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## Introduction

Performing a needs assessment is essential to ensure that educational interventions and materials created will address areas of deficit in the learners knowledge/skills. The goal of this Ministry-funded project was to determine the educational needs of health care professionals from community hospitals in the context of Ontario's Critical Care Strategy.

## Method

A mixed-methods design was employed, combining both qualitative and quantitative data collection techniques. Numerous sources were triangulated, including a comprehensive literature review, expert consultation, questionnaires, multidisciplinary and discipline specific focus groups. Interviews were held with Critical Care Strategy (CCS) and Local Health Integrated Networks (LHIN) leaders. Selective sampling was used to ensure greater validity and allow for a smaller sample. Qualitative data was audio recorded and coded. Quantitative data was analyzed using descriptive statistics (frequencies, cross tabulations and gap analysis).

Table 1: Participants and Data Collection Methods

Participant	Purpose	Data Collection Method	Sampling
Community Healthcare Professionals Community Hospitals	Explore educational needs and determine the preferred modes of education as well as the role that community healthcare professionals wish to play in a system-level training program in Ontario. Evaluate the impact of different hospital characteristics, resources, and personnel on educational needs.	Multidisciplinary Discussion Groups (3.5 hours)	n=4 discussion groups (n=21)
Discipline Specific Groups (Nurses, Physicians, Respiratory Therapists)	Ensure that each discipline has the opportunity to openly discuss educational needs with the support of their colleagues.	Discipline Specific Discussion Groups (3.5 hours)	n=3 discussion groups (n=21)
Leaders within the Critical Care Strategy	Obtain a clear view of the entire system with its educational needs from the leadership perspective.	Telephone Interviews (1 hour)	n=8 interviews
Local Health-Integrated Network (LHIN) Leaders	Gain insight into the educational needs specific to the individual LHIN.	Telephone Interviews (1 hour)	n=10 interviews

## Results

A high proportion of LHIN (10/13) and CCS leaders (6/7) were sampled. Physicians, nurses, respiratory therapists and pharmacists were represented in 7 focus groups. The ABCs of critical care figured prominently in educational needs, as did sepsis, pediatric emergencies, codes, trauma, medications and technical skills. The common denominator expressed by professionals was the infrequency of these events, resulting in lack of exposure, experience, and training through which they could become confident. There was no statistically significant difference between educational needs identified between physicians, nurses and respiratory therapists

