

FEDERAL GRANT CONTRACTS/COOPERATIVE AGREEMENTS

Terrorism Injuries: Information Dissemination and Exchange (TIIDE 2):

Identifying & Disseminating Best Practices by Collaboration of Public Health & the EMS

In 2007, NAEMSP® was awarded a cooperative agreement by the Centers for Disease Control and Prevention (CDC) in the amount of \$70,000 that continues the work of the first TIIDE project. The total project period of the cooperative agreement ran from September 1, 2007 to August 31, 2010. NAEMSP® was awarded \$70,000 in 2008 for work on year two of this cooperative agreement and was also approved for \$70,000 to fund the work for year three. At the end of year three, the timeline was extended to allow grantees until August 31, 2011, to tie up any loose ends from the project. We were allowed to continue spending the remaining funds from year three and were approved for \$35,000 in additional funding to be used to complete the project.

Principal Investigator, Richard Schwartz, MD, along with Co-Principal Investigator Brooke Lerner, PhD and Robert O’Connor, MD, MPH completed this project.

The objectives of the project were to: 1) identify at least two model communities, 2) develop evidence-based, user-friendly products to address model community recommendations, mass triage review findings, and blast lessons learned findings, 3) develop additional products as directed by the CDC, 4) develop a system for disseminating timely and evidence-based information related to injuries resulting from terrorism and mass casualty events, 5) develop, disseminate, and evaluate at least one training course, and 6) develop a minimum dataset for disseminating information on mass casualty incidents for the purpose of evaluation and sharing lessons learned.

The following additional objectives were identified for the final year of the cooperative agreement: To assemble a meeting of stakeholder groups and experts in Tactical Medicine (TEMS), including military representatives to develop a national curriculum for TEMS. The meeting was two and a half days and the intent of the sessions were be to: 1) Review the available literature for each of the previously published TEMS competencies, 2) Develop a National TEMS Curricula by establishing Terminal and Enabling Learning Objectives for the resulting competencies, 3) Generate a TEMS research agenda that identifies areas that require additional research, 4) Establish a National TEMS Committee that will sustain the curriculum, competencies, and research agenda. This committee will review new evidence and make periodic updates. 5) Develop a plan for wide spread dissemination of the curriculum.

The final results of the project are as follows:

Objective 1: In partnership with the other TIIDE partners identify at least two model communities per year by placing a competitive call for model communities. Disseminate information about the identified model communities so that other communities can use their processes as a model.

Progress: We led the workgroup with the other TIIDE Partners that placed a call for model communities and identified seven new model communities. The workgroup developed and held a moderated panel discussion with the identified model communities on leveraging funds and resources among agencies

Results: Seven model communities were identified that had good collaborations between public health and the emergency care community and illustrated novel approaches toward leveraging funds and resources. The selected communities are listed below:

Community	Community Contact
Aurora, CO	Sara Garrington MMRS Program Specialist City of Aurora Office of Emergency Management 15151 E. Alameda Parkway #4100 Aurora, CO 80012 Office: 303/326-8995 • Cell: 720/394-1885 Fax: 303/326-8986 sgarring@auroragov.org

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Community	Community Contact
Danbury, CT	<p>Scott LeRoy, MPH, MS Director of Health Danbury Department of Health, Housing & Welfare 155 Deer Hill Ave. Danbury, CT 06810 Tel: 203/797-4626 • Fax: 203/796-1596 S.LeRoy@ci.danbury.ct.us</p>
Indiana County, PA	<p>Danny Sacco Committee Chair Director of Safety and Security, Indiana Regional Medical Center 835 Hospital Road PO Box 788, Indiana, PA 15701 Tel: 724/357-7154 • Cell: 724/388-3881 Dsacco@indianarmc.org</p>
Southwest Michigan 5th District	<p>William Fales, MD, FACEP Associate Professor and Director of Prehospital Care Michigan State University Kalamazoo Center for Medical Studies</p> <p>Medical Director Kalamazoo County Medical Control Authority and 5th District Regional Healthcare Emergency Preparedness Project 1000 Oakland Drive Kalamazoo, MI 49008 Office: 269/337-6600 • Cell: 269/998-2167 Fax: 269/337-6475</p>
Minneapolis/ St. Paul, MN	<p>Mark A. Lappe Director Safety, Security and Emergency Management Hennepin County Medical Center Mail Code RL 701 Park Ave S Minneapolis, MN 55415 Office: 612/873-3869 • Cell: 612/369-2456 Mark.lappe@hcmed.org</p>
Orlando, FL	<p>Dave Freeman, Manager Orange County Health and Family Services Department Office of the Emergency Medical Services Medical Director 4401 Vineland Road, Suite A-11 Orlando, FL 32811 Office: 407/650-4031 ext. 225 • Fax: 407/318-3288 Pager: 407/244-1416 • Cell: 321/231-9880 Dave.freeman@ocfl.net</p>
Southern New Jersey	<p>Rick Hong, MD, FACEP Cooper University Hospital Head, Division of EMS/Disaster Medicine Department of Emergency Medicine Office: 856/342-2627 • Fax: 856/968-8272 hong-rick@cooperhealth.edu</p>

