



# Prehospital TeamSTEPPS® education & a measure of paramedics' change in attitude

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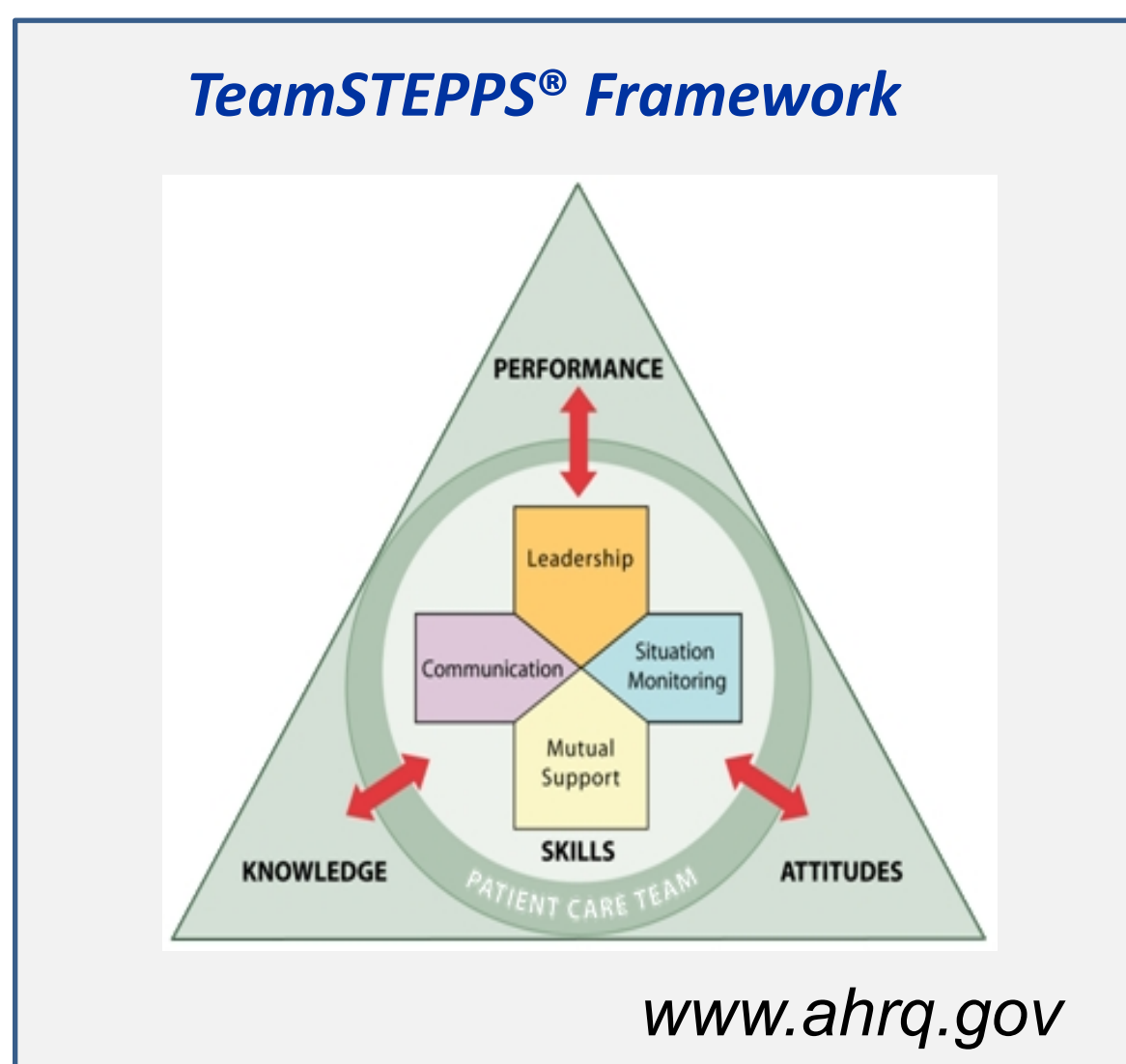


