2009-2010 EXECUTIVE REPORT

CENTRAL OHIO TRAUMA SYSTEM

431 East Broad Street, Columbus, Ohio 43215 Phone (614) 240-7419 www.goodhealthcolumbus.org/cots

LETTER FROM COTS PRESIDENT

As I contemplate the end of my COTS Presidency in June 2010, I am proud of the work that COTS has accomplished these past few years. COTS is well-known as the neutral "place" where community issues related to trauma, emergency healthcare services, and/or health system disaster preparedness can be presented, openly discussed, and addressed. COTS has experienced unprecedented success. No one else and no other agency that I know of is addressing the emergency care and preparedness gaps with the clarity of purpose demonstrated by COTS.

It is also clear to me that COTS is unlike any other Central Ohio agency, with its stakeholder demographic of hospitals, EMS providers, physicians, nurses, public health experts, non-profits and other injury prevention programmers. COTS has attracted over 300 community members from 80-plus agencies to serve on a COTS committee and/or initiative in 2009-2010. Participation in COTS is voluntary and open to any interested member of the Central Ohio community. A lot of community service hours could be logged by COTS committee and Board member volunteers, if they are "counting."

So WHO is COTS?

COTS is multiple stakeholders, including you perhaps, who want to improve emergent medical care for victims of serious illness or injury in the Central Ohio community. COTS is a group of dedicated professionals who work together tirelessly to address current and emerging dilemmas around emergency healthcare and disaster response. People may come and go from COTS, including the President, but anyone involved with COTS can take with them a sense of accomplishment for improving the emergency healthcare provided in our community.

Thanks for supporting me these past two years! I look forward to new faces at and continued involvement with COTS!

Sincerely,

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Clifford L. Mason, Fire Chief, EMT-P, OFE COTS President

MISSION, PURPOSE, GOALS, CORE VALUES

The Central Ohio Trauma System (COTS) Mission is to reduce injuries and save lives by improving and coordinating trauma care, emergency care, and disaster preparedness systems in Central Ohio.

COTS addresses a need that is otherwise unmet in the region. COTS serves healthcare stakeholders as a forum, as a clearinghouse for information, and as a major driver of system improvements specifically related to injury prevention, trauma and emergency patient services, and disaster preparedness.

COTS' 2009-2010 goals and objectives are to:

- 1. Sustain an inclusive system where community partners work together to resolve issues associated with trauma, emergency care and medical disaster preparedness
- 2. Maintain COTS' two databases (the Regional Trauma Registry and the Emergency Department Real-time Activity Status) for reliable data analysis, in order to improve patient care; to provide a basis for focusing initiatives on areas of highest need; and to provide benchmarks for measuring progress
- 3. Facilitate initiatives that accomplish appropriate resource utilization while reducing deaths and disabilities from trauma, strokes, heart attacks and other emergency health conditions
- 4. Coordinate healthcare partners' medical disaster preparedness and response

COTS' core values are service-oriented and include:

- Inclusiveness
- Collaboration
- Integrity
- Transparency
- Evidence-based work
- Excellence

COTS is a voluntary, cooperative, self-regulatory organization and maintains a 501(c)(3) Internal Revenue status for charitable, educational and scientific intent. COTS is also an affiliate organization of the Columbus Medical Association.

BOARD OF TRUSTEES

The COTS Board of Trustees is comprised of health care experts from hospitals and emergency medical services (EMS) providers serving Franklin County and contiguous counties; physicians from the Columbus Medical Association; and representatives from local government health agencies. The COTS Board meets quarterly. Board meetings are open to the public.

The following individuals serve as Officers on the COTS Board through June 2010.

PRESIDENT:	Clifford L. Mason, Fire Chief/EMT-P, President of the Ohio Fire Chiefs Association;
	Fire Chief, Madison Township Fire Department, Groveport, Ohio; representing
	the Franklin County Fire Chiefs Association
VICE-PRESIDENT:	Robert A. Lowe, MD, Emergency Services, Doctors Hospital, Columbus, Ohio
SECRETARY-TREASURER:	Susan A. Tilgner, MS, RD, LD, RS, Franklin County Health Commissioner, Franklin
	County Board of Health; representing the Franklin County Commissioners,
	Franklin County, Ohio
IMMEDIATE PAST-PRESIDENT:	Kathryn J. Haley, RN, BSN, Trauma Program Manager, Nationwide Children's
	Hospital, Columbus, Ohio
EMERITUS:	Robert E. Falcone, MD, FACS, Consultant; Past-President Grant Medical Center,
	Columbus, Ohio

The following individuals are appointed by their institutions to serve on the COTS Board of Trustees.

Angela Allion, RN, MBA, Manager, Emergency Services, Fairfield Medical Center, Lancaster, Ohio Sally Betz, RN, MSN, CCRN, CEN, Trauma Program Director, The Ohio State University Medical Center, Columbus,

Ohio

Michael Blue, MD, FACS, Chairman, Dept. of Emergency Medicine, Mount Carmel St. Ann's, Westerville, Ohio **David Boehmer**, DO, Medical Director, Emergency Services, Dublin Methodist Hospital, Dublin, Ohio

Jennifer Bogner, PhD, Director of Research, Department of Physical Medicine and Rehabilitation, Dodd Hall Rehabilitation Services, The Ohio State University Medical Center, Columbus, Ohio

Marco Bonta, MD, FACS, Director Trauma Services, Riverside Methodist Hospital, Columbus, Ohio Philip H. Cass, PhD, CEO, Columbus Medical Association, Columbus Medical Association Foundation, Columbus

Medical Association Physician's Free Clinic, & the Central Ohio Trauma System, Columbus, Ohio (Ex-officio) **Robert W. Coles**, Deputy Chief of Special Operations, Columbus Division of Fire, Columbus, Ohio

Deborah Cramer, RN, Emergency Department Manager, Memorial Hospital of Union County, Marysville, Ohio Michael R. Dick, MD, Medical Director, Emergency Medicine, The Ohio State University Hospitals East, Columbus, Ohio

Jan Gorniak, DO, Franklin County Coroner, Franklin County Coroner's Office, Columbus, Ohio

Jonathan I. Groner, MD, FACS, Trauma Medical Director, Nationwide Children's Hospital, Columbus, Ohio; representing the Columbus Medical Association

Lucinda Hill, RN, BSN, Trauma Nurse Coordinator, Southeastern Ohio Regional Medical Center, Cambridge, Ohio

