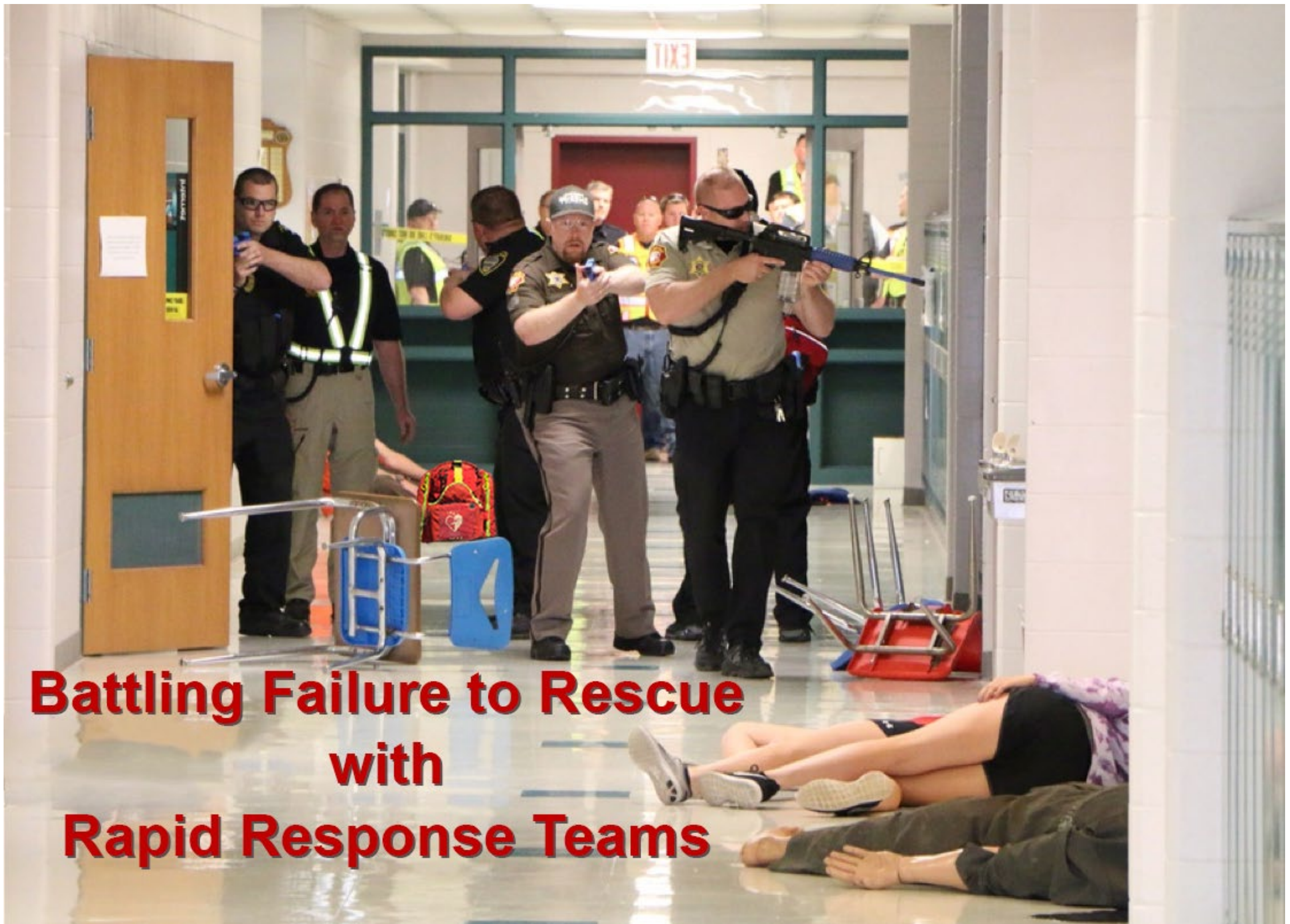


Rapid Response Teams focus on the critical minutes before first responders arrive.
by Dr. Gregory Botz, Dr. Charles R. Denham II, Charles R. Denham III, and William Adcox

IMAGINE THAT YOUR FAMILY member is in a typical hospital bed and is rapidly deteriorating. You notify a caregiver who immediately activates a group that responds within minutes. They immediately act as a well-oiled team and know immediately what to do. They rescue your loved one. In the aftermath you learn that each team member works for different bosses, in different departments, yet they practice bringing their unique skills and knowledge together in those precious minutes when your family member is hanging between life and death. They are a "Rapid Response Team" (RRT). This story repeats itself in hospitals across the country every single day.

If our hospitals are safe, why would rapid response teams be so necessary? Over the last 15 years, hospital leaders have learned that our complex healthcare systems are vulnerable to such "failure to rescue" events at an alarming rate. Well-resourced hospitals and small under-resourced hospitals alike were not immune to this patient safety threat. Recognizing this gap and implementing innovative solutions was necessary to begin saving lives with the Rapid Response Team approach. Many hospitals saw their "failure to rescue" adverse outcomes drop by 80-90%.

