NURSE / MIDWIFE: PATIENT RATIOS
IT'S A MATTER OF SAVING LIVES

Australian Nursing & Midwifery Federation
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Victoria’s nurses and midwives have been committed to minimum nurse/midwife: patient ratios in the state’s healthcare system for more than 15 years.

Backed by significant international research, nurse/midwife: patient ratios serve to guarantee the minimum number of qualified nurses or midwives on each shift to ensure the safest quality of care for every patient in the state’s public hospital system.

There is empirical evidence that the number of patients allocated to a nurse or midwife on a shift is directly related to patient safety and mortality, and quality of care patients receive.

Putting it simply, ratios save lives. Victoria was the first region in the world to introduce mandated minimum nurse/midwife: patient ratios in 2000 in its public sector enterprise agreement, followed by California in 2004 in the world’s first legislation.

In 2014, Victorian Premier Daniel Andrews committed to enshrining ratios into law. We need your support to make this a reality.

The Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015 includes the same ratios the Victorian Coalition agreed to in 2012 when in government negotiating the current enterprise agreement.

The only thing that will change is that nurses and midwives will have secure minimum ratios in legislation rather than in the public sector agreement. There is no additional cost to the government or the taxpayers.

In fact, following the completion of the 2012-2016 agreement, former Victorian Health Minister David Davis told Parliament: ‘It (ratios)will be good for taxpayers; it will be good for the nursing federation and nurses across the state. The arrangements are within budget’.

The ratios in the Bill have been carefully considered to meet best practice nursing standards.

Once legislated, Victoria will be the first Australian state and region in the southern hemisphere to have ratios written into law.

The current enterprise agreement, due for renegotiation in 2016, requires most public hospital wards and units to have a minimum nurse/midwife: patient ratio.

Ratios vary depending on the hospital size and complexity of patient care. For example, ratios for public acute general medical and surgical wards differ dependent on each hospital’s category but ratios in specialised areas, such as maternity and palliative care units, are the same across the state. There is also room for the introduction of ratios in areas such as renal dialysis, which currently doesn’t have ratios.

Making ratios law will ensure Victorian patients continue to receive first class care from nurses and midwives. It will also lay the foundation for ratios to continue to evolve to meet future best practice.

The ANMF (Vic Branch) and our members have not fought for minimum nurse/midwife: patient ratios for the sake of it; at the heart of every battle were the millions of Victorians who use the state’s health system.

Victoria’s public sector nurses and midwives are seeking bipartisan support to ensure ratios become law.

Lisa Fitzpatrick
ANMF (Vic Branch) Secretary
Victoria is home to approximately 95,000 registered nurses, enrolled nurses and registered midwives who have dedicated their professional lives to caring for the state’s ill, injured and dying patients, as well as caring for women in pregnancy and birth.

Skill mix refers to the proportion of registered nurses, registered midwives and enrolled nurses who are working on a particular ward. Level 1, 2 and 3 Victorian public hospitals currently have a skill mix of 80 per cent registered nurses and midwives to 20 per cent enrolled nurses.

The three nursing and midwifery categories factored into the skill mix of nurse/midwife: patient ratios are defined as follows:

**Registered nurse (RN)**
Victorian registered nurses must be registered with the Nursing and Midwifery Board of Australia (NMBA). To be eligible for registration, nurses must have completed an accredited nursing course at a minimum of bachelor-degree level.

Registered nurses make up the largest portion of the state’s nursing and midwifery workforce and are leaders across the public and private health sectors at the bedside, ward, education and executive levels.

**Registered midwife (RM)**
Registered midwives must also be registered with the NMBA and have completed either a postgraduate diploma in midwifery, a double degree in nursing and midwifery, or a direct entry midwifery undergraduate degree.

Midwives work with women and infants from pregnancy and childbirth through to an infant’s sixth week. Most midwives working in Victoria are also registered nurses.

**Enrolled nurse (EN)**
There are almost 20,000 Victorian enrolled nurses registered with the NMBA. Entry to practice for enrolled nurses is at a minimum of diploma level.

Enrolled nurses play an important part in the public hospital system’s skill mix, providing vital care for patients in public hospitals and aged care. Enrolled nurses, with an appropriate qualification, administer medications under the supervision of a registered nurse.
WHAT ARE RATIOS?

