



Kansas Rural Health Options Project

Trauma Education Needs

Evaluation Summary Report

May 2010

Kansas Trauma System Landscape

With 25 traumatic injuries happening everyday in Kansas, the need for a highly trained trauma workforce is paramount. Unintentional deaths are the 5th leading cause of death overall in Kansas. Almost 50% of unintentional trauma is related to falls followed by motor vehicle crashes.

Because of geographic diversity and population aggregation in Kansas, rural trauma care presents a unique challenge for the health care system. Trauma care includes not only hospital resources but also prevention strategies, from pre-hospital through rehabilitation care. Like hospitals, most ambulance services in Kansas are community-based and operated by cities or counties. As is true with hospitals, ambulance services in Kansas' rural areas tend to be small, limited service providers. One hundred and thirty one (131) of the state's 173 ambulance services operate at the Basic Life Support level¹; these services depend heavily on volunteer staff. Availability of personnel and training resources to ensure access to care for time-sensitive conditions is a constant concern.

Besides basic support, access to definitive sources of care² is also a chronic concern. For example, only half of the state's six trauma regions have designated trauma centers, which are hospitals equipped to provide comprehensive emergency medical services to patients suffering traumatic injuries. In localizing trauma care in Kansas, the state has different areas with unique characteristics; therefore, the system aligns care facilities and EMS agencies into six regions across the state based on existing patient referrals and transfer patterns. The Northwest and Southwest

regions as well as the North Central region lack a trauma center of any level in the state.

Receiving higher-level care at Level I and II trauma centers lowers risk of death by 25%. The statewide trauma system has experienced significant growth and development in recent years based on trauma care resources. A top priority of the Kansas Trauma Program is to work with each region to encourage the development of one Level III trauma center, as well as to develop regulations to establish Level IV trauma center criteria, which serves to stabilize the injured and transfer to a higher level of care. Currently, one hospital in each region is actively pursuing Level III designation, but access to higher level care is still a challenge.

Trauma Training Program Overview

Along with the designation of trauma centers, it is of highest priority within the trauma system for Kansans to receive optimal trauma care; therefore, training is essential for supporting hospitals and EMS staff. The state trauma program recognizes Advanced Trauma Life Support (ATLS) for medicine, the Trauma Nurse Core Course (TNCC) for nursing and Pre-Hospital Trauma Life Support (PHTLS) for EMS personal as the "gold standard" trauma courses. For many years, KRHOP has funded these training courses to assist in defraying costs.

Again, the availability of well-trained personnel to ensure access to care for time-sensitive conditions is critical in rural Kansas. As such, an evaluation of trauma training has been conducted by the Kansas Foundation for Medical Care in



collaboration with the FLEX and trauma programs to assess the reach and value of the training to date. Survey results revealed that there are still large numbers of providers needing training.

Summary of Findings

Three findings stand out from the assessment:

1) A large pool of provider's still need trauma training, 2) training is having a tremendous impact across the state by improving preparedness, and 3) there are significant barriers to attending training.

Overview of Needed Training

- Results demonstrate that in hospitals, 54% (500) of the physicians, PA and ARNPs providing emergency department coverage still need Advanced Trauma Life Support (ATLS) training and 34% (838) of the nurses still need Trauma Nurse Core Course (TNCC) training.
- These percents are even higher for physicians and extenders in the sparsely populated Northwest and Southwest regions of the state, rising to an average of 62% needing training.
- In Emergency Services, 66% or 3,027 EMS personnel still need training in Pre Hospital Trauma Life Support (PHTLS).

Overview of Usefulness of Training

- Other results from the survey prove the value of this training to hospitals with 100% of the respondents agreeing and strongly agreeing that staffs completing ATLS or TNCC are better prepared to care for trauma patients.
- Eighty-five percent (85%) of the EMS service respondents agreed and strongly agreed that the staffs completing PHTLS training are better prepared to care for trauma patients.

Overview of Barriers

Cost, in terms of time and money, is the biggest barrier to attending training.

- Sixty-nine percent (69%) of hospitals reported hosting training /sending staff as the biggest barrier followed by staffing coverage (65%).
- For EMS, cost of sending staff is the biggest concern (57%), followed by staffing coverage (48%) and cost of hosting (38%).
- For future training, greater flexibility for accessing classes is imperative. Of the EMS staff surveyed, (22%) are volunteers while (45%) are both paid and volunteer.

With the EMS staff working other full-time jobs, greater flexibility is needed when scheduling training classes. Examples include offering weekend and evening classes, so volunteers are not missing work to attend daytime courses as well as limiting the distance to travel by offering additional classes closer in proximity to the towns.

Conclusion

The availability of well-trained personnel to ensure access to care for time-sensitive conditions remains an enduring challenge in rural Kansas. This survey confirmed both the value of training for improving preparedness and the difficulty in accessing that training. Survey results will be used to assist in determining the allocation of limited grant dollars, as well as the development of a comprehensive plan to support and enhance the trauma training efforts.

¹ Basic Life Support consists of those who arrive at the scene to provide early critical care such as CPR (i.e., first responders). Advanced Life Support is a higher level of pre-hospital medical training performed by advanced emergency medical technicians / paramedics.

² Definitive sources of care are board certified emergency medical care physicians and nurses waiting to help patients in a hospital.