The enormous onslaught of visible and invisible threats facing campus safety leaders makes them feel "overwhelmed and unprepared". That is the title of the 2018 article describing the after-action analysis of the active shooter event at the Marjory Stoneman Douglas High School in Parkland, Florida. (http://projects.sun-sentinel.com/2018/sfl-parkland-school-shooting-critical-moments/) When resources are stretched, innovations such as Rapid Response Teams can help us battle the most common causes of preventable

death in those we serve and those who serve.

A David and Goliath Moment

In 2004, Dr. Don Berwick, CEO of the Institute for Healthcare Improvement, undertook a "David and Goliath" mission. He challenged healthcare leaders to save the greatest number of lives ever proposed in a national project. He challenged hospitals to save 100,000 lives in 18 months through six patient safety practices, one of which was Rapid Response Teams. Rapid Response Teams are a cross-functional team that anyone can call to immediately converge on someone in jeopardy. That team is equipped with the training and supplies they need to attempt to rescue that person. In hospitals, this meant anyone could call for the rapid response team for any patient in any bed for immediate response, without going through channels or asking for approval. The interventions of this program ultimately saved more than 122,000 lives as of June 2006. This David beat his Goliath…and you can too.

Why Form a Rapid Response Team?

In the context of schools, universities, faith-based organizations, and companies with large campuses, a Rapid Response Team is a small group that can be mobilized rapidly to provide acute care for anyone in a health emergency. Their speed, proximity to the victim, and practiced skills are the magic. The aim is to prevent "failure to rescue" when every minute counts.

Whether you have an ample, well-equipped fulltime staff of security, medical, and risk management personnel or you have a small church with a couple of staff and a few security and medical volunteers to respond to emergencies; the consideration of forming a rapid response team approach is well worth the effort. The following questions are critically important.

- **Have you learned from 9/11 and the latest active shooter events?**
- **Can you define the current and specific risks to those you serve and those who serve?**
- **Can you get care to any victim within three minutes?**
- **Are AEDs and care supplies positioned within three minutes of victims?**
- **Do players from your various departments regularly practice emergency response together?**

Any organization can benefit from regularly practicing the process of getting the right people and the right supplies to a victim within three minutes. Many of our campuses are a labyrinth of streets, buildings, and sites not easily understood by the professional first responders in the community. We must beat the clock in the face of these time eroding challenges.

3 Minutes and Counting: Lives Saved or Lives Lost

If the goal of rapid response teams is to prevent "failure to rescue", what threats must you address? Over the last three years we have consulted medical specialty organizations, leading subject matter experts, and have continually reviewed the medical literature. We found eight target areas that are frequent, severe, and treatable with bystander care before professional first responders arrive.

In in the December Issue of Campus Safety, we addressed preventing events with our Med Tac Bystander Care Training Program. These events include sudden cardiac arrest treated by CPR and AEDs; severe bleeding treated by direct pressure, tourniquets and wound packing; opioid overdose treated with naloxone; anaphylaxis treated with epinephrine; and choking treated with the Heimlich Maneuver. We also addressed the prevention of non-traffic related drive-over accidents, common accidents, and bullying leading to school and workplace violence, including self-harm.

If most of these events are treated within three minutes with bystander care, survival is increased dramatically compared to starting care when the professional first responders arrive, which is 10 minutes on average. For instance, the survival rate with sudden cardiac arrest drops 10% every minute without CPR and an AED. Victims of severe bleeding can die in three to five minutes. Opioid overdose, choking, and anaphylaxis cause vital organ failure in three minutes from the lack of oxygen.

The events you target at your organization may differ depending on the age, concentration and flow of people, geographic issues, and other security and medical circumstances. As described below, it will be valuable to review the lessons learned from others and consider if you could start a rapid response team.

Lessons Learned and Opportunities

Active shooter, mass casualty, and terrorism events have taught us that when we are under stress, we fall to the level of our recurrent training. In

our study of threat safety science, we have come to understand that simple predictive analytics can help organizations zero in on their specific threats, vulnerabilities, risks, and harm. We have learned that the usual command and control structures inherent to our organizations adapt to usual circumstances, but often fail when stressed by crisis events; even more so when they must interface with professional first responders. One-time education and skills training are not enough. Regular deliberative practice with immersive simulation is critical to successful performance in a crisis. We believe in "competency currency" because there is a finite decay in skills over time. We can combat this with practice.

A retrospective analysis of the 9/11 terrorist attack by Simon and Teperman in the Journal of Critical Care revealed that "the lack of communication probably resulted in more problems than all other factors combined". The authors further stated that plans must be "tailored to specific scenarios and locations, not preconceived generalized plans".

The FEMA 1 October After-Action Report of the October 1, 2017 mass casualty active shooter event in Las Vegas resulting in 58 deaths and 850 injuries revealed: "The importance of coordinated planning across agencies cannot be understated in terms of its impact on this response. When agencies followed pre-established plans and procedures, they improved communication and strengthened the response. Where plans were not integrated or not widely known and understood by responders across all responding agencies, difficulties arose." Key conclusions were that cross agency response, response training tailored to address an incident of mass violence is an especially valuable preparedness investment and coordinated cross-agency planning for such incidents is necessary for successful outcomes.

