Summer 2015 E-Edition

Nursing Review

NEW ZEALAND'S INDEPENDENT NURSING SERIES

NEW DEGREES FOR 'MASTERING' NURSING

ELECTRONIC 'OBS' PILOT UNDERWAY

SHIFTWORK: UNNATURAL BUT ESSENTIAL

BIG DATA: THE NURSE'S FRIEND

SLEEPING (SAFELY) LIKE A BABY

TOP TIPS GUIDE TO RN PORTFOLIO

EVERYDAY NURSING HEROES

RRR PROFESSIONAL DEVELOPMENT: REVISITING WORK-LIFE BALANCE

RETHINKING THE 12-HOUR SHIFT

Nurse leader report cards: HOW DID 2015 SCORE?

www.nursingreview.co.nz

LETTER FROM THE EDITOR:

Roll on summer

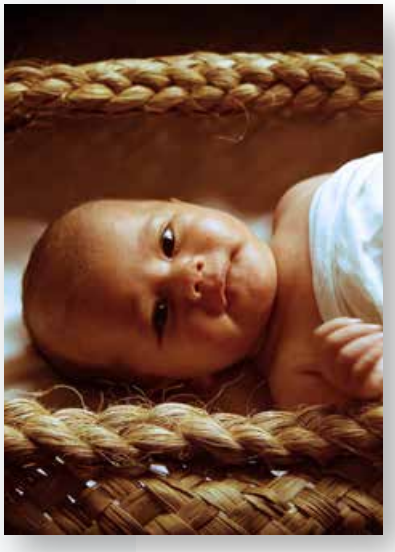
Welcome to the digital summer edition of *Nursing Review*. We are ending the year with this special edition offering a smorgasbord of summer reading – a well-balanced 'diet' of articles new and old that run the gamut from informative to thought-provoking and useful to entertaining.

The edition opens with 11 nursing and health leaders looking back at the year that was and sharing their assessments of which areas in health and nursing have made 'good progress'; which areas have 'stagnated after showing initial promise'; and which areas 'must do better' in the new year.

We also feature a tasty smattering of articles drawn from research and presentations delivered at the biennial Australasian Nurse Educators Conference (ANEC) in Auckland and the National Nursing Informatics Conference in Christchurch.

In our 'Best of the Rest' section we are republishing some of the most well-received articles from *Nursing Review*'s print editions this year, including our extensive look at the issue of shiftwork. We provide some additional new material on research into the 12-hour shift and on one district health board that is beginning to revisit its own 12-hour shift rosters.

The first print edition for 2016 will be wending its way to your mailbox, ward or practice in February. It is our annual edition focusing on nurses walking the talk and looking after their own health and wellbeing.



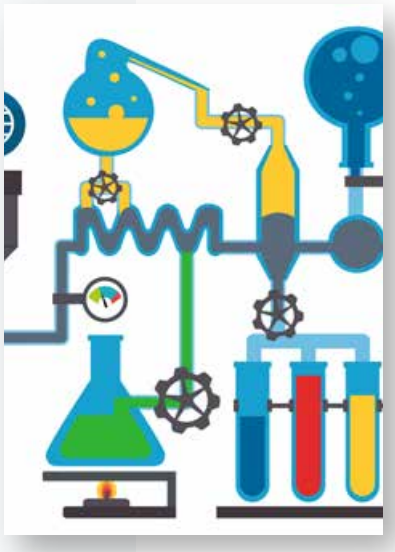
Revisiting our first ever RRR

This edition we republish our first ever RRR professional development article and activity that looked at the juggling act we call 'work-life balance'. The article, 'In Balance: The Fit Between Work and Other Life Commitments', was written and published in 2012, when the impact of the global financial crisis was still being felt strongly in the workplace and many nurses were taking on increased hours because of financial and job uncertainty impacting on their families; plus fewer nurses were retiring.

Three years on, that trend appears little changed, with district health board workforce statistics indicating that nurses in 2015 are working the same hours as they did three years ago and delaying retirement may still be a trend – the average age of a DHB nurse is up slightly from 44.7 years to 44.8 and the average length of nurse service has increased from 8.7 years to 9.2 years over the same time period.

Nursing Review thinks it is timely and relevant to offer an opportunity for nurses to revisit how they define work-life balance and to explore the fit between their personal and professional roles.

Remember, if you enjoy this RRR article, you can access an online back catalogue of 20 RRR articles and activities available exclusively to our print subscribers; there are five more fresh topics to come in 2016.



I hope you enjoy your digital summer read, have a lovely Christmas and find time for a restful and restorative break over the summer.

Fiona Cassie
editor@nursingreview.co.nz

www.nursingreview.co.nz

Twitter@NursingReviewNZ

Inside:

BEST OF THE REST

A selection of some of the top *Nursing Review* articles from 2015

On p.12 of our October edition we used a stock photo image to illustrate an article on infant immunisation which incorrectly showed an infant being immunised in the arm. The correct intramuscular immunisation site for infants under 15 months is the thigh. More information on the infant lateral thigh injection site (vastus lateralis) can be found at: http://bit.ly/1NQcdkB

Connect with *Nursing Review* on Twitter
Follow *Nursing Review* for breaking news, latest innovations, and professional issues close to your heart.
Find us on Twitter@NursingReviewNZ

EDITOR
Fiona Cassie

PRODUCTION
Aaron Morey

ADVERTISING & MARKETING MANAGER
Belle Hanrahan

PUBLISHER & GENERAL MANAGER
Bronwen Wilkins

IMAGES
istock

Nursing Review Vol 15 Issue 6 2015

NZME. Educational Media,
Level 2,
NZME. House,
190 Taranaki Street,
Wellington 6141, New Zealand

PO Box 200, Wellington 6140

Tel: 04 471 1600

ISSN: 1173-8014

Nursing Review is distributed to key decision makers in the nursing sector and its distribution is audited by New Zealand Audit Bureau of Circulation (ABC).

2015: Report card on the year that was...

Nursing Review ended the year by asking a wide range of nursing and health leaders to assess and fill in a 'report card' on how they believed nursing and health fared in 2015.

The year that was 2015 began with an upswing in new graduate jobs but also up were graduate numbers, so 41 per cent of new nurses still began the new year job-hunting*.

It is the year that the first dedicated nurse practitioner training programme gained funding but training for registered nurse prescribing and nurse endoscopists was put on hold so the finer points of these innovations can be established and worked through.

It is the year that the fifth national collective agreement for district health board nurses was ratified – a decade on since the 'fair pay' boost was negotiated between DHBs and the New Zealand Nurses Organisation. 2015 is also the year that an 'equal pay' legal challenge by a rest home worker prompted the Government to agree to look at fairer pay also for the aged care and disability sectors.

Likewise, a decade in the making has been the Health Practitioners (Replacement of Statutory References to Medical Practitioners) Bill, which had its long-awaited first hearing in Parliament this year after the groundwork began back in 2005 to remove legislative barriers to nurse practitioners working at the top of their scope.

And finally, 2015 is another year when headlines about budget-stretched and strained DHBs and the impact of these on health services were far from unknown.

Nursing and health leaders share their views below on how they saw 2015 and what they would like 2016 to bring for nursing.

**NB most of those job-hunting new graduates were nursing as 2015 drew to a close.*

JANE O'MALLEY and OFFICE of the CHIEF NURSE TEAM Ministry of Health

From the point of view of the Office of the Chief Nurse (OCN), nursing and health in 2015 made great strides forward in:

This has been a year where work that has been in progress for a number of years has gathered momentum; in particular, the work with Health Workforce New Zealand to remove barriers to nurses contributing to health care to the full extent of their scopes of practice so people can access the right care, at the right time, from the right person. Some of the barriers are legislative and have progressed as below:

The Health Practitioners (Removal of Statutory References to Medical Practitioners) Bill (HPSR Bill, for short) is being considered by Select Committee.

Prescribing for registered nurses working in primary care and specialty teams.

The Minister has agreed to the Ministry progressing an amendment to the Medicines (Standing Order) Regulations to allow nurse practitioners to issue standing orders.

Other:

Registered and enrolled nurses, nurse practitioners, ambulance personnel and midwives are permitted by the Chief Coroner to verify death (assess for signs of life extinct).

What else has been working well from an OCN perspective?

One of the Office's roles is to provide leadership in the sector. This year we have worked with other nurse leaders to achieve the following:

Increased the number of new graduate nurses employed within 12 months of graduation.

Alignment of new opportunities for enrolled nurses to contribute to the skill mix, for example in mental health services.

Evaluations of alternative models transition to employment, including, for example, new graduate nurses in VLCA practices and the Gerontology Acceleration Programme.

Working in partnership with Associate Directors of Nursing Mental Health to support DHB policies for implementing the *Emergency Department Guidelines for Suicide Prevention.*

Undertaken many visits, meetings, workshops and conferences with nurses and others to make links, share national level strategy, build understanding and capacity in the sector and share intelligence to influence the development of practice-based policy

Published a newsletter for frontline nurses to make the work of the office and national/central government processes more visible.

The joined-up work of nursing leaders through the National Nursing Organisations (NNO) group has contributed a great deal to the clarity of the nursing voice on strategic matters. The group functions to bring together leaders from each of nursing's peak bodies to share information and agree strategic direction for nursing. The Office's role is to share information from a political and government perspective.

Goals for 2016:

We look forward to 2016 and progress on:

the New Zealand Health Strategy being finalised and providing a road map to shape the delivery of health care for the future

the Mental Health Workforce and the Nursing Workforce plans

the revision of the Health of People's Strategy

the progress toward enactment of the HPSR bill (see above), registered nurse prescribing and nurse practitioners issuing standing orders

more opportunities to work with nurses to ensure nursing is able to contribute to its full potential to improve health outcomes for New Zealanders.

JENNY CARRYER Executive director of College of Nurses Aotearoa and professor of nursing at Massey University.

Nursing and health in 2015 made great strides forward in:

In 2015 one notable feature was the continuing collegial and strategic collaboration of all nursing leaders pulling together to address the strategic direction for nursing and to address the challenges arising.

Also on a positive note the funding for the new version of nurse practitioner training was a welcome bonus. Over 50 employers (mostly in primary health care) revealed their commitment to hire an NP at the conclusion of the programme next year. Let's hope the funding is sustained and then we will see a significant change in the workforce landscape.

Passed but could do better next year:

One interesting feature of 2015 seemed to be an ever-increasing volume of Ministry strategy documents requiring consultation and input across a vast array of topics. It seemed to me from a nursing perspective that a closer attention to some of our core basics might address all of these numerous strategic documents without so much effort expended on consultation.

Areas that failed or struggled to deliver in 2015:

As ever for nursing, the challenges come thick and fast in a health sector under increasing pressure with cash-strapped hospitals and ever-increasing demand for good primary health care. The need to employ and retain our precious new graduates has never been greater and right now, as I meet the about-to-be graduate nurses around the country, I feel for their anxiety as they begin the job hunt.

Goals for 2016:

Investing in nursing employment, postgraduate nursing education and freeing nurses to work in a truly person-centred manner – rather than in an employment or contract-focused or rationed manner – would address many of our challenges.

KATHY HOLLOWAY National chair of NETS (Nursing Education in the Tertiary Sector Aotearoa NZ)

Nursing and health in 2015 made great strides forward in:

The normalising of the ACE process for new graduate nurse employment for nursing schools and students. ACE is providing a rich data source. Also progressing legislative changes to remove barriers preventing nurses utilising the full extent of their education and training. And a greater awareness of the contribution that nurse practitioners can make.

Passed but could do better next year:

Employment of new graduates is improving but early indications are concerning for 2016.

Areas showing initial promise but failing to deliver in 2015:

The 'refresh' of the New Zealand Health Strategy raised the profile of the need for consumer engagement and funding redesign for the delivery of health services. The implementation of these will be closely watched in 2016.

Goals for 2016:

One hundred per cent employment for new graduate nurses within the first year of practice.

Māori nursing workforce development strategy developed and implemented.

GRANT BROOKES President of the New Zealand Nurses Organisation

Nursing and health in 2015 made great strides forward in:

Great strides have been made this year in removing regulatory barriers that prevent nurses from making the best use of their knowledge and skills.

The movement of the Health Practitioners (Removal of Statutory References to Medical Practitioners) Bill through Parliament raises hopes that we'll soon achieve this, enabling a more efficient and effective health system. NZNO supports this Bill. We also hope our suggested improvements are taken on board by the Select Committee when it reports back to Parliament in February.

Passed but could do better next year:

The progress made in implementing Care Capacity Demand Management (CCDM) across the district health board (DHB) sector deserves a pass mark.

This year, Bay of Plenty achieved the distinction of being the first DHB "over the line", meaning the core components of CCDM have been implemented for all their acute medical/surgical areas.

Hawke's Bay and Taranaki DHBs joined the CCDM programme, and Auckland DHB began the enormous task of rolling it out across its many inpatient areas.

But from NZNO's perspective, there are still five DHBs not currently active in the programme, with two more "pending". Progress elsewhere remains painfully slow. There are even backwards steps at some DHBs.

Given the critical importance of safe staffing, both for NZNO members and for quality of care in our public hospitals, more definitely needs to be done in 2016.

Areas showing initial promise but failing to deliver in 2015:

For new graduate nurses, the year began with movement towards NZNO's goal of 100 per cent graduate employment by 2018 at the latest. NZNO's 2014 petition campaign, alongside a report from the National Nursing Organisations, had secured funding to cover Health Workforce New Zealand's contribution towards another 200 NETP (nursing entry to practice) places.

Raising the cap from 1100 to 1300 places this year still wouldn't provide full employment. And the actual number of places was always dependent on the ability of employers to offer jobs.

Sadly, cash-strapped DHBs and insufficient participation from other sectors has meant the promise of 1300 NETP places was not fulfilled.

In September, therefore, delegates to the NZNO AGM voted for a motion: "That NZNO continues to prioritise and support campaigns towards nurses and midwives entry to practice programmes, for registered nurses, registered midwives and enrolled nurses, with the campaign goal of 100 per cent employment of new graduates and improved health workforce planning in Aotearoa".

Areas that failed abjectly:

Budget 2015 failed abjectly, once again, to provide sufficient funding for health.

According to Council of Trade Unions economist Bill Rosenberg, Vote Health was $245 million behind what is needed to cover announced new services, increasing costs, population growth and the effects of an ageing population.

The accumulated funding shortfall in government health expenditure for 2015/16 compared with 2009/10 is more than $1 billion.

This is what underlies the painfully slow adoption of CCDM, the failure of new grad employment opportunities to live up to their promise, and the growth of serious, related problems like care rationing. This has to change next year.

SHARON HANSEN Rural nurse practitioner and chair of the Rural General Practice Network (RGPN)

Nursing and health in 2015 made great strides forward in:

Registered nurse prescribing – which is still being worked on and is still not ready for the sector. This is not a fault as all good things take time, and it is too important to rush. It is my hope that employers, the public, and nurses themselves are ready for it. All credit to the work being done by Pam Doole and the team at Nursing Council, plus the people who have contributed to that work.

Passed but could do better next year:

A realistic approach to the public health issue of obesity. It seems to me that we still have a focus on the individual and their families without true examination of the place of big business and food supply.

Areas showing initial promise but failing to deliver in 2015:

The new money that the Minister announced supporting the training places for 20 new nurse practitioners (NPs). NP candidates in the new supported NP training scheme are required to have employer backing. In the rural sector we have nurses who are self-employed and want to be supported into NP registration. These nurses are already working in locum positions and both the nurses and the communities they serve would benefit from their change of scope.

Areas that failed abjectly:

I believe the failure of the Government to recognise the need for ongoing, sustainably supported and focused further education for NPs and other advanced clinical roles.

JONATHAN COLEMAN Minister of Health

Nursing and health in 2015 made great strides forward in:

New Zealand is moving towards a more integrated and better-connected healthcare service with patients at the centre. Nurses are playing a vital role in this shift. There continues to be an increased focus on moving services into the community and a focus on early prevention and intervention. I'm committed to making the best use of nurses' skills and experience, and good progress has been made this year. The Health Practitioners (HPSR) Bill is before Parliament. It will enable health practitioners to carry out many functions that traditionally have been restricted to medical practitioners. Health officials are progressing an application to allow appropriately skilled and educated nurses in primary and specialty teams to practise as designated prescribers.