Publications: None. We have drafted a manuscript describing the findings of the panel, and are in the process of revising and finalizing the manuscript.

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Objective 2: Develop evidence-based, user-friendly products to address model community recommendations, mass casualty triage review findings, and blast lessons learned findings. We will also develop additional products as directed by the CDC. We focused on mass casualty triage and worked to attain better national agreement on a national guideline for mass casualty triage. We proposed holding a meeting of national stakeholder agency representatives and trying to achieve wider consensus on a national mass casualty triage guideline by developing Model Uniform Core Criteria for Mass Casualty Triage.

Progress: We convened a mass casualty workgroup, which was expanded to include representatives from the current TIIDE partners and other key stakeholder organizations including the National Association of State EMS Officials, National Association of Emergency Medical Technicians, and the American Academy of Pediatrics. We held a one-time, face-to-face meeting of these stakeholders and developed a position paper outlining the Model Uniform Core Criteria.

Results: The Model Uniform Core Criteria for Mass Casualty Triage were developed and approved by the workgroup. We obtained endorsements from 14 national organizations and concurrence from one government program.

Endorsement:	American Academy of Pediatrics
	American College of Emergency Physicians
	American College of Surgeons – Committee on Trauma
	American Trauma Society
	Children’s National Medical Center, Child Health Advocacy Institute, Emergency Medical Services for Children National Resource Center
	International Association of Emergency Medical Services Chiefs
	National Association of County and City Health Officials
	National Association of Emergency Medical Technicians
	National Association of EMS Physicians
	National Association of State EMS Officials
	National Disaster Life Support Education Consortium™
	National EMS Management Association
	Society for the Advancement of Violence and Injury Research
Concurrence:	HRSA/MCHB Emergency Medical Services for Children Program

Publications:

1. Model uniform core criteria for mass casualty triage: Endorsed by American Academy of Pediatrics; American College of Emergency Physicians; American College of Surgeons–Committee on Trauma; American Trauma Society; Children’s National Medical Center, Child Health Advocacy Institute, Emergency Medical Services for Children National Resource Center; International Association of Emergency Medical Services Chiefs; National Association of County and City Health Officials; National Association of Emergency Medical Technicians; National Association of EMS Physicians; National Association of State EMS Officials; National Disaster Life Support Education Consortium™; National EMS Management Association; Society for the Advancement of Violence and Injury Research Concurrence by Health Resources and Services Administration/ Maternal and Child Health Bureau Emergency Medical Services for Children Program. *Disaster Med Public Health Prep* Jun 2011;5(2):125-8.
2. Lerner EB, Cone DC, Weinstein ES, Schwartz RB, Coule PL, Cronin M, Wedmore I, Bulger EM, Mulligan DA, Swienton R, Sasser SM, Shah UA, Weireter Jr L, Sanddal TL, Laird J, Markenson D, Romig L, Lord G, Salomone J, O’Connor R, Hunt RC: Mass Casualty Triage: An Evaluation of the Science and Refinement of a National Guideline. *Disaster Med Public Health Prep* 2011; 5(2):129-137.

