

ANNUAL REPORT

FY 2017 - 2018



LOUISIANA

EMERGENCY RESPONSE NETWORK

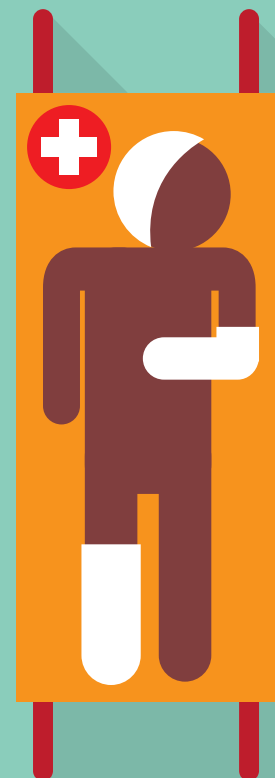
Right Place. Right Time. Right Care.

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.

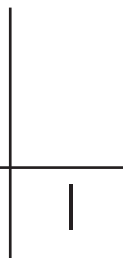
For the patients LERN serves – victims of trauma, heart attack, stroke, and individuals caught in large scale emergencies and natural disasters – getting to the right place at the right time to receive the right care is a matter of life or death. LERN's mission is to build and continuously improve systems 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: lern.la.gov.



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LETTER FROM THE EXECUTIVE DIRECTOR



LERN's mission includes the responsibility of developing and maintaining a statewide system of care coordination for patients suddenly stricken by serious traumatic injury. It is a responsibility that is broad in scope and complex in nature – requiring the confidence and financial support of our State government and the collaborative participation of physicians, hospitals, EMS providers, and nurses across Louisiana. Together, we strive to deliver trauma, stroke, and STEMI patients to the right place at the right time so they can receive the right care.

Refining this care coordination system is a never-ending effort. I am proud to report steady progress. Here is a dramatic example. In 2011, only forty percent (40%) of the people living in Louisiana had access to a state-designated trauma center within a 60-minute drive time. Louisiana had only two trauma centers at the time, one in New Orleans and one in Shreveport. Today, seventy-seven percent (77%) of our State's population has access to a trauma center within that crucial 60-minute drive time.

Louisiana currently has seven (7) state-designated trauma centers. The latest addition to our statewide network is Lafayette General Medical Center. Congratulations to the whole Lafayette General team that has worked tirelessly for approximately three years to achieve the nationally-recognized Level II Trauma Center status.

Providing education is a mainstay component of the LERN mission. We taught 132 separate trauma-related classes¹ in CY 2018 serving approximately 3,000 students. These classes help a variety of professionals including, nurses, paramedics, respiratory therapists, telemetry monitor technicians, teachers, coaches, police, and fire fighters. Since 2012, LERN has sponsored 428 education courses attended by approximately 8,000 students.

LERN's mission also includes the responsibility of developing and maintaining a statewide system of care coordination for patients suddenly stricken by time-sensitive illnesses such as stroke. Louisiana's progress in the delivery of stroke care is quite encouraging. For example, in 2010 just one in 25 Louisiana patients (1 in 25) discharged after an acute ischemic stroke (AIS) received recanalization therapy. The recanalization (opening) of an occluded (closed) artery is one of the most important predictors of stroke outcome. In 2017, one in every five Louisiana AIS patients (1 in 5) received recanalization therapy. This represents a tremendous improvement for the better.

LERN took on a new challenge in the past year – we are now leading an effort focused on developing a coordinated burn care system for Louisiana. We are working collaboratively with the medical directors from our State's four burn centers to develop the framework for a cohesive burn care system that optimizes care and operational efficiency. Stay tuned.

Finally, LERN's staff participated in MCI (mass casualty incident) drills and educational programs in all nine Louisiana Department of Health regions – joining with our regional and local partners across the State to make sure we are all prepared, as best we can, for those days we hope never come.

LERN's positive impact continues to grow. That is our job and our responsibility. I am proud to serve as LERN's Executive Director and I am confident that LERN's staff, medical directors, volunteer board members, volunteer regional commissioners, and participating healthcare entities will continue to earn the support necessary to sustain its vital mission.

Paige Hargrove

Paige Hargrove, BSN, RN
 Executive Director



¹ e.g., TNCC, ENPC, RTTDC, Stop the Bleed

LERN BOARD OF DIRECTORS

II

EXECUTIVE COMMITTEE

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

Chairman of the Board

Chief Operating Officer

St. Martin Hospital

Nominating Entity: Rural Hospital Coalition

Dieadra J. Garrett, MD

Vice-Chairman of the Board

Pediatric Surgeon

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

Nominating Entity: Louisiana State Medical Society

Tracy Wold

Treasurer of the Board

Director of Operations

Pafford Emergency Medical Services

Nominating Entity: Louisiana Rural Ambulance Alliance

William Freeman, MD

Immediate Past Chairman of the Board

Chief Medical Officer

C&M Medical Services

Nominating Entity: Louisiana American College of Emergency Physicians

Coletta Barrett, RN, FACHE

Executive Committee Member

Vice President of Mission

Our Lady of the Lake Regional Medical Center

Nominating Entity: Louisiana Alliance of Information and Referral Systems

Jimmy Guidry, MD

Executive Committee Member

State Health Officer

Louisiana Department of Health

Nominating Entity: Louisiana Department of Health

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

BOARD MEMBERS

Honorable Regina Ashford Barrow

Senator

Louisiana State Senate

Nominating Entity: Louisiana State Senate

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

Paul Gladden, MD

Associate Professor and

Chief of Orthopaedic Trauma Surgery

Tulane University School of Medicine

Nominating Entity: Louisiana State Medical Society

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

Honorable Frank A. Hoffmann

Representative

Louisiana House of Representatives

Nominating Entity:

Louisiana House of Representatives

Tomas H. Jacome, MD

Trauma Medical Director

Our Lady of the Lake Regional Medical Center

Nominating Entity: Committee on Trauma,

American College of Surgeons

Danita LeBlanc

Program Manager

Louisiana Department of Health

Nominating Entity: Louisiana Department of Health

William W. Lunn, MD

President and Chief Executive Officer

Tulane University Hospital and Clinic

Nominating Entity:

Tulane University Health Sciences Center

Dawn D. McKeown, RN

Trauma Program Manager

University Health – Shreveport

Nominating Entity: Louisiana State Board of Nursing

Honorable Dustin Miller

Representative

Louisiana House of Representatives

Nominating Entity:

Louisiana House of Representatives

Charles Nassauer, OD

Owner

All Vision and All Care Eye Center

Nominating Entity: Optometry Association of America

Gregory K. Stock

Chief Executive Officer

Thibodaux Regional Medical Center

Nominating Entity: Louisiana Hospital Association –

Service District Hospital

Carl J. Varnado, Jr.

Deputy Director

National Emergency Number Association

Nominating Entity: National Emergency
Number Association

Other Nominating Entities:

Louisiana Association of EMS Physicians – Medical

Louisiana Chapter of the American College of Cardiology

Louisiana Medical Association

Honorable Mack “Bodi” White, Jr.

Senator

Louisiana State Senate

Nominating Entity: Louisiana State Senate

Robert K. Wolterman, BS, MBA, MHA

Chief Executive Officer

Ochsner Medical Center

Nominating Entity: Metropolitan Hospital Council

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 SUTHERLAND, MD, FACS

LERN TRAUMA MEDICAL DIRECTOR



It is my pleasure to offer this report as LERN's Medical Director for Trauma. Over the last year, we have been diligently working our goals for trauma system development throughout the state, and have actively pursued development of trauma programs. We are aggressively using data to inform decision-making within the system and designing state-wide performance improvement processes to enhance the care of the injured patient.

Building on the framework of the existing Trauma System, we have had great success in growing the system.

- Lafayette General Medical Center in Region 4 has been successfully verified and designated a Level II Trauma Center.
- In Region 5, Lake Charles Memorial Hospital has successfully been designated as having a Trauma Program, which lays the groundwork for becoming a Level III Trauma Center.
- St. Tammany Hospital in Region 9 has completed their Level III consultative visit from the American College of Surgeons (ACS) and is working toward verification this spring.
- We continue to meet with facilities in the remaining regions without trauma centers or programs, Regions 3 and 8.

The Trauma Quality Improvement Program (TQIP) Collaborative has continued to meet and we are working to engage all centers with the data in their individual TQIP reports to enhance the performance of the state as a whole. This allows the system to use risk-adjusted data to identify best practices and improve outcomes throughout Louisiana. Other states that participate in TQIP have seen dramatic improvement in the survival and reduction of complications in trauma patients. With this program, we anticipate the same results for Louisiana.

