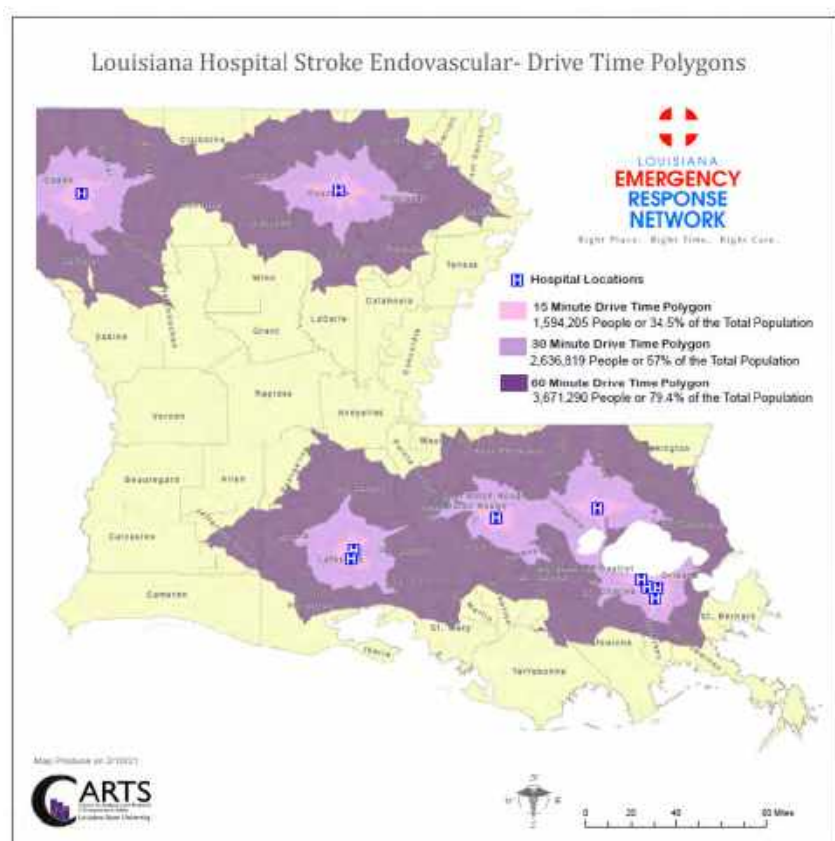
Time frame	Neurons lost	Ages the brain by
Every second	32,000	8.7 hours
Every minute	1.9 million	3.1 weeks
Every hour	120 million	3.6 years
Every 10 hours*	1.2 billion	36 years

Saver, Jeffrey (2005). Time is brain-quantified. Los Angeles, CA: Stoke Center and Department of Neurology, University of California.

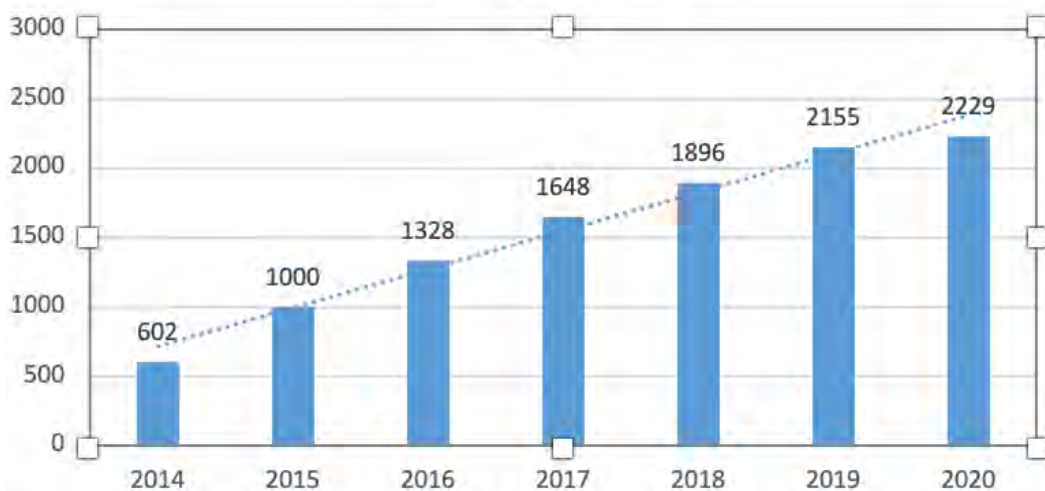
In addition to the administration of tPA, mechanical thrombectomy is standard-of-care for certain patients with strokes due to large vessel occlusion. Mechanical thrombectomy is a procedure during which clots that block large arteries are removed during an angiogram, resuming blood flow to the brain. These interventions increase a patient’s chances of an independent outcome up to 24 hours after the time the patient was last seen normal (LSN). LERN adapted from focusing on provision of recanalization therapy in the first 4.5 hours to identification of patients who may benefit for mechanical thrombectomy up to 24 hours after LSN. Through your LERN State Stroke System, the LERN Communication Center tracks stroke resources (both tPA and mechanical thrombectomy) statewide and directs EMS providers to the most appropriate resource – facilitating rapid identification and treatment for stroke patients. In CY 2020, LERN routed 2,229 stroke patients to definitive care (18% increase from CY 2018). Remember, every minute matters – two million brain cells die every minute during a stroke.

The following map depicts access to stroke endovascular/thrombectomy resources statewide within a 60, 30, and 15 minute drive time.

FIGURES 20 & 21



Number of Stroke Patients Routed by the LERN Call Center



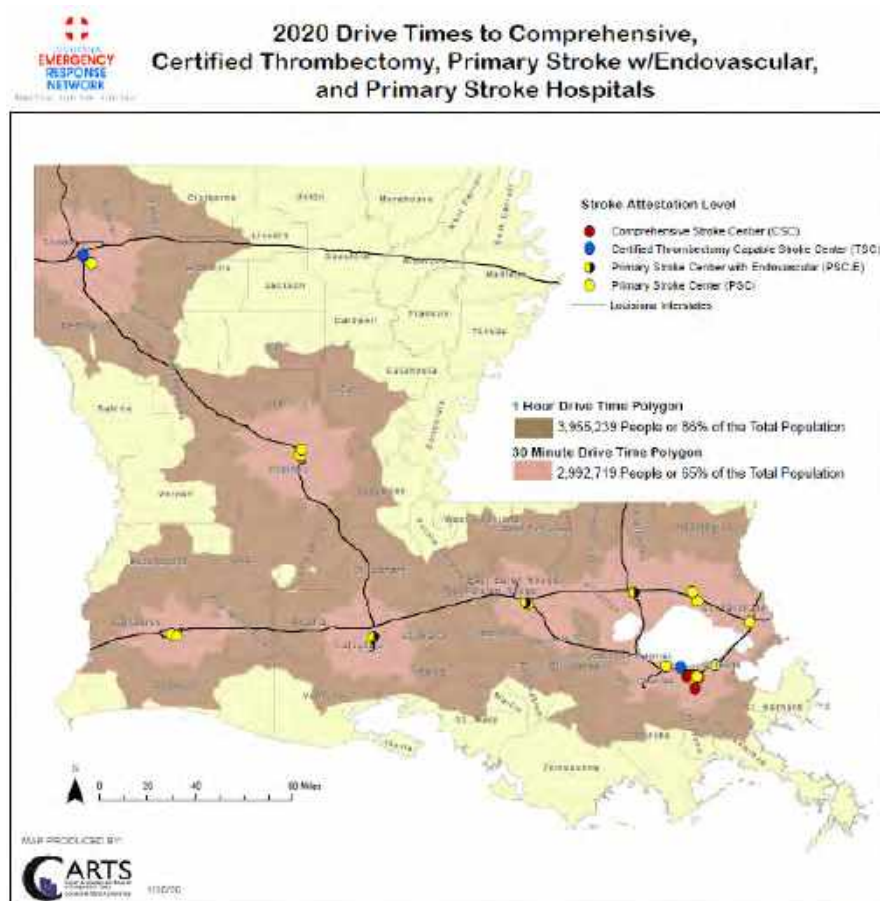
The State Stroke System includes the following level stroke hospitals.

LEVEL OF STROKE CENTER	NUMBER IN STATE
COMPREHENSIVE STROKE CENTER	3
THROMBECTOMY CAPABLE STROKE CENTER	2
PRIMARY STROKE CENTER WITH ENDOVASCULAR RESOURCES	4
PRIMARY STROKE CENTER	14
ACUTE STROKE READY HOSPITAL OR ASRH	56
STROKE BYPASS HOSPITAL	29

Visit the LERN website for a full listing of all regional stroke levels. <http://lern.la.gov/lern-stroke-system/hospital-stroke-level/>.

Figure 22 depicts these advanced, certified stroke centers and drive times of 30 and 60 minutes.

FIGURE 22



Currently, 86% of the state's citizens have access to a certified stroke center (CSC, TSC, PSC-E, or PSC) within a 60-minute drive time (120,000,000 brain cells). Because every minute matters, the LERN Stroke Destination protocol directs stroke patients to the closest stroke-capable hospital, which includes Acute Stroke Ready Hospitals – a vital part of the state stroke system.

