

IMPROVING NURSES' WORK-LIFE BALANCE

Insights from a team-based rostering pilot



Birmingham Women's and Children's NHS NHS Foundation Trust



Nottingham University Hospitals NHS



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This report describes a pilot initiative to implement a team-based rostering system for nurses, with the aim of increasing nurses' input into their working patterns and improving their work-life balance. The ultimate goal is to aid the retention of nurses in the NHS. The project worked with 240 nurses in seven wards in three hospitals. Significant improvements were realised in three areas: meeting nurses' work-life preferences; increasing nurses' input into rosters; and improving collective responsibility for creating the roster.

The work started with the knowledge that getting and keeping staff is now the number one challenge for the NHS. The NHS Long Term Plan recognises that poor work-life balance is a key reason why nurses leave the profession.

In shift-based environments, each nurse's working pattern is defined by the roster. Flexible working is poorly defined, and often has little to do with work-life balance: too often, it means nurses being flexible to meet service demands, with little control, and at the expense of their own work-life balance. Flexible working often consists of granting 'special' arrangements to a few nurses, while 'normal' nurses may have little input into the shift pattern they work, apart from being allowed to make four requests each month to not work particular shifts. This twotier system leads to 'rationing' of flexible working arrangements, usually on the basis of childcare needs, as well as a lack of transparency and a sense of unfairness. Team-based rostering, in contrast, starts from the premise that everyone has work-life balance needs and preferences, and that these need to be openly and collectively negotiated, adult to adult, among all those on each ward roster, within the constraints of service and financial needs.

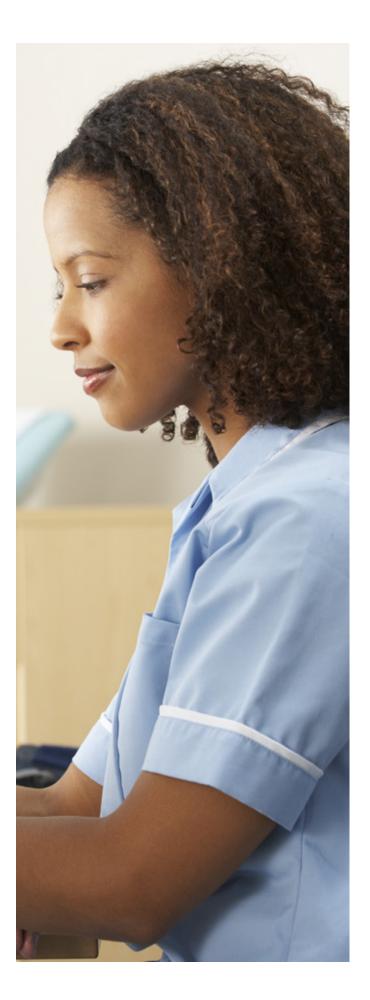
The team-based process trained a 'lead team' of several nurses in each ward who gathered nurses' long-term work-life preferences for each ward, and then collectively negotiated each month's roster over a period of 6-12 months. Lead team members went up a learning curve about rostering, while ward managers learnt to empower their teams and delegate responsibility for roster creation, while retaining overall approval of the roster. Opening up a conversation which distinguishes between long-term preferences about how each individual prefers to work, and one-off requests for specific days off, was a key part of the process.

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Pre and post surveys of nurse participants showed that the proportion of nurses who felt that their work-life preferences were being met went up from 39% to 51%. The proportion of nurses scoring highly on the amount of input they have into rosters went up from 14% to 26%. And the proportion reporting a strong sense of collective responsibility improved from 16% to 36%. The costs of implementing this approach – the upfront training time, and the increased time to put the roster together – need to be set against these benefits.

The report makes three key policy recommendations:

- For NHS Trusts to scale up the team-based approach as part of shared governance initiatives, giving teams of nurses the autonomy and permission to negotiate the roster, in the context of open and transparent consideration of everyone's work-life preferences. The 'howto' guide resulting from this project is available from Timewise.¹
- 2. For policy makers (such as NHS E/I) to provide better definition of what flexible working means in a rostered environment, and better guidance on how to build work-life balance for all nurses into the roster, using the principles outlined in this report. This could include requiring e-rostering software suppliers to meet a national specification which better supports the inclusion of nurses' long-term work-life preferences (rather than just date-specific requests each month).
- **3.** For NHS Trusts to develop better training and guidance on e-rostering for work-life balance, including harmonising their flexible working policy, e-rostering guidelines, training programmes, recruitment campaigns and careers guidance.



INTRODUCTION

'The workforce challenges in the NHS in England now present a greater threat to health services than the funding challenges' say the opening lines of a recent report from three respected health sector research bodies.² In other words, getting and keeping staff is the number one challenge for the health service. And the Health Secretary agrees that the NHS needs to create a modern working culture which takes the health and work-life balance needs of its workforce seriously: 'More than anything, we need to create a more caring, a more compassionate culture.'³

The Interim NHS People Plan, launched in June 2019, highlights the need to recruit more staff, and to make the NHS a 'great place to work'. Nursing is highlighted as 'the most urgent challenge' and the plan sets the target of recruiting an extra 40,000 nurses in the next five years.

