Case Study Template

As part of the Scope of Work and Compensation in the Extended Faculty Agreement, each organization must provide a case study write-up to accompany their presentation. Case studies will be posted on either or both [www.teamsteppsportal.org](http://www.teamsteppsportal.org) and [www.teamstepps.ahrq.gov](http://www.teamstepps.ahrq.gov). Please fill in the template below and submit it to AHRQTeamSTEPPS@aha.org after the conference and before June 27th. We will be able to process your honorarium after receiving this document.

<table>
<thead>
<tr>
<th>Name of Organization:</th>
<th>St. Luke’s Health System</th>
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</thead>
<tbody>
<tr>
<td>Type of Organization:</td>
<td>Hospital</td>
</tr>
<tr>
<td>Location:</td>
<td>Boise Idaho</td>
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<tr>
<td>Web address:</td>
<td><a href="http://www.stlukesonline.org">www.stlukesonline.org</a></td>
</tr>
<tr>
<td>Description of project:</td>
<td>Utilizing TeamSTEPPS methodology to become a Highly Reliable Organization</td>
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<table>
<thead>
<tr>
<th>Location of Implementation:</th>
<th>Air St. Luke’s</th>
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<tbody>
<tr>
<td>Number of People Trained in TeamSTEPPS:</td>
<td>100</td>
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**The Problem:** Unlike the commercial aviation industry, the Helicopter EMS (HEMS) industry is not highly reliable. The commercial airline industry along with other Highly Reliable Organizations implemented Crew Resource Management (CRM) several decades ago. Detailed analysis of accidents revealed that the majority of accidents were caused by poor communication, hierarchies, and a lack of teamwork. In addition, the health care industry is not considered to be highly reliable and is demonstrating many of the same difficulties and challenges the commercial airline industry experienced prior to CRM training. Healthcare and other high risk industries have many of the same risk factors. Parallels include highly education professionals working in teams in high risk and stressful environments. When errors occur the consequences can be catastrophic. Experts believe that CRM methods can and should translate to the healthcare industry. TeamSTEPPS is based upon CRM methodology and has proven to improve teamwork and communication; ultimately improving patient safety. Experts in team training believe the Helicopter EMS industry that is trained in CRM would also demonstrate high reliability; however, this has not proven to be true. The HEMS industry is far from highly reliable. Over the past several decades over 350 flight crew have lost their lives along with dozens of patients. Flight crews have the second most dangerous job in the U. S. In fact HEMS flight crews have a 37% chance of being killed flying just 20 hours per week over a 20 year career. The HEMS industry required CRM training by their regulatory agencies, however, it seems that CRM training has not translated into improved safety for crew and patients like CRM training did for the commercial airline industry. Apparently, another solution would need to be implemented for the HEMS industry to become highly reliable.

**The Solution/About the Initiative:**

**How:** The director of Air St. Luke’s was committed to improved and sustained safety in the transport program. The director was familiar with TeamSTEPPS and had a theory that TeamSTEPPS could enhance the current CRM training. The director sent six crew members for Master training and hired a consultant to assist with the safety culture assessment and implementation of TeamSTEPPS.
**Why:** Air St. Luke’s discovered many opportunities for improvement after analysis was performed related to their culture of safety. Although it was generally felt to be a ‘safe’ organization, many red flags were evident related to deficiencies in teamwork, communication and evidence of complacency.

**What:** After surveying and interviewing the transport crew, TeamSTEPPS training was implemented. The master trainers along with several other transport staff started the ‘change team.’ Safety surveys revealed complacency related to the morning briefing. The change team discovered that on any day up to 60% of the staff was not engaged in the morning briefing. In addition, some pilots did not attend the briefing. One year after the implementation of TeamSTEPPS the morning briefing responsibility was shared by each base. The responsibility was given to the staff; an updated briefing form developed with input from the crew, was used with great success. Many of the pilots ultimately became great briefing leaders, sharing life saving information and utilizing TeamSTEPPS tools. Several items were added to the morning briefing checklist that most likely prevented accidents, improved teamwork and situational awareness.