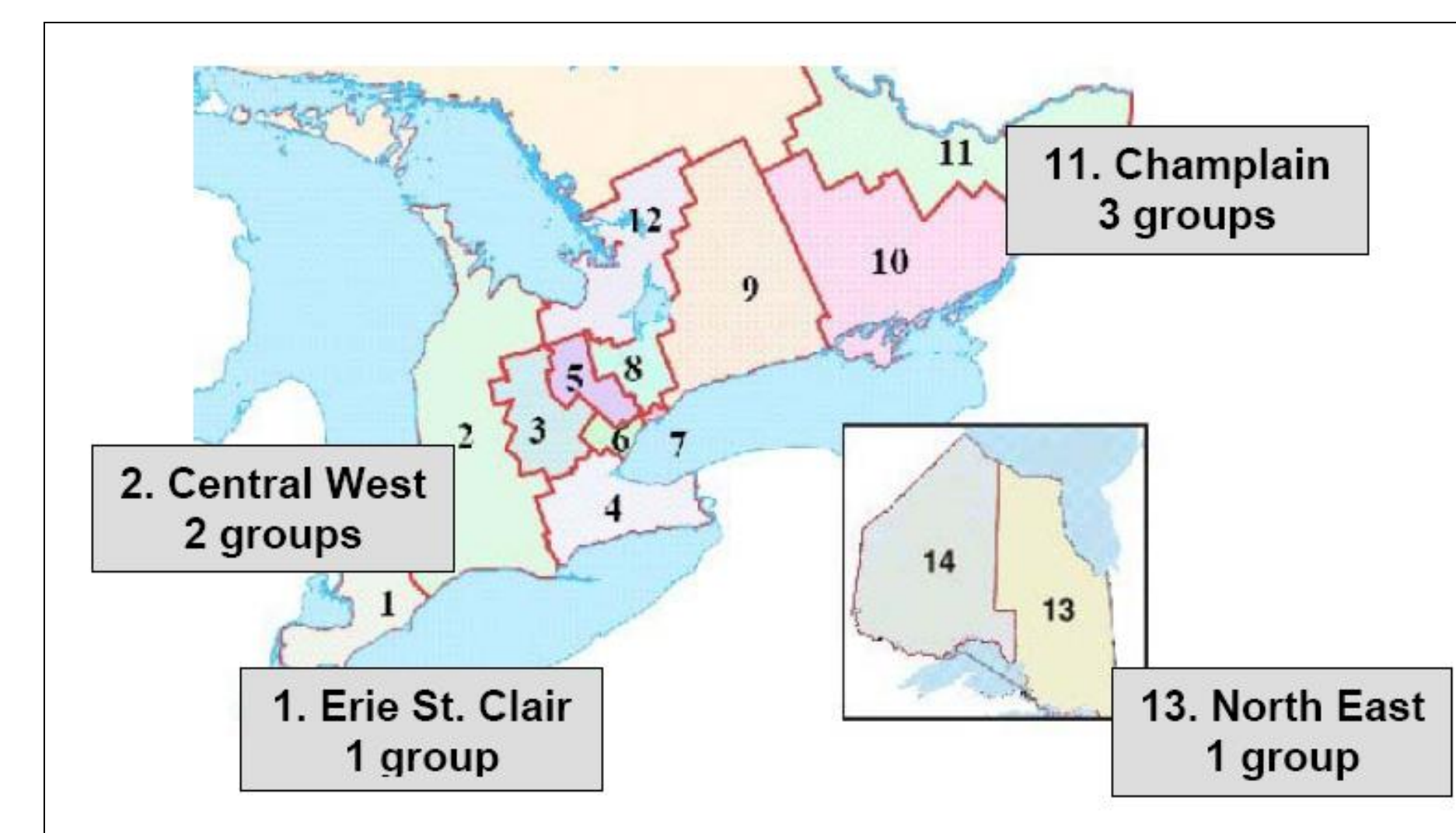


Figure 1: Representation of Community Healthcare Provider

