

THEME

Applying Best Practices in Healthcare Delivery

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Scheduling Best Practices: A Model For Strategic Roster Planning



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Allocate Software plc
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Research Credentials

- Allocate Software: the leading supplier of workforce optimisation and electronic rostering solutions in healthcare
- Research methodology: The Roster Assessment
- The biggest database of rostering practices in the UK

Research Questions

What are the objectives of roster planning & control?

Are these Strategic or Operational?

What conflicts can be found between these objectives? How can these be resolved ?

What are the design parameters, which determine the rostering system?

What design constraints come into play when preparing rosters?

What is the impact of rostering on ward and hospital performance?

What makes for effective roster decision-making and why ?

What counts as poor rostering?

How is the roster planner's role perceived?

What training is provided to ensure that roster planners do their task effectively?

Balancing Roster Objectives

Staff



Service



Complex array of, often conflicting, objectives:
Short-term vs. Long-term
Implicit vs. explicit
Organisational vs. Individual

- **Work/life Balance**
- **Fairness**
- **Leave Management**
- **Tacit Objectives**

- **Budgets / Cost Control**
- **Ward Requirements**
- **HR Strategies**
- **Service Levels**
- **Clinical Governance**



Rostering: Strategic or Operational ?

✦ Costs: Nursing represent at least **40%** of costs

✦ Targets: Strategic Service Delivery Targets

✦ Work/life balance

✦ Shortage of Nurses (University of California – Jun 2000):

✦ 31% leave to take care of home and family

✦ 26% leave due to job burnout/stress

✦ 21% leave due to too many hours:

✦ **75% of leavers are interested in flexible working**

Roster Planning Parameters

Parameters of the System

- Organisation of Work
- Length of Roster Period
- Number of Staff
- Shift Patterns
- Shift Lengths
- Shift Categories
- Supervision Ratio
- Skill Mix
- Handover Arrangements
- Supervision Ratio

Rostering is, "...a complex and intellectually demanding task and rostering complexity increases with ward size, complexity of skill mix, demand variability and predictability"

- Formal Documentation is rare
- Staff training almost non-existent
- Skill passed on by word-of-mouth
- Time for rostering constrained
- Perceived as little value
- Major source of stress

Individual Rosters

- Number of Staff per Shift
- Length of Shift
- Number of Shifts per Shift
- Contracted Hours
- Annual Leave / Study
- Days to Days Worked
- Shifts Ends Off
- Shifts in Sequence
- Sequences

Poor Rostering Practices

Causes of Abuses of Roster Process

- Lack of roster transparency
- Lack of accountability
- “We’ve always done it this way” culture
- Strong labour market
- Poor pay conditions

Poor Rostering Practices

- Poor monitoring of contracted hours and annual leave
- Lack of tracking of absenteeism
- Inequity in the allocation of shifts to staff
- Methodological inconsistencies in the totalling of shifts
- Arithmetical inconsistencies in the totalling of shifts
- Careless editing of roster

Outcomes & Effects of Poor Rostering

Ward

Outcomes

- Over or Under-manning of Ward
- Poor management of Contract Hours
- Unfair allocation of shifts
- Inability of staff to manage work/life
- Low morale
- Poor tracking of absenteeism
- High staff turnover

Performance

- Clinical service levels
- Delivery of patient care
- Resource utilisation
- Operational cost control
- Staff satisfaction and morale
- Ward staff retention and loyalty

Hospital

Outcomes

- Failure to meet service targets
- Poor control of costs
- Poor employer reputation
- Poor staff retention
- Poor governance (statutory reqs)

Performance

- Clinical service benchmarks
- Patient care benchmarks
- Financial targets
- Resource utilisation
- HR Management benchmarks

Implications of Poor Rostering (Malaysia)

✦ Sample size: 10 wards, 5 hospitals

✦ Implications:

✦ Lost contract hours: 160 hrs (0.9 WTE)

✦ Additional Duties: 53 hrs (0.3 WTE)

