2021 Regional Trauma System Plan

Review/Revision Date: 7/14/2020
General Membership Approval: 8/6/20

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BVRAC serves the counties of Brazos, Burleson, Grimes, Leon, Madison, Robertson, and Washington

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I. MISSION

It is the mission of the Brazos Valley Regional Advisory Council (BVRAC) Trauma System Plan (TSP) to identify the infrastructure and leadership necessary to sustain an optimal and comprehensive trauma, acute care, and emergency medical system within the Brazos Valley Region. This TSP will serve as a roadmap for the BVRAC to maintain efficiency, quality, and integrity in all of the services provided with the final destination being a stronger, safer, and healthier Brazos Valley.

II. VISION

The vision of the TSP is to take a multidisciplinary approach to the emergency medical system by unifying the Brazos Valley Region through public health, emergency management, injury prevention, acute care, and emergency services. BVRAC plans to engage the regional advisory council members, trauma physicians, nurses, and emergency medical technicians, along with anyone else involved in emergency/trauma response to positively affect the knowledge and skills of the Brazos Valley community so that it can make health related gains before, during, and following emergency situations and trauma incidents. The overarching goal is to provide comprehensive trauma care through strong partnerships, acute care via rapid response, and injury prevention by means of education and innovative programming. The BVRAC emphatically believes that a dedication to unity, special at-risk populations, and outreach education will continue to catapult not only the BVRAC, but most importantly the entire region into a higher level of service, trauma response, and prevention.

III. PHILOSOPHY

Since its inception, BVRAC has been active in trauma prevention and education programs as well as development and implementation of trauma patient care standards. Maintaining public education and awareness activities to increase the understanding of the trauma care system, access to trauma care and prevention of injuries, and providing coordination of acute medical services in mass casualty and disaster settings is an integral part of the mission and goals of BVRAC. In recent years, BVRAC has developed a Perinatal and Stroke Committee for additional improvement and implementation of patient care standards.

Trauma and Acute Care should be part of a seamless trauma system that provides patients with well-organized and high-quality care. Incorporation of an overall health care system requires cooperation and availability of each component of the system.

The essence of a trauma and acute care system is the ability to get the right patient to the right hospital at the right time to reduce death and disability. BVRAC members have made great strides toward this goal and continue to collaborate and strive to improve care of the trauma and acute care patient.

IV. SCOPE OF RESPONSIBILITY

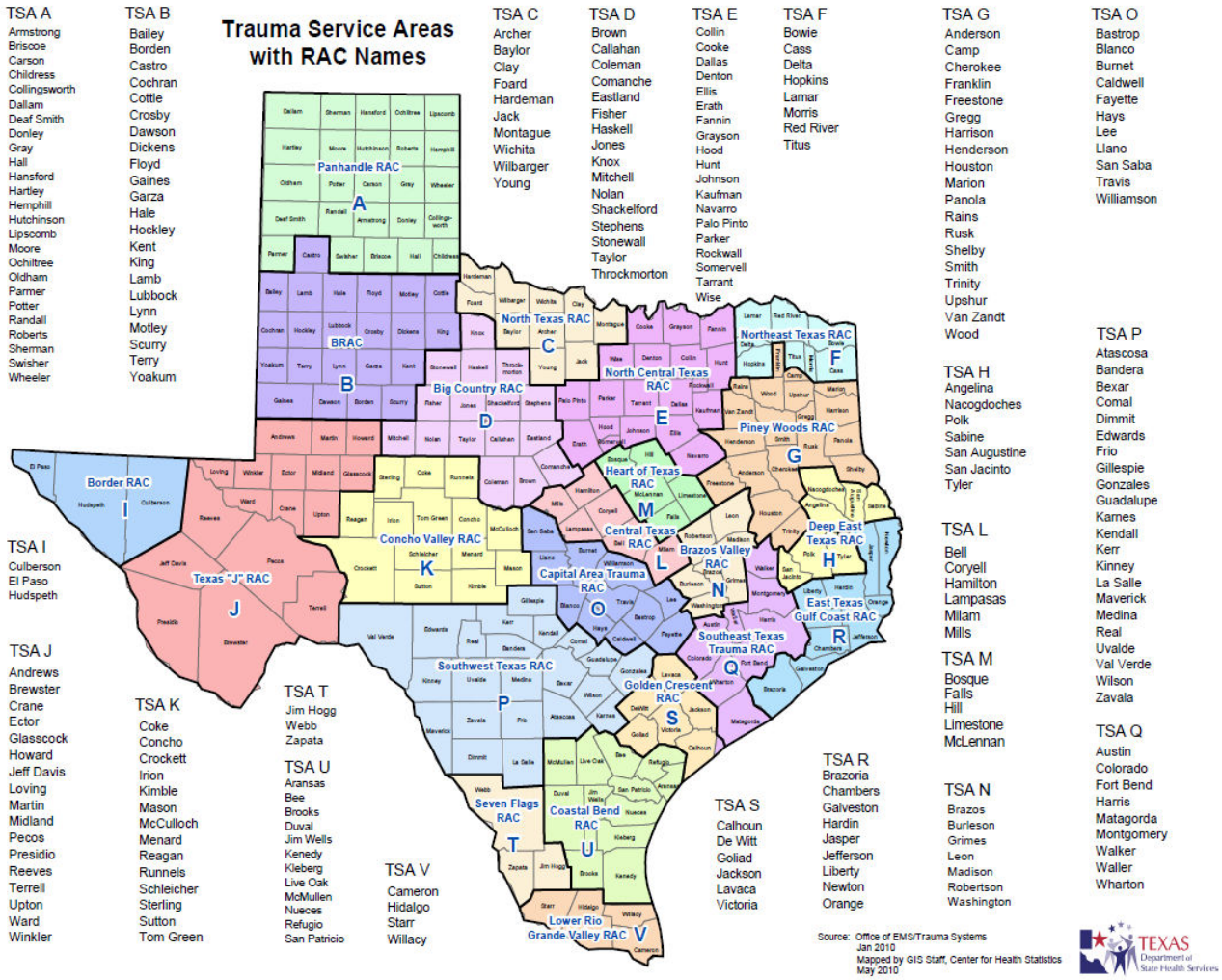
The Brazos Valley Regional Advisory Council (BVRAC) was established in 1992 through a grant from the Texas Department of Health's Regional Trauma System Development Grant Program.[1] It is one of 22 Trauma Service Areas in Texas and consists of seven counties known as Trauma Service Area – N. BVRAC is recognized by the IRS as a 501(c) 3 non-profit organization since 1998.

During the 71st legislative session (1989), House Bill 18 was passed directing the establishment of a statewide trauma system for Texas. Specific rules and regulations related to the development of the statewide system were identified and implemented.

This plan is aligned with the Texas Department of State Health Services RAC Operation Guidelines Regional Trauma System Plan; however it is framed within the Health Services and Resources Administration (HRSA) and American College of Surgeons (ACS) Regional Trauma Systems: Optimal Elements, Integration, and Assessment Systems Consultation Guide. It is a regional resource to be updated annually and approved by BVRAC membership as a resource for providers of trauma care from the First Responder Organization through the rehabilitation facilities, and includes not only care providers, but other key components of this system including pre-hospital care, injury prevention, education, hospital and acute care, system performance improvement, and emergency preparedness.

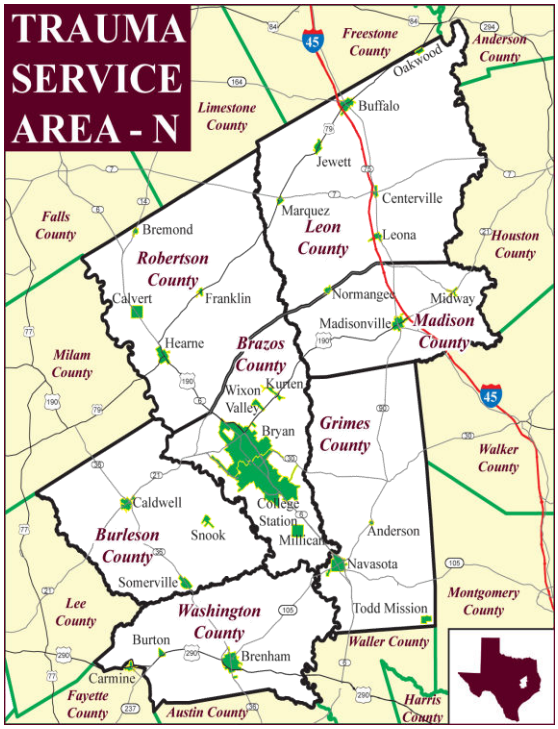
[1] *Texas Department of Health became Texas Department of State Health Services in 2005.*

TRAUMA SERVICE AREAS with RAC NAMES MAP



V. REGIONAL DEMOGRAPHICS

The state was divided into 22 Trauma Service Areas that account for the 254 counties in Texas. A Regional Advisory Council for trauma serves each Trauma Service Area. The Regional Advisory Councils were charged with developing a system plan based on standard guidelines for implementing a comprehensive trauma care system. The development of a regional plan is the ultimate responsibility of the stakeholders and participants of the Regional Advisory Councils. Some elements of the plan are required, while others may be added to best reflect the needs of the community. While the Plan may have numerous components, its heart is the dedication of the professionals who transform these guidelines into reality.



Trauma Service Area – N mirrors the geographical boundaries of the Brazos Valley Council of Governments known as the Brazos Valley. The Brazos Valley is comprised of six rural counties (Burleson, Grimes, Leon, Madison, Robertson and Washington) and one urban county (Brazos) that make up the Brazos Valley. The Brazos Valley covers an area of 5109 square miles. Major Interstates and Highways transverse all seven counties of the Brazos Valley and provides a pass through conduit to major cities such as Houston, Dallas, San Antonio, and Austin.

Brazos County (population 229,211) is located in the central portion of the region and encompasses 585.45 square miles. People under 18 years of age make up about one-fifth (20.6%) of the population of Brazos County and people over 65 years of age make up less than one-tenth (9.2%) of the population. The per capita income is $26,539 with a 3.4 percent unemployment rate and 23.2 percent of the population in poverty.

Burleson County (population 18,443) is located in the western portion of the region and encompasses 659.03 square miles. People under 18 years of age make up almost one quarter (22.2%) of the population of Burleson County and people over 65 years of age make up just over one-fifth (20.4%) of the population. The per capita income is $28,732 with a 4.4 percent unemployment rate and 14.8 percent of the population in poverty.

Grimes County (population 28,880) is located in the south-eastern portion of the region and encompasses 787.46 square miles. People under 18 years of age make up almost one quarter (22.5%) of the population of Grimes County and people over 65 years of age make up just over one-sixth (17.4%) of the population. The per capita income is $23,513 with a 5.4 percent unemployment rate and 17.5 percent of the population in poverty.

Leon County (population 17,404) is located in the north-eastern portion of the region and encompasses 1,073 square miles. People under 18 years of age make up almost one quarter (22.5%) of the population of Leon County and people over 65 years of age make up just under

one-fourth (24.5%) of the population. The per capita income is $32,130 with a 5.3 percent unemployment rate and 15.6 percent of the population in poverty.

Madison County (population 14,284) is located in the central-eastern portion of the region and encompasses 466.07 square miles. People under 18 years of age make up just over one-fifth (21.2) of the population of Madison County and people over 65 years of age make up 15.6 percent of the population. The per capita income is $17,856 with a 4.3 percent unemployment rate and 17.9 percent of the population in poverty.

Robertson County (population 17,074) is located in the north-western portion of the region and encompasses 855.68 square miles. People under 18 years of age make up about one quarter (24.0%) of the population of Robertson County and people over 65 years of age make up 19.3 percent of the population. The per capita income is $25,465 with a 4.8 percent unemployment rate and 15.8 percent of the population in poverty. There are no hospital facilities in Robertson County.

Located in the southern-most portion of the Region, Washington County (population 35,882) encompasses 603.95 square miles. People under 18 years of age make up just over one-fifth (21.7%) of the population of Washington County and people over 65 years of age make up just over one-fifth (21.7%) of the population. The per capita income is $29,604 with a 4.8 percent unemployment rate and 13.8 percent of the population in poverty.

	Population (2000 Census)	Population (2010 Census)	Population Estimate (2019)	% < 5 yrs old	% <18 yrs old	% >65 yrs old	Land Area / Square Miles	Persons per Sq. Mile (2019)
Brazos	152,415	194,851	229,211	6.1%	20.6%	9.2%	585.45	391.51
Burleson	16,470	17,187	18,443	6.2%	22.2%	20.4%	659.03	27.99
Grimes	23,552	26,569	28,880	6.0%	22.5%	17.4%	787.46	36.67
Leon	15,335	16,801	17,404	6.1%	22.5%	24.5%	1,073.15	16.22
Madison	12,940	13,667	14,284	5.4%	21.2%	15.6%	466.07	30.65
Robertson	16,000	16,622	17,074	6.6%	24.0%	19.3%	855.68	19.95
Washington	30,373	33,708	35,882	5.8%	21.7%	21.7%	603.95	59.41
Source U.S. Census Bureau: State and County Quick Facts. http://quickfacts.census.gov								

There are several regional landmarks and region-wide entities that play a role in defining the characteristics of the Brazos Valley and that help to support the goals and objectives of the BVRAC. Within the Brazos Valley there are also several events that serve as major attractions for everyone throughout the region and even throughout the state. Some of these events include the Navasota Blues Festival, Washington County Bluebonnet Festival, Burleson County Kolache Fest and Chili Fest, and Madison County's Fair on the Square. Brazos County is the most urban county in the region and is home to the historic Downtown Bryan and the City of College Station.

College Station, Texas is home to over 122,738 residents, per City of College Station Department of Planning and Development Services, and is the largest city in the metropolitan area of Brazos, Burleson and Robertson counties. It also houses Texas A&M University, one of the largest public universities in the nation. An SEC Conference school and major research institution, Texas A&M brings diversity of race, culture, and nationality to College Station.

The recent revamping of Kyle Field increased the stadium's capacity to 102,733, which will make it the biggest stadium in the Southeastern Conference and in Texas.

College Station is also home to the George Bush Presidential Library and Museum -- one of the region's most popular tourist attractions, with over 690,000 visitors since it opened.

Bryan-College Station is becoming a major player in the growing biotechnology industry. BCS is host to one of the three national Centers for innovation in Advanced Development and Manufacturing. This will also ensure Texas remains a top destination for researchers around the world and bring in billions in outside research dollars for decades to come.

The Texas A&M University RELLIS campus brings a multi-industry and education model by fostering collaboration between enterprises and partnerships with Blinn College and the private sector. The 2000 acre campus advances research, technology development, and hands-on career training.

Region-wide entities that aid the BVRAC in everything from trauma response and education to logistics and transportation include Texas A&M Health Science Center, Texas A&M Engineering Extension and Brayton Fire Training Field, Easterwood Airport, Brazos Valley Council of Governments, and KBTX News, just to name a few.

