CCSO Critical Care Services Ontario

Ontario's Paediatric Critical Care Scorecard Guide

Scorecard Guide – July 2025 Version 2.0

Version Control

Ontario's Paediatrics Critical Care Scorecard Guide	
Version 2.0	
For more information contact	Critical Care Services Ontario (CCSO) Email: ccsodataanalytics@ccso.ca

Information for Hospital and System Stakeholders (Publicly Available)

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About Critical Care Services Ontario

Established in 2005, Critical Care Services Ontario (CCSO) led the implementation of Ontario's first Critical Care Strategy and now centrally coordinates and develops integrated system solutions for critical care (Adult, Paediatric and Neonatal) and specialty programs aligned with critical care (Neurosurgery, Trauma and Burns, and the Life or Limb Policy). CCSO's work is the result of an ongoing collaboration between critical care providers, hospital administrators, partners from the Ministry of Health, Ontario Health, and other health system leaders.

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Please note: This guide will continue to be updated to reflect any changes made to the Scorecard. Therefore, please refer to the date and version number on the title page to ensure you are using the current version.

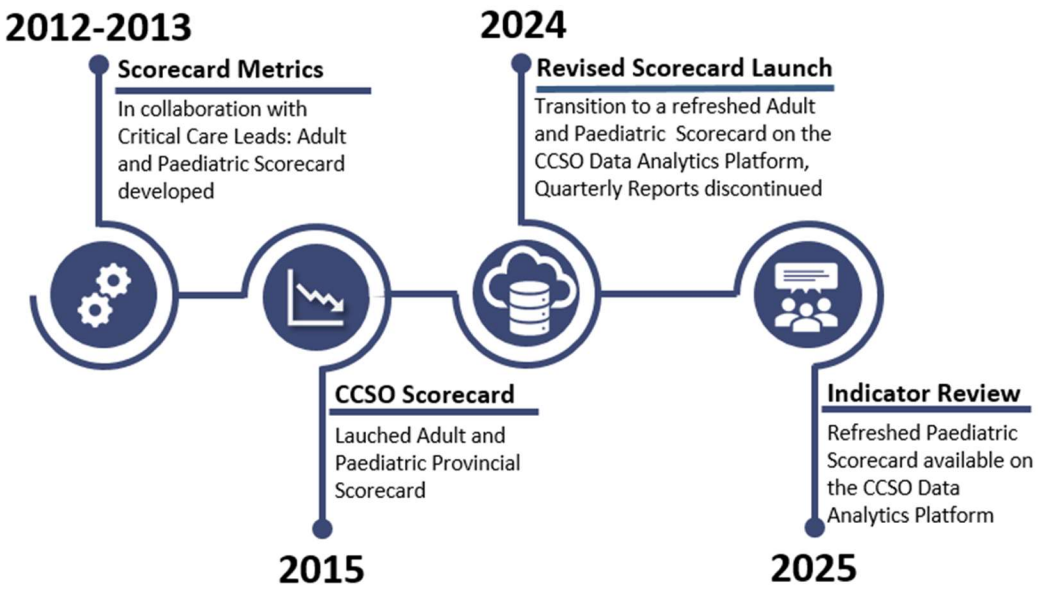
For further information, please contact Critical Care Services Ontario (CCSO):

Email: ccsodataanalytics@ccso.ca

1. Introduction

The Paediatric Critical Care Scorecard contains indicators and targets to help guide Ontario's paediatric critical care units with quality and performance improvement initiatives. The Paediatric Critical Care Scorecard is accessible via the Critical Care Services Ontario (CCSO) Data Analytics Platform (referred to herein as the "CCSO Platform")', which enables access to interactive dashboards for CCSO Program areas, with key indicators and advanced data visualization features for hospital and system leaders. Many of the indicators on the scorecard are populated with data entered in the Critical Care Information System (CCIS). Other indicators are attained from various sources such as CritiCall Ontario and the reporting hospitals, as explained further below. The Scorecard is populated with data reported in a standardized way to help monitor performance and facilitate conversations around utilizing data to plan and drive improvements and decision-making.