Our pilot program on data linkage continues to strive to link pre-hospital patients to hospital outcomes. This project has had some technical hiccups, which were anticipated and is why we started with a pilot. We are currently working through those and anticipate that we will be able to move forward with a statewide rollout this year. This will give us the ability to follow patients through the system to assess outcomes.

Our trauma system is strong and we are dedicated to building on our existing strength to demonstrate the value of the system, improve care for our citizens, and expand the availability of the system to cover as many people in the state as possible. I am looking forward to continuing to work with LERN and Louisiana's trauma system to expand the impact of the system and continue to improve the access and quality of trauma care for Louisiana.

STATEWIDE COVERAGE

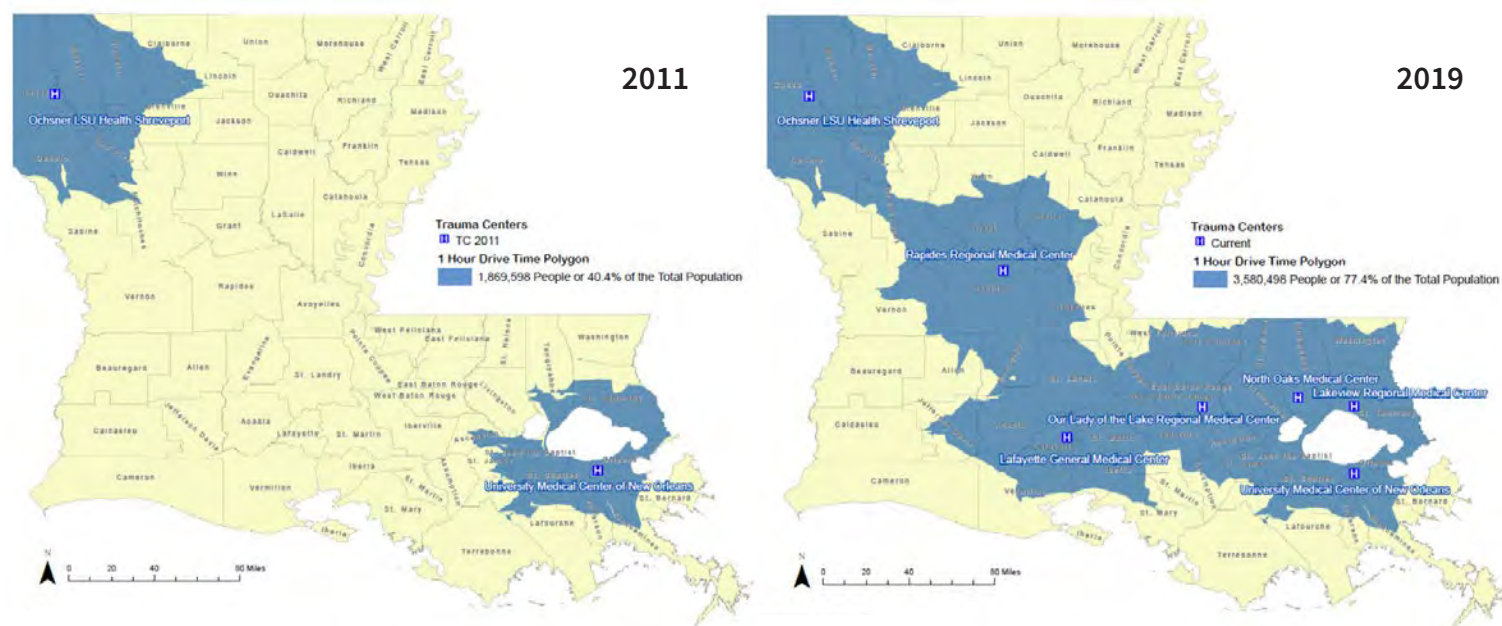
In 2011, Louisiana had two Level I Trauma Centers located on opposite ends of the State in Shreveport and New Orleans. These two centers provided 40% of the State's population access to a trauma center within a 60-minute drive time – otherwise known as the “golden hour”. Today, Louisiana's Trauma System includes seven trauma centers. In December 2018, Lafayette General Medical Center achieved verification by the American College of Surgeons as a Level II Trauma Center. This addition provides 77% of the population with access to a trauma center within the “golden hour.” **Figure 1** provides a visual of trauma center expansion in Louisiana.

The seven verified trauma centers in Louisiana are:

- **Ochsner LSU Health Shreveport** – Shreveport (Level I Trauma Center)
- **University Medical Center** – New Orleans (Level I Trauma Center)
- **Rapides Regional Medical Center** – Alexandria (Level II Trauma Center)
- **Our Lady of the Lake Regional Medical Center** – Baton Rouge (Level II Trauma Center)
- **North Oaks Medical Center** – Hammond (Level II Trauma Center)
- **Lakeview Regional Medical Center** – Covington (Level III Trauma Center)
- **Lafayette General Medical Center** – Lafayette (Level II Trauma Center)

FIGURE 1

STATEWIDE TRAUMA COVERAGE EXPANSION 2011 TO CURRENT DAY



THE LERN BOARD'S VISION AND NEXT STEPS

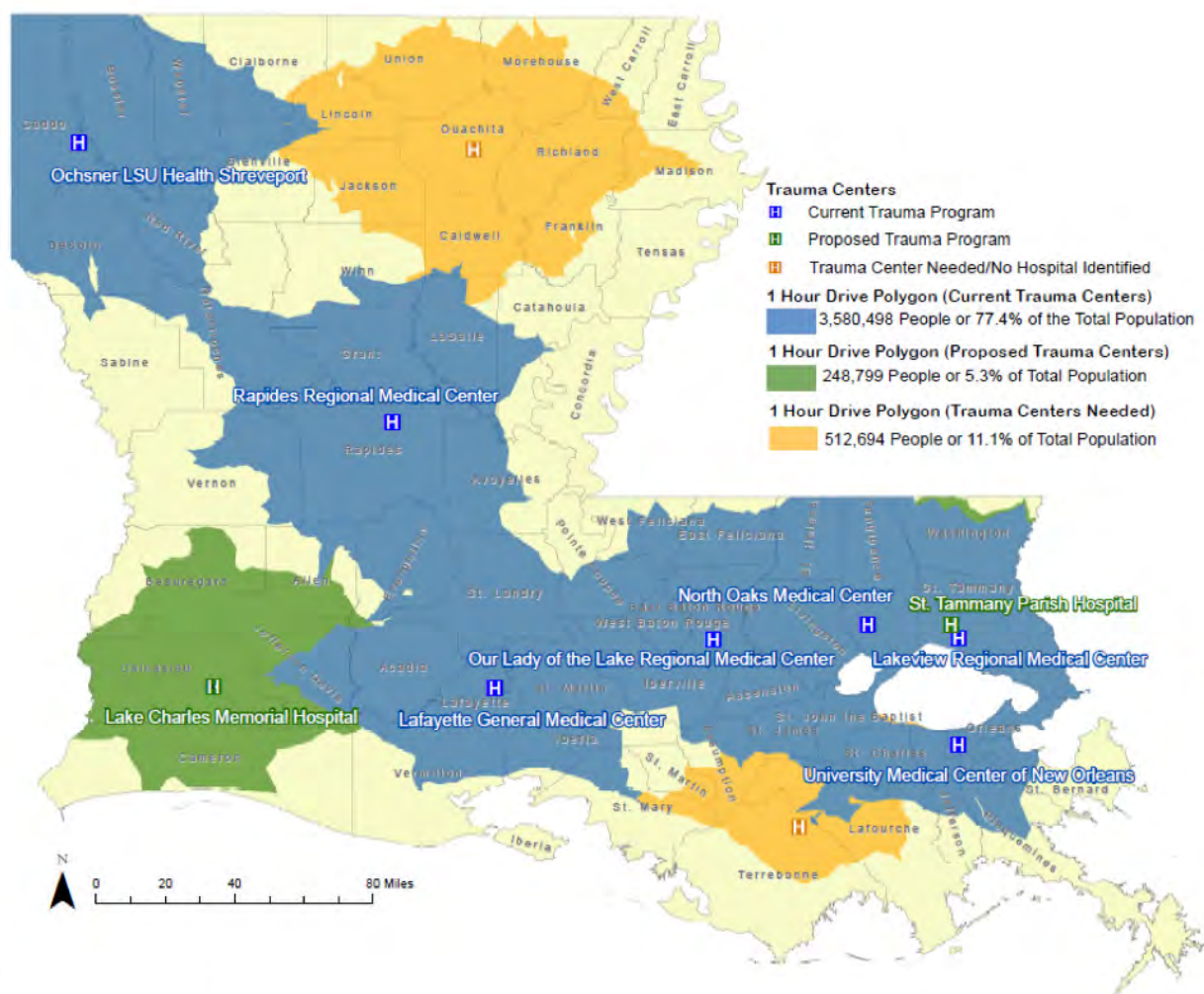
The LERN Board's vision (as illustrated in **Figure 2**) is to achieve an ACS verified trauma center in each LDH region. As depicted in **Figure 1**, LERN has made significant progress towards this goal. Lake Charles Memorial Hospital is currently working towards Level III designation and completed a consultation survey by the American College of Surgeons in December 2018. LERN expects to add a Level III Trauma Center in Region 5 (Lake Charles) and in Region 9 at St. Tammany Parish Hospital by the end of 2019. These additions will provide access to a trauma center within a 60-minute drive time to 83% of the state's population.