Texas A&M Health Science Center is a premier assembly of colleges devoted to educating health professionals and researchers of extraordinary competence and integrity. The faculty, staff, and students are unified by a belief that all people, regardless of geography, economics or culture, deserve the benefits of compassionate care, superior science, and exceptional health education.

Texas A&M Engineering Extension Service (TEEX) is an internationally recognized leader in the delivery of emergency response, homeland security and workforce training, exercises, technical assistance, and economic development. Within TEEX is Brayton Fire Training Field where many of the regional EMTs and firefighters are trained. Located adjacent to the Texas A&M University campus, the 297-acre facility attracts more than 45,000 emergency responders from all 50 states and more than 45 countries each year. The EMS lab offers a variety of healthcare education programs. These programs include nursing, EMS, radiology technology, veterinary technician, therapeutics manufacturing, and physical therapy assistant programs to name a few.

Easterwood Airport is owned and operated by Texas A&M University (TAMU) and is the sole facility within the Bryan-College Station metropolitan area and the entire Brazos Valley. Easterwood is a thriving non-hub regional airport providing scheduled commercial airline service and outstanding general aviation facilities. The mission of Easterwood Airport is to provide a gateway to the world for the students, faculty, and staff of Texas A&M University, and the citizens of the Research Valley. Easterwood Airport fulfills this mission by operating commercial and general aviation terminals and airfield to the highest standards of the University, the Federal Aviation Administration and the Transportation Security Administration.

The Brazos Valley Council of Governments (BVCOG) is a multi-purpose voluntary organization of, by and for local governments. Originally designated as the federally recognized Brazos Valley Economic Development District in 1966, the council officially reorganized as the Brazos Valley Development Council in 1967 as the result of state legislation. The legislation created 24 statewide planning regions each comprised of a voluntary association of local governments. The

regions' boundaries were based upon a number of characteristics including geographic features, economic market areas, labor markets, commuting patterns, and even media coverage areas.

Lastly, not only was KBTX the first television station in the Brazos Valley, but knowing how important weather information is to the Brazos Valley, KBTX made a commitment to provide important weather information fast. In 1992, Doppler radar technology came to KBTX, showing viewers where it was raining, wind velocity, and the projected path of severe storms. Since then, the KBTX meteorologists use Fast Track to provide the most accurate weather forecasting in the Brazos Valley. From the beginning in 1957, KBTX took the initiative to make a commitment to the community and to public service. It has been an on-going campaign to help charitable organizations, no matter how big or small. From public affairs programs and public service advertising to employees making a commitment of their time, KBTX has made helping others a priority. Many public service campaigns have been developed to raise awareness for issues ranging from health care and culture to diversity and civic issues.

VI. REGIONAL HEALTH DATA

Leading Causes of Death in the Brazos Valley Region (per 100,000 population)					
	Heart Disease	Cancer	Respiratory Disease	Accidents	Stroke
Brazos	158.3	145.2	39.2	28.5	39.8
Burleson	282.5	166.8	61.3	66.4	32.3
Grimes	225.4	158.9	55	49.4	49.6
Leon	179	186.3	53.3	98.4	44.9
Madison	222.7	170.8	46.7	56	54.3
Robertson	225.4	184.2	57.9	46.1	37.2
Washington	143.7	149.1	30.9	47.7	25.5
Texas	169.7	150.1	40.4	37.8	42.1
United States	165	152.5	40.9	--	37.6
Source: Center for Community Health Development (2019). 2019 Brazos Valley Regional Health Assessment Report. College Station, TX: Texas A&M School of Public Health					

Drug Poisoning Mortality by County in the Brazos Valley Region (per 100,000 population)					
	2013	2014	2015	2016	2017
Brazos	7.1	9.76	9.19	7.95	7.09
Burleson	9.61	10.1	10.96	11.96	13.78
Grimes	9.82	10.7	12.47	13.05	13.34
Leon	10.71	11.25	13.19	15.54	16.56
Madison	10.14	10.66	12.55	14.24	14.07
Robertson	10.67	11.22	11.24	14.12	14.14
Washington	8.47	9.21	9.58	12.62	11.91
Source: NCHS Drug Poisoning Mortality by County www.Data.CDC.gov					

VII. DATA EVALUATION

BVRAC has responsibility for implementation of a regional registry. Trauma facilities and EMS providers will each have a registry workgroup defined within the Pre-Hospital and Hospital committees. These workgroups are charged with overseeing standards for maintaining the data's integrity, validation, accuracy, and security of the acute care portion of the regional registry.

The regional trauma registry workgroup defines the standard reports that are produced from the state trauma registry, and the processes for current members of BVRAC to request data from the BVRAC region. This workgroup will include a lead hospital representative from each designated Level II, III, and IV facility that has completed the AAAM Injury Scoring Course, American Trauma Society's Trauma Registry Course, and has a letter of support from his or her facility to commit to participation in the regional trauma registry workgroup. Certification as a Trauma Registrar is preferred for participation in this workgroup.

The EMS registry workgroup will have the same charge for EMS registry records. Participants on the EMS registry workgroup will have an appropriate background in EMS patient data management. All actions of these workgroups are processed through the Systems Quality Improvement Committee through the appropriate subcommittee or from the workgroup committee to the Board of Directors.

VIII. SYSTEM LEADERSHIP

The Executive Council Members is charged with promoting awareness of the Trauma System as a component of the BVRAC Annual Report.

Executive Council Members

Name	Board Position	Agency	Email
Billy Rice	Chair	CHI St. Joseph Health Air Medical	billyr@st-joseph.org
Amanda Lugar	Vice Chair	CAPROCK	alugarrn@gmail.com
	Secretary		
Patti Parks	Treasurer	Baylor Scott & White Brenham	patti.parks@bswhealth.org

Committee Chair Members

Name	Board Position	Agency	Email
Kevin Deramus	Pre-Hospital Chair	Washington County EMS	kderamus@wacounty.com
Ashley Kopech	Education Chair	Baylor Scott & White Medical Center College Station	Ashley.kopech@bswhealth.org
Ashley Johse	Injury Prevention Chair	CHI St. Joseph College Station	AJohse@st-joseph.org
Cory Matthews	Disaster Emergency Preparedness Chair	Bryan Fire Department	cmatthews@bryantx.gov
Dr. Ohaju	Systems QI & Physician Advisory Chair	CHI St. Joseph Health Regional	Vincent.ohaju@st-joseph.org
Erin Gaas	Acute Care & Hospital Care/Mgmt. Chair	CHI St. Joseph Health Burleson	egaas@st-joseph.org
Rebecca Hickman	Stroke/Cardiac Chair	CHI St. Joseph Health Regional	rhickman@st-joseph.org
Dr. Dawson	Perinatal Chair	CHI St. Joseph Health Regional	dawsond@usacs.com
Bryan Ruemke	EMC At Large	Washington County	bruemke@wacounty.com

BVRAC Staff

Name	Board Position	Agency	Email
Roger Sheridan	Executive Director	BVRAC	Roger.sheridan@bvcog.org
Rebecca Hill	Planner	BVCOG	rebecca.hill@bvcog.org

IX. COALITION BUILDING

Foremost, BVRAC, since inception, considers the development of healthcare coalitions in the Brazos Valley medical community as a primary role and responsibility. Not only binding the medical services together, but connecting all emergency response services, VOADs, and private partners to strive for a cohesive preparedness plan. In contrast to larger regions, the Brazos Valley frequently crosses geographical boundaries to establish solid partnership foundations.

Brazos Valley Health Care Coalition (also known as the Disaster and Emergency Preparedness Committee or DEPC) is the forefront committee to focus on preparedness. This committee continues to grow with over 30 active members. With the solid foundation of medical representation coupled with Emergency Managers and subject matter experts, this committee can develop and disseminate preparedness plans, identify local and regional gaps, and provide sound financial stewardship for equipment and training expenses. With ASPR funding and direct leadership in the region, this committee will continue to grow and expand.

Preparedness activities exceed the minimum requirement standards provided by Office of the Assistant Secretary for Preparedness and Response Hospital Preparedness Program. BVRAC aggressively encourages and promotes training and exercises at individual to regional organization/agency levels. BVRAC also participated in a large scale table top exercise in which the largest facility in the region evacuated more than 100 patients to alternate care sites including patients from the neonatal ICU. Additionally, Blinn College and BVRAC hospitals and pre-hospital providers participated in a full scale active shooter exercise. Monthly communication drills, led by BVRAC, incorporate response partners. Either through leading or supporting other agencies and organizations, BVRAC continues pursuit of preparedness.

Coalition building is a continuous process of cultivating and maintaining relationships with stakeholders within the BVRAC trauma service area. Collaboration on injury control and trauma system development with community partners is key. Constituents include health care professionals, pre-hospital providers, insurers, payers, data experts, consumers, advocates, policy makers, trauma center administrators, and media representatives. Coalition priorities are trauma system development, policy making, financing initiatives and disaster preparedness, system integration, and promoting collaboration between trauma centers and pre-hospital providers. It would be ideal if every member of BVRAC participated in at least one activity or one committee.

Currently most initiatives around Injury Prevention are carried out by members of BVRAC hospital and pre-hospital providers. BVRAC continues to focus on bringing in business partners and community leaders to assist with injury awareness and prevention activities. BVRAC is developing a list of coalitions and activities that members can engage in with the assistance of the Program Manager.

X. LEAD AGENCIES

DSHS is the Lead Agency for Trauma in the State of Texas and BVRAC is the Lead Agency for TSA-N. DSHS defines the regulatory standards for Emergency Medical Service Providers and Trauma Facilities. The American College of Surgeons defines the Trauma Facility criteria for the Level I and Level II trauma centers in Optimal Care Resources for the Injured Patient. The Level III and Level IV Trauma Facility criteria are defined by DSHS. In addition, criteria for Regional Advisory Councils are defined by DSHS. BVRAC defines the system standards of care for TSA-N. These standards include Trauma Facility Field Triage Criteria, Trauma Transfer Guidelines, and Regional Trauma Registry Data Management Guidelines. Due to the size and capabilities within TSA-N, the responsibility of the lead trauma facility is from CHI St. Joseph Health Regional as the only Level II Trauma Center in the region

The Trauma Facilities Field Triage Criteria is reviewed annually through the Physician Advisory Group and processed through the Hospital Care and Management Subcommittee, the Systems Quality Improvement Committee, and then approved by the Board of Directors. These criteria align with the national Trauma Center Field Triage Criteria outlined in the American College of Surgeons, Optimal Care Resources for the Injured Patient, and the Centers for Disease Control (CDC). This document is also posted on the BVRAC website at www.BVRAC.com under the Trauma System Plan. These criteria are recommendations and should be standardized due to TSA-Ns variability of capabilities.

The ability of trauma facilities to monitor their resource capabilities is through BVRAC implementation of TSA-N Tracking, Resource, Alerts, and Communications. Communication to providers is addressed through EMResource.

BVRAC has dedicated staff to assist in development, implementation, education, and monitoring of the Regional Trauma System Plan. Listed are the individuals that assist in coordination of the Regional Trauma System Plan. Contact information and areas of responsibility are listed at www.BVRAC.com.

EMS Providers	
Bryan Fire Department Serving City of Bryan 911 300 W.WJB Pkwy, Bryan, Texas 77803 (979)-209-5960 Main (979)-209-5989 Fax Cory Matthews - Asst Chief of EMS cmatthews@bryantx.gov Medical Direction: Dr. Aaron Buzzard	***Jewett EMS*** Serving Leon County 911 201 South Main Jewett, TX 77846 (903) 626-4958 Weslie Collins – Director Wcollins79@yahoo.com *Medical Direction:* Dr. Brian Price
College Station Fire Dept. Serving City of College Station 911 300 Krenek Tap College Station, Texas 77840 (979) 764-3505 – Main (979) 764-3403 - Fax Josh Varner – Battalion Chief bbradshaw@cstx.gov *Medical Direction:* Dr. Erik Wilke	***Robertson County EMS*** Serving Robertson County 911 PO Box 625 Franklin, Texas 77856 (979) 828-4911 – Main (979) 828-3333 – Fax Rene Ferrell – EMS Director Rcems.emsdirector@outlook.com *Medical Direction:* Dr. Aaron Buzzard
CHI St. Joseph Health EMS *Serving Burleson, Grimes, Madison, and Brazos Counties* 911/Transfer 2010 W. Villa Maria Rd, Bryan, Texas 77807 (979) 775-5037 – Main (979) 823-8643 - Fax Billy Rice – Interim EMS Director pbraly@st-joseph.org *Medical Direction:* Dr. Aaron Buzzard	***Texas A&M Emergency Medical Service*** Serving Texas A&M University 911 1264 TAMU College Station, Texas 77843 (979) 458-4321 – Main (979) 458-8314 – Fax 979-845-4321 - EMS Michael Middleton – EMS Manager mmiddleton@ems.tamu.edu *Medical Direction:* Dr. Garry Gore
Hilltop Lakes *Serving Leon County* PO Box 1884 Hilltop Lakes, TX 77671 (936) 855-2551 Main (936) 855-1974 Fax Bill Bilsing – Chief Htlvfd-emsad@outlook.com Medical Direction: Dr. Brian Price	***Washington County Emegency Medical Service*** Serving Washington County 1875 Highway 290 W Brenham, Texas 77833 Kevin Deramus, LP-EMS Director kderamus@wacounty.com Medical Director: Dr. William Loesch

Air Medical Providers	
PHI Air Medical Serving TSA "N" Scene/Transfer 2801 Franciscan Drive Bryan, Texas 77802 (979) 774-2119 – Main Nash Vega – Air Medical Base Supervisor Medical Direction: Dr. Aaron Buzzard	Life Flight Memorial Hermann Serving 150 mile radius of Texas Medical Center Transfer 6411 Fannin Houston, Texas 77030 (713) 704-2788 – Main (713) 704-5189 – Fax Eric von Wenckstern – Administrative Director eric.vonwenckstern@memorialhermann.org Medical Direction: Dr. Love
Reach Air Medical 101 Serving 60 minute flight time from Brenham, TX 3001 Aviation Way Brenham, TX 77833 (979) 277-3737 Casey Ping – Director Casey.ping@reachair.com Medical Direction: Wright Hartsell	

Hospitals	
CHI St. Joseph Health Regional- Bryan Wanda Dias – Trauma Program Manager wdias@st-joseph.org Level II Trauma Center / Level II Stroke	CHI St. Joseph Health College Station Lori Brooks– Trauma Coordinator LBrooks2@st-joseph.org Level III Trauma Center / Level II Stroke
Baylor Scott & White Medical Center- Brenham Patti Parks – Trauma/Stroke Coordinator patti.parks@bswhealth.org Level IV Trauma Center/ Level III Stroke	CHI St. Joseph Health Burleson Erin Gaas, RN – Trauma/Acute Care Manager egaas@st-joseph.org Level IV Trauma Center/Level III Stroke
CHI St. Joseph Health Grimes Emily Wheeless– Trauma and Acute Care Coordinator EPierce@st-joseph.org Level IV Trauma Center/Level III Stroke	CHI St. Joseph Health Madison Debbie Burkhardt, RN- Trauma/Acute Care Coordinator dburkhardt@st-joseph.org Level IV Trauma Center – Level III Stroke
The Physician's Centre Suzy Hoyle – CNO shoyle@nshinc.com Non-designated Facility	Baylor Scott & White Medical Center – College Station Ashley Kopech – Trauma Coordinator ashley.kopech@bswhealth.org Level III Trauma Center/ Level II Stroke
CapRock Hospital Dr. Lon Young—CMO dryoung@caprocker.com Non-Designated Facility	

