This paper will present an overview of the wider issues impacting on healthcare delivery in Australia generally, and examine the current situation within perioperative settings, with reference to surgical patient care and perioperative staffing. It proposes that there is an urgent need to start redesigning perioperative nursing roles now, while there is still a chance to do so. There are many compelling reasons why this should occur.

As managers of cost centres within the public health budget we are all faced with compounding pressures including recruitment and retention, capacity management, financial pressures, and advancements in technology and pharmacology, as well our ageing population, just to name a few. Each of these pressures presents enormous challenges or opportunities for innovation, dependant on how prepared we are to review and possibly reinvent ourselves.

The perioperative suite is no exception and pressure is mounting to review existing roles. This can present enormous opportunities for the nursing profession as we expand our advanced practice roles. At the other end of the professional spectrum we also face scrutiny over the tasks and skills that may not require a registered nurse (RN) to fulfil. If we, as a profession, do not take carriage of these challenges and provide the necessary leadership, adaptability and flexibility for change, there is one guarantee, as this article will show; that someone else will find a replacement workforce to ensure patients are able to access surgical treatment in a timely and cost effective manner. This may well result in the possibility of non-nurses, including technicians, undertaking tasks and skills that were traditionally carried out by RNs in perioperative settings.

One may well ask how have we arrived at this point where traditionally established nursing positions are under review, and questions are being asked about who else can undertake the tasks and provide the skilled care. Towards the end of the 20th century and into the 21st century there have been significant reports commissioned and planning undertaken which focus on service provision and the need to meet increasing demands in population growth and ageing. The focus is on models of service and care delivery to meet this demand. This is a shift from the traditional paradigms of thinking, which include a profession centric approach, to filling existing establishments.
According to Duckett\(^1\), the Australian health workforce has changed dramatically over the last 4 years, growing in size and changing composition. However, more changes will be needed in the future to respond to the epidemiological and demographic transition of the Australian population. A critical issue will be whether the supply of health professionals will keep pace with demand. There are current record shortages of most health professionals, and it is argued that future workforce planning should not be based on providing more of the same\(^2\). Rather, the roles of health professionals will need to change and workforce planning needs to place a stronger emphasis on workforce substitution, that is, a different mix of responsibilities.

This is further supported by the Productivity Commission\(^2\) recognising that, in the future, the ageing of the population will compound the impacts of other factors that will increase demand for health workforce services. But there is scope and need to increase the productivity and effectiveness of the available health workforce, and to reduce its maldistribution. Some of the proposals put forward by the Productivity Commission in 2005 seek to address the fragmentation, poor coordination, inflexibility and entrenched workplace behaviours in the current arrangements. The objectives of the proposed changes aim to promote an integrated approach across individual health professions to policy formation and the delivery of services. Furthermore, they lend impetus to integrated workplace reform.

NSW Health recognises that planning for the future is about setting directions for the NSW public health system over the next 20 years so that we will have ongoing access to high quality, affordable health services which are comparable with the best in the world\(^3\). Planning for the next 20 years involves thinking about what will happen over the next 2, 5 or 10 years. Contributing factors that necessitate this planning include: meeting the needs of a changing society that includes a growing, ageing population; higher community expectations and demands, particularly for surgical services\(^4\); changes in our environment; changes in lifestyle behaviours; increase in chronic diseases; health inequalities; the need for better coordination of health services; new technologies; matching services to needs; increasing cost pressures and increasing demands upon the health workforce.

The Health Futures Planning Project is the NSW government's response to earlier recommendations for a longer term planning framework for health and healthcare\(^5\).

With this in mind seven future directions have been developed to meet current pressures and future demands. The sixth future direction involves redesigning and reinvigorating the health workforce. NSW Health (2006) state that the delivery of quality health services relies on the availability of sufficient numbers of appropriately skilled staff working where they are needed. A shortage of staff makes it more difficult to provide the required services and can limit consumer access. The growing gap in the demand for services, and the supply and distribution of staff, cannot be addressed by continuing with the current workforce arrangement which has contributed to this problem. While it is acknowledged that this information is based on a State health department's data, it is reflected in the federally produced Productivity Commission Report\(^1\).

According to the Productivity Commission\(^2\), there are around 450,000 paid health professionals in Australia, of whom just over 350,000 are employed in health service industries. More than 50% of these professionals are nurses. Identifying 'shortages' in healthcare workforce supply is not straightforward, especially given the difficulty of establishing underlying healthcare demand. Some changes in treatment options/services will reduce the number of healthcare workers (HCWs) required to provide a particular service, or reduce the period for which care is provided.