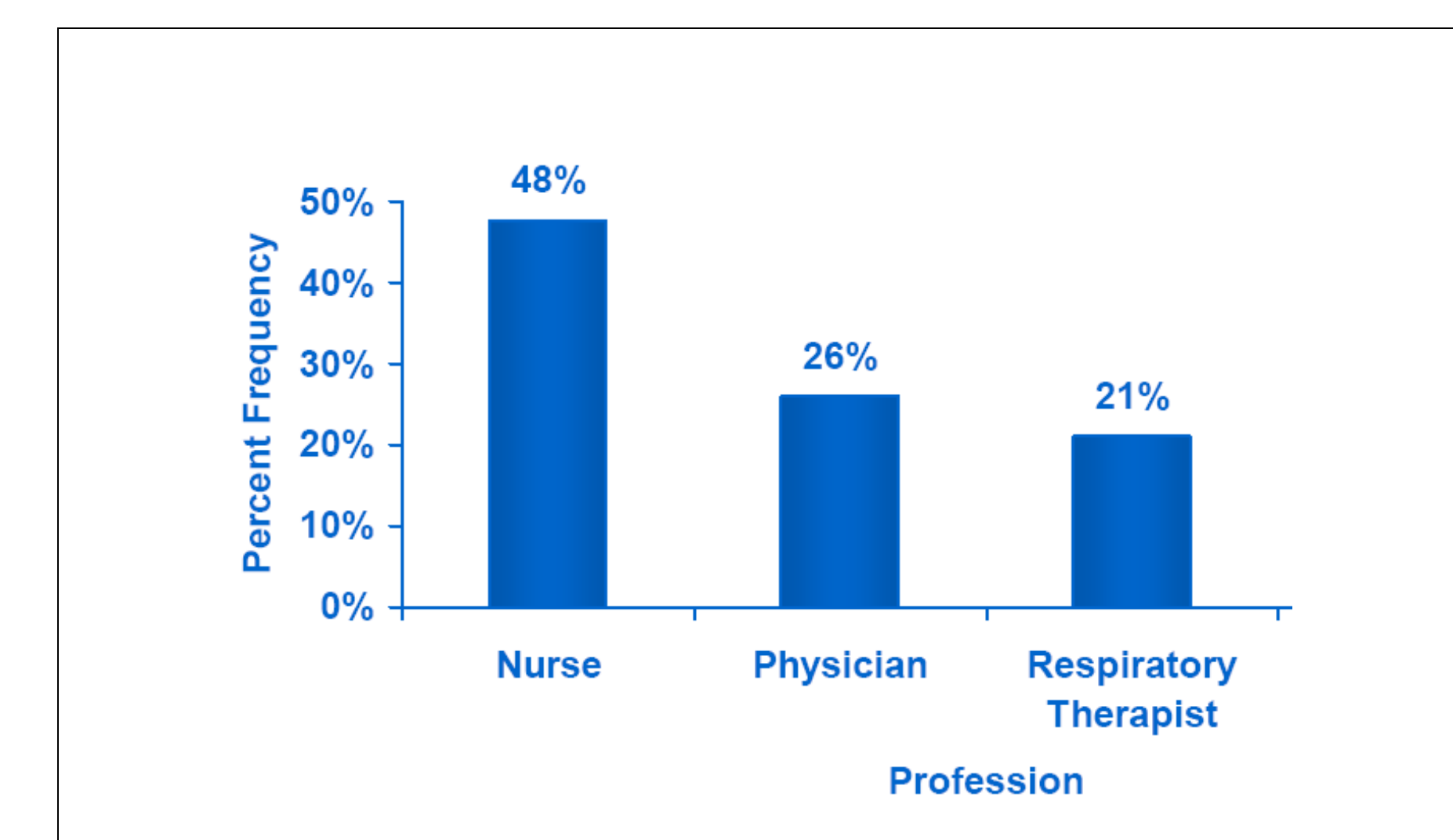


Figure 2: Healthcare Professions (n=42)