Free Standing	
CapRock Emergency Amanda Lugar alugarrn@gmail.com Free Standing Emergency Department	Signature Care Emergency Center Rhonda Abbe – Director of Operations rabbe@ercare24.com Free Standing Emergency Department

Brazos Valley Hospital Data Chart 2019

	CHI St. Joseph Health Regional	CHI St. Joseph Health Burleson	CHI St. Joseph Health Grimes	Baylor Scott & White Hospital - Brenham	CHI St. Joseph Health College Station	CHI St. Joseph Health Madison	The Physicians Centre Hospital	Baylor Scott & White Hospital College Station	CapRock Hospital
Mailing Address	2801 Franciscan Dr. Bryan, TX 77802	1101 Woodson Dr.. Caldwell, TX 77836	210 S. Judson Navasota, TX 77868	700 Medical Parkway Brenham, TX 77833	1604 Rock Prairie Road College Station, TX 77845	100 West Cross St. Madisonville, TX 77864	3131 University Drive E., Bryan, TX 77802	700 Scott & White Drive, College Station, Texas 77845	3134 Briarcrest Drive, Bryan, TX 77802
Phone Number	(979) 776-4915	(979) 567-2258	(936) 825-6585	(979) 337-5000	(979) 764-5100	(936) 348-2631	(979) 731-3100	(979) 207-0100	(979) 314-2323
Fax Number	(979) 776-4997	(979) 567-2206	(936) 870-4580	(979) 337-5204	(979) 764-5129	(936) 349-1592	(979) 731-3183	(979) 207-2108	(979) 314-2360
Trauma Director	Dr. Vincent Ohaju	Dr. Matthew Bludorn	Dr. George Gibson	Dr. Mystan Gurkin	Dr. David Gochnour	Dr. Matthew Brice		Dr. C. Matthew Jordan	Dr. Lon Young
Trauma Coordinator / Program Mgr	Wanda Dias	Erin Gaas	Darlene Wood	Patti Parks	Lori Brooks	Debbie Burkhardt	Suzy Hoyle, CNO	Ashley Kopech	Amanda Lugar, RN
ED Director	Dr. Paul Goen	Dr. Matthew Bludorn	Dr. George Gibson	Dr. Kellen Alstatt	Dr. Todd Bell	Dr. Matthew Brice	John Davidhizar, MD	Dr. Barret Curnutte	Dr. Tim Brandon
Facility Administrator	Theron Park (CEO)	Kurt Sunderman	Erin Marietta	Blake Barnes	America Farrell (CEO)	Erin Marietta	Kori Rich	Jason Jennings (CEO)	Brenda Davis (CNO)
EMS Phone # or frequency	(979) 776-4974 (979) 776-4975 (979) 776-4976	(979) 567-7373	(936) 870-4570	(979) 836-4520	(979) 696-1221	(936) 349-1690	(979) 731-3180	(979) 207-2100	(979) 314-2323
	Beds:	**Beds:**	**Beds:**	**Beds:**	**Beds:**	**Beds:**	**Beds:**	**Beds**	**Beds**
ER	33	4	5	10	18	5	1	22	10
ICU	36	0	0	5	12	0	0	16	0
Med-Surg	173	25	25	26	122	25	16	88	10
Pediatric	20	0	2	variable	10	0	_	**5**	**0**
Rehabilitation	30	0	0	0	10	0	_	0	0
Total	286	30	32	56	172	30	17	142	20
Trauma Designation	Designated Level II Trauma; Level II Stroke Interventional Capable; TJC CPAccred.	Designated Level IV Trauma/ Level III Stroke	Designated Level IV Trauma/ Level III Stroke	Designated Level IV Trauma/ Level III Stroke	Designated Level III/Level II Stroke/ Cycle 5 Chest Pain Accredited	Designated Level IV Trauma/ Level III Stroke	No plans for designation	Designated Advanced Level III/Level II Stroke/TJC Chest Pain Accredited	Non-Designated

BVRAC Bylaws

See Appendix A

Evidence of System Participation

Announcements for trauma system planning are sent electronically to all BVRAC membership to allow participation from interested members and to include a broad range such as physicians, nurses, EMS pre-hospital providers, and staff. Members have the capability to call in through both audio and visual forms of communication. Announcements are made at the Board of Directors meetings for maximum visibility of members to participate. To provide evidence and track actual participation in trauma system planning, rosters are kept at BVRAC offices.

XI. FINANCIAL MANAGEMENT

BVRAC's Board of Directors defines an annual operating budget that supports the Regional Trauma System Plan. This budget is moved to the System Development Committee and approved or adjusted by the Board of Directors. BVRAC staff is responsible for the execution and management of the overall BVRAC budget.

Trauma System Funding

Senate Bill 102 (SB-102)
Signed in June 1997, established the EMS/Trauma System fund (Health and Safety Codes §773.122 – 144, and §157.130). The following November, the Board of Health proposed rules for the commitment of funding distribution, and then adopted in March 1998.

Senate Bill 1131 (78th Legislative Session)
Established a fund for county and regional emergency medical services, designated trauma facilities, and trauma care systems, which was appropriated to the Department of State Health Services. Within the bill are stipulations for the distribution of funds composed of money deposited under the Code of Criminal Procedures, and earnings of the account.

Senate Bill 3588; Article 10: Driver Responsibility Act (78th Legislation)
Created a system of points and surcharges applied to the driver's license of those convicted of certain moving violations to be implemented by the Department of Public Safety. One half of the funds are credited to trauma facilities and emergency medical services. Additionally, a $30 court fee was added on some traffic violations, of which one-third of the revenue is credited to designated trauma facilities and emergency medical services and is to expire in September 2007.

House Bill 1676 (76th Legislative Session)
Established the EMS & Trauma Care Tobacco Endowment for emergency medical services and trauma care to reduce morbidity and mortality due to injuries. The source of funds is interest earned on the endowment up to the appropriation level established by the 76th Legislative Session. The annual allocations are for Regional EMS/Trauma Systems Development grants, EMS Local Project Grants (LPG), DSHS administrative costs, and DSHS program costs.

House Bill 2048
Passed on June 14, 2019 to repeal HB 3588 to repeal the Driver Responsibility Act and preserve trauma system funding with fees from traffic violations. The bill will head to the governor's desk soon. The bill supports funding that matched with federal dollars provides $176 million to offset some of Texas trauma hospitals' more than $320 million in annual uncompensated trauma care.

XII. PREVENTION AND OUTREACH EDUCATION

Prevention of unintentional injuries are a significant public health and trauma response concern throughout the State of Texas. In order to be prepared as a state and a region moving forward, our trauma system must develop primary, secondary, and tertiary prevention strategies that help to control, mitigate, and reduce the long term effects of traumatic injuries. Prevention strategies must be part of an integrated, coordinated, and inclusive trauma system plan including perspective from public health, health promotion, preventative medicine, and trauma response.

The BVRAC works directly with individuals in the community and identify their needs and frequent preventative injuries, collaborate with the community stakeholders, develop appropriate implementations, as well as consistently evaluate these implementations for the betterment of the community's health. Working with stakeholders, community partners and advocates, prevention programs, and strategies are based on epidemiologic data that will be collected through our regional periodic reporting, the Department of State Health Services, and our future partnership with the Texas A&M School of Rural Public Health. Prevention programs will be defined by an annual needs assessment targeting various communities, age groups, ethnicities, and any other specific population with defined intervention programs. Intervention programs seek to show a statistically significant reduction in injury, death, or disease and an increase in prevention strategies, (such as increased seatbelt usage, car seat safety, texting and driving behaviors, helmet usage, and childhood/elderly falls), that are evidence-based, attainable, and have a clearly defined intervention framework. Community engagement, effective partnerships, and distinguished staffing are essential for public health preparedness and prevention success.

Current status of BVRAC

The injury prevention and public education committee provides guidance and financial aid to prevention efforts such a robust stop the bleed training program in our region. This committee is highly invested in primary prevention and preparedness efforts and is heavily involved within the Brazos Valley region providing promotional items to various events and groups in an effort to raise region-wide awareness.

BVRAC participates in the Governors EMS and Trauma Advisory Council (GETAC) Injury Prevention Committee.

XIII. EMERGENCY MEDICAL SERVICES

BVRAC TSA-N is supported by EMS systems with two-way communications to dispatch and hospitals. Medical oversight includes offline and online guidelines written by each medical director. Pre-hospital triage and transportation is integrated into the EMS and public health system.

Each medical director within TSA-N assumes the responsibility for trauma oversight as well as

specific performance improvement to investigate patient outcomes for his or her EMS personnel. TSA-N provides off-line guidelines to each EMS provider and Medical Director in the form of:

- Off Line Therapeutic Guidelines
- Guidelines for Helicopter Transport
- Diversion and Bypass Guidelines
- Pediatric Guidelines

The BVRAC Physicians Advisory Council (PAC) includes Emergency Physicians, Trauma Surgeons, Neurosurgeons, Orthopedic Surgeons, and EMS Medical Directors to include oversight of pre-hospital and hospital therapeutic modalities in TSA-N. The Physician Advisory Council meets periodically, with an EMS/emergency department practicing physician serving as liaison that updates the Board of Directors. Other disciplines of the PAC meet as necessary. Participation is flexible with a broad range of participants including private, municipal, rural, and urban areas represented.

Each medical director may adopt and supplement RAC guidelines and has the legal authority under Texas Medical Association Chapter 197 and the Texas Department of State Health Services (DSHS) Chapter 157 to adopt protocols and guidelines. They may create and implement performance improvement system guidelines to restrict the practice of pre-hospital practitioners to monitor, improve, and increase medical appropriateness of the EMS system.

EMS medical directors are responsible for active involvement in the development, implementation, and on-going evaluation of dispatch guidelines for the jurisdictions under their purview. These should include:

- Basic Life Support (BLS)
- Advanced Life Support (ALS)
- Air and ground coordination
- Pre-arrival instructions

DSHS along with the medical director is responsible for retrospective medical oversight of the EMS system for trauma triage, communication, treatment, and transportation. This is coordinated through performance improvement of each provider.

DSHS provides a designation for First Responder Organizations (FROs), which can range in support capabilities, but does not include the ability to transport. Part of the DSHS approval process includes obtaining Mutual Aid Agreements with a licensed EMS provider that transports for them.

9-1-1 capabilities for all EMS providers allow for efficient dispatch of response teams / agencies to the scene. EMTF helps coordinate response teams for disaster and regional surge responses through TSA-N email, EMResource, GoToMeeting, and WebEOC. These responses include ambulance strike teams and task forces, Ambulance Strike Team Leaders, and Medical-Incident Support Team (M-IST) personnel, which are also coordinated with DSHS and other RACs around the state.

DSHS, supervises provider licensing of EMS vehicles including BLS, ALS, and Mobile Intensive Care (MICU) vehicles in Texas. Medical directors, providers, and BVRAC work to assist in

ensuring that providers have the resources for a well-coordinated transportation system to arrive at the scene and promptly and expeditiously transport patients to the correct hospital by the correct transportation mode including ground and air transport. Mutual Aid Agreements and Memorandum of Agreements are also in place if and when needed. State and local licensing and certification agencies, hospitals, EMS education programs, Board of Nurse Examiners, and the Texas Medical Association ensures a competent workforce in TSA-N. Providers of pre-hospital and hospital care along with associations may impose post graduate certifications to allow certificate and license recipients to provide trauma care (i.e., International Trauma Life Support (ITLS), Pre-Hospital Trauma Life Support (PHTLS), and Trauma Nurse Core Course (TNCC) as examples).

9-1-1 districts provide their own emergency medical dispatch training.

EMS education programs in TSA-N and medical directors ensure that pre-hospital personnel who routinely provide care to trauma patients have initial and continuing trauma training. This may be part of the continuing education process or medical directors may require providers to take post graduate trauma training courses such as PHTLS, ITLS, and trauma specific courses available in Texas. Trauma education may be performance improvement driven and part of a credentialing process put into place by an EMS medical director. BVRAC supports EMS agencies that strive to put comprehensive systems in place and support these agencies as they pursue excellence.

Formal multidisciplinary trauma meetings may take place at trauma conferences or away from the provider facilities as part of continuing education. Informal multidisciplinary trauma conferences may take place at patient destinations with medical staff, hospital staff, or as part of ongoing quality performance improvement programs supervised by the medical director.

DSHS, the medical director, and BVRAC act as the lead agencies to protect the public welfare by enforcing various laws, rules and regulations as they pertain to the trauma system.

Incentives may be provided to individual agencies and institutions to seek state or national recognition such as awards presented by the Texas Department of State Health Services and the National Association of EMS Educators Accreditations. These may be obtained by meeting state and national standards as set by the Commission on Accreditation of Medical Transport or Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions for EMS Education programs.

XIV. MEDICAL OVERSIGHT

The development of a Regional System for Trauma Care requires the active participation of qualified physician providers. All of the physicians should not only be clinically qualified in their area of clinical practice, but should have expertise and competence in the treatment of trauma patients.

All EMS providers must have the benefit of medical oversight. This is true regardless of the level of service provided. Such oversight is necessary to help ensure that EMS is delivering appropriate and quality services that best meet the needs of the patient and community.

From time to time, certain participating/designated trauma facilities may be unable to accommodate certain patients based on the nature of their injury or due to temporary unavailability of necessary therapies, beds, or resources.

Refer to System Coordination and Patient Flow. This practice is for the purpose of re-directing patients to appropriate trauma care so that optimal patient care is maintained in the regional system. The redirection of trauma patients for financial reasons is not the intent of this policy, nor the intent of the Regional Trauma System Plan.

Scene times are not currently monitored for trending at a regional level, but a threshold of twenty minutes is a regional standard set by the System Quality Improvement Committee. As referenced before, the System QI committee consists of a broad range of participants.

There is an established Physicians Advisory Committee (PAC) made up of physicians who are divided into focus groups. These groups meet as needed to review medical questions by committees and membership. Established PACs include Trauma Surgeons, Stroke Physicians, and EMS Medical Directors. All groups meet together when an issue covers more than one PAC's focus.

There is no regular active participation in the regional committees from Neurosurgery, Orthopedics, or Anesthesia. Currently, active BVRAC members consult and utilize information from their own resources and bring issues to BVRAC with information or requests for standardization or suggestions for review.

Currently there are no standardized pre-hospital report forms/run sheets. Each agency has its specific forms, some BLS and some ALS. HICS is a standard method used for field command when multiple providers respond. A regional protocol is not established due to the number of EMS providers in the region, but experience is obtained through interagency training established by individual EMS providers. The supervising agency at the scene is established by the determination of lead agency for location.