K. William Kumler, MD, Columbus Bone, Joint & Hand Surgeons, Columbus, Ohio; representing the Columbus Medical Association

Medard Lutmerding, MD, FACEP, Department of Emergency Medicine, Mt. Carmel Health System, Columbus, Ohio; representing the Columbus Medical Association

Richard N. Nelson, MD, FACEP, Professor & Vice Chair of the Department of Emergency Medicine, The Ohio State University College of Medicine, Columbus, Ohio; representing the Columbus Medical Association

Robert E. Newland, EMTP, EMS Liaison, Emergency Services, Adena Regional Medical Center, Chillicothe, Ohio Jennifer Piccione, RN, Director of Ambulatory Care Services, Madison County Hospital, London, Ohio

Ty Sanders, RN, Director of Emergency Services, Knox Community Hospital, Mt. Vernon, Ohio

Steven A. Santanello, DO, FACS, Director Trauma Services, Grant Medical Center, Columbus, Ohio

James Sinard, MD, FACS, Director Trauma Services, Mount Carmel West, Columbus, Ohio

Mike Smeltzer, MPH, Director, Planning and Peak Performance, Columbus Public Health Department, Columbus, Ohio

Steven M. Steinberg, MD, FACS, Director Division of Critical Care, Trauma & Burn, The Ohio State University Medical Center, Columbus, Ohio

Kimberly Thompson, RN, BSN, Nurse Manager, Emergency Services, Grady Memorial Hospital, Delaware, Ohio Joseph Tulga, Director of Safety & Security, Marion General Hospital, Marion, Ohio

Porter R. Welch, JD, Fire Chief, EMTP, Scioto Township Fire Department, Commercial Point, Ohio, representing Central Ohio Fire Chiefs Association

Howard Werman, MD, FACEP, Medical Director, MedFlight of Ohio, Columbus, Ohio

Donald Wood, DO, FACEP, Assistant Medical Director, Emergency Services, Marietta Memorial Hospital, Marietta, Ohio

Debora Yarborough, RN, MA, Director of Emergency Services, Berger Health System, Circleville, Ohio **Paul Zeeb**, MD, FACEP, Director of Emergency Medical Services, Mount Carmel East, Columbus, Ohio

REGIONAL COLLABORATION & SUPPORT

COTS exists because of the committed involvement of multiple Central Ohio community partners. Key partners include leadership from local hospitals, EMS agencies, public health departments and other interested

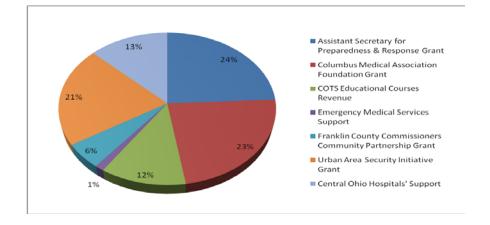
stakeholders. Over 300 community members from the following organizations provided in-kind support through voluntary participation on a COTS committee and/or related initiative in 2009-2010.

Access Health Columbus, Columbus, Ohio ADAMH, Columbus, Ohio Adena Regional Medical Center, Chillicothe, Ohio American Heart Association, Central Ohio Chapter, Columbus, Ohio American Red Cross of Greater Columbus, Columbus, Ohio American Stroke Association, Central Ohio Chapter, Columbus, Ohio Arthritis Foundation, Central Ohio Chapter, Hilliard, Ohio Barix Clinics of Ohio, Groveport, Ohio Berger Health System, Circleville, Ohio Bucyrus Community Hospital, Bucyrus, Ohio Central Ohio Amateur Radio Emergency Services, Columbus, Ohio Central Ohio Hospital Council, Columbus, Ohio Central Ohio Poison Control Center, Columbus, Ohio Clinton Township Fire Department, Columbus, Ohio Columbus Bomb Squad, Division of Fire, Columbus, Ohio Columbus Division of Fire, Columbus, Ohio Columbus Division of Police, Columbus, Ohio Columbus Medical Association, Columbus, Ohio Columbus Medical Association Foundation, Columbus, Ohio Columbus Public Health, Columbus, Ohio Concord Township Fire Department, Delaware, Ohio Coshocton County Memorial Hospital, Coshocton, Ohio Delaware City Fire Department, Delaware, Ohio Delaware County Fire Department, Delaware, Ohio Doctors Hospital, Columbus, Ohio Dublin Methodist Hospital, Dublin, Ohio Fairfield Medical Center, Lancaster, Ohio Fayette County Memorial Hospital, Washington Court House, Ohio Fire Chiefs Association of Central Ohio Franklin County Board of Health, Columbus, Ohio Franklin County Coroner's Office, Columbus, Ohio Franklin County Fire Chiefs Association, Columbus, Ohio Franklin County Emergency Management & Homeland Security Agency, Columbus, Ohio Franklin County Police Chiefs Association, Worthington, Ohio Franklin Township Fire Department Columbus, Ohio Galion Community Hospital, Galion, Ohio Grandview Heights Division of Fire, Grandview Heights, Ohio Genesis Healthcare System, Zanesville, Ohio Genoa Township Fire Department, Galena, Ohio Grady Memorial Hospital, Delaware, Ohio Grant Medical Center, Columbus, Ohio Hamilton Township Fire Department, Columbus, Ohio Hardin Memorial Hospital, Kenton, Ohio Jackson Township Fire Department, Grove City, Ohio Jefferson Township Fire Department, Blacklick, Ohio Jerome Township Fire Department, Plain City, Ohio Knox Community Hospital, Mt. Vernon, Ohio Liberty Township Fire Department, Powell, Ohio Licking Memorial Hospital, Newark, Ohio Madison County Hospital, London, Ohio