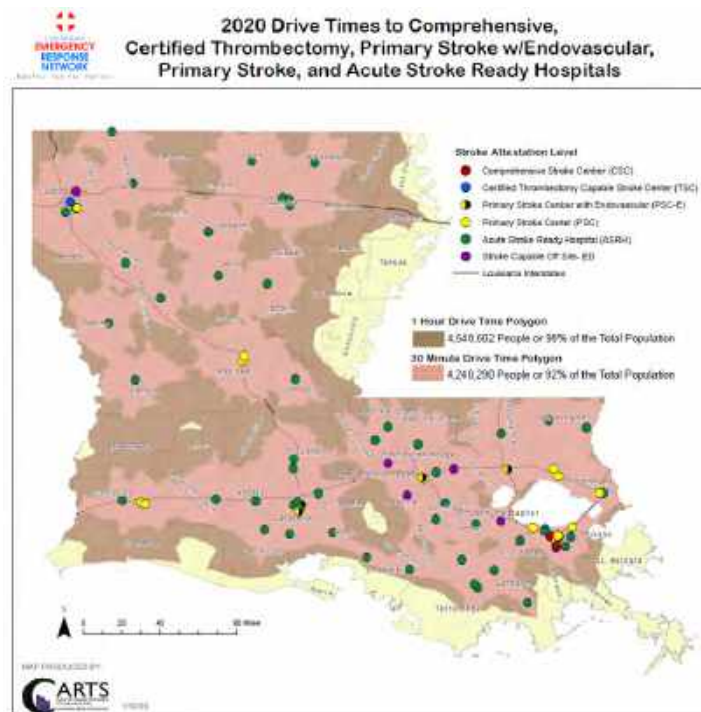
ASRH provide timely access to stroke care but may not be able to meet all the criteria specified in CSC, TSC, and PSC-E guidelines. These centers provide acute stroke care in urban and rural areas where transportation and access to time-sensitive treatment are limited. ASRHs are capable of timely diagnosis and treatment with tPA in appropriate stroke patients. Many admit and complete the inpatient evaluation and management of stroke patients, but many others use the model referred to as "drip and ship" where the patient receives tPA at the ASRH, and then transfers to a higher level of care, particularly when identified as a potential candidate for mechanical thrombectomy. Because the effectiveness of treatment is time-dependent, ASRH centers are not to be bypassed to go to a more distant LERN CSC, TSC, PSC-E, or PSC Hospital unless 1) the patient is less than six hours from the last seen normal time, 2) a screen for large vessel occlusion is positive, and 3) it would take less than 15 additional minutes of transportation time to reach a hospital with endovascular therapy. There are 56 ASRH's in Louisiana – so very important to the communities they serve.

Figure 23 depicts a map inclusive of ASRHs, which increase the proportion of Louisiana's population from 65% to 98% with access to either a CSC, TSC, PSC, PSC-E, or an ASRH within a 60-minute drive time.

Recent new Acute Stroke Ready Hospitals not indicated on the map at the time of this printing are:

- Northern Louisiana Medical Center (Region 8)
- The General (Region 2)
- Abrom Kaplan Memorial Hospital (Region 4)
- Mercy Regional Medical Center (Region 4)

FIGURE 23



Stroke bypass hospitals also play a significant role in our state system of care. These facilities are considered a non-stroke hospital. EMS should not bring patients exhibiting signs or symptoms of stroke to a stroke bypass hospital except for instances where the clinical situation requires stopping at the closest emergency department. The CEOs of these hospitals recognize that every minute matters in a stroke patient. In some rural areas, it is very difficult to perform a CT scan on site within 25 minutes and have it interpreted within 45 minutes of arrival – 24/7/365. For this reason, the LERN Destination Protocol bypasses these hospitals to reach hospitals capable of providing these time-sensitive interventions. LERN works with these bypass hospitals to help them meet ASRH requirements if desired. Recognizing that many stroke patients present to the hospital by private vehicle, LERN also provides education to help these bypass hospitals quickly identify stroke patients and then the LERN Communication Center facilitates rapid transfers to a higher level of care. There are 29 stroke bypass hospitals in Louisiana.

STROKE QUALITY MEASURES

LERN continues to collect stroke data from all hospital stroke providers in an effort to measure acute stroke care and improve process measures related to rapid identification of stroke patients, administration of tPA in eligible patients, and rapid transfer of patients who are candidates for mechanical thrombectomy.

LERN began collecting stroke data from Acute Stroke Ready Hospitals in 2014 and this past year began collecting data from all stroke hospitals. Key achievements are:

- Acute Stroke Ready Hospitals Door to Needle time continues to beat the national benchmark of 60 minutes.
- Our CSC, TSC, PSC-E, and PSC centers perform well below the 60-minute mark and consistently meets a median DTN of 45 minutes.

ASRH vs PSC, TSC and CSC DTN time

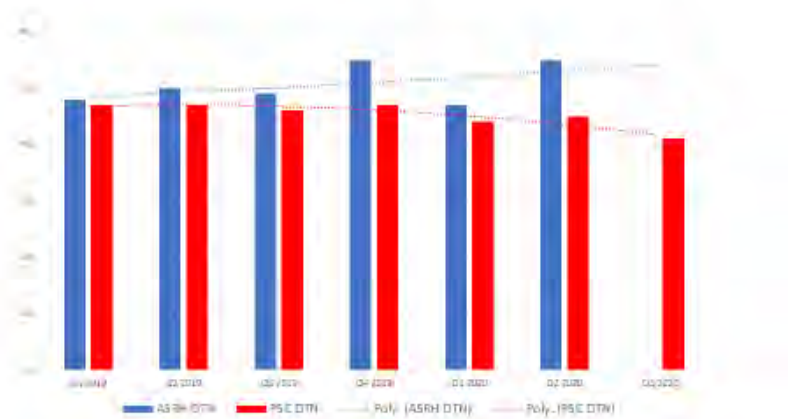


FIGURE 24

The LERN system is also improving on Door to Groin times in our PSC-E hospitals.

Door-to-groin in PSC-E

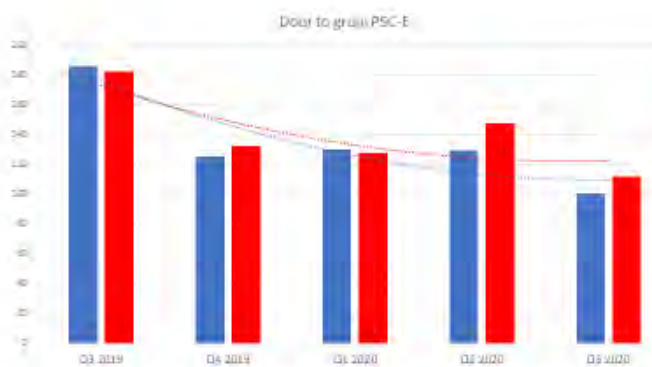


FIGURE 25

Recognizing the importance of rapidly treating Large Vessel Occlusive strokes, LERN is focused on decreasing the DIDO or door-in-door-out time for patients requiring transfer to a higher level endovascular capable hospital.

Comparing DIDO data collected from ASRH and PSC without endovascular capability indicates that we have work to do to improve upon transfer times. The LERN Board's goal is to achieve a medial DIDO of 90 minutes. Data analyzed from the third quarter of 2020 indicates a DIDO of 113 minutes at ASRHs and a DIDO of 112 minutes at PSC without endovascular. We are committed to improving this metric in 2021.

FIGURE 26

	Q3 2020 data from ASRH ALL <24hrs from LSN N=771	Q3 2020 data from PSC ALL <24hrs from LSN All LVO screen + N=47
% arriving by ambulance	50.4% 386/766	81.4% 35/43
NIHSS, median (range), [IQR]	3 (0-41), [1-9] N=662 (85.9%) LVO+ 13.5 (0-37), [8-19], n=114 LVO- 3 (0-36), [0-6], n=465	14 (0-31), [7-18] 47/47
% screened for LVO	86.8% 637/734 (after exclude 38 N/A)	100%
Method of LVO screening	VAN, 71.9%, 455 Other clinical, 4.4%, 28 Both clinical and vascular, 6.0%, 38 CTA, 15.8%, 100 Other vascular, 1.6%, 10	Not required of PSCs
% LVO screen positive	18.7%, 115/615	100%
Door in-transfer request, median (range), [IQR] minutes	56 (6-260), [37-114] N=72	43 (6-241), [28-68] 39/42
Transfer request-departure, median (range), [IQR] minutes	54 (5-385) [43-88] N=70	62 (23-176), [50-80] 39/42
Door in-door out time, median (range), [IQR] minutes	113 (36-481) [95-181] N=70	112 (58-340), [84-142] 42/42
	Delays due to: Secondary transfer = 3 Getting accepted/bed = 11 Not ELVO = 12 Delayed dx = 1 Delay in request = 2 Refused = 5	Delays due to: Secondary transfer = 8 Getting accepted/bed = 4 Pt unstable = 1 Delayed dx = 2 Delay in request = 3 COVID test = 1 Delay in report at accepting = 2

REFERENCE: <https://www.cdc.gov/nchs/pressroom/states/louisiana/louisiana.htm>

STEMI SYSTEM UPDATE

A MESSAGE FROM

CHRISTOPHER J. WHITE, MD, MACC, MSCAI, FAHA, FESC, FACP LERN STEMI MEDICAL DIRECTOR



When I assumed the role of LERN STEMI Medical Director approximately one year ago, I suspected my first year would include a few surprises. Nonetheless, the rapid spread and devastating impact of COVID-19 was a shock. Louisiana's STEMI care coordination system was significantly impacted by COVID.

During the early months of the pandemic, U. S. hospitals and physicians in many parts of the country, including here in Louisiana, began to report significant declines in STEMI cases. Speculation to explain at least some of this decline focused on the possibility that patients were circumventing needed medical care due to fear of COVID-19 infection.