XV. DEFINITIVE CARE FACILITIES

BVRAC is associated with a myriad of agencies and organizations actively participating in leadership and supporting roles throughout the state of Texas and the Brazos Valley. The principle BVRAC membership include (10) hospitals, (10) Emergency Medical Services (EMS), (5) other institutions & colleges.

Hospitals	EMS Agencies
Baylor Scott & White Medical Center - College Station	Bryan Fire Department
Baylor Scott & White Medical Center - Brenham	CHI St. Joseph Health EMS
CHI St. Joseph Health – Burleson	College Station Fire Department
CHI St. Joseph Health – Grimes	Jewett EMS
CHI St. Joseph Health – Madison	Hilltop Lakes VFD
CHI St. Joseph Health Regional	Robertson County EMS
CHI St. Joseph Health—College Station	Texas A&M EMS
Encompass Health	Washington County EMS
The Physicians Centre Hospital	PHI Air Medical
CapRock Hospital	Reach Air Medical 101
Other Institutions and Colleges	
Blinn College EMS Program	CapRock Emergency
Brazos County Health Department	Signature Care Emergency Center
	Washington County OEM

The BVRAC membership affiliation with other agencies and organizations that actively collaborate within the Brazos Valley and State level are innumerable. Listed are a few but not limited to the Brazos Valley Council of Governments (BVCOG), Homeland Security Advisory Council (HSAC), Brazos Valley Injury Prevention Coalition (BVIPC), Brazos County Public Health Department, Brazos Valley Search & Rescue (BVSAR), American Red Cross, Citizen Emergency Response Team Corps, Local & County Emergency Management, Emergency Medical Task Force-7, TSA-L, M, & O, Amateur Radio Emergency Systems, and the Texas Military State Guard.

BVRAC emphasizes seven goals to achieve the mission statement:

- Coordinate responses to mass casualty, evaluation, and disaster events utilizing current National Incident Management System (NIMS) guidelines;
- Advance and improve the state of healthcare for the patients within the counties of Trauma Service Area – N;
- Decrease morbidity and/mortality which results from injury or illness;
- Encourage activities designated to promote cooperation;
- Improve funding of trauma, acute care, and emergency care providers within the counties served by this Council;
- Maintain a Trauma and Acute Care Systems Plan for the RAC which is based on standard guidelines for comprehensive system development;
- Improve public awareness of the methods of accessing the trauma and acute care system, preventing injury, and promoting stroke and cardiac awareness.

BVRAC is proud to expound on its many accomplishments since its inception on healthcare systems preparedness. Being prepared requires multiple tiers of training, maximum use of equipment, and more importantly, the working relationship with regional partners to develop that coalition. Once those facets of preparedness are harnessed, the region as a whole can effectively and efficiently address any emergency situation. Training has been the pinnacle of the accomplishments for the Hospital Preparedness Program focusing not only enhancing individual skill sets through training courses and conferences but testing the region's coalition through full scale exercises. The measure of success clearly demonstrated during real events such as Hurricane Harvey or regional flooding during record breaking rainfall.

Brazos County maintains the highest population density which supports four hospitals and a multitude of healthcare facilities. The rural counties each have healthcare facilities with varying degrees of capabilities however only Burleson, Grimes, Madison, and Washington Counties have hospitals. The existing healthcare system for TSA-N is comprised primarily of three major regional hospital systems; CHI St. Joseph Health College Station, CHI St. Joseph Health Regional, and Baylor Scott & White. Other care facilities include; the Physicians Centre, Rock Prairie Behavioral Health, and CapRock Hospital (Briarcrest Drive), CapRock Emergency (William D. Fitch Pkwy), SignatureCare ER, and CHI St. Joseph South College Station, and Premier Care. Of the regional hospitals, CHI St Joseph Health maintains healthcare facilities in Brazos, Burleson, Grimes, Leon, Madison, Robertson, and Washington counties. Scott & White maintains facilities in Brazos and Washington counties.

This healthcare system coalition utilizes multiple venues to coordinate throughout the region in addition to providing multiple avenues for information sharing. The primary means of coordination will be through meetings. The body of the Brazos Valley Regional Advisory Council meets bi-monthly for the calendar year with a minimum of four meeting attendances to maintain membership status. The Board of Directors will meet monthly or more as required in accordance

with the Texas Open Meetings Act. BVRAC also maintains a website to further increase situational awareness and information dissemination along with the ability to conduct Webinar type meetings.

BVRAC membership encompasses a wide range of professionals concerned about the health and well-being of the community as it relates to trauma, acute care, emergency services, and disaster preparedness. Membership requires representation of a hospital or disaster service, an individual who is involved with trauma, acute care, emergency and disaster care, an emergency medical service, and/or educational agency involved in training purposes in those specified areas. Currently, there are eight active committees that focus on Pre-Hospital, Injury Prevention, Education, Hospital Care & Management/Acute Care, Systems QI/Physician's Advisory, Perinatal, Stroke, and the Disaster Emergency Preparedness Committee/Brazos Valley Health Care Coalition. Chair leadership for these committees are nominated and selected by their peers in accordance with the BVRAC bylaws. The body of the committees contains dedicated professionals and subject matter experts that provide the ability to evaluate data, form fact based ideals mitigating gaps, and take action to enhance healthcare in the region. Workgroups, subsets of the committee, are focus groups that are instituted as needed to oversee single set committee objectives. Primary example of workgroups may include the periodic review of the Hazard Vulnerabilities Assessment, or communications equipment purchases to ensure capability throughout the region.

BVRAC has designated trauma facilities that are well integrated into all other facets of the organized system of trauma care, including public health systems and injury surveillance, prevention, EMS and pre-hospital care, disaster preparedness, rehabilitation, and system performance improvement. This integration is seen throughout this regional trauma plan and overseen by the BVRAC.

Each designated acute care facility participates, through BVRAC, in all aspects of trauma system design, evaluation, and operation. This participation includes policy and legislative development, legislative and public education, and strategic planning. In addition, the trauma program and subspecialty leaders provide direction and oversight to the development, implementation, and monitoring of integrated protocols for patient care used throughout the system (for example, TBI guidelines used by pre-hospital providers and non-designated transferring centers), including TSA-N specific primary (field) and secondary (early transfer) triage protocols. The highest level trauma facilities throughout the region provide leadership for the regional trauma committees through their trauma program medical leadership. These medical leaders, through activities on these committees, assist the lead agency and help ensure that deficiencies in the quality of care within the system, relative to national standards, are recognized and corrected. Educational outreach by these higher levels centers should be used when appropriate to help achieve this goal.

Acute care facilities are integrated into a resource efficient, inclusive network that meets required standards and that provides optimal care for all injured patients. This trauma system plan has clearly defined the roles and responsibilities of all acute care facilities treating trauma and of facilities that provide care to specialty populations (for example, burn, pediatric, spinal cord injuries, and others).

To maintain state, regional, or local designation, each hospital continually works to improve the trauma care as measured by patient outcomes. TSA-N engages in regular evaluation of all licensed acute care facilities that provide trauma care to trauma patients and of designated trauma hospitals. Such evaluation involves independent external reviews. BVRAC adheres to

facility designation guidance delineated through DSHS at http://www.dshs.texas.gov/emstraumasystems/default.shtm.

BVRAC ensures a competent workforce. As part of the established standards, set appropriate levels of trauma training for nursing personnel who routinely care for trauma patients in acute care facilities. BVRAC also ensures that appropriate, approved trauma training courses are provided for nursing personnel on a regular basis. The BVRAC Education Calendar is posted on the website, www.bvrac.com

In cooperation with the nursing licensure authority, BVRAC ensures that all nursing personnel who routinely provide care to trauma patients have a trauma training certificate (for example, Advanced Trauma Care for Nurses, Trauma Nursing Core Course, or any national or state trauma nurse verification course). As an alternative after initial trauma course completion, training can be driven by the performance improvement process. In cooperation with the physician licensure authority, BVRAC ensures that physicians who routinely provide care to trauma patients have a current trauma training certificate of completion, for example, Advanced Trauma Life Support (ATLS) and others. As an alternative, physicians may maintain trauma competence through continuing medical education programs after initial ATLS completion.

Physician leadership also assists the BVRAC and its members through training and competency guidance. Physician leadership help to identify trauma care procedures that need improvement and provide education to address these needed improvements. When improvements in operations need to be addressed the BVRAC follows a strict set of guidelines to accomplish this. Initially, an encrypted email is sent to physician leadership and the provider from the state, BVRAC, or any other governing body. Following that encrypted email, local physician leadership provides education and a resolution for that particular procedure or protocol. Providers are then retrained when necessary. A follow up email is then sent out to the provider to assure that they have acquired the necessary information and skill in order to be successful moving forward when performing appropriate trauma care.

BVRAC typically conducts at least 1 multidisciplinary symposium annually that encourages system and team approaches to trauma care. The annual BVRAC symposium is sponsored by the Brazos Valley Regional Advisory Council with a goal of the importance of a healthy workplace to the public safety departments and healthcare facilities within the BVRAC seven county region as well as other areas of Texas. This event aims to reach out to healthcare professionals caring for patients in emergency and acute care settings, including physicians, residents, nurses, EMT/paramedics, and mid-level providers.

As new protocols and treatment approaches are instituted within the system, structured mechanisms are in place to inform all personnel about the changes in a timely manner.

XVI. SYSTEM COORDINATION AND PATIENT FLOW

BVRAC coordination and patient flow does not exist for all patient categories, although there are several smaller systems that have strong functionality. There is also infrastructure in place to improve the communication across TSA-N.

BVRAC has been a user of JUVARE for communication of emergency department status in TSA-

N for several years. Facilities are asked to update their facility status daily; if they do not, the system shows them as “forced open”. Facilities may provide messages such as alerts for construction or equipment malfunction to assist EMS agencies when making a transport destination decision.

Facilities may choose from status values of “Open” or “Closed”. Emergency department personnel are required to monitor and update their ED status at least once each day. Failure to update the system will result in an automatic status update to Open Overdue status.

A facility may only post a “closed” status if they are suffering from a facility emergency. Examples may include an internal disaster such as a fire, flooding, power outage, water shortage, or structural damage. This status expires every two hours, so the facility needs to update the system during the emergency or contact BVRAC staff to maintain the status for them during these rare events.

Proper posting on JUVARE shall be considered to be the official and standard mechanism for notification in BVRAC (TSA-N). All EMS services are expected to participate in JUVARE and to monitor it at all times for current system information. An EMS agency may call a receiving hospital for information on the status of facilities in their area if they do not have access.

If the patient destination decision is a factor and if the patient and/or family adamantly refuse to be transported to the redirected facility, an emergency physician or trauma surgeon at the initially requested facility will be notified of the situation. Any refusal shall be documented on the patient record. Patient choice is supported by regional guidelines developed by the EMS Committee and the Physician Advisory Council for attaching to this Trauma System Plan.

Patients in acute status, whose care would be compromised by delaying transport or lengthening transport time, should be transported as quickly as possible to the closest most appropriate participating/designated facility ***without*** regard for redirect status. EMS services are reminded that the best interests of the patient may be to honor the diversion request and transport to an alternate hospital.

XVII. REHABILITATION

Rehabilitation services for injured patients cared for by an integrated trauma system, are associated with lower overall costs because of the reduced mortality and increased return to productive activity for these patients.

Rehabilitation is the process of helping a patient adapt to a disease or disability by teaching them to focus on their existing abilities. Within a rehabilitation center, physical therapy, occupational therapy, and speech therapy can be implemented in a combined effort to increase a person’s ability to function optimally within the limitations placed upon them by disease or disability. To uphold the continuum of care from illness to health and offer a high-level of service, rehabilitation is a critical service offered within TSA-N through hospital based programs and private organizations. Transfer protocols for rehabilitation facilities are determined by individual facilities.

Rehabilitation can also be defined in terms of tertiary prevention. Tertiary prevention is a level of preventative medicine that deals with the rehabilitation and return of a patient to a status of maximum usefulness with a minimum risk of reoccurrence of a physical or mental disorder.

As the BVRAC trauma system grows and proliferates, organized visions are required for the future of the trauma system. In this plan, the need to have an inclusive trauma system with effective regionalization and an integrated, multidisciplinary approach is recognized.

XVIII. DISASTER PREPAREDNESS

BVRAC has been actively involved in parallel disaster planning alongside local, regional, and state partners to ensure the shared common goals in preparedness are reached. Collectively, this coalition of healthcare providers and services, emergency management, Council of Governments, VOADs, and private partners provide extensive opportunities for training and exercises to be conducted jointly. The Brazos Valley has responded to the activation for Hurricane Harvey which required extensive care and patient tracking for approximately 40 evacuated patients to our region. Historical rainfall and flooding also provided opportunity for regional disaster response. In Robertson County, the small town of Franklin endured significant structural damage after a tornado ripped through a large portion of the town. Regional resources were utilized in support of the people of Franklin. BVRAC also has hosted and supported several full scale Mass Causality Incident exercises that have incorporated many of the region's and state agencies to be successful. It is this region's ability to plan, train, coordinate, and support that demonstrates the preparedness level provided to the Brazos Valley communities.

There are several common hazards that the Brazos Valley generally experiences. How those hazards are ranked with regard to severity and threat can vary based off the impact that that hazardous event has on a particular community within the Brazos Valley. The impact that a hurricane may have on hospitals may be vastly different than the impact that it has on EMS. Likewise, how those severities are communicated from various trauma response and emergency management perspectives can also have an effect on rankings. Below are several different charts that display the top five most commonly identified hazards for the Brazos Valley from a number of different organizations.

Table 1 Hazards Most Commonly Identified by Hospitals to DSHS for TSA-N (2019)

TSA-N								
Counties: Brazos, Burleson, Grimes, Leon, Madison, Robertson, Washington								
Event	**Severity = (Magnitude - Mitigation**							**Risk**
	Probability *Likelihood this will occur*	**Human Impact** *Possibility of death or injury*	**Property Impact** *Physical losses and damages*	**Business Impact** *Interruption of services*	**Preparedness** *Preplanning*	**Internal Response** *Time, effectiveness, resources*	**External Response** *Community/ Mutual Aid staff and supplies*	*Relative threat (Probability x Severity)*
Score	0 = N/A 1 = Low 2 = Mod 3 = High	0 = N/A 1 = Low 2 = Mod 3 = High	0 = N/A 1 = Low 2 = Mod 3 = High	0 = N/A 1 = Low 2 = Mod 3 = High	0 = N/A 1 = High 2 = Mod 3 = Low or none	0 = N/A 1 = High 2 = Mod 3 = Low or none	0 = N/A 1 = High 2 = Mod 3 = Low or none	0 – 100%
Severe Thunderstorms	3	2	2	1	2	1	1	**50%**
Temperature Extremes	3	2	1	1	1	2	2	**50%**
Tornado	2	3	3	2	2	2	1	**48%**
Chemical Exposure, External	2	3	1	1	2	2	2	**41%**
MCI (Trauma)	2	3	1	2	2	1	1	**37%**
Hurricane	2	2	2	2	1	2	1	**37%**
MCI (medical/ infectious)	2	2	1	2	1	2	2	**37%**
Water Failure	2	1	1	2	2	2	2	**37%**
Small-Medium Sized Internal Spill	2	2	1	1	2	2	2	**37%**
Communications Failure	2	1	1	2	2	2	1	**33%**
HVAC Failure	2	1	1	2	2	2	1	**33%**
Information Systems Failure	2	1	1	2	2	2	1	**33%**
Civil Disturbance	2	1	1	1	2	2	2	**33%**
Wildfire	2	1	1	1	2	2	1	**30%**

Hazard Mitigation Plans for the Brazos Valley have narrowed the scope of the top ten hazards that could impact the region which include dam failures; drought; excessive heat; fires; floods; hail; hurricanes; severe winter storms; thunderstorms; and tornadoes. Hazards were based on historical records, national data sources, existing plans and reports, and discussions with the local, regional, and national experts. Each hazard was profiled based on its severity of impact, frequency of occurrence, seasonal patterns, warning time, cascading potential and existing warning systems. An inventory of populations, buildings, critical and special facilities, and

commercial facilities at potential risk was conducted. The probability of occurrence and potential dollar losses from each hazard was estimated using the Federal Emergency management Agency's hazards U.S. (HAZUS) multi-hazards model and other HAZUS-like modeling techniques. The hazards were then ranked based on the vulnerabilities of potential damages in terms of lives lost, dollars cost, and other relevant community factors.