The biggest void in coverage remaining in Louisiana is in Region 8, the Monroe area. For patients injured in Northeast Louisiana, there is significant distance to the Level I Trauma Center in Shreveport or to the Level II Trauma Center in Alexandria. 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 2

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

Figure 2 depicts Louisiana's ideal trauma system which includes current trauma centers (illustrated in blue), proposed trauma centers (illustrated in green), and additional needed trauma centers (illustrated in gold).



TRAUMA EDUCATION

Trauma is the leading cause of death for Americans between the ages of 1 - 46 and the third largest cause of death across all age groups.² Irrespective of one's age, economic status, or race, injuries occur to almost everyone in their lives.³ Trauma centers and trauma systems support the integration of high-quality pre-hospital 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.⁴ LERN provided trauma education across the state to facilitate an educated trauma workforce. In calendar year 2018, LERN led 132 trauma courses. This effort resulted in 2,940 students receiving trauma education. **Figure 3**, captures our efforts in 2018, and **Figure 4**, 2012-2018.

- 2 Centers for Disease Control and Prevention. (2015). Injury prevention & control: Data and statistics (WISQARSTM). Retrieved from <http://www.cdc.gov/injury/wisqars/>.
- 3 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>.
- 4 Resources for Optimal Care of the Injured. Patient Retrieved from <https://www.facs.org/~media/files/quality%20programs/trauma/vrc%20resources/resources%20for%20optimal%20care.ashx>.

FIGURE 3
LERN TRAUMA EDUCATION
FY 2017 – 2018

LERN TRAUMA EDUCATION FY 2017 – 2018			
Course Name	# of Classes	# of Students	Regions
Trauma Nursing Core Curriculum (TNCC)	37	375	1, 2, 3, 6, 7, 8, 9
Emergency Nursing Pediatric Course (ENPC)	10	78	2, 3, 4, 6, 7, 9
Rural Trauma Team Development Course	1	28	2
Hemorrhage Control (law enforcement)	9	25 (40 tourniquets provided)	3, 6, 8
Stop the Bleed	81	2,313	2, 3, 4, 5, 6, 7, 8, 9
AIS Course	1	21	Trauma Registrars from Trauma Centers/Programs
TOTAL:	139	2,840	

“ I just wanted to say thank you for hosting the recent AIS Course in Lafayette. It was a great refresher. I learned something new and the instructors were great! ”

DEBORA BLAKESLEE, RN, BSN
TRAUMA NURSE REGISTRAR
TRAUMA PROGRAM SPECIALIST
OUR LADY OF THE LAKE REGIONAL MEDICAL CENTER

FIGURE 4
LERN EDUCATION FOOTPRINT
2012 – 2018

LERN EDUCATION FOOTPRINT 2012 – 2018		
Course Name	# of Classes	# of Students
Trauma Nurse Core Curriculum (TNCC)	173	1,801
Emergency Nurse Pediatric Course (ENPC)	48	447
Rural Trauma Team Development Course (RTTC)	20	552
Pre-Hospital Trauma Life Support	11	162
Trauma & Pediatric Care After Resuscitation (PCAR/TCAR)	6	196
Trauma Certified Registered Nurse	1	80
AIS Course for Trauma Registrars	2	46
12 Lead EKG Course	53	1,547
Hemorrhage Control (law enforcement)	33	908
Stop the Bleed	81	2,313
TOTAL:	428	8,052

“ Thank you again for helping me in my goal to offer TNCC to my fellow nurses. Two left the class on Friday and the first thing they did was tell our manager how much they got out of the class. I understand that one of our nurses met with you in regards to the Stop the Bleed campaign. I am so tickled that as a result of this class my coworkers are getting involved outside of the ER walls.

”

RENEE CARUSO, BSN, RN, CEN
BATON ROUGE GENERAL

THE LERN COMMUNICATION CENTER

LERN's mission is to defend the public health, safety, and welfare by protecting the people of Louisiana from unnecessary deaths and morbidity due to trauma and time-sensitive illness. In accordance with this mission, 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 by 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 Resource Management Portal to match patients to the most appropriate hospital resources. Trauma patients typically need the specialized care of general surgeons, orthopedic surgeons, and/or neurosurgeons.

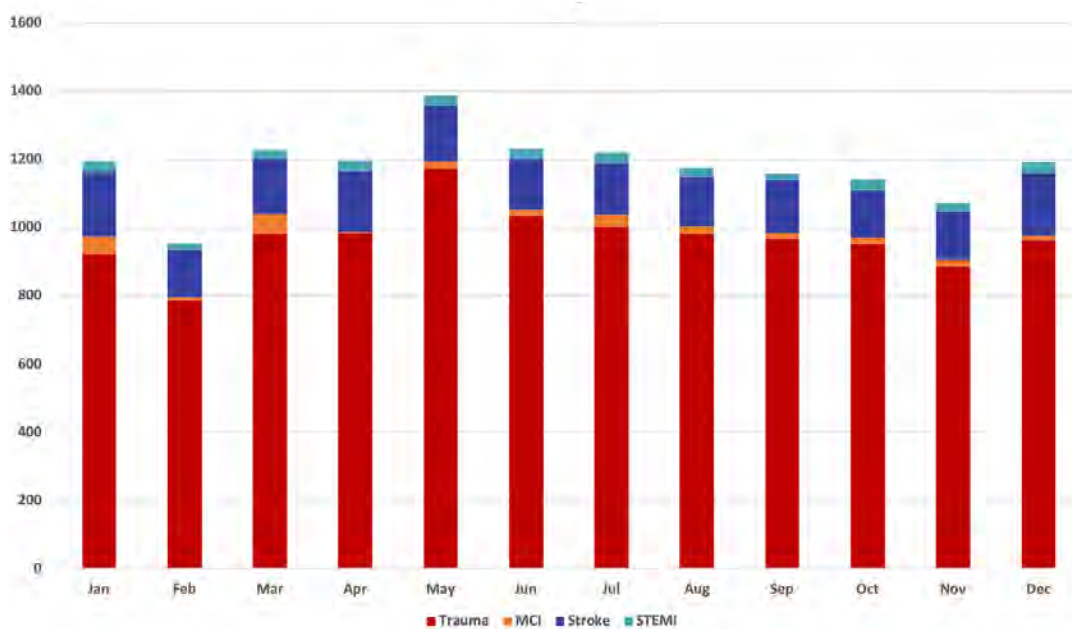
These resources are not readily available across the state, especially in rural areas. Because time is critical for trauma patients, the LCC matches each patient's clinical needs to the resources required for treatment. Often, this requires bypassing the closest hospital to get the patient to the definitive care he/she needs. In 2014, the LCC began providing the same service for stroke and STEMI (heart attack), which are also time-sensitive illnesses.

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.

COMMUNICATION CENTER VOLUME

The LCC routed 14,147 patients in CY 2018. Trauma patients account for the majority of patients routed via the LCC, followed by stroke, STEMI, and Mass Casualty Incidents.

FIGURE 5
PATIENTS ROUTED BY LCC IN 2018



SECONDARY TRANSFERS

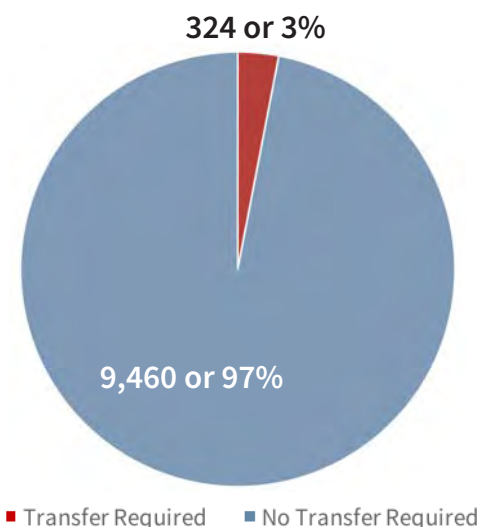
Any transfer of a patient from the original hospital Emergency Department to another hospital to receive a higher level of care is known as a secondary transfer. Secondary transfers are reported to Louisiana Department of Health (LDH) quarterly as part of the LERN performance indicator set. The benchmark is to achieve a target secondary transfer rate of less than 5%. Research indicates that a considerable number of transferred trauma patients undergo potentially preventable, repeated CT scans, adding radiation dose to patients and costs to the healthcare system. More consequentially, time is critical for trauma patients, with the ideal treatment within the golden hour. The LCC reported a secondary transfer rate (of LERN-directed patients) of less than 3% in 2018, as shown in

Figure 6. A secondary transfer of 24% is reported for trauma patients not directed by the LCC.