Victoria’s public sector registered nurses and midwives and enrolled nurses want nurse/midwife: patient ratios legislated so that Victorians receive the safest possible standards of care.

Ratios differ across the public hospital sector, with public metropolitan and regional hospitals using a range of ratios depending on the speciality area.

For a complete breakdown of the current mandated nurse/midwife: patient ratios contained in the 2012 - 2016 Public Sector Enterprise Bargaining Agreement and the Bill, see pages 11 – 12 of this document.

Public acute general medical/surgical wards

The 1:4 ratio is the minimum nurse/midwife: to patient ratio recommended in a Level 1 acute general medical or surgical ward in a public hospital setting on morning and afternoon shifts.

If a ward has a number of high acuity patients, who are more unwell and therefore require more complex care compared with other patients on the ward, a nurse may be allocated a smaller number of patients than 1:4 to allow the nurse to give safe care, while other nurses may take on extra patients who require less nursing interventions on that particular shift.

In a 20 bed ward, this means that a minimum of five nurses, plus the nurse in charge, are rostered to work on the morning shift and five on the afternoon shift. The nurse manager has the flexibility to allocate nursing staff to patients based on patients’ acuity.

Rostering example: Acute medical ward, morning shift - (20 beds) with four registered nurses and one enrolled nurse rostered on.

• One nurse to every four patients (1:4) and one in-charge nurse.

Specialist nursing areas

Some specialist nursing areas, such as emergency departments, delivery suites and high dependency units, have high acuity patients, which mean they need lower nurse/midwife: patient ratios to give the safest possible care. Any application of the nurse/midwife: patient ratios must be flexible so that hospitals are able to adjust to variations in bed occupancy (up and down) and patient demands, subject to the meeting of the agreed minimum ratios. This will allow for the safest care for all patients.

Rostering example: Emergency department at large metropolitan hospital (Group 1A) afternoon and morning shift.

• One nurse to every three patients (1:3), one in-charge nurse and two triage nurses.
Since the implementation of nurse/midwife: patient ratios in 2000, the health outcomes for the state’s patients have radically improved and thousands of registered nurses and midwives have returned to work in the public hospital system.

Some of the immediate outcomes for the public healthcare system were:

- reduced waiting times in Victoria’s 87 public hospitals
- improved recruitment and retention of nurses and midwives as a result of better, safer working environments
- capability to meet demands on hospitals
- improved economic performance of public hospitals.

WHERE DO THE RATIOS APPLY?

Nurse/midwife: patient ratios currently apply in all public hospital acute wards, public nursing homes, emergency departments, delivery suites, ante/post-natal wards, neo-natal intensive care, geriatric evaluation and management (GEM) units, high dependency units, coronary care units, special care nurseries, rehabilitation and palliative care.

**Regional hospitals**

Nurse/midwife: patient ratios are not metro-centric. Communities in regional Victoria should enjoy the same great health care as city dwellers and we will continue to advocate for safe care in these regions.

Ratios have ensured there is dedicated funding from Victorian governments to pay for the employment of nurses and midwives to care for the community.

Larger regional hospitals have the same ratios as many large metropolitan hospitals — 1:4 on morning shifts, 1:5 on afternoon shifts and 1:8 on night duty shifts, plus an in-charge nurse on all shifts.

“Every extra patient per nurse over four patients is linked with a seven per cent in increase in the likelihood of that patient dying within 30 days of admission.”

- Dr Linda Aiken
WHY MAKE RATIOS LAW?

Nurse/midwife: patient ratios are considered one of the gold standards of international nursing research. Putting it simply, they save lives.

The ratios included in *The Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015* are identical to those in the current enterprise agreement.

Importantly, legislation will put ratios outside of enterprise bargaining, and the unseemly political manoeuvering over successive campaigns.

Legislatively, nurse/midwife: patient ratios will mean a guaranteed minimum number of registered nurses, registered midwives and enrolled nurses on most public hospital wards in the state.

The minimum nurse/midwife: patient ratio for patients to receive the safest levels of care is determined by the type of speciality and ward.

With the legislation in place, Victoria has the opportunity to improve on its reputation as one of the most efficient and productive public hospital systems in the world.