The recent mosque massacre in New Zealand, attacks on churches and synagogues, and the increase in death threats against church leaders should prompt worship center security teams to act. We are currently working with a number to help them gear up and assemble their Rapid Response Team approach.

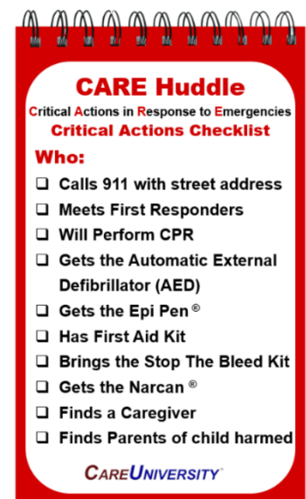
Developing a Rapid Response Team Strategy

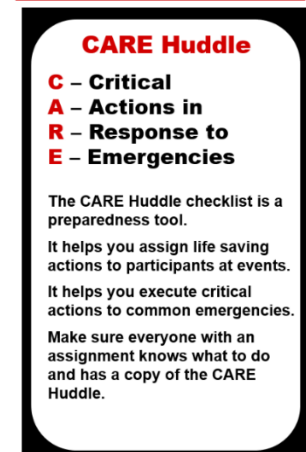
The goal in standing up a rapid response team (RRT) is to get the right people, with the right skills, and with the right equipment/supplies, to the right place at the right time.

The first task is to understand the vulnerabilities in your environment, then match the people, skills and supplies necessary to initially mitigate or manage those vulnerabilities. Starting with the Med Tac events as the foundation, you can tailor your needs effectively. The rapid response system has a detection limb and a response limb. The detection limb includes everyone in your organization. Education and training on the recognition of medical emergencies and activation of the team is essential; even if it's only a sense that something is wrong. The activation of the RRT includes activation of local EMS resources, if appropriate, for definitive care and disposition. The response limb includes the RRT and its equipment/supplies. RRT members should have knowledge and training in the basic life-saving skills necessary to intervene until professional first responders arrive. There should be time allocated for deliberate practice of those skills on a periodic, ongoing basis to assure team readiness. Think of a NASCAR pit crew! The equipment and supplies necessary for your RRT should include that necessary to address your vulnerabilities.

Again, the Med Tac equipment and supplies are a great start; they should cover almost all your medical emergency needs. The best solution is a combination of fixed gear that may be mounted on walls, portable gear that may be placed in the best location for surge events, and mobile gear such as that fitted to golf carts or bikes on large properties.

The CARE Huddle Checklist





Remember to consider training aids, like CPR mannikins, simulated limb wound trainers, and medication trainers (such as Narcan and Epi Pen trainers), to facilitate training.

The Med Tac CARE Huddle tool is especially helpful in performing ongoing or just-in-time risk-vulnerability assessments for special events or surge activities in your organization. Designed as a focused pre-briefing tool, it can be used at the beginning of every shift as a situational awareness multiplier, or before any special event where people cluster for any amount of time. It includes an introduction of key role players in any response to medical issues at the event. It further maps the key responsibilities of those role players should an event occur. And it gives guidance, like a cognitive aid, in how to activate the RRT and local EMS resources, how to locate and mobilize medical equipment and supplies; or even relocate them closer to the event ahead of time. It also serves as a repository of helpful information like location maps, key phone numbers, and medical treatment algorithms.

"Teach Us and Train Us"

The message from our youngest author and our youth leaders, school children, and scout groups is: "Teach us, train us, and we can help support your teams". The stories of rescues assisted by children and youth are rolling in every month.

We have engaged students, boy scouts, and athletic team members to help build Stop the Bleed kits, develop signage, and learn how to help adults in emergencies. Even oceanside communities are becoming involved in "adopt a cove" programs to procure supplies and assemble the public for CPR, AED, and Stop the Bleed training for their favorite beaches.

Your 3 Minute Count: Your Lives Saved...Or Lost

The ultimate measure of safety is to count lives saved...not lost. We challenge you to design your own team to do the same, and we invite you to join our community of practice through free webinars and online briefings OR start your own.

We are honored to be partnering with a K-12 independent school, a mega-church and smaller satellite churches, a remote island Boy Scout Camp, an expansive outdoor education center and regional Boy Scout Council, and with lifeguards in Hawaii and California at specific beaches to put together their 3 Minutes and Counting Strategy.

Whether your group is big or small, in an urban center, part of a beach community, or in a remote location, you can design a winning combination: leadership, training, a rapid response team, and critical fixed, portable, and mobile emergency care resources that are placed so that bystander care may be given to any victim at any time within 3 minutes.

Some say small schools or churches are "overwhelmed and unprepared" and they have to walk before they run. Without dedicated staff, a budget, or people to help they have to wait. We disagree. When David picked up those stones and proceeded down to the Elah Valley to take his shots at Goliath, it was his faith that powered him; not his resources.

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