The second major project the change team worked on was improving the post transport debrief. Analysis demonstrated only 16% of transports were debriefed. The lack of post transport debriefs caused communication difficulties and created missed opportunities for system enhancement and improved team communication. The change team worked tirelessly to improve the percentage of post transport debriefs. Reminders were added to the morning brief, improvements were reported monthly in the staff meeting and in the director’s weekly update to the crew. Recordings of ‘great’ debriefing were played in staff meetings and recognition was given to staff that excelled in the debriefing process. One year later the post transports debriefings occurred over 90% of the time and communication among the dispatchers and flight crew improved.

All Air St. Luke’s staff was trained in TeamSTEPPS. In addition, all new hires were required to attend a two day class. The change team presented TeamSTEPPS tools at the annual safety day. The entire crew was surveyed using the TeamSTEPPS team assessment surveys and results were reported during our safety day.

Every staff meeting started with safety, as we felt that safety should always come first. TeamSTEPPS slowly replaced CRM as our team training and communication methodology. The culture of safety slowly changed and the crew began to trust the new culture. This became evident as the number of ‘near misses’ reported increased. Staff that reported a near miss was given a hand written thank you note, movie tickets and recognition in our monthly staff meeting.

The transport crew also utilized the ‘Stop the Line’ tool on several occasions. The team had confidence that if they ‘stopped the line’ and reported safety concerns, they would be listened to by leadership, and their peers. As the culture continued to support physiological safety the crew felt safe to report safety issues without fear, and with the knowledge that leadership would follow up on all concerns reported.

**When:** Air St. Luke’s started to implement TeamSTEPPS training in the fall of 2010. It took several years to accomplish staff training and the completion of our major initiatives. TeamSTEPPS methodology, leadership and the change team were instrumental in changing the safety culture at Air St. Luke’s. The journey to high reliability is continuous. Highly Reliable Organization understands that they will never achieve perfection, are acutely aware of the high stakes of their business and are constantly searching for hidden risks. Complacency is never tolerated in HROs and short cuts should not be taken.

The Air St. Luke’s team knows that becoming a HRO is a journey and the road to high reliability is fraught with challenges. TeamSTEPPS may be the missing link the HEMS industry needs to supplement CRM on its journey to high reliability.
Required Resources:
- Resource 1 - Travel and associated costs for six crew members to become Master Trainers.
- Resource 2 – Team Training consultant for one year. (This is optional)
- Resource 3 – TeamSTEPPS training for all crew. Existing crew 70, eight hours of pay for training. All new hires (30) attended a two day training session. In addition, pay for the change team to educate on TeamSTEPPS methodology. Four to six trainers at each class.
- Resource 4 – Eight change team members pay for two hours per month for monthly meeting.
- Resource 5 – All training material is online at the AHRQ is free. There are also online Master Trainer classes that are free so you have opportunities to eliminate travel associated expenses.

The Results:

Table 1. Debriefs Completed

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of Transports</th>
<th>Number of Completed Debriefs</th>
<th>Percentage of Completed Debriefs</th>
<th>Percent Improvement over one year</th>
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<tbody>
<tr>
<td>Jan 2013</td>
<td>237</td>
<td>39</td>
<td>16.4</td>
<td></td>
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<tr>
<td>Jan 2014</td>
<td>328</td>
<td>305</td>
<td>92.9</td>
<td>76.5</td>
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Table 2. Qualitative Survey Responses Post TeamSTEPPS Training

1. We are improving ways to prevent errors. Hard to prevent when not reported.
2. In the PAIP debriefs, there is discussion about how errors can be avoided. We also discuss those things that we can do to reduce errors in the future.
3. I believe ASL is concerned with safety but we still have work to do.
4. Overall we have a strong safety culture & I know I am free to speak up or stop the line if needed.
5. We are not totally there yet. But seeing this effort daily is awesome
6. It is hard not letting complacency creep in.
7. There is always room for improvement regarding the hand off of information.

Advice for Colleagues: Take it one step at a time and assume that changing a culture of safety will occur slowly. Make sure you have leadership represented at all change team meetings. Never give up!

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