From our work across many sectors, Timewise knows that work-life balance is a key element of any 'great place to work'. For nurses in particular, we know that poor work-life balance is the first or second reason for low job satisfaction among nurses (depending on age group).⁴ And we know that improving flexibility to manage work-life balance is critical for enhancing job satisfaction for nurses in every age group.⁵

Furthermore, nurse work-life balance is deteriorating. Only a third of nursing staff were satisfied with their work-life balance in 2017, compared to almost half in 2011.⁶ Nurse resignations for poor work-life balance have increased by 169% between 2011-12 and 2017-18 – a higher increase than any other reason.⁷ Among those who state a reason for leaving the NHS as a whole, work-life balance represents 26% of reasons for leaving in 2019, up from 18% in 2011-12.⁸

Something is clearly going wrong with work-life balance for nurses. The NHS Long Term Plan agrees that 'many of those leaving the NHS would remain if employers can reduce workload pressures and offer improved flexibility and professional development'.⁹ And the same is true at recruitment stage. A recent survey of people considering nursing as a career found that 10% said they already needed a career that could fit around existing commitments, and they didn't believe that nursing, with its shift work and lack of flexibility, could offer that.¹⁰ The Interim NHS People Plan recognises the need not just to recruit young nurses, but also to attract older nurses back into the profession by giving them greater choice over their working patterns.

But how, exactly, can hard-pressed ward managers, trying to provide excellent patient care with limited resources, also facilitate work-life balance for nurses who must cover evenings and weekends as well as satisfying clinical requirements for particular skills on particular shifts? How can ward managers fulfil the NHS Long Term Plan's commitment to advertise roles as flexible,¹¹ when they don't know from month to month what working pattern each individual will need to work?

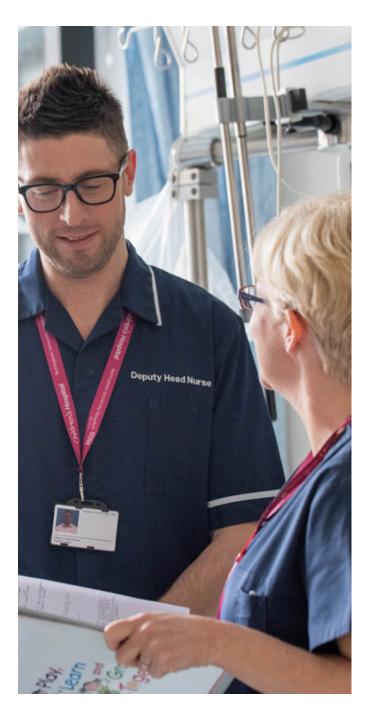
This report describes a pilot initiative which aimed to increase the amount of input which nurses have into their working patterns, based on the notion that increasing the fit between nurses' working pattern preferences and their actual working pattern would encourage more nurses to stay in the profession. Building on academic research, and a series of focus groups with the three participating hospitals, the pilot took place in 2018-19 in seven wards in three hospitals.

> "This process can make individuals feel more valued and part of the team. It makes people feel like you value them as a person rather than just a staff number."

TALENT THROUGH FLEXIBILITY

The key players were:

- The Burdett Trust: funders and sponsors of the project
- The three participating hospital Trusts and their senior leadership teams: Birmingham Women's and Children's Hospital (BWCH), Nottingham University Hospitals (NUH) and University Hospital Southampton (UHS)
- Timewise, which has provided the flexible working expertise, designed and monitored the implementation of the pilot in all three hospitals
- The project management team: the Chief Nurses, senior nurses and ward managers in the pilot clinical areas
- The pilot lead teams in each of the seven wards: the small group of nurses in each ward who collected nurses' work-life preferences and developed their ward's team-based roster
- The e-roster teams who supported the changes in practice throughout the pilot



2. The Health Foundation, The King's Fund, Nuffield Trust (2019) The health care workforce in England

- 3. Speech to Royal College of Physicians, April 2019 https://www.theguardian.com/politics/2019/apr/25/nhs-must-close-gender-gaps-and-prioritise-staff-wellbeing-hancock
- 4. Deloitte Centre for Health Solutions (2017) Time to Care
- 5. Health Education England (2016) Narrowing the gap: considering gen-gagement
- 6. Institute for Employment Studies (2017) Royal College of Nursing Employment Survey
- 7. Labour party analysis by Jon Ashworth https://labour.org.uk/press/labour-reveals-200000-nurses-quit-nhs-since-2010-party-commits-330-million-staff-training-development-tackle-retention-crisis/
- 8. The Health Foundation, The King's Fund, Nuffield Trust (2019) Closing the gap: Key areas for action on the health and care workforce
- 9. The NHS Long Term plan (2019) Page 8. www.longtermplan.nhs.uk
- 10. The Open University (2019) Breaking Barriers to Nursing
- 11. The NHS Long Term plan (2019) Page 8. www.longtermplan.nhs.uk

