Nursing operational productivity – case studies

Sustaining improvements to e-rostering through ‘check, challenge and coach’ sessions

West Hertfordshire Hospitals NHS Trust needed help with multiple nursing workforce challenges in 2018. It investigated its e-rostering data to optimise e-rostering practice and support productivity, workforce deployment and ward-to-board visibility.

What was the problem?

The initial submission of e-rostering data and subsequent investigation found only 2% of wards used the e-roster system’s auto-roster function, and there was an accumulation of net hours and non-working time.

Collecting roster metric data for the NHS Improvement template was proving difficult, and e-roster terminology was not used with any consistency. The trust therefore agreed early on to focus monitoring and measurement on a refined key performance indicator (KPI) dashboard, on which it based its ‘check, challenge and coach’ sessions. Some divisions had low levels of clinical engagement and little understanding of e-rostering, while wards and units lacked a uniform approach.

Data submitted for safe staffing and care hours per patient day (CHPPD) was extracted from the e-rostering system. But templates for staffing included non-clinical or other staff who should not be included in fill rates and CHPPD.
What was the solution?

With help from NHS Improvement, the trust cleansed e-roster templates, improved software functionality (for example, by adding working rules to support auto-rostering) and ensured the right staff were included when reporting e-rostering metrics.

Each inpatient ward’s e-rostering template was reviewed to exclude non-clinical staff from fill-rate and CHPPD calculations and make the data more valid. Templates were amended to reflect correct budget establishments, which improved the accuracy of CHPPD recordings.

Face-to-face training was held with e-roster creators to upskill and engage staff on e-roster principles and barriers to using the auto-roster function, improving overall efficiencies. These principles were passed on to all roster creators to improve compliance and provide assurance on good rostering practice.

The trust’s deputy chief nurse now chairs e-rostering meetings, leading ‘check, challenge and coach’ panels for temporary staffing. E-rostering metrics and KPIs for each clinical area are monitored to demonstrate control and provide assurance to the board.

What were the results?

Retention improved: nursing staff turnover fell from 17.5% in January 2018 to 13.3% in January 2019. For Band 5 nurses, turnover reduced significantly from 24.5% to 17.8%. This was a result of equitable and transparent rostering practice, which considered flexibility across entire teams and not just staff on fixed patterns.

Agency spending reduced from 9.1% of the pay bill to 7.5%. Bank spend increased from 10.4% to 10.8%, demonstrating better use of bank staff to fill shifts.

Staff availability increased once the correct options for recording staff activity – such as sickness or study leave – were used.

Total staff unavailability across target wards remained high throughout the intervention at 23.1% (driven by high sickness rates and parental leave) but fell to 19.6% in September 2018.

Recording shift types became more accurate, which rebalanced additional duties and supernumerary shifts. This addressed the incorrect perception across the trust that there was a high number of additional duties.
E-roster approval times improved, and there was a move to reporting rate in days and weeks.

A reduction in net hours was recorded from an average balance of 19% to 3.8% following the check and challenge meetings. Net hours have become easier to manage by reviewing them when they reach 11 to 12 hours.

The approach brought overall improvements across the trust:

- currently 44 wards auto-roster, an increase of 40% (from 2% at start of the project)
- roster approval improved from six weeks to eight by October 2018, with the trust piloting 12 weeks beginning in June 2019
- roster approval rates increased compliance by 10% on the previous year, to 64.5%
- all templates were reviewed in line with budget and amended accordingly
- all rules, restrictions and patterns were challenged and reviewed as part of the auto-roster process
- all units are now on the NHS Professionals interface
- an EsrGo (payroll to rostering interface) project to streamline information held between the electronic staff record and e-roster is providing improved governance for starters, leavers and any changes in working patterns.

**Figure 1: Net hours**

![Net hours total balance](image)

**Figure 2: Time taken to approve rosters**

<table>
<thead>
<tr>
<th>Roster Approval with 6 weeks?</th>
<th>25-Dec</th>
<th>22-Jan</th>
<th>19-Feb</th>
<th>19-Mar</th>
<th>16-Apr</th>
<th>11-Jun</th>
<th>09-Jul</th>
<th>06-Aug</th>
<th>03-Sep</th>
</tr>
</thead>
<tbody>
<tr>
<td>% target met by target wards</td>
<td>60</td>
<td>20</td>
<td>30</td>
<td>60</td>
<td>100</td>
<td>50</td>
<td>60</td>
<td>60</td>
<td>50</td>
</tr>
</tbody>
</table>
What were the learning points?

- Evidence-based establishment setting is vital to ensure the roster templates can reflect patient acuity and dependency.
- Improving the capability of the e-roster system will help increase substantive staff productivity, reducing unavailability and the need for temporary staff.
- E-rostering KPIs need to be understood and embedded from ward to board to maximise clinical workforce efficiency.
- The ultimate team approach for e-rostering should include software expertise and clinicians who can provide ongoing training and support, which aligns budget provisions, clinical demand and staff availability.

**Benefits identified by the trust:**

“Overall this has been a real opportunity for the trust and in particular the nursing teams, with the support and guidance of NHS Improvement to enable us to improve efficiency and productivity around e-rostering.”
“The ongoing benefits are:

- six-monthly auditing of e-rosters is undertaken in line with policy
- the team is extremely committed to supporting divisions in driving performance, and this is evident in our monthly workforce meetings
- the deputy chief nurse has implemented changes around our KPIs to include plan-do-study-act cycles to drive quality and assurance
- monthly reporting to board through an integrated performance report and agency spend steering group
- adult establishment reviews sign-off is now required from Band 7s, matrons, head of nursing, chief nurse and finance
- other areas – ie paediatrics, maternity and ED – are to begin the same rigour and improvement processes
- all clinical areas are to be put on the Safe Care system by June 2019.”

Want to know more?

Contact the Nursing Operational Productivity team:
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To see the other case studies in this series: visit the NHS Improvement website at:
https://improvement.nhs.uk/resources/flexible-working-support-work-life-balance/