## Background

- Educational needs assessments have revealed the need for prehospital training in teamwork and communication
- TeamSTEPPS® - Team Strategies and Tools to Enhance Performance and Patient Safety
- TeamSTEPPS®, comprised of 5 core components, is an evidence-based teamwork system aimed at optimizing patient care by improving communication and teamwork skills
- To sustain a culture change, TeamSTEPPS® recommends coaching, monitoring and continuous improvement
- Our organization is part of a 2-tier system, with
  - ✓ Limited influence coaching in the field
  - ✓ Maximum influence coaching in class, simulation and role play, and when errors and near misses are reported

## Objective

- How does TeamSTEPPS® education impact paramedics' attitudes towards the 5 core components of teamwork, directly following training and 6 months post training?



## Methods

- The TeamSTEPPS® curriculum was delivered during the Spring 2015 CME over 1 day to all Eastern Ontario paramedics, from 9 services
- Measurement tool used was the TeamSTEPPS® Teamwork Attitudes Questionnaire (T-TAQ)
- T-TAQ is a validated 30 item survey measuring 5 core components of teamwork
- Paramedics level of agreement with each item was presented for rating on 5-point Likert scale (1-5, strongly agree – strongly disagree)
- The questionnaires were distributed to 1174 paramedics pre and post the Spring CME day and again 6 months later at the start of the Fall CME day
- Descriptive and nonparametric statistics were performed

Teamwork Component	+ve Change in Attitude same day Post Spring Training (%)	Attitude 6 mths Post Training		
		Sustained +ve Change in Attitude (%) (no change)	Further Improved +ve Attitude (%)	Unsustained +ve Change in Attitude (%)
Team Structure	69.8	16.3	27.6	56.1
Leadership	51.1	27.0	25.8	47.2
Situation Monitoring	55.2	23.2	25.6	51.2
Mutual Support	50.5	12.8	22.2	65.0
Communication	57.9	12.3	22.0	65.7

Items with the Most 😊 & Least 😞 Sustained +ve Change in Attitude 6 mths Post Training	Component
It is important for leaders to share information with team members (82%)	Leadership
Effective leaders view honest mistakes as meaningful learning opportunities (81%)	Leadership
It is a leaders' responsibility to model appropriate team behaviour (80%)	Leadership
It is nearly impossible to train individuals how to be better communicators (50%)	Communication
Personal conflicts between team members do not affect patient safety (52%)	Mutual Support
Providing assistance from a team member is a sign that an individual does not know how to do his/her job effectively (55%)	Mutual Support

## Results

- 98% response rate, 30% ACPs, 70% PCPs

### Directly following TeamSTEPPS® training:

- ✓ Greatest changes seen in the *Team Structure* component
- ✓ There was a greater change in ACP attitudes in the *Communication* and *Mutual Support* components (p<0.05)

### 6 Mths Post TeamSTEPPS® training:

- ✓ A higher proportion of PCPs (56% vs 46%) had sustained the +ve change in *Situation Monitoring* attitude (p=0.004)
- ✓ No difference, across the services, in the proportion of paramedics that sustained the +ve change in attitude, with the exception of the *Team Structure* component (range 35% - 60%, p<0.05)

## Conclusion

- Paramedics demonstrated a +ve change in attitude towards teamwork and communication following TeamSTEPPS® education although, many did not sustain this change 6 mths post training
- The greatest sustained/+ve change in attitude post training was seen in *Leadership* skills
- The lowest sustained/+ve change in attitude post training seen in *Communication* and *Mutual Support* skills

**Acknowledgments** Thank you to all paramedics for their cooperation in completing the questionnaires

## Next Steps

- Target components with lowest sustained +ve changes in attitude & reinforce others
- Develop a coaching plan with stakeholders, improving ability for knowledge translation and potentially sustaining changes in attitude
- Integrate coaching to existing quality improvement initiatives
- Maximize inclusion of TeamSTEPPS® concepts across existing quality improvement activities
- Identify and assess for +ve change in behaviour