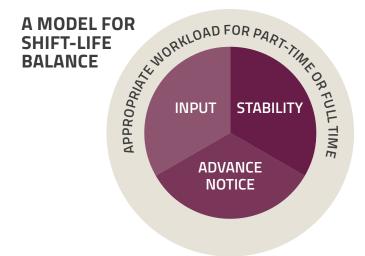
FLEXIBLE WORKING AND WORK-LIFE BALANCE IN A SHIFT-BASED SYSTEM

The aim of the project was to improve flexible working for nurses. However, 'flexibility' in nursing is being used with two different meanings: one is concerned with nurses' work-life balance, while the other is about minimising costs by moving nurses around the roster, in order to maximise efficiency. One is led by the needs of the staff, the other by the needs of the employer and the service. And while the two are not always in conflict, they are not always in harmony either.

Most of the research and interventions on flexible working over the past 30 years have focused on people in office-based roles – perhaps working some of the time from home, or shifting start and finish times to suit the individual's non-work needs. But in a shift-based environment like nursing, jobs aren't designed around individuals. The job is, in effect, designed by the roster. And that means that the work-life needs of every nurse are entwined with the needs of all the other nurses on their roster.

Work-life balance for each individual nurse is created by their own working pattern from week to week. Only just over half (52%) of nurses were happy with their working hours in 2017, a figure which has dropped from 59% in 2015.¹² Rather than a poorly-defined and contradictory concept of 'flexibility', a more helpful starting point is to define work-life balance in a way that takes account of the real clinical, operational and financial constraints within which nurses work. Clinical constraints include, for example, the need to have a nurse with a particular skill on each shift, which limits the amount that nurses can substitute for each other; financial constraints lead to the tight management of efficiency indicators which leaves no slack in the system.

Timewise has developed a model for work-life balance in shift-based environments.¹³ In addition to having an appropriate workload which is scaled to match the number of contracted hours, the three further elements which make up work-life balance are: the stability of the roster (the degree to which the working pattern changes from week to week), the amount of advance notice each nurse gets of their roster, and the degree of input they get into their roster.



Compared with other professions, hospital nurses generally do quite well on the advance notice, with the roster being published 6-12 weeks in advance of being worked; in contrast, the stability of the working pattern is very low, with extreme variability in working pattern from week to week. However, the element we focused on in this project was the degree of input that nurses have into their working pattern. Input and control are essential for work-life balance. The constraints referred to above, as well as the need to rotate unpopular weekend or night shifts fairly, mean that nurses have little control, and many leave the profession, or turn to agency work, in order to achieve it: 80% of nurses doing agency work cite 'more control over shifts' as the primary reason for choosing this way of working.¹⁴

14. Royal College of Nursing (2016) Agency nursing under the microscope: understanding flexibility in the NHS (https://hclworkforce.com/blog/agency-nursing-under-themicroscope/)

^{12.} Institute for Employment Studies (2017) Royal College of Nursing Employment Survey

^{13.} Based on the work of Professor Sue Lambert and Professor Joan Williams, including the Stable Scheduling Study (2018). https://worklifelaw.org/publications/Stable-Scheduling-Study-Report.pdf

WHY TEAM-BASED ROSTERING?

As a result of our comprehensive literature review and focus groups, we identified several problems with current rostering practice:

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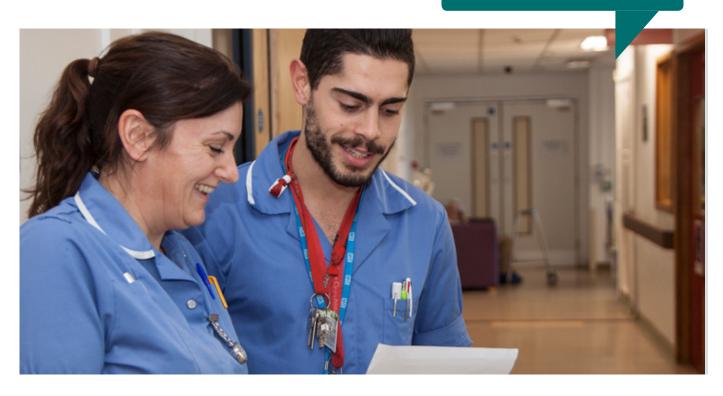
- 1. The two-tier system. The current system of 'flexible working arrangements' (FWAs), granted only to a few nurses, creates a two-tier system: 'special' arrangements (for those with FWAs) and 'normal' nurses (everyone else).
- 2. 'Rationing' of FWAs. To make the system work, FWAs involving set shift patterns are routinely discouraged. 'Going to the gym, going to church. These are normal things that normal people do – they're just not for nurses', said one of the nurses in our pilot.
- **3. Hierarchy of needs.** More than in any other profession Timewise has worked in, the hierarchy of needs puts childcare at the top, and then expects everyone else to be available in whatever pattern is left when childcare-related FWAs have been rostered. Apart from health needs, every other work-life need gets a very low priority. As one nurse put it, 'It's not the done thing to say, I don't want to work that but I want to work such and such. I think

I would get laughed at if I said, Can I please go to Zumba on a Monday night?'