FIGURE 6

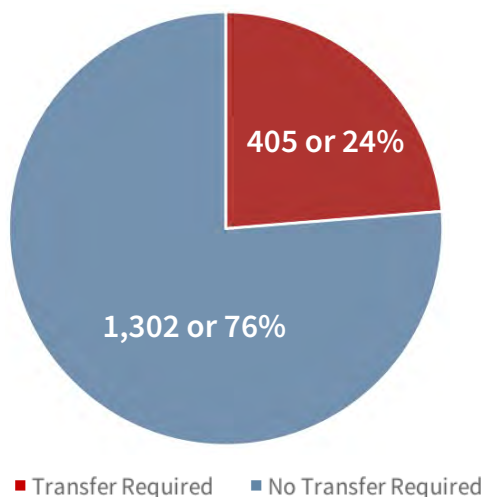
PATIENTS REQUIRING TRANSFER IN 2018

PATIENTS DIRECTED BY LERN - 2018



Secondary transfers for LERN-directed patients has remained at 3% since 2015

PATIENTS NOT DIRECTED BY LERN - 2018



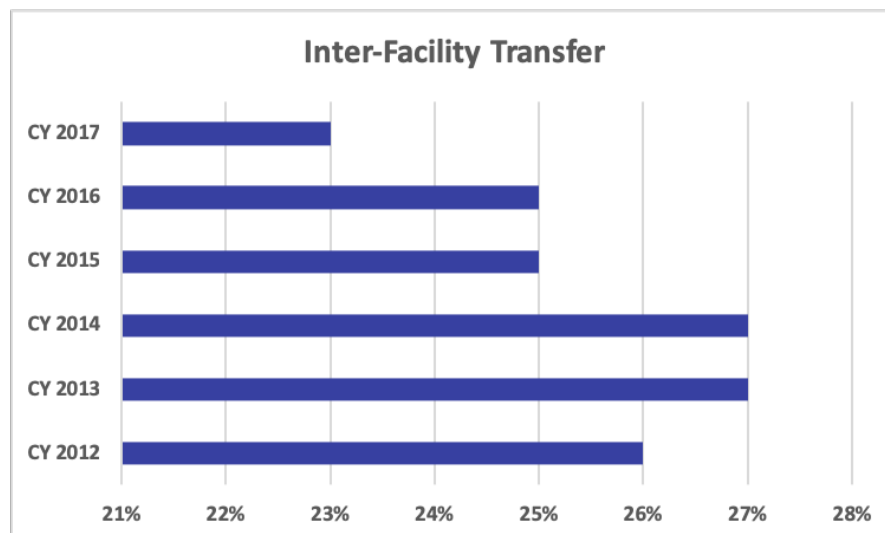
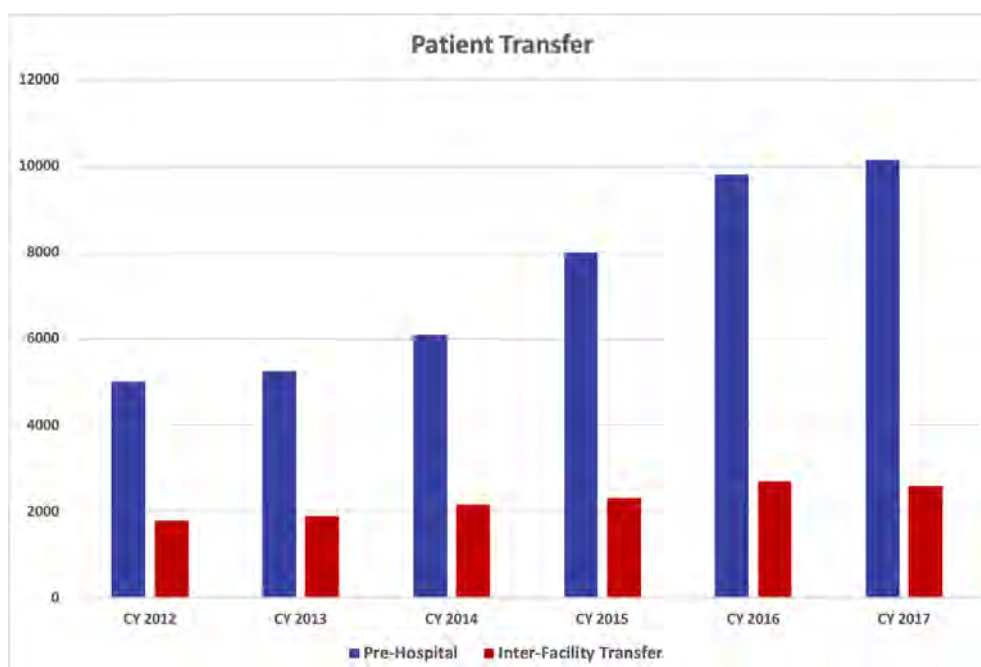
In 2018, 24% of patients not directed by LERN required secondary transfer

STATE TRAUMA REGISTRY TRANSFER DATA

The state trauma registry data also indicates a decrease in the number of transfer patients. This further supports the premise that trauma center development, implementation of pre-hospital trauma destination protocols, and coordinated movement of patients by the LCC facilitates access to definitive care from the field.

FIGURE 7
TRAUMA REGISTRY TRANSFER DATA

RECEIVED	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017
Pre-Hospital	4,986	5,110	6,170	7,971	9,677	10,411
Inter-Facility Transfer	1,722 26%	1,858 27%	2,256 27%	2,625 25%	3,272 25%	3,129 23%
TOTAL	6,708	6,968	8,426	10,596	12,949	13,540



STOP THE BLEED CAMPAIGN

Stop the Bleed is a national awareness campaign and call to action launched by the U.S. Department of Homeland Security. The goal of Stop the Bleed is to promote grassroots efforts that encourage bystanders to become trained, equipped, and empowered to help in a bleeding emergency before the professional emergency responders arrive.



Motivated by the 2012 tragedy in Sandy Hook and the multiple tragedies that have occurred in the ensuing years, what has become known as the Hartford Consensus was convened to bring together leaders from law enforcement, the federal government, and the medical community to improve survivability from mass casualty events. The resulting injuries from these events generally present with severe bleeding which, if left unattended, can result in death. The participants of the Hartford Consensus concluded that by providing first responders (law enforcement) and civilian bystanders with the skills and basic tools to stop uncontrolled bleeding in an emergency situation, lives would be saved.

No matter how rapid the arrival of professional emergency responders, bystanders will always be first on the scene. A person who is bleeding can die from blood loss within five minutes, making it imperative to know how to quickly stop it.

LERN is playing a leading role in the Stop the Bleed effort across Louisiana by working with our regional commission members to improve public awareness about how to stop severe bleeding and expanding personal and public access to bleeding control kits. Together with our regional partners, in CY 2018, LERN facilitated 81 Stop the Bleed classes to a total of 2,313 students. Through a grant provided by the Living Well Foundation, we were able to place 11 Bleeding Control stations (containing several bleeding control kits each) in various schools in Ouachita Parish. LERN is continuing to grow awareness and network to provide these life-saving resources in more schools across the state.



Pictured L to R:
Paige Hargrove,
 Executive Director, LERN;
Vince Cataldo,
 Hospital Administrator,
 Prevost Hospital;
David Alexander,
 Superintendent,
 Ascension Public Schools;
Jill Gautreau, RN,
 School Nurse Coordinator,
 Ascension Public Schools as
 Prevost Hospital donates a
 bleeding control station to
 Donaldsonville High School in
 June of 2018.



Pictured Left
Jamin Rankin with Air Evac instructs Riverfield Academy faculty on how to administer a tourniquet during a Stop the Bleed training session.

Pictured Below
Brad Hill (3rd from left) and faculty members at Neville High School in Monroe. Wall mounts and Stop the Bleed kits funded by a grant from the Living Well Foundation.



Agencies, organizations, and individuals interested in joining Louisiana's STOP THE BLEED effort can contact the LERN office for more information and to discuss how to get involved.