Goals for 2016

The New Zealand Health Strategy will be implemented from 2016. It will set a clear direction for the sector on prevention, more integrated services, support for innovation, better collaboration, and ensuring services are more accessible. I want to see continued progress in the battle against NCDs (non-communicable diseases), particularly diabetes and childhood obesity. We want to continue to harness the full potential of our workforce. I expect progress to be made on the HPSR Bill, and enabling skilled nurses to practise as designated prescribers. There will also be enhanced training for nurse specialists and nurse practitioners in 2016.

HEMAIMA HUGHES President of National Council of Māori Nurses/ Te Kaunihera Neehi Māori o Aotearoa

Nursing and health in 2015 made great strides forward in:

Relaunch of the Bachelor of Health Sciences Māori Nursing at Te Whare Wānanga o Awanuiārangi in Whakatane. Māori students are doing well and being well received in the clinical placement arena. Positive contribution towards increasing the Māori nursing workforce. Also 246 attendees at the annual National Māori Students Nurses Hui held at the Manukau Institute of Technology this year.

Passed but could do better next year:

We can always have our dreams and work towards making these a reality in terms of improving healthcare delivery through the nursing workforce, however this does require increased funding to be able to have the appropriate human, practical and physical resources to deliver the care.

Areas showing initial promise but failing to deliver in 2015:

It's not always about us as the professional nursing workforce. So often we deliver care mechanically because of time constraints imposed on us in our places of practice. A redirection of our focus is that it is about the client/patient and not us.

Areas that failed abjectly:

Healthcare delivery and nursing practice in care of the older person requires serious consideration. The care of a loved one in our whānau this year was appalling. His death was accelerated because he acquired a very large sacral pressure sore that became infected. Basic nursing care is being compromised because of so-called 'busyness' created by understaffing.

Also participation by nurses in the nomination and appointment process to the Nursing Council of New Zealand was encouraged by Nursing Council, however, the final process was not made transparent to participants. But rather they/we were informed that appointments had been made. This transparency has also been missing in previous election processes.

Goals for 2016

Prescribing rights for RNs – so long as the practice is monitored correctly and not abused.

The Nursing Council of New Zealand needs to seriously consider the inclusion of Māori representation in council to ensure the indigenous voice in decision-making is transparent, evident and fair.

Transparency in election processes to NCNZ.

Improved monitoring of unregulated caregivers in residential aged care facilities.

ANNETTE KING Health spokesperson for Labour and deputy leader of the Labour Party

Short message to end 2015

Without a dedicated and committed health workforce working in our hospitals, communities, and homes, New Zealand could not provide the level of care expected, and needed. But we should never take them (nurses) for granted or expect them to shoulder decisions that make their jobs unsafe or compromise quality care.

We can be proud of our nursing workforce who, 114 years after the introduction of nurse registration, have led as the health carers in New Zealand.

DENISE KIVELL Chair of NENZ (Nurse Executives of New Zealand)

Nursing and health in 2015 made great strides forward in:

Reclaiming and profiling the value nursing makes when working with, designing and utilising technology. Plunket now has an electronic health record. HINZ (Health Informatics New Zealand) partnered with nurse executives to raise awareness and also run multiple health informatics workshops.

New Zealand is the first country to use the interRAI assessment tool in home, community and residential care facilities nationwide.

Secured the longevity of the Safe Staffing Healthy Workplace unit and the value of the unit's CCDM (care capacity demand management) systems are more evident.

Increase in new graduates employment. Data from ACE new graduate employment system now able to challenge workforce practices.

Change in language from 'primary' and 'secondary' care toward talking about one health system with more awareness of the need for an integrated approach.

Passed but could do better next year:

Reducing patient harm at all levels of care. Nurses are juggling multiple initiatives and the gains are evident. (For example the latest Hand Hygiene NZ audit showed 84 per cent of nurses and midwives are meeting the '5 moments for hand hygiene'). However nursing leadership and accountability needs to be relentless and take up the challenge to improve sustainable systems.

New Zealand Māori nurses make up 6.5 per cent of our nursing population. This is up by 127 on last year.

The value of co-design and working with consumers to help transform health systems; and more awareness of the importance of person/patient/client & family/ whānau-centred care. (We haven't nailed the terminology though!)

Areas showing initial promise but failing to deliver in 2015:

Prescribing… a slow journey.

High percentage of enrolled nursing graduates not employed.

Goals for 2016

Seize the opportunity to work with the refresh of the New Zealand Health Strategy.

Utilise the Nursing Workforce Programme recommendations being developed by the HWNZ and National Nurses Organisations (a work in progress in 2015).

Profile the value of nurses at all levels of governance.

KERRI NUKU Kaiwhakahaere of Te Rūnanga o Aotearoa, New Zealand Nurses Organisation

Comment on nursing progress in 2015

It is disappointing to think that the total Māori health and disability regulated workforce has remained static since the mid-1990s; we need to look at new solutions and strategies to grow, keep and sustain our own Māori nurses and why there has been little movement or investment in this area.

The Māori health and disability workforce development is a key enabler of health outcomes. However, the supply of the future Māori health workforce remains critical, with a Health Workforce New Zealand report indicating that the workforce would need to triple in size to meet the needs of the communities they serve. As health professionals we need to take a deep breath of courage, to be bold and disruptive.

There is a need for the Government to engage with key Māori and Pacific nursing leaders and have a frank discussion about what Māori nursing and midwifery aspirations are.

Our moemoeā is to build a capable Māori nursing and midwifery workforce, to grow and nurture so that we can lead our whānau, hapū and iwi towards positive health outcomes.

Goals for 2016

We need to see:

100 per cent employment for new graduates

review of the transition to practice for NETP (nursing entry to practice) graduates

review that recruitment process for district health boards (DHBs) and primary health care are equitable

that NETP and NESP (new entry to specialist practice, mental health and addictions) are effective and evaluated

review return to practice programmes to ensure that cultural competency is given as much weighting as clinical competencies

that enrolled nurses are utilised and employed across all sectors

the CCDM (care capacity demand management) being effectively implemented across all DHBs and primary health care settings

collective support and advocacy for pay parity across all sectors of the workforce, specifically in Māori, iwi and aged care providers

the New Zealand Health Strategy review and the HPCA Act are opportune vehicles for nurses to have their voices heard to advance the professional role of nursing

a healthy population approach to primary health care. We look forward, along with our Pacific colleagues, to be invited to the table to be part of the solutions.

ANNE BREBNER President of Te Ao Māramatanga/ New Zealand College of Mental Health Nurses (NZCMHN)

Nursing and health in 2015 made great strides forward in:

I had a sense from our NZCMHN conference attendees and presenters that we are doing above average in areas such as the *Equally Well* work. *Equally Well* seeks to improve access to physical health care for people with long-term mental health conditions and the programme appears to be strengthened nationally.

Areas showing promise

I would be remiss if I didn't add into a report card like this, that our emerging, newly prepared nurses are showing incredible promise and innovation. The postgraduate certificate that NESP (new entry to specialty practice – mental health and addiction nursing) graduates complete appears to be 'across-the-board' an excellent method to support nurses develop their critical thinking skills.

Passed but could do better next year

We have passed but could always do more of suicide prevention. This area of work is vital, requires clear leadership, and concerted and focused, team-based approaches. Suicide prevention remains on everyone's radar as 'could and should do better always'. Likewise the work done on seclusion reduction, we must not take our foot off the pedal at any time. Huge gains have been made and we have more confidence in building on what works well.

Working with non-governmental organisations that are partners in our work continues to show promise. People who receive support for mental health and addictions require more than 'nursing' and this cannot be achieved without the dedicated team effort that is provided by NGO partners.

Areas that struggled to deliver in 2015:

We have yet to 'nail' the smaller sub-specialty areas of mental health nursing such as people with intellectual disability and mental health problems. Also the 'where' and 'how to' best support the needs of people with older age-related memory/delirium/dementia issues and the needs of their family carers. Plus working with people with serious alcohol-related and other drug difficulties who need long-term support.

Gaining a nursing master's before you master nursing?

Is New Zealand ready for new graduate nurses with master's degrees? Fiona Cassie reports on the advent of graduate-entry nursing programmes.

Next year Christchurch will be home to two graduate-entry programmes squeezing nursing training into an intense two years.

Not only do the courses concentrate the usual three-year nursing curriculum into two years, but the new nurses also emerge with master's degrees (they will be paid the same, however, as their fellow new graduate nurses with bachelor's degrees).

The first course, a joint programme by the University of Canterbury and CPIT, was launched in 2014 as a 2.5-year programme but is now awaiting formal approval* so its latest students can emerge with both a Bachelor of Nursing (BN) and a Master of Health Sciences Professional Practice (MHealScProfPr) in just two years.

Also waiting final approval from the same university body* and set to launch in the New Year – is the University of Otago, Christchurch, programme, which will be the country's first pre-registration master's degree in nursing, the Master of Nursing Science (MNSc).

Both programmes require entrants to have an undergraduate degree with a B average or better but it doesn't have to be a health science degree as long as students can meet the bioscience knowledge requirements.

MASTERING THE NEW PATHWAY

The Otago programme has been made possible by the Nursing Council consulting on and amending its education standards to allow New Zealand to follow Australia, the United Kingdom, USA, Canada and Hong Kong in offering this alternative master's qualification pathway to nurse registration. The new two-year pathways still have to offer the same minimum 1,100 clinical experience hours as required under the conventional three-year Bachelor of Nursing.

The Nursing Council said in its consultation document last year that internationally, pre-registration master's degrees in nursing were known to appeal to graduates from health and other disciplines seeking to become registered nurses. But it also noted there was potential to cause confusion amongst the public, nurses, and the wider healthcare workforce if the titles of any pre-entry master's programmes in nursing were not clearly differentiated from the advanced practice master's degrees held by nurse practitioners (NPs).**

Submissions received by the Nursing Council showed nurses, district health boards and nursing organisations were divided, with some for, a number against and many wanting more detail

Continued on next page >>

about the implications of introducing a master's degree entry to nursing.

The New Zealand Nurses Organisation submission supported the new master's pathway as a "positive step" towards addressing anticipated nursing workforce shortages. "This initiative is one way in which access to a nursing career can be enhanced," said NZNO.

A pre-registration master's degree was not supported by the College of Nurses Aotearoa, which said it backed the three-year undergraduate BN programme as the benchmark for entry to nursing and believed a pre-entry master's was "a recipe for confusion" and "the energy could be better directed to refining and improving the status quo". Several submitters expressed concern about condensing the nursing curriculum into two years and others reiterated concerns about confusion and devaluing or diluting the clinical master's degree held by advanced practice nurses like NPs and clinical nurse specialists.

Mary Gordon, executive director of nursing for Canterbury District Health Board, is supportive of the two graduate-entry programmes, saying they will both increase the supply of nurses and also bring diversity into the profession. She says Canterbury DHB is committed to offering clinical placements to both programmes and had already received very positive feedback on the Canterbury/CPIT students. "The feedback from clinical placement areas is that the students are great, mature; their critical thinking and judgment is very evident."

Leanne Samuel, director of nursing for the Southern DHB, is also supportive of graduate-entry programmes, saying nurses graduating with master's-level qualifications will enrich the calibre of the nursing workforce and may bring with them "extremely useful skill sets" from their earlier degree, be it in law or IT. She added that employers would always appoint the best applicant to the role regardless of which programme they come from.

CHRISTCHURCH-BASED PROGRAMMES

Dr Alison Dixon, coordinator for the joint Canterbury/CPIT programme, recently told the Australasian Nurse Educators Conference that the programme was prompted by CPIT nurse leader Cathy Andrew wanting to offer a more challenging nursing programme for graduate students enrolling in its BN programme.

The programme had 15 students in its first intake, 16 in its second and was looking to have more than 20 enrolments in 2016, including a PhD graduate, dentist, and community pharmacist. Dixon said the two-year BN/MHSc pathway was appealing to a range of graduates, including research-focused recent graduates, men and middle-aged students who had always wanted to go nursing

Dr Philippa Seaton, director of the University of Otago's Christchurch-based Centre for Postgraduate Nursing Studies, said its decision to offer a pre-registration master's programme was prompted to help meet projected future nursing workforce needs. It also looked overseas where similar programmes had been offered for some time, including across the Tasman, and research indicating positive contributions by graduate-entry master's students to the nursing profession.

Otago was looking to offer 20 places in its first full-time intake next February and Seaton said she was optimistic it would fill them. Otago had had a positive response from district health boards, she said, and other providers across the South Island ready to offer clinical placements for the students.

Seaton said the nursing curriculum was not abbreviated in a pre-registration masters programme but just intensified and offered over two extended academic years stretching from February to December. She said people concerned a pre-entry master's degree would lead to confusion with an NP's qualifications needed to realise the two master's degrees were quite different qualifications.

Seaton said Otago had deliberately chosen the name Master of Nursing Science to differentiate it from its current postgraduate, post-registration Master of Health Sciences (MHSc) degrees. "So people could look at it [the new degree title] and have a bit more familiarity with it; [they could] say 'MNSc, yes we know that was an entry-to-practice qualification, not a "I'm 10 years down the track" qualification'."

She said its future MNSc graduates would bring a deeper, more critical understanding and thinking, plus master's-acquired research skills, to their practice as newly graduated nurses.

*Both programmes have Nursing Council approval but are now awaiting formal ratification of their master's degrees from the national universities body CUAP (Committee on University Academic Programmes), which is meeting in early December.

**Currently the abbreviations for the advanced practice nursing master's degrees on offer around the country include MN (Massey, Wintec & EIT), MNS (Victoria) and MNurs (University of Auckland) MHPrac (AUT) and MHSc (AUT & University of Otago).

Safe sleep: ask the uncomfortable questions

A safe sleeping advisor tells *Nursing Review* that nurses often have special opportunities to ask the questions that can make a difference to vulnerable families.

Safe Sleep Day in early December heralded the annual focus on promoting safe sleeping for babies and taking action to reduce the risk of sudden unexpected baby deaths.

To protect babies at risk of sudden unexpected deaths, nurses need to be ready to ask the uncomfortable questions about smoking and bed sharing, says a safe sleeping advisor.

Jeanine Tamati-Paratene (Kai Tahu, Te Atiawa) is a regional advisor for Whakawhetū, a government-funded SUDI (Sudden Unexpected Death in Infancy) prevention programme for Māori. Ministry of Health statistics indicate that 60 per cent of the 40–60 SUDI each year are Māori, with the combination of high smoking rates amongst mothers and bed sharing meaning Māori babies are especially vulnerable.

Tamati-Paratene says nurses should never feel uncomfortable asking mothers and whānau about quitting, as smoking during pregnancy and smoking in the baby's home is the biggest risk factor for SUDI. Or to be afraid to just ask

Continued on next page >>

The pēpi-pod sleep space

The Christchurch earthquakes helped launch the pēpi-pod as a low-cost, readily available and portable, safe sleeping bed for babies and families affected by the quakes.

The pod (a plastic box and bedding pack) is seen by its developers, Change for our Children, as a 'sister' to the woven wahakura promoted by Whakawhetū.

Since the quakes the plastic pod and safety education has been offered to thousands of families of babies at increased risk of accidental suffocation. Change for our Children says the pods are not for all babies but a public health response to the higher risk of sudden infant death for babies who are more vulnerable due to exposure to smoking, especially in pregnancy, being born before 37 weeks or weighing less than 2,500 grams, or in family environments where use of alcohol and drugs are prevalent. It says these babies have a predisposing vulnerability to hypoxic challenges. Places of heightened risk for babies include in, or on, an adult bed, on a couch, in makeshift situations or when sleeping away from home.

More at: www.changeforourchildren.co.nz

a few more questions – and check for themselves if on a home visit – to be doubly sure that vulnerable smoking families have a baby bed; just in case the family feels too embarrassed or scared to tell the Tamariki Ora or Plunket nurse that they are bed sharing without one.

Whakawhetū facilitates the annual Safe Sleep Day, held on 4 December this year, and works with communities and District Health Boards to help reduce SUDI, provide policy advice, and share evidence-based information and resources to the health sector and Māori communities through regional workshops and online training. A primary focus for Whakawhetū has been promoting the use of wahakura (flax woven baskets) for babies to enable safer bed sharing and reduce the risk of accidental suffocation.