LERN responded quickly to this concern by joining Louisiana's effort to urge patients to immediately seek care when experiencing STEMI symptoms. It may take a bit more time to analyze the STEMI data before the medical community can make definitive judgments about the full impact of COVID-19 on access to STEMI care and STEMI patient results.

LERN's STEMI mission remains the same. I, along with the LERN staff and the committed volunteer specialists participating in LERN STEMI workgroup, are continuing to build a statewide system of STEMI care coordination that improves access to appropriate STEMI care and supports care practices that offer optimal patient results. COVID will not slow this effort.

In last year's Annual Report, I described one of my initial goals for LERN's STEMI system as the implementation of a process to collect STEMI performance data from LERN's STEMI Receiving Centers for the purpose of identifying and addressing opportunities for improvement across the system. This year I am happy to report the accomplishment of this goal. LERN has designed a data collection tool and data dictionary for STEMI Receiving Center data collection. More than half of LERN's 37 STEMI Receiving Centers currently submit data to the state. Our state report compares the state performance to national benchmarks. Participating LERN hospitals are now receiving individual feedback reports that compare their performance to the rest of the state and to the national benchmarks.

Utilizing performance data to improve results system wide is a big step forward for LERN's STEMI system. It starts a whole new chapter in Louisiana's determination to improve STEMI care across the state and I am confident that next year I will be able to report more progress.

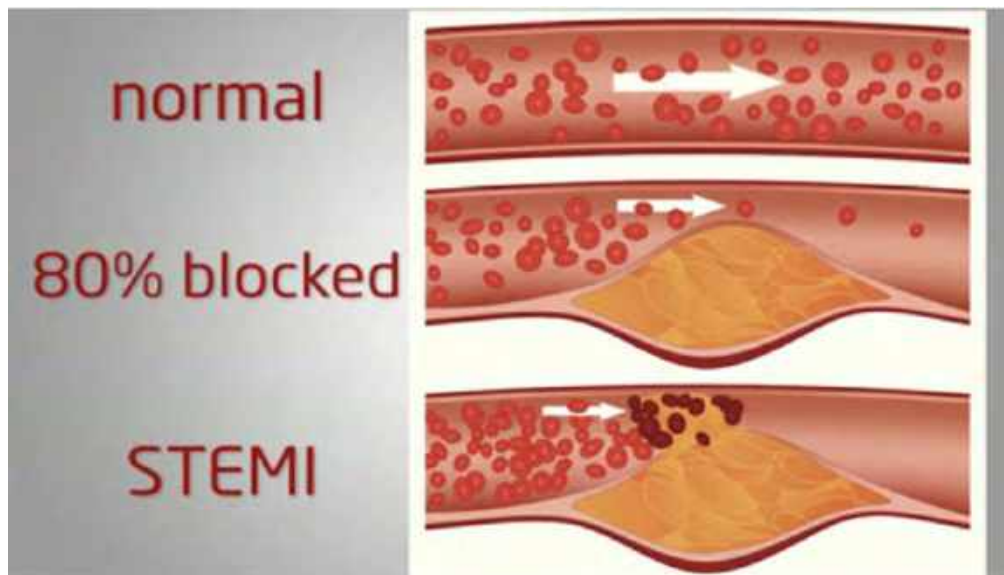
Christopher J. White, MD, MACC, MSCAI, FAHA, FESC, FACP
LERN STEMI Medical Director

WHY STEMI HEART ATTACKS ARE SO DEADLY

All heart attacks are serious, but one type is the most dangerous of all and it's known as a STEMI (ST segment elevation myocardial infarction). In a STEMI, the artery in your heart is completely blocked off by the blood clot, and as a result, virtually all the heart muscle being supplied by the affected artery starts to die! For this reason, every minute from the onset of a STEMI is absolutely critical. If the vessel is opened up within the first few hours of the blockage, the patient will have a better chance of survival and less muscle damage will occur. The goal of care is **TIMELY** re-opening of the artery. This can be done by using clot-busting medications which are easier, faster but less effective and should be done within 30 minutes, or getting the patient to Primary PCI which is more efficacious and safer but less available and should be done within 90 minutes.

Figure 27 compares a normal artery, an artery that is 80% blocked, and an artery that is completely blocked.

FIGURE 27



Given the mortality and morbidity associated with this form of heart attack, in 2010, the Louisiana Legislature charged LERN with the development of a STEMI system designed to promote rapid identification of, and access to, appropriate STEMI resources statewide.

LERN's STEMI workgroup surveyed the state regarding components of the STEMI system that were currently in place and identified areas that needed improving. The workgroup defined criteria that were needed to be a STEMI Receiving Center and had facilities attest to either being a receiving center or a referral center based on these requirements. It then created STEMI protocols that were based on the American Heart Association's Mission Lifeline in an effort to get the STEMI patient to the right place in the time to receive the right care.

ACCESS TO STEMI RECEIVING CENTERS

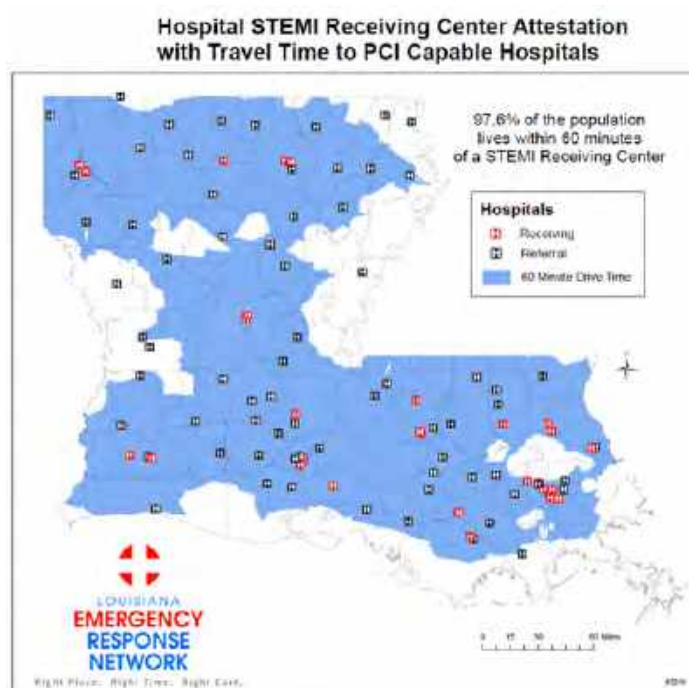
In 2013, the LERN Board, in conjunction with the STEMI workgroup, our physician, hospital, and EMS partners developed a list of 13 requirements for STEMI Receiving Centers. Every two years, every hospital CEO must sign an affidavit indicating if they meet STEMI Receiving Center requirements or if they are a STEMI Referral Center. All 13 requirements are important, but here are some of the most significant attributes of a STEMI Receiving Centers:

- Have 24/7 Cardiac Catheterization Lab (CCL) availability within 30 minutes of notification (including interventional cardiologist present at the start of the case).
- Have single call pre-hospital activation of CCL by paramedic or ED physician for those patients transported by emergency medical services.
- Accept all STEMI patients regardless of bed availability (from EMS and STEMI Referral Centers).
- Have ongoing multidisciplinary team meetings to evaluate outcomes and quality improvement data for all STEMI patients. Operational issues should be reviewed, problems identified, and solutions implemented.
- Provide concurrent feedback to EMS and STEMI Referral Centers (including data sharing with EMS or Referral Center at the end of case, quarterly meetings to review cases, and data exchange with the EMS/STEMI Referral Center).
- Develop a plan with local prehospital providers to ensure interhospital transfers and fibrinolytic-ineligible patients receive highest priority response and are communicated enroute to bypass STEMI Referral Centers (where appropriate).

For a list of all 13 requirements, visit the LERN website at http://lern.la.gov/wp-content/uploads/STEMI-Receiving-Center-Requirements_Updated-20210121.pdf.

FIGURE 28 DEPICTS THE STEMI RECEIVING AND REFERRAL CENTERS AS ATTESTED TO BY CHIEF EXECUTIVE OFFICERS ACROSS THE STATE.