Phone: 225-756-3440 | email: paige.hargrove@la.gov | lern.la.gov

ALL DISASTERS RESPONSE UPDATE

IV

A MESSAGE FROM

JIMMY GUIDRY, MD

LDH STATE HEALTH OFFICER & LERN BOARD MEMBER



LERN's Communication Center managed sixty-two (62) mass casualty incidents (MCIs) in the past year. Sixty-two is a big number, but it also represents a positive two-year trend in Louisiana. We reported 150 MCIs in our 2016 Annual Report and 109 MCIs in our 2017 Annual Report. This is a downward trend we hope continues.

Nonetheless, LERN prepares year-round with our state, regional, and local partners. We prepare for those things we anticipate with some regularity like tornados, floods, multi-vehicle collisions, and localized hazardous spills. We also prepare for the unthinkable ...a bombed building full of people, a crashed commercial airplane, and an active shooter on a school campus.

LERN has become a critical component of Louisiana's disaster response infrastructure over the past 10 years. We serve as a communication hub during an MCI, alerting the area's healthcare providers and agencies, coordinating scene management with responding organizations, and facilitating the appropriate movement of patients to definitive care.

The key to maximizing the effectiveness of emergency response is to stay prepared; to study, to drill, and to learn the lessons available to us from the results of each MCI we manage.



LERN conducts MCI Bootcamp with Acadian Ambulance in Region 4

LERN'S ROLE DURING MASS CASUALTY INCIDENTS (MCI)

As the LERN Communications Center serves at the First Call “Help Desk” and 24/7/365 information coordinator for unfolding events, we also continue to manage the EMS Tactical Operation Center (EMS-TOC) during disasters, and provide education and outreach to providers on MCI processes and procedures.

The LCC is responsible for multiple roles in an event, including:

- Receiving information of the incident, such as
 - Type of incident
 - Location
 - Patients and injuries
 - Pertinent details (hazardous material, safety of scene, effect on surrounding area)
 - Responding agencies and resources,
- Sending portal alerts to appropriate hospitals and state emergency preparedness personnel of event and updated information as necessary,
- Coordination of scene management with responding agencies,
- Destination coordination with responding agencies and receiving facilities, and
- Coordination of transferring patients to definitive care when necessary.

In CY 2018, the LCC managed 62 MCI events statewide involving 296 patients.

The EMS-TOC is responsible for:

- Coordination of ambulance assets during a declared event,
- Collaboration with Bureau of EMS Ambulance Processing Site regarding number of available assets,
- Communication with and tracking of all ground ambulances provided under state contract from staging to assigned, post-mission and back to staging upon completion or demobilization,
- Coordination federal assets with federal liaison,
- Communication with Designated Regional Coordinators throughout the state to process mission requests,
- Real-time documentation of all assets assigned to state operations in each region, and
- Providing situation reports to leadership as requested.



LERN participates in Region 5 Airport Drill



LERN provides MCI training in Region 9

Each year, LERN is invited to participate in a variety of planning exercises, drills, and education programs that are sponsored by local, regional, and state entities. In CY 2018, LERN achieved 100% participation from LDH regions in regional MCI drills. These preparatory efforts serve to strengthen Louisiana's all disasters response infrastructure.

Region	Event Type	Event Description
1	Drill	Oil Rig Explosion
2	Drill	Active Shooter Drill (x4), Radiologic/River Bend
3	Drill	Oil Rig Explosion, School Bomb Explosion/Surge Response
4	Drill	Active Shooter, Plane Crash, Active Threat Response
5	Drill	Active Shooter, Full Scale Report Drill/Plane Crash
6	Drill	Surge Exercise
7	Drill	Surge Exercise
8	Drill	Hospital Evacuation
2	MCI Bootcamp	Acadian Ambulance and BR-EMS (246 medics)
4	MCI Bootcamp	Acadian Ambulance (176 medics)
9	MCI Bootcamp	Acadian Ambulance, St. Tammany Fire #4 & #12 (45 medics)
LERN	Tabletop	Drill Functions of EMS Tactical Operations Center

STROKE SYSTEM UPDATE

V

A MESSAGE FROM

SHERYL MARTIN-SCHILD, MD, PHD, FANA, FAHA

LERN STROKE MEDICAL DIRECTOR



I am honored to lead the Louisiana stroke system of care. Through collaboration with stroke leaders across the state, we have made tremendous progress in expanding access to stroke care. This past year, one of our primary efforts focused on supporting the Level III Stroke Centers and developing mechanisms to measure their progress. In an effort to hold Level III Stroke Centers accountable for the qualifications attested to, the LERN Board required all Level III Stroke Centers to submit quarterly stroke data effective Quarter 1, 2018. I am happy to report that data submission is 100% compliant. Thirty-two sites are working on action plans to remediate one or more components of the stroke code process. Twenty-five sites are required to submit documentation of at least monthly mock stroke codes due to low volume of hyper-acute stroke patients. Since 2015, Level III Stroke Centers have sustained a >11% rate of treatment with intravenous thrombolytic for patients with suspected ischemic stroke. This rate is more than double national published rates. The median door-to-needle time has declined from 71 minutes in 2016 to 58 minutes in 2018, representing good progress. The LERN Board-Commission Stroke Subcommittee meets quarterly, as needed, to review sites struggling to meet the expectations of a Level III Stroke Center. I am happy to report that no Level III Stroke Center has been demoted for failure to meet expectations.

To put our progress into perspective, analysis of the Louisiana Hospital Discharge Database demonstrated that the recanalization rate for all of Louisiana was over 16% in 2017, up from 11.2% in 2016. In 2010, one out of every 25 patients discharged after AIS received recanalization therapy; in 2017, one out of every five patients was treated. While we cannot determine relative contribution of aspects of the system of care, the trends in recanalization therapy suggest Louisiana has been successful in improving access to time-sensitive care.

However, more work is needed to address early identification of patients with large vessel occlusion (LVO) who may be candidates for thrombectomy and to reduce the door in-door out time for transferred patients. This will be addressed by enhanced education of methods of LVO screening and exploration of barriers to efficient transfer, which requires collaboration with ground and air ambulance services. LERN is working to reduce the number of required transfers by revising the Initial Destination Protocol to get patients harboring LVO to the right place to begin with, when this doesn't compromise time to thrombolytic or excessively burden ambulance services for the community.

I look forward to continuing our work in 2019.

LOUISIANA STROKE SYSTEM PROGRESS

In September 2011, LERN convened the first state stroke workgroup charged with developing a framework for Louisiana's Statewide Stroke System. At the time, there were only six Primary Stroke Centers in the state. The workgroup envisioned a hub and spoke network that would provide access to quality stroke care no matter where you live. Today, LERN is very proud to report that vision has not only been achieved, but exceeded. Based on the workgroup recommended framework, the LERN Board approved four levels of stroke care:

- Level I = Comprehensive Stroke Center (highest level)
- Level II = Primary Stroke Center
- Level III = Acute Stroke Ready Stroke Center
- Level IV = Stroke Bypass Hospital

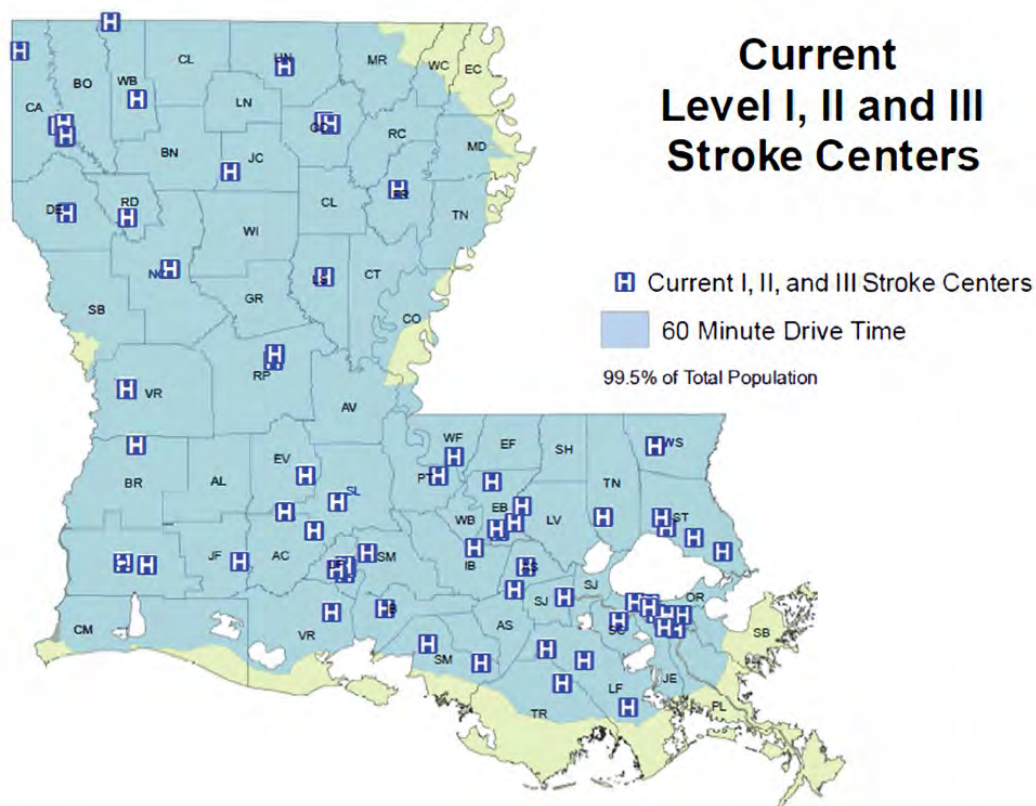
Louisiana's stroke system has gone from six primary stroke centers in 2011 to the following:

- 3 Comprehensive Stroke Centers
- 2 TJC Certified Thrombectomy Capable Stroke Centers
- 16 Primary Stroke Centers
- 54 Level III Stroke Centers
- 4 Stroke Capable Off-Site Emergency Departments
- 32 Level IV Stroke Centers (Stroke By-bypass)

Through our efforts, 99.5% of the state's population has access to a Level I, II, or III Stroke Center.

FIGURE 8

STATEWIDE ACCESS TO STROKE CENTERS



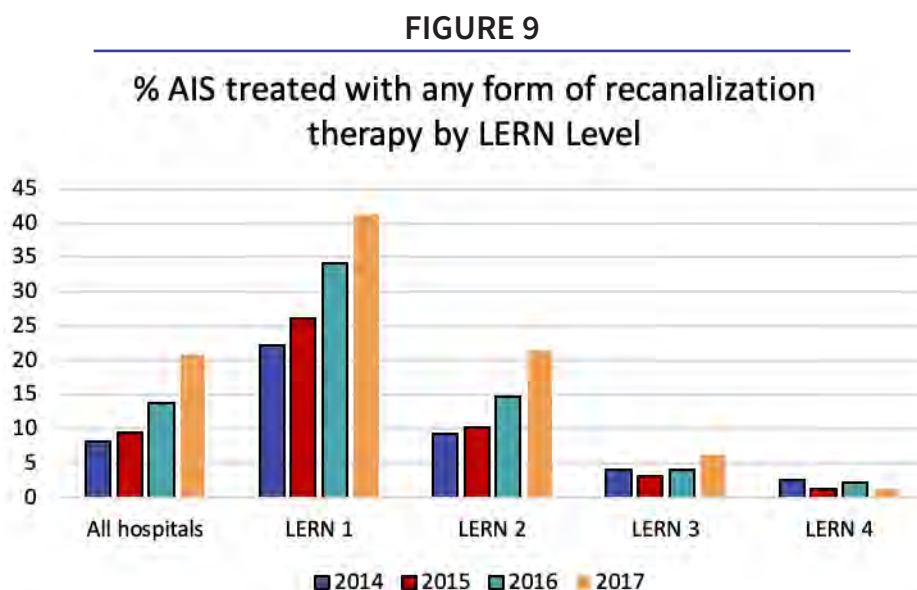
Visit lern.la.gov/lern-stroke-system/hospital-stroke-level to view the comprehensive list of stroke centers and all regional stroke attestations.

STROKE DATA INDICATES EXPANDED ACCESS TO STROKE CARE

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 three hours after the onset of symptoms. Stroke patients receiving definitive care within this three-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 intervention 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. In addition to tPA, endovascular therapy in the form of mechanical thrombectomy is another treatment to open a blocked artery caused by stroke.

As we build the stroke network, we also analyze the Louisiana Hospital Inpatient Discharge Data (LaHIDD) base for trends in treatment rates for acute ischemic stroke (AIS) patients.

- In 2010, 1 out of every 25 patients discharged with AIS received recanalization therapy.
- In 2017, 1 out of every 5 patients discharged with AIS was treated.



“ The on-site visit from Dr. Martin-Schild provided ED staff, as well as Radiology staff, with evidence-based guidelines and practices which explained the importance of timely stroke assessment, along with tips for decreasing door-to-needle times. The use of case studies and mock scenarios offered the opportunity for the physicians to participate and engage in discussion. Her presentation was insightful and very well received by the Emergency Room physicians and Radiologists.

”

EMILY SOILEAU, MBA
SPECIAL PROJECTS COORDINATOR
OPELOUSAS GENERAL HEALTH SYSTEM

LERN LEVEL III DATA

LERN Level III Stroke Centers are required to submit board-approved stroke metrics on a quarterly basis. These metrics are:

- Door-to-emergency department physician
- Door-to-neurological expertise
- Door-to-CT performed
- Door-to-CT interpreted
- Door-to-labs resulted
- Door-to-needle

Hospitals demonstrating metrics in the highest quartile are required to submit an action plan which details the current process, barriers to achieving benchmark, and steps to be taken to overcome barriers. Hospitals with less than six patients per quarter with a last-seen-normal within two hours are required to provide evidence of conducting one mock code per month.

Since this process was implemented in CY 2018, data indicates substantial improvement across the board in Level III Stroke Center performance. All 54 Level III Stroke Centers are compliant with data submission. **Figure 10** indicates the Level III Stroke Center tPA administration rate has improved, and **Figure 11** indicates Level III Stroke Centers are also administering tPA faster – saving precious brain cells.

FIGURE 10
STROKE CENTER tPA
ADMINISTRATION RATE

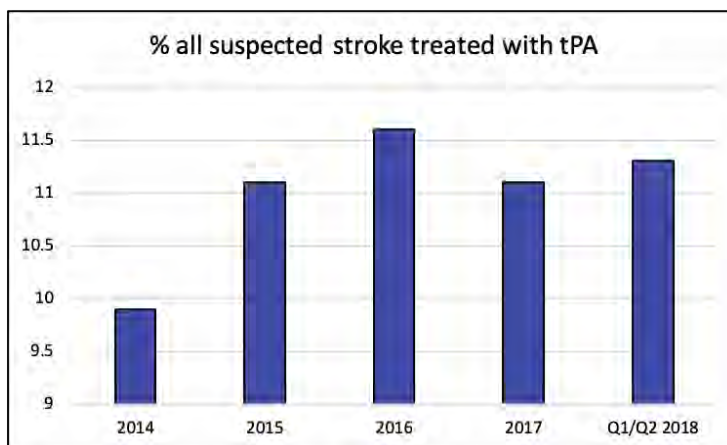
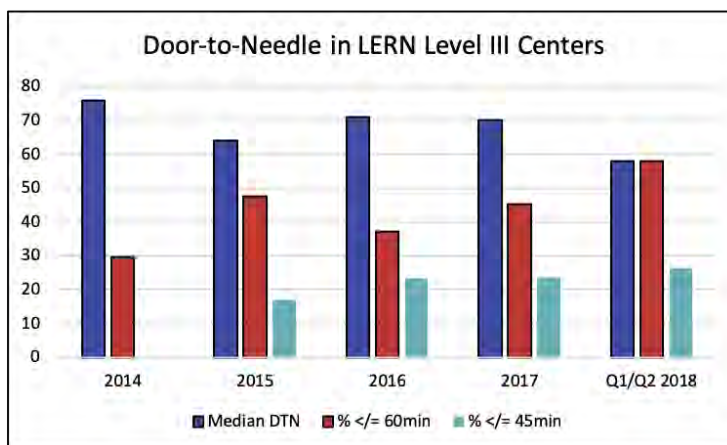


