
March 2020 Newsletter

Neonatal Nurses College of Aotearoa (NNCA)

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**Neonatal
Nurses
College
Aotearoa**

New Zealand Nurses Organisation

Welcome from the Editor

Welcome to the first NNCA newsletter for 2020 – a new year and a new look to our newsletter. As we move towards autumn there is a sense of slowing down all around us. However as you will see from the Chairperson Report, there is much happening in 2020 and there will be lots of opportunities for involvement in neonatal activity locally and nationally.

Review of Neonatal Care in New Zealand

Many of you may be aware that a Review of Neonatal Care in New Zealand was commissioned in January 2019 by the Ministry of Health (MoH) to inform recommendations from the Newborn Clinical Network regarding neonatal capacity and occupancy across Aotearoa. The review and subsequent report were completed within identified timeframes. However there was considerable delay in the release of the report by the MoH despite requests from the Newborn Clinical Network, NNCA and media. The report was eventually released on the MoH website on January 30th 2020 without notification of stakeholders. The full report can be viewed here <https://www.health.govt.nz/publication/review-neonatal-care-new-zealand>.

The objectives of the review were to make recommendations for any short-term changes to any perceived need, and any long-term recommendations for neonatal service provision. The review took a systems view of neonatal care, acknowledging the influence of wider aspects of maternal and child health. Neonatal care is experiencing the impact of factors such as changes in population health, and the complex health and social needs of families, along with changes in obstetric practices and advances in neonatal care and technology. Despite a relatively stable birth rate in Aotearoa, demand for neonatal cots has out-stripped available capacity during the review period of 2012 -2017. Occupancy of Level 3 units exceeded the resourced level of 85% for 98% of days each year, Level 2A units exceeded resourced occupancy for 72% of days, and Level 2 unit resourced occupancy was exceeded 51% of days.

A stakeholder survey was included in the review with 387 people from within neonatal care settings responding. Nurses made up the largest group of respondents (43%). The work of neonatal staff to manage fluctuations in occupancy, especially in times of over-occupancy, must be acknowledged.

Staff have worked incredibly hard for a sustained period using a variety of strategies to manage capacity and ensure safety. This includes flexing up in cot numbers and where possible increasing staff numbers (or increasing the baby: nurse ratio), providing additional cot spaces in often cramped physical environments, transferring families around the country (approximately one quarter of Level 3 babies), and at times delaying delivery until a cot space was available. All of this has happened above the allocated resourcing for most units, with significant impacts on budget, staffing demand and staff well-being, while providing exceptional care to babies and families.

Indications from the review are that a high proportion of our neonatal workforce considered themselves to be overworked, citing missed nursing care, actual or potential adverse events, and reduced opportunities for workforce development and support of newer staff. Compounding the lack of neonatal cot space is the profile of the nursing workforce in terms of age and experience levels. The ability to recruit, retain and train adequate numbers of neonatal nurses within budget constraints and in the face of occupancy and workplace demands is placing ongoing pressure on the neonatal nursing workforce.

The review has identified a key priority of “increased resourcing to bring occupancy levels down to 85% most of the time” and that the “need for additional resourcing is urgent to address the potential for adverse outcomes and to provide relief to staff”. Work is underway by the Newborn Clinical Network to develop recommendations for the implementation of Transitional Care services to reduce pressure on neonatal units and improve family outcomes.

The day before the release of the Review of Neonatal Care in New Zealand, the government announced an additional \$83 million of extra funding for child and maternity health. Resourcing for improved neonatal capacity is urgently needed to provide physical space for additional cots, additional staffing across nursing, medical and allied health teams, and associated equipment.

It now falls to us all individually, as well as collectively through groups such as the Newborn Clinical Network and NNCA to advocate for a timely and adequate response from the Ministry of Health to the findings of the report.



Chairperson's Report: Gina Beecroft

The Year of the Nurse and Midwife

A new year, a new decade and a year of new hope and possibilities!