4. Sense of unfairness and resentment. There was generally a poor understanding of the e-roster system and its constraints, leading to complaints about unfairness and a lack of transparency, with some people apparently getting what they want through a special relationship with the roster creator. 'It's really, really unfair. It's a big bugbear. I do whatever shift I get given. One staff member on our ward, she just hands in a bit of paper every month saying what she can work, and the rest of us have to suffer – why should one person get everything she asks for?'

We developed the team-based approach to counteract these downsides of the current roster creation process.

"Now it's OK to talk about flexibility, and it's not just for parents" LEAD TEAM MEMBER



WHAT IS TEAM-BASED ROSTERING?

The team-based approach to designing work for worklife balance has a long pedigree,¹⁵ but has never been applied to nurse rostering. The principles we developed for this project are:

- Work-life balance is not synonymous with having a flexible working arrangement (FWA). Every nurse has work-life balance needs, not just those with flexible working arrangements. A team-based approach involves considering the needs of all staff within a ward.
- Transparency and openness about everyone's preferred working pattern needs to be achieved, so that conversations about work-life balance are not only permitted but encouraged.
- Avoiding the hierarchy of needs. No judgement is made about the reasons why a particular working pattern is required: there is no 'hierarchy of needs' in terms of childcare, study, caring for elderly family members, health and wellbeing, or simply 'having a life'. Instead, there is a conversation.
- Fairness and collective responsibility. Producing a fair rota is a collective responsibility, requiring cooperation across the ward.
- Distinguishing between preferences and requests. The current system of 'requests' not to work a particular shift each month (usually four requests a month are allowed) is important in covering occasional work-life needs such as family events or medical appointments, but only provides a minimal degree of work-life balance, focused entirely on oneoff or occasional work-life needs. Work-life balance also needs to consider longer-term 'preferences'. Depending on their personal circumstances, nurses might have preferences to work more or fewer weekends, or more or fewer nights (obviously within the constraints of safe staffing and fairness). Some may have a preference to work, or not to work,

particular days of the week. Note that the term is 'preferences' rather than 'rights', recognising the importance of meeting clinical and cost targets.

TEAM-BASED ROSTERING AND SELF-ROSTERING: WHAT'S THE DIFFERENCE?

Self-rostering has some similarities with teambased rostering. Pilots have been reported in the nursing world for many years,¹⁶ but the approach has yet to achieve widespread use. There are three key differences with team-based rostering, all of which put the emphasis on 'team' rather than 'self':

- Self-rostering asks individuals to put their personal requirements into the roster each month, often on a 'first come, first served' basis, when the roster opens for requests; a team-based approach instead opens a conversation about how to balance the needs of the team as a whole.
- 2. A team-based approach manages any issues or changes to the rota as a group and it is the responsibility of the team as a whole to find a solution.
- 3. In a team-based approach, a small group of lead team members in each ward take responsibility for understanding their colleagues' work-life needs, and developing the rota on their behalf. This expands the proportion of staff who have an understanding of roster requirements and of staff work-life needs.

^{15.} Rapoport, Bailyn, Fletcher and Pruitt (2002) Beyond work-family balance. Jossey-Bass, San Francisco

^{16.} Bailyn, Collins and Song (2007) Self-scheduling for hospital nurses: An attempt and its difficulties. Journal of Nursing Management 15(1)

WHAT WE DID

We worked with 240 nurses in seven wards in three hospital trusts. We began the pilot with Birmingham Women's and Children's Hospital (BWCH) at the end of 2017, then after six months of learning, we rolled it out to Nottingham University Hospitals (NUH) and University Hospital Southampton (UHS). BWCH therefore used the team-based rostering approach for 12 monthly roster cycles, while the other two hospitals used it for six.

The full approach is described in our separate publication¹⁷ so here we outline the stages of the process:

The senior leadership and the e-roster teams were engaged to support the pilot.

The three trusts selected and briefed the pilot wards.

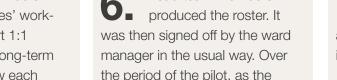
The ward managers established the 'lead team' in each ward – a group of nurses from different bands who take responsibility for understanding work-life needs, and putting the roster together for nurses at a particular band.

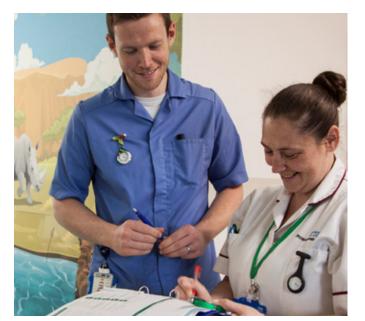
The lead team members were trained in how to collect nurses' work-life preferences, and how to produce the roster, given the financial, operational and clinical constraints in their particular setting.

Lead team members gathered nurses' worklife preferences in short 1:1 interviews. These are long-term preferences about how each individual prefers to work, not requests for specific days off.