However, in other cases, technological advances have resulted in expanding the range of treatment options available, consequently increasing workforce demand. Nowhere is this more evident than in the operating room (OR). Despite increasing numbers of perioperative nurses employed in perioperative settings over the last few years\(^6, 7\) (both actual numbers and as a percentage of the total nursing workforce which has increased consistently over the last few years), most States report a shortage of OR nurses\(^7\). However, what is clear is that most workforce-related technological change will require HCWs to acquire new skills or provide care in different ways. The future costs of providing care and the way that care is provided will also be influenced by various pressures on the availability of HCWs.

Drotlich, Cairo and Rhinesmith\(^8\) state that, just as it has become increasingly important to rethink conventional wisdom, it has become increasingly difficult to do so. The growing complexity, volatility and ambiguity of business and competition constantly demands new perspectives. This environment, however, is uncertain and filled with risk, and it is human nature to cleave to tried-and-true methods in unpredictable times. Faced with this paradox, many leaders opt for the latter – the traditional course. Drotlich et al.\(^9\) continue to suggest that most business leaders recognise that change is inevitable and that they must engage in new, innovative and improved ways of behaving to stay ahead of the competition and deliver for the customer. This recognition, however, infrequently translates into conscious behaviour or a fresh theory of the case.

We have traditionally looked at nursing models of care when planning for the provision of our nursing workforce; for example Adams, Bond and Hale\(^10\) highlight three specific models – functional nursing, patient allocation and team nursing. The literature suggests that functional nursing is only used in history and is not ideal to current practice because, in this model, patient care is seen as a series of tasks that is best completed by nurses with specific skills. Some might argue that this still occurs within current practice as we task allocate within the concept of team nursing. Team nursing, as supported by Ritter-Teitel\(^11\), is characterised by a nurse being allocated to a team to carry out comprehensive activities within the team. This is a preferred model as it provides cohesion and support for all members of the team. Ritter-Teitel\(^11\) argues that modern approaches to service delivery are moving away from profession-specific models of care with the shift to a "care and service team model". This is based on a holistic multidisciplinary team approach, something that perioperative nurses are familiar with.

The application of nursing models of care has seen the recent establishment of pilot sites for endorsed enrolled nurses (EENs) undertaking scrub nursing positions in NSW (discussed elsewhere in this journal). This initiative has shown enormous foresight and professional leadership as we provide expanded opportunities within our profession (in this case for EENs), and maintain professional
governance over these positions. Moreover, the delivery of high quality, patient-centred care is not likely to be compromised as we couple new opportunities with appropriate education, continued training and support.

The current workforce shortage that has persisted for several years now is causing health service executives and managers, as well as health bureaucrats, to look for other solutions to manage supply and demand. If the nursing profession is unable to provide a stable, competent workforce that is not crippled with significant un-budgeted costs including overtime and agency payments, or we do not effectively succession plan for our ageing workforce, we may well be placed in a situation where a substituted workforce is found for us. Current global trends perioperative settings have seen the reformatting of profession-specific roles. Over several decades in North America, the United Kingdom and elsewhere, traditional nursing positions in the perioperative setting have been replaced with a multiplicity of HCWs in a variety of roles and categories 12-14.

It is useful at this point to consider some of those roles and the, admittedly confusing, terminology. Firstly, what is frequently found within the literature are papers discussing two major categories of perioperative HCWs; those who are regulated and those who are not (often referred to as unlicensed, assistive personnel [UAP]). Those in the latter category, UAP, can and do include orderlies, cleaners, attendants, nurses’ aides, assistants and surgical technologists (in North America) 12 and healthcare assistants and assistant theatre practitioners in the UK 13. In Australia, they could include assistants in nursing, technicians (anaesthetic, sterilising and so forth), patient care attendants and orderlies. However, this list is by no means exhaustive. All are found within the perioperative settings where they perform a wide range of tasks and activities. Their background and training (with or without certification) also varies significantly.

The array of perioperative HCWs who are regulated is no less confusing when considered in a global context. There are a minimum of two levels of regulated nurses; RNs and ENs (or Division 2 RNs in Victoria). Overseas they may be referred to as licensed practical nurses (LPNs). There appear to be other titles too, for example, certified nursing assistants in Sweden 14. A third level of regulated nurse is beginning to emerge; that of the advanced nursing practitioner, who may be known as a nurse practitioner (NP) or an advanced practice nurse (APN). It is important to note that many perioperative nurses function in extended and advanced roles, with or without formal training and certification, but few