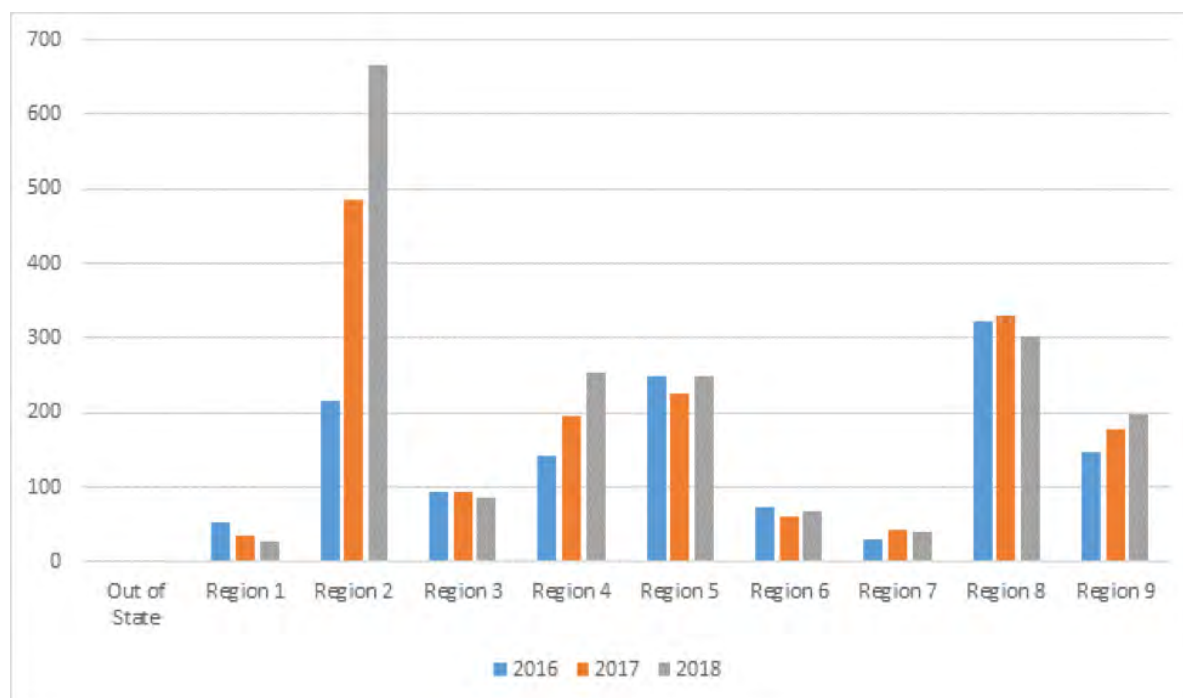
FIGURE 11
DOOR-TO-NEEDLE TIME IN LERN
LEVEL III STROKE CENTERS



STROKE PATIENTS ROUTED BY LERN COMMUNICATION CENTER

Engagement of the LCC facilitates patient delivery to the most appropriate hospital for treatment. The number of stroke patients routed by the LCC increased by 43% in CY 2018 as compared to CY 2016.

FIGURE 12
STROKE PATIENTS ROUTED BY REGION
2016 – 2018



“ Dr. Martin-Schild's discussion on stroke and all the activities within the network was both enlightening and educational for all staff involved. I think that any hospital in the network would benefit from a visit by you in order to get an outside perspective on the way they are handling stroke patients at their facility. I will be making some process and educational changes here as a result of your visit. Thank you!

”

MICHELLE DARTEZ, BSN, RN
EMERGENCY DEPARTMENT MANAGER
ABBEVILLE GENERAL

STEMI SYSTEM UPDATE

VI

A MESSAGE FROM

MURTUZA ALI, MD

LERN STEMI MEDICAL DIRECTOR



In FY 2017-2018, LERN continued to develop systems of care for STEMI (ST-elevation myocardial infarction), which remains the deadliest form of heart attack. Our efforts at education about electrocardiographic recognition of the disease have thrived with 15 sessions across all regions of the state, and the feedback we receive about these educational initiatives continues to be overwhelmingly positive.

In conjunction with our partners at many hospitals in the state, data are available for a limited cohort of patients with this disease in Louisiana; these data continue to show that at the likely-highest-performing hospitals, STEMI patients continue to receive care at levels consistent with national benchmarks. However, the ability to draw conclusions about the overall level of care is somewhat limited due to the absence of data from hospitals not submitting to national registries limits. In order to develop more robust data collection mechanisms, LERN is working with hospitals to encourage and facilitate data-sharing. Through relationships with the American Heart Association, efforts are underway to offer registry participation at little to no cost. Further statewide support will be needed for more robust data collection requirements in order to identify areas of success and improvement within our state.

2019 promises to be a year of continued energy and focus on data collection for STEMI patients.



LERN STEMI Medical Director Dr. Ali teaching at Region 9 Education Day

ACCESS TO STEMI RECEIVING CENTERS

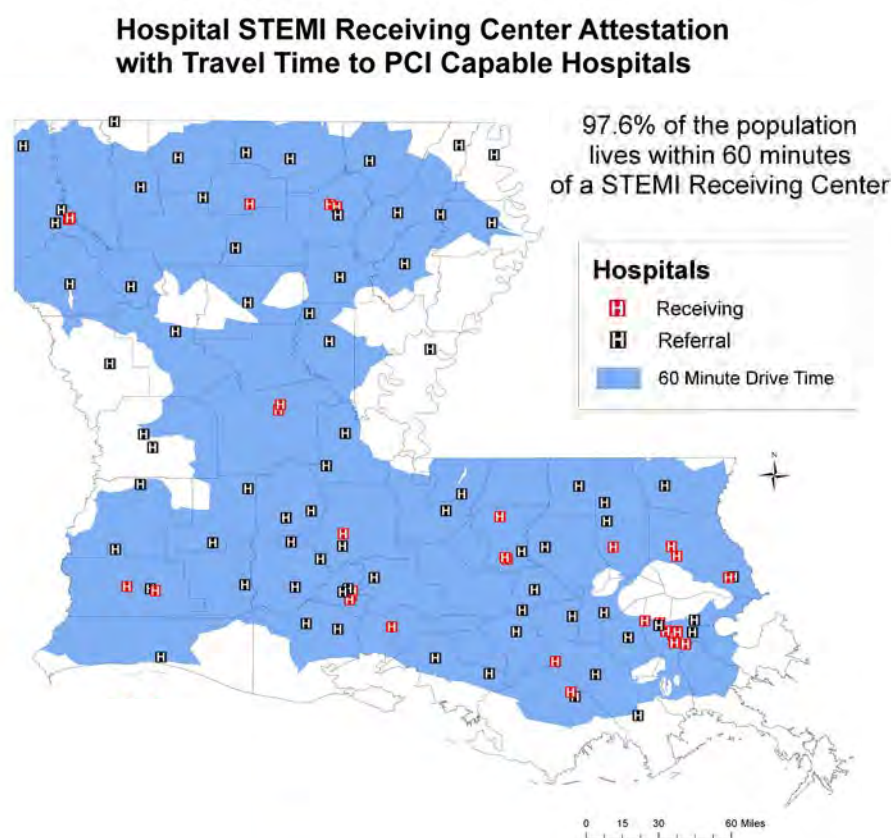
When STEMI strikes, opening the artery is of paramount importance using mechanical or pharmacologic therapies. Primary percutaneous coronary intervention (PCI), the mechanical strategy where a balloon is inflated at the site of the closed artery to restore flow, is the most effective course of treatment. Thrombolytic (fibrinolytic) therapy is the next best option.

In 2011, LERN formed a workgroup comprised of subject matter experts and invested community leaders throughout the state to develop a system that could provide high-level STEMI care to all Louisiana residents. The group worked hard to establish recommendations and develop a framework that would provide access to STEMI care and improve outcomes of all Louisiana residents while using available resources in the most efficient manner possible. Since the LERN Board adopted this framework, hospital Chief Executive Officers across the state attest to how they fit into the STEMI system every two years.

Today, 97% of the state's population has access to a STEMI Receiving Center within a 60-minute drive time, as shown in **Figure 13**. We use this map to educate EMS on where patients should be taken based on time to treatment. When a patient is located in the blue shaded area, EMS should go directly to a STEMI Receiving Center where they can undergo opening of the artery via PCI (indicated on the map with a red H). When located in the white area on the map, EMS should go to the STEMI Referral Center where they can receive fibrinolytic therapy and subsequently transfer to a STEMI Receiving Center for PCI.

