Safe Staffing: The New Zealand Public Health Sector Experience

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February 2014

The NICE Safe Staffing Advisory committee has been given a number of primary tasks:

- The SSAC will **advise** NICE **on effective and safe nursing and midwifery staffing levels** to support **local decisions** at ward and team level in the NHS.
- The SSAC will: **review and consider the evidence-base** related to **effective and cost effective and safe nurse staffing** in adult in-patient wards, and in other settings **develop recommendations on safe staffing** for use in NHS provider organisations, and for other organisations that manage NHS patients.
- For the first guideline, the SSAC will **also oversee the quality assurance of any associated tools and recommend them** for use in the NHS.

New Zealand has had an active programme around nursing and midwifery staffing since mid 2009 with a very similar agenda. The organisers of the committee have requested an overview of the NZ experience. This paper is a very brief overview prepared for the interest of the committee. Supplementary documents are available on request that give more detail about the NZ Programme, Care Capacity Demand Management (CCDM). CCDM is *an* example of how to approach safe staffing. It is certainly not the only way but it does give some idea of the complexity that is involved. The NZ system is at an advanced stage but is still under active development.

The New Zealand experience

History

The agenda proper began in 2005 following a difficult round of industrial negotiations between the nurses union (NZNO) and the 21 District Health Boards. An agreement was reached that the union would withdraw a demand for nurse:patient ratios in favour of a joint approach aimed at finding a less blunt solution to long-standing issues around nursing and midwifery staffing.

- A joint committee of inquiry was established
- In 2006 the committee agreed on and published a set of recommendations
- In 2007 funding was secured to establish the Safe Staffing Healthy Workplaces Unit to assist the parties (NZNO and the DHBs) to implement the recommendations around nursing and midwifery staffing
- 2 FTE positions were appointed to coordinate the work. A joint governance group was established
- Between 2007 and mid 2009 the focus was on supporting the DHBs to develop and implement escalation plans. The goal was to improve 'on the day' staffing responsiveness. This work failed to achieve any substantive outcomes except for some very nice looking escalation plans/charts. On review it was agreed that this

was the wrong place to start as the primary flaw was in the earlier stages of staffing design.

- In mid 2009 a new approach was launched involving a pilot of three DHBs. Nine months of work followed to develop a more whole of system approach that included an acuity based staffing methodology, social structures to support monitoring and change, the development of monitoring metrics and a new and more sophisticated way of managing variance between demand and capacity.
- Following an independent evaluation, the parties agreed to extend the approach, Care Capacity Demand Management (CCDM), to other willing DHBs.
- The CCDM programme uses patient acuity data along with other demand metrics to assist services to arrive at a unique staffing and resourcing profile. It does not specify minimums or maximums (except where these are service specifications such as having two nurses minimum on a night shift to keep a service operational regardless of patient utilisation).
- To date, 15 of the (now) 20 DHBs have adopted or are in the process of adopting the CCDM approach.
- 16 of 20 DHBs now have software that supports an acuity based staffing system.
- The majority of the DHBs who have been involved now have sophisticated electronic capacity/demand variance systems. Most of these were built internally and draw on the organisations' current data pool.
- The work has now been extended to involve other health unions and work is underway to develop a staffing system suitable for allied health
- The most advanced areas are in inpatient settings. Work is underway with community health and allied health but this has required different approaches suitable for case based workloads and has involved considerable software development.
- Using the staffing methodology remains optional for DHBs at this point.
- The health unions and the DHBs are due to enter contract negotiations late in 2014 and it is expected that there will be further discussion and negotiation about the status of the work at this time.

Key learning

- 'Safe staffing' is a product of good design processes
- Safe staffing is not something that you 'do' once per year. It is dynamic and happens on every shift of every day
- There is no 'off the shelf' option although there are decision support programmes that can be used to underpin an approach
- It is often not the programme development that takes the time, rather the social processes that need to accompany the development
- Involving the relevant health unions is both expedient (in terms of progress) and appropriate
- There are many ways to approach this but all must be underpinned by good evidence
- Because one size will not fit all services there needs to be a basic consistent system that is readily adapted to different settings (more recipe than prescription)
- Developing a staffing system is not sufficient. It is equally if not more important to be able to assess the impact of the system when it is applied because 'safe staffing' is a state not a construct.