Madison Township Fire Department, Groveport, Ohio Marietta Memorial Hospital, Marietta, Ohio Marion General Hospital, Marion, Ohio Mary Rutan Hospital, Bellefontaine, Ohio Medflight of Ohio, Columbus, Ohio Memorial Hospital of Union County, Marysville, Ohio Mifflin Township Division of Fire, Gahanna, Ohio Monroe Township Fire Department, Johnstown, Ohio Morrow County Hospital, Mt. Gilead, Ohio Mount Carmel East, Columbus, Ohio Mount Carmel New Albany Surgical Hospital, New Albany, Ohio Mount Carmel St. Ann's, Westerville, Ohio Mount Carmel West, Columbus, Ohio Nationwide Children's Hospital, Columbus, Ohio Newark Division of Fire, Newark, Ohio Northwest Area Strike Team, Franklin County, Ohio Norwich Township Fire Department, Hilliard, Ohio OhioHealth, Columbus, Ohio Ohio Department of Health, Columbus, Ohio The Ohio State University Medical Center, Columbus, Ohio The Ohio State University Hospital East, Columbus, Ohio Orange Township Fire Department, Delaware, Ohio Pike Community Hospital, Waverly, Ohio Plain Township Fire Department, New Albany, Ohio Prairie Township Fire Department, Columbus, Ohio Riverside Methodist Hospital, Columbus, Ohio Select Specialty Hospital, Columbus, Ohio Scioto Township Fire Department, Commercial Point, Ohio Southeastern Ohio Regional Medical Center, Cambridge, Ohio Twin Valley Behavioral Health, Columbus, Ohio Truro Township Fire Department, Reynoldsburg, Ohio Upper Arlington Division of Fire, Upper Arlington, Ohio Violet Township Fire Department, Pickerington, Ohio Washington Township Fire Department, Dublin, Ohio Westerville Division of Fire, Westerville, Ohio Westerville Division of Police, Westerville, Ohio Whitehall Division of Fire, Whitehall, Ohio Worthington Division of Fire, Worthington, Ohio Wyandot Memorial Hospital, Upper Sandusky, Ohio

FUNDING

Community support for COTS is also demonstrated in its funding base. The following depicts COTS' operational funding base.



The following agencies provided funding to sustain COTS operations in 2009-2010.

Adena Regional Medical Center, Chillicothe, Ohio Berger Health System, Circleville, Ohio Columbus Division of Fire, Columbus, Ohio Columbus Medical Association Foundation, Columbus, Ohio Columbus Public Health Department, Columbus, Ohio Coshocton County Memorial Hospital, Coshocton, Ohio Doctors Hospital, Columbus, Ohio Dublin Methodist Hospital, Dublin, Ohio Fairfield Medical Center, Lancaster, Ohio Franklin County Commissioners Franklin County Homeland Security Advisory Council, Columbus, Ohio Genesis Healthcare System, Zanesville, Ohio Grady Memorial Hospital, Delaware, Ohio Grant Medical Center, Columbus, Ohio Granville Fire Department, Granville, Ohio Hamilton Township Fire Department, Columbus, Ohio Jefferson Township Fire Department, Blacklick, Ohio Jerome Township Fire Department, Plain City, Ohio Knox Community Hospital, Mt. Vernon, Ohio Liberty Township Fire Department, Powell, Ohio Madison County Hospital, London, Ohio Madison Township Fire Department, Groveport, Ohio Marietta Memorial Hospital, Marietta, Ohio Marion General Hospital, Marion, Ohio Memorial Hospital of Union County, Marysville, Ohio Mifflin Township Division of Fire, Gahanna, Ohio Morrow County Hospital, Mt. Gilead, Ohio Mount Carmel East, Columbus, Ohio Mount Carmel New Albany Surgical Hospital, New Albany, Ohio Mount Carmel St. Ann's, Westerville, Ohio Mount Carmel West, Columbus, Ohio Nationwide Children's Hospital, Columbus, Ohio Newark City Fire Department, Newark, Ohio Ohio Department of Health, Bureau of Environmental Health, Columbus, Ohio Ohio Medical Transportation Inc. / Medflight of Ohio, Columbus, Ohio Orange Township Fire Department, Delaware, Ohio

Pike Community Hospital, Waverly, Ohio The Ohio State University Medical Center, Columbus, Ohio The Ohio State University Hospital East, Columbus, Ohio Riverside Methodist Hospital, Columbus, Ohio Southeastern Ohio Regional Medical Center, Cambridge, Ohio Truro Township Division of Fire, Reynoldsburg, Ohio Upper Arlington Division of Fire, Upper Arlington, Ohio Washington Township Fire Department, Dublin, Ohio Westerville Fire Department, Westerville, Ohio

The following individuals also contributed to COTS in 2009.

Angela Allion Nancie M. Bechtel Jennifer Bogner, PhD Abigail Cowan Judy D'Andrea Harold L. Dyer **Carol Elliott** Robert E. Falcone, MD Fire Chiefs Association of Central Ohio Roxanna L. Giambri Jonathan I. Groner, MD Kathryn Haley Lucinda Hill Pat Klimek K. W. Kumler, MD Joseph T. Leach Robert Lowe, MD Medard R. Lutmerding, MD Clifford Mason Richard N. Nelson, MD Steven A. Santanello, DO Christine M. Sheppard James M. Sinard, MD Michael Smeltzer Susan Tilgner United Way of Central Ohio (anonymous) Porter Welch Howard A. Werman, MD Paul Zeeb, MD

Contributions to COTS are tax-deductible. For more information on supporting COTS general operations or contributing to the COTS Endowment Fund, contact (614) 240-7420, extension 120. For a copy of the most recent Annual Audit, contact Nancie Bechtel at (614) 240-7419.

STAFF SUPPORT

The following staff supports COTS work.

Philip H. Cass, PhD, CEO, Columbus Medical Association, Columbus Medical Association Foundation, Physicians Free Clinic, and COTS
Nancie M. Bechtel, RN, BSN, MPH, CEN, EMTB, Executive Director
Kelsey Blackburn, Disaster Preparedness Associate
Marisa A. Gard, BA, Administrative Assistant
Janelle N. Glasgow, RNC, CPEN, Nurse Educator
Judy D'Andrea, MSW, MBA, Chief Operating Officer
Jendy Dunlop, MPH, Critical Incident Response Planner
Roxanna L. Giambri, BS, RHIA, CSTR, Trauma Registry Coordinator
Marie Robinette, RN, BSN, MPH, Regional Health System Emergency Preparedness Coordinator
Christine M. Sheppard, BS, Education Coordinator

SERVICE AREA

COTS cares for the 1.8 million Central Ohioans susceptible to life-threatening conditions such as trauma, heart attack, stroke, and natural and manmade disasters, as well as the ~50,000 medical personnel who tend to these victims. The COTS service area encompasses 30 hospitals, 200+ fire/EMS agencies and 21 public health jurisdictions across 7,061 square-miles.

