

How can medical centers transform their patient safety culture?

July 15 2016

Table 2. The Average Percent Positive Responses to the AHRQ Hospital Patient Safety Survey Pre and Post Implementation of Crew Resource Management.

		All Respondents (Practitioners and Staff)	Practitioners ^a	Staff	Cardiovascular Medicine (CATH, EP, IPR)	Emergency Department	Endoscopy	Interventional Radiology	Nuclear Medicine	Radiation Oncology	NICU, Women & Infants
Teamwork Within Units	Pre CRM	72%	78%	70%	69%	71%	73%	59%	85%	84%	74%
	Post CRM	78%	81%	77%	80%	80%	85%	57%	82%	76%	81%
	% Change ^b	6.0%	3%	7.0%	11.0%	9.0%	12.0%	-2.0%	-3.0%	-8.0%	7.0%
Supervisor Promotes Patient Safety	Pre CRM	63%	69%	61%	61%	56%	76%	75%	72%	77%	57%
	Post CRM	64%	72%	62%	58%	64%	77%	55%	75%	73%	61%
	% Change	1%	3%	1%	-3%	8%	1%	-20%	3%	-4%	4%
Organizational Learning— Continuous Improvement	Pre CRM	57%	64%	54%	58%	49%	70%	58%	53%	71%	54%
	Post CRM	66%	72%	64%	70%	56%	77%	62%	75%	72%	65%
	% Change	9%	8%	10%	12%	7%	7%	4%	22%	1%	11%
Management Support for Patient Safety	Pre CRM	53%	59%	51%	58%	43%	68%	60%	48%	71%	48%
	Post CRM	56%	65%	53%	61%	46%	71%	58%	55%	63%	53%
	% Change	3%	6%	2%	3%	3%	3%	-2%	7%	-8%	5%
Overall Perceptions of Patient Safety	Pre CRM	48%	58%	45%	50%	38%	65%	49%	60%	66%	45%
	Post CRM	56%	67%	52%	64%	46%	74%	53%	72%	59%	50%
	% Change	8%	9%	7%	14%	8%	9%	4%	12%	-7%	5%
Feedback & Communication About Errors	Pre CRM	45%	50%	44%	49%	39%	55%	47%	68%	54%	39%
	Post CRM	51%	55%	50%	52%	46%	65%	43%	75%	60%	45%
	% Change	6%	5%	6%	3%	7%	10%	-4%	7%	6%	6%
Communication Openness	Pre CRM	49%	57%	47%	57%	45%	69%	45%	50%	60%	40%
	Post CRM	57%	64%	55%	62%	55%	80%	55%	69%	56%	52%
	% Change	8%	7%	8%	5%	10%	11%	10%	19%	-4%	12%
Frequency of Events Reported	Pre CRM	46%	41%	47%	41%	41%	50%	47%	66%	60%	43%
	Post CRM	55%	54%	55%	49%	43%	70%	52%	68%	82%	45%
	% Change	9%	13%	8%	8%	2%	20%	5%	2%	22%	2%
Teamwork Across units	Pre CRM	40%	44%	38%	42%	27%	60%	35%	44%	59%	40%
	Post CRM	44%	53%	41%	50%	35%	61%	32%	57%	55%	38%
	% Change	4%	9%	3%	8%	8%	1%	-5%	13%	-4%	-2%
Staffing	Pre CRM	42%	48%	40%	45%	36%	61%	47%	33%	37%	42%
	Post CRM	43%	45%	43%	53%	34%	51%	48%	54%	39%	42%
	% Change	1%	-3%	3%	8%	-2%	-10%	1%	21%	2%	0%
Handoffs & Transitions	Pre CRM	35%	36%	35%	35%	30%	49%	25%	25%	37%	40%
	Post CRM	42%	41%	43%	45%	40%	49%	25%	30%	39%	51%
	% Change	7%	5%	8%	10%	10%	0%	0%	5%	2%	11%
Nonpunitive Response to Errors	Pre CRM	28%	32%	27%	43%	20%	49%	26%	3%	47%	20%
	Post CRM	35%	44%	32%	46%	29%	59%	20%	14%	47%	23%
	% Change	7%	12%	5%	3%	9%	10%	6%	11%	0%	3%

Abbreviations: AHRQ, Agency for Healthcare Research and Quality; CATH, catheterization; CRM, crew resource management; EP, electrophysiology; IPR, interventional procedural recovery; NICU, neonatal intensive care unit.

^aPractitioners include physicians and advanced practice registered nurses.

^bBold denotes a significant difference between pre and post scores at $P < .05$.

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Though healthcare is not without risks or error, hospital employees can support a culture of patient safety by identifying, reporting, and learning from medical mistakes that have or could have harmed patients. In a new study, a training program focusing on team communication, leadership, and decision-making practices, known as Crew Resource Management (CRM), was found to improve perceptions of the safety culture by 8% over the course of two years. This study, the largest of its kind, is out today in the *American Journal of Medical Quality*.

"Safety culture was significantly improved after CRM [training](#), with the strongest effects in [employees' perception](#) of teamwork and communication," commented researchers Hefner et al. "This study was the first health-system wide CRM implementation reported in the literature; the findings show that large-scale cultural transformation is possible, even in large, multi-hospital academic medical centers."

CRM is an approach to training teams to function effectively under demanding or unpredictable situations. The program consists of safety tools, such as checklists, standard protocols, and communication scripts, which help teams establish and follow routine procedures when responding to situations. CRM also addresses conflict management, cross-checking colleagues' actions, and articulating concerns to others.

In the study, the CRM training took place across an academic medical center's eight departments, which spanned three hospitals and two campuses. Staff and health practitioners took a survey measuring their perceptions of workplace [patient safety](#) culture before the training and again two years later. Comparing 784 survey responses from 2011 to 667 responses from 2013 after the employees received training and had two years to apply its principles, the employees reported:

- A 9% increase in organizational learning/continuous improvement
- A 9% increase in frequency of mistakes reported, enabling employees to address potential safety issues
- An 8% increase in communication openness
- A 6% increase in teamwork within departments
- A 4% increase in teamwork across departments

For successful large-scale cultural transformations, the researchers wrote that leadership engagement and endorsement must be continuous. They also recommend putting into place a system, such as a hospital-wide steering committee, to monitor the adoption and use of CRM safety tools. This system should also monitor the occurrence of avoidable [medical mistakes](#) both in specific departments and the center overall, and to communicate any potential improvements to employees so they can provide the best care possible for all patients.

More information: "Cultural Transformation After Implementation of Crew Resource Management: Is It Really Possible?", by Hefner et al, *American Journal of Medical Quality*.

Provided by SAGE

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