Figure 1: History of Paediatric Critical Care Scorecard Development



1.1 Scorecard Target Audience

The Paediatric Critical Care Scorecard is intended for use by critical care Chiefs, critical care Directors, Medical Directors, critical care Managers, and hospital Vice Presidents (VPs) with critical care oversight of any hospital critical care environment. Hospital quality improvement teams and system leaders such as the Critical Care Clinical Leaders, senior administrators in the Ontario Health (OH) Regions, OH Sub-regions and the Ministry of Health (MOH) will also find the Scorecard of value.

1.2 Reporting Period and Quarterly Release Dates

The Reporting Period for the Paediatric Scorecard is as follows:

- Q1 = April 1st to June 30th
- Q2 = July 1st to September 30th
- Q3 = October 1st to December 31st
- Q4 = January 1st to March 31st

The Paediatric Critical Care Scorecard is scheduled for release on the CCSO Platform on a quarterly basis in the month following the preceding quarter. For example, the Scorecard for Q1, which includes data from April 1st to June 30th, will be released on the CCSO Platform in the month of July.

Users who are subscribed to the Paediatric Scorecard on the CCSO Platform will receive an email notification each quarter when the Scorecard is refreshed.

1.3 Performance Measures and Data Sources

The majority of the performance measures (indicators) on the Paediatric Scorecard are populated with data entered in the Critical Care Information System (CCIS) by Ontario's paediatric critical care units/hospitals. However, data for some indicators are provided by other sources.

The Paediatric Scorecard includes one hospital-reported indicator:

- OR Cancellation Rate for No ICU Bed (%)

At the beginning of each quarter, each paediatric critical care hospital will be requested to provide data for the OR Cancellation Rate for No ICU Bed (%) indicator in a data template. The data representative at each hospital is responsible for the submission of data via email to ccsodataanalytics@ccso.ca by the dates outlined in the request.

Submission dates for each quarter:

- Q1 (April-June) – July 18th
- Q2 (July – September) – October 18th
- Q3 (October – December) – January 18th
- Q4 (January – March) – April 18th

The Paediatric Scorecard includes one indicator provided by CritiCall Ontario from Case Facilitation Data:

- CritiCall R1 Acceptance Rate (%)

If there are any questions regarding the scorecard or the indicators please contact CCSO at ccsodataanalytics@ccso.ca.

1.4 Peer Groups

Peer groups were developed to make it easier to compare the performance of one unit with that of other units with a similar profile. The peer groupings are intended to be used by units to compare their performance and progress against their assigned peer group's target performance measure.

A feature has been added to the paediatric critical care scorecard, enabling comparisons between peer groups in two ways:

- A provincial view that includes all paediatric critical care units in peer group
- By level of care, providing separate views for Level 2 unit and Level 3 unit peer groups.

Each of these can be accessed via dedicated filter buttons.

2. Paediatric Critical Care Scorecard

This *Paediatric Critical Care Scorecard Guide* is intended to help users understand and navigate the contents of the Paediatric Critical Care Scorecard generated every quarter. The Paediatric Scorecard includes a framework for monitoring performance for each of the indicators. This guide explains the terms, definitions, layout, and purpose of each indicator and includes sample visuals for clarity of understanding.

Please note that the data presented in this Scorecard guide is for illustration purposes only.

- **Paediatric Critical Care Scorecard - Quarterly Summary**
  6 interactive indicators and 2 Big Number indicators (highlight key performance indicators, offering immediate insights into critical care data for the viewers), describe performance monitoring in the domains of Access, Quality and System Integration. Each indicator includes 12 historical quarters of data to illustrate the trend in performance against established targets may be compared with the provincial average. This scorecard allows filtering by unit.

Please see Appendix A for a complete list of the 6 indicators and their definitions and formulas. Appendix B provides a detailed description of target setting and status.

Figure 2. Paediatric Critical Care Unit – Provincial Scorecard – *Quarterly Summary* Sample

Filters: Filters are utilized to view a specific unit. Selection updates the data presented accordingly. CCSO Unit Codes are provided by CCSO to each corporation to maintain anonymity. In addition to filtering by individual CCOS Unit Codes, there are options for Provincial view, Level 2 units, and Level 3 units.

Reporting Quarter: Indicates which quarter's data is represented in the current performance.

Clear All Filters: Short-cut to clear unit codes.

Filters for Paediatric Patients <18 Years of Age in Adult ICUs: Filters can be selected to view specific Region (and Sub-Region), Level of Care, and Age Group. Selection updates the data presented accordingly.