Franklin County is the most populated area that COTS serves. Some Franklin County hospitals serve as tertiary referral centers for trauma and critical care for 66 of Ohio's 88 counties. In regards to disaster preparedness, Franklin County has the highest disaster vulnerability rating (a 12 out of 12 per FEMA's Threat Risk Assessment) as assessed by the County Emergency Management and Homeland Security Agency. Factors that contribute to this vulnerability relate to (1) government entities; (2) highly technological corporations; (3) Midwest location; (4) numerous large special-events; and (5) increasing immigrant populations.

REGIONAL INFRASTRUCTURE

COTS provides the infrastructure that advances the emergency healthcare response across systems in the Central Ohio community. Much of this infrastructure exists through COTS committees. COTS committees serve as a neutral "place" where stakeholders are convened with the intention of resolving trauma and emergency healthcare service issues, as well as advancing health system disaster preparedness. COTS stakeholders are typically from hospitals, emergency medical services (EMS), public health agencies, and other non-profits. Stakeholders serve as COTS committee chairpersons on a voluntary basis. Respective committee issues are presented, discussed, strategized, and resolved via consensus and parliamentary processes.

COTS maintains nine core committees and multiple subcommittees which include the *Executive, Clinical Trauma, Diversion, Injury Prevention, Prehospital, Registry, Regional Hospital Emergency Preparedness, Stroke,* and *Sudden Cardiac Arrest Committees*. Each committee has a distinct focus with Board-delineated roles and responsibilities aimed at enhancing trauma and/or emergency healthcare services for central Ohioans. COTS committees meet bimonthly, monthly or quarterly depending on the work at hand. COTS provides additional support for its committee initiatives by researching strategies, expert opinions and best practices from other communities.

COTS committee work is patient-focused. The result of COTS' committee work is the establishment of regional protocols, guidelines and/or standards that improve emergency care and disaster response for Central Ohio residents. Stakeholder training on the initiatives is provided as needed. All COTS protocols, guidelines and/or standards are evaluated on a regular basis for effectiveness and the need for revision. A process improvement plan helps determine appropriate follow up with stakeholders as needed.

A list of COTS committees as well as their stakeholder co-chairs, roles and responsibilities are as follows.

Executive/Finance Committee, Clifford Mason, Fire Chief, EMTP, OFE (Madison Township Fire Department), & Robert A. Lowe, MD, FACEP (Doctors Hospital, Columbus), Co-Chairs

- Manages the general business of the COTS Board of Trustees and coordination of COTS committee projects/work
- Oversees COTS' legal activities and legal documents
- Assesses budgetary needs and drafts the Annual Budget; oversees the Budget and accounting
- Assists with grant-seeking and writing
- Establishes public and corporate partnerships to promote the COTS mission and goals in the community; establishes community partnerships to aid in financial support
- Facilitates long-term financial planning
- Coordinates COTS Internal Review Board to allow information sharing from COTS Registry with legitimate researchers and community agencies; oversees COTS Trauma Registry data for publication and research
- Publishes the biennial report on trauma to the community
- Liaisons with State trauma-related groups (State EMS Board, State Trauma Committee, State Registry Advisory Committee, Region V Regional Physicians Advisory Board)
- Oversees other executive-related activities as directed by the COTS Board of Trustees

<u>Clinical Trauma Committee</u>, Sally Betz, RN, MSN, CCRN (The Ohio State University Medical Center), & Steven Santanello, DO, FACS, (Grant Medical Center), Co-Chairs

- Monitors trauma care from a regional perspective as consistent with mandates of Ohio legislation related to trauma victims; assesses regional trauma care trends
- Conducts regional trauma care process improvement initiatives
- Recommends clinical trauma protocols based on data analysis from COTS' Registry
- Coordinates professional continuing medical and nursing education related to trauma care
- Establishes regional baseline standards for Level I and Level II trauma alert criteria
- Assists regional hospitals in complying with the establishment of written protocols and transfer agreements as mandated by Ohio law
- Undertakes other clinically-related activities relevant to trauma care as directed by the COTS Board of Trustees

<u>Diversion Committee</u>, Medard Lutmerding, MD, FACEP (Mount Carmel Health System), & Shawn Koser, Captain, EMTP (Columbus Division of Fire), Co- Chairs

- Provides a forum for hospitals, emergency departments, and emergency medical services to address issues related to regional diversion patterns
- Established, maintains and oversees the Regional Emergency Care Access Plan (RECAP) and Emergency Patient Transport Plan (EPTP)
- Provides oversight for regional performance improvement related to diversion
- Oversees the regional diversion database/real-time emergency department status website
- Engages in other diversion and patient access-related activities as directed by the COTS Board

<u>Injury Prevention Committee</u>, Dara Bakes, EMTP (Riverside Methodist Hospital), & Amy Wermert, MPH (Grant Medical Center), Co-Chairs

- Provides a forum for injury prevention programmers from local trauma centers, hospitals, EMS, public health agencies, other not-for-profit organizations, and/or local officials
- Utilizes the COTS Regional Trauma Registry data to promote or establish injury prevention programming based on regional need
- Advocates for injury prevention programs for local residents
- Establishes resources to assist EMS and hospitals in injury prevention programs

- Assists with community injury prevention programs as able
- Engages in other injury prevention activities as directed by the COTS Board of Trustees

<u>Pre-Hospital Committee</u>, Thomas J. Gavin, MD, FACEP (Dublin Methodist Hospital), & Alan G. Gora, MD, FACEP (Mount Carmel Health System), Co-Chairs

- Provides a forum for resolution of community-wide EMS / hospital issues (other than diversion)
- Assesses pre-hospital trauma care trends and recommends protocol changes based on need
- Coordinates pre-hospital trauma training as requested by the emergency medical services community
- Establishes and evaluates EMS field triage destination protocols of trauma victims
- Establishes regional protocols/guidelines as needed to promote emergency services care; provides oversight and ongoing assessment of existing regional protocols/guidelines
- Assists with community disaster management planning involving hospitals and EMS
- Engages in other prehospital-related activities as directed by the COTS Board of Trustees

<u>Regional Hospital Emergency Preparedness (RHEP) Committee</u>, Medard R. Lutmerding, MD, FACEP (Mount Carmel Health System), & Jodi Keller, RN (Bucyrus Community Hospital), Co-Chairs