And there is the big possibility of progress this year for neonatal units, workplaces and conditions!

Profile is an important factor to help add a little extra pressure to help progress change.

Progress is something that we probably have felt we have been making little headway with in our national neonatal units in terms of addressing capacity and demand.

However, this year is the year of profile for nursing, so hopefully our year for progress too.

This is a very auspicious year with the World Health Organization (WHO) proclaiming 2020 the **"Year of the Nurse and Midwife"** in recognition of the importance our professions to global health. The WHO wants to raise the profile and status of nurses and midwives and encourage government investment in the two professions. So, the spotlight is on nursing and midwifery. We have the potential to capitalize on an increased profile to help improve healthcare delivery and working conditions for our respective professions.

On a local level we have at last had some national progress related to the delivery of health care to neonates. The long awaited "Review of Neonatal Care in New Zealand" commissioned by the Ministry of Health (MoH) has finally been publicly released. It can be found at <https://www.health.govt.nz/publication/review-neonatal-care-new-zealand>.

I encourage you to have a read.

Currently the MoH is working with the Newborn Clinical Network and district health boards to discuss the review findings and recommendations and plan the next steps. The hard work really begins now with how to service, implement and finance recommendations.

Progress is already being made the area of Transitional Care. Identified in the review as one aspect of care to help address some of our NICU capacity issues, the Newborn Clinical Network have been working hard on this. A working group was established pre-Christmas, and their draft report is nearly ready to go back to the MoH. The aim of the report was to gather information to inform the MoH of the scope of Transitional Care and its human and physical resource implications.

Release of the review will have obviously implications for us, particularly around workforce and delivery of care. So, it's looking like a big year full of more challenges and change for all of us.

In line with this (and to mark such an important year for our profession), this year's conference is to showcase just how neonatal nursing and care has changed over the years. The conference theme is **"Going with the Flo"**, and the changes and challenges of neonatal nursing today will be presented and explored.

Christchurch is hosting the conference at the "Piano" events centre on the 14th to 16th of October.

Although it seems months away we all know how time flies! So save the dates and watch out for more information in the next few months. We would love to see you in Christchurch. The New Zealand College of Midwives is also holding their conference in Christchurch on the same dates. So neonatal nursing and midwifery will be celebrating at the same time which seems very apt.

Have a great year.
Ngā mihi,

Gina

NNCA Committee Member Profile

Merophy Brown



Kia Ora I'm Merophy Brown Associate Clinical Nurse Manager (ACNM) for SCBU Whangarei. I have been part of the team for over 12 years and in the management role for over 5 years. Neonatal nursing is my passion. I am enthusiastic about improving working relationships between various units, and encouraging knowledge sharing to raise overall nursing expertise, including supporting nurses into advanced roles e.g. Clinical Nurse Specialist. Current best practice for nursing care and innovative ideas for setting up of units is also something I would like to contribute to and share nationally.

I have a unique opportunity to represent Northland neonatal nurses and families. I would like to lead change to improve nursing practice in our rural/remote areas and ultimately the experience and outcomes for families. I work closely with Paediatrics and see the continuum of care and where we can make improvements. I work effectively as a participant and leader and believe my experience as a staff nurse on the floor and management skills as ACNM to be valuable assets to the NNCA team.

I thoroughly enjoyed the recent two day face-to-face NNCA Committee meeting in Wellington, everyone was warm and welcoming and it was awesome to hear their stories and experiences. I feel excited to be part of such an amazing team, and to work collaboratively to represent the Neonatal Nurses throughout the country.

NNCA Committee Vacancies in 2020

At the NNCA AGM this year we will be seeking to fill two committee places.

A call for nominations will go out within the usual required timeframe ahead of the AGM. In the meantime, you are encouraged to consider potential candidates for the NNCA Committee.