"Safe Sleep Day is held annually in December just before the summer 'silly season' when people can drink more and go to sleep with their babies," says Tamati-Paratene. "If you look at the stats, a lot of SUDI happen in the middle of winter, when it's cold and you bring your baby into bed, and they also happen at the peak of summer when people may not be making the best of decisions through maybe alcohol or drugs or simply not getting enough sleep. So we specifically have Safe Sleep Day at this time of year to keep people's awareness up and to be extra vigilant with our pēpi."

Tamati-Paratene says Safe Sleep Day also gives an opportunity to reinforce the message of what is safe sleep.

"Culturally, for Māori in particular, bed sharing is just what we've always done – we've always slept with our pēpi. It hasn't been a traditional practice to put your baby in a separate bed on the other side of the room."

Complicating the issue is the very high level of Māori women smoking. Tamati-Paratene says unfortunately 40–50 per cent of Māori women are still smoking

Safe bed sharing options make mark?

Portable safe sleeping baskets and pods for babies, along with safe sleeping programmes, have been linked to a recent drop in infant mortality.

Earlier this year safe sleep advocate and Hastings GP David Tipene-Leach addressed a Whakawhetū Mokopuna Ora Conference about the collaborative work of the Māori SIDS (Sudden Infant Death Syndrome) Prevention Team, Whakawhetū, Change for our Children and various district health boards that led to the Safe Sleep Programme. The programme includes health promotion, family education and the supply of a safe sleep baby bed to families at high risk of SUDI (Sudden Unexpected Death in Infancy).

The latest infant death statistics to be released by Statistics New Zealand showed a 19 per cent decrease in the infant death rate for Māori in 2012 compared with the previous five-year period (2007–2011) but rates for other ethnic groups did not show change. The drop in Māori baby death rates was also reflected in the SUDI deaths of Māori infants, which dropped from 41 in 2011 to 19 in 2012. The lowest SUDI rate between 2000–2012 for Māori was 34 in 2007 and it peaked at 54 in 2000*.

"We have not introduced a new vaccine, we have not stopped smoking and we have not reduced poverty," Tipene-Leach told the conference. "The only change in New Zealand for deprived families with infants in the last five years is the introduction of 11,000 pēpi-pods, 1,000 wahakura and 500 waikawa."

**Statistics New Zealand points out that infant death numbers are small so rates can fluctuate markedly from year to year and small numbers should be interpreted with caution.*

during pregnancy and in some regions it's even higher.

She says if a woman hasn't smoked in pregnancy, breastfeeds her baby, lives in a smokefree home and is a sober mum, then even if she bed shares with her baby, the risks of her baby passing away from SUDI is very, very slim. And even if she doesn't breastfeed, as long as she hasn't smoked in pregnancy and lives in a smokefree home, the chances are still very, very small. Scaremongering about bed sharing should not be the major focus, believes Tamati-Paratene.

"The biggest risk factor is when that baby has come from a mum who has smoked during her pregnancy and then comes into a home where there is smoking.

"That's our biggest challenge in this whole safe sleep korero – supporting our women to give quitting a go and if we can't get them before they are hapu, then while they're pregnant. That becomes all of our mission really. It sits with whānau and it sits with our doctors, nurses and our midwives.

"It's something I don't believe we are doing all that effectively all the time," says Tamati-Paratene, who has previously worked with Smokefree Nurses Aotearoa managing the 'What smokers *really* want' project.

"I'm not a nurse but I know how awesome they are." She also knows that those in the health workforce don't always feel confident to start those ABC conversations (i.e. Ask about smoking, give Brief advice and strongly encourage Cessation support).

Tamati-Paratene says having worked in health promotion for nearly 20 years she also knows how tough it can be to get inside people's front doors and believes Plunket and Tamariki Ora nurses – despite some of the really hard stuff they have to do – have an "awesome privilege and opportunity" to talk with whānau directly.

> "It's a traditional solution to a contemporary problem."

Continued on next page >>

Wahakura: a traditional response to a contemporary problem

The woven wahakura baby bed is a kaupapa Māori solution to a Māori issue, says Jeanine Tamati-Paratene. It was developed by the Nukutere Weavers' Collective in Gisborne and around 1,000 of the woven sleeping baskets have been made and given to families to enable safe bed-sharing. "The wahakura still encourages breastfeeding and it still encourages the kaitiaki of the baby, be it mum, nana, papa or aunty, to have baby close to them when they sleep," says Tamati-Paratene.

"But it just keeps baby safe whether mum has smoked in pregnancy or not and whether she has had a drink or not. It is something physical that can keep that baby safe and we know that if Māori have the opportunity to be offered a wahakura they will take it over a pēpi-pod any day as it is kaupapa Māori and a taonga that has been created by hand for them and their pēpi."

But wahakura also require talented weavers and supply doesn't always match demand, but she says Whakawhetū supports as many communities as possible to make as many as they possibly can and have been working on establishing and strengthening relationships with master weavers around the region to be wahakura champions. "It's a traditional solution to a contemporary problem."

www.whakawhetu.co.nz

Safe sleep for P.E.P.E*

PLACE: Place baby in their own baby bed** in the same room as their parent or caregiver
ELIMINATE: Eliminate smoking in pregnancy and protect baby with a smokefree whānau, whare and waka
POSITION: Position baby flat on their back to sleep – face clear of bedding
ENCOURAGE: Encourage and support breastfeeding and gentle handling of baby

From Whakawhetū website: www.whakawhetu.co.nz
i.e. bassinet, cot, wahakura, pēpi-pod or waikawa.

Find out about free online Smokefree training at: www.smokefreenurses.org.nz
Checkout free online SUDI training at: www.whakawhetu.co.nz/sudi-training

She advises nurses visiting a potentially vulnerable whānau to be non-judgemental and open-minded about each family's individual situation.

Informing mothers about the greatest risk factors for SUDI may also help them make good decisions about bed sharing rather than "just feeling terrified (by scary SUDI statistics) and hiding it from their Tamariki Ora or Plunket nurse".

"Some whānau don't tell the truth if they are asked whether their baby has their own baby bed. They will say 'oh no I've got a cot or a bassinet' and they get the tick in the Plunket book but actually there isn't a baby bed for a lot of those whānau, especially in our most vulnerable whānau."

She says a friend of hers, who did have a cot for her baby, was surprised when the visiting Plunket nurse just ticked the box and didn't come and have a look to check whether her cot was set up right during the nearly hour-long visit.

"I think sometimes it is not about being judgey or nosy but trusting the gut feeling and not being afraid to ask a few more questions."

Tamati-Paratene says nurses should treat time with families as a real opportunity to really support them in a practical way.

"If there is one thing you can do is never, ever be afraid or uncomfortable asking somebody (about quitting). Because they feel uncomfortable too... but they (really) want you to ask.

The more times that nurses and others ask and offer support the more likely it is that smokers will stop eventually, despite some of the hardships that might be happening in their lives.

Tamati-Paratene says a focus for Whakawhetū in the past 18 months has been its regional Protecting Our Mokopuna seminars that are attended by whānau, local community leaders and health professionals and are led by the 'godfathers' of SUDI – Hastings GP David Tipene-Leach and paediatrics professor Ed Mitchell.

The online training is a 'buffer' to back-up the seminars for those who can't attend and is intended for both families and health professionals with the online workshop accredited by the Midwifery Council as professional development training.

The final Protecting Our Mokopuna seminar of the year was held at Manurewa Marae on 4 December to mark Safe Sleep Day. There have also been "weave-offs" held in communities, including two held at Te Wānanga o Aotearoa's Auckland and Northland campuses on Safe Sleep Day to give all whānau an opportunity to try weaving. Body

Safe sleep = face up + face clear + smokefree

From Change for our Children website: www.changeforourchildren.co.nz

From 'cot death' to SUDI

The shift in terms for sudden infant deaths is explained by Stephanie Cowan, director of Change for our Children on the website of her organisation that, like Whakawhetū, also aims to reduce preventable infant deaths. She says the term SUDI (Sudden Unexpected Death in Infancy) has become standard in New Zealand followed coroners being increasingly reluctant to use the term SIDS (Sudden Infant Death Syndrome) when it was clear a death was caused by a baby sleeping in an unsafe environment. SUDI captures all unexpected deaths: those that can be explained, for example asphyxia or suffocation; and those that can't, like SIDS or 'cot death'.

Why aren't nurses keeping ahead of the IT tsunami?

Too few nurses are actively involved in the IT projects impacting on everyday nursing care of patients. *Nursing Review* reports on Kim Mundell's recent speech to the National Nursing Informatics Conference on why more nurses need to be involved and what barriers may be getting in the way.

Nurses need to step up if they want to ride the tsunami of technological change heading health's way. If not, they might get crushed by it.

This is one of the messages that Kim Mundell, a former nurse who 18 months ago became the first chief executive of Health Informatics New Zealand, shared at the National Nursing Informatics Conference held in late October. She told the sold-out Christchurch gathering that six months into the job it first hit her – 'where were all the nurses?'

She had met the stalwarts of the nursing informatics community – Karen Day, Michelle Honey and Denise Irvine – but with nursing the largest health workforce she believed many, many more nurses should be amongst the 'movers and shakers' of the health informatics community.

"Nurses will be the ones using many of the technology solutions that are rolled out; nurses should have a strong influence on IT decision-making," Mundell told the conference.

Continued on next page >>

"But, at the moment, you don't have enough of an influence.

"For informatics projects to succeed, it is vital that these projects happen *with* nurses; not *to* nurses."

So she went on a mission to find out what was holding nursing back in the informatics world. She first went hunting for clinical nurse leaders active in informatics, which led her to nursing directors Sheree East (Nurse Maude) and Denise Kivell (Counties Manukau DHB) and through them to NENZ (Nurse Executives of New Zealand), which resulted in the two organisations co-hosting the Christchurch conference.

HINZ also decided for 2015 to focus its free Health Informatics Primer events at nurses and offered NENZ nurse leaders the opportunity to have one of the 10 primer events (the primers are two-hour introductions to health informatics delivered by experts) held in their area. "They are designed for nurses who are interested [in health informatics] but have no idea where to start." The high levels of interest in the initial primers saw the event funders, the National Health IT Board, triple the funding so it was hoped up to 30 primers would be held before the end of the year.

"After meeting all these enthusiastic nurses from around the country who turned up to these free events it became very clear that the barrier wasn't a lack of interest. But there are barriers," said Mundell

BREAKING BARRIERS

Mundell realised that a very big barrier to increased nurse involvement in health informatics was a lack of money, in all its forms, including nurses struggling to access professional development funding for health informatics training or events, particularly if informatics are not a core part of the nurse's job.

She said that can lead to a 'chicken and egg' situation whereby a nurse keen to take an IT role may first need more knowledge but can struggle to access the knowledge as they don't have IT in their job description.

"So it's only the most tenacious who get anywhere." There are also problems in getting travel funding and conference leave to attend conferences – particularly if conferences are out of town or are for more than a half a day or a day.

Isolation was another barrier faced by nurses that HINZ would like to help overcome by connecting like-minded people. "I've lost count of the number of times someone has told me about a project they are struggling with, and heard the same thing from someone else 100km away at a different organisation," said Mundell. "And neither knows the other person exists. So they continue on in isolated, frustrated pockets."

Mundell said one of the saddest barriers she became aware of was nurses' intense frustration at not being heard within their organisation.

"Some felt completely unsupported by management – and held back from being involved in projects because it wasn't their job and they were getting out of their box.

"Others felt powerless, totally powerless to effect change and completely unsure who on earth to talk to to take their ideas for improvement forward. There's this great enthusiasm that's bubbling under there, that is held down and held down. And again it's only the most tenacious who do anything."

Mundell said HINZ is actively working to support nurses to be more involved in the informatics community and in HINZ, which she describes as "the Switzerland" of professional bodies as the membership is made up of health professionals, researchers and the IT industry.

She says HINZ support has included donating 20 free scholarships for nurses new to the field to attend the Nursing Informatics and HINZ conferences, which grew to 30 because of "impassioned" calls from keen nurses. It also funded the travel expenses of nursing informatics keynote speaker Karen Monsen from the United States.

A nurse is also on the working committee that is working on New Zealand following Australia in offering an online course in health informatics competencies. And Mundell would like to see a nursing informatics conference once again held alongside next year's HINZ conference, which in 2016 is being held in partnership with two international telehealth conferences.

"Nurses will be the ones using many of the technology solutions that are rolled out; nurses should have a strong influence on IT decision-making."

10 reasons why nurses should be more involved with informatics*

To have influence
To ensure IT changes support nursing practice and patient outcomes, nurses need to be involved right from the beginning of the project.

To develop an IT vocabulary
If nurses become familiar with IT language and vocabulary they can better articulate their IT needs in a way that technology experts can understand.

To keep nursing needs in the spotlight
If nurses don't get involved in IT discussions then other clinicians – probably doctors – will make the decisions instead.

To better link IT solutions with clinical outcomes
Having nursing input to an IT project can ensure that the impact on daily nursing workflows and patient care is taken into consideration at each step.

To find out what others are doing
If nurses are connected with others in the informatics world they may find others have already found an IT solution for the same problem.

To learn from each other's successes and failures
Likewise nurses can also benefit from other people's experiences – good and bad – in delivering complex health IT change projects and share their own experiences.

To gain the confidence to say 'STOP'
Nurses with some IT knowledge, vocabulary and connections are more likely to be able to say 'stop' if an IT project is causing more issues than it's solving.

To ride the wave (not get crushed by it)
Nurses need to be ready and competent to ride the tsunami of technological changing impacting on health care or risk being swept away by it.

To rebuild an active nursing informatics community
Nursing led the way 15 years ago by running a world congress in nursing informatics in Auckland. and by coming together again can effect change.

It's a good career move
Health informatics is a high-growth area and there are new, innovative career options opening up for nurses.

**Summarised from Kim Mundell's presentation to the National Nursing Informatics Conference.*

Electronic alerts a step closer

Paperless capture of vital signs is another step closer at Canterbury District Health Board with the rollout of electronic patient observations software and an early warning score (EWS) system now underway in the first ward. *Nursing Review* reports

Earlier detection of a patient's deteriorating vital signs is the driver behind replacing bedside paper charts with an electronic app.

This shift to electronic recording of patient observations, or vital signs, is now underway in Christchurch Hospital. Project leader Sue Wood says the first nurse was issued a mini-iPad loaded with the software on 7 November in a neurosurgical ward and the Patientrack software will be rolled out ward by ward over the coming year.

For the time being, nurses will be recording the standard physiological observations ('obs') both electronically and on paper as they become accustomed to using Patientrack. The app's early warning score (EWS) trigger that electronically alerts clinicians when a patient's vital signs are deteriorating is about a year away from activation.

Wood is quality and patient safety director at Canterbury District Health Board and leader of the project, which began after the board flagged that one area for improvement was the care of the deteriorating patient. The former director of nursing at MidCentral District Health Board and current member of the National IT Board has championed TrendCare acuity software to highlight the workload demands placed on nursing and says this latest project will also contribute data to help nurses measure the patient workload.

IMPROVING RESPONSES

But the key driver for the project, in which Canterbury DHB is partnering with Waitemata DHB, is to improve responses to the deteriorating patient. International data shows common setbacks include variable recording of patient obs and similarly variable responses when vitals signs begin to deteriorate.

All DHBs now have EWS systems and many have specialist outreach teams that are triggered by these systems to respond to deteriorating patients. Waitemata's outreach teams see around 2,000 patients a year and Canterbury's teams around 1,000 patients a year.

Wood says that if a deteriorating patient is identified earlier, clinicians may be able to stop or reverse the deterioration. Even for those patients who may not live longer as a result, the earlier their deterioration is identified the greater the likelihood of a better care experience for both them and their families.

GAPS IN PAPER-BASED INFORMATION

Wood addressed October's National Nursing Informatics Conference on the Patientrack project and how it hopes moving from paper to electronic recording of observations and to automatic EWS calculations will make a difference to patient care. She says problems with the current paper chart

system include gaps in information due to delayed or missing obs.