- Assists central Ohio hospitals with regional disaster management planning and exercises to maximize local resources in the event of a mass-casualty event
- Liaisons central Ohio hospitals with the city, region, and state in disaster/terrorism preparedness efforts
- Oversees the COTS Hospital Incident Liaison (HIL) role to assist Central Region hospitals, the Central Ohio community, and the State with healthcare response in a large-scale, mass-casualty incident
- Helps hospitals receive preparedness funding and meet deliverables of ASPR, UASI, OSHA, Joint Commission, ODH and OHA
- Oversees other regional disaster preparedness activities as directed by the COTS Board of Trustees

<u>Registry Committee</u>, Renae Kable, RHIT, CSTR, CAISS (Nationwide Children's Hospital), & Peggy Rhoades, CSTR (The Ohio State University Medical Center), Co-Chairs

- Establishes procedures for trauma registry data submission in accordance with State guidelines, regional requirements, and hospitals' needs
- Assesses COTS Registry software needs
- Provides ongoing education for hospital registry-related personnel via a COTS Registry manual and on-site one-on-one Registry data abstraction training
- Monitors data quality, reliability, and validity
- Participates in other registry-related activities as directed by the COTS Board of Trustees

<u>Stroke Committee</u>, Duane Kusler, RN, MBA (Nationwide Children's Hospital), & Jack McCoy, EMTP (Washington Township Fire Department), Co-Chairs

- Provides a forum for discussion of stroke care issues in Central Ohio
- Establishes recommendations for the uniform screening of suspected stroke patients
- Completes and disseminates to EMS an accurate assessment of Central Ohio Hospitals stroke capabilities
- Develops an educational plan for EMS colleagues inclusive of a uniform screening tool and destination guidelines
- Implements and oversees a regional process improvement plan for the emergency care of stroke patients in Central Ohio
- Engages in other activities related to the assessment and care of stroke patients as directed by the COTS Board of Trustees

<u>Sudden Cardiac Arrest Committee</u>, Lyn Nofziger, Lt., EMTP (Upper Arlington Division of Fire), & Michael R. Sayre, MD (The Ohio State University Hospitals), Co-Chairs

- Provides a forum for discussion of sudden cardiac arrest (SCA) care issues in Central Ohio
- Establishes regional recommendations and/or guidelines for the care of SCA patients

- Establishes sample EMS protocols for the care of SCA patients
- Engages in other activities related to SCA care as directed by the COTS Board of Trustees

Several of these COTS Committees have one or more active subcommittee. COTS committee membership is open to any interested members of the central Ohio community. For information about their work and/or to join any COTS Committee, contact (614) 240-7419.

COTS DATABASES

COTS maintains two databases that are unique in the region and which "provide a picture" of the demographics of serious injuries and emergency department activities at peak times. COTS databases include the *Regional Trauma Registry* and the *Emergency Departments' Real-time Activity Status System*.

The Regional Trauma Registry (RTR). The RTR database encompasses trauma data from 23 participating hospitals. COTS coordinates data submission from hospitals and works with data entry personnel to improve data reliability. COTS provides education on the community benefits of participation in the RTR. COTS forwards RTR data to the Ohio Trauma Registry and National Trauma Data Bank to contribute to state and national databases. COTS works with trauma and registry experts to assess the validity of RTR data. COTS maintains data sets for community researchers and injury prevention planners who want RTR data. COTS works with statistical and epidemiological experts to publish a comprehensive community report depicting serious injuries in Central Ohio. COTS shares the report with community partners so that the extent of injury risk can be known and so that prevention programs can be targeted to areas of highest need.



Hospitals from the counties shown below contribute data to the RTR.

Since its inception in 1999, the RTR has collected data on over 93,000 trauma patients. In 2008, the RTR captured **13,189** trauma patients who were cared for at a hospital because of a serious, potentially life-threatening **AND**

TYPICALLY PREVENTABLE injury. Of the 13,000-plus RTR patients from 2008, 396 died in hospitals as a result of their trauma.

Some significant trends **specific to Central Ohio** gleaned from the COTS RTR are:

- "Falls" continue to be the leading cause of trauma-related hospitalization and death overall. In 2008, 5,456 patients were admitted to Central Ohio hospitals as a result of a fall.
- Gunshot wounds are the leading cause of "intentional" trauma deaths among those hospitalized. In 2008, 441 patients were admitted to Central Ohio hospitals as a result of a firearm injury.
- Motor vehicle crashes are another leading mechanism for unintentional trauma fatalities. In 2008, 5,456 patients were admitted to Central Ohio hospitals as a result of a motor vehicle crash.
- Falls & motor vehicle crashes together account for 2/3 (67%) of the non-fatal, trauma-related hospitalizations and over half (56%) of the fatal hospitalizations in Central Ohio in 2008.

Traumatic brain injury (TBI) is a result of a severe head trauma. Patients who sustain a TBI *and survive it* will face multiple long-term medical care challenges not only for themselves, but also for their families and communities.

- Of the 3,337 motor vehicle crash-related hospitalizations in Central Ohio, 1,448 (43%) sustained a crashrelated traumatic brain injury (TBI). Additionally, 27% (1,485) of the 5,456 fall-related hospitalizations incurred a TBI.
- Ongoing costs of caring for patients with TBI in Central Ohio exceed \$1 billion annually. The CDC estimates that over a lifetime, it costs between \$600,000 and \$1,875,000 to care for each survivor of severe TBI.

For a copy of the COTS community injury report, contact COTS at (614) 240-7419.

The Emergency Departments' Real-time Activity Status System (RTASS). The RTASS encompasses data from all Franklin County and two contiguous county hospital emergency departments. Besides functioning as a retrospective database, this system provides a live-time web-based tool for EMS in helping to assess hospital capacities in peak times. Over 60 EMS agencies use this database during scene runs. The system allows hospitals to immediately notify EMS when their emergency departments are overly busy and diverting EMS patients to less busy emergency departments. COTS activities that support the RTASS include maintaining the system and overseeing completeness of RTASS data.

COTS provides benchmarking reports to stakeholders for both the RTR and RTASS, in order to improve patient care. COTS coordinates a committee-supported process (via the Registry and Diversion Committees respectively) that assesses ongoing utilization, relevancy and use of both databases.

REGIONAL COORDINATION

COTS establishes community-based initiatives. As a result of the work of COTS committees and databases, Central Ohio now benefits from:

- Improved communications among hospitals, EMS, public health agencies, and other non-profits
- The establishment of regional protocols and processes that improve system responses for patients experiencing emergency medical and disastrous life events
- Enhanced emergency medical training
- The collection and trending of data to document the extent of serious injuries, emergency department activity, and disaster preparedness in Central Ohio

The **ultimate outcome of COTS work** is a reduction in long-term disability and death of the citizenry, due to enhancements in local injury prevention programs, emergency healthcare response, and disaster preparedness.