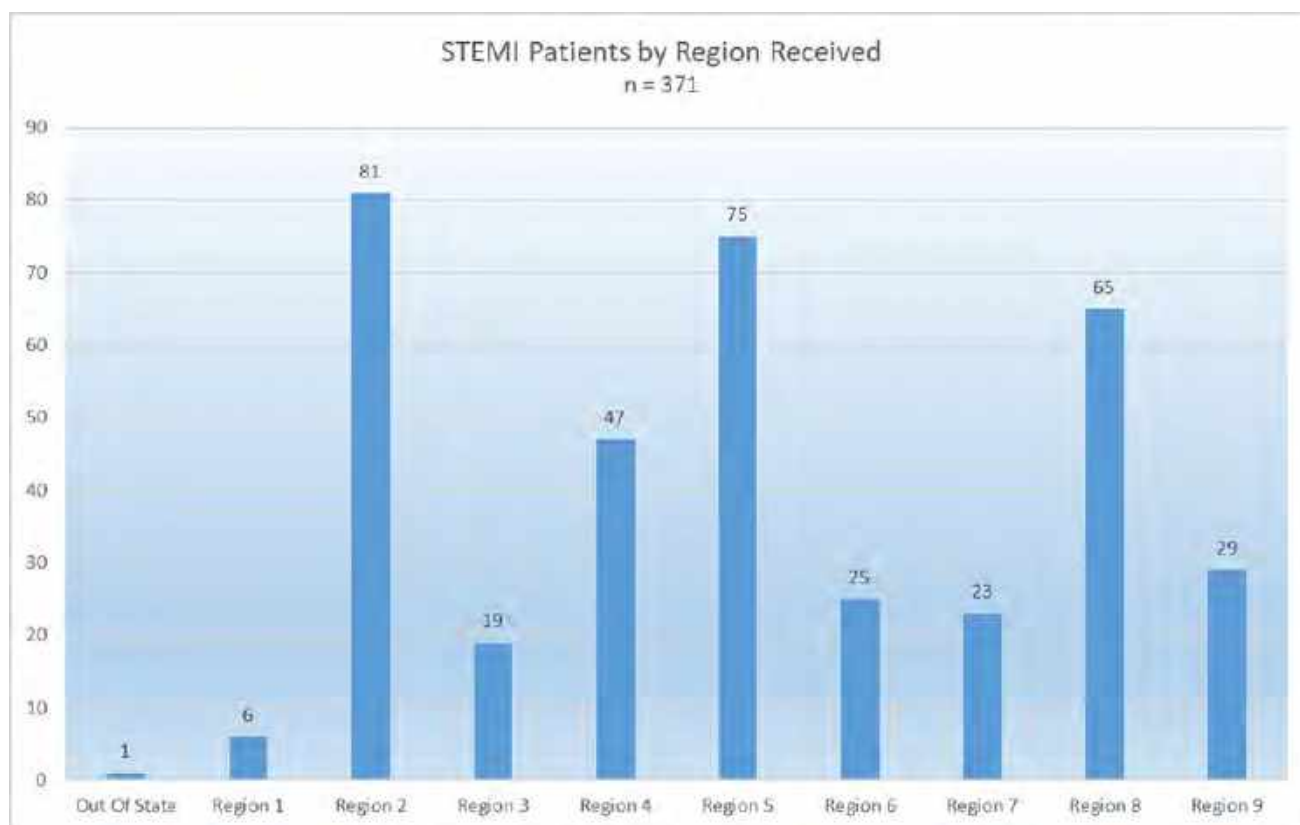
FIGURE 28



The LERN Communication Center assists in directing STEMI patients. In CY 2019, the LCC directed 300 STEMI patients. In 2020, the number of STEMI patients directed by the LCC increased to 371 patients (24% increase). STEMI resources rarely change, therefore EMS are well informed of community STEMI resources. In any event, the LCC always stands ready to assist with direction when needed.

FIGURE 29

STEMI PATIENT VOLUME ROUTED BY LCC, CY 2020



STEMI DATA COLLECTION

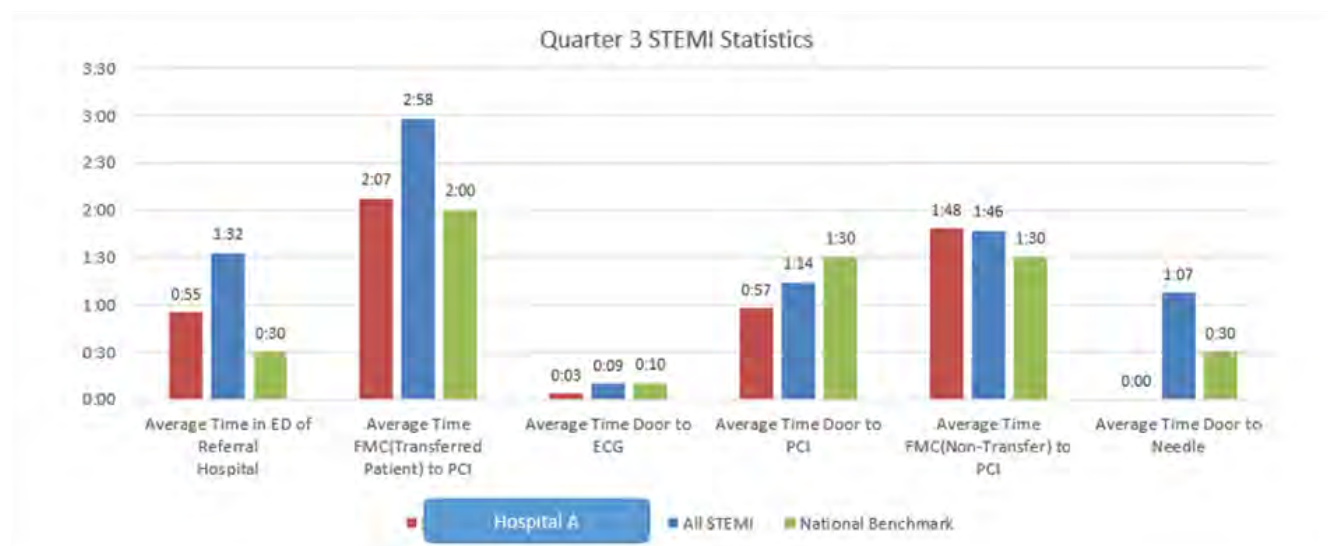
In CY 2020, one of our primary goals was the implementation of a process to collect STEMI data from LERN's participating STEMI Receiving Centers in order to measure system performance. Dr. Christopher White, LERN's STEMI Medical Director, recommended a data collection process designed after the state stroke system. Ten hospitals volunteered to participate in a pilot to test the data collection tool. The pilot began March 1, 2020 and was scheduled to end on April 30, 2020. Due to COVID-19 and the drastic decrease in STEMI activations statewide, the LERN Board voted to extend the pilot through July 31, 2020. On August 20, 2020, Dr. White presented the pilot data to the Board. He recommended to require all STEMI Receiving Centers to submit this data on a quarterly basis. The LERN Board approved this recommendation, but understanding the current stress hospitals are under due to COVID-19, they delayed setting an implementation date for this mandate. In the interim, the Board directed the LERN Tri-Regional Coordinators to solicit additional participants.

As of Q4 2020, 26 of the 37 (70%) of the STEMI Receiving Centers submitted data. Our goal is for 100% of the STEMI Receiving Centers to submit Q1 2021 data.

Data is aggregated quarterly and each hospital receives a feedback report. The report allows the individual hospital to compare their performance to the state aggregate and to the national benchmark for each reporting metric.

Figure 30 is a blinded report of actual state data.

FIGURE 30

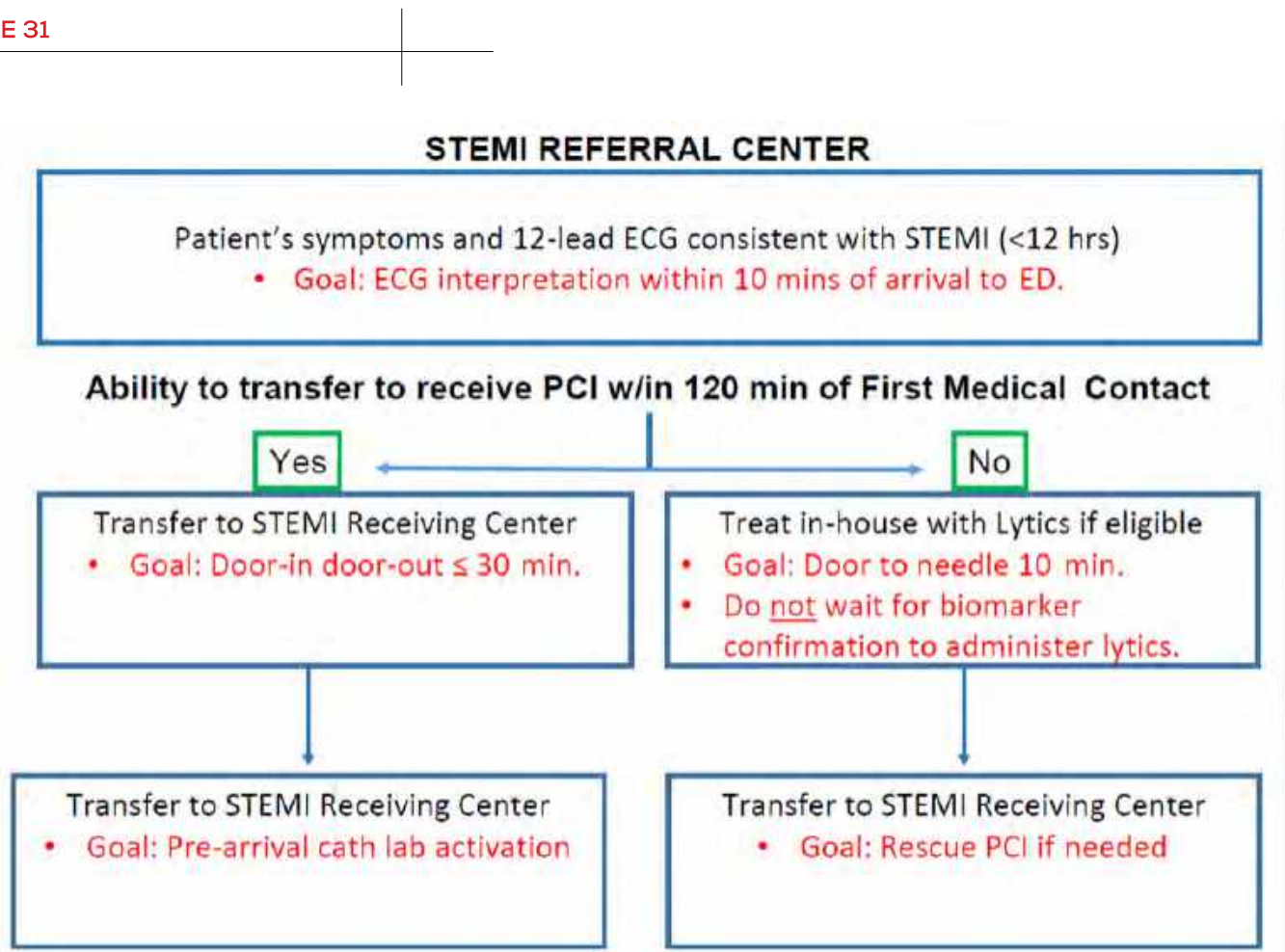


The primary opportunity for improvement is decreasing the time for first medical contact to PCI. The state goal is 120 minutes. In the first three quarters of 2020, data indicates:

- 87 patients transferred
- Average time in ED of referral hospitals for patients NOT given Lytic = 1 hour 26 minutes
- Number of patients given Lytic at Referral Centers = 10
- Average time FMC to PCI for transferred patients = 3 hours 16 minutes (193 minutes)

Dr. White advised the Board and the State STEMI workgroup that as a system, hospitals need to quickly identify a treatment therapy (Lytic – opening the artery with clot-busting medication vs. Percutaneous Coronary Intervention in a cath lab). Time is heart muscle! To help educate the STEMI System partners, the following algorithm was developed.