Trend line: Illustrates the statistical trend of performance of each indicator over time.

Historical Quarters: 12 previous quarters of data are included to compare to the current quarter's performance.

Indicator: Provides a description of the indicator selected on the scorecard. Each indicator is defined in Appendix A.

Current performance: Describes the indicators performance status for the current quarter.

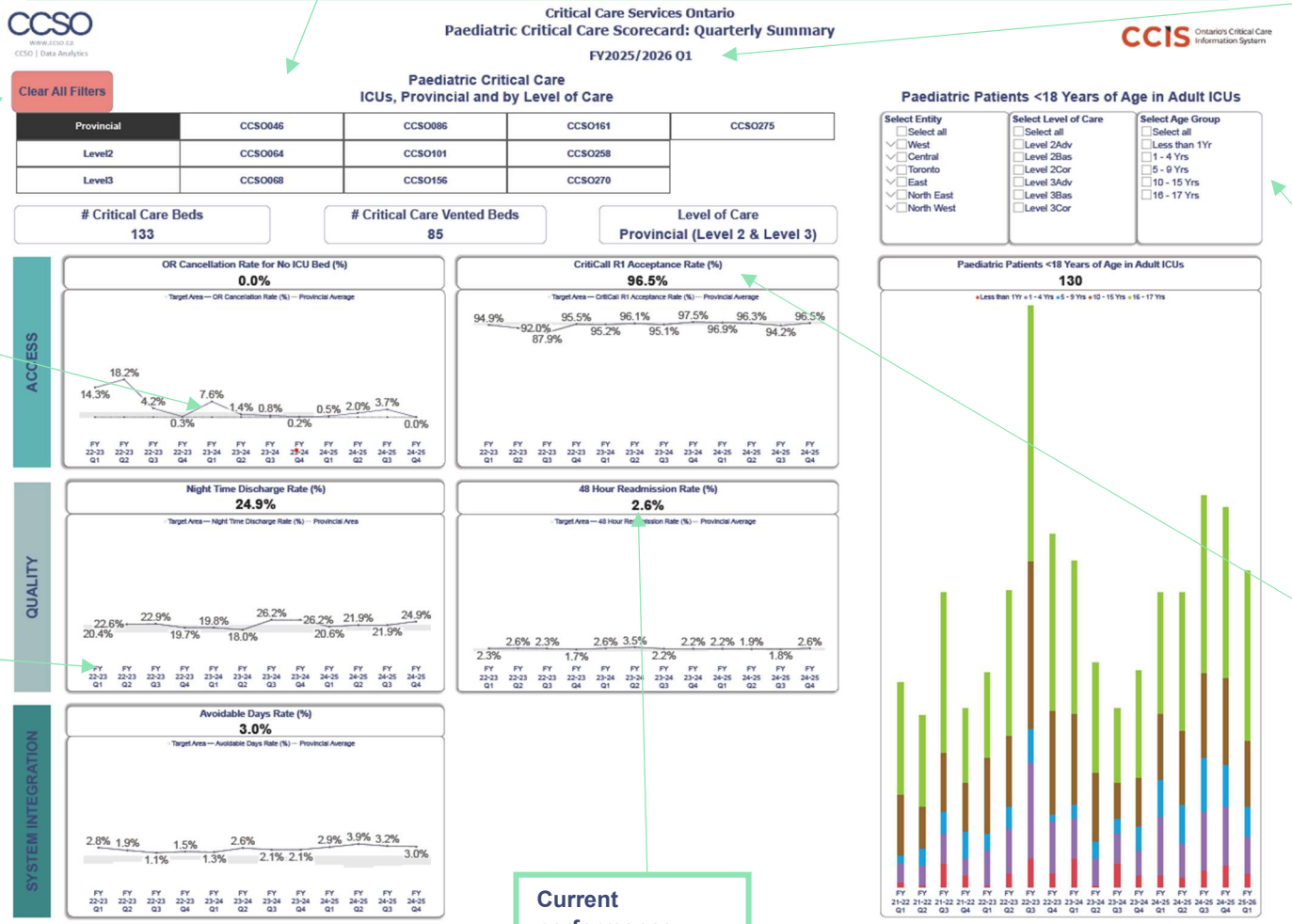
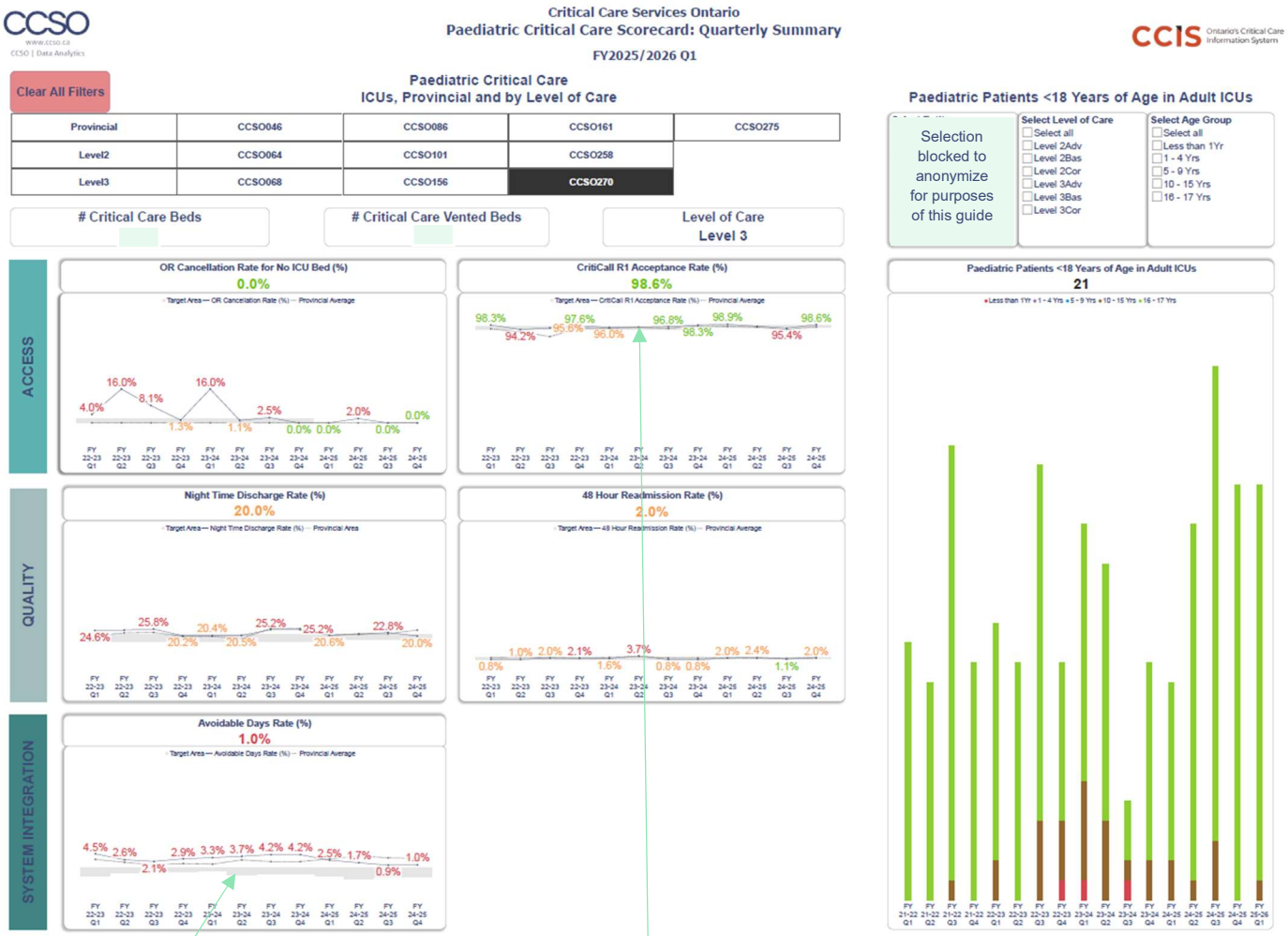


Figure 3. Paediatric Critic al Care Unit – Unit Scorecard – *Quarterly Summary* Sample



Grey Target Area: The range between the value of green and yellow thresholds (see pg. 11).

Colour Legend (red/yellow/green): Indicates the desired level of performance for each indicator to assist units in measuring their performance. Indicators are colour coded to represent their performance related to the target setting. Please see Appendix C for target setting methodology.