Some of COTS' active community initiatives are as follows. The continued success of these initiatives relies on the dedication of the *many* physicians, nurses, EMTs, public health experts, registrars, program coordinators, healthcare administrators and government officials who partner with COTS. None of COTS successes can be claimed by any one person, discipline or group.

Regional Health System Disaster Preparedness Planning, Training & Response. COTS is the regional coordinator for 27 "Central Region" hospitals' collective disaster planning and response. The Central Region comprises 15 Central Ohio counties as delineated by the Ohio Department of Homeland Security (ODHS). Central Region counties with hospitals who participate with COTS in disaster preparedness work are shown below.



The following are some examples of COTS disaster preparedness initiatives. COTS conducts both disaster planning, training, and response activities.

- > COTS Disaster Preparedness PLANNING:
 - **Preparedness Funding to Hospitals:** COTS serves as a pass-through agency for federal preparedness funds to local hospitals and other health care partners. This past year (SFY09), Central Ohio hospitals received over \$375,000 for general emergency preparedness purchases, \$146,000 for personal protective equipment stockpiling, and \$92,000 for antibiotic cache stockpiles directly through COTS from the Department of Homeland Security's Assistant Secretary for Preparedness and Response (ASPR) grant. Central Region hospitals strategically used these dollars to purchase equipment, supplies and training necessary for chemical, biological, radiological, nuclear, explosive and environmental (CBRNEE) disaster response. An additional 1.6 million dollars in ASPR & UASI (Urban Area Security Initiative) funding was spent through COTS' RHEP Committee on regional equipment caches and training for patient care by Central Region hospitals in the event of a disaster.
 - Assessment of Regional Threats and Capabilities: COTS works with Central Region hospitals to assess threats and capabilities. Individually and collectively, the resource assessments drive COTS' strategic planning and preparedness initiatives in the region. Gaps are identified and addressed to meet regional, state and federal target capabilities in order to assure the best care possible for the greatest number of victims in a large-scale disaster.

- Hazard Vulnerability Assessments: COTS coordinates Central Region hospitals' completion of an annual Hazard Vulnerability Assessment (HVA).
- Hospital Capabilities: COTS routinely assesses Central Region hospitals' resources for readycommunications, pharmaceutical prophylaxis and treatment, decontamination, personal protective equipment (PPE), other emergency equipment stockpiles and hospital surge capacity.
- **Enhanced Surge Capacity:** COTS is working with all Central Region hospitals to develop disaster surge plans to accommodate a rapid influx of patients equivalent to 30% or more of the hospital's total licensed beds.
 - Acute Care Facilities: COTS has worked with Central Region hospitals to establish plans inclusive of Acute Care Facilities (ACFs). ACF's are the creation of new patient care areas on hospital campuses to accommodate victim surge in a disaster. All Central Region hospitals have ACF-capability in their surge planning. Central Region Hospitals have Level 1 surge plans written; several are writing Level 2 surge plans; one is writing Level 3 surge plans.
 - Acute Care Center Partnerships: COTS has also partnered with healthcare institutions beyond hospitals. COTS has contracted with and provided funding to two free-standing, non-ASPR-eligible medical centers in the Central Ohio region who agreed to serve as mini acute care centers (ACCs) and admit less-critical patients on a 24/7/365 basis in a disaster. Together these two ACCs provide an additional 100 beds and 10 ORs at normal capacity. ASPR funds through COTS were provided to these partners to purchase PPE and communications equipment for use in a disaster surge.
 - Burn Surge Planning: COTS participated on the Ohio Hospital Association's state burn surge work group, and helped write the State's burn surge plan. COTS also established a regional burn surge plan.
 - Critical Care Capacity Planning: COTS developed standard operating guidelines (SOGs) that provide direction to Central Ohio hospitals on how to request and receive critical care equipment cache assets (ventilators, cardiac monitors, suction units etc). The SOGs also provide information regarding how much of any type of equipment hospitals can expect to receive during region-wide emergencies such as pandemic influenza.
 - Mental Health Surge Planning: COTS worked with ADAMH to establish 100 additional beds for patients with mental health needs in the event of a large-scale disaster. As part of the project, ADAMH established a pharmaceutical stockpile and conducted staff training related to pandemic influenza and large-scale disasters.
- Disaster Medications for Maintaining the Healthcare Workforce:
 - Pharmaceutical Caches: COTS worked with pharmacy leaders to restock Central Region hospitals' pharmacies with sufficient antibiotics to prophylax staff in the event of a largescale biologic disaster. This is necessary to assure the medical work force during such an event. COTS is working to establish regional planning guidelines for hospitals related to the distribution of these pharmaceuticals should they be needed.
 - Pharmaceutical Distribution to Hospital Staff: COTS developed local hospital "point of distribution" plans that provide direction to hospitals when they need to distribute medications and/or vaccinations to staff. The plans were piloted at five Central Ohio hospitals and then distributed for region-wide implementation.
- **Mass Fatalities:** COTS assisted with the development of state-wide hospital mass fatality incident preparedness guidance. The plans were then quickly implemented throughout the Central Ohio hospitals. Additionally, COTS served on the Franklin County Mass Fatality Workgroup which developed mass fatality plans for all of Franklin County.

• Hospital Evacuation:

 COTS assisted with the development of state-wide hospital evacuation preparedness guidance. COTS then assisted all Central Ohio hospitals with the implementation of robust evacuation procedures within their facilities including the mass movement of patients throughout the region.