Table 3 Five Priority Hazards as Defined by Brazos County Hazard Mitigation Plans

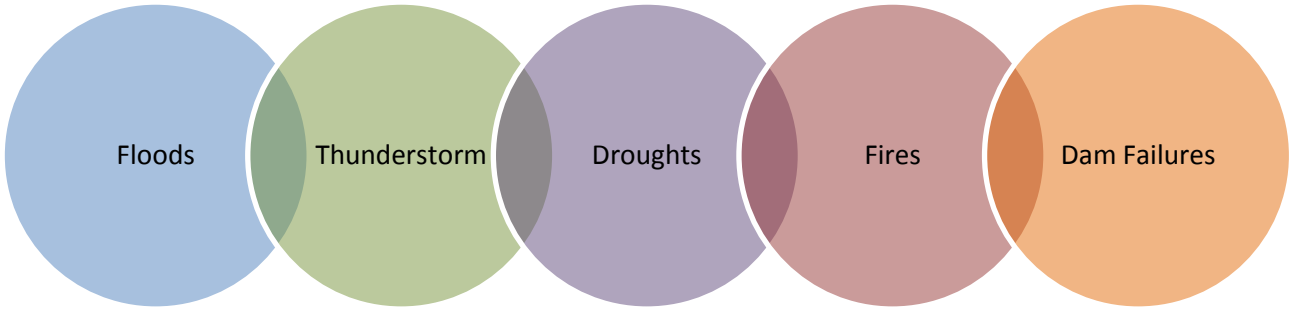


Table 4 Five Priority Hazards Identified by HVA Hospital Risk Assessment for TSA-N

Ranking by Priority
TSA-N
1. Severe Thunderstorms
2. Temperature Extremes
3. Tornado
4. Chemical Exposure, External
5. Hurricane, Mass Casualty Incident (Medical/Infectious), Water Failure, & Sized Internal Spill TIE

Regional Response Descriptions for All Hazard Events including both Natural and Man-Made Disasters

Hurricane / Tropical Storm / Tornado: Early warning systems, including links with the National Weather Service, NOAA radio, and local/regional media provide initial warning forecasts and

updated information as it develops. Mutual aid agreements are in place regionally and each jurisdictional emergency operations center is linked by trunked radio (Skyline Systems), amateur radio, and internet links. Each of which provides a mechanism of redundancy in the event of loss of one system. Reverse 9-1-1 systems are operational and tested on a regular basis. Gaps lie in the ability of each county emergency management coordinator to initiate their own EAS broadcast message. However, emergency operations centers will have Emergency Alerting System (EAS) initiation capability to the local and regional public media (radio and television).

Drought / Heat: Long range weather forecast capabilities allows for a reasonably high level of advance warning of extended drought conditions. Consequences of such conditions include crop loss or damage, negative economic impact, and human health impacts. Many public buildings within the region provide temporary shelter relief for the human population. Emergency water rationing ordinances are in place in most jurisdictions and can be initiated if necessary. The public media is kept abreast of any significant effects or activity that should be made public knowledge, especially on short notice. Gaps would be the compliance of water restrictions, and the number of available water wells and water storage facilities to accommodate an extended adverse situation. Proactive measures being taken include the planned addition of more public water wells and storage facilities with a greater extended capacity, and the frequent testing of water and waste/water pumping stations. Most facilities have redundant power in the form of generators in the event of power failure.

Wildfire: Burn ban ordinances and laws are in place and can be activated on very short notice by the respective government administration. Close involvement with state and local public safety officials allows for continual appraisals of possible “hot spots” and probably high-risk areas. Each jurisdiction emergency management plan includes planning processes in place to address wildfires. Site-specific incident action plans are composed and implement on a case-by-case basis, with “after-action-reports” made available as soon as practical after an incident. Gaps in some more rural situations in the past have included lapses in adherence to the NIMS compliant standards, and lack of interoperable communications coordination. The communications issues were a result of inadequate coordination, not equipment capabilities. After action reports addressed these concerns.

Nuclear / Radiological: Texas A&M University houses two small nuclear generators that, if somehow breached, could have significant consequences. The university has plans and preplans in place to deal with virtually any contingency, and has properly trained technicians and responders in the event of such an incident. Public notification includes reverse 9-1-1, public media outlets, and the university (Code Maroon) localized warning system, which is tested regularly. Memorandums of Understanding (MOU’s) are in place with surrounding jurisdictions to assist with any contingency. The university has appropriate early warning systems in place. There are no noted gaps in this process.

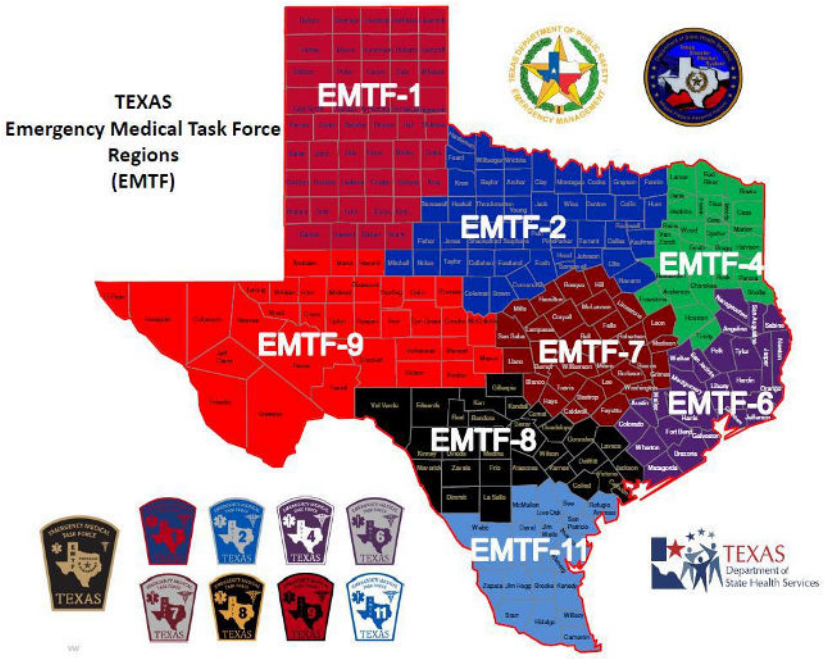
Hazardous Materials / Chemicals: The Brazos Valley Region contains numerous petrochemical pipelines and pumping stations. Each jurisdiction has response procedures built into the emergency plans, and have established liaisons with private industry to address any concern or event regarding accidental or intentional incidents involving the release of hazardous materials. Mutual aid agreements are in place with other jurisdictions that have special hazardous materials teams. The Local Emergency Planning Committee (LEPC) meets at least quarterly to discuss related public safety issues and establish and maintain strong liaisons with petroleum/chemical pipeline carriers, railways, and roadway carriers. Most first responders are required to have hazmat awareness or basic response courses.

Emergency Medical Task Force – 7 (EMTF – 7)

Brazos Valley RAC (TSA-N), Heart of Texas RAC (TSA-M), Central Texas RAC (TSA-L), and Capital Area Trauma RAC (TSA-O) comprise EMTF – 7. Each EMTF region is tasked to develop and coordinate an Ambulance Strike Team, Nurse Strike Team, Ambulance Bus Unit, and Mobile Medical Unit. An EMTF – 7 Coordinating Body has been participating in coordinated planning meetings since July 2010.

BVRAC is dedicated to the planning of operations for EMTF–7 where BVRAC supports efforts under the administration of DSHS, The Health Resources and Service Administration's (HRSA) Hospital Preparedness Program Grant funding to strengthen regional medical response and recovery systems in Texas. RAC's have joined together to form 8 Regional EMTF teams.

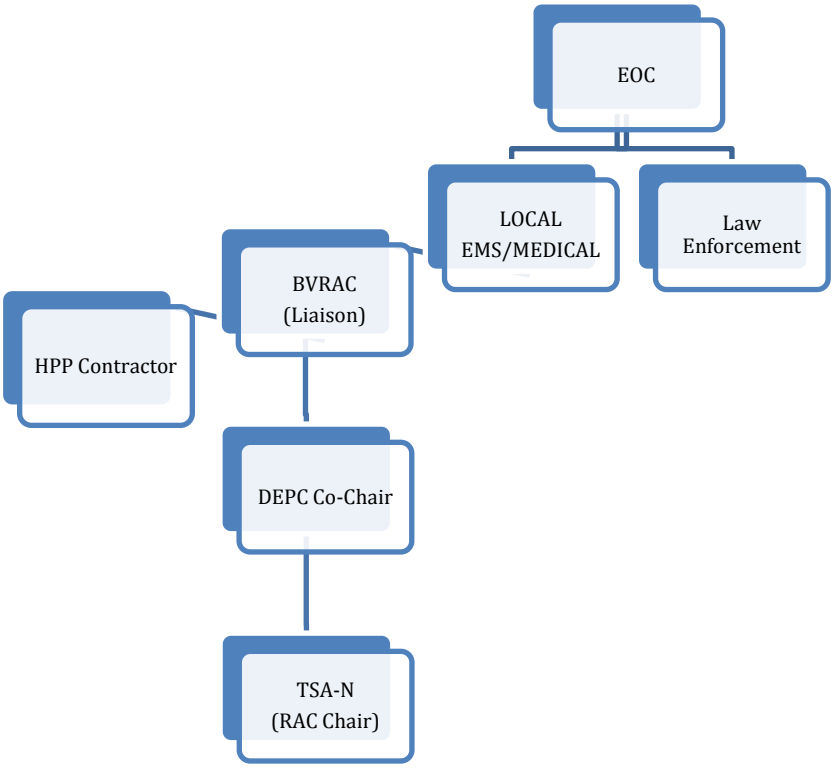
All RAC's that comprise EMTF–7 are encouraged to have a Memorandum of understanding (MOU) with EMTF–7 so that personnel, resources, and payment reimbursements can be structured and unified. However, having an MOU with EMTF–7 does not obligate anything from any entity, but does place that entity in the loop of sharing and communication during an emergency or disaster event.



Emergency Preparedness

Emergency preparedness works to coordinate preparedness and response measures to acute medical mass casualty, evacuation, and disaster situations. Good planning leads to good response. Our emergency preparedness and response committee enable emergency personnel to rapidly identify, evaluate, and react to a wide spectrum of emergencies. Our response programs integrate all BVRAC capabilities for the response and recovery of the entire

Brazos Valley. Under the National Response Framework, the BVRAC will coordinate with other Federal, State, and local emergency organizations in response to various types of regional and state events. The BVRAC emphasizes the integration of injury prevention, public health, and emergency preparedness as the basis for the BVRAC's primary mission of protecting public health and safety.



Emergency Response Leadership Structure

BVRAC Board
Chair
Vice Chair
Secretary
Treasurer
DEPC Chair

*The release of resources for both emergencies and non-emergencies follows the chain of command listed above.

Plan of Activation

1. The BVRAC Chair will be notified immediately of any regional emergency situation. The BVRAC Chair has the final authority for emergency decisions, resource release, and directives; in the absence of the BVRAC Chair, the succession of authority will proceed to the Vice Chair, secretary, and then treasurer. Should none of the Executive Board be available, the Brazos Valley Health Care Coalition (DEPC) chair assumes authority.

2. During an emergency or disaster incident, the BVRAC Chair will convene the BVRAC board via email, WebEOC, or GoToMeeting as needed. If necessary, they will convene at a central regional location closest to the incident.

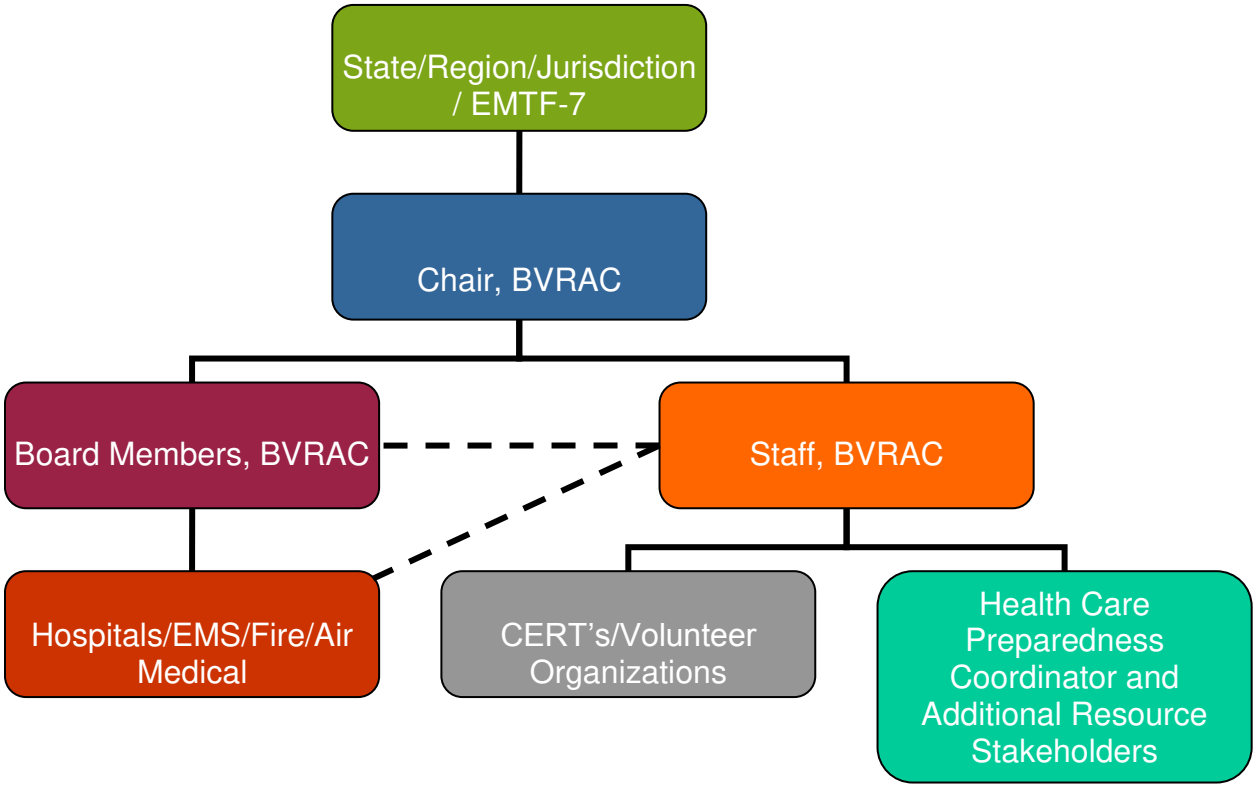
3. Once the EOC is activated, the DEPC will coordinate the appropriate members of the BVRAC and any other entity involved in medical emergency/trauma response. They have responsibility for overseeing the emergency medical support procedures being executed in the field.