Related but not supported by this funding

1. Deluhery M, Lerner EB, Pirrallo RG, Schwartz RB: Paramedic Accuracy using SALT Triage after a Brief Initial Training. *Prehospital Emergency Care* 2011; 15(4):526-532.
2. Lerner EB, Schwartz RB, Coule PL, Pirrallo RG: Use of SALT Triage in a Simulated Mass Casualty Incident. *Prehospital Emergency Care* 2010; 14(1):21-25.
3. Lerner EB, Cone DC, Weinstein ES, Schwartz RB, Coule PL, Cronin M, Wedmore I, Bulger EM, Mulligan DA, Swienton R, Sasser SM, Shah UA, Weireter Jr L, Sanddal TL, Laird J, Markenson D, Romig L, Lord G, Salomone J, O’Connor R, Hunt RC: Mass Casualty Triage: An Evaluation of the Science and Refinement of a National Guideline. *Disaster Med Public Health Prep* 2011; 5(2):129-137.

4. SALT mass casualty triage: concept endorsed by the American College of Emergency Physicians, American College of Surgeons Committee on Trauma, American Trauma Society, National Association of EMS Physicians, National Disaster Life Support Education Consortium, and State and Territorial Injury Prevention Directors Association. *Disaster Med Public Health Prep* Dec 2008;2(4):245-246.
5. Kahn CA, Lerner EB, Cone DC: *Triage. Koenig and Schultz's disaster medicine: comprehensive principles and practices*. 2009;12:174-183.
6. Lerner EB, Schwartz RB, McGovern JE, Prehospital Triage For Mass Casualties In Cone DC, O'Conner RE, Fowler R (Eds.): *Emergency Medical Services: Clinical Practice and Systems Oversight*. Vol.4, 2009: National Association of EMS Physicians. pg. 11-5.
7. Schwartz R, Lerner EB: Part 1: Operational Issues: Triage in Mass Casualties (MASCAL). In: *Special Operations Forces Medical Handbook*, 2nd Edition. 2008: U.S Government Printing Office section 1, pg. 4-7.
8. Lerner EB, Schwartz R: Principles of Disaster Triage. In: Reilly M, Markenson (Eds.): *Healthcare Emergency Management: Principles and Practice*. (In Press)
9. Lerner EB, Schwartz RB, Coule PL, Weinstein ES, Cone DC, Hunt RC, Sasser SM, Liu JM, Nudell N, Wedmore IS, Hammond J, Bulger EM, Salomone JP, Sandal TL, Lord GC, O'Conner RE: In Reply: Mass Casualty Triage: Universal Versus Specific. *Disaster Medicine and Public Health Prep* 2009;3(2):71-72.
10. Lerner EB, Schwartz RB, Coule PL, Weinstein ES, Cone DC, Hunt RC, Sasser SM, Liu JM, Nudell NG, Wedmore IS, Hammond J, Bulger EM, Salomone JP, Sanddal TL, Lord GC, Markenson D, and O'Connor RE: Science and Evidence-based Considerations for Fulfilling the SALT Triage Framework—Reply. *Disaster Med Public Health Prep* 2010; 4:12.
11. Byrum S, Lerner EB, Coule PL: SALT Triage Drill. *Disaster Medicine and Public Health* 2009;3:129.
12. Lerner EB, Triage in Incidents with Multiple Victims. *Prehospital Emergency Care (ed. esp.)* 2011; 4(1):79-81.

Objective 3: Develop a system for disseminating timely and evidence-based information related to injuries resulting from terrorism and mass casualty events to the Emergency Care Community.

Progress: As we worked on our main project, further developing SALT triage, we also worked on ways to disseminate information through publication in the literature, web-based information, newsletter announcements to our membership and other means.

Results: All of the CDC announcements and TIIDE Partner announcements that were sent to us were disseminated to our membership. We also published information about SALT Triage in our newsletter.

Publications: No specific publications but information has been shared with NAEMSP®'s membership.

Objective 4: Develop, disseminate, and evaluate at least one training course. We focused on finalizing the SALT triage training materials and circulating them nationally.

Progress: We developed and pilot tested SALT triage training materials in the form of a PowerPoint lecture. These were circulated to the workgroup for comment and finalized.

Results: We have provided these materials to anyone who has requested them including a variety of EMS, fire, and state organizations and we have provided them to the National Disaster Life Support Courses. We also provide lectures whenever requested.