Victorian public hospitals, including their aged care wards, have had ratios written into enterprise bargaining agreements since 2000.
BENEFITS FOR PATIENT SAFETY

There is categorical scientific evidence that supports capping the number of patients registered nurses and midwives care for on each shift. It significantly reduces the risk of severe complications, even death, for patients. (Aiken et al. 2002)

Ratios give nurses and midwives more time with their patients, allowing for better and more timely assessment of each patient’s condition, safer care, better risk management and a reduction in staff burnout and stress.

US nursing expert Professor Linda Aiken, from the University of Pennsylvania, is the world authority on ratios. Her team’s research has found that for every extra patient over four patients per nurse on a general medical or surgical ward, there is a direct impact on a patient’s recovery and the risk of serious complications and/or death. This is not only unacceptable for the patient and their family, but costs the health system dearly.

Professor Aiken has overseen ratio studies in 30 countries worldwide and those outcomes apply in each case.

“Until we stabilise nursing at a reasonable level of staffing and create good and supportive work environments, we are not going to succeed in reducing medical error and we are not going to create the satisfaction that our public wants and the level of quality we would all like to have,”
Dr Linda Aiken, Queensland Nurses Union conference, 2014.

Australia’s leading ratio and skill mix experts Professor Diane Twigg and Professor Christine Duffield have also released ground-breaking data on the positive effect nurse: patient ratios have on patient outcomes.

In Professor Twigg’s seminal analysis of the impact of nursing hours per patient day in Western Australian hospitals in 2010, she said “It is time to act and implement mandated staffing based on the evidence to date.” (Twigg et al. 2010)
EVIDENCE SUPPORTING RATIOS

• Every extra patient per nurse, over four patients, is linked with a seven per cent increase in the likelihood of that patient dying within 30 days of admission. (Aiken et al. 2002)

• Each additional patient per nurse, over four patients, is associated with a seven per cent increase in likelihood of failure to rescue. (Failure to rescue means death from complications such as pneumonia, shock or cardiac arrest, upper gastrointestinal bleeding, sepsis or deep vein thrombosis.) (Aiken et al. 2002)

• Each additional patient per nurse, over four patients, was directly linked to a 23 per cent increase in the likelihood of the nurse burning out. (Aiken et al. 2002)

• Every extra patient added to a nurse’s workload increases a medically admitted child’s chance of being readmitted within 15 to 30 days by 11 per cent. (Tubbs-Cooley et al. 2013)

WHY IS SKILL MIX IMPORTANT?

• Increasing the number of degree-qualified registered nurses by 10 per cent improved death and failure to rescue outcomes, regardless of the care environment, by four per cent. (Aiken et al. 2003)

• Skill mix with a higher number of registered nurses sees a significant reduction in:
  • gastrointestinal bleeds
  • sepsis
  • shock
  • physiological/metabolic derangement
  • pulmonary failure
  • failure to rescue
  • pressure injuries
  • falls (Duffield et al. 2011).

• Hospitals with higher numbers of registered nurses associated with:
  • lower rates of mortality within 30 days of admissions (Estabrooks et al. 2005)
  • lower medication error rates and wound infection rates (Hall, Doran & Pink 2004)
  • lower mortality rates for medical patients within 30 days of admission (Tourangeau, Doran et al. 2006)
  • reduction in adverse events such as gastrointestinal bleeding, urinary tract infections, sepsis and pneumonia ((Twiggs et al. 2010))
Before and After Ratios

Prior to 2000, when Victorian nurses and midwives won the world’s first mandated nurse/midwife: patient ratios, the Victorian hospital system was in crisis. Tens of thousands of nurses had walked away from the often unsafe conditions. Patients were receiving sub-optimal care and nurses and midwives were well past breaking point.

At the time, the ANMF (Vic Branch) – (then known as ANF) – and its members worked tirelessly to entice nurses back to their chosen profession by campaigning for the nurse/midwife: patient ratios which would revitalise the Victorian public hospital system. Nurse/midwife: patient ratios were revolutionary at the time and have remained critical to nursing in Victoria, while becoming a benchmark in hospital best practice worldwide.