4. The DEPC Chair is responsible for communicating the status of operations to the BVRAC Board and making the necessary management decisions to support the response and recovery efforts. The DEPC Chair has overall responsibility for emergency preparedness and response and direct communications with the BVRAC Chair and BVRAC Board.

Regional Communications

In the case of any emergency, disaster, or hazardous situation, the BVRAC has an established chain of communication in which information can be disseminated and resources can be allocated accordingly. This chain of communication is recognized throughout the region/TSA-N and is operational during all regional communication drills put on by the BVRAC and BVCOG. The BVRAC understands that communication is the first line of defense in any emergency situation and can cause great problems if not implemented properly. Therefore, the BVRAC pays special attention to the communication plans that are in place and assures that they are effective in making sure that the region receives the response and services needed.

Table 5 Regional Disaster Preparedness Communications Flow chart for TSA-N



Within TSA-N, BVRAC helps to maintain communication capability between EMS providers, medical control, receiving facilities, and other first responder entities. Rapid dispatch and notification of the need for emergency healthcare at any location within TSA-N must be available to all persons in the Region.

Objectives

1. To facilitate regional communications, all EMS and first responder units as well as facility emergency personnel will have a list of the communication devices and operating frequencies of the EMS and emergency care providers operating in the BVRAC Region.

2. To ensure that all EMS providers, first responders, and facilities in the BVRAC Region have functional communications equipment in order to communicate information related to the patient's condition, the need for medical, EMS, or helicopter back-up, and to receive and communicate information related to patient care and disposition.

3. To ensure that emergency dispatch within the BVRAC Region is accomplished by persons who have the knowledge, skills, and equipment necessary to rapidly mobilize the appropriate level of emergency care to persons requesting assistance throughout the Region.

The communications network in TSA-N is comprised of VHF and 700/800 MHz radio devices combined with telephone links, both cellular and landline. In some instances individual EMS providers utilize VHF, 700/800 MHz, and cellular phones to ensure communications capability. The use of multiple communications systems ensures regional communications are maintained between public and private EMS agencies, police, fire, and facility entities.

Dispatch – Emergency dispatch in each of the seven BVRAC counties is accomplished through various methods (i.e., sheriff's office or local police department).

Pre-hospital Care Providers – Most of the EMS Providers utilize the 700/800 MHz frequency while some may use the VHF frequency as well.

Facility Care Providers – All BVRAC facilities maintain communications capability with pre-hospital care providers through the use of VHF emergency radios, cellular phones, or standard phone lines. Cellular phones and landlines are the primary means of communications between EMS Providers and hospitals. Each facility is equipped with a 700/800 MHz and HAM radio that is programmed according to the Brazos Valley Council of Governments (BVCOG) Regional Communications Plan.

Regional Communications – BVRAC is an active participant in the interoperability planning efforts being address by the Brazos Valley Council of Governments (BVCOG). The BVCOG maintains the Brazos Valley Regional Communications Plan. Please see that specific plan for additional detailed information regarding communications in the Region.

BVRAC also recognizes Brazos Valley Wide Area Communications System (BVWACS), a partnership of the cities of Brenham, Bryan, College Station, Brazos County, Grimes County, Washington County, and Texas A&M University.

Table 5 System Access for TSA-N

County	Primary Service Answering Point	Secondary Service Answering Point
Brazos County	Brazos County 911 Communications Center College Station Police Department	TAMU Police Department TAMU EMS
Burleson County	Burleson County Sheriff's Department	CHI St. Joseph Health EMS
Grimes County	Grimes County Sheriff's Department	CHI St. Joseph Health EMS
Leon County	Leon County Sheriff's Department	Jewett EMS Hilltop Lakes VFD
Madison County	Madison County Sheriff's Department	CHI St. Joseph Health EMS
Robertson County	Robertson County Sheriff's Department	Hearne Police Department Robertson County EMS
Washington County	Washington County 911	Washington County EMS

1. Interoperable Communications Systems
    a. Monitor WebEOC by BVRAC Staff during a disaster for information dissemination
    b. Radio communication between all hospitals and EOC/MOC
    c. Develop standard operating guides for communications activities
    d. Train and educate appropriate hospital staff on available communication systems
    e. Test hospital communication systems both vertically and horizontally during exercises

2. Tracking of Bed Availability
    a. Texas users of the Whole Bed system will fully understand its capabilities and how to input data into the system
    b. Increase knowledge and training of Whole Bed system at the hospital level, including the capacity to fully utilize the system and enter data

3. ESAR-VHP
    a. Regional Administration of the Texas Disaster Volunteer Registry http://www.texasdisastervolunteerregistry.org/
    b. Training for local administrators within the geographical boundaries of their respective region

See Appendices E & F for Communications Capabilities List and Disaster Communications Flow Chart

XIX. TRAUMA SYSTEM EVALUATION AND PERFORMANCE IMPROVEMENT

The BVRAC will use various methodologies for evaluation to establish or revise strategic system goals. Moreover, BVRAC will develop a strategic plan per program, project, or intervention that discusses planned evaluations and narratives on how they relate to RAC decision-making on similar programs and operations.

Evaluations are integral to the BVRAC mission. BVRAC will conduct high-quality program evaluations to learn more about the effectiveness of interventions; the RAC uses the findings to improve program performance and operations as well as to identify and promote evidence-based programs and practice. These comprehensive studies are an important component of the BVRAC strategy to improve overall effectiveness; they assess which programs are effective, well-designed, and well-managed.

BVRAC coordinates evaluation planning with other system-wide planning activities. Completed evaluation studies help programs determine the means and strategies they will use to achieve BVRAC strategic goals and objectives. Trauma system evaluations also may identify data that can be used to measure program performance. BVRAC committees use findings from their evaluations to support Texas Department of State Health Services annual performance reporting to the state and program budget justifications across BVRAC programs. Evaluation findings provide key sources of information and evidence about the success of programs, interventions, and community outreach.

XX. TRAUMA MANAGEMENT INFORMATION SYSTEM

BVRAC has an infrastructure for communications (and therefore dissemination) through a framework in which dialogue and interaction takes place. This applies equally to internal and external communication.

Electronic mailing lists

Internal Lists: An electronic mailing list has been established for BVRAC which aims to provide a mechanism for internal project communications. Currently this includes members of the committee for each sub-group.

External Lists: Digital archiving covers many areas and it may be difficult to reach all stakeholders without using several existing lists to communicate to the wider community. Although there may be advantages to establishing a new overarching list, BVRAC aims to use existing mailing lists for its external communications.

Discussion Groups/ Update Meetings

BVRAC also uses discussion groups as a mechanism for external communication. The purpose of these groups is to provide a feedback loop for continued evaluation, as a means of involving all the community partners in the projects and evaluations; and as a means of communication and information dissemination. Regular focus groups should be organized to solicit input from the wider trauma community.

The BVRAC Website

In addition to the use of electronic mailing lists, BVRAC has a web presence at http://bvrac.com/ . The web is used to target stakeholders, health department, staff, community members, researchers, evaluators, and anyone else who has shown interest or is invested in the regional trauma system. The pages include:

- Information about BVRAC and its activities including contact details, background information, working papers, events (seminars, workshops, conferences) etc.
- Instructional materials as discussed above (the web in this respect acts as a principal means of publication);
- Frequent news and updates to keep the community informed
- Trauma registry to support system data management
- Links to EMS providers and other partner websites
- Performance Reports

For internal communication the web site may also be used by BVRAC as the principal means of distributing administrative, policy, and procedural documents for use by members of the consortium. Where necessary, documents may be accommodated on password protected pages and thus made accessible to selected individuals and/or groups.

Promoting dissemination, advocacy, fund raisers and other events

Conferences, workshops, seminars are organized by BVRAC and directed towards stakeholders, trauma system investors, the public health community, and other interested parties to:

- Raise awareness about BVRAC activities, initiatives, results, etc.;
- Act as training venues e.g. for disseminating instructional material as required by a particular stake holding community or communities;
- Provide opportunity for more public discussion of research, development, collections, standards, or other strategic and substantive issues of interest to BVRAC and the wider Brazos Valley EMS community

XXI. RESEARCH

The Brazos Valley Regional Advisory Council participates in system-wide, regional, and state research on a continual basis. The BVRAC makes it a priority to partner with Texas A&M University and Texas A&M Health Science Center whenever possible. The BVRAC aims to use the latest in computer technology advances and analytic tools for monitoring injury prevention and control components of the trauma system. The BVRAC ensures that the system demonstrates prevention and medical outreach activities within trauma service area N. BVRAC has developed

a variety of mechanisms to engage the general medical community and other system participants for research findings and performance improvement ideas.

XXII. RECOMMENDATIONS

The following are recommendations made by the Trauma System Plan Workgroup for further consideration by the Systems Development Committee and the Board of Directors.

Wellness (Prevention and Outreach)

Incorporate wellness into not only the members of BVRAC, but also promote to other organizations such as police departments and member spouses to increase awareness of fitness and nutrition for healthcare providers as well as other members of our community.

XXIII. APPENDICES

APPENDIX A

THE BRAZOS VALLEY REGIONAL ADVISORY COUNCIL
Trauma Service Area (TSA) N
BYLAWS

Article I – Name

Brazos Valley Regional Advisory Council (BVRAC)

Article II - Definitions

This organization shall be known as the BRAZOS VALLEY REGIONAL ADVISORY COUNCIL (BVRAC). The BVRAC Trauma Service Area includes the counties of Brazos, Burleson, Grimes, Leon, Madison, Robertson, and Washington. The BVRAC Trauma Service Area is also referred to as "TSA N".

Article III – Mission Statement and Goals

"It is our mission to provide the infrastructure and leadership necessary to sustain an optimal and comprehensive trauma, acute care, and emergency medical system within Brazos Valley Region."

Section 1. Goals:

A. Advance and improve the state of healthcare for the patients within the counties of Trauma Service Area N (Brazos Valley Regional Area).

B. Decrease morbidity and/or mortality which results from injury or illness.

C. Encourage activities designated to promote cooperation and resolve conflicts between member organizations.

D. Improve funding of trauma providers, acute care providers, and emergency care providers within the counties served by this Council.

E. Maintain a Trauma and Acute Care System Plan for the RAC which is based on standard guidelines for comprehensive system development.

F. Improve public awareness of the methods of accessing the trauma and acute care system, preventing injury, and promoting stroke and cardiac awareness.

G. Coordinate responses to mass casualty, evacuation, and disaster events utilizing current National Incident Management System (NIMS) guidelines.

Article IV – RAC Membership

Section 1.

RAC membership encompasses a wide range of professionals and citizens concerned about the health and well-being of the community as it relates to trauma, acute care, emergency services and disaster preparedness. Voting membership requires that the member represent a hospital or disaster service, an entity who is involved with trauma, acute care, emergency, or disaster care, an emergency medical service, an educational agency involved in training purposes for trauma, acute care, emergency, or disaster preparedness, or a service which provides care to victims of trauma, emergency, and/or disaster within the county boundaries of TSA N. A voting entity must practice and reside within the boundaries of TSA N.

Section 2. Condition of Membership

A. A member entity must complete an Agency Participation Form. The representatives listed on this form for official representation of the agency must meet the requirements for representation as outlined in the Official Representation section of the BVRAC SOPs.

B. No person shall be denied membership on the basis of race, sex or religious preference.

C. A member who resigns in good standing may reapply for membership. Resignations must be submitted in writing to the Executive Committee.

D. A member failing to actively participate in BVRAC activities as defined by the bylaws may be removed from the membership by a majority vote of the Executive Committee. A member who does not comply with assigned responsibilities or is charged with an act/or conviction of any felony violation of law may be relieved of duty and membership by simple majority vote of the Executive Committee. Said member may appeal this action for re-instatement in writing to the Executive Committee.

E. Prior to removal from the membership by the Executive Committee, the Executive Director and/or RAC Chair will notify said member that they are not compliant with RAC bylaws and participation requirements. If participation does not increase, a message will be sent to voting members identifying lack of participation. If the issue continues, the Executive Director and/or RAC Chair will bring said member's name to the Executive Committee for removal.

Section 3.

Agency representatives will be allowed one vote at the General Assembly meetings. The vote may only be cast by one of the persons listed on the entity's Agency Participation Form, or designee as defined in the voting section of the BVRAC SOPs.

Section 4. Active Participation in the RAC is defined as the following:

1. EMS Provider Agencies

    1. Will hold a valid state license, registration or certification through the Texas Department of State Health Services (DSHS) to maintain membership.
    2. Will have pre-designated representation at no less than (4) General Assembly Meetings, (4) Pre-Hospital Committee and (4) System QI Committee Meetings annually.
    3. Are strongly encouraged to attend all other subcommittee meetings.
    4. Will submit information into the State Trauma Registry.
    5. Will submit required Performance Improvement data upon request.
    6. Will participate in one community disaster preparedness drill per year.

2. Hospital Members

    1. Will have pre-designated representation at no less than (4) General Assembly Meetings, (4) Hospital Care and Management Committee Meetings and (4) Systems QI Committee Meetings annually.
    2. Are strongly encouraged to attend all other subcommittee meetings.
    3. Will submit information into the State Trauma Registry.
    4. Will submit Stroke and STEMI performance for review.
    5. Will participate in one community disaster preparedness drill per year.
    6. In the event of emergency healthcare activations, will participate as required by the Health & Medical Annex of the County Emergency Operations Plans and/or the BVRAC Regional Response Plan.

3. Non-EMS/Hospital Entities

    1. Will have pre-designated representation at no less than (4) General Assembly Meetings and (4) Standing Committee Meetings annually.

    2. Each agency will complete an annual Regional Needs Assessment as requested by the Executive Committee.

    3. Membership Dues must be paid in full by each member by the 1st of January of each year. Dues, Fees or other financial incentives do not determine the number of votes awarded to an organization/entity.