Lead team members 6. produced the roster. It was then signed off by the ward manager in the usual way. Over the period of the pilot, as the lead team members became more adept at understanding the constraints and preferences, the amount of time taken to produce the roster each month reduced.

Timewise monitored the effectiveness of the approach, and continued to adapt it for subsequent roster periods.





THE SEVEN WARDS AND THEIR CHALLENGES

One of the key learnings from this project was the variability in both capability and capacity to make team-based rostering work. Over the period of the pilot project, all the wards had changes of staff; many had changes of lead team members; and two had a change of ward manager. This section highlights some of the key challenges and successes by describing a key learning point from each ward.

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THE LEAD-TEAM MEMBERS' LEARNING CURVE

At the start of the pilot, this ward had a new and inexperienced ward manager standing in for the permanent ward manager who was on maternity leave. The latter returned to her old role part-way through the pilot, and had to learn the new approach to rostering, which was challenging initially for her.

Both the ward managers kept close control of the rosters, and felt the need to make changes to meet clinical needs and cover absences. These frequent rota changes made the lead team members feel less in charge of their decisions. In the middle of the pilot, one of the lead team members commented that 'Preferences are going well, people are happier, it's easy to manage the preferences but there can be 'too many cooks'. I've done the rota, then changes have been made [by the ward manager] to meet the needs of the ward which is disheartening for me. Where preferences have been overridden, staff complain about their shift patterns. If I need to make changes, I check with [the ward manager] as I don't always know the bigger picture.'

However, by the end of the pilot, the ward manager was less involved, as she felt that the lead team members were more experienced and there were fewer errors or gaps in the rota. By the end of the pilot, the ward manager said, 'I'm still involved, they come and ask me questions or about a challenge, but now I ask them to find the solution and they come back to me less than before, definitely. I don't make the decisions, I push it back to them.'

MOVING THE CONVERSATION ON FROM CHILDCARE

The lead team members in this ward engaged quickly, completing one-to-one conversations and recording preferences in a timely manner. They were able to explore the entrenched work patterns of some more senior nurses and balance out other work-life considerations by addressing the needs of nurses who had historically felt their needs were not prioritised. For example, a nurse who had not been able to commit to her sports team, was now able to voice this need and for it to be given equal importance with other needs such as child care. Lead team members said they enjoyed listening to the other members of the team and finding out about their needs.



UNDERSTANDING REQUESTS AND PREFERENCES

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This ward had only 12 staff, and they decided to assign only one lead team member, who happened to be the same person doing the rotas before the project. There was already a good understanding of each other's needs, due to the size of the team, although it was not formalised.

Although this ward already embodied lots of good practice, the ward manager and lead team member still felt the formal process of having one-to-one conversations with the team was useful, particularly in establishing the difference between one-off requests (the old system of making four requests for specific shifts on particular dates each month) and long-term preferences. Initially, the requests system was turned off, as it wasn't clear whether date-specific requests would be entirely replaced by long-term preferences, but in fact it became clear that both are necessary elements of work-life balance. The ward manager commented that 'This process can make individuals feel more valued and part of the team. It makes people feel like you value them as a person rather than just a staff number.'

The lead team member said: 'We have a small team which makes that much easier to facilitate. I can see that for larger teams it could be really beneficial to stop individuals becoming 'lost' in the off duty and as a result being put on lots of nights and consecutive weekends.'

GETTING THE RIGHT NUMBER OF LEAD TEAM MEMBERS

Five lead team members were trained in this ward, but over the first few months, two did not engage well, citing work pressure and a lack of understanding and interest in developing rotas. The lead team was reduced down to three people, who have stayed throughout the pilot. One is a Band 6 who does the Band 6 and 7 roster; one does the Band 5 roster, and one does the clinical support workers' roster.

The ward manager and Band 6 lead team member have remained very closely involved in making decisions about the overall rota, as they wish to understand the bigger picture. The ward manager felt that understanding work-life preferences was an important part of her own role: 'Staff approach me about their preferences so I get an overall understanding. It's positive that people are being listened to and their views are important.' The ward manager thus continued to have a key role in developing the roster and signing it off within the timescale. The ward manager commented that 'The priority is getting the rota done and it does not always allow for collective responsibility. Sometimes it's down to me as I have to finalise it, there is so little time, it's right up to the wire. The scrutiny of the rota is me looking at the vacancies and the bigger picture.'

The ward manager in this ward had always been very supportive to staff, trying to ensure their needs were met. She also felt that the pilot shifted the focus on to supporting all staff, with and without childcare needs.

"The biggest thing is acknowledging everyone's preferences and having a mutual respect for the staff work-life balance and not just a focus on childcare – that's very positive." WARD MANAGER

"I'm still involved, but now I ask them to find the solution and they come back to me less than before, definitely. I don't make the decisions, I push it back to them." WARD MANAGER

DELEGATING RESPONSIBILITY TO THE LEAD TEAM

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This ward had an experienced ward manager who selected a strong group of lead team members and was willing to delegate responsibility to them. The ward manager had been closely involved in implementing the shared governance model in her Trust, and saw her role as supporting the lead team members, and only occasionally making the more complex decisions. As the ward manager supported and agreed with the lead team members' decisions, this impacted on their skills and confidence over time, so that even the more complex decisions such as conflicting needs over holiday periods or staff shortages could be dealt with. For example, over Easter, there were not enough staff on shifts. The ward manager asked the staff to sort it out within their groups; they knew what was needed and they did it correctly, with permission from the ward manager to make it happen.

