

Enhancement Name:	Capacity Manager Tool (CMT)	Updated: November 15, 2005
Requestor(s):	Nursing Interschool-Interagency Committee (NIIC)	
Enhancement Description: <i>(from PEIF Award Application)</i>	The CMT will encompass a set of tools to track and plan capacity at the level of Destination and then to aggregate this functionality at the level of Service, Site, Health Authority, and/or discipline. Capacity planning and building could then occur by setting equitable targets based on HA or other standards (i.e. student-to-staff ratios) and/or to match recruitment targets or projected student enrollment levels. The CMT would also track capacity utilization against total or target capacity, thereby allowing Placing Agencies to use the Tool to “find” available capacity (among units with utilization lower than target capacity) in the event of cancellations or changing student requirements.	

Project Objectives

1. Contribute to increased placement capacity by:
 - Providing standardized tools for defining and measuring capacity at the level of units, services, and sites, both within and across HA’s
 - Tracking utilization (actual placement activity against defined or target Capacity)
 - Providing “search” capabilities to allow Placing Agencies and the NIIC to find available capacity to assist with program growth, curriculum changes, program planning, and replacement of cancelled placements.
2. Provide the ability to identify “best times” for each placement setting, as a foundation for students and instructors to provide feedback on these ratings as part of their placement evaluation
3. Ensure sustainability and cost effectiveness of the CMT and processes that support it
4. Involve key stakeholders and facilitate collaboration on capacity building
5. Support evidence-based quality teaching and learning

Evaluation Plan

Quality Indicators for the CMT

Indicator	Proposed Measure	Proposed Tool
Consensus on the tool’s purpose and potential value	<ul style="list-style-type: none"> • Accepted definitions of Capacity and Utilization • User ratings on contributions to collaboration and quality of learning 	<ul style="list-style-type: none"> • Discussion Paper and feedback from BC and AB users • Post-CMT User satisfaction survey (to include both system users and managers or decision makers that may only use the resulting data)
Potential and realized contribution to capacity building	Perceived value of the Capacity and Utilization data for capacity building	<ul style="list-style-type: none"> • Post-CMT User satisfaction survey
	Perceived value of the CMT for capacity finding	<ul style="list-style-type: none"> • User satisfaction survey including comparison to pre- and post-CMT processes

Indicator	Proposed Measure	Proposed Tool
Potential and/or realized contribution to learning quality	Usefulness of “best times” rating	<ul style="list-style-type: none"> • Focus groups of Unit Managers, PC’s and RC’s • Post-CMT User satisfaction survey
Sustainability	<ul style="list-style-type: none"> • Adoption rates • (future) timeliness of CMT updates • (future) comparison of utilization against targets 	<ul style="list-style-type: none"> • Report on % and comprehensiveness of CMT use • Aging reports on CMT updates • Analysis of Capacity Utilization reports against targets to identify impractical or outdated targets
Ease of Use	<ul style="list-style-type: none"> • Ease of use ratings (CMT, reports) 	<ul style="list-style-type: none"> • Post-CMT User Satisfaction Survey • Course Evaluations (CMT launch) • Focus groups (see above)

Proposed Definitions

During the first CMT Task Group meeting, discussion identified the following useful definitions of Capacity measurement:

Theoretical Capacity – determined by multiplying available shifts by student capacity/shift on all days of operation.

- *E.g. - 1 group of size 8, day and evening shifts, x 365 days/year*

Ideal Capacity – a capacity level that would optimize learning quality through identification of “best times” on the unit in terms of patient mix or activity, staffing levels and mix, and unit rounds or related educational activities. This level could include allowances for “off capacity” or “student free” periods to address preceptor burnout and other issues.