- If you cannot generate good quality data to support the staffing methodology then you will be wasting your time and potentially putting patients at risk if staffing decisions are made on the basis of the data
- There will be a trade off required between getting good quality data and not overburdening people with data collection
- Managing staffing is a dynamic process and needs permanent processes (social and technical) in place to support it
- If we design or recommend an inadequate staffing process then we need to be prepared to be responsible for the outcome
- Health care responds poorly to experimentation. Any changes must be carefully considered, supported by evidence and rigorously evaluated
- Consistency of systems between organisations is a great advantage if it can be achieved, particularly because of the opportunity it gives for comparative and longitudinal data to be generated and used in ongoing system and service improvement
- Any system that lacks a mandate (i.e. a commitment to using it) will continue to be very vulnerable to other pressures (e.g. financial, volumes, targets etc)
- **Finally -** it is definitely achievable!

Reflections from the NZ experience

Arriving at a definition of 'effective and safe' staffing

A patient is not merely a piece of furniture, to be kept clean and ranged against the wall and saved from injury or breakage[1]*. (Florence Nightingale)*

It is pleasing to see the inclusion of 'effective' in the terms of reference for the NICE committee. Nursing is an active process designed to have a beneficial impact. 'Safe staffing' is not measured by the absence of harm or error. Avoiding harm and error is an expected outcome of safe staffing but it is not safe staffing. Staffing is most likely to be effective and safe when patients are being cared for in an environment that supports a successful outcome. The components of the environment are; patients willing to receive nursing care, sufficient competent staff to deliver the care, and an environment that supports the health care interactions. This scenario includes the right number and mix of staff, with the right equipment, and the right support systems being delivered in an appropriate physical space.

Safe staffing is a construct (something we design and build) but it is also a state (i.e. a condition that may or may not exist at a point in time). We cannot put in place a particular model or come up with a number and then assert that we 'have safe staffing'. We must account for the construct, what has been designed and put in place, and the state, what that translates to in practice.

So a working definition for effective and safe staffing might be: Staffing is effective and safe when the amount and type of skills that are present, enable the full package of care to be

[1] http://books.google.com.au/books?id=NblXpG4uR-EC&pg=PA141&lpg=PA141&dq=florence+nightingale+patients+are+not+merely+pieces+of+furniture&source=bl&ots=0qG2BGNfO-&sig=a0Oud5l6mwfWJ0a0h9MWbvD16wE&hl=en&sa=X&ei=W7LnUouOM4L_ygOYnYKABg&ved=0CDQQ6AEwAg#v=onepage&q=florence%20nightingale%20patients%20are%20not%20merely%20pieces%20of%20furniture&f=false

delivered to each patient in a timely manner in an environment that supports the healthcare interaction to be successful

Arriving at a definition of 'ineffective and unsafe' staffing

Based on the previous definition, one could suggest that ineffective and unsafe staffing is when patients are being cared for in an environment that does not maximise the chance of achieving a successful outcome. However there is a lot of territory between 'safe' and 'unsafe'. The environment of care can be deficient in some regard but would not necessarily be classified as unsafe. Unsafe staffing is when the environment of care is deficient or degraded to the point where the full package of care is unable to be satisfactorily delivered.

What we need to know

In order to achieve safe staffing we need to know what conditions are most conducive to providing an environment of care that supports successful outcomes.

What we need to do

We need to use evidence to design and deliver systems that support successful care and outcomes. Where the evidence is not strong we need to build the evidence base.

How do we go about that?

There are five phases that need to be considered. These can be thought of as windows of opportunity to get it right.

Five windows of opportunity to achieve effective and safe staffing

1. Arrive at a basic staffing design for a service – this requires a sound methodology
2. Resource the staffing design
3. Implement the staffing design
4. Assess the impact/outcomes
5. Redesign

The five windows of opportunity contribute to maximising organisational resilience. Organisational resilience is the ability of an organisation to sustain its outputs and outcomes under varying conditions and to recover without significant loss if a major variance occurs.

Phase 1: Arriving at a basic staffing design

Most common error: Failing to design for what actually happens

The methodology to support staffing design needs to be evidence-based, workable, adaptable, transferable and reflective of what actually happens when services are delivered, not an imaginary world where demand comes at an even pace, staff and supplies are always present and the projections are always accurate. The goal is to design staffing so that it

works successfully most of the time and to have a back up design to deal with any significant variance that emerges.