Please don't hesitate to contact members of the committee if you would like to learn more about the work we do.

https://www.nzno.org.nz/groups/colleges_sections/colleges/neonatal_nurses_college/contact_us

2020 ANZNN Corner

Were you aware that ANZNN has been collecting data for over 25 years? Initially Australia and New Zealand tertiary centres supplied data. Data collection now includes the majority Level 2 units from both countries along with Singapore and Hong Kong. In 2009, the data set expanded again under the Data Collection Operations group to include neurodevelopment outcomes.

The ANZNN newsletter came out in December via the website and includes the up-to-date Data Dictionary. We were told at our last national gathering that the dictionary should be open every time you sit down to complete a data collect.

The ANZNN newsletter also includes 5 new items to collect for 2020. Items identified are date and time of on and off ventilation use, central line use, two items on ROP disease, and time of infection identification. As nurses caring for babies it is important to ensure accurate documentation of events including date, time on/off, and total hours. This support toward accurate documentation is welcomed by all data collectors and supports ongoing international studies.

NNCA has approved and will sponsor another ANZNN workshop on October 14th, 2020 in Christchurch just prior to the annual conference! The tentative time line is 11am to 4pm to allow for national travel. This workshop is complimentary to ANZNN Data Collectors and will be held at the Christchurch Hospital. Further information to follow.

The meeting agenda will include information on how your contributions fit into current national and international research, changes for the upcoming year and review of time lines for contributions. If you have any topics you want discussed or wish to speak to a topic please let me know.

See you in Christchurch October 14th, 2020

Barbara Hammond RN
Whanganui SCBU and NNCA Level 2
Representative
barbara.hammond@wdhb.org.nz



Research Update – DIAMOND study

DIAMOND stands for Different Approaches to Moderate & late preterm Nutrition: Determinants of feed tolerance, body composition and development. It's a study looking at different ways of providing nutritional support to moderate to late preterm babies who are learning to feed.

Currently there is little evidence guiding optimal nutritional practices in babies born at moderate-late preterm gestations; clinical practice therefore varies widely. Areas of uncertainty include whether to provide parenteral nutrition, whether to provide milk supplements until sufficient mother's milk is available and how to improve tolerance of feeds. All of these factors may impact upon growth, gut microbiome, development of adiposity and later metabolic health. It is also unknown whether preterm girls and boys should be fed differently; currently, until breast-feeding is established, girls and boys are fed the same despite the fact that they grow differently. It is not known whether breast milk composition differs according to the sex of the baby.

The DIAMOND study is a factorial design, randomised clinical trial aimed to address these knowledge gaps. It will address the role of parenteral nutrition, milk supplementation and exposure of the preterm infant to smell and taste with each feed on the time to tolerance of full feeds, adiposity, gut microbiome population and activity, and neurodevelopment at 2 years. It also will investigate whether breast milk composition differs according to sex of the baby.

Babies born between 32+0 and 35+6 weeks' gestation, whose mothers intend to breastfeed and who are admitted to the Neonatal nursery, who have insertion of intravenous lines based on clinical need, are invited to participate in this study. We are now recruiting at five hospitals in New Zealand: Auckland City Hospital; Middlemore Hospital; North Shore Hospital; Waitakere Hospital, and Palmerston North Hospital.

We have just celebrated the recruitment of 300 babies in the DIAMOND study at the four recruiting hospitals in Auckland (see pictures below), and we anticipate a further two years is required to complete recruitment of the total 528 babies. With regards to follow-up assessment, current follow-up rates for 4-month and 2-year assessments are 88% and 73% respectively.

A sub-study involving brain imaging of a cohort of babies enrolled in the DIAMOND study was launched in March 2019. MRI images are taken as soon as feasible after birth and again at term-corrected age to understand the effects of moderate-late preterm birth and the different feeding strategies on brain growth and maturation, and to explore the relationship between these structural brain changes and later neurodevelopmental outcomes. Currently, this part of the study is only recruiting at Auckland City Hospital but we are looking at expanding to other Auckland sites. We urgently need more experienced neonatal nurses to help with recruitment and transfer of babies between the hospitals and the MRI scanner, so if you may be interested in contributing to important research into preterm babies' health and learning a bit about research along the way, please contact Professor Jane Harding (j.harding@auckland.ac.nz) or Frank Bloomfield (f.bloomfield@auckland.ac.nz, 02780968686) for more details.