**Victorian health system pre 2000**

- Victoria’s hospital system was in crisis. This was confirmed by the Australian Industrial Relations Commission (now Fair Work Commission) when it introduced the world’s first mandated minimum nurse/midwife: patient ratios in Victoria in 2000.
- Four hundred beds were closed in Victoria on any given day.
- From 1990 to 2000 - the state’s full-time nursing workforce had decreased from 65 per cent to 35 per cent, i.e. more and more nurses were working less shifts.
- Twenty thousand registered nurses had chosen to no longer nurse in Victoria.
- There were 1300 vacant nursing positions.

**Victorian health system post 2000**

- 151 per cent increase in patients receiving same-day treatment, from 468,028 in 1998/1999 to 916,619 in 2014/2015 (McNair et al. 2002) (Vic Department of Health).
- Time on hospital bypass has reduced from 3.8 per cent in 1999/2000 down to 1.8 per cent in 2015 (Vic Department of Health).
- 19 per cent increase in birth rate, from 62,144 to 73,969 (Riley et al. 2001) (ABS 2013).
- 20 per cent increase in urgent and semi-urgent elective surgery, from 77,000 to 95,282 (Vic Department of Health).
- Victoria protected from the global nursing shortage.
- Victorian hospitals work closer to capacity than any other Australian state (Australian Institute of Health and Welfare, 2013).
CURRENT RATIOS

GENERAL MEDICAL SURGICAL WARDS

Level 1 hospitals including Austin, Monash Medical Centre, Royal Melbourne, St Vincent’s, Box Hill, Northern, Peter MacCallum.

am - 1:4 plus one in-charge nurse
pm - 1:4 plus one in-charge nurse
Night duty - 1:8

Level 2 hospitals including Mercy Hospital for Women, The Women’s, Maroondah, Ballarat, Bendigo, La Trobe, Geelong.

am - 1:4 plus one in-charge nurse
pm - 1:5 plus one in-charge nurse
Night duty - 1:8

Level 3 hospitals including Angliss, Bairnsdale, Echuca, Eye & Ear, Warrnambool and District Base Hospital.

am - 1:5 plus one in-charge nurse
pm - 1:6 plus one in-charge nurse
Night duty - 1:10

DELIVERY SUITES LEVELS ONE, TWO AND THREE

Two midwives: three delivery suites on each shift

ANTE/POST NATAL

Midwife: patient ratio

am - 1:4 plus one in-charge nurse
pm - 1:4 plus one in-charge nurse
Night duty - 1:6

OTHER HOSPITALS AND AGED CARE

Acute wards

am - 1:6 plus one in-charge nurse
pm - 1:7 plus one in-charge nurse
Night duty - 1:10

Aged care wards

am - 1:7 plus one in-charge nurse
pm - 1:8 plus one in-charge nurse
Night duty - 1:15

NEONATAL INTENSIVE CARE UNITS

(Four major units — Mercy Hospital for Women, The Women’s, Monash Medical Centre, Royal Children’s Hospital).

1:2 plus one in-charge nurse on all shifts.

SPECIAL CARE UNITS

(a) Where more than 10 cots - 1:3 patients on all shifts.
(b) Where 10 cots or less - 1:4 patients on all shifts. The general “rounding” principles shall apply, provided that two nurses shall be required in respect of six cots.

- 10 cots = 3 nurses
- 11 cots = 4 nurses
- 12 cots = 4 nurses
- 13 cots = 4 nurses
- 14 cots = 5 nurses
- 15 cots = 5 nurses
- 16 cots = 5 nurses

DESIGNATED CORONARY CARE UNIT

am - 1:2 plus one in-charge nurse
pm - 1:2 plus one in-charge nurse
Night duty - 1:3

EMERGENCY DEPARTMENTS

Group 1A
Austin Hospital, Alfred Hospital, Monash Medical Centre Clayton, Royal Melbourne Hospital, St. Vincent’s Hospital, Royal Children’s Hospital, Box Hill Hospital, Frankston Hospital, Geelong Hospital, Northern Hospital, Dandenong Hospital, Western Hospital (Footscray)

am - 1:3 plus one in-charge nurse & one triage nurse
pm - 1:3 plus one in-charge nurse & two triage nurses
Night duty - 1:3 plus one in-charge nurse & one triage nurse.
CURRENT RATIOS (continued)