FIGURE 31



Posters were printed and are available at the LERN office or from the LERN Regional Coordinator.

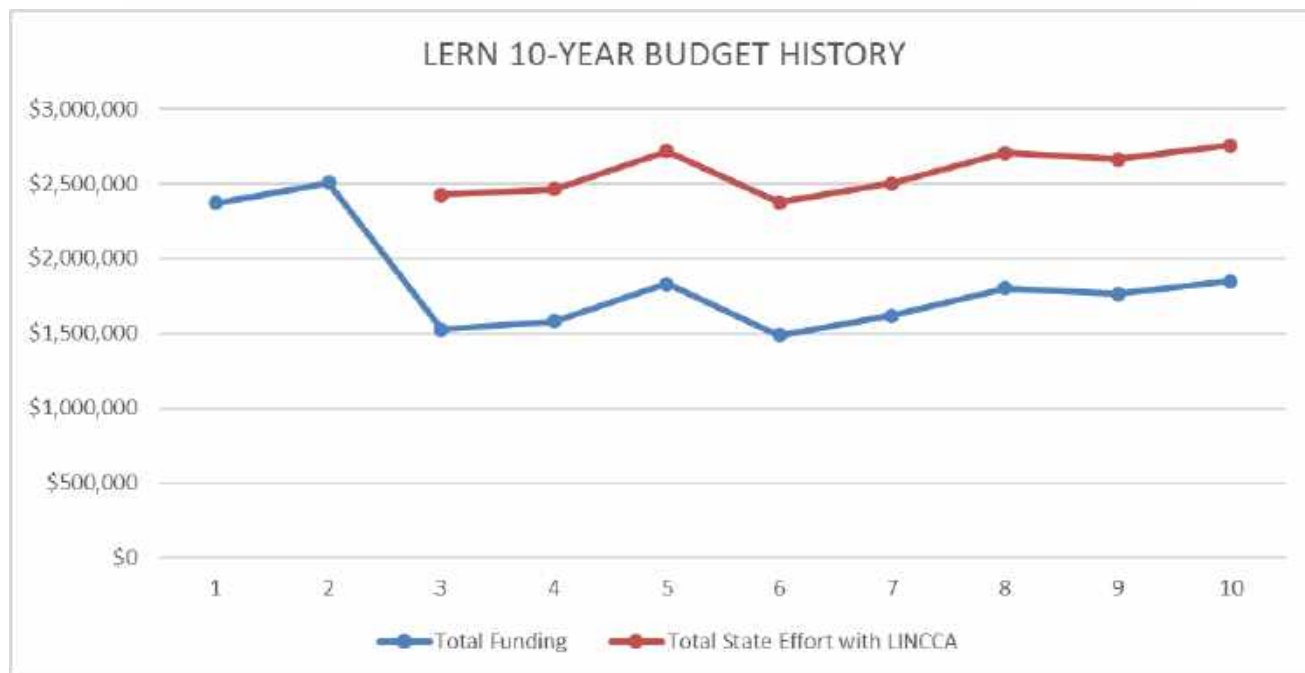
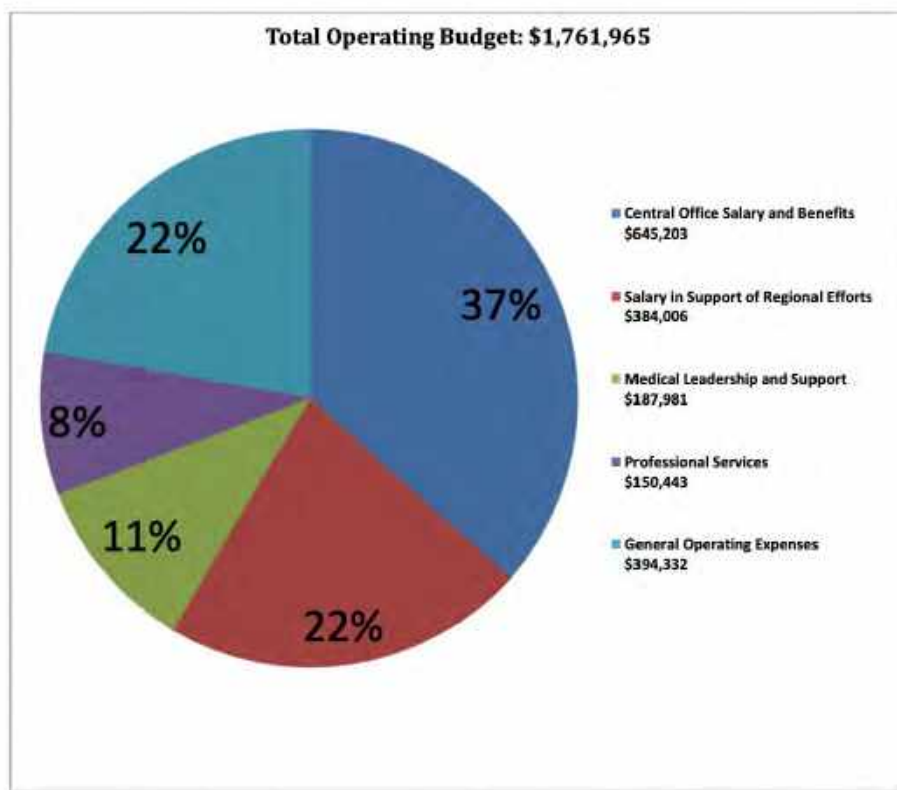
STEMI EDUCATION

LERN is thankful for the continued support and engagement of our STEMI partners across the state. Through your efforts and dedication, we taught eight classes in CY 2020 (263 students). Since CY 2015, we have taught a total of 74, 12-Lead ECG classes for a total of 2,140 students. The students consist of nurses, paramedics, and respiratory therapists.

FIGURE 32

12 – Lead EKG Education Courses			
Year	# of Classes	# of Students	Regions
2015	9	272	1, 6, 7
2016	17	545	1,2,3,6,7,9
2017	12	327	1,3,4,5,6,7,8
2018	15	403	2,3,4,5,6,8,9
2019	13	330	1,6,7,8
2020	8	263	6,7,8,9
	74	2,140	

FINANCIAL



PERFORMANCE INDICATORS

FY 2020 4TH QUARTER PERFORMANCE INDICATOR REPORT

SUBMITTED AUGUST 20, 2020

These indicators are part of LERN's Quality Measurement System. They are tied to participation by healthcare providers in the pre-hospital and hospital settings and LERN's ability to direct traumatically injured patients to definitive care.

LERN obtains signed agreements of understanding with regional hospitals and EMS agencies to ensure compliance with LERN protocols as set forth by the LERN Board of Directors.

PERFORMANCE INDICATOR 1 (LAPAS CODE 22965)

This indicator reports the percentage of hospitals having emergency room services that participated in LERN.

- **114** (hospitals participating)/**116** (total number of hospitals) = **98.3%**

PERFORMANCE INDICATOR 2 (LAPAS CODE 22328)

This indicator reports the percentage of EMS agencies that participated in LERN.

- **36** (EMS participating)/**54** (total number of EMS agencies) = **66.7%**

PERFORMANCE INDICATOR 3 (LAPAS CODE 22329)

This indicator reports the percentage of time where traumatically injured patients that were directed by LERN to an Emergency Department for definitive care did not require transfer to another facility for higher-level resources.

- Total patients directed by LERN = **10,170**
- Total patients transferred = **337**
- Percent of LERN directed patients not requiring transfer = **96.7%**

PERFORMANCE INDICATOR 4 (LAPAS CODE 25347)

This indicator reports the percentage of EMS agencies that submit data to the State EMS Registry.