"Maybe the nurse made a call that doing obs at the set time wasn't appropriate [patient asleep] or the patient wasn't there or the nurse was called away or busy with another patient – but there's no evidence so you don't know."

Nurses and doctors often waste time looking for the bedside chart and once found it might not contain all that they need anyway, as sometimes "people are holding pieces of information in their head that doesn't necessarily get to the chart".

Also escalations of care aren't always triggered, despite charts revealing that the recorded patient observations tick all the boxes on the EWS trigger list. "People make clinical judgements based on what they see and may or may not call in help as a result."

Worryingly, research also shows that 50 to 80 per cent of the time EWS scores are incorrect – often because the numbers aren't added up correctly.

Wood believes that electronic observations capture can overcome some of these issues. Rather than having to hunt for a paper chart, the nurse can pull out their own mini-tablet from their pocket and collect and record the data at the bedside.

CONSISTENCY AND CONTINUITY

She says it provides consistency and continuity in how the data is recorded (no handwriting issues) and automatically calculates an early warning score. Patientrack has a simple interface and can be installed on a tablet, smartphone,

laptop on wheels or a device tethered to the bedside.

Obs data, like oxygen saturation and blood pressure, can be 'beamed' directly in from machines to a mobile device. However, Wood says the UK experience has shown there are risks so the preference is to key in the data by hand. Along with the typical observations of vital signs, Canterbury will also be electronically recording other relevant observations like fluid balances, weight, pain or nausea.

How often obs should be recorded i.e. hourly, four-hourly, or six-hourly, can be configured for each patient and the smartphone or tablet in the nurse's pocket will prompt them when obs are due. The software will also record whether the obs for each patient are done early or late (and includes the option of recording why some or all obs were not done at the designated time).

The updated observations can be seen immediately by the patient's clinical team on any computer screen or mobile device linked to the hospital's IT system.

Wood says this real-time data means the shift leader can see whether obs are being done in a timely fashion and can use it as a workload management tool to monitor whether an individual nurse or ward is overloaded.

Patientrack also does real-time analysis of the deterioration risk, calculates an EWS score, and has the ability to automatically alert the relevant clinicians.

REDUCTION IN AVOIDABLE MORTALITY

In the UK, electronic early warning systems have been shown to reduce avoidable mortality caused by late detection or notification of deterioration, as well as reduce cardiac arrests. Wood says the data provided by Patientrack will also allow Canterbury and partner Waitemata to be able to audit the effect of different observation protocols and the impact of the electronic alert system on avoidable mortality. Canterbury is also developing an electronic nursing assessment system – for use with the interRAI tool – to assess the risk of falls and pressure injuries alongside Patientrack.

But first, Canterbury is slowly rolling out the new technology ward by ward to accustom nurses and doctors to the electronic obs system and give them time to fine-tune the electronic trigger alert levels. These must be set at just the right level of sensitivity to ensure more deteriorating patients are detected and helped in time than has been possible with the soon-to-be old-fashioned bedside chart.

Big data: helping to make nursing more visible

A nursing mantra for much of the past two decades has been *evidence-based practice*. US nursing researcher Dr Karen Monsen believes it's time to rethink that mantra and instead start mining 'big data' for *practice-based evidence* of expert nursing. Fiona Cassie reports.

Every day, millions upon millions of pieces of health data are electronically recorded and stored as part of health systems around the world – much of it by nurses.

"It's inconceivable really now how much data we have," says Karen Monsen, a US-based nursing informatics expert. She believes nursing should be tapping into and analysing this 'big data' for evidence about nurse-sensitive and nurse-delivered care and her research agenda is to find the best methods to do just that.

Associate Professor Monsen is a self-described 'mild-mannered public health nurse' who discovered nursing informatics after being thrown into it at the deep end in the late 1990s and told to computerise her service's nursing records. One PhD later, she is now co-director of the University of Minnesota's Center for Nursing Informatics and is also a director of the Omaha System Partnership (see box).

Speaking in her keynote address on 'big data' at October's National Nursing Informatics Conference, Monsen questioned whether nursing should be so won over by the concept of evidence-based practice (EBP).

"We have swallowed it [evidence-based practice] hook, line and sinker," she said.

The past two decades have brought the Cochrane Collaboration, Joanna Briggs Institute and, until recently, the New Zealand Guidelines Group all promoting and offering evidence-based health care. "We believe in this; we strongly want to do the right thing for our patients," said Monsen.

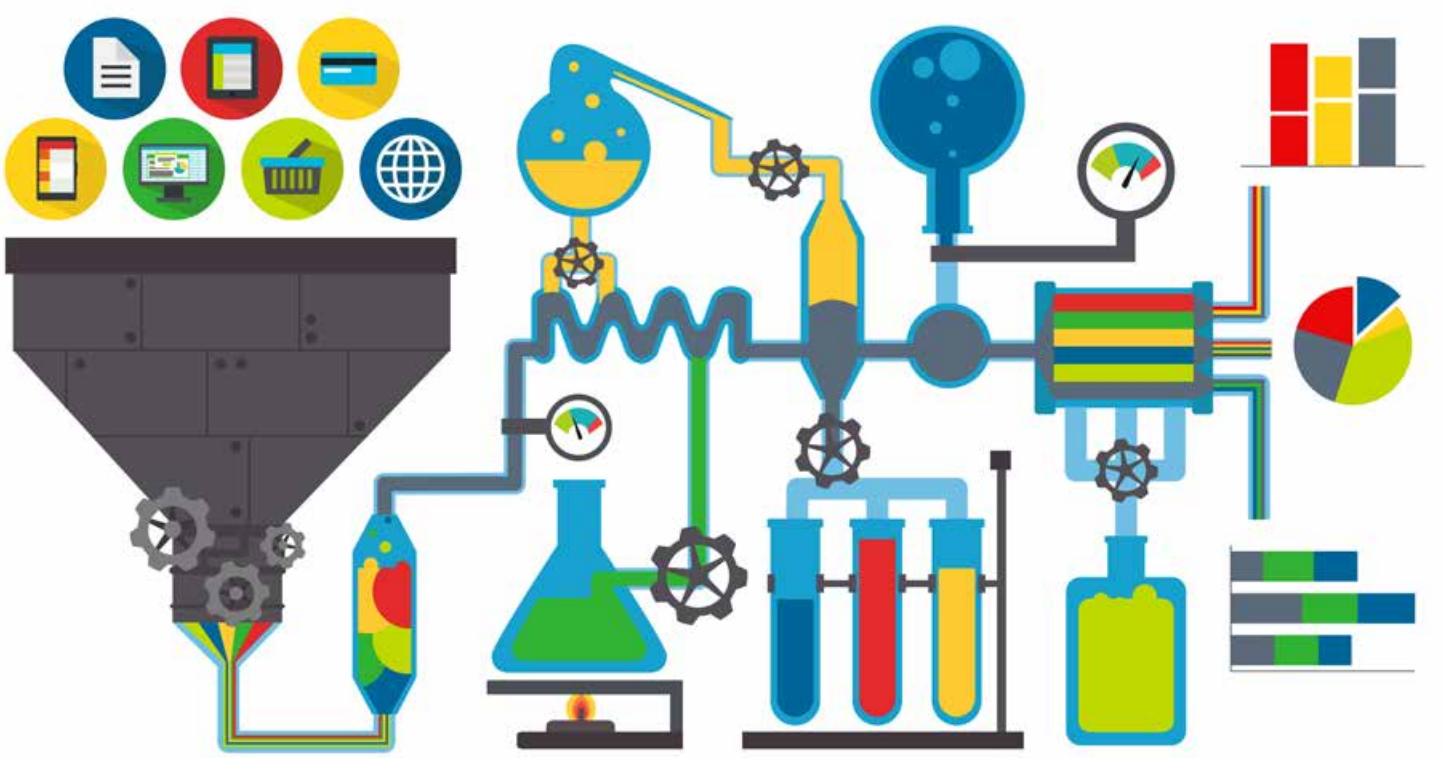
But Monsen also said that recently there has been more and more discourse over whether EBP is enough and whether it is truly serving nursing well. She questioned whether expecting expert clinicians to always consult EBP guidelines may be seen as devaluing or diminishing sound clinical judgement. She also raised issues around the limitation of the evidence from which EBP-based guidelines are drawn up.

"Are they [guidelines] developed with the entire population in mind or just certain individuals or participants in that research?" she said. "And what about other biases of evidence – like the controls, or the environment? How many nurses actually work in 'controlled environments'?"

NURSING NUANCES NEED RECOGNITION

Monsen said nurses need evidence that reflects the real world "with all its complexities and nuances" to be able to provide the best personalised care for individuals.

"There is this assumption that there is no data source from which we can begin to understand the clinical expertise that comes with that expert clinician who is working with that unique individual



in the community. That assumption is false."

An alternative approach was to delve deep into 'big data' to find *practice-based evidence* as a complement to *evidence-based practice* and as an "essential component of nursing knowledge". (See definitions and 'Big data' sidebar.)

She said the bottom line is "let the data speak". One way big data research can do this is by reversing the conventional research concept of testing hypotheses and instead use the data to generate hypotheses.

"Once that data starts speaking to us – about what we should examine or what we should know – then we can start testing those hypotheses using traditional statistical methods," said Monsen. "And what we get back is the voice of nursing and the voices of patients that have never been heard before... practice-based evidence."

Monsen shared a number of examples of practice-based evidence developed by mining patient care data recorded by public health nurses on computers (using the Omaha system of reporting and documenting their nursing work with clients in the home; see more in 'Omaha' sidebar).

One 'bucket of data' involved high-risk young mothers and babies who were visited in their homes by public health nurses. The aim was to analyse the data to find out what explained the variability in outcomes for the young mothers the

Continued on next page >>

The Omaha System: codifying what nurses do into data

The Omaha System was first developed in the 1970s by the Visiting Nursing Association of Omaha, Nebraska. Visiting nursing services offer public health and district nursing services, usually home-based, ranging from maternal and child health services to wound care and older person care.

The Omaha System is a theory-based system developed to logically report and record what nurses are doing in the field using consistent terminology and classifications to enable measurement of patient progress but to still allow some flexibility for nursing nuances in note-taking. Karen Monsen, who is on the system's board of directors, says Omaha makes nursing knowledge visible by using language to codify what nurses do and convert it into measurable nursing data.

The documentation and information management system consists of three components that are linked together. The first is the Problem Classification Scheme that is used to assess and record a patient's signs and symptoms (i.e. problems) that are grouped into the four domains of physiological, health-related behaviours, environmental and psychosocial. The second component is the Intervention Scheme that is used by the nurse or clinician to record their care plan and services for the patient; and the last component is the Problem Rating Scale for Outcomes, which is used to evaluate client progress.

The Omaha System is in the public domain and is in use by nurses and other clinicians across the United States and around the world in both a hard-copy format and as the framework for recording and collecting data in electronic health records. In New Zealand it has been adapted by Christchurch's Nurse Maude director of nursing Sheree East for her district nursing team as part of its new electronic health record systems.

Find out more at: http://omahasystemmn.org

Definitions*

» **Nursing practice:** What expert nurses know and do every day to ensure wellbeing and safety of patients: in the real world; and for unique patients and situations.
» **Practice-based evidence:** How does adding X intervention alter the complex personalised system of patient Y before me?"
» **Big data:** Large datasets of structured or unstructured information that may require new approaches for analysis.
» **Practice-based data:** Data from nursing assessment and documentation that is part of routine nursing care (and inputted into computers).

*Definitions as used in Karen Monsen's presentation and drawn by her from a variety of sources.

nurses worked with. Monsen said the data showed that the patient herself (50 per cent) and her existing problems (17 per cent) together explained two-thirds of the variability in changes the young mothers were able to make over time. The remaining third was influenced by the individual nurse who worked with the mother (17 per cent) and the interventions (17 per cent) that the nurse initiated.

"So it is critical for us nurses to always be at our best – and it is critical that we do the right thing," she said. "The implication for research here is that we need to incorporate who the nurse *is* into all of our models as an important part of the research.

"And for policy we need to make sure we are taking care of our nursing workforce. We need the best nurses; we need the best fit between the nurse and the assigned patients; we have to make sure we are taking care of our workforce."

Another study explored further the concept of individual nursing contribution by analysing the data to find the patterns in individual public health nurses' care of individual patients. This analysis was depicted graphically by using colours for individual patient problems; colour shadings to show the nursing actions in response; height to show how frequently nurses delivered these actions; and horizontal length for how long the nurse was involved with the client.

The result was 403 rainbow images (looking a little similar to a geological cross-section of the sea bed or a mountain range), which experts classified into 29 distinct patterns. "No chart is the same," Monsen pointed out. The colourful graphs demonstrated clearly that nurses' care plans were unique for each individual patient and also started to reveal 'fingerprints' of individual nursing styles.

Monsen said the advantages of working with large datasets include being able to examine evidence around relatively rare situations – like a study she did focusing on mothers with intellectual disabilities, in which she found 17 matches. Analysing the data for these 17 mothers revealed they had twice as many problems as mothers without intellectual disabilities, received twice as many public health nursing visits and interventions, and responded by showing improvements in all problem areas – though did not reach the desired health literacy benchmark for parenting.

Other big data analyses she cited revealed hard evidence that frail older people were more likely to be hospitalised if they didn't get enough skilled nursing intervention, plus evidence that public health nursing visits had a positive impact on the health literacy of immigrants and refugees and reduced health disparities between ethnic groups.

"This is why you [nurses] need data so you can say 'I make a difference'; so you don't have to wait for somebody to discover you in a research study and say you make a difference. We all have this power.

"For all these studies we can look at our interventions and our outcomes. And we have been able to explain this notion of practice-based evidence; and that we should encourage personalised interventions by expert clinicians to tailor and meet individual needs."

It all begins with the daily nursing task of entering notes on a computer in a systematic way that allows the nurses' friend, 'big data', to in time reveal what impact nursing interventions make, or don't make, on patient outcomes. Or, to reiterate Monsen's advice: "Nurses: let the data speak!"

Big data research in nursing

» Using large data sets to examine important healthcare quality questions.
» Looking for hidden patterns in the data.
» Hypotheses generating vs hypothesis testing.
» Can create new voice for nursing and patients by revealing *practice-based evidence*.

N.B. Recommended further reading about big data research: the free access online book *The Fourth Paradigm: Data-Intensive Scientific Discovery* published by Microsoft Research.

A PROFESSIONAL DEVELOPMENT ACTIVITY PROUDLY BROUGHT TO YOU BY NursingReview

RRR

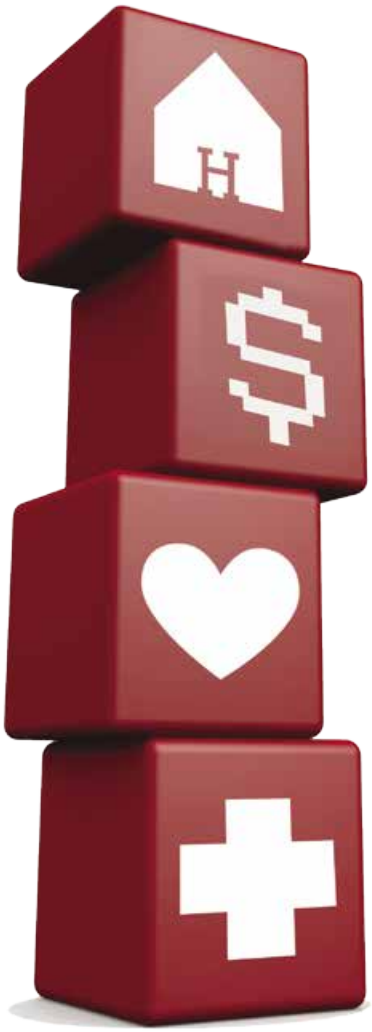
READING, REFLECTION, AND APPLICATION IN REALITY

Reading this article and undertaking the learning activity is equivalent to 60 minutes of professional development

BY SHELLEY JONES

In Balance:

The Fit Between Work and Other Life Commitments



We attach great cultural significance to the close of one year and start of another, whether dated by the Gregorian or Chinese calendar, Matariki or a more personal anniversary. Times of transition prompt review and reflection, prediction, and planning. Many of us will take stock, wonder how we did it all, and resolve to better balance 'work and life' in the coming year. We'll take a look at what work-life balance means – theoretically, critically and personally – by revisiting the themes discussed in an update of this learning activity first published in 2012.