## Results

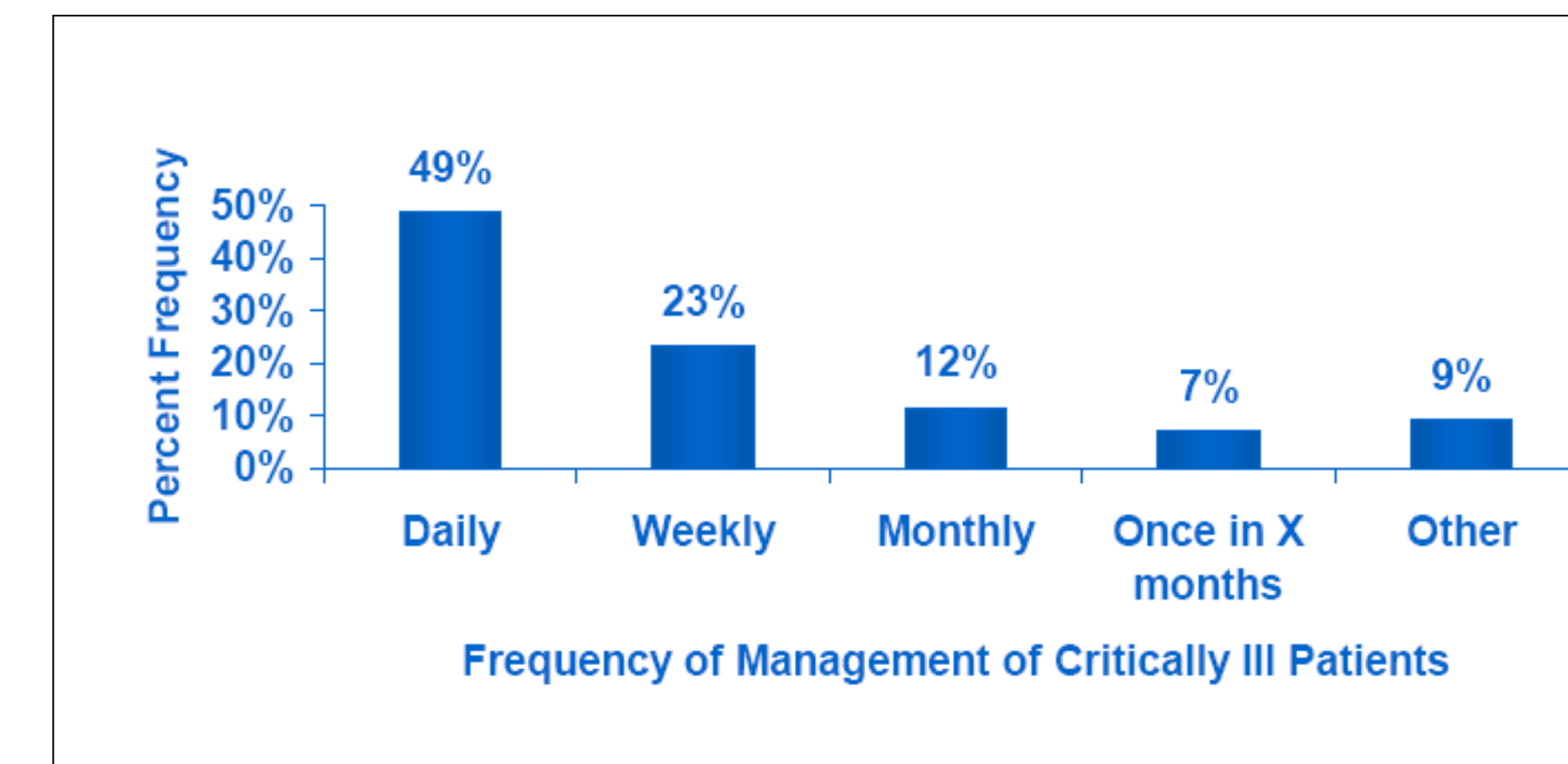


Figure 3: Frequency of Managing Critically Ill Patients (n=42)

Table II: Perceived Educational Needs Broken Down by to Healthcare Profession: Questionnaire (n=42)

Perceived Educational Need	Profession				Total (Percent)
	Physician (Percent)	Nurse (Percent)	Respiratory Therapist (Percent)	Pharmacist (Percent)	
Review / Best Practice	14%	16%	21%	0%	16%
Airway / Breathing	10%	9%	29%	0%	13%
Sepsis	14%	6%	4%	20%	8%
Circulation	10%	9%	0%	0%	7%
Pediatric Emergencies	10%	7%	4%	0%	7%
Codes, ACLS	5%	9%	0%	0%	6%
Trauma	10%	6%	4%	0%	6%
Medications	5%	7%	0%	0%	5%
Technical Skills	10%	4%	4%	0%	5%
Assessment	0%	7%	0%	0%	4%
Transfer / Transport	0%	3%	13%	0%	4%
Shock	0%	3%	0%	40%	3%
Complex Cases	5%	3%	0%	0%	3%
End of Life	0%	3%	4%	0%	3%
Inter-disciplinary Roles	0%	1%	8%	0%	3%
Other	10%	7%	8%	40%	10%

Including Pharmacists, Chi-Square<sub>1</sub> = 7.677, p<0.053  
Excluding Pharmacists, Chi-Square<sub>2</sub> = 1.128, p<0.569