- COTS purchased two mobile evacuation trailers for Central Ohio. The trailers contain specialized equipment that can be used to evacuate patients from hospitals or other healthcare facilities. The trailers are available for immediate deployment by hospitals, emergency management agencies, and public safety agencies.
- **Non-hospital Healthcare Partner Preparedness:** COTS conducted three healthcare community forums. The forums were attended by several long term care, home health, hospice, public health, and emergency management agencies throughout the regions. The forums identified several preparedness initiatives that need completed to assist with preparing the broader healthcare community.
- Infection-protection Equipment Stockpiles for Healthcare Professionals:
 - For Hospitals: COTS established a stockpile of infection-protection equipment to provide additional supplies for hospitals should a national shortage occur. The stockpile includes thousands of half-faced respirators and filters to provide protection against biological agents.
 - For Physician Private Practices: COTS contracted with the Columbus Medical Association to develop a Medical Practice Personal Protective Equipment Stockpile Program. The Stockpile consists of masks, gowns, gloves, and eye protection that can be used by medical practices that choose to stay open during catastrophic events such as pandemic influenza. The program not only includes supplies, but also a plan for how the supplies would be quickly distributed during a disaster event.
- **Regional Hospital Disaster Alerts and Communications:** COTS established guidelines that provide direction on how hospitals can utilize the various available alerting and communication systems in a disaster.
- **Redundant EMS Communications to Hospitals:** On March 10th, 2009, the 800 mhz EMS radio system failed in Franklin County. This disruption prevented local EMS from providing prehospital reports to hospitals, which has the potential for negatively impacting emergency patient care. As a result of this event, COTS established a workgroup under the direction of the Central Ohio Communications Advisory Committee that developed standard operating procedures (SOPs) for EMS to Hospital communications. The SOPS provide guidance to all hospitals and EMS agencies that use the Columbus Public Safety Communications System during normal and back up operations.
- **Community Partnerships:** COTS represents hospitals and healthcare partners on a number of other community committees including the following.
 - ~ Central Region Medical Response System (RMRS)
 - ~ Columbus Metropolitan Medical Response System (CMMRS)
 - ~ Columbus Public Health's Health Information Team
 - ~ Franklin County Citizen Corps Council
 - ~ Franklin County Communications Committee
 - ~ Franklin County Medical Reserve Corps Steering Committee
 - ~ Franklin County Pediatric Disaster Committee
 - ~ Franklin County Homeland Security Advisory Council (HSAC)
 - ~ Franklin County Terrorist Early Warning Group (TEWG)
 - ~ Northwest Area Strike Team
 - ~ Ohio Department of Mental Health, All Hazards Leadership Team

COTS Disaster Preparedness TRAINING:

- **Subject Matter Training:** In 2009 & 2010, COTS conducted or coordinated various training programs on the following subjects.
 - ~ SurgeNet Bed Tracking (six courses)
 - ~ Regional disaster alerting & communications systems
 - ~ Evacuation trailer caches (train-the-trainer)
 - ~ Strategic National Stockpile (SNS)

- **Drills and Exercises:** COTS coordinates monthly communication drills with hospitals on all shifts and days of the week. COTS participates on community and hospital-run drills and exercises as a community partner. COTS incorporates the Homeland Security Exercise and Evaluation Program (HSEEP) into regional drills and exercises as appropriate.
 - ~ Monthly region-wide hospital bed capacity and communications drills
 - ~ Northwest Area Strike Team HAZMAT Tabletop- March 2009
 - ~ Franklin/Delaware County HAZMAT Exercise- April 2009
 - ~ Central Region SNS Request Functional Exercise- April 2009
 - ~ Pickaway County Full Scale HAZMAT Exercise- May 2009
 - ~ Franklin County/Jewish Federation Tabletop Exercise- June 2009
 - ~ Central Ohio Hospital Evacuation Tabletop/Functional Exercises- June/July 2009
 - ~ Madison/Franklin County Improvised Explosive Device Full Scale- September 2009

COTS Disaster Preparedness RESPONSE:

• Hospital Incident Liaison: COTS functions as the Central Ohio Hospitals' Incident Liaison or HIL. The COTS HIL is on-call around the clock, 365 days a year, to serve as a clearinghouse for information and to assist with allocation of resources to hospitals during a disaster. The COTS HIL role is written into city, county, regional and state emergency response plans. COTS maintains disaster communication systems to notify community partners of the disaster event, and to track victim numbers, resources and personnel.

<u>Regional Patient Care Coordination</u>. COTS coordinates with emergency medical services providers, trauma centers and acute care hospitals to improve care for critically ill and injured patients.

- For Trauma Injuries. COTS has a number of initiatives intended to assist emergency response personnel in caring for trauma patients.
 - Regional trauma care standards for reference by acute care hospitals for emergency stabilization of trauma victims
 - Trauma process performance improvement (PI) guidelines for acute care hospitals seeking to establish a trauma PI program
 - Regional performance improvement of the trauma system
 - Prehospital trauma triage guidelines for adult, geriatric and pediatric victims
 - Prehospital radio report guidelines
 - A performance improvement process in which EMS providers can get patient information back from local emergency departments in order to positively affect future care rendered to the public; this process is HIPAA-compliant
 - An annual multi-disciplinary regional trauma research symposium
 - Participation on a number of state/regional committees including the Ohio Committee on Trauma of the American College of Surgeons, the State Trauma Committee, and the State Trauma Registry Advisory Subcommittee
- **For Heart Attacks.** COTS has specific initiatives in place to assist EMS and hospitals in caring for patients having heart attacks.
 - **ST-Elevation Myocardial Infarction (STEMI):** STEMI is one type of common "heart attack." STEMI can be recognized by EMS through the use of electrocardiograms (EKGs) done at the scene. To help EMS become informed about which local hospitals provide optimal STEMI care on a 24/7/365 basis, COTS published the *White Paper for Central Ohio EMS Agencies on the Prehospital Transport of STEMI Patients to Local Hospitals Based on AHA/ACC STEMI Guidelines.* The intent is to assist EMS in making informed decisions regarding hospital destinations for and with their STEMI patients.
 - **Prehospital 12-lead EKG:** STEMI patients benefit from the prehospital transmission of EKGs by EMS to emergency departments, in that it allows the hospital more time to prepare for the emergency

care that is needed immediately upon the patient's arrival. In order to optimize prehospital EKG transmission in the region, COTS held a forum with EMS, hospitals and vendors to discuss equipment options and interoperability issues. As a result of that forum, the three adult hospital systems in Columbus (Mount Carmel Health System, OhioHealth, and The Ohio State University Health System) procured and gave at no cost EKG transmission equipment to EMS providers who wanted it for STEMI patients. Now all EMS in the region can have the capability to transmit EKGs from the scene to benefit patient care.