Please visit our Facebook page (www.facebook.com/ligginsdiamond) for updated information and newsletters, or email diamond.trial@auckland.ac.nz for queries.





The team at Auckland City Hospital NICU



Middlemore Hospital Neonatal Care Unit team



North Shore SCBU nursing team



Waitakere SCBU nursing, admin, medical team

From the DIAMOND Study Team

300 DIAMOND babies celebration

Member Contribution

Samoa Measles Response

Talofa! My name is Theresa Su'a, I am a registered nurse working in the Neonatal Intensive Care Unit in Dunedin Hospital. I recently travelled to Samoa under the Pasifika Medical Association (PMA) to be a part of New Zealand's official response to the measles crisis in Samoa.

The 2019-2020 measles outbreak in Samoa claimed the lives of 83 people, the majority of whom were children under the age of 5. A state of emergency was declared on the 17th of November until the 29th of December, where schools were shut down and children were banned from all public gatherings and events. Vaccinations were made mandatory for all who were eligible and all annual Christmas celebrations were cancelled. As the measles spread rapidly, Samoa called out for help and the world responded.

Being a Samoan living in New Zealand, it was sad to see what was happening back home. Every day I woke up to news of the death toll rising, and hundreds of newly confirmed measles cases. I prayed for my family and friends over there, and encouraged them to get vaccinated and follow all public advice given by the health authorities. Our Samoan Communities in Dunedin gathered for a service, where we remembered those who had died, and the families who were affected. Someone who had recently been in Samoa, spoke of their experience, and encouraged all Samoan healthcare professionals to go to Samoa, as our people have called for help.

With the encouragement and support of my colleagues and manager, I approached PMA as they were seeking Samoan speaking nurses and doctors, especially those with paediatric experience, who were available and ready to be deployed to Samoa.

I had just over a weeks' notice before I was deployed to Samoa for a 14 day period, from the 29th of December 2019 to the 12th of January 2020. I was based mostly in the NICU at the Tupua Tamasese Meaole Hospital (TTMH) in Apia, and cared for premature babies and unwell babies.

Being there was a whole new experience for me. I had to quickly adapt to a completely different health system and working environment, where equipment and resources were also very limited. Local nurses had been working every day, and long days since the beginning of the measles outbreak. They were tired, worn out and needed a break to be with their own families and children. I was only there for 2 weeks, but it was good to relieve my local and international colleagues, and help lessen the load that they were carrying.

Being fluent in the language and very familiar with the culture, it meant I was able to really interact and build relationships with patients and families. I was able to advocate for them, and give the best possible nursing care, health education and support that I could.

I witnessed many heart-breaking situations during my time in Samoa, experiences and feelings I could never forget. The main reason I pursued a career in nursing was to serve people, and to serve my community. I am blessed to have had the opportunity to go to Samoa and offer a helping hand in their hour of need, and I would do it again in a heartbeat.

Theresa Su'a
RN, NICU, Dunedin Hospital

Member Contribution

Giving Back

Coming from a developing country, I must say that I am very privileged to work in one of the biggest neonatal units in New Zealand as it has given me additional knowledge and skills in my chosen career.

On my holiday back to my home country, I was invited to do a teaching session in a private hospital where I have previously worked in Cebu, Philippines. I was happy to accept the invitation and was eager to impart to them the learnings that I have. This hospital is a 150 bed capacity private hospital, which has a 25 bed capacity Level 3 NICU that provides care to ventilated, preterm and surgical babies. The goal of my teaching session was to impart the new trends and updates in NICU and also teach CPAP. The hospital is under renovation and I hoped that the session could help in the planned upgrade of their neonatal unit.

