



▶ THE VALUE OF WORKLOAD MEASUREMENT IN TIMES OF ONTARIO HOSPITAL REFORM1



▶ DYNAMINE™ LEADS THE WAY AGAIN! OHSR STATISTICAL REPORTING BY-PRODUCT OF WORKLOAD2

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Dynawords

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Health Information Systems Ltd.

Providing Client Focused Workload Decision Support Solutions Today for Tomorrow's Healthcare Challenges

PART II

Helping you Achieve your Hospital's Financial Goals

Is Accountability Stressing You Out – Skill Mix Analysis?

This article is the second in a series of that provides illustrations on how to use workload data to determine the cause of financial variances and provide tools for finding potential solutions. The full length version is posted on our web site at: www.emeraldhis.com.

In today's healthcare reality, successful clinical managers closely monitor their monthly variances in order to immediately act on any significant variance. Our first article (also posted on our web site) examined the utilization of staff resources by shift. This article examines how a manager faced with poor staff utilization conducts in-depth skill mix analysis to determine some of the strategies that can be taken to:

- Control over-utilization of higher cost staff; and
- Staff appropriately to meet patient need.

We provide suggested steps that management would take to conduct in-depth skill mix analysis when faced with the following types of scenarios:

- A negative month end variance in resource cost (net of benefits); or
- An average cost of labour per hour higher or lower than budgeted during the month; or
- Total workload hours required by the patients significantly different from budgeted worked hours; or
- The budgeted skill mix on the unit does not match either the workload or actual skill mix ratio for the month.



As a supplement to the steps discussed in our last article, managers would use their workload decision support software, such as *Dynamine™* to generate and analyze:

1. A report breakdown of worked hours by skill level – to provide a skill mix breakdown by shift to determine if your worked skill mix ratio for each shift matches that planned in the budgeted; and
2. Workload reports in more depth to determine workload totals by skill level.

After preparing the above information, a manager is now able to conduct each of the following steps and drill down to a level of detail that will answer the concerns generated by the month end financial variance for the unit.

A. Determine the Actual Average Cost of a Unit of Staff

The average cost of actual worked hours for the month (Actual Worked Dollars/Actual Worked Hours).

By comparing the two, this will allow you to determine if you are using a greater percentage of higher cost staff during the period in question.

B. Determine Which Shift is Using Additional Higher Cost Staff

Look at the Workload Report you generated to analyze the Worked Hour breakdown by skill level to see if the actual worked hours provided match the budgeted skill mix for each shift.

By comparing the information by shift, you will be able to determine whether staff have been added to a particular shift in a manner that is out of proportion to the budget plan. In an over budget situation, RN staff may have been overused (higher salary per hour) compared to the budgeted skill mix ratio. The same could be investigated by looking at the RPN utilization if the budget variance is positive (lower cost per hour). In either case, further analysis is required to determine if RN or RPN hours were justified in order to meet the needs of the patients or to determine if changes in care requirement on your unit will continue to impact your budgeted skill mix.

(...continued on page 2.)

C. Determine if There is a Mismatch Between Workload and Worked Hours by Skill Level

As a next step, comparing the Worked Hour by Skill Level and Workload Hours by Skill Level will allow you to determine if a particular skill group (RN, RPN, etc.) is providing a higher percentage of the workload than the proportion assigned by budget and by actual staffing levels (e.g., RN's are providing 45% of the workload, although they only comprise 37% of the worked hours and were only budgeted at 35%).

This comparison will flush out over/underutilization of staff on the unit and determine if further work needs to be done to rationalize any anomaly e.g., real patient need driven by a change in patient mix since the budget was established, inappropriate patient assignment or other reasons. It will be necessary to complete a skill mix requirements sample analysis to examine what the skill mix should be (see Step E). In the meantime, it is important to understand the degree to which staff is being utilized (Step D).