- **41** (EMS participating)/**54** (total number of EMS agencies) = **75.9%**

REGIONAL COMMISSIONS

Commission Member	Organization Representing	Position
Jeffrey Elder, MD (Chair)	Louisiana State Medical Society	Emergency Physician and Medical Director, Emergency Management LCMC Health
Alan Marr, MD, FACS (Vice-Chair)	American College of Surgeons	Associate Professor of Clinical Surgery, LSUHSC Department of Surgery
Murtuza Ali, MD	LA Chapter of American Cardiology	Professor of Medicine and Pharmacology, LSU School of Medicine
Jovan Bernard, MPH, BSN, RN	Health & Human Services Designated Regional Coordinator	Administrative DRC, Office of Public Health Region 1
Chad Breaux	National Emergency Number Association (9-1-1)	9-1-1 Director, Jefferson Parish Sheriff's Office
Jeffrey Carter, MD, FACS	Burn Center Representative	Burn Center Physician Director, University Medical Center New Orleans, LCMC Health
Peter Deblieux, MD	Trauma Center Representative	Chief Experience Officer, University Medical Center New Orleans, LCMC Health
Gregory Fernandez, MD	Rural Hospital Coalition	Emergency Department Medical Director, St. Bernard Parish Hospital
Carl Flores, NRP	LANREMT	Burn Outreach Coordinator, University Medical Center New Orleans, LCMC Health
Shantel Hebert-Magee, MD	LDH, Office of Public Health	Region 1 OPH Medical Director, Louisiana Department of Hospitals, Office of Public Health
Sheryl Martin-Schild, MD, PhD, FANA, FAHA	American Stroke Association	Stroke Medical Director for LERN Medical Director of Neurology & Stroke, Touro Infirmary Medical Director of Neurology, New Orleans East Hospital President & CEO, Dr. Brain, Inc.
Emily Nichols, MD	Local Ambulance Service	Director and Medical Director, New Orleans Emergency Medical Services
Norman Pineda	Governor's Office of Homeland Security & Emergency Preparedness	Region 1 Coordinator – GOHSEP
Roland S. Waguespack, III, MD, MBA, FAAEM, FACEP	American College of Emergency Physicians	Chief of Staff/ED Medical Director, East Jefferson General Hospital

Regional Traumas
CY2018: 560
CY2019: 625
CY2019: 459
CY2020: 485

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Hospital	Trauma	Stroke	STEMI	BURN
Children's Hospital New Orleans	Level 2 Ped Program	N/A	N/A	
East Jefferson Hospital		TSC	Receiving	
University Medical Center – New Orleans	Level 1	PSC	Receiving	+ Burn Center
Ochsner Baptist Medical Center		ASRH	Receiving	
Ochsner Medical Center		CSC	Receiving	
Ochsner Medical Center – Kenner		PSC	Receiving	
Ochsner Medical Center – Westbank		ASRH	Receiving	
New Orleans East Hospital		PSC	Referral	
Touro Infirmary		PSC	Receiving	
Tulane Medical Center		CSC	Receiving	
Tulane Lakeside		ASRH	Referral	
West Jefferson Medical Center		CSC	Receiving	
St. Bernard Parish Hospital		ASRH	Referral	

Ascension, East Baton Rouge,
East Feliciana, Iberville, Point Coupee,
West Baton Rouge, & West Feliciana

Regional Traumas
CY2017: 3,890
CY2018: 3,678
CY2019: 3,725
CY2020: 3,689

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Commission Member	Organization Representing	Position
Jeffrey Gruner, MD (Chair)	Trauma Center Representative	Trauma Surgeon, Our Lady of the Lake Regional Medical Center
Brent Guilfrie, MD (Vice-Chair)	Service District Hospital	Medical Director, Lane Regional Medical Center
Alyson Hughes (Secretary)	Health & Human Services Designated Regional Coordinator	Emergency Management Coordinator, Baton Rouge General & R2 Hospital Designated Regional Coordinator
Clint Braud, NRP	Emergency Medical Response	Quality Improvement Coordinator, Acadian Ambulance Service
Chris Fitzgerald, NRP	Rural Ambulance Representative	EMS Director, West Feliciana Parish Hospital EMS
Darren Guidry	GOHSEP	Region 2 Coordinator/Regional Support Section Chief, GOHSEP
Chad Guillot	Local Ambulance Services	EMS Director, East Baton Rouge Parish Department of EMS
Valerie Jarreau, RN, MSN	Hospitals < 60 Beds	Chief Nursing Officer, Pointe Coupee General Hospital
Thomas Jeider, MD	American College of Emergency Physicians	Emergency Department Physician, Baton Rouge General Hospital
Lance LaMotte, MD, FACC	LA Chapter of American College of Cardiology	Cardiologist
J.D. Leach	Law Enforcement	SWAT Incident Commander, Baton Rouge Police Department
Jeffrey Littleton, MD	American College of Surgeons	Surgeon, Baton Rouge General Medical Center (Bluebonnet)
Dawn R. Marcelle, MD, MPH	LDH, Office of Public Health	Regional Medical Director, Louisiana Department of Health
Sadye Nichols, RN, MSN	Hospitals > 100 Beds	Regional Vice President, SCP Health
James Rhorer, MD	Louisiana State Medical Society	ED Medical Director, Our Lady of the Lake Regional Medical Center
Tracee Short, MD	Burn Center	Medical Director, Baton Rouge General Burn Center
Anthony Summers, CEM, ENP	National Emergency Number Association	Assistant Director, West Baton Rouge Office of Homeland Security Emergency Preparedness and 911
Gary Walker, MD	American Stroke Association	Neurologist, NeuroMedical Center

Hospital	Trauma	Stroke	STEMI	BURN
Baton Rouge General Medical Center (Bluebonnet)		PSC	Receiving	ABA Verified Burn Center
Baton Rouge General Medical Center (Ascension)		ASRH	Referral	
The General (BRG-Mid-City)		ASRH	Referral	
Lane Regional Medical Center		ASRH	Receiving	
Ochsner Medical Center – Baton Rouge		ASRH	Receiving	
Ochsner Medical Complex – Iberville		Stroke Capable Off-Site ED	Referral	
Our Lady of the Lake Regional Medical Center	Level 2	PSC-E	Receiving	
Our Lady of the Lake Children's Hospital	Level 2 Peds Program	N/A	N/A	
Our Lady of the Lake – North Emergency Room		Stroke Capable Off-Site ED	Referral	
Pointe Coupee General Hospital		ASRH	Referral	
Prairieville Family Hospital		Stroke Bypass	Referral	
Prevost Memorial Hospital		ASRH	Referral	
Our Lady of the Lake – Ascension		ASRH	Referral	
West Feliciana Parish Hospital		ASRH	Referral	

Assumption, Lafourche, St. Charles,
St. James, St. John the Baptist,
St. Mary, & Terrebonne

Regional Traumas
CY2017: 1,580
CY2018: 1,590
CY2019: 1,587
CY2020: 1,556

Commission Member	Organization Representing	Position
Mike Guillot, NRP (Chair)	Rural Ambulance Alliance	St. Charles Parish Hospital EMS Director; River Region Emergency Management Ochsner Health
Danielle Duplantis, RN (Secretary)	Emergency Nurses Association	Emergency Department Director, Thibodaux Regional Health System
Kim Beetz	Administrative Designated Regional Coordinator	Administrative Designated Regional Coordinator
Mark Boudreaux	National Emergency Number Association (911)	Executive Director, Terrebonne Parish Communications District Terrebonne Parish 911
Brady Daigle, NRP	Local Ambulance Service	Operations Manager, Lafourche Ambulance District 1
Chad Davis, NRP	Emergency Medical Response	Operations Supervisor, Acadian Ambulance
Earl Eues, Jr.	GOHSEP	Director, Terrebonne Parish Office of Homeland Security
Tashfin S. Huq, MD, RPNI	American Stroke Association	Neurologist and Stroke Medical Director, Thibodaux Regional Health System
Eric Jukes, MD	American College of Surgeons	General Surgeon
Jeffrey Kuo, MD	Louisiana State Medical Society	Medical Director, Ochsner Regional Referral Center
Buffy Lafont, RN, BSN, CEN	Rural Hospital Coalition	Emergency Department Director, Lady of the Sea General Hospital
Teresita McNabb, RN	Service District Hospitals	VP of Nursing Services, Terrebonne General Medical Center
W.S. "Chip" Riggins, Jr., MD, MPH, FAAFP, FACPM	LDH, Office of Public Health	Region 3 Administrator/Medical Director, Louisiana Department of Health Office of Public Health
Brian Roberts, MD	American College of Emergency Physicians	Emergency Department Medical Director, Terrebonne General Medical Center

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Hospital	Trauma	Stroke	STEMI	BURN
Assumption Community Hospital		Stroke Bypass	Referral	
Franklin Foundation Hospital		ASRH	Referral	
Lady of the Sea General Hospital		ASRH	Referral	
Leonard J. Chabert Medical Center		ASRH	Referral	
Ochsner St. Anne General Hospital		ASRH	Referral	
Ochsner Medical Complex – River Parishes		Stroke Capable Off-site ED	Referral	
St. Charles Parish Hospital		ASRH	Referral	
St. James Parish Hospital		ASRH	Referral	
Ochsner St. Mary's Hospital		ASRH	Referral	
Terrebonne General Medical Center		ASRH	Receiving	
Thibodaux Regional Medical Center		ASRH	Receiving	