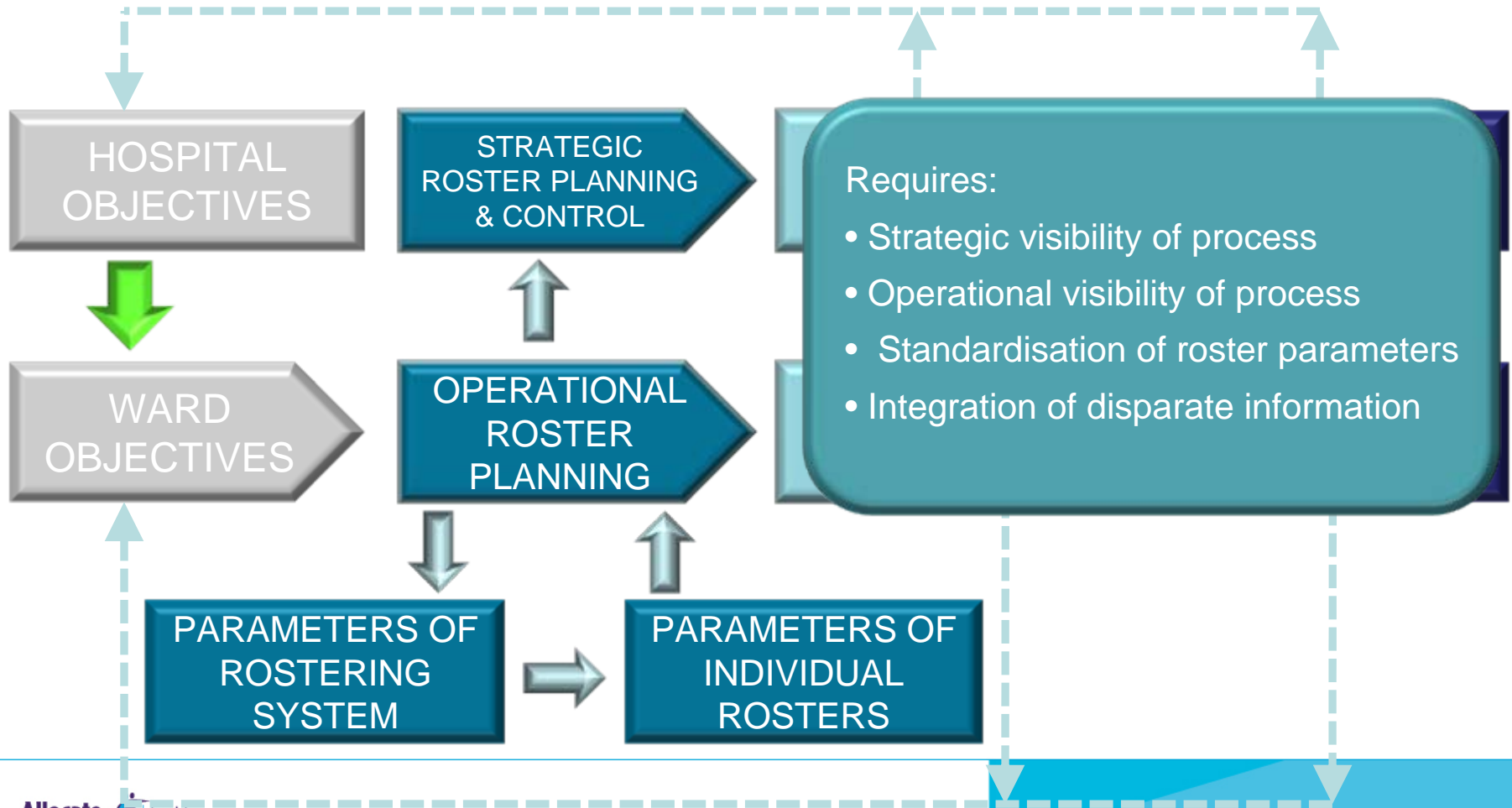
✦ Overall inefficiencies: 1.2 WTE

✦ Duties with warnings: 16%

✦ Unfilled duty hours: 507 hrs (2.9 WTE)

✦ Nursing hours per patient day: 5.2

Strategic Roster Planning & Control



Embedded Best Practices in e-Rostering

- ✦ Agreed Roster Policy...with configurable flexibility
- ✦ Clear shift patterns and confirmed demand
- ✦ Embedded rules and parameters (best practice) →
- ✦ Clear operational visibility and accountability →
- ✦ Clear strategic visibility and accountability with drill-down functionality to ward level →