DESIGNING TO MEET THE REALITY

Good organisational and service design are not based on averages but on the range of demand likely to be experienced by a service. A unique design can be identified down to ward and service level for each 8-hour period of each day of the year. The design needs to take into account what is projected to happen and what else might reasonably happen. In addition there will be an overarching design about how resources can be mobilised and shared to support services that are under pressure or services that are sub-productive or non-productive.

2. Resourcing the staffing design

Most common error: Changing the design without understanding the consequences

Once the ideal design has been identified using the agreed evidence-based method, it should be put in place fairly much as it is. Safe staffing is not a process of negotiation nor can it be seen in competition with other organisational goals such as cost savings or pressure to achieve targets. Despite this what is commonly seen in practice is that if in the resourcing stage difficulties are encountered with putting the design in place, the model starts to become degraded. For example, the funding is not sufficient to resource the recommended staffing level or the staff are not able to be recruited. If the recommended staffing level is reduced or demand is not correspondingly reduced then the design is at high risk of failing when it is executed.

Failure to recognize that having a staffing buffer is a necessary component of good design, or believing that the organisation can function predominantly at maximum productive capacity can result in flawed resourcing of the design. If for example 'waste' is identified in the staffing model and this is removed, in practice when a gap between demand and capacity occurs there is little room for adaptation. Similarly if a service is expected to operate at maximum productive capacity as the norm, even slight shifts in demand will have rapid and negative consequences for safety and productivity. In this scenario there is nowhere for the system to go but to become degraded where sacrificing one goal over another takes place and harm becomes almost an inevitability. Reasons for design flaws like this are commonly either that the information needed to come up with a better design was not available or that pressure to achieve volumes or targets or to contain costs puts an intolerable squeeze on the resourcing.

3. Executing the design

Most common errors: Failing to adjust the design in the face of variance. Manipulating the design to achieve targets or balance budgets

There is no guarantee that the staffing design arrived at months before is going to be what is needed on the day or what is able to be delivered. And yet that is what we must achieve. The final opportunity to get it right or wrong is in the period immediately before services are

actually delivered. Even if the design was properly resourced, any changes to the base staffing, or an unexpectedly high patient demand, or any number of things can get in the way of having the right capacity/demand match in place. This can generally be managed if it happens on the odd shift or day, but longer than this and immediate and long-term consequences can result.

4. Assessing the impact/outcomes

Most common error: Failing to learn from the evidence

Developing a methodology for services to apply to staffing is not sufficient on its own. We must be able to accurately (and rapidly) see the impact of our design on service delivery. Because the consequences of getting it wrong can be disastrous; patients may be harmed and patients may die. Over time, putting together the actual design (what was in place) and the impact data (what resulted) enables us to see what combinations of resourcing are most successful and which are more likely to expose us to risk and harm. The goal of course is to replicate success.

5. Redesign

Most common error: Failing to act on the evidence

In terms of proving the case that staffing design does matter, the international jury has well and truly reached its verdict. There is nothing now to be proven in terms of an association between staffing design and patient outcomes, particularly mortality. However we are still grappling with the vexed question of how much is enough? What we must aim for is to improve the specificity of the evidence so that doing the right thing is simply the obvious decision. Until we reach this point and can have confidence in our design processes and our impact data, the door is still open for the wrong decisions to be made. In addition as well as having access to good quality information, formal social structures need to be put in place to support analysis and good decision-making.

Summary

The ultimate measure of whether the goal of safe and effective staffing was achieved is not going to be based on whether or not a particular staffing level was met but rather what ultimately happened when care was delivered.

The recommendations that the NICE Safe Staffing Advisory Group will make around nurse staffing will be accepted by the health sector as valid and will be translated into staffing and resourcing decisions that will profoundly affect the experience and outcomes of future patients. If we do our job well we will make a significant contribution to health care excellence. This is a weighty responsibility deserving of a sound and thorough approach.

If we can assist services to be able to design to best practice standards, to resource to match this and to deliver what is required on the day, they will have achieved the safest possible environment in which to deliver care and will have maximised the chances of success. This is what safe and effective staffing looks like.