This ward decided to reduce the number of lead team members putting together the Band 5 roster. Initially, there were two Band 5 lead team members, for 16 Band 5 staff. However, this proved to be too complex, since the two Band 5 lead team members were not rostered on the same shifts, so struggled to find time to get together to put the roster together.

By the end of the pilot, the ward manager was saving half a day a month compared with the time she spent before – although this has to be balanced against the involvement of the three lead team members in putting the roster together. The ward manager said: 'I think there is more collective responsibility, as fewer people approach me to make decisions. None approached me for the last rota so they are deciding themselves.'

COMMUNICATING PREFERENCES AND MAKING SWAPS USING WHATSAPP

This ward had a large number of staff with childcare needs, including part-timers and many nurses with fixed working patterns. The ward manager selected a strong group of lead team members, who worked hard to make the rotas work to suit their team's needs and make good use of their WhatsApp group to work out local needs, and to make swaps. As a result, the lead team make all the decisions for their sub-groups, so there is a strong culture of collective responsibility for shift patterns that work for everyone.

The ward manager commented that 'staff do know each other's preferences, not just childcare, and I hear them talk about it when planning the rotas, so people do know.'



EXPERIMENTING WITH ROLLING PATTERNS

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This ward was the only one in the pilot to set up rolling patterns for staff. Rolling patterns are repeating patterns of days in which an individual rotates through a sequence of weekly patterns across the month. They are commonly used in emergency services and this ward decided to develop them for those staff who were interested. 12 of the 33 staff in this ward opted for rolling patterns as a preference, but critically, these may be adapted when there is felt to be a negative impact on other staff shifts or gaps need to be filled. The e-roster team trained the ward managers in how to input these onto the e-roster, and then how to test each pattern to check the impact on others.

The ward manager said that 'the staff that are the happiest with these rolling patterns are those with childcare needs as this provides their children with a routine about when they are available at home or not. "I think there is more collective responsibility, as fewer people approach me to make decisions." WARD MANAGER



MEASURING IMPACT

The first few months of our first pilot, at BWCH, were used to investigate and determine the best five indicators for this project, selecting those which were most essential for establishing the team-based approach, as well as being realistic for a small-scale, 6-12 month pilot.¹⁸ These five indicators were then measured at the start and end of the work with NUH and UHS.¹⁹ We therefore report the results from BWCH slightly differently from the results from NUH and UHS.

1. MEETING NURSES' PREFERENCES

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Our first and perhaps most important indicator concerned the extent to which nurses' preferences could be met. It is widely recognised that nurse rostering is highly complex and constrained,²⁰ so it was perhaps ambitious to try to improve this indicator. We nonetheless saw an increase in the proportion of nurses' preferences being met: in the two trusts for which we have pre and post data, the proportion of nurses who indicated that their preferences were being met 'a lot' or 'fully' went up from 39% to 51%.

At the end of the pilot, we could not compare pre and post data across all three trusts, but we can say that the proportion whose preferences were being met 'a lot', or 'fully' was 41%, while a further 38% said that their preferences were being met 'enough'. Only 21% reported that their preferences were being met 'a little' or 'not at all'.

Given that the clinical, operational and financial constraints on putting together a nurse roster severely restrict the choices a roster-creator has about which nurses do which shifts, these figures indicate a cautiously successful outcome.

2. INCREASING NURSES' INPUT INTO ROSTERS

Improving the amount of input that nurses have into their rosters was a key objective, because we know that input is one of the key elements of work-life balance in shift-based environments. In the two trusts for which we have both pre and post data, again there was a positive increase in the proportion of nurses scoring highly on input into rosters, which went up from 14% to 26%, while the proportion scoring at the mid-point went up from 21% to 40%. About a third, however, still felt that they had insufficient input into their rosters.

At the end of the pilot, across all three trusts, 27% scored highly on input into rosters, but just over a third scored at the mid-point, and a further third said that they had insufficient input into their rosters.

Our conclusion here is again cautiously positive, while recognising that there are considerable constraints on nurses' input into rosters which were beyond the scope of the pilot. One key point about input is the distinction between long-term preferences, which can be used to create the roster in any time period, and requests for a particular date on a particular month's roster. Nurses may use the requests system each month to try to achieve their long-term preferences, but by giving staff the option to state both, more input is achieved.



^{18.} Although we know from other work that longer-term indicators such as staff retention and attraction are beneficially impacted by better staff work-life balance, we couldn't relate these directly to our intervention within the relatively short timescale.

^{19.} We had 53 responses from these two Trusts, and 76 from BWCH. Therefore the reported percentages are of 129 people for the post-pilot survey, but 53 people for the comparison of pre and post surveys.