Learning outcomes:

Reading and reflecting on this article will enable you to:

- Explain the importance of work-life balance
- Discuss key work-life balance concepts
- Draft a personally relevant definition of work-life balance
- Explore the fit between your roles and assess your work-life balance.

DEFINING WORK-LIFE BALANCE

In 1840, Samuel Parnell declared, 'There are twenty-four hours per day given us; eight of these should be for work, eight for sleep, and the remaining eight for recreation and in which for [people] to do what little things they want for themselves'[1].

Work-life needs can be mapped within three different but connected areas, which should be in balance:

- Personal time and space – what we need to do for the care of self and maintenance of body, mind and soul.
- Care time and space – what we need to do to care properly for others.
- Work time and space – what we need to do to enable us to gain economic self-sufficiency[2].

The NZ Department of Labour (DoL) defines work-life balance as '...managing the juggling act between paid work and other activities that are important to us - including spending time with family, taking part in sport and recreation, volunteering or undertaking further study'[3].

WORK-LIFE BALANCE IS THE ISSUE

According to a quick enquiry via Google Scholar, there was a 25-fold increase in published articles with the words 'work life balance' in the title between the 1990s and 2000s[4].

Factors cited for increasing academic and popular interest in work-life balance include:

- increased participation of women in the workforce
- changing family patterns, which include delayed family start, young adults staying longer in the family home, increased longevity of elders (who may be distantly located), and multi-generational families
- increased consumerism and cost-of-living, which, with incommensurate incomes, are likely drivers of the increase in dual-earner households
- globalisation resulting in hypercompetition in the private sector, and budget cuts in the state sector, both compounded by the global recession and both contributing to a long-hours culture
- increased time required for commuting to and from work
- the telecommunications revolution which enables some flexibility in where and when people work, but also means some workers feel always 'on'
- that these issues are impacting on 'baby boomers' (the generation born between 1945 and 1965), who, at the same time, are encountering different values held by generations X and Y.

However, work-life balance is not a new phenomenon. That workers might possess 'their own time' and that work hours should be limited are ideas directly inherited from the social movements formed in reaction to the long hours worked in poor factory conditions by adults and children during the industrial revolution. Today, as then, risks associated with working long hours apply to workers, families, employers, and the community

WORKING LONG HOURS: RISKS TO SOCIETY

The risks are theorized to stem from less time to recover from work, longer exposure to workplace hazards, and less time to attend to non-work responsibilities[5]. Risks to workers include sleep deprivation, poor recovery from work, decrements in neuro-cognitive and physiological functioning, illnesses, adverse reproductive outcomes, and injuries. Risks to families include delayed marriages and child bearing, and obesity in children. Risks to employers include reduced productivity and increases in workers' errors. Mistakes by fatigued workers have broad-reaching impacts to the community: medical errors, automobile crashes with other drivers on the road, and industrial disasters that damage the environment.

Beyond managing risk, writers with perspectives as diverse as critical feminism and human resource management propose rethinking the distinctions and relationships between 'work-life' and 'work-family'. They are looking at broader social values such as collective welfare and an ethic of care[6], or how work-life balance can add value to both organisations and individuals[7].

Approaches to work-life balance fall on a continuum[7]. At one end, in the trade-off approach, either business or personal life wins at the expense of the other. Mid-way,

In Balance: The Fit Between Work and Other Life Commitments

in an integrated approach, managers and employees work together to meet their respective needs, using 'life friendly' policies designed to attract and retain valuable staff. A leveraged approach, at the far end of the continuum, uses work-life balance practices to help people have more satisfying personal lives while adding business value by identifying better ways to get work done.

KEY WORK-LIFE BALANCE CONCEPTS

Work-life balance is about ensuring that your personal responsibilities and commitments (e.g. nurse, friend, parent, child, learner, volunteer) are life-enhancing and satisfying in themselves, and that you can function well in each. This set of roles – and how you manage the way they fit together – is what creates your current life pattern.

Finding a good fit between roles involves combining their multiple dimensions (no small task), and is affected by life stage and personal or family resilience[8]. Conflict or role strain results from negative spillover between roles or life spheres – for instance, a frustrating or distressing job may mean an individual cannot fully engage or 'recharge their batteries' during time spent with family and friends. Facilitation or role enhancement results from positive spillover – for instance, being involved in postgraduate study enhances the satisfaction of clinical work and can create solidarity with young adult children also studying. Spillover can be uni-directional or bi-directional. For instance, negotiation skills (learned at work or home) can be brought to relationships in work and personal life.

If roles are essentially separate, useful strategies for managing boundaries include detaching or mentally 'switching off'. However, the boundary between work and home is especially permeable when workers have family responsibilities, and more so if childcare and domestic responsibilities fall unequally[9,10]. Time bind – not being able to divide time as desired between work and family/personal roles – can make home more stressful than work[11]. Variations to standard work hours, flexible working arrangements and 'family-friendly' policies (such as paid parental leave) are proposed to allow a better balance between work and family/personal life[12,13].

Hours worked is probably the most direct determinant of work-life balance; additional risk factors for work-family imbalance are dual-career partnerships and number of children[14]. A representative sample study of the United States labour force reported that the most consistent work characteristic predicting imbalance between work and family/personal life is hours worked, and the most consistent family characteristic predicting imbalance is being a parent[13]. What do we do know about these two factors for New Zealand nurses?

WORK-LIFE BALANCE FOR NURSES IN NEW ZEALAND

Many carry their households financially

For the avoidance of doubt, it should be stated that nurses are working to support themselves and their families – not for 'pin money'. The biannual employment survey of New Zealand Nurses Organisation (NZNO) members for 2015 reports that nurses' households are significantly dependent on their earnings: 33 per cent of survey respondents said that their earnings were the total household income; 25.6 per cent earned more than half of household income; and 16.8 per cent earned about half[15].

The majority work full-time

Definitions vary: some District Health Board employers consider staff working 32 hours and more per week to be full-time (as does NZNO), whereas the Nursing Council of New Zealand (NCNZ) defines part-time work as fewer than 35 hours per week[16].

- According to the NCNZ workforce profile for 2014–2015[16], 57 per cent of nurses holding an annual practising certificate and currently working in nursing in New Zealand are working full-time.
- The 2015 NZNO employment survey reports that 54.1 per cent of respondents indicated they had a full-time contract, 39.6 per cent a part-time contract, and 5.5 per cent worked on a casual basis.

Many have family responsibilities

Juggling paid work and unpaid family work is a challenge many face:

- According to the 2015 NZNO employment survey, just over half of respondents have family responsibilities: 35.6 per cent for children, 11.5 per cent for adults, and a small proportion (4 per cent) find themselves 'sandwiched' between responsibilities for children and older family members[15].
- The 2011 NZNO employment survey had found that amongst those with family responsibilities there was little difference in the proportions of full-time, part-time, or casual workers, or male and female[17].
- 'Parental responsibilities' was the top reason (37.3 per cent) given in the NCNZ workforce profile for working part-time[16].

Many work non-standard hours

Shiftwork is an unsurprising part of what's involved when patients need nursing care 24/7. The 2015 NZNO employment survey reported respondent experiences of shiftwork ranging from some nurses finding themselves stressed, fatigued and unable to recover, to others being able to manage the necessary adjustments[15].

- Shiftwork patterns seem to be related to life stage – amongst nurses between the ages of 40 and 65 years, there is a more or less even split between those working shifts and those working 'office' hours. Amongst those under the age of 40, the majority are working shifts[15].
- Of those working shifts, 77 per cent are doing rostered and rotating shifts. While the oldest nurses are more likely to work permanent nights or day shifts and the youngest least likely, moves to have permanent night staff go onto rostered and rotating shifts may account for a 20 per cent increase in rostered and rotating shifts since the 2013 survey[15].

WORKING LONG HOURS: IMPACT ON HEALTH AND WELLBEING

Working long hours poses obvious difficulties, simply by reducing the hours available to recover from work and undertake other responsibilities, and in turn, potentially heightening conflict between work and personal roles. Amongst the most concerning risks associated with long hours discussed in the literature are the impacts on health and wellbeing:

- A cohort study of mid-career Swedish women employed full-time in health, education, and service sectors found a positive correlation between long hours (more than 10 hours overtime per week) and elevated morning levels of the stress hormone cortisol[19].
- A five-year prospective study of a cohort of mid-career British civil servants found employees working more than 11 hours a day were more than twice as likely to experience a major depressive episode than those working 7–8 hours a day[20].
- A recently published systematic review and meta analysis of 25 studies involving more than 600,000 men and women found employees who work long hours (55 working hours or more per week) had a higher risk of stroke than those working standard hours; an association with coronary heart disease was weaker[21].

» About 75 per cent of those working shifts strongly agreed or agreed that they worked preferred shift patterns and have adequate recovery time, that shifts are allocated fairly, and that rostering is both available well in advance and flexible when needed[15].
» While there may be no such thing as a perfect roster, that 25 per cent could not agree that this was their experience suggests there is scope for further work to implement good rostering practices[18].

Many work extra hours

About 70 per cent of nurses regularly work in excess of their agreed hours – some once a week or every shift, and most several times a week. Respondents' comments suggested this was unpaid time, often at the end of the shift to catch up on administrative aspects of their work. Just under 70 per cent work through their meal breaks on a similar basis[15].

High workload is a reason for part-time hours or job change

The 2015 NZNO employment survey reports that 'stress/workload' is the second most common reason nurses change jobs[15]. 'Reduced hours due to high workload' was the third most common reason given in the NCNZ workforce profile (12.2 per cent) for working part-time[16].

WHAT *IS* WORKING?

The 2015 NZNO employment survey found that most respondents were "happy with their choice of shifts" (78.6 per cent strongly agree or agree) and felt "able to balance work and home lives" (72.9 per cent strongly agree or agree). Further, positive feelings (around 75 per cent strongly agree or agree) were reported for job satisfaction, nursing as a career and job security[15].

Perceived control over scheduling increases perceived balance[13], and positive work factors buffer or mitigate adverse aspects[20]. It is not too much to read a sense of pride in the finding that 90.6 per cent of NZNO's respondents strongly agree or agree that "the quality of care provided where I work is good"[15].

Another explanation for what seems to be working is that nurses are skilled at bringing everything together – they're able, apparently effortlessly, to set things up so that they all come together at the right time for the patient/client. Doubtless this competence is applied to fitting work and other commitments together. A new way of looking at work and life is not to see them as necessarily separate and conflicting, but as an integrated whole – work is part of life, and life includes work.

BALANCE IS ABOUT WHAT'S RIGHT FOR YOU AT THIS TIME

Any image we bring to mind to visualise balance has a central point, a pivot. The first step in managing work-life balance is to understand that point or pivot is you. To 'centre' yourself is to be clear about what is important and meaningful to you –and why. Being clear about such things helps you assess the value of everything you do and enables the decision-making that keeps things 'in balance'. If changes are needed, you will have to 'have the conversation' with your manager or significant others and family, but most importantly, you first need to 'have the conversation' with yourself.

If you looked back over the last year and wondered how you did it all, your self-talk could include just as much congratulation on your time management and organisational skills as advice on what lessons to take forward. If you find you need to make changes to your work life, have a conversation about that with a trusted colleague you respect for their understanding of the many ways to do a satisfying career in nursing.

Finding what works for you is pivotal to balancing your current roles, commitments, and interests.

RECOMMENDED READING AND ARTICLES:

Articles:

» CAPRONI Paula J (2004) Work/life balance: You can't get there from here. *Journal of Applied Behavioral Science* 40(2):208-218.
» Friedman, Christensen, and Degroot (1998) (see details in references)

Book:

» SKELLET Chris (2011) *When happiness is not enough: Balancing pleasure and achievement in your life.* Exisle Publishing: Auckland

Web resources:

Beat burnout by making more time for the activities and people who matter most to you with 5 tips for better work-life balance.

Time management resources at Mind Tools

Different points of view in the popular press: work-life balance as merge, as a myth, the main thing people are looking for in a new role, and managing time as a mosaic.

QUESTIONS THIS ARTICLE MIGHT PROMPT YOU TO ASK YOURSELF:

What are my roles? How well am I functioning in them?

» How good is the fit between my job and my responsibilities to others?
» How will my family responsibilities change in the future?
» Are there ways to increase enhancement and reduce conflict between my roles?
» What processes or resources can I bring to this? (e.g. values clarification, personal effectiveness techniques, coaching or supervision)

How many hours am I working per week?

» Is that about right in relation to my income and other needs?

Do I feel that I have sufficient control over when and how long I work?

» Am I able to predict and plan? How much flexibility do I need?

Can I find ways to 'unbind' my time?

» What change would give me the most benefit?

ABOUT THE AUTHOR: Shelley Jones RN BA MPhil has been working in nursing professional development for more than 30 years.

ACKNOWLEDGEMENTS: Thank you to those involved with the 2012 version: Faith Roberts, Annette Milligan, Jane Lawless and Heather Casey for their helpful comments as peer reviewers, and to the colleagues who gave the learning activity a test run.

REFERENCES:

1. ROTH Herbert (2010) Parnell, Samuel Duncan – Biography. From the *Dictionary of New Zealand Biography.* Te Ara - the Encyclopedia of New Zealand. Retrieved from www.TeAra.govt.nz/en/biographies/1p7/1

2. WILLIAMS (2000) cited in CROSBIE Tracey and MOORE Jeanne (2004) Work-life balance and working from home. *Social Policy & Society* 3(3):223-233.

3. DEPARTMENT OF LABOUR *Work-life balance information* Retrieved from http://dol.govt.nz/workplace/knowledgebase/item/1489

4. The result of a search for English language articles with all the words 'work life balance' in the title field was run in Google Scholar on 06 February 2012 for the decades 1990-1999 (n=60 results) and 2000-2009 (n=1440 results).

5. CARUSO CC (2006) Possible broad impacts of long work hours. *Industrial Health* 44:531–536

6. McDOWELL, Linda (2004) Work, workfare, work/life balance and an ethic of care. *Progress in Human Geography* 28(2):145-163.

7. FRIEDMAN Stewart D, CHRISTENSEN Perry, and DEGROOT, Jessica (1998) Work and life: The end of the zero-sum game. *Harvard Business Review* 76(6): 119–129.

8. GRZYWACZ Joseph G and BASS Brenda L (2003) *Work, family and mental health: Testing different models of work-family fit. Journal of Marriage and Family* 63(1):248-262.

9. KEENE Jennifer Reid and REYNOLDS John R (2005) The job costs of family demands: Gender difference in negative family-to-work spillover. *Journal of Family Issues* 26(3):275-299.

10. EMSLIE Carol and HUNT Kate (2009) 'Live to work' or 'work to live'? A qualitative study of gender and worklife balance among men and women in mid-life. *Gender, Work and Organization* 16(1):151-172.

11. HOCHSCHILD Arlie Russell (1997) *Time bind: When work becomes home and home becomes work.* Holt Paperbacks: New York NY

12. KELLY Erin, KOSSEK Ellen, HAMMER Leslie (2008) Getting there from there: Research on the effects of workfamily initiatives on work-family conflict and business outcomes. *The Academy of Management Annals* 2(1):405-349.

13. TAUSIG, Mark & FENWICK Rudy (2001) Unbinding time: Alternate work schedules and work-life balance. *Journal of Family and Economic Issues* 22(2):101-119.

14. CLARK Sue Campbell (2001) Work Cultures and Work/Family Balance. *Journal of Vocational Behavior* 58(3):348-365.

15. WALKER Léonie (2015) *NZNO Employment Survey 2015. Our Nursing Workforce: Condition Deteriorating.* NZNO: Wellington (and personal communication with author)

16. NURSING COUNCIL OF NEW ZEALAND (2015) *The New Zealand Nursing Workforce: A profile of Nurse Practitioners, Registered Nurses and Enrolled Nurses 2014-2015.* NCNZ: Wellington

17. NEW ZEALAND NURSES ORGANISATION (2011) Vital Signs: *The NZNO Employment Survey 2011.* NZNO: Wellington

18. CASSIE Fiona (2015) Coping with shiftwork: is there a perfect roster? *Nursing Review* 15(1) N.B. Republished in this online edition with additional material on 12-hour shift research.