Acadia, Evangeline, Iberia, Lafayette,
St. Landry, St. Martin, & Vermillion

Commission Member	Organization Representing	Position
Joey Barrios, MD (Chair)	Burn Center	General Surgeon, Medical Director Burn Unit Our Lady of Lourdes RMC
Tina Stefanski, MD (Vice-Chair)	LDH-Office of Public Health	Region 4 LDH/OPH Medical Director
Donald Simon Jr., BS, NRP (Secretary)	HHS Designated Regional Coordinator	Manager of Safety, Security & Emergency Preparedness Our Lady of Lourdes RMC
John Armand, RN	Registered Nurse Practicing Emergency or Critical Care	Director of Emergency Services Opelousas General Hospital
Paul Azar, Jr., MD	Louisiana State Medical Society	Ophthalmologist
Kevin Courville, MD	American College of Cardiology	Cardiologist
James Garcelon, MD	American College of Surgeons	General Surgeon
Jennifer Gerard, RN	Hospitals < 60 Beds	Director of Nursing, Ochsner Abrom Kaplan Memorial Hospital
Leslie Kram Greco, DO, FACEP	Service District Hospitals	ED Medical Director Iberia Medical Center
Scott Hamilton, MD	American Academy of Pediatric Physicians	Director, Pediatric Emergency Services Ochsner Lafayette General Medical Center
Jonathon A. Koob, MHA, BSN	Hospitals > 100 Beds	Director of Critical Services Lafayette General Medical Center
Damon Patterson, MD	American Stroke Association	Neurologist, Ochsner Lafayette General Medical Center
Colonel Prescott Marshall	OSHEP	Director Iberia Parish OHSEP/911
Tyler Martin, NRP	Emergency Medical Response	Director of Operations Med Express Ambulance Service
Blake Miller, NRP	Local Ambulance Service	Quality Improvement Coordinator Acadian Ambulance Service
Jude Moreau	National Emergency Number Association	Executive Director St. Landry Parish Communications District (E-911)
Mark Morris, RN, Paramedic	Air Medical	Air Med Clinical Care Coordinator Acadian Air Med
Mark F. Olivier, MD, FACEP, FAAP	American College of Emergency Physicians	Emergency Department Physician, Opelousas General Health System
Steve Quebedeaux, NRP	Rural Ambulance Representative	Director/St. Landry EMS
William Ritchey	Law Enforcement	Police Officer Lafayette Sheriff's Dept.
Jacqueline Venable, RN	Trauma Center Representative	Trauma Program Manager Ochsner Lafayette General Medical Center

Regional Traumas

CY2017: **2,827**

CY2018: **2,041**

CY2019: **2,139**

CY2020: **2,091**

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Hospital	Trauma	Stroke	STEMI	BURN
Abbeville General Hospital		ASRH	Referral	
Acadia - St. Landry Hospital		Stroke Bypass	Referral	
Acadian Medical Center		Stroke Bypass	Referral	
Our Lady of Lourdes Heart Hospital		ASRH	Receiving	
Iberia Medical Center		ASRH	Receiving	
Mercy Regional Medical Center		ASRH	Referral	
Ochsner Abrom Kaplan Memorial Hospital		ASRH	Referral	
Ochsner Acadia General Hospital		ASRH	Referral	
Ochsner Lafayette General Medical Center	Level 2	PSC-E	Receiving	
Ochsner Lafayette General Orthopedic Hospital		ASRH	Referral	
Ochsner St. Martin Hospital		ASRH	Referral	
Ochsner University Hospital & Clinics		ASRH	Referral	
Opelousas General Health System		ASRH	Receiving	
Opelousas General Health System - South Campus		ASRH	Referral	
Our Lady of Lourdes Off-Site Emergency Dept - Scott		Stroke Capable - Off-Site ED	Referral	
Our Lady of Lourdes Regional Medical Center		PSC-E	Receiving	+ Burn Center
Our Lady of Lourdes Women's & Children's Center		Stroke Bypass	Referral	+ Ped Burns
Savoy Medical Center		Stroke Bypass	Referral	

Allen, Beauregard, Calcasieu,
Cameron, & Jefferson Davis

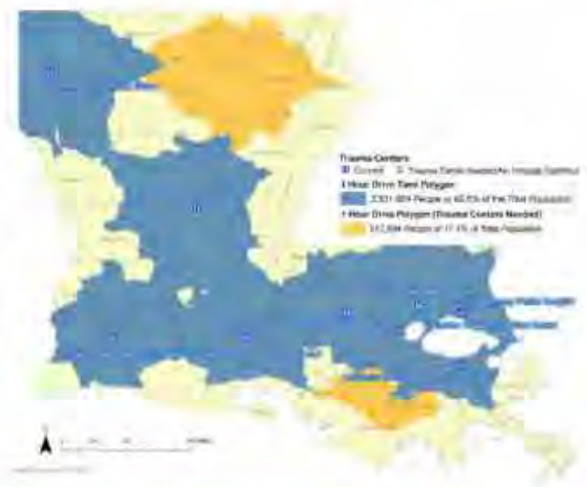
Regional Traumas
CY2017: 1,233
CY2018: 1,241
CY2019: 1,465
CY2020: 1,463

Commission Member	Organization Representing	Position
Billy Vincent, NRP (Chair)	Local Ambulance Services	Field Training Officer - Southwest Louisiana, Acadian Ambulance Service
Frederick Dent (Vice-Chair)	Emergency Medical Response	Detective/Emergency Medical Response, Calcasieu Parish Sheriff's Department
Ruth Carnes (Secretary)	Hospitals < 60 Beds	Human Resources Director, Jennings American Legion Hospital
Lacey Cavanaugh, MD	LDH, Office of Public Health	Regional Medical Director, Louisiana Department of Health
Paul B. DeStout, MPH, 1SG (RET)	CP-OHSEP	Calcasieu Parish OHSEP
Ross Hardy, MD	American Stroke Association	Emergency Department Physician, Lake Charles Memorial Hospital
Liz Harmon	Health & Human Services Designated Regional Coordinator	Administrative Hospital DRC Region 5 - Hospital Preparedness Program
Scott Kyle, NRP	Hospitals > 100 Beds	Director of Emergency Preparedness - Lake Charles Memorial Hospital
Tracie Kyle, BSN, RN, CEN	Trauma Center Representative	Trauma Program Manager, Lake Charles Memorial Hospital
Geoff Landry	Service District Hospital	Director of Security & Emergency Management at West Calcasieu Cameron Hospital
Melvin J. Marque, III, MD	American College of Emergency Physicians	Owner and Medical Director, Lake Charles Urgent Care
Richard McGuire, MSEM	National Emergency Number Association	Assistant Director, Calcasieu Parish Safety Communications District
Troy Meaux, NRP	Rural Ambulance Representative	Assistant Director, Cameron Parish Ambulance District 2
Thomas Mulhearn, IV, MD, FACC	LA Chapter of American College of Cardiology	Cardiologist
Richard Shimer, MD	American College of Surgeons	Trauma Medical Director, Lake Charles Memorial Hospital

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Hospital	Trauma	Stroke	STEMI	BURN
Allen Parish Hospital		Stroke Bypass	Referral	
Beauregard Memorial Hospital		Stroke Bypass	Referral	
CHRISTUS Ochsner Lake Area Hospital		Stroke Bypass	Referral	
CHRISTUS Ochsner St. Patrick Hospital		PSC	Receiving	
DeQuincy Memorial Hospital		Stroke Bypass	Referral	
Jennings American Legion Hospital		ASRH	Referral	
Lake Charles Memorial Hospital	Level 3	PSC	Receiving	
Oakdale Community Hospital		Stroke Bypass	Referral	
South Cameron Memorial Hospital		Stroke Bypass	Referral	
West Calcasieu Cameron Hospital		ASRH	Receiving	

Avoyelles, Catahoula, Concordia,
 Grant, LaSalle, Rapides, Vernon, & Winn

Regional Traumas
CY2017: 608
CY2018: 556
CY2019: 473
CY2020: 533

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Commission Member	Organization Representing	Position
Jeremy Timmer, MD (Chair)	Louisiana State Medical Society	Trauma Medical Director, Rapides Regional Medical Center
Jeff Pogue (Vice-Chair)	Local Ambulance Services	Operations Manager, Acadian Ambulance
Mary Tarver (Secretary)	Health & Human Services Designated Regional Coordinator	Region 6 Hospital DRC
Michelle Butler, RN	Trauma Center Representative	Rapides Regional Medical Center
April Cotton, RN	Hospitals < 60 Beds	Perioperative Nurse Manager, Hardtner Medical Center
Robert Freedman, MD, FACC	LA Chapter of American College of Cardiology	Cardiologist
James Hebert, MD	LA Chapter American College of Emergency Physicians	ED Physician
Gonzalo L. Hidalgo, MD	American Stroke Association	Neurologist, St. Frances Cabrini
David Holcombe, MD	LDH-Office of Public Health	Region 6 OPH Medical Director
Mark Majors	LA Assoc. of Nationally Registered Emergency Medical Technicians	Owner, Med Express Ambulance
Kenneth Moore	GOHSEP	Regional Director, Vernon Parish OHSEP
Daniel "Scott" Moreau	Law Enforcement Representative	Public Information Officer, Louisiana State Police
Shawn Moreau, MSN, RN, CEN, TCRN	Hospitals > 100 Beds	Trauma Program Director, EMS Liaison, Rapides Regional
Mark Morris, RN, NREMT-P	Air Medical	Clinical Care Coordinator, Acadian Ambulance Service
Lt. Col. Michelle O'Neill	Army Representative	Clinical Nurse, Bayne Jones Army Community Hospital
Gary Peters	Rural Ambulance Alliance	Operations Manager, Advanced EMS
Brenda Smith	Service District Hospital	Director of General Services, LaSalle General Hospital
Vickie Stagg, RN	Emergency Nurses	ER Nurse, Rapides Regional
Jeffrey Traina, MD	Louisiana State Medical Society	Physician, Advanced Orthopedic & Sports Medicine Center
Sonya Wiley	National Emergency Number Association	Director, Rapides Parish