        Membership dues are charged as follows:
        a. Hospitals - $550.00
        b. EMS Providers (including Air Medical) - $250.00
        c. Colleges - $250.00
        d. Educational institutions (non EMS providers) - $250.00

e. Other members (i.e., FROs, Emergency Management, etc.) - $50.00

4. Exceptions to the above requirements may be considered by the Board on an individual basis. An entity seeking such an exception must submit, in writing, a request for the exception and provide documentation to support the request.

Article V – Board of Directors

Section 1. The Board of Directors shall consist of the following:

Executive Committee

1. Chair
2. Vice Chair
3. Secretary
4. Treasurer

Committee Chairs

1. Chair of the Pre-hospital Committee
2. Chair of the Acute Care & Hospital Care/Management Committee
3. Chair of the Systems QI & Physicians' Advisory Committee
4. Chair of the Education Committee
5. Chair of the Injury Prevention Committee
6. Chair of the Disaster Emergency Preparedness Committee
7. Chair of the Stroke/Cardiac Committee
8. Chair of the Perinatal Committee

Other Members

1. Immediate Past RAC Chair

Immediate Past RAC Chair shall have a term valid for one year. This position will serve as a voting member, but this position will not count toward or constitute a quorum.

2. Employees

Employees (including the Executive Director) of the RAC may not serve as a member of the Board of Directors. If an employee is appointed to a Committee Chair position, the Vice Chair of that committee will fill the Board of Director position for that committee.

Section 2. Quorum:

At least two (2) Executive Committee members must be present as well as five (5) of the filled Board of Directors positions shall constitute a quorum for the purpose of transacting any business of BVRAC excluding the Immediate Past RAC Chair position.

Section 3. Meetings:

The Board of Directors shall be held monthly. Additional meetings will be scheduled as needed.

The Chair may call a special meeting at any time with a one (1) week advance notice to the Board of Directors. This notice may be sent by the Chair or the Executive Director electronically. A quorum is required for a special called meeting.

Section 4. Attendance:

Board Members must attend no less than (10) of the Board meetings per year. An alternate representative may be designated to attend a Board meeting by the member. This representative may cast that entity's vote. An alternate may attend no more than (2) of the scheduled board meetings per year.

Section 5. Resignation/Succession

In the event that the Chairperson resigns or is removed from office prior to the term expiration, the Vice Chair will immediately succeed the resigned/removed Chair.

A Board Member who does not comply with assigned responsibilities may be relieved of office by a majority vote of the Board. Appointment of a replacement shall be made by the Chair with a majority vote of the General Membership at the next scheduled meeting following the appointment.

Any vacancies shall be filled for the balance of the unexpired term by the Chair with a majority vote of the General Membership at the next scheduled meeting following the appointment. The Board Member who serves the unexpired term will be eligible for reappointment.

Section 6. Elections:

Nominations shall be held in June of each calendar year for voting in the August General Session Meeting. Terms shall begin September 1st of the same calendar year.

No chair will be limited on the number of terms that he or she may serve. In order to provide continuity of representation on the Executive Committee:

A. The Chair is elected to a 2-year term on even numbered years. After serving the final term, the Chair will then rotate to the Immediate Past Chair position.
B. The Vice Chair is elected to a 2-year term on odd numbered years and has the option of entering an automatic nomination in the bid following completion of the current Chair's final term.
C. The Treasurer will be elected to a 2-year term on odd numbered years.
D. The Secretary will be elected to a 2-year term on even numbered years.

Section 7.

The Board Members shall serve a 2-year term. In the event that there is no other person available or willing to serve, an additional term(s) may be approved by a simple majority roll-call vote of the General Assembly.

Section 8.

The Board of Directors shall be empowered to employ personnel to conduct the business of the RAC.

Section 9.

The Board shall operate in the place of a Finance/Audit Committee. Finance/Audit will remain a standing agenda item of the Board of Directors.

Section 10.

The Board of Directors shall develop and maintain policy statements that guide the functioning of the RAC. A policy shall receive final approval of the Board with a majority vote of those members present. Copies of such policy statements shall be provided to the General Assembly upon final approval of the Board of Directors at the following General Assembly meeting.

Article VI – Election of Officers and Board of Directors

Section 1.

At the June meeting of each year, nominations shall be requested from floor of the General Assembly.

Section 2.

Nominations shall be provided to the General Assembly two (2) weeks prior to the August meeting each year. The election of expired term Officers and Board of Directors shall be by open ballot during the August meeting each year.

Section 3.

To qualify for the position of Chair or Vice Chair, a member must have actively functioned as a member of the Board of Directors for at least one (1) year.

Article VII – Duties of Board Members

Section 1. The Chair shall:

A. Preside at all meetings of the General Assembly, Board of Directors, and any special meetings.
B. Facilitate development and achievement of organizational goals.
C. Make interim appointments as needed with the approval of the General Assembly.

D. Sign all contracts, agreements, and other legal documents as needed after approval of the Board of Directors.
E. Represent this organization at the Texas Department of State Health Services RAC Chair's Meeting or will identify another Executive Board Member as a designee.

Section 2. The Vice Chair shall:

A. Preside over RAC activities in the absence of the Chair.
B. Perform duties as assigned by the Chair.
C. Assist in preparing any necessary reports or documentation required.

Section 3. The Secretary shall:

A. Present the minutes of all proceedings of the Board and General Assembly meetings.
B. Handle all correspondence of the organization in the absence of the Executive Director.
C. Assist in preparing any necessary reports or documentation required.

Section 4. The Treasurer shall:

A. Review and certify all financial business conducted by the RAC including bank reconciliation.
B. Perform financial duties in the absence of the Executive Director.
C. Assist in preparing any necessary reports or documentation required.
D. Prepare and submit financial reports to the Board and General Assembly at each of their meetings in conjunction with contracted RAC financial service, respectively.

Section 5. The Executive Director shall:

A. Maintain a record of all financial business conducted by the RAC in accordance with RAC polices/procedures and common accounting practice.
B. Ensure that Board of Directors & General Assembly meeting minutes are made available to all RAC membership and the Department of State Health Services EMS & Trauma Systems Coordination as requested.
C. Will make available copies of bylaws and the Trauma System Plan annually as requested.
D. Actively assist in seeking funding sources for the activities of the organization.
E. Prepare necessary reports or documentation required by government agencies or grant sponsors.
F. Gather information from Committee Chairs, prepare and submit annual budget projections to the Board and General Assembly.

Section 6. The Committee Chairs shall:

A. Organize and conduct meetings as defined in the bylaws.

B. Facilitate the development and achievement of goals for their committee.

C. Provide written agendas and minutes to committee members. Provide these and sign-in sheets to the Executive Director for maintenance and provide verbal reports to the Board and General Assembly during RAC meetings.

D. Assist in preparing any necessary reports or documentation required.

Article VIII – Meetings

Section 1. Quorum

At least two (2) Executive Committee members must be present as well as representation from two-thirds (2/3) of the general membership shall constitute a quorum for a General Assembly meeting.

Section 2. Meetings

All meetings administered by the RAC are open unless otherwise stated. The RAC will operate according to the Texas Open Meetings Act. Meeting dates, times, and locations will be posted on the BVRAC Website.

The General Assembly shall meet bi-monthly.

Meetings can be conducted by teleconference if deemed appropriate upon approval of the executive board for membership safe keeping and hardship.

Any member of the Executive Council or the Executive Director may call a special meeting with a majority vote of the Board of Directors. A minimum of a two (2) week notice will be provided electronically to all members on the General Assembly email list serve.

Emergency meetings to address matters of an urgent nature may be called (72) hours prior to the meeting. The meeting remains in compliance to the Texas Open Meetings Act and maybe conducted by teleconference.

Section 3. Attendance

See Article IV, Section 5 for the attendance requirements.

Article IX – Committees

Section 1. The Standing Committees and their missions are as follows:

A. Pre-hospital Committee

- To serve as a liaison for pre-hospital providers within this Region to include the monitoring of system development, coordination of activities, performance improvement, and pre-hospital training.

B. Acute Care & Hospital Care/Management Committee

- To serve as a liaison between health care facilities within this region to include the monitoring of system development, coordination of activities, performance improvement, and hospital training.

- To provide oversight and guidance for the Region regarding the Pediatric Objectives issued by the State of Texas.

- To serve as a liaison to the acute care facilities and pre-hospital providers for initiatives issued by the State of Texas to include but not limited to stroke care, facility designations, public education, and training.

C. Systems QI & Physicians Advisory Committee (a quorum constitutes a majority of serving physicians)

- To ensure optimal care of the trauma and acute care patients in TSA-N, through critical review of select cases by members of the Brazos Valley Regional Advisory Council as identified by system filters.

- To collect data of overall stats for patients transferred out of the TSA-N region and report back to Board and General Assembly.

- To monitor the performance of identified performance improvement indicators as it relates to the quality of patient care.

- Make recommendations regarding system enhancement and/or improvements.

- Inter-local liaison committees may be formed to provide comprehensive review of issues with greater local participation. Information/inquiries may be originated at either the Physicians Advisory Committee or the other committees.

D. Education Committee

- To provide guidance for training within the Region to enhance trauma and acute care standards in this Region.

E. Injury Prevention Committee

- To provide guidance within the Region for injury prevention activities.

- To collect injury statistics within the Region for direction of injury prevention activities.

F. Disaster /Emergency Preparedness

- To coordinate preparedness and responses to acute medical mass casualty, evacuation, and disaster situations.

G. Stroke / Cardiac Committee

- To conduct Provider and Community Stroke / Cardiac education
- Develop and distribute transport plans to be consistent with GETAC guidelines (e.g. criteria for patient identification, destination choices based on designation, inter-facility transfers, early treatment, training requirements, etc.)
- Develop system performance improvement initiatives

H. Perinatal Committee

- Improve the quality of healthcare, access to care, and education for pregnant women and newborns in the region utilizing best practices and evidence based medicine
- Develop system improvement initiatives

Section 2.

Each standing committee shall have an identified Chair. A Vice Chair may be selected by the Committee Chair or the membership of the Committee. This process will occur in August of each year in conjunction with the election of the Board of Directors.

Section 3.

Each standing committee shall have at least 6 meetings per year and keep minutes of each meeting. Meeting minutes may be obtained by any RAC member from the BVRAC website or from the Executive Director. The minutes may be provided either in hard copy or electronically.

Section 4.

Ad Hoc Committees/Task Forces may be established and/or dissolved at the discretion of the Board. Ad Hoc Committees/Task Forces are utilized to address issues that are limited in duration or cyclic in nature.

Article X – Fiscal Policies

Section 1.

State mandated funds shall be allocated according to contract received by BVRAC from the Department of State Health Services. Any entity eligible according to State guidance must be classified as an active participant as stated in Article IV, Section 5, in order to receive any funding.

Section 2.

Any grant funds received by the BVRAC will be made available to only those member entities that are active participants in BVRAC as stated in Article IV, Section 5, in order to receive any funding.

Section 3.

Any member entity receiving funds through and/or from BVRAC must provide required reports, support documents, etc. as stated at the time the funds are received by the member entity. Failure to comply will result in ineligibility of funding through and/or from BVRAC for a period of not less than one (1) fiscal year funding cycle.

Section 4.

Failure to comply with Article IV, Section 5 shall cause a member entity to become ineligible for funding through and/or from BVRAC for a period of not less than twelve (12) months.

Section 5

All grant funds shall be considered “restricted”. “Restricted funds” are defined as those funds that must be utilized as provided in a fully executed contract, grant application and/or award notice, or directed donation.

Any funds received that have not been “restricted” shall be considered “unrestricted” and may be utilized for any type of expenditure. “Unrestricted funds” shall include but are not limited to dues, donations, etc.

Section 6

The Brazos Valley Regional Advisory Council’s fiscal and operational years shall follow the fiscal year.

Section 7

Budget preparation is achieved through needs assessments provided by the RAC committees as well as strategic direction provided by the Board. The Budget will be completed by the Executive Director and the Treasurer then presented for ratification at the August General Assembly meeting.

Section 8

All Checks must have two signatures. These signatures may be any combination of the Executive Council and the Executive Director. No person may sign a check

that is issued to him or herself. The RAC will maintain a minimum of two (2) checking accounts ("restricted" & "unrestricted") and may establish additional accounts as needed with approval of the BVRAC Executive Council.

Section 9

Approval of expenditures must conform to the following schedule:

	Amount	Approval Required
A.	$ 0 - $ 2,000	Chair only
B.	$ 2,000.01 - $10,000	Board only
C.	$ 10,000.01 or more	General Assembly

Any purchases and/or leases of real property, land, buildings, and vehicles shall be approved by a majority vote of the General Assembly present at the meeting.

In the absence of the Chair, expenditures from $0 - $2,000.00 may be approved with the agreement of the remaining BVRAC Executive Board.

Section 10

The Executive Director shall have the authority to establish charge accounts with advance approval of the Executive Committee.

The Executive Director shall have authority to maintain and utilize RAC's secured credit card with a limit not to exceed $ 1,000.00 (one thousand dollars). A report must be provided upon request of the Executive Committee. A report shall be provided to the Board and General Assembly as a part of the financial statements.

Section 11

The Chair may authorize expenditures associated with a specific grant if a budget was submitted as part of the grant application process and the grant application was approved by the Board of Directors upon completion or at notice of award.

Section 12

Distribution of funds will be in accordance with State and Federal regulations.

Section 13

Annually an external audit shall be completed in accordance with State and Federal regulations.

Section 14

RAC members may obtain copies of financial records, 990s, audit findings, etc. from the Executive Director or Chair. A request must be submitted in writing. The

request must include what items wish to be reviewed and when the member would like to schedule a time to review requested documents. Original documents may not be removed from the RAC offices without written approval of the Chair. Some documents may not be available for copying.

Article XI – Alternative Dispute Resolution (ADR) Process

Section 1

A. Any provider or individual representing a provider, service, or hospital that has a dispute in connection with another provider or the RAC itself (e.g., bylaws, trauma system plan, guidelines and protocols, etc.) may formally voice its disapproval in writing. The written document will be addressed by the Chair of the RAC and/or the Executive Director.

B. A formal protest must contain the following information: a specific statement of the situation that contains the description of each issue and a proposed solution to resolve the matter(s).

C. A neutral or impartial group with no vested interest in the outcome of the dispute will be assembled to review the issue. This group may solicit written responses to the dispute from interested parties. If the dispute is not resolved by mutual agreement, the group will issue a written determination, within thirty (30) days of receipt of all pertinent data.

D. Party or parties may appeal the determination by the group and ask that the issue be brought before the General Assembly for a final determination. The party or parties have no later than ten (10) working days after the determination to submit the request for secondary review. The secondary review will be limited to the original determination. The appeal must be mailed or hand-delivered in a timely manner. In the event the appeal is not timely in delivery, it will not be considered. If not considered, the party or parties will be notified in writing. The request must be submitted in writing to the following address:

BVRAC
3991 East 29th Street
Bryan, TX 77802

Article XII – Parliamentary Authority

Robert's Rule of Order shall be used as a guide for all meetings administered by the RAC.