19. LUNDBERG Ulf and HELLSTRÖM Birgitta (2002) Workload and morning salivary cortisol in women. *Work and Stress* 16(4):356–363.

20. VIRTANEN Marianna, STANSFELD Stephen, FUHRER Rebecca et al (2012) Overtime work as a predictor of major depressive episode: A 5-year follow-up of the Whitehall II study. *PLoS ONE* 7(1): e30719.

21. KIVIMÄKI Mika, JOKELA Markus, NYBERG Solja et al (2015) Long working hours and risk of coronary heart disease and stroke *The Lancet* 386(10005): 1739-1746

DATE: .....

NAME: .....

NURSING COUNCIL ID: .....

DESIGNATION: .....

WORKPLACE: .....

A PROFESSIONAL DEVELOPMENT ACTIVITY PROUDLY BROUGHT TO YOU BY NursingReview

RRR LEARNING ACTIVITY:

Reading the article and undertaking this In Balance learning activity is equivalent to 60 minutes of professional development. Discuss all your answers with a peer/s.

See the Nursing Council defined competencies for professional responsibility and interpersonal relationships in Domains 1 and 3 for RNs, ENs and NPs at www.nursingcouncil.org.nz/Nurses/Continuing-competence

A READING: THE QUESTIONS IN THIS SECTION ARE DESIGNED TO HELP YOU READ THE ARTICLE ATTENTIVELY

1 Which of the factors listed below was not cited as a reason for increasing interest in work-life balance?

Tick one ☐ increased travel time ☐ global climate change ☐ distantly located elders ☐ delayed child-bearing

2 The concept of 'spillover' is about:

Tick one ☐ only negative effects between roles ☐ positive or negative effects between roles

3 The studies cited in this article found impacts on mental health and well-being when study subjects worked more than 10 hours overtime per week on top of:

Tick one ☐ part-time hours ☐ full-time hours ☐ either full- or part-time hours

4 The 2015 NZNO employment survey reported that the proportion of the nursing workforce with responsibility for family members was:

Tick one ☐ just under a half ☐ about half ☐ just over half

5 The article concludes by recommending that the most important conversation to have about your work-life balance is with:

Tick one ☐ your manager ☐ your significant others ☐ yourself ☐ a trusted colleague

B REFLECTION: THIS SECTION HELPS YOU REFLECT ON YOUR LEARNING FROM READING AND RELATE IT TO YOUR EXPERIENCE

1 What work-life balance means for me personally is that I am able to…

2 What are your 'take home' insights or learning? List 3 points from the article:

1.

2.

3.

C REALITY: THE NOTES YOU MAKE IN THIS SECTION SHOW HOW YOU INTEND TO APPLY YOUR LEARNING IN PRACTICE

1 Please select from 'Questions this article might prompt…' the one most meaningful to your work-life balance. Outline your answer, the options open to you, and actions you plan to take in some brief notes below:

Verification by a colleague of your completion of this activity: *(Signature)*

COLLEAGUE NAME: ..... DESIGNATION: ..... DATE: .....

NURSING COUNCIL ID: ..... WORK ADDRESS: ..... CONTACT #: .....

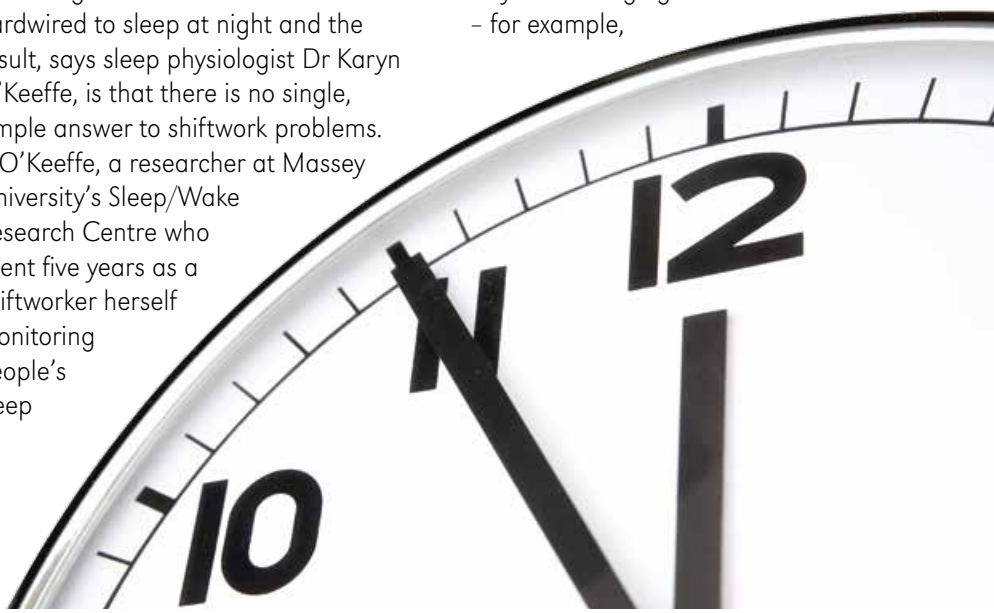
Coping with shiftwork: is there a perfect roster?

Shiftwork isn't natural, and long-term it isn't healthy – but it is essential for modern health care. So the challenge is to minimise the risks and maximise any lifestyle benefits. FIONA CASSIE talks to a sleep physiologist and nurse leaders to find out how to do just that.

Many would suggest that the perfect roster starts at 9am and finishes at 5pm. However, our hospitals and health care system must operate 24 hours a day, so that just isn't realistic. Add to the conundrum the biological fact that humans are hardwired to sleep at night and the result, says sleep physiologist Dr Karyn O'Keeffe, is that there is no single, simple answer to shiftwork problems.

O'Keeffe, a researcher at Massey University's Sleep/Wake Research Centre who spent five years as a shiftworker herself monitoring people's sleep patterns, says this doesn't mean that the negative aspects of shiftwork and the risk of fatigue can't be managed better.

"Shiftwork is definitely a significant challenge, both for your body and for your mind, but there are sensible ways of managing it – for example,



Continued on next page >>

Karyn O'Keeffe

Jane Brosnahan

Jill Clendon

flexibility – that can make your life a lot easier."

Greater flexibility in shiftwork is high on the agenda of the Sustainable Nurse Workforce Project Group led by South Canterbury District Health Board director of nursing Jane Brosnahan.

Brosnahan says the focus of the South Island project was initially on supporting its ageing nurses to stay in the workforce, but then broadened to look at strategies to sustain the entire nursing workforce.

"When we looked at shift patterns, we realised that what is good for older nurses is good for younger nurses as well. So we started to look across the whole of the system."

SOME OF THE SCIENCE OF SLEEP

A key to improving and building any shiftwork system is understanding more about the science of sleep and fatigue.

And the most influential component of this is our biological or body clock. O'Keeffe says the clock is a tiny group of cells that coordinates all the circadian (i.e. 24-hour) processes and cycles in our body using environmental cues, including natural light, as a guide (see side bar for more details).

Alertness is one of those cycles. Throughout the 24-hour day our alert and sleepy periods vary. We are at our most sleepy from midnight to 6am, with a peak of sleepiness between 3 and 5am and then a second but lesser dip in alertness in the afternoon between 3 and 5pm.

"So those particular times of the day are when we are most likely to be at risk for errors due to sleepiness or fatigue," says O'Keeffe. We similarly have two peaks of alertness spread through the day – one mid-morning and another lesser peak mid-evening.

When it comes to shiftwork, the problem is we are trying to sleep and work at times that are not aligned with those natural patterns. This makes it a challenge when we are trying to function optimally at times when our body is naturally sleepy – and to get good quality sleep when our body is naturally programmed to be alert.

It is only since the advent of modern industrialised society that we have started to regularly fight our circadian clock by trying to convince our bodies that day is night and night is day.

Technical definitions differ, but O'Keeffe says in the simplest terms shiftwork is any work pattern that shifts your usual sleep pattern – even if that is only by an hour or two.

Knowledge of our biological clock has increased significantly in the past decade and

there is now no doubt that the body can't fully adapt to shiftwork, she says.

Research indicates that even when we work permanent nights, our body clock shifts only slightly (by about three hours) and never reverses completely to turn us from a diurnal to nocturnal animal.

And it is not only daylight that signals the time of day to our body clock – it is also when we eat our meals, when we talk to other people and when we're physically active. "So when we're receiving this information that 'it's daytime, daytime, daytime' our body finds it virtually impossible to shift to a different time zone," says O'Keeffe.

What's natural about sleeping?

TWO NATURAL BODY MECHANISMS INFLUENCE SLEEP:

Sleep/wake homeostasis lets our bodies know after we've been awake for a long time that the need for restorative sleep is accumulating and creates a drive that balances sleep and wakefulness. It is particularly strong after 16 hours of being awake.

Biological clock regulates our circadian (24 hour) rhythms, including the timing of periods of sleepiness and wakefulness throughout the day. This is a group of cells found in the hypothalamus, near the convergence of the optic nerves.

This clock responds to light and dark signals from the eye. Morning light signals that it is time to be awake, to produce hormones such as cortisol, and to delay the release of hormones such as melatonin. When the eyes signal to the clock that it is dark, melatonin (associated with sleep) is produced, so melatonin levels rise in the evening and stay elevated throughout the night, promoting sleep.

The clock also guides other circadian rhythms, including our core body temperature, the release of hormones and other important bodily functions.

Regular bedtimes and waking times help keep the homeostasis sleep drive and the biological clock working smoothly. Shiftwork puts the biological clock and subsequently our circadian rhythms out of kilter.

"Shiftwork is definitely a significant challenge, both for your body and for your mind, but there are sensible ways of managing it that can make your life a lot easier."

UNDERSTANDING OUR CIRCADIAN RHYTHMS

Our increased knowledge about our biological clock doesn't mean we can influence it, but we can use the knowledge to improve a difficult situation.

"We use the things that are working for us," says O'Keeffe. "And we try and manage the things that aren't."

We are most sleepy when our core body temperature minimum is at its lowest. Research shows that when we work consistent nights this temperature 'low' can shift from the usual time of around 5am to 8am. This means if you head straight home at the end of your night shift you can fall asleep relatively quickly. "So it's a good idea to try and get into bed as soon as you can when you are working night shifts rather than stay up and go to bed later."

Research has also shown that we have a built-in alarm clock that tells us to wake up about six hours after the body reaches its minimum core body temperature.

O'Keeffe says this works well when we are sleeping at night-time, as the alarm 'wakes' us around 10 or 11am, but when we try to sleep during the day it occurs at about 2pm in the afternoon. "That means sleep can be quite short and gets truncated to about six hours. Which is why quite often you will hear night shiftworkers say they wake up in the early afternoon period and can't get back to sleep – it's our natural drive to wake up at that time."

Or course, one of the hardest things to balance is what is best for your sleep patterns – that is, coming home from night shift and getting to bed as quickly as you can – and the reality of returning home to children needing lunches made and a dog demanding a walk. The reality may be that be that you don't get to bed until the children have gone to school, and you will need a catch-up nap later in the day to get your seven to eight hours' sleep before starting the next night shift (see sleeping tips sidebar).

ASSESSING AND MANAGING FATIGUE RISK

An employer has a responsibility to roster staff as safely as possible. But O'Keeffe says individual nurses also have a role in gauging whether their sleepiness or fatigue is likely to impact on their ability to do their job properly.

"As a shiftworker, it is really important that we take responsibility for managing our own level of impairment."

O'Keeffe says there are three questions that shiftworkers can ask themselves to help judge the risk of being impaired by fatigue. The first is 'how much sleep have I had in the last couple of days?'

"We know that when we haven't had much sleep, the homeostatic process (the level of sleepiness) increases rapidly – particularly when we stay awake for more than 16 hours at a time."

Staying awake for 17 hours, for example – that is, going to bed one hour later than your normal bedtime – means people start to function similarly to someone at the legal alcohol limit, O'Keeffe says.

Anything over a 16-hour gap between bedtimes puts nurses at risk of making poor decisions and having reduced ability to make big-picture judgement calls and communicate effectively.

The second question to ask is 'what time of day is it?' Nurses working during the low circadian point of 3 to 5am are at the greatest risk of fatigue.

Thirdly, nurses should ask themselves 'how well have I been sleeping recently?' If they haven't been sleeping well, they are more likely to be impaired.

If people do consider themselves at risk, that doesn't mean they shouldn't be working at all, says O'Keeffe.
This should be applied only in cases of extreme fatigue. Rather, processes and strategies to manage standard fatigue should be in place, including improving communication processes with your colleagues when feeling fatigued and having someone working alongside you.

AGEING NURSES AND SHIFTWORK

Dealing with fatigue and shiftwork becomes harder as nurses age.

Despite that, a major survey in 2012 of older nurses found that almost half of the 3,273 respondents were still working shifts.

This surprised Dr Jill Clendon, a researcher for the New Zealand Nurses Organisation (NZNO) and principal researcher for The Late Career Nurse project survey of NZNO members.

Clendon says older nurses did show a general tolerance of shifts as they were accustomed to them as part of their working lives. As one respondent reported:

"My family have left home but still my shifts dominate planning events long term to be together. The great side is I've

Continued on next page >>

never known any other social behaviour and have developed a life that allows me to involve myself in activities, to be flexible and plan long term – society is changing to meet the needs of shiftworkers, which I believe is very important."

But others also reported needing greater recovery time as they aged – particularly rotating shift rosters that included nights – and increasing concerns about their poor sleep and health. As another respondent commented:

I have had many years of poor sleep patterns. Have developed hypertension and high cholesterol. Have no regular exercise and do not join exercise classes because of shiftwork."

Clendon says the older nurses' coping mechanism for increasing difficulties with rotating shiftwork was to move to casual or agency work so they could control the shifts they worked. This was usually because they weren't offered other shift options such as 'no nights' or shorter shifts. "So these nurses were lost as permanent employees on the ward, resulting in loss of experience, institutional knowledge, etc...

"Is that (lack of roster flexibility) worth the risk of losing these skilled nurses? Just because someone is no longer able to cope with night shifts? Particularly when we're moving into a nursing shortage."

Clendon believes that shiftwork can be managed better and employers need to be flexible and open to different rostering options to stop nurses – both older and younger – pulling out of shiftwork because of fatigue or incompatibility with their home life.

YOUNG NURSES AND THE PUSH FOR SOCIAL ROSTERING

It is not only older nurses who like the idea of great flexibility in rostering and shiftwork.

Those in the generation behind them have strong ideas about what work/life balance means. This was endorsed by a survey of 350 Generation Y nurses (i.e. born since 1995) carried out by Christchurch nurse researcher Dr Isabel Jamieson, that found that young nurses want flexible workplaces.

She also found that they start off wildly enthusiastic about their nursing careers but within a year the honeymoon is over – and part of that is a rapid disillusionment with shiftwork.

"They wanted rosters and a workload that didn't mean they had to spend their days off sleeping to recover," Jamieson told *Nursing Review* in a 2012 article.

She added that the young nurses had a "very fair and mature" attitude to allocating time in their days off to recover but felt that too little space was left to also enjoy friends and family or squeeze in study.

"If you want me to be the best nurse I can be, then I need a workload that doesn't stress me to the max," is a common attitude, says Jamieson.

The Sustainable Nurse Workforce Project Group is conscious of the need to support young nurses to keep nursing, says Jane Brosnahan. An initial approach has been to draw up a position statement (endorsed by the national directors of nursing group NENZ), that recognises the future state of nursing will require both "radical redesign" of some nursing processes and "subtle changes" to others, including "greater flexibility of work schedules and environments to meet the needs of nurses across the continuum".

Part of this project is considering a marketing campaign to promote what can be a positive spin-off of shiftwork – more 'me time' during the day.

"Shiftwork does give you time to yourself when everybody else is at work (or school)," she says.

Each South Island DHB is also being encouraged to gather information about flexible childcare options available in their respective areas, outside of the traditional 9am to 5pm childcare centres that don't work well for shiftworkers.

At the same time, the project is now at the initial stage of reviewing the research and best practices in order to establish a safe and healthy rostering process that balances staff desires, part-timers and full-timers and the needs of younger and older nurses, which will be shared across all South Island DHBs.