Publications: None specifically. We have provided training to many organizations without using any of the funding from this project. All Milwaukee county EMS providers were trained in SALT and their retention of the information was studied, demonstrating that a 20 minute training session is sufficient. A training DVD of the slides was created and has been distributed throughout the state of Wisconsin. All requests for training materials have been responded to, these requests were not tracked but the slides have been sent across the country. We have also been asked by international partners to present information on SALT, this included a mass casualty triage conference in Spain and a disaster meeting in Korea. Further, SALT has been completely integrated into the National Disaster Life Support program, which is taught around the world.

Objective 5: Develop a minimum dataset for disseminating information on mass casualty incidents for the purpose of evaluation and sharing lessons learned.

Progress: The AMA led this objective and we agreed to partner with them. We provided NAEMSP® members to participate in this workgroup.

Results: None

Publications: None

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Objective 6: To assemble a meeting of stakeholder groups and experts in Tactical Medicine (TEMS) including military representatives to develop a national curriculum for TEMS. The meeting was two and a half days and the intent of the sessions were to: 1) Review the available literature for each of the previously published TEMS competencies, 2) Develop a National TEMS Curricula by establishing Terminal and Enabling Learning Objectives for the resulting competencies, 3) Generate a TEMS research agenda that identifies areas that require additional research, 4) Establish a National TEMS Committee that will sustain the curriculum, competencies, and research agenda. This committee will review new evidence and make periodic updates. 5) Develop a plan for wide spread dissemination of the curriculum.

Progress: A two-day meeting was held in August 2011 with more than 30 participants. A national committee was established to sustain the work that was completed. The competency domains were assessed and terminal and enabling learning objectives were developed for each. Five of the competency domains were confirmed during this meeting with more than 80% agreement for each learning objective by members of the panel. The remaining 12 competency domains had draft learning objectives developed. These were posted on a limited access website and the group has been working to complete the learning objectives, and will hold a second non-CDC funded face-to-face meeting in December 2011.

Results: A committee has been established to complete and sustain the group's work. The group is working to finalize its work and its dissemination plan.

Publication: None at this time.

REPRESENTATIVES AND LIAISONS TO OTHER ORGANIZATIONS

AAP Pediatric Education for Prehospital Professionals (PEPP)
 ACEP Task Force on Alternative Health Care Providers in Emergency Departments
 Advocates for EMS (AEMS) – Founding Member
 Air Medical Physicians Association (AMPA)
 Air & Surface Transport Nurses Association (ASTNA)
 American Academy of Emergency Medicine (AAEM)
 American Academy of Pediatrics (AAP)
 American Ambulance Association (AAA)
 American Board of Emergency Medicine (ABEM)
 American College of Emergency Physicians (ACEP)
 American College of Surgeons (ACS)
 American Heart Association (AHA) Emergency Cardiovascular Care Committee (ECC)
 AMPS Air Medical Transportation Conference
 Association of Air Medical Services (AAMS)
 Brain Trauma Foundation (BTF)
 Basic Trauma Life Support International (BTLSI)
 Centers for Disease Control and Prevention (CDC)
 Center for Medicare and Medicaid Services (CMS)
 ComCARE Alliance
 Commission on Accreditation of Ambulance Services (CAAS)
 Commission on Accreditation of Medical Transport Services (CAMTS)
 Continuing Education Coordination Board for EMS (CECBEMS)

E-911
 Emergency Nurses Association (ENA)
 ENA Task Force on Interfacility Transfer
 Federal Emergency Management Agency (FEMA)
 Federal Interagency Commission on EMS (FICEMS)
 Health Resources and Services Administration (HRSA)
 International Association of Fire Chiefs (IAFC)
 International Association of Fire Fighters (IAFF)
 NAEMT Advanced Medical Life Support Course
 NATA Task Force on C-Spine
 National Academies of Emergency Dispatch (NAED)
 National Association of EMS Educators (NAEMSE)
 National Association of EMTs (NAEMT)
 National Association of State EMS Officials (NASEMSO)
 National Athletic Trainers' Association (NATA)
 National Fire Protection Agency (NFPA)
 National Flight Paramedics Association (NFPA)
 National Heart, Lung, and Blood Institute (NHLBI)
 National Highway Traffic Safety Administration (NHTSA)
 National Institutes of Health (NIH)
 National Registry of EMTs (NREMT)
 NSA Brain Attack Coalition
 Society for Academic Emergency Medicine (SAEM)
 United States Fire Administration (USFA)