^{20.} Drake, R (2019) Intelligent Rostering Systems: re-imagining the five dilemmas of e-rostering. Nursing Times

3. ACHIEVING COLLECTIVE RESPONSIBILITY FOR ROSTER CREATION

Our third indicator was a sense of collective responsibility for creating the roster. Here, our aim was to improve nurses' understanding of the impact of their rostering choices on their colleagues, and start to deal with conflicts themselves, rather than passing them up to the ward manager. In our pre and post survey in the two trusts, the proportion reporting a strong sense of collective responsibility improved from 16% to 36%, while those reporting 'enough' collective responsibility went up from 19% to 36%.

Turning to the post-pilot results across all three trusts, 35% scored positively on collective responsibility, 35% scored 'enough' collective responsibility, and 30% said they didn't feel there was enough. Overall, therefore, 'enough' or more than enough collective responsibility was felt by more than two thirds of pilot participants.

For this question, we also analysed the views of the lead team members separately: reassuringly, they concurred with this assessment, and in fact rated collective responsibility slightly higher than the nurse survey participants as a whole did. One ward manager said: 'People seem more caring and flexible towards each other; there's more flexibility in trying to sort it yourself before coming to me, taking more initiative.'

4. AWARENESS OF OTHER PEOPLE'S SHIFT PATTERN NEEDS

Our aim for this question was to shift the narrative that work-life balance is restricted to those who have a flexible working arrangement or set pattern, and extend the conversation to everyone's work-life needs, including those without childcare or other caring responsibilities. However, our pre and post survey results at the two trusts didn't show a significant change before and after the pilot. Across all three trusts, at the end of the pilot, 28% said they were fully or very aware of colleagues' shift pattern needs, while 26% said they were aware enough. This leaves just under half of nurses saying that they had little or no awareness of colleagues' shift-pattern needs. This finding is disappointing, and slightly at odds with some of the qualitative feedback from participants.

5. UNDERSTANDING THE ROSTER PROCESS

Our final indicator was nurses' understanding of the process of putting the roster together. We wanted nurses to be more aware of the rostering options, so that they could manage their preferences in the context of the real clinical and operational constraints. At our two trusts with pre and post surveys, there was no significant change in this indicator. However, the postpilot results across all three trusts showed that 34% of nurses said they understood a lot or fully; almost half (48%) said they understood enough; and only 18% said not at all or a little. The absence of change in this indicator might indicate that some nurses are not interested in the rostering process, whatever the system, so our original ambition here might have been unrealistic: apart from the lead team members, nurses perhaps had little incentive to improve their understanding of the roster process. The rostering process is undoubtedly complex, with multiple inputs both before and after the roster is approved, so perhaps for many nurses, understanding their own roster is all they need.

We also analysed the views of the lead team members separately: as might be expected, the levels of understanding here were higher, with 77% understanding the process fully or a lot, while the remaining 23% understood it 'enough', and nobody scored below this. One lead team member commented that 'At the beginning it took many hours, but I'm unsure if that was maybe myself over thinking it too much or wanting to please everyone. Now, looking at the roster we just wrote, it took us just over an hour to write which was a real improvement and accomplishment.'

CONCLUSIONS

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Overall, we are cautiously positive about the results of this pilot. Our key conclusions are:

- 1. This approach has three main benefits: better meeting nurses' work-life preferences; increasing nurses' input into rosters; and improving collective responsibility.
- 2. There are also costs attached first, the upfront training time to get the lead team up to speed with how to build the roster; and secondly, an increased time for the lead team to put the rosters together, as compared with having a single roster-creator each month. However, distributing responsibility among a lead team also improves the quality of the conversations about work-life balance, and contributes to the measurable benefits listed above.
- Ward managers play the key role in making the approach work. Implementation is much smoother where ward managers are willing to step back and delegate responsibility.
- 4. Lead team members need to be chosen carefully, to ensure they have the right skills.

POLICY RECOMMENDATIONS

NHS Improvement's Interim People Plan, published in June 2019, includes a commitment to improving workload, work-life balance, clear and timely rotas, flexible working, and managing unpaid caring responsibilities. For nurses, the Plan's first priority is to retain existing nurses, and the primary commitment here is to support 'interventions that are known to have the biggest impact in improving retention, including ensuring newly qualified staff are well supported and developing flexible working and career development opportunities.'²¹ There is also a commitment to advertise jobs with flexible options, improve practical barriers to the movement of staff between organisations, and improve tech-enabled in-house staff banks.

However, the Plan gives no workable definition of what 'flexible working' means in a shift-based environment, and the sector as a whole has little practical advice for how to make it work. Terms such as less-than-full-time working, term-time working and jobshare are used as examples of flexible working, but these different types of employment contract are all 'working restrictions' which limit the ward managers' ability to fill all the slots on the roster each month, and use up all the contracted hours each month. They are hardly the go-to options for nurses working on a typical ward roster with all its clinical, financial and operational constraints.