Article XIII - Amendments

Section 1 Bylaws

The bylaws may be adopted, amended, or revised by an affirmative vote of two-thirds of the General Assembly present at the meeting. Proposed amendments and revisions must be submitted to an Executive Committee member or the Executive Director. All proposed bylaw revisions and/or changes will be submitted to the General Assembly Membership via United States Postal Service and/or electronically (30) days prior to action. The proposed bylaws will also be submitted to all individuals that participate in the BVRAC email list-serve.

A roll-call vote shall be taken for approval of the bylaws. The bylaws shall be reviewed/amended/revised at least once per calendar year.

Section 2. Trauma System Plan

The RAC will maintain a Trauma System Plan Workgroup that will annually update the BVRAC Regional Trauma System Plan. This Workgroup shall have membership from hospitals and pre-hospital providers and will be presided over by the Executive Director.

The Trauma System Plan shall be provided to the Department of State Health Services (DSHS) EMS & Trauma Systems Coordination by January 1st of each year. The Plan shall be approved by the Physicians Advisory Committee, the Board of Directors, and General Assembly prior to submission to the DSHS.

A majority vote of Physicians Advisory Committee, Board of Directors, and General Assembly members present shall constitute the approval of the Trauma System Plan.

Article XIV – Signatures

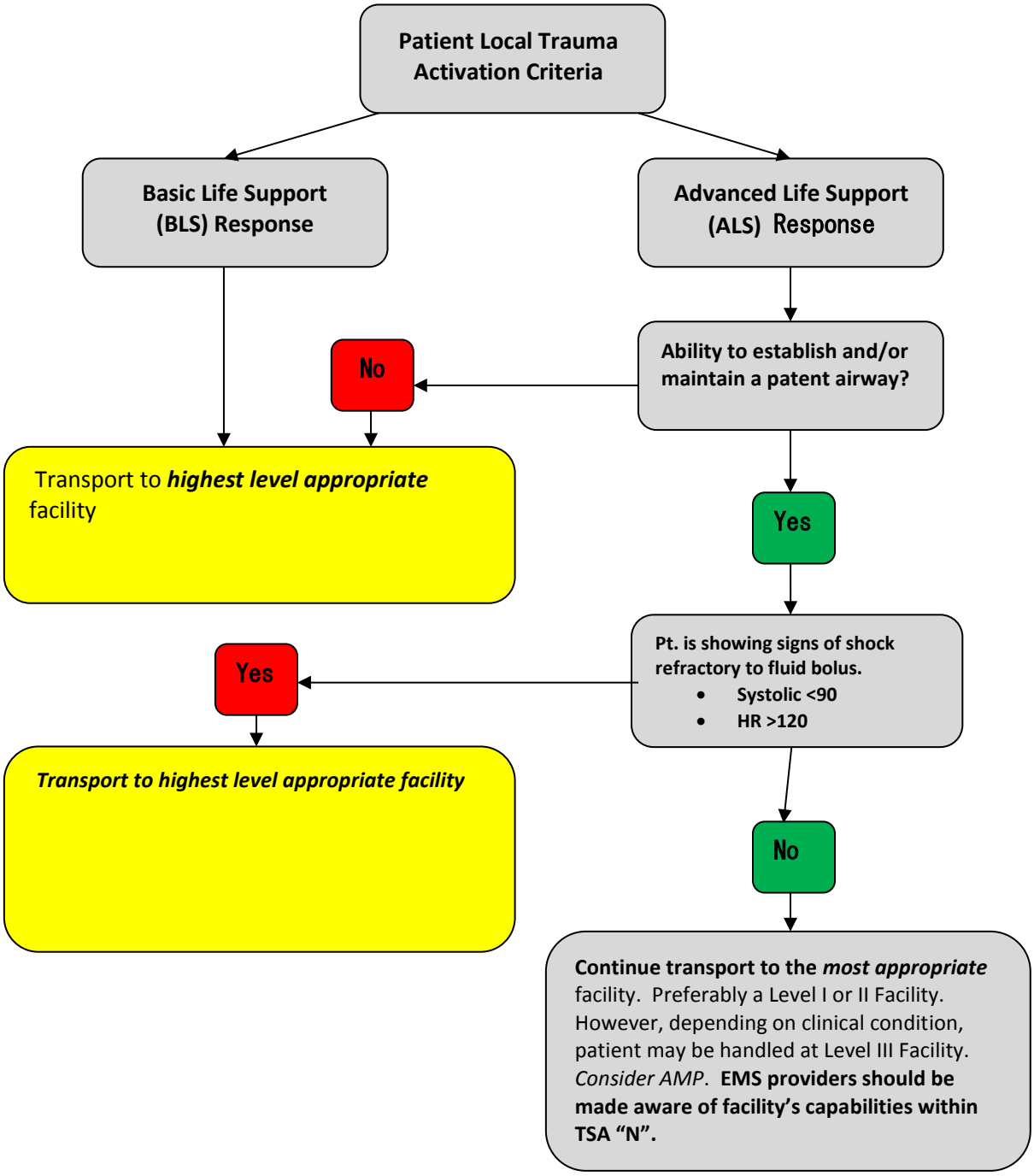
_____ _____

RAC Chair Date

_____ _____

Executive Director Date

APPENDIX B – Patient Local Trauma Activation



When considering Air Medical Activation, remember it is the goal to get the patient to the most appropriate facility the fastest. Keep in mind the Ground EMS Transport Time versus Response Time + Scene Time + Transport Time of the Air Medical Provider (AMP). When possible, early activation of AMP may result in moving the patient to the most appropriate facility the fastest.

APPENDIX C – Suspected Stroke Guidelines

ASSESSMENT GUIDELINES

Last Known Well:_____

Cincinnati Stroke Scale

- Facial Droop
- Arm Drift
- Abnormal Speech
- Complete Vital Signs

VAN – If Cincinnati Positive

- Limb Weakness plus one of the following:
  - Visual Disturbance
  - Aphasia
  - Neglect

Obtain Family Contact Information
Blood Glucose
12-Lead ECG
Thrombolytic Checklist

MINIMUM TREATMENT GUIDELINES:

- Activate a Stroke Alert
- Oxygen 2-4 L/min if required to correct hypoxia <92%; avoid hyperoxia
- IV NS TKO (as per skill level)
- 2nd Large Bore IV Line if Time Permits
- Consider antihypertensive agent for blood pressure above 220/110

TRANSPORT

- Rapid transport to appropriate facility as indicated.
- Divert to the closest hospital for airway or patient instability.
- Consider Air Medical transport for patient deterioration and decrease in transport time.

Treatment Times & Options for Qualifying Patients

- If last known well less than 4.5 hours:
  - Transport emergently to closest stroke center of any designation.
- If last known well greater than 24 hours:
  - Transport non-emergently to closest primary stroke center.
- If last known well is greater than 4.5 hours but less than 24 hours and the patient is VAN positive:
  - Transport emergently to the closest primary stroke center
- If last known well is greater than 4.5 hours but less than 24 hours and the patient is VAN negative:
  - Transport non-emergently to closest primary stroke center

APPENDIX D – Brazos Valley Stroke Centers

Comprehensive Stroke Center

- No Comprehensive Certified Stroke Center Within the Brazos Valley

Primary Stroke Center

- Baylor Scott & White Medical Center - College Station, TX
- CHI St. Joseph Health Regional Hospital – Bryan, TX
  Thrombectomy Capable Center
- College Station Medical Center - College Station, TX

Acute Stroke Ready Hospital

- Baylor Scott & White Medical Center Brenham – Brenham, Texas
- CHI St. Joseph Health Burleson – Caldwell, Texas
- CHI St. Joseph Health Grimes – Navasota, Texas
- CHI St. Joseph Health, Madison – Madisonville, Texas

APPENDIX E – STEMI Alert Activation Criteria

NO	YES	INDICATIONS:
☐	☐	1. 1mm ST-elevation in 2 or more leads or New LBBB (leads: _____)

Yes to #1 AND at least one of the below symptoms = STEMI Alert Activation

☐	☐	2. Chest discomfort: pressure, squeezing, fullness or pain
☐	☐	3. Pain or discomfort in one or both arms, back neck, jaw or stomach
☐	☐	4. Shortness of breath with or without chest discomfort
☐	☐	5. Cold sweat, nausea or lightheadedness
☐	☐	6. Consider abdominal pain in women or diabetics

Fibrinolytic Absolute Exclusion Criteria

- Previous hemorrhagic stroke
- Other stroke within one year
- Known allergy or prior exposure

Relative Contraindications

- Known active bleeding sites or disorders (including ulcerative colitis, diverticulitis, esophageal varices, coagulation disorders)
- Surgery < 10 days, including invasive biopsies or non-compressible arterial punctures
- Pregnancy or postpartum state
- Prolonged CPR (>5mins in the non-trauma patient)
- Significant trauma <4 weeks
- CPR or major surgery <3 weeks
- Previously uncontrolled HTN (DBP > 110 mmHg on several measurements) or currently elevated (SBP > 180 mmHg, or DBP >110 mmHg at presentation

NO	YES	
☐	☐	1. Heart rate ≥ 100 bpm AND systolic BP < 100 mm Hg
☐	☐	2. Heart rate ≤ 50 bpm or complete heart block
☐	☐	3. Pulmonary edema (rales)
☐	☐	4. Signs of shock (cool, clammy)
☐	☐	5. Contraindications to fibrinolytic therapy

Patient Eligible for Fibrinolytic Treatment

↓ Yes

Baylor Scott & White Medical Center Brenham (non-PCI)
Baylor Scott & White Medical Center College Station (PCI)
CHI St. Joseph Burleson (non-PCI)
CHI St. Joseph College Station ER (PCI)
CHI St. Joseph Grimes (non-PCI)
CHI St. Joseph Madison (non-PCI)
CHI St. Joseph Regional Health Center (PCI)
College Station Medical Center (PCI)

Patient Ineligible for Fibrinolytic Treatment

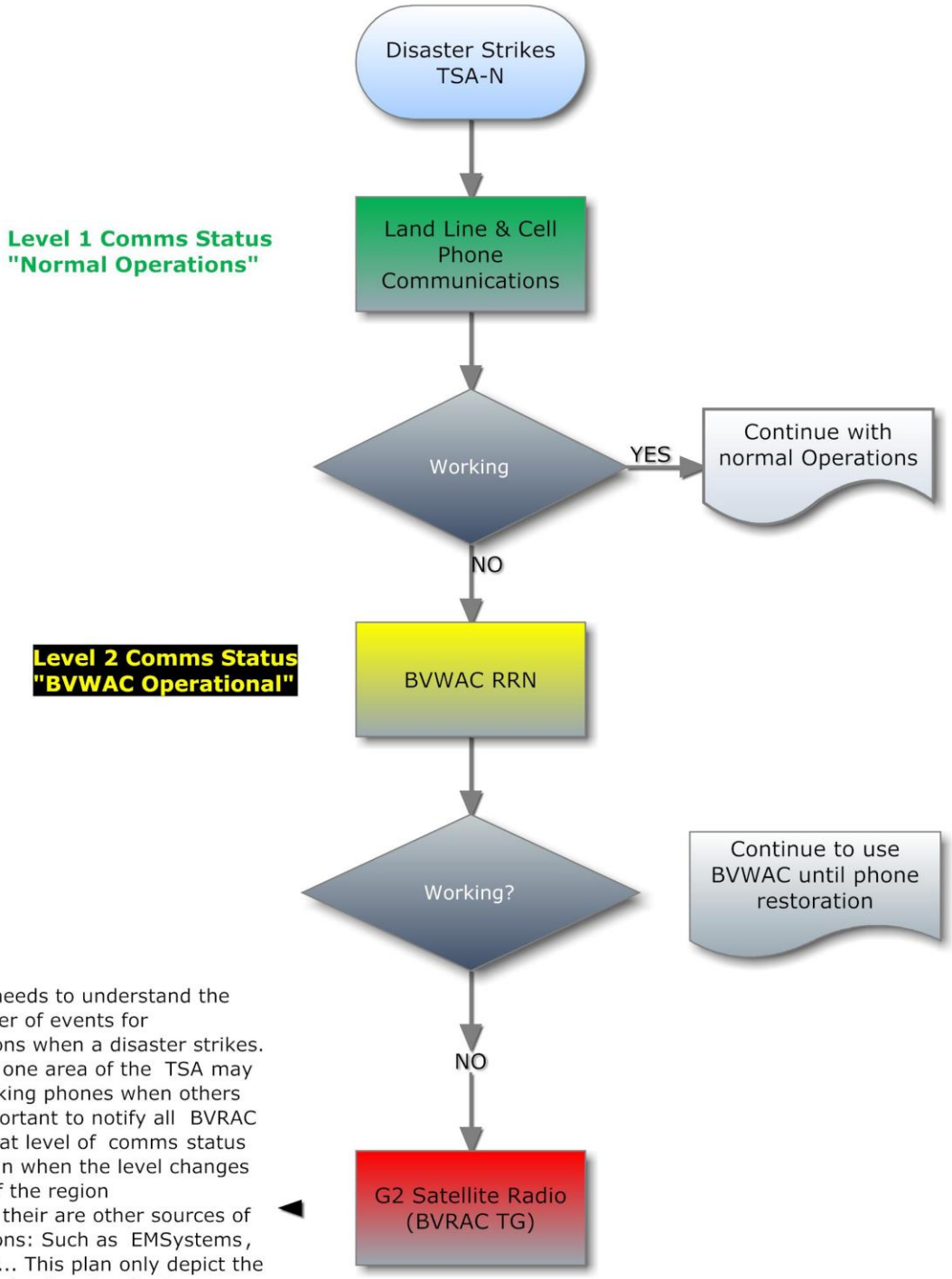
↓ Yes

Baylor Scott & White Medical Center College Station (PCI)
CHI St. Joseph College Station ER (PCI)
CHI St. Joseph Regional Health Center (PCI)
CHI St. Joseph Health College Station CHI St.

APPENDIX F – Regional Communication Capabilities

	Facility/Agency	Telephone (Level 1)	BVWAC (Level 2)	HAM (Level 3)
1	CHI St. Joseph Health Regional	✓	✓	✓
2	CHI St. Joseph Health Burleson	✓	✓	✓
3	CHI St. Joseph Health Grimes	✓	✓	✓
4	CHI St. Joseph Health Madison	✓	✓	✓
5	CHI St. Joseph Health College Station	✓	✓	✓
6	The Physician's Center	✓	✓	✓
7	Baylor Scott & White Medical Center - Brenham	✓	✓	✓
8	Baylor Scott & White Medical Center - College Station	✓	✓	✓
9	BVRAC	✓	✓	Not required

APPENDIX G – Disaster Communications Flow



- Each facility needs to understand the sequence order of events for communications when a disaster strikes.
- Keep in mind one area of the TSA may not have working phones when others may. Its important to notify all BVRAC entities of what level of comms status the region is in when the level changes in one area of the region
- Keep in mind their are other sources of communications: Such as EMSystems, WebEOC, etc... This plan only depict the first three levels of regional voice communications among health care facilities and Public Safety Partners