D. Determine Skill Mix Workload Utilization

Workload Utilization is a factor of the comparison of Workload Units and Worked Hours in the following formula:

$$\frac{\text{Workload Units (WU)}}{\text{Worked Hours (WH)}} = \text{Utilization Percentage}$$

Generating this report in an advance workload system such as *Dynamine™*, a manager will be able to quantify the degree to which each skill level is being over/under utilized and determine if the severity of the over/under utilization is consistent across all the shifts. Remember that Utilization is a ratio between patient requirements and the staffing level and utilization is not always a symptom of greater patient requirements but may be a result of inadequate staffing levels.

In a situation where utilization is an issue, you may review the patient assignment to determine if it is unjustly skewed towards one skill level over another. It will also be worthwhile to determine the reasons for the addition of staff to a particular shift if the extra hours do not seem to be justified by the proportion of the workload on the shift.

In a situation such as above, a Manager can explore two additional questions before making any changes in the staffing ratio on the unit:

- *Are staff entering workload only for work completed by them, or are they entering workload completed by others? This could account for some of the disparity in utilization between the RN and RPN staff; and*
- *Is the original budgeted ratio of RN and RPN no longer appropriate to take care of the patients that are now being seen on the unit? (see Step E to calculate Desired Skill Mix).*

E. Determine if There is a Mismatch Among Desired Skill Mix, and Actual and Budgeted Skill Mix

Selecting a representative patient sample over a period of time and using your workload decision support software (or a paper workload instrument), you can assign each activity selected for a patient and determine what skill level could have provided the activity, given the clinical status of the patient.

A representative sample is likely to be achieved by completing this process for 10% of the patient census each day (all shifts) for a 7 day period. The workload assigned to each skill level should be summed to provide a total for all patients in the sample.

Looking at the data summed for the period, a manager can determine if the overall ratio of RN and RPN matches/does not match budgeted and worked (actual hours) by skill level. By taking the analysis to the shift level, the manager will be able to validate if the skill mix ratio needs to be adjusted only on specific shifts.

For some useful tips on a Skill Mix Decision Evaluation Framework, you can also go to www.cna-aicc.ca and read the latest collaborative research by the Canadian Nurses Association, the Canadian Practical Nurses Association, and the Canadian Psychiatric Nurses Association. Search the web site for Evaluation Framework 2005.

Dynamine™ Leads The Way Again!

OHRs Report at the Click of a Workload Mouse

STOP spending days or weeks taking data from your workload system and preparing it for finance for reporting to the Ministry.

Dynamine now includes a full Ontario Hospital Reporting System (OHRs) statistical reporting package. Activity and caseload statistics (i.e., procedure/exam codes, visits, New Referrals, Active Carryovers and Attendance Days) are now a by-product of workload, configured for each hospital's requirements using the appropriate OHRs codes.

OHRs Code	Description	Apr 2004	July 2004	Oct 2004	Jan 2005
0030 (40000)	Pastoral Care	0	0	0	0
1151620	Pastoral Care Service Recipient Workload - In Patient - Chronic - Elderly	0	0	10,070	77
1151640	Pastoral Care Service Recipient Workload - In Patient - Chronic - Adult	0	0	2,832	0
1154000	Pastoral Care Service Recipient Workload - Service Recipient Not Uniquely Identified - Unknown	0	0	5,834	22
1180000	Non-Service Recipient Workload	0	0	21,170	0
001620	New Referral - In Patient - Chronic - Elderly	0	0	150	1
001640	New Referral - In Patient - Chronic - Adult	0	0	32	0
001600	New Referral - Service Recipient Not Uniquely Identified - Unknown	0	0	0	1
04C1620	Active Carryover - In Patient - Chronic - Elderly	0	0	0	1
04C1640	Attendance Day (Face To Face) - In Patient - Chronic - Elderly	0	0	305	1
04C1640	Attendance Day (Face To Face) - In Patient - Chronic - Adult	0	0	93	0
04C0000	Attendance Day (Face To Face) - Service Recipient Not Uniquely Identified - Unknown	0	0	101	0

The *Dynamine* configuration also supports reporting data by age group and patient type, eliminating estimations and allocations of workload data before reporting. Monthly and quarterly OHRs data views can be screened in a matter of seconds for both internal analysis and external reporting.



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2005
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