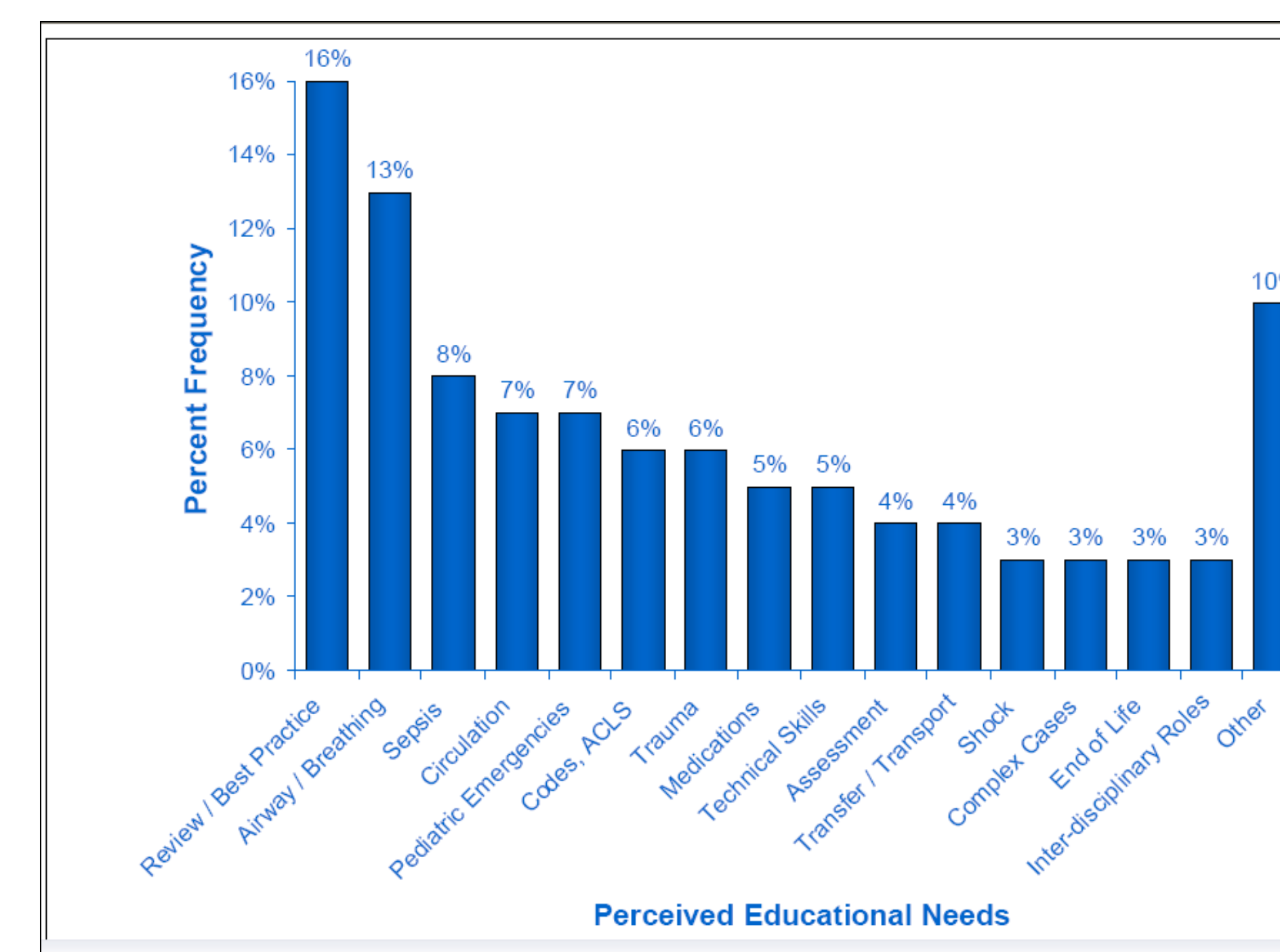


Figure 4: Perceived Education Needs: Questionnaire (n=42)

This study was part of broader educational needs assessment. In addition to knowledge and skills, the assessment examined attitudes, clinical practice, and the context of healthcare delivery with respect to educational needs of community health care providers caring for critically ill patients in the province of Ontario. The outcome is summarized below, in the form of 'gaps,' identified through discrepancy analysis. These learning needs will inform the development of subsequent educational initiatives by CRI.

- Gap 1: Knowledge and Skills
- Gap 2: Access to Educational Programs
- Gap 3: Communication of Educational Initiatives
- Gap 4: Inter-hospital Communication and Attitude
- Gap 5: Transfers
- Gap 6: Healthcare Team Functioning, Roles and Responsibilities
- Gap 7: Inter-disciplinary Education

## Conclusion

We conducted a multidisciplinary needs assessment to identify perceived and non-perceived educational needs of health care providers working in community hospitals. No differences in needs were identified between the major disciplines.

## For Further Information

Please contact [info@cri-icr.org](mailto:info@cri-icr.org). More information on this and related projects can be obtained from CRI critical care education network at [www.cri-icr.org](http://www.cri-icr.org).

## Acknowledgements

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