WHAT ARE THE RISKS OF SHIFTWORK TO PATIENT SAFETY?

Another element of safe rostering is reducing the risk of errors and injuries due to nurse fatigue.

The New Zealand Blood Donor study, involving more than 15,000 workers, found that people working rotating shifts (excluding night shifts) were 75 per cent more likely to report a workplace injury than people working conventional daytime hours and nearly 90 per cent more likely if they worked rotating shifts, including night shifts. The risk of injury was also higher for those working permanent nights (38 per cent), though less than for those working rotation shifts)

International studies looking at nurses and shiftwork have found that nurses working rotating shifts are twice as likely to report a clinical error of some kind and three times more likely to have a car accident.

Clendon believes the research indicating fewer risks from fixed night shifts than rotating rosters means it could be time to bring the option of permanent night shift back to the table for more discussion and debate. She points out that older nurses on permanent night shifts appeared to find nights "less challenging" than those on rotating shifts. And some 'owls' or younger nurses may be more willing to work nights if they had the option of a fixed roster.

"I think a possible solution is to give nurses over 50 the option of not working night shifts – younger nurses may have to pick up the slack, but when they hit 50 they would also have the option," she suggests. "Although it's probably not a very popular option with young nurses, those with families may not have an issue and this is where fixed night shifts may work better."

Brosnahan says the sustainability project was also aware of research raising questions over rotating versus

fixed rosters. There was particular interest in one piece of research indicating that rotating shifts over longer periods of time might be a healthier option. Staff might spend a month on day shift, a month on evenings and a month on nights, giving their bodies more time to adjust to each timeframe.

The research also indicates that the risk of increased injuries and errors appear similar for nurses who work for more than eight hours at a time.

O'Keeffe says that while there are few good-quality, nurse-specific studies, general research indicates that the risk of errors tends to increase with the number of hours worked. As a result, controversy exists over whether 12-hour shifts are the safest option for health care environments.

Shift length, she says, is just one of many factors they consider when assessing whether or not a roster is safe. "So even if a nurse is working 12-hour shifts – and might not be getting as much sleep as someone working 10 hours – they might still be in a supportive work environment where fatigue is managed well."

Clendon says that NZNO is in the process of completing a systematic review of 12-hour shifts and error rates among nurses working in acute care environments, and the initial results are very interesting.

WHAT ABOUT THE RISKS OF SHIFTWORK TO NURSES' HEALTH?

Nobody is arguing that trying to work at night and sleep during the day is natural – or healthier than working conventional hours.

Continued on next page >>

Shiftwork tips

Tips for staying awake during night shift

» Stay active.
» Keep a bright light on (to suppress melatonin).
» Schedule energetic activities earlier in the night, if possible (difficult for nursing).
» Consider having a 10–15 minute nap during your coffee break to keep you alert during the night.
» Use caffeine carefully – while it can be a good alertness booster, it takes five to eight hours to leave the body so can impact on your sleep post-shift.
» Get home safely – wind down the window and turn on the radio to stay alert. If you feel sleepy, stop as soon as possible and take a quick nap.

Facilitating sleep (post-shift)

» Reduce caffeine/alcohol intake and avoid before bedtime.
» Wear sunglasses when driving home in the morning after night shift.
» Try to get to bed as soon as possible after a night shift as your core body temperature will be near its lowest and you will be at your sleepiest.
» Keep your bedroom dark (curtains or blinds – preferably blackout – are crucial).
» Use an eye mask if daylight can still enter your room.
» Communicate well with your family/flatmates to try and keep noise levels down when you are trying to sleep.
» Keep your bedroom cool for sleeping, with suitably comfortable bedding.
» Avoid 'blue' electronic light in room during sleep (i.e. clocks, stereo lights, iPads) as that disturbs your body clock.
» Avoid using devices with bright screens in the two hours before bed (i.e. smartphones, laptops, computers and iPads).
» Keep your bedroom only for sleeping and sex (no work, no TV or electronic devices).
» Turn your phone off so you aren't disturbed by texts, Facebook notifications, etc.
» Cigarettes can stop you getting to sleep and wake you during the night.
» While caffeine might not always stop you falling asleep, it reduces the amount of deep sleep you get so you can wake up feeling unrefreshed.
» Similarly, alcohol may see you fall asleep quickly but will impact on the quality of your sleep.

General tips for shiftworking

» Establish regular bedtime routine for whichever shift you are on.
» Eat regular, light, healthy meals. This might require planning to ensure your only food options at 3am in the morning aren't carb-rich or junk food.
» Get regular exercise.
» You need seven to eight hours' sleep over 24 hours (five hours is not enough).
» When at home, listen to your body and if you feel sleepy, sleep.
» Naps always boost your functioning, even if you don't feel great straight afterwards. Try to keep them short and sweet (20–40 minutes) to avoid sleep inertia (the groggy feeling you can experience after waking from a nap.)
» If napping for longer than 40 minutes, consider having two periods of sleep over the 24 hours, with one being a nap of about two to three hours.

Increased understanding of how our body clock and circadian rhythms are involved in our daily metabolism has seen an upsurge of research interest in the impact of disrupting those rhythms through shiftwork.

The findings linked to working shifts can make grim reading.

"We do see that people who are shiftworkers have higher BMIs, higher reporting of gastrointestinal problems, and higher incidences of type 2 diabetes," says O'Keeffe. Large cohort studies have also found increased incidences of heart disease, diabetes and cancer amongst shiftworkers, compared with other workers.

"So there are some fairly nasty health problems that can come with shiftwork," she says.

This all sounds very discouraging for a long-term shiftworker or a nurse about to commence shiftwork.

O'Keeffe points out that the research studies can't pinpoint the cause of the poorer health statistics as every shiftworker is an individual and there are many factors that come into play, including the type of shift, the length of time a person has worked shifts, their lifestyle and their sleep patterns. Most of the health risks are also shared by people who aren't getting enough sleep, so a good start to reducing long-term risks is trying for seven to eight hours' quality sleep every 24 hours.

PROPOSED NURSE SURVEY HOPES TO GUIDE SAFE ROSTERING

If the perfect roster is working permanent day shift, any other roster is always going to be a compromise of juggling giving nursing staff the shifts they request, meeting patient clinical needs, and reducing the risk of errors or injuries due to fatigued staff.

O'Keeffe says the Massey Sleep/Wake Research Centre has used extensive surveys with RMOs (resident medical officers aka junior doctors) to gather data on characteristic work patterns and build matrices for assessing whether a roster is at a low, medium or high risk for fatigue. "We want to do the same thing for nurses."

The centre has an application in to the Health Research Council for funding to carry out an extensive and complex survey of nurses to ask them about the shifts they work and when; about their work, sleep and alertness patterns, whether they have reported clinical errors, and when they are most likely to occur.

"We've got our fingers tightly crossed and if we are successful we would aim to start the research later this year. We would use the survey data to build new fatigue management tools which would be relevant to nurses. The centre would also aim to develop a code of best practice for nurse rostering.

She says many people still hold on to a belief that somewhere out there is the perfect roster with a formula for the right set of shifts, of the right length, in the right order and with the right breaks in between. "That's just not going to be the case." The elusive perfect roster will still remain just that – elusive. Body

UPDATE:
Time to rethink the 12-hour shift?

Since *Nursing Review* published this shift work article earlier this year, New Zealand researchers have released a major literature review of the error rates of nurses working 12-hour shifts.

Condensing your working week into three days has definite appeal to some nurses. Working three 12-hour shifts instead of five eight-hour shifts may mean more time for the kids or garden and less time commuting and arranging childcare.

But are 12-hour shifts safe for patients and nurses? New Zealand research published this year in the *International Journal of Nursing Studies* by Dr Jill Clendon and Dr Veronique Gibbons indicates that they are not.

The pair's systematic review examined the research evidence on the error rate for nurses working 12-hour shifts or longer, compared with nurses working shifts of less than 12 hours. The search through thousands of research abstracts was narrowed down to 13 quality studies: six studies reported higher error rates for nurses working more than 12 hours on a single shift; four reported higher rates of error on shifts of up to eight hours, and three reported no difference.

"Hospitals and units currently operating 12-hour shift systems should review this scheduling practice due to the potential negative impact on patient outcomes."

Clendon, a New Zealand Nurses Organisation researcher, said the six studies showing higher error rates for shifts going beyond 12 hours included the RN4CAST research that involved 31,000 nurses across 15 European countries. In total, the six studies highlighting concerns with 12-hour shifts involved 60,780 nurses – or 89 per cent of the review's total sample size of just under 68,000 nurses. "You are talking about big numbers with robust data and robust methodology," says Clendon.

Two of the studies found the likelihood of making an error after 12 hours or more was between double to three times above that for those working shorter shifts. Another study found nurses were significantly more likely to suffer a needlestick injury when working 12-hour shifts; another that nurses working more than 13 hours were more likely to

report frequent central line-associated bloodstream infections; and another that the longer nurses worked over 12 hours the less likely that a patient's pain was controlled.

"Hospitals and units currently operating 12-hour shift systems should review this scheduling practice due to the potential negative impact on patient outcomes," is the conclusion reached by Clendon and Gibbons. They added that further research is also needed into mitigating the risk of errors in situations where 12-hour shift schedules cannot be changed.

The most recent NZNO employment survey indicated that around 10 per cent of registered nurses work 12-hour shifts. The greatest concentration of 12-hour rosters are in public hospitals in Auckland and Wellington; and the most likely services to use 12-hour shifts are intensive or high dependency care units, child health, emergency departments and maternity.

EVIDENCE SHOULD PROMPT RETHINK

Clendon is convinced the evidence is now strong enough for hospitals to start reviewing the use of 12-hour shifts. She says it is not new news that NZNO as an organisation doesn't support 12-hour shifts and the collective agreement with the 20 DHBs has for some time spelled out that eight-hour shifts are preferred. "Ten and 12-hour shifts are not recommended as a standard rostering pattern and shall occur only where clear clinical/service rationale supports this practice," says the MECA (Multi-Employer Collective Agreement), which also states 12-hour rosters should "not compromise" those nurses who elect to work 8-hour shifts.

But while the organisation may not support 12-hour shifts, it does support its members and Clendon is aware that many nurses quite like or prefer 12-hour shifts as it suits their family needs and lifestyle. She is also well aware that apart from the evidence of increased risk to patients there are organisational and fiscal factors encouraging employers to consider shifting away from 12-hour shifts. One of these is the accrual of annual leave by nurses who can have four days off in every seven.

The Clendon research has featured in an article in NZNO journal *Kai Tiaki*, and been presented to nurse executives group NENZ, but Clendon says there is no active agenda by NZNO to push organisations to reschedule rosters.

Capital & Coast DHB contemplating shift

One region that is actively considering revisiting 12-hour shifts is Capital & Coast District Health Board. Director of nursing and midwifery Andrea McCance says it is reviewing 12-hour shift rosters in some areas and staff consultation is already underway in midwifery.

At present the board has predominantly eight-hour shifts in its general medical and surgical wards and a mix of eight, 10 and 12-hour shifts in critical care areas (like intensive care, emergency department and neonatal intensive care), neuroscience, oncology and midwifery. It also has a mix of shift lengths in its mental health, addiction and intellectual disability services.

McCance says it is looking at revisiting 12-hour shifts in some of these areas, due to a combination of factors including clinical safety, and rostering complexities through having a mix of eight and 12-hour shifts that can cause issues like four-hour gaps and duplication of handovers. She also says there are increased annual leave and sick leave costs for staff on 12-hour shifts. The Clendon and Gibbons research and other studies are informing the consultation process currently underway involving the two midwifery unions NZNO and MERAS.

McCance says some staff are welcoming the change, including some of the older workforce who say 12-hour shifts are too tiring and unsafe. They have been joined by some of the new graduates citing similar concerns about 12-hour shifts, particularly with increasing throughput and the patient complexity and acuity.

The board will next year introduce the Care Capacity Demand Management (CCDM) safe staffing tools and McCance says at the same time it will be looking "at all sorts of shift patterns, including roster re-engineering in consultation with the unions to ensure we have the right staff at the right place at the right time".

UPDATE: Nursing shift work and fatigue research

Karyn O'Keeffe said in early November that the Massey Sleep/Wake Research Centre again has its fingers "tightly crossed" as it makes its second attempt to gain Health Research Council funding for an extensive survey of nurses about shift work and fatigue. She said the application has made it through to the full application round and the centre has also been seeking smaller grants for related research work.

Celebrating International Nurses Day 'heroes'

To celebrate International Nurses Day this year, Nursing Review once again invited district health boards and organisations across the country to contribute stories on their nursing 'heroes'. Yet again we were sent amazing stories about some of the unsung, innovative, compassionate, high-achieving and dedicated nurses who make up the New Zealand nursing workforce. Read on...

NAME: Dr Patsy-Jane Tarrant
DHB: Southern
JOB: Clinical nurse specialist, Forensic Services – Mental Health

Dunedin's criminal courts are home turf for Patsy-Jane Tarrant, who recently gained a doctorate in her specialty field of forensic mental health.

Southern DHB says Tarrant's contribution as a clinical nurse specialist in forensic mental health services is significant – not only through her clinical practice but also through the new knowledge she has brought to the area and the support she gives her colleagues to practice in contemporary and evidence-based ways.

The role of the mental health nurse in New Zealand's criminal courts is the novel topic explored in Patsy-Jane Tarrant's doctoral thesis. Tarrant graduated in December last year after completing a doctoral research project that for the first time looked at nursing practice in New Zealand's criminal courts.

The court liaison nurse (CLN) is the sole health practitioner in the court setting and Tarrant says this means it is under a high level of public and media scrutiny. Her research looked at what it was like to nurse in a practice setting where two conflicting cultures – justice and health – met, and whether this generated tensions for the nurses involved. Her thesis findings provide a baseline for the court nursing role and ongoing development for nursing practice in this area.

Tarrant – who achieved her doctorate while simultaneously working as a clinical nurse and forensic service leader and raising a family – also represents the Southern DHB on a national committee for women in secure care. This committee promotes standards of care for women within forensic mental health settings.

She is also currently organising a Court Liaison Nurse Symposium to be held in Dunedin in May. It is the first time in more than 10 years that there has been a specific forum for CLNs across New Zealand. Tarrant says the symposium will be an opportunity for both professional development and networking. There are also plans to work on developing a guideline for CLN practice that may possibly be adopted nationally.

"I got asked a few weeks ago why I am doing nursing again and not business or management – it is really simple, I am just so proud to be a nurse."

NAME: Melody Mitchell
DHB: Waikato
JOB: Waikato Hospital nurse manager of surgery

Melody Mitchell says being a Māori nurse in management (she is in charge of 270 surgical nursing staff) gives her a unique opportunity to articulate her community's needs.

Māori managers with a direct connection to the community can see the impact of inequity, says Mitchell, because it affects them and their families.

"There are characteristics around populations that are seen as minorities that could be changed or better understood if they had more Māori representing these communities at a management level."

Mitchell manages one of the largest clusters of nurses at Waikato Hospital as the nurse manager of surgery and says the role can certainly be challenging.

"Being a manager can sometimes be a double-edged sword. First and foremost I am a nurse but I am now also a manager and sometimes I have to make decisions that are not very popular."

This year she will begin postgraduate studies, and she has chosen to do her master's degree in nursing, rather than health management or business.

Becoming a career nurse was not originally part of Mitchell's life plan. She was accepted into physiotherapy but she decided it wasn't what she wanted and her mum then convinced her to go into nursing.

"She told me it would give me career options, a job, but also I could go travelling," she says.

On graduating from the then-Taranaki Polytechnic,she worked at Middlemore Hospital, then at Waikato Hospital, returning to Middlemore as an associate charge nurse, and then going back home to Taranaki as a charge nurse.

"I got so much exposure to procedures at a big hospital like Middlemore and then to those at a smaller hospital like Taranaki. I was really able to develop my management skills and as a result got involved with nurse specialties at a national level."

Mitchell questions what job other than nursing could have given her "such exposure to human life and all its challenges".

"I got asked a few weeks ago why I am doing nursing again and not business or management – it is really simple, I am just so proud to be a nurse."