- **Therapeutic Hypothermia:** Recent studies have shown that patients who are cooled after being resuscitated from a cardiac arrest fare better than patients who are not cooled. This cooling is done with strict criteria and is termed "therapeutic hypothermia." COTS worked with hospitals and EMS to establish guidelines for EMS who want to begin therapeutic hypothermia in the field in the hope of optimizing patient outcomes.
- For Strokes. COTS rolled out a new initiative in 2009-2010 to assist patients experiencing an acute stroke. The initiative was nearly two- years "in the making" and is four-fold and includes:
 - A stroke assessment tool for emergency medical services providers to expedite patient triage and transfer to a stroke center capable of proving the best care possible
 - Declaration of Central Ohio hospitals' capabilities around acute stroke care so that EMS can make informed destination decisions with and/or for their patients
 - A training module for EMS providers on stroke etiology, assessment, care standards and local capabilities in regards to acute management
 - A process improvement guideline so that EMS and hospitals can work toward improving care given the acute stroke patients
- For Access to Care Barriers. COTS is actively involved in a number of initiatives that address other barriers to emergency care for patients.
 - "Diversion:" At times emergency departments are extremely busy due to higher than normal numbers of very sick people. Sometimes when this happens, emergency departments ask EMS to take patients to the next nearest hospital in the interest of the patient being served more efficiently. This is called "hospital diversion." Hospital diversion is typically not a community issue if just one hospital needs to periodically divert a stable medical patient. Hospital diversion becomes problematic if a hospital attempts to divert a critical or unstable patient, or if multiple hospitals in a community divert simultaneously so that EMS cannot find an emergency department willing to accept their patient. To address problems encountered with diversion in Central Ohio, COTS implemented the *Regional Emergency Care Access Plan (RECAP)* in 2001. RECAP has multiple components and is maintained by COTS.
 - The Diversion Explanation Tool is carried on EMS vehicles and helps EMS explain to stable patients why they are being diverted by a hospital. This tool is available in English, Spanish, French, Russian, and Somali.
 - The Emergency Patient Transport Plan (EPTP) expedites access to emergency care when multiple local hospitals are simultaneously "on diversion." The Columbus Division of Fire Alarm Office oversees activation of the EPTP on a 24/7/365 basis. Patients with critical medical issues are exempt from the EPTP; all critical patients are transported to the closest, most-appropriate hospital regardless of a hospital's diversion status. The COTS database, *RTASS* (as described in a previous section of this report), monitors the number of times and reasons why the EPTP is activated.
 - Road Construction: COTS serves as a clearinghouse between the Ohio Department of Transportation (ODOT) and local EMS providers. COTS forwards daily ODOT road construction reports so that traffic delays and road closures are known, allowing EMS to pre-determine alternate emergency routes as necessary.
 - **Patient Emergency Care:** COTS coordinated with hospitals in the creation of a guide for EMS that shows emergency department capabilities on a 24/7/365 basis, so that EMS can help make informed

decisions about destinations for emergently ill or injured patients. This guide, like many of COTS initiatives, is the first of its kind in Central Ohio.

- Newborn Safe Haven: COTS updated regional Newborn Safe Haven Guidelines to assist EMS and law enforcement officers if they are presented with a relinquished newborn as allowed under Ohio Law (§2151.3515 & §2151.3517).
- **EMS Infectious Exposures:** COTS maintains guidelines that promote consistency among EMS and emergency departments with regards to treatment and follow-up of EMS personnel exposed to infectious body fluids while in the line of duty.
- **Patients with Legally Concealed Firearms:** COTS maintains care guidelines for patients with concealed firearms who require emergency care. The guidelines incorporate the use of locked gun safety boxes that are exchanged between EMS, hospitals and law enforcement personnel. The guidelines seek to minimize accidents that occur by healthcare personnel handling firearms while caring for patients; to protect the rights of citizens; and to maintain "chain of custody" documentation of weapons.
- Improving EMS Care for the Next Patient: The COTS guideline Emergency Medical Services Clinical Information for Prehospital Performance Improvement provides a process for local hospitals and EMS to exchange pertinent details about patient care and outcomes. EMS providers depend upon patient outcome information to validate what was seen "in the field" so that improved decisions in care are made with subsequent patients. These guidelines are HIPAA-compliant.

Trauma Education.

- For Healthcare Professionals. COTS serves as a coordinator/provider of trauma education to medical professionals in the region and State. This training directly impacts the medical care given to seriously ill or injured victims to save lives and reduce long-term disabilities. COTS offered 26 professional trauma courses annually in 2009-2010, including the Advanced Trauma Life Support (ATLS[®]) Course for Physicians; the Basic Disaster Life Support Courses (BDLS[®]) Course; the Emergency Nursing Pediatric Course (ENPC[®]) and the Trauma Nursing Core Curriculum (TNCC[®]) Course. In 2009, these courses educated 740 physicians, nurses and medics to provide 7285 hours of continuing education (CE).
- For the Public. COTS has a number of initiatives in place to help educate the public on trauma and serious injuries.
 - For Non-English Speaking (NES) Persons Toward Disaster Preparedness: COTS worked with HealthInfoTranslations.com and established multiple patient-centered tools to translate disaster information for NES patients (12+ languages). These tools are accessible by free download from www.HealthInfoTranslations.com. Examples of these tools include:
 - Information sheets on anthrax, biological, chemical and nuclear emergencies, bombings, decontamination, pandemic flu, power outages, preventing illness during an emergency, etc.
 - A triage form to assist medical personnel in the rapid assessment of NES patients who surge into hospitals
 - Signage for hospitals and clinics to use in a disaster such as "Disaster Relief," "All patients go here," "Staff Only," "Do Not Enter," "No Parking," etc.
 - *"Burn Smarts:"* Burn Smarts is an educational program offered by COTS for middle-school children who may be at risk for fire play and burn injuries. One-hundred and twelve central Ohio fifth and sixth graders attended a Burn Smarts program in 2009, and over 900 students received the curriculum since its inception in 2003.
 - **Brochures:** COTS has developed the following brochures for the public which are available by request.
 - ~ Injury While Drinking Alcohol is No Accident
 - ~ Autopsies in Injury-Related Deaths
 - ~ Emergency Department Diversion: What Does it Mean?

 Motor Vehicle Traffic Crash and Assault Injuries in Central Ohio---A Public Health Assessment (published jointly with the Columbus Public Health Department)

SUMMARY

COTS fills a need in the Central Ohio community as a convener and planner around issues of emergency healthcare delivery and readiness. COTS provides a knowledge and infrastructure not duplicated elsewhere in the region or state. COTS is the neutral, centralized agency to establish and maintain coordination among hospitals, EMS, public health and other emergency care stakeholders. This infrastructure is patient-centered and generates community initiatives that ameliorate gaps in emergency care and disaster preparedness in the Central Ohio community.