Group 1B
Casey, Mildura and Goulburn Valley Hospitals
am - 1:3 plus one in-charge nurse & one triage nurse
pm - 1:3 plus one in-charge nurse & two triage nurses
Night duty - 1:3 plus one in-charge nurse & one triage nurse

Group 2A
Wodonga Regional Health Service, Rosebud Hospital, Wimmera Base Hospital, Warmambool and District Base Hospital, Bairnsdale Regional Health Service, Western Health - Williamstown Hospital, Sandringham Hospital
am - 1:3 plus one in-charge nurse & one triage nurse
pm - 1:3 plus one in-charge nurse & one triage nurse
Night duty - 1:3 plus one in-charge nurse and one triage nurse

Group 2B
Wangaratta Hospital, Echuca Regional Health, Swan Hill District Hospital, Royal Victorian Eye and Ear Hospital, West Gippsland Hospital, The Women’s, Central Gippsland Health Service - Sale
All shifts - 1:3 plus one in-charge nurse & one triage nurse

Group 3
Group 3 emergency departments are those not named in Group 1 or Group 2 above, but which experience more than 7,000 presentations per annum.
All shifts - 1:3 plus one in-charge nurse

REHABILITATION
am - 1:5 plus one in-charge nurse
pm - 1:5 plus one in-charge nurse
Night duty - 1:10

HIGH DEPENDENCY UNITS
Stand alone units in level 1 hospitals
am - 1:2 plus one in-charge nurse
pm - 1:2 plus one in-charge nurse
Night duty - 1:2
Central Gippsland, West Gippsland, Wimmera, Warmambool, Hamilton and Wodonga
am - 1:2 plus one in-charge nurse
pm - 1:2
Night duty - 1:2
Angliss, Bairnsdale, Echuca & Portland
am - 1:3
pm - 1:3
Night duty - 1:3

Part of general ward - Swan Hill, Williamstown
am - 1:4
pm - 1:4
Night duty - 1:4

PALLIATIVE CARE
am - 1:4 plus one in-charge nurse
pm - 1:5 plus one in-charge nurse
Night duty - 1:8

GERIATRIC EVALUATION MANAGEMENT (GEM) BEDS
am - 1:5 plus one in-charge nurse
pm - 1:6 plus one in-charge nurse
Night duty - 1:10

OPERATING THEATRE RATIOS
Operating theatres will normally have three nurses, one scrub nurse, one scout, and one anaesthetic nurse.

POST ANAESTHETIC CARE UNIT RECOVERY ROOM (PACU)
1:1 for unconscious patients.
FREQUENTLY ASKED QUESTIONS

Are ratios a ‘blunt instrument’?

Ratios set the minimum, not the maximum staffing. A ratio must be applied to the actual number of patients in each ward. Ratios vary according to hospital complexity and clinical specialty. Ratios may vary from shift to shift, with different ratios applying at night.

Are there ratios in mental health and private hospitals?

Mental health

ANMF members support ratios being introduced into the mental health sector, however there are no current ratios applying to the mental health system. Instead, the Public Mental Health Enterprise Agreement 2012 – 2016 refers to minimum staffing numbers in named wards and units.

Private hospitals and aged care

The State Government did legislate for private hospital and private aged care minimum nurse staffing, however this was removed from the Act during the 1990s by the Kennett government. The legislation before the current Victorian Parliament only applies to public facilities as set out in the Health Services Act.

Why legislation? Why not continue with ratios in the enterprise bargaining agreements?

Quality patient care should not be left to bargaining every three to four years. The current industrial relations system also provides for compulsory arbitration where the Fair Work Commission determines that protected industrial action must cease due to any risk to the health and welfare of the Victorian community. Yet the Fair Work Commission does not have the power to set staffing levels such as nurse/midwife: patient ratios. This anomaly has actually exacerbated disputes rather than resolved them.

With ratios in legislation rather than industrial instruments these uncertainties and anomalies are overcome.
REFERENCES


Duffield, C, Diers, D, O’Brien-Pallas, L, Aisbett, C., Roche, M, King, M & Aisbett, K 2011, ‘Nursing staffing, nursing workload, the work environment and patient outcomes’, Applied Nursing Research, 24, 244-255.


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