During the talk, there were about 15-20 attendees, nurses not only from Neonatal Unit but also from other areas. In my talk, I discussed about the work culture here in New Zealand, new trends involving the care for preterm babies, up to date protocols, ventilation, Neonatal Life Support and a demonstration of commencing CPAP.

I emphasized the importance of professional development and learning the new advancements in the field of Neonatal Nursing. I also introduced to them COINN and discussed how it helps provide to its members up-to-date information in terms of research, as there are no organizations or associations for neonatal nurses in the Philippines.



I am very hopeful that by sharing this information, I helped improve the practice of NICU in the said hospital.

Mary Biyok
Registered Nurse, Auckland NICU

Member Contribution

Reducing the Time to First Breastmilk Feed in Extremely Preterm Infants

The Periviable Infant Working Group was established in Wellington NICU in early 2019 to look at how we can improve and standardise care provided to infants born <28 weeks and/or <1000g. Due to the large amount of work to be done, five sub-groups were established to look at specific practices:

1. Ventilation
2. Thermoregulation
3. Neurodevelopmental Care
4. Infection
5. Nutrition

I am currently part of the nutrition working group who is looking at various aspects of nutrition including provision of expressed breast milk (EBM), growth, rate of feed advancement and use of fortifiers. We are a multi-disciplinary group including nursing staff, lactation consultants, medical staff and a dietician. Our first target for improvement is time to first EBM feed. Although all babies benefit from early EBM, our goal is for all infants less than 28 weeks and/or <1000g to receive EBM within 2 hours of birth.

Quick Facts on Early EBM

1. Hand expressing in the first hour after birth followed by expressing with a hospital grade electric pump promotes a good milk supply. When this early window is missed, there can be long-term negative effects on future milk supply [1]
2. When colostrum is given orally as mouth care it stimulates systemic immunity, promoting the formation of a protective barrier in the gut [2]
3. A recent control trial on early colostrum mouth care, found babies who received oral mouth care with EBM had fewer days of oxygen, fewer episodes of feeding tolerance, shorter time to full feeds and decreased length of stay.[3]

Our Strategies

1. Reminder sticker on chart to record time of first EBM (complete)
2. Creating a leaflet about expressing for your very early baby (complete)
3. Education for midwifery staff about the importance of expressing immediately after birth and the benefits of early colostrum for extremely premature babies (upcoming)
4. Creation of a poster for postnatal ward about the benefits of early breastmilk for extremely premature babies (in progress)
5. Expression packs with syringes, labels and leaflet to be given to mothers in threatened preterm labour or immediately after birth (in progress)

[1] Newborn Nursery. (2020). Mothers of NICU or PSCN infants. Retrieved March 6, 2020, from

<https://med.stanford.edu/newborns/professional-education/breastfeeding/babies-at-risk/mothers-of-nicu-or-pscn-infants.html>