Target Capacity – a “practical” capacity level to be set based on standards or agency objectives (such as xx preceptorships per nursing FTE or bed), and potentially encompassing other criteria such as staff satisfaction

- *E.g. – 5 preceptorships per unit each term, with each unit to rotate “off capacity” for 1 month each year*

Determinants of Capacity

The following determinants or factors that influence Target capacity were identified, and should drive design and implementation of the Capacity Manager Tool:

- Destination Characteristics - Unit or program mandate and scope of service, patient mix and acuity, size (# beds or activities), and hours of operation
- Staffing Factors - staffing levels and mix, availability of preceptors that are available and skilled to act in the role
- Total Learner Activity - total learning activities on the unit including external students from educational institutions; internal learners such as new staff; and students from other disciplines, visitors, or associated activities such as research
- Willingness - as influenced by unit and/or senior management, and a culture that acknowledges students as an organizational and professional responsibility
- Space Factors – ability of patient rooms and nursing stations to accommodate learners; availability of meeting rooms and other shared areas

CMT Requirements – Groups

It was suggested that a unit or program’s capacity for instructor led groups should not permit overlaps – in other words, if an instructor led group of any size are placed on a unit, that unit should be considered “full.” Therefore, a scheduling grid that indicates maximum group size, for a single group per shift, would be effective in identifying unit or program capacity for Groups:

Disciplines Accepted: ρ RN ρ PN ρ RPN ξ Either
Shifts accommodated: ρ 8 hours ρ 12 hours ξ Either
Accept 2 groups on Alt Shifts: ξ Yes ρ No

Shift	Hrs (A)	Maximum Students Per Shift each Day (B)							Max Hrs/Wk (C) (= A x # days)	Group Hrs/Wk (= B x C)
		Mon	Tue	Wed	Thur	Fri	Sat	Sun		
Days	8	6	6	6	6	6	6	6	56	336
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Eves	8	6	6	6	6	6			40	240
Nights	8									
Max. Students	8	12	12	12	12	12	6	6	96	576

Days	12	6	6	6	6	6	6	6	84	504
Nights	12									
Max. Students	12	6	6	6	6	6	6	6	84	504

In the above example, the unit can accommodate RN or PN students, maximum group size of 6 students, during Days and Evenings on weekdays, but during Days only on weekends. Note: if a group of only 4 students was placed on that unit during a shift, the unit would be considered “full” for groups and another group placement would not be accepted during the same shift.

The above example would translate into the following capacity measures:

	A	B	C	D	E	F (= C - D - E)	(= B x F)	(= A x F)
Measure	Student Hours Per Week	Group Hours Per Week	Weeks per Year	Minus Weeks Closed *	Minus “off placement” weeks **	Available Weeks per year	Total Available Group Hrs	Total Available Student Hrs
Theoretical Capacity (8 hr shifts)	576	96	52	0	0	52	4,992	29,952
Theoretical Capacity (12 hr shifts)	504	84	52	0	0	52	4,368	26,208
Target Capacity (8 hr shifts)	576	96	52	0	6	46	4,416	26,496

CMT Requirements – Preceptorships

Defining preceptorship capacity is very different from instructor led groups, in that the capacity of a unit is limited more by the number of available preceptors than any other factor. Therefore, a unit could identify a target capacity per term for preceptorship students based on available preceptors.

	Shifts	Winter (Jan-Apr)	Spring/Summer (May-Aug)	Fall (Sep-Dec)
Registered Nurse	ρ 8 hours ξ 12 hours ρ Either	5	3	5
Practical Nurse	ρ 8 hours ξ 12 hours ρ Either	4	4	4
Unit Clerk	ξ 8 hours ρ 12 hours ρ Either	1	1	1

Accept multiple sequential preceptorships per term? ξ Yes ρ No

This question seeks to determine whether the identified “target” preceptors can accept two or more sequential preceptorships in a Term (e.g. 6 weeks and 6 weeks):

- ♣ *If “yes”, then 5 preceptors could accommodate up to 5 x 17 weeks = 85 preceptor weeks.*
- ♣ *If “no”, then 5 preceptors can accommodate only 5 preceptorships of any length*

Site Rollup

To be defined upon finalization of Group/Preceptorship capacity grids.