 ANY QUESTIONS

Clear Shift Patterns Embedded Best Practices



Manager - Connect to DEMO on Server BDRAKE - [Window 1: All Shift Groups on 15 March 2009]

File Actions View Tools Window Help

Back [Navigation Icons] 4 Weeks

Shifts, Patterns & Rules View Date: 15/03/2009 46+ Records

My Ward

- My Rosters
- My Staff
- My Staff Unavailability
- Skills & Certificates
- Roster Stats
- Rostering Admin
- Roster Templates
- Shifts, Patterns & Rules**
- My Shared Patterns
- Staff Utilisation Parameters

Daily Staffing

- Bank
- Personnel
- Payroll
- User Accounts
- ESR Gateway
- Reference Data
- MAPS Admin

Available Paths

All Shift Groups

Pattern Name	Shift Pattern Type
Dickens Ward	
Shifts	
No E	No Early
No L	No Late
E	Early
L	Late
ND	Night Duty
PA	Ward PA
PA	Ward PA
DF	Discharge Facilitz
LD	Long Day
DO	Day Off
Global Patterns	
Shared Patterns	
Personal Patterns	
Angela Cynton - Personal Shift Pattern	No Shift , E
Linda Taylor - Personal Shift Pattern	DO , PA
Michelle Walters - Personal Shift Pattern	No Shift , No Shi
Shift Rules	
Don't mix day and night shifts	Day or Night Rule
Max 15 Day Shifts in Roster	General Restrictic
Max 3 lates in a week	General Restrictic
Max 4 earlies in a week	General Restrictic
Max 4 nights in a week	General Restrictic
Max 7 nights in 4 weeks	General Restrictic
Max 4 consecutive nights	Invalid Combinati
No Early 2 days after night	Invalid Combinati
No N N N - N	Invalid Combinati
Roster Sister & Deputy apart	Keep Staff Apart
Maximum 2 DO Requests in 4 Weeks	Maximum Reques
Maximum 5 Requests in 4 Weeks	Maximum Reques
Valid Shifts After Early	Valid Shifts After
Valid Shifts after night	Valid Shifts After

MAPS health suite healthroster

06/06/2009 14:41:18

Rule Type: DAY OR NIGHT RULE

Group Name: Dickens Ward

DON'T MIX DAY AND NIGHT SHIFTS

Activating this rule will trigger a warning if a night shift and a day shift are assigned to the same person in the same week.

GLOBAL RULE

APPLIES TO ALL EXCEPT:

Type	Short Title	Long Title
GRADE TYPE	HCA	Unregistered
PERSON	10001342	Mr Helen Jackson
PERSON	10001348	Mrs Angela Cynton

User: BDRAKE\Bob Date Created: 06/06/2009 14:41:18 Print

Rule Details

Add Shift Add Rule Edit Rule Add Pattern Add Shared Pattern Add Shift Group Edit Shift Group

start [Taskbar Icons] Search Desktop 14:41

Clear Accountability



Summary | Detail | Costings | Analysis | Available Hours

MAPS

health suite
healthroster

Budget	Unavailability	Safety	Effectiveness	Annual Leave	Fairness	Overall

BUDGET COMPARISON

Roster Total Cost	Staffing Budget	Difference
£0	£0	£0 (100%)

SAFETY

Roster Unfilled	Shifts w/o Charge Cover	Shifts Missing Skills	Skill Mix
10%	0	0	78%/22%

EFFECTIVENESS

Over Contracted Hrs	Unused Contracted Hrs	Additional Duty Hrs	Wrong Grade Type
-11.00 Hrs	186.50 Hrs	31.00 Hrs	27

ANNUAL LEAVE

Grade Type	Week 1	Week 2	Week 3	Week 4
Registered	3%	7%	6%	6%
Unregistered	0%	0%	4%	25%

FAIRNESS

Requested Duties	Duties with Warnings
23%	13%

Details: Ward 7A - 4 weeks from 16 Feb 2009 User: BDRAKE\Bob Created: 27/05/2009 18:42 Print

Approve Reject Version 01.00.023 Close

Clear Strategic Visibility