We are therefore making three key recommendations for policy as a result of this work.



1. AT ORGANISATIONAL LEVEL: SCALE UP THE TEAM-BASED APPROACH AS PART OF SHARED GOVERNANCE AND SHARED DECISION-MAKING INITIATIVES

While our pilot was encouraging, it was by no means a full cost-benefit analysis. Further piloting is needed to explore how team-based rostering can work in a variety of organisational cultures in different trusts.

One of the three hospitals in our pilot was introducing a shared governance approach, and it was noticeable that here the implementation of the pilot was much smoother. Empowering the workforce to take responsibility, giving nurses the autonomy and permission to make changes, and liberating talent, are key elements of the shared governance approach. Team-based rostering fits within the broader model of nursing practice that is shared governance, so we recommend that it should be considered within this framework.

The costs of the team-based approach (the upfront training, and the ongoing lead team member time) need to be seen in the context of the longer-term benefits (work-life balance, but also staff retention and engagement) of team-based rostering. As part of this project, we have produced a 'how-to' guide to implementing the team-based approach, which is available²² for any organisations who want to explore it.

There has also been a recent growth in the practice of self-rostering, as new technology transforms and facilitates this approach. It would be beneficial to compare the costs and benefits of the two approaches, using more controlled trials now that the team-based approach has been developed.

21. NHS Improvement (2019) Interim People Plan p 2122. To request a copy of the how-to guide, email info@timewise.co.uk

2. AT NATIONAL LEVEL: DEFINE WHAT FLEXIBLE WORKING AND WORK-LIFE BALANCE MEAN FOR NURSE ROSTERING

The term flexibility is the servant of two masters. One is efficiency and cost-cutting, while the other is staff worklife balance. In the nursing world, 'flexibility' too often means nurses being flexible to service demands, with very little personal control, and at the expense of their own work-life balance.

Policy makers (such as NHS E/I) should consider updating e-rostering guidance with more practical advice for ward managers on how to include nurses' work-life balance preferences in their rosters. The current guidance²³ focuses on more regular reviews of nurses' flexible working arrangements: the terminology is instructive, in that these arrangements are classified as 'working restrictions', as if being a nurse involved a 168-hour a week commitment, with 'restrictions' on that commitment being allowed only by exception. (A similar approach defines the roster as the 'off-duty'.)

The assumption underlying current e-rostering guidance is first, that the mechanism for achieving work-life balance is the 'working restriction' or flexible working arrangement, and secondly that only a few people can have such restrictions, as they must be rationed to meet service needs. The advice to Trusts is specific: review working restrictions regularly so that they can be lifted as soon as they are no longer essential, and other people can then have one.

In contrast, team-based rostering defines work-life balance as something that should be open to all, and negotiated among those on the ward roster, adult to adult, within the constraints of service and financial needs. Central guidance should distinguish between rostered and office environments, changing the language from 'flexible working arrangements' for a few nurses, to work-life balance (in all its many guises) for all nurses. The Timewise model for work-life balance in shift-based environments can be used as a basis for this approach. Policy makers (such as NHS E/I) should also consider the implications of these findings for a national specification of e-rostering systems. E-rostering software suppliers could be asked to design nurse rostering systems so that they better support the inclusion of nurses' long-term work-life preferences, rather than just offering a limited number of datespecific requests each month. Busy ward managers are currently stuck between a rock and a hard place, having to meet efficiency and cost indicators which they know will impact negatively on staff work-life balance, and trying at the same time to retain their staff by improving their work-life balance. Nurses' longterm work-life preferences need to be integrated into the autoroster - replacing the current system, which 'rations' flexible working agreements to a minority of nurses, and otherwise embodies work-life balance only as four requests each month.

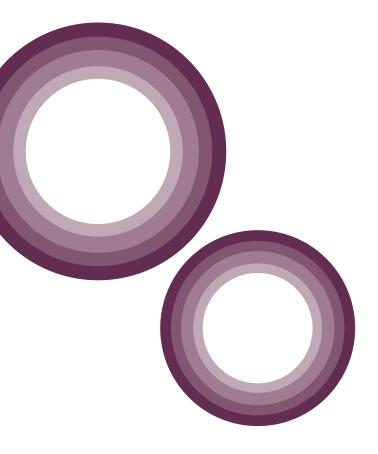
3. AT ORGANISATIONAL LEVEL: BETTER TRAINING AND GUIDANCE ON E-ROSTERING FOR WORK-LIFE BALANCE

Based on the changes suggested at national level, NHS Trusts then need to develop training and guidance on flexible working and work-life balance targeted specifically at those working in rostered environments – including but not limited to nurses. This advice should be different from the advice provided to those working in office roles: there is a need for separate, dedicated training and advice on how to manage work-life balance in rostered environments, for nurse ward managers, and indeed for any manager of a roster.

To support this training, Trusts need to champion the changes mentioned in recommendation 2. A better definition of work-life balance for nurses should be embodied in Trust-level flexible working policy, e-rostering guidelines, training programmes, recruitment campaigns, and careers guidance.

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