Hospital	Trauma	Stroke	STEMI	BURN
Avoyelles Hospital		ASRH	Referral	
Bayne-Jones Army Community Hospital		Stroke Bypass	Referral	
Bunkie General Hospital		Stroke Bypass	Referral	
Byrd Regional Hospital		ASRH	Referral	
CHRISTUS St. Frances Cabrini Hospital		PSC	Receiving	
Hardtner Medical Center		ASRH	Referral	
LaSalle General Hospital		Stroke Bypass	Referral	
Rapides Regional Medical Center	Level 2	PSC	Receiving	
Riverland Medical Center		Stroke Bypass	Referral	
Winn Parish Medical Center		ASRH	Referral	

REGION 7

Bienville, Bossier, Caddo, Claiborne,
 DeSoto, Natchitoches, Red River,
 Sabine, & Webster

Regional Traumas
CY2017: 691
CY2018: 608
CY2019: 500
CY2020: 308

Commission Member	Organization Representing	Position
Shane Terral, BS, NRP (Chair)	Air Medical	Clinical Care Coordinator, Life Air Rescue
Sandra Putman, RN (Vice-Chair)	Trauma Center Representative	Vice President of Trauma Ochsner LSU Health Shreveport
Susan Cash, RN, BSN (Secretary)	Hospitals > 100 Beds	Director Emergency Services WK Health System
Knox Andress, RN	Hospital Designated Regional Coordinator	Region 7 Hospital DRC
Jeff Atkins, RN	Hospitals < 60 Beds	Emergency Medicine Nurse
Avery Callahan, DO	American College of Emergency Physicians	Emergency Medical Physician, Ochsner LSU Health Shreveport
Willis Carter	National Emergency Number Association	Director, Natchitoches 911
Curtis Elkins, BSN, RN	American Heart Association	Director of Cardiology Services, Ochsner LSU Health Shreveport
F. Dean Griffin, MD	Louisiana State Medical Society	Professor of Clinical Surgery LSU Health Science Center Shreveport
Open Position	Service District Hospital	
Robert Jump	GOHSEP	Regional Director Caddo Parish Office of Homeland Security & EP
John P. Lane	LA Association of Nationally Registered Emergency Medicine Technicians	Chief of Shreveport Fire Department
Charles "Crag" Menefee	Local Law Enforcement	Tactical Paramedic, Hazmat Tech, Bomb Squad
Richard Renfro	Military Representative	NCOIC Barksdale EMS
Navdeep Samra, MD	American College of Surgeons	Assistant Program Director for General Surgery Residency LSU Health Shreveport
Jeffrey Watson	Louisiana Ambulance Alliance	Chief of Bossier City EMS
Martha Whyte, MD	LDH - Office of Public Health	Region 7 OPH Medical Director

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Hospital	Trauma	Stroke	STEMI	BURN
Bienville Medical Center		Stroke Bypass	Referral	
CHRISTUS Coushatta		ASRH	Referral	
CHRISTUS Health Shreveport		ASRH	Receiving	
DeSoto Regional Health System		Stroke Bypass	Referral	
Claiborne Memorial Hospital		Stroke Bypass	Referral	
Ochsner LSU Health Shreveport	Adult Level 1, Pediatric Level 2 Program	TSC	Receiving	Regional Center
Minden Medical Center		ASRH	Referral	
Natchitoches Regional Medical Center		ASRH	Referral	
North Caddo Medical Center		Stroke Bypass	Referral	
Overton Brooks VA Medical Center		-	-	
Sabine Medical Center		ASRH	Referral	
Springhill Medical Center		ASRH	Referral	
Willis-Knighton Medical Center		ASRH	Receiving	
WK South & Center for Women		ASRH	Referral	
WK Bossier Health Center		ASRH	Receiving	
WK Pierremont Health Center		PSC	Receiving	

Caldwell, East Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, & West Carroll

Regional Traumas
CY2017: 882
CY2018: 776
CY2019: 761
CY2020: 745

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Commission Member	Organization Representing	Position
Olivia Caskey, NRP (Chair)	Air Medical	Program Director Air Evac
Michael Reichardt (Co-Chair)	Law Enforcement	State Trooper
Mike Brame (Secretary)	Health & Human Services Designated Regional Coordinator	Hospital DRC – Region 8 St. Francis Medical Center
Teresa Dugdale Daniel, RN-BC	Hospitals > 100 Beds	Chest Pain/Stroke Coordinator St. Francis Medical Center
Jade Gabb	National Emergency Number Association	Director of Ouachita Parish 911 Communications District
Mandy Grey, RHIT, CCS	Hospitals < 60 Beds	Chief Operating Officer West Carroll Health System
Tracy G. Hilburn	GOSHEP	Region 8 Coordinator/Deputy Director, Ouachita Parish OHSEP
Jancie Posey	Emergency Medical Response	Educator - Northeast Louisiana Ambulance
Jamin Rankin, RN	Registered Nurse Practicing in Emergency or Critical Care	Registered Nurse
Christopher Reine, NRP	Emergency Medical Services	Operations Coordinator, Acadian Ambulance
Hugo Cuellar-Saenz, MD, PhD	American Stroke Association	Associate Professor of Neurology and Radiology, Ochsner LSU Health
Jessica Trichel, NRP	Rural Ambulance Alliance	Operations Manager Pafford EMS
Marc Todd, RN, EMT-P	Service District Hospitals	Emergency Department Director - Franklin Medical Center

Hospital	Trauma	Stroke	STEMI	BURN
Citizens Medical Center		Stroke Bypass	Referral	
Ochsner LSU Health Monroe		ASRH	Referral	
East Carroll Parish Hospital		Stroke Bypass	Referral	
Franklin Medical Center		Stroke Bypass	Referral	
Glenwood Regional Medical Center		ASRH	Receiving	
Jackson Parish Hospital		ASRH	Referral	
Madison Parish Hospital		Stroke Bypass	Referral	
Morehouse General Hospital		ASRH	Referral	
Northern Louisiana Medical Center		ASRH	Receiving	
Reeves Memorial Medical Center		Stroke Bypass	Referral	
Richardson Medical Center		Stroke Bypass	Referral	
Richland Parish Hospital – Delhi		Stroke Bypass	Referral	
St. Francis Medical Center		ASRH	Receiving	
Union General Hospital		ASRH	Referral	
West Carroll Memorial Hospital		Stroke Bypass	Referral	

Livingston, St. Helena, St. Tammany,
Tangipahoa, & Washington

Commission Member	Organization Representing	Position
Chad Muntan, MD (Chair)	American College of Emergency Physicians	Emergency Department Medical Director for Lakeview Regional Medical Center
Marquinn Duke, MD (Vice-Chair)	Trauma Center Representative	Trauma Medical Director North Oaks Medical Center
Keith Peek (Secretary)	HHS Designated Regional Coordinator	Administrative Designated Regional Coordinator
Louis Alvarado, MD	Louisiana State Medical Society	Internal Medicine/Hospitalist St. Tammany Parish Hospital / Lakeview Regional Medical Center
Brandon Cambre, MD	Hospital > 100 Beds	Emergency Department Physician North Oaks Regional Medical Center
Michelle Collins, NRP	Local Ambulance Service	Clinical Documentation Auditor, Quality Improvement, Northshore Acadian Ambulance Service
Ramy El Khoury, MD	American Stroke Association	Vascular Neurologist, Neurocare of Louisiana
Rodney Hart	National Emergency Number Association (911)	Director, St. Tammany Parish Communications District
Marco Hidalgo, MD	American College of Surgeons	Trauma Medical Director Lakeview Regional Medical Center
Gina Lagarde, MD	LDH, Office of Public Health	OPH Region 9 Public Health Medical Director, Louisiana Department of Health Office of Public Health
David Marcus, NRP	Rural Ambulance Alliance	Education Coordinator, Disaster Coordinator, Public Relations for Northshore EMS
Dawson Primes, LEM	Governor's Office of Homeland Security & Emergency Preparedness	Director for Tangipahoa Parish Office of Homeland Security & Emergency Preparedness
Major John Riles	Law Enforcement	Louisiana State Police
Derek Rousseau, BSN, EMT-P	Emergency Nurses Association	Director of Emergency Services for Lakeview Regional Medical Center
Ken Salzer, RN, AAS, NRP	Emergency Medical Response	Chief of EMS for St. Tammany Parish Fire District #4
Jimmy Selbert, RN	Rural Hospital Coalition	Chief Nursing Officer for Riverside Medical Center
David Touns, MD	Service District Hospitals	ED Director, St. Tammany Health System

Regional Traumas
CY2017: 1,114
CY2018: 1,018
CY2019: 994
CY2020: 1,116

2011: Trauma Centers & Programs with 1-Hour Drive Time



Future Vision: Trauma Centers & Programs with 1-Hour Drive Time



Hospital	Trauma	Stroke	STEMI	BURN
Our Lady of the Angels		ASRH	Referral	
Hood Memorial		ASRH	Referral	
Lakeview Regional Medical Center, a campus of Tulane Medical Center	Level 3	PSC	Receiving	
Lallie Kemp Regional Medical Center		Stroke Bypass	Referral	
North Oaks Medical Center	Level 2	PSC-E	Receiving	
Ochsner Medical Center – North Shore		ASRH	Referral	
Our Lady of the Lake – Livingston		Stroke Capable Off-site ED	Referral	
Riverside Medical Center		ASRH	Referral	
Slidell Memorial Hospital		PSC	Receiving	
St. Helena Parish Hospital		Stroke Bypass	Referral	
St. Tammany Parish Hospital	Level 3	PSC	Receiving	
St. Tammany Parish Hospital – Mandeville Emergency Department		Stroke Bypass	Referral	



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