FIGURE 13

STEMI TRAVEL TIMES MAP

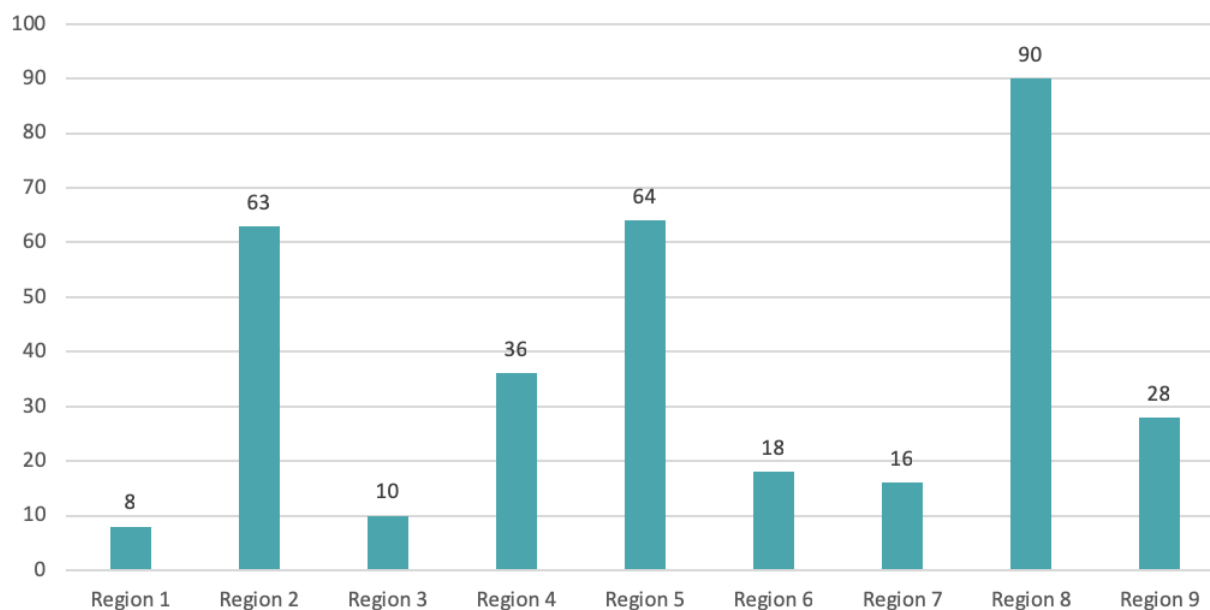


STEMI PATIENTS ROUTED BY LERN COMMUNICATION CENTER

The LCC assists in directing STEMI patients. In CY 2018, the LCC directed 333 STEMI patients. 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.

STEMI Patients by Region Received

Total = 333



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 15 classes which were available to all nine regions. A total of 1,547 students consisting of nurses and paramedics completed the 12 Lead EKG course.

12-Lead EKG Education Courses CY 2015 - 2018			
Year	Classes	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	All Regions
TOTALS:	53	1,547	All Regions

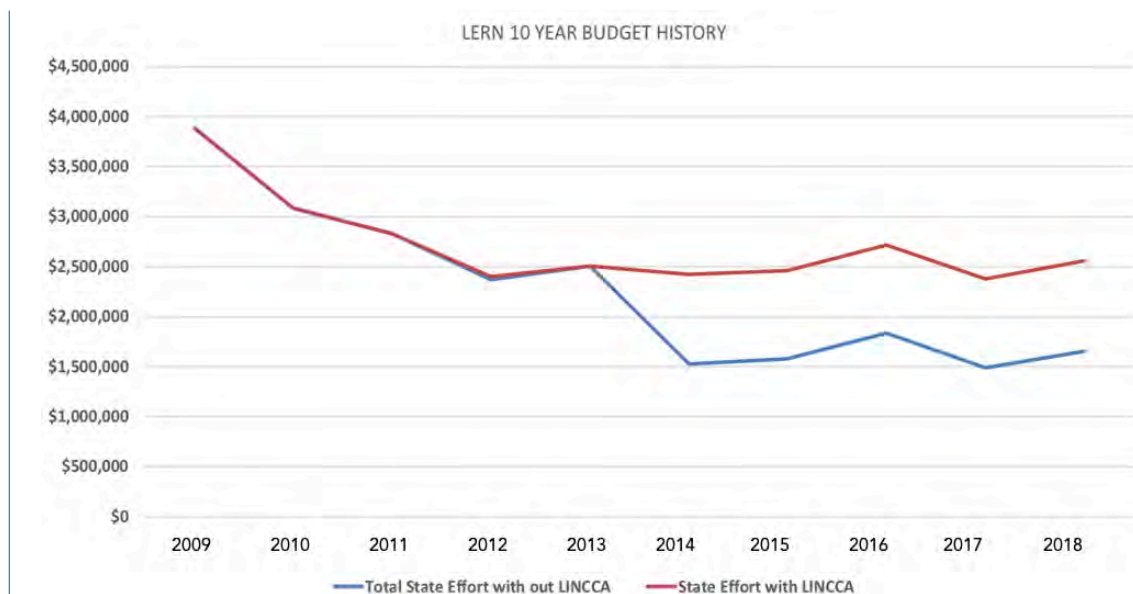
FINANCIALS

VII

FUNDING

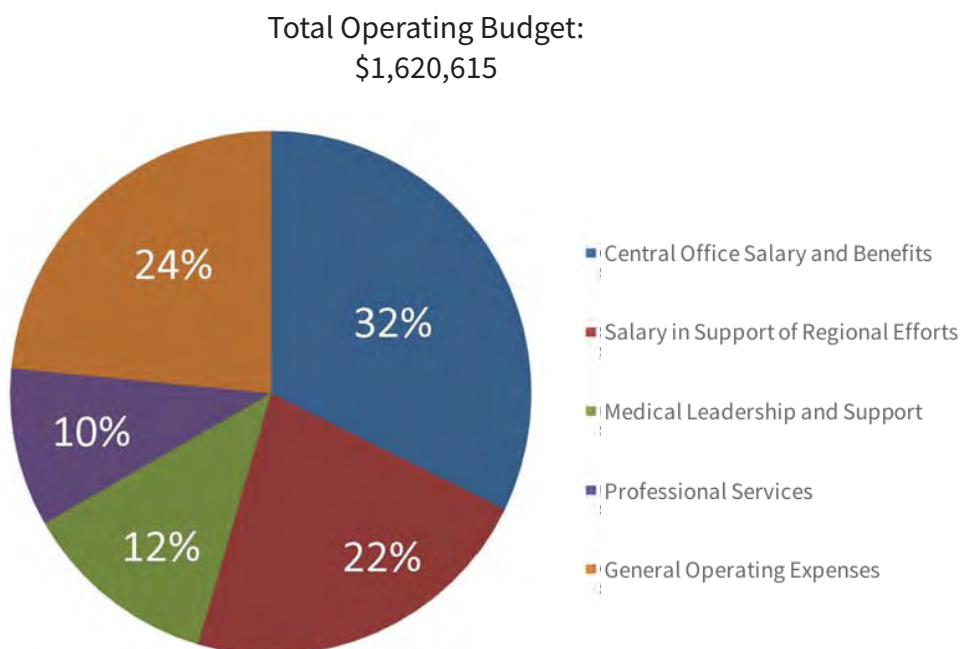
LERN funding today comes from two relatively unstable sources – the state general fund (SGF) and federal LINCCA (Low-Income and Needy Care Collaboration Agreement) funds. Since fiscal year ending 2009, total LERN funding has decreased by 36% from approximately \$3.9 million in FYE 2009 to approximately \$2.5 million in FYE 2018. During that same time period state general funds to LERN have decreased 59% from approximately \$3.9 million to \$1.6 million. The following chart illustrates these declines.

FIGURE 17
LERN-10 YEAR
BUDGET
HISTORY



CURRENT OPERATIONS

Current funding supports operations across LERN's four distinct areas of focus – trauma, stroke, STEMI, and all disasters response.



PERFORMANCE INDICATORS

VIII

PERFORMANCE INDICATORS – FY 2017–2018

In FY 2017 – 2018, LERN reported four Performance Indicators in the Louisiana Performance Accountability System (LaPAS). 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 in FY 2017 – 2018.

- **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 in FY 2017 – 2018.

- **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. This data is reflective of FY 2017 – 2018.

- Total patients directed by LERN = **10,165**
- Total patients transferred = **323**
- Percent of LERN directed patients not requiring transfer = **96.8%**

PERFORMANCE INDICATOR 4 (LAPAS CODE 25347)

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

- **37** (EMS participating)/ **54** (total number of EMS agencies) = **68.5%**

REGIONAL COMMISSIONS

IX

LERN is organized into nine geographic regions, and efforts in each region are guided by a regional commission – a regional advisory board of key trauma and time-sensitive illness stakeholders. LERN Regional Commission meeting dates can be found on the LERN website at lern.la.gov.

LERN TRI-REGIONAL COORDINATORS

Each region has an assigned LERN Tri-Regional Coordinator who serves as a resource to its commission and a liaison to the LERN staff, medical directors, and Board of Directors.

For more information about LERN Regional Commissions, please contact your Tri-Regional Coordinator.

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Sonya Wiley

“ You set a high standard with your highly effective and informative meetings! Always appreciate the amount of work you and the team do, largely behind the scenes, to make LERN work for the safety of all LA citizens. ”

SHELLEY RYAN GRAY BN, RN
MATERNAL CHILD HEALTH COORDINATOR, REGION 7
LOUISIANA DEPARTMENT OF HEALTH

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