NAME: Uputaua Suniula
DHB: Capital & Coast
JOB: Community health and rheumatic fever prevention nurse, Porirua

The mother of two children by the age of 17, Uputaua Suniula is now a nurse who is helping to turn around the health of teenagers and children in Porirua.

Uputaua Suniula was recently recognised with the Margaret Faulkner graduate award for her compassionate care that is making a difference in Porirua – a difference she describes as "empowering".

"The positive impact I can make within the community has been mind-blowing, especially working as the first point of contact for people in need," she says.

Suniula has worked on the front line of healthcare at both Waitangirua and Porirua's Community Health Service.

"My focus is to work with Porirua's young population to help develop prevention strategies that can stop acute presentations of preventable things like asthma and skin infections, reduce the strain on hospital services, as well as lower our overall healthcare costs.

"One of the problems we face is that teenagers and children don't come in to see a doctor till they're really sick," she says.

"What could've been addressed in the clinic instead becomes complex, at which point they become an inpatient in the hospital."

One campaign Suniula works closely on is the rheumatic fever prevention programme in Porirua, where finding and treating strep throat can prevent the risk of a lifetime of heart issues.

"It's all about treating the patient early, before they develop a serious problem."

Suniula is now working towards a postgraduate certificate of nursing, with the aim of gaining a master's qualification specialising in primary health care.

Graduate incomes:

How nursing stacks up... and falls down

How does a young nurse's income stack up against those of his or her peers who become teachers or lawyers? Do we lose more young nurses overseas than other professions? Why does the average income of nurse graduates plateau and fall after five years? FIONA CASSIE reports on two Ministry of Education studies about young graduates' incomes and destinations.

School leavers these days can go online and check out how their likely income as a nursing graduate compares with those for more than 50 other types of graduate degrees.

The information shared on the Careers New Zealand website is based on Ministry of Education research that uses tax data to track the income and destination of our young graduates (see more about studies below).

The focus is on young New Zealand graduates, with the aim of helping guide young people, their families and their career advisors to make career choices.

GOOD NEWS – AT FIRST

So what does the potential young nurse find out about nursing's prospects? And how does graduating with a nursing degree stack up against other degrees?

The good news is that, at least initially, the incomes for young nurse graduates stack up pretty well compared with the average young graduate.

Study lead author Zaneta Park says in general the median earnings for nursing degree graduates are good, particularly in the first five years post-study.

She says median earnings start off higher for nursing graduates than for many of the other bachelor graduates, including those who study computer science, accountancy, law, languages and biological sciences. Even five years after graduation, nurses' earnings are still relatively high – though by this stage law and accountancy graduates are similar and computer science graduates are now higher.

SIX YEARS POST-STUDY – NOT SO GOOD

But Park says nurses' incomes then show an unusual trend by dipping in both the sixth and seventh year after study, with the average income seven years post-study actually being lower than it was four years after graduation. The only other graduate group dozens of degrees examined. experiencing a similar trend are the human welfare studies and services graduates, whose income peaks at six years post-study, then falls.

Graduate in both degrees are overwhelmingly female: 95 per cent of young nurse graduates and 88 per cent of human welfare studies and services graduates.

"Our assumption was that this [dip] may indeed be because graduates who complete a bachelor's qualification in nursing tend to be female and so six to seven years after graduation tend to be more likely to reduce their hours of work for family care reasons (or otherwise

Study details

The studies are based on the anonymised tax and tertiary education data of cohorts of young people who graduated between one and seven years before.

The cut-off for this study was the tax year to the end of March 2012, so the cohort of nurses who were seven years post-study was based on nurses who had graduated in either 2003 or 2004. The nurses who were two years post-study had graduated in 2008 or 2009.

The focus of the studies is on young people, with the cut-off age being 24 years or under for nurses on finishing their degree and 26 years or under on completing a postgraduate certificate.

Both the 'What young graduates earn when they leave' study (published online May 2014) and the 'What young graduates do when they leave' study (published online June 2014) can be found at www.educationcounts.govt.nz.

Zaneta Park, of the Ministry of Education's Tertiary Sector Performance Analysis group, was lead author for both studies.

make changes that reduce their earnings; for example, perhaps they are less likely to work overtime, or to be on call)," says Park.

But looking at other careers where a high proportion of graduates are female; for example, teacher education (91 per cent) and radiography (89 per cent), there is no similar fall-off in earnings. "We are not sure why this is the case," says Park.

Another trend in which nursing stands out from the crowd is the high proportion (69 per cent) of young nurses pursuing further study in their first year after graduation, which is due to the many district health boards that include postgraduate certificates or papers as part of their NETP (nursing entry to practice) programmes.

High number pursuing further study

Because the Ministry of Education assigns each graduate to a single destination category each year (and carrying out any study means graduates are assigned to the 'further study' category rather than the 'employment' category), this results in a degree of confusion for students and parents when comparing job prospects immediately after graduation. (N.B. In table 1 the figures for 'in work' and 'further study' have been combined to reflect this anomaly.)

> "... median earnings start off higher for nursing graduates than for many of the other bachelor graduates..."

Young nurses carrying out further study are rewarded with the median and top incomes for nurses with a postgraduate certificate or diploma being substantially higher (see table) than for nurses with only a bachelor's degree. But while the incomes of the top 25 per cent of earners kept steadily growing, the median income for postgraduate qualified young nurses also dipped in the sixth and seventh year.

Young nurses heading offshore

Traditionally leaving New Zealand for an OE (overseas experience) has been a common rite of passage for many young New Zealanders and nurses have been no exception.

But if anyone in the nursing sector was concerned that young nurses made up a disproportionate part of the 'brain drain' of young people heading offshore, this is not borne out by this study. It shows that eight per cent of 2008–2009 young nursing graduates (a pool of 1,300) headed overseas straight after graduation, which is lower than the 10 per cent average for all 28,800 young people who graduated at the same time.

The number of young nurses heading overseas continues to grow until it peaks at 29 per cent five years after graduation. It then falls back to 25 per cent overseas by seven years post-study, which is considerably lower than the 31 per cent of all graduates from the same time period who are out of the country.

When it comes to health professionals, the number of nurses overseas seven years post-study is on a par with medical graduates (26 per cent) and substantially less than pharmacy graduates (39 per cent), radiography graduates (35 per cent) or dentistry graduates, with the statistics showing half of young dentists are overseas six years after graduating.

Law (35 per cent), accountancy (37 per cent) and computer science (37 per cent) graduates are also far more likely to be overseas seven years after graduation. Amongst the graduates least likely to be overseas are teacher education graduates, with 17 per cent overseas seven years post-study.

Whether the school leaver contemplating nursing will be influenced by these statistics and findings is not known but current statistics show that nursing is holding its own in the graduate income stakes, well for at least the first five years.

Comparison between nursing and other degree graduates

	Nursing	Teaching	Law	Medical
Median income 2yrs after graduating	$51,000	$47,000	$47,000	$90,000
In work and/or further study 2 yrs after graduating	81%	90%	84%	83%
Overseas 5 yrs after graduating	29%	17%	27%	22%
Overseas 7 yrs after graduating	25%	17%	27%	26%
'Other' 7 yrs after graduating (i.e. not in paid work, or overseas, on benefit, or on ACC or paid parental leave)	7%	7%	7%	4%
Median income 7 yrs after graduating (undergrad degree only) (hons/postgrad cert or dip)	 $54,000 $61,000	 $56,000 $62,000	 $67,000 $81,000	 $114,000 -
Top earners 7 yrs after graduating (undergrad degree only) (hons/postgrad cert or dip)	 $67,000 $78,000	 $67,000 $68,000	 $84,000 $108,000	 $134,000 -

Postgraduate funding **steady for 2016**

It is now around eight years since funding for postgraduate nursing study was decentralised to district health boards.

The funding has been basically static for a number of years but the number of training units it supports has still managed to grow slightly as more nurses across the regions come on board (see table).

Health Workforce New Zealand (HWNZ) group manager Ruth Anderson says $12.7 million of the $13 million allocated for postgraduate study was utilised last year. She says the funding pool is the same for 2015 and at this stage it looks like it will remain the same for 2016. (HWNZ has said a pilot to boost the numbers of nurse practitioners in 2016 – see 'Nurses unconvinced by positive PA evaluation' on page 20 – will not be funded from the postgraduate nurse funding pool.)

Increased study uptake by ARC nurses

Sue Hayward, head of the national Nursing Education Advisory Team (NEAT), says one trend in recent years for the funding pool has been the increased study uptake by nurses in aged residential care who are feeling more supported by their employers and are becoming "positively engaged" in postgraduate study.

"In residential aged care we are breaking down the concerns of facility owners about getting funding to release their nurses for study – they are finally getting to understand all that, which is really great for that workforce," says Hayward, who is also director of nursing for Waikato DHB.

Hayward says directors of nursing in the DHBs around the country are driving the uptake of HWNZ postgraduate funding in areas they know the workforce is most vulnerable and needs extra educational opportunities to support the patient demand.

DHB spending prioritisation challenge

Hayward says the next challenge is to allow each DHB to prioritise how they spend their allocated postgraduate study funding. This will become particularly important as the country heads down the path of nurse prescribing and expanded scope roles like nurse endoscopy and nurses as first surgical assistants.

She says it is likely there will be a little concentrated "hump" of spending once the prescribing postgraduate diploma is confirmed and nurses seek support and funding to pursue becoming prescribers in their specialty.

"I think what we want to relook at is how we support financially the expanded scopes – particularly ongoing implementing of roles like nurse endoscopist – because of the amount of time they need to be backfilled."

HWNZ-funded postgraduate nurse study statistics

2011 1,429 (training units*)
2012 1,442
2013 1,480
2014 1,524 ($12.7 million of the $13 million allocated to postgraduate nurse study was utilised)
2015 793 (to date i.e. semester one)

**A training unit is the equivalent of a two-paper PGCert or one year of a PGDip or master's degree programme (with or without clinical mentoring).*

Te Pou skills matter (targeted mental health nurse postgraduate funding)

2013 40 funded places on Clinical Leadership in Nursing Practice (CLNP) programmes
2014 47 trainee places on CLNP programmes
2015 39 trainee places on CLNP programmes (reduced to increase NESP – New Entry to Specialist Practice – places in 2015).

Tips for a top nurse **portfolio**

LIZ MANNING shares some simple tips on how to keep your nursing portfolio manageable, succinct, and of a good quality.

Portfolios were first introduced to New Zealand nursing in 1988. In the almost three decades since then, the portfolio process has spread, evolved, been refined and now embraces new technologies. Despite this, the thought of starting a portfolio can still put some registered nurses into a tailspin.

While portfolios are developed for many reasons, the three main reasons are to:

- Store career, education and practice information.
- Meet the requirements of a random recertification audit by the Nursing Council of New Zealand.
- Meet requirements for a professional development and recognition programme (PDRP). (If you can join one of the country's 29 PDRP programmes it is advantageous as PDRP is a Nursing Council-approved process)

OPTIONS TO PRESENT

The first thing to decide is how you would like to present your portfolio:

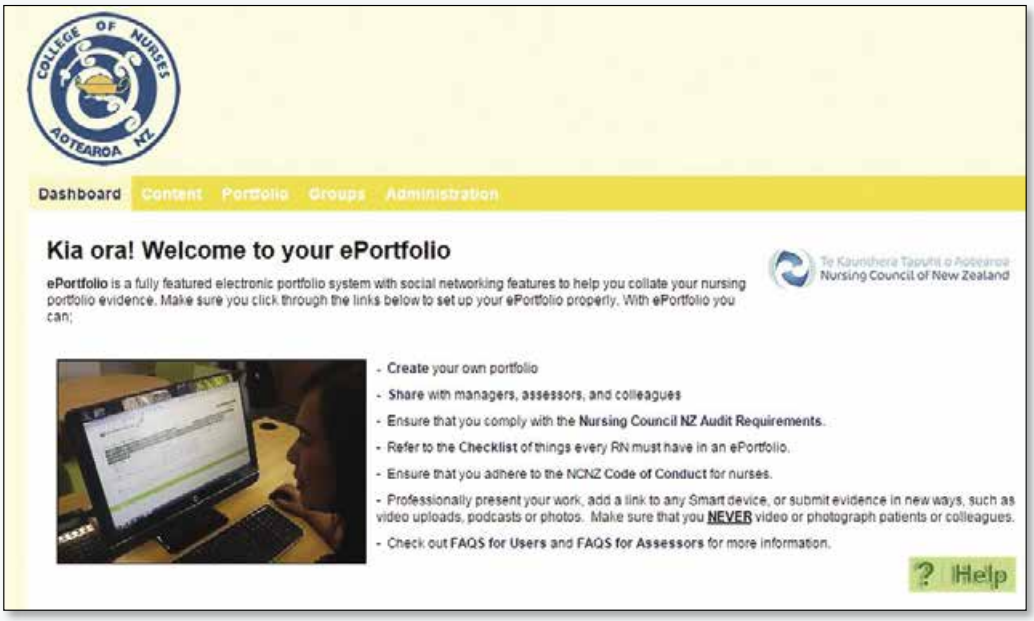
1. Hard copy desk file: this is the traditional way and involves collecting and copying items to add into a file or organiser.
2. Electronic portfolios: either simple computer-based files or your organisation's electronic nursing portfolio programme.
3. ePortfolio: A number of organisations have opted to link with the ePortfolio developed by Ngā Manukura o Āpōpō (www.ngamanukura.co.nz), including the College of Nurses Aotearoa. This is a simple way to store and present your information and the Nursing Council will accept random audits presented this way.

Any of these methods can be used for a recertification audit, storing information or even a PDRP; they are simply ways of carrying your evidence (if you are linked to a PDRP, check with your coordinator).

A portfolio is a way of presenting evidence of your practice to a standard agreed across New Zealand. Whether you work in a small, independent practice, an aged care facility or a DHB, or whether you are randomly audited or part of a PDRP programme, undertaking a portfolio is an opportunity to take stock, reflect and consider where you are in your career.

Continued on next page >>

HOW-TO GUIDE



GETTING STARTED

» Once you have decided (see above) how you are going to present your portfolio: Create or use an existing checklist of items required for your portfolio.
» If it's a hard copy portfolio, find a folder with plastic sleeves and use sticky notes to label the evidence needed to fill each empty sleeve.
» Keep it simple, professional and tidy.

COLLECTING EVIDENCE

» If you're unsure how to begin self-assessing against the up to 20 Nursing Council competencies required (depending on the nature of your practice i.e. clinical or education etc), begin with the ones you can fill now, rather than starting with Competency 1.1.
» You need one piece of evidence per competency, so look at the competency indicators to decide what piece of evidence you would insert under that competency.
» Only use things that describe your competency; e.g. if you attend an education session, include verification that you attended (a certificate) and a reflection on what you learned. (NB a flyer advertising the education session is not evidence of competence.)
» A nurse assessor has to assess your work within a given timeframe so only add items that are required, current and relevant.
» The assessor will be looking for objective examples of your practice.
  » If someone writes you a reference letter, ask them to link it to the four domains of practice.
  » Ask your peer reviewer to include examples of actions or activities from your practice.
» Use normal language. You don't have to write an academic essay (though you do need to reference if you use someone else's words or ideas).
» If you are isolated in your role (e.g. not many other nurses around), describe how you engage professionally i.e. where do you meet other health professionals to share ideas, access education or review cases?

COMMON PITFALLS

» Be aware of privacy issues: never use identifiers of any sort, such as patient names, NHI numbers, addresses or names of any other health professionals.
» Stick to the rule that you won't use anything that can identify anyone unless you have their written consent.
» Items with privacy implications include emails (also not considered good quality or objective evidence) and thank-you cards (nice to receive but meant only for you).
» Meeting minutes don't demonstrate competence. If you attend a professional group or meetings, get a verified note from the organiser.
» Watch your use of acronyms: assessors may not know the abbreviations commonly used in your setting.

BEFORE YOU HAND IN YOUR PORTFOLIO

» Develop a contents page so your assessor can easily find evidence.
» Make sure you have considered every page.
» Show your portfolio to a colleague who can proofread it and check it is complete. You can 'share' your ePortfolio with a colleague.

NB The College of Nurses Aotearoa is offering portfolio workshops again in 2016; please contact the college for further information and dates www.nurse.org.nz

Author: Liz Manning RN, BN, MPhil is a consultant and College of Nurses board member.