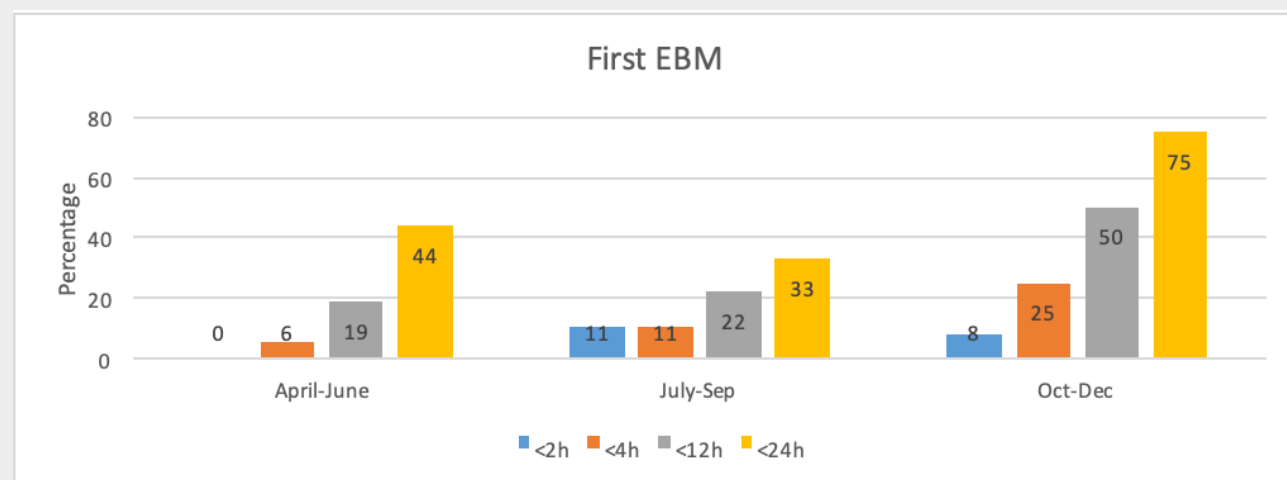
[2] Gephart, S. M., & Weller, M. (2014). Colostrum as Oral Immune Therapy to Promote Neonatal Health. *Advances in Neonatal Care*, 14(1), 44–51. doi: 10.1097/anc.0000000000000052

[3] Abd-Elgawad, M., Eldegla, H., Khashaba, M., & Nasef, N. (2020). Oropharyngeal Administration of Mother's Milk Prior to Gavage Feeding in Preterm Infants: A Pilot Randomized Control Trial. *JPEN. Journal of Parenteral and Enteral Nutrition*, 44(1), 92–104.

<https://doi-org.ezproxy.aut.ac.nz/10.1002/jpen.1601>

We have established baseline data through auditing our current management of our extreme premature infants and will continue to monitor data as these interventions continue. Many of these strategies are still in progress but we are already beginning to see improvements in the data collected since launching this group.

Christine Loveless RN/IBCLC, Wellington NICU



Graphic used with permission from Angelica Allermo Fletcher

Member Contribution:

Research in NICU

Wellington NICU is a very research active unit and as a group of clinicians we believe that research is an integral part of delivering the best possible care for the vulnerable patients we look after.

There are a number of multi-centre trials and in-house research currently taking place in Wellington. While they are mostly managed by the research team, staff in the unit provide support to recruit study patients around the clock. There are also opportunities for staff to be active members of the research team, as there is always something new in the pipeline.

Current studies in the unit:

PAEAN: Randomised controlled trial of erythropoietin (EPO) for babies with moderate to severe HIE babies. Babies are randomised and interventions started within 24 hours of birth.

PROTECT: Randomised controlled trial of pentoxifylline to modify inflammatory response in extremely preterm with late onset sepsis or NEC (after 48hrs of birth). Babies born <29 weeks are usually consented shortly after admission, and randomisation takes place within 6 hours of taking blood cultures. Trial babies MUST go back on the drug for any future suspected episodes of sepsis.

UNICORN: Observational study looking at the way creatine impacts on neurological outcomes in infants 23 – 42 weeks gestation. Babies are recruited antenatally by the research nurse who manages regular samples of urine/blood/nutrition as well as data collection.

NIMO PREM: Observational study looking at the way cerebral perfusion and oxygenation measured by near-infrared spectroscopy (NIRS) in extremely low birth weight infants (<1000g) impact their neurodevelopmental outcomes. Prospective parents (expected delivery <30 weeks GA and estimated foetal weight <1100g) are counselled antenatally whenever possible as monitoring starts within 4 hours of birth. A sidearm study is also being run looking at the effects of nursing care on cerebral oxygenation.