Appendices

Appendix A: Table 1 – Critical Care Scorecard Performance Indicators - Access (Provide Timely Care)

Indicator	Indicator Definition	Formula/Calculation	Data Source
OR Cancellation Rate – For No ICU Bed (%)	Percentage of elective surgery cancellations due to unavailable ICU bed over all performed elective surgeries and active cancellations.	$\frac{\text{Number of elective surgeries cancelled due to no post-operative critical care bed available}}{\text{Total number of elective cases actively cancelled+ number of elective surgeries completed for patient where an ICU bed requirement was identified prior to OR}} \times 100$	Hospital-Reported
R1 Acceptance Rate (%)	Percentage of paediatric critical care patients accepted by each site compared to the total requested transfers from CritiCall when the site was most responsible based on the approved catchment area algorithm for paediatrics. (I.e. referral was from within their responsible catchment area).	$\frac{\text{Number of R1 Acceptance}}{\text{Number of Requested R1 Transfers}} \times 100$	CritiCall Ontario
Paediatric Patients <18 Years of Age in Adult ICUs	The count of patients whose ages are less than 18 years on the date of ICU admission within the reporting period.	Number of paediatric patients <18 years of age in adult ICUs (This indicator can be filtered by different age ranges)	CCIS

Appendix A: Table 2 – Critical Care Scorecard Performance Indicators – Quality (Deliver Safe and Effective Care)

Scorecard Indicator	Indicator Definition	Associated Formula	Data Source
48 Hour Readmission Rate	Percent of patients readmitted back to the same ICU within 48 hours after their initial discharge to a non-ICU inpatient location.	$\frac{\text{Number of Readmissions to the same ICU Within 48 hours from non-ICU inpatient locations}}{\text{Number of Live non-ICU inpatient discharges}} \times 100$	CCIS
Night Time Discharge Rate (%)	Rate of night-time in-patient discharges (between 18h00 and 06h59).	$\frac{\text{Number of patients discharged between 1800 and 0659 to a specified non-ICU inpatient destination}}{\text{Number of live inpatient discharged in the critical care unit}} \times 100$	CCIS

Appendix A: Table 3 – Critical Care Scorecard Performance Indicators – System Integration (Optimize Patient Flow)

Scorecard Indicator	Indicator Definition	Associated Formula	Data Source
Avoidable Days Rate (%)	The amount of time that patients spend occupying an ICU bed when they no longer require the intensity of care of an ICU. Wait durations above 4 hours are considered avoidable hours; therefore, avoidable days exclude the first 4 hours of a wait.	$\frac{\text{Total delayed days}}{\text{Total patient days}} \times 100$	CCIS

Appendix B: Target Setting Methodology and Status

Target Setting Approach

Performance indicators are useful tools to highlight current state, but true performance management requires goals/targets. Desired targets are evidence-based/data-driven, agreeable to major stakeholders and can serve as the catalysts for system change and quality improvement.

In 2016-17, CCSO collaborated with the Performance Management Working Group (PM WG) of the PCCAC on the development of a methodology to set targets and target status as part of the Paediatric Critical Care Unit Scorecard.

The following principles were used to guide the target setting:

- Balance between robust data and consistency in practice
- Consensus-driven selection process
- Meaningful peer measurement and comparison
- Targets focused on outcomes, with goal toward preventable harm, consistent with a high reliability/safety culture

Appendix B: Target Setting – Paediatric Unit

Indicators	Performance Measure	Target Achieved	Requires Monitoring	Target Missed
		Satisfactory target performance	Warning signal relative to performance	Target is not being met and action should be taken
ACCESS Provide Timely Care	OR Cancelation Rate for No ICU Bed (%)	Top 25th percentile performance and above	Between top 25th and 50th percentile performance	Below 50th percentile performance
	CritiCall R1 Acceptance Rate (%)			
QUALITY Deliver Safe and Effective Care	48 Hours Readmission Rate (%)	= 0	Between top 25th percentile performance and 0	Below top 25th percentile performance
	Night Time Discharges Rate (%)			
System Integration Optimize Patient Flow	Avoidable Days Rate (%)	Top 25th percentile performance and above	Between top 25th and 50th percentile performance	Below 50th percentile performance