NIMO RAD: Randomised controlled trial of freshly irradiated versus standard (batch irradiated and stored for a period of time) red cells for anaemia of prematurity. The study looks at differences in oxygen delivery capacity of freshly irradiated vs standard red cell transfusion. Babies have NIRS monitoring before and after transfusion. Recruitment is now completed for this study – the research team are looking forward to sharing the results soon!

ROP-OX: Observational study looking at how the use of eye drops and ocular pressure during routine ROP screening impacts on gut perfusion and oxygenation.

Mel Gibson, Research Nurse, Wellington NICU

NNCA Professional Development Grant

NNCA has up to \$6,000 available each year to support Professional Development Grants. The maximum scholarship is \$1,000.00 per person at the discretion of the NNCA Executive Committee, and applications are considered at the quarterly national executive meetings or on an as needed basis.

Recipients will be expected to write an article for publication in the NNCA Newsletter within six weeks of completion.

Application closing date:

- April 30

Eligibility:

- Applicants must be a current financial member of NZNO and a full member of the NNCA College for at least 12 months.

Criteria/Comments:

- Courses, seminars, conferences or projects relating to neonatal nursing
- Priority will be given to nurses embarking on research or writing for a peer reviewed journal
- If funds are not awarded they will be made available the following year, up to a maximum of two years

Get the current application form on the NZNO Scholarships and grants page.

Send applications to:

Scholarships & Grants National Administrator – Attn. Sally Chapman
NZNO National Office
P O Box 2128
Wellington 6140
E-mail: sally.chapman@nzno.org.nz



Neonatal Nurse of the Year Award

Fisher & Paykel Travel Scholarship

The Neonatal Nurses College will be calling for nominations for the Fisher and Paykel Neonatal Nurse of the Year Award. NNCA members are encouraged to consider suitable candidates for this award which will be presented at the NNCA Annual Conference in Christchurch later this year.

This award recognises an individual nurse and the contribution he or she has made to their organisation and the wider community – locally, nationally or internationally.

An award for excellence, research, innovation and contribution to neonatal nursing is offered by means of a travel scholarship to the value of \$2,000 (NZD). The award is intended to be used for travel to further develop the award recipient's career e.g. for attendance at a scientific meeting or conference, or to enable a visit to an overseas neonatal unit. Applications are assessed by the NNCA Executive Committee.

We are very grateful to Fisher & Paykel, who continue to support the Neonatal Nurses College of Aotearoa. A big thank you to them.

Further information regarding the nomination process can be found on the NNCA website.

Other conferences and meetings

NZNO Conference and AGM 2020

Theme: Community Wellbeing in Aotearoa: Nursing 2020 and Beyond

15 September 2020 – College and Section Day, National Student Unit AGM

16 September – Conference and Awards Dinner

17 September – Annual General Meeting

Te Papa Tongarewa – Museum of New Zealand
More information to come.

Save the Date: NNCA annual conference 14th – 16th October 2020

2020 is the International Year of the Nurse and Midwife

The World Health Organisation (WHO) proclaimed that 2020 be dedicated to nurses and midwives in recognition of the importance of Nursing and Midwifery to global health.

Tedros Adhanom Ghebreyesus, Director General, WHO has said “Without nurses and midwives, we will not achieve sustainable development goals or universal health coverage”

The WHO wants to raise the profile and status of nurses and midwives, and encourage global government investment in the two professions. It is the first time any professions have been showcased by the WHO, and the theme was chosen to coincide with the 200th Anniversary of the birth of Florence Nightingale.

Florence Nightingale was recognised as a nursing pioneer who campaigned for healthcare improvements, and worked in some very challenging times and in challenges situations. Every generation of nurses since have faced their own unique set of challenges. Nursing in 2020 is no different.

So join us in October 2020, in Christchurch to celebrate the year of the nurse and midwife at your annual NNCA conference.

Our theme is “Go with the Flo – Changes and Challenges in Neonatal Nursing Today”. We know the year gets busy very quickly, so save the October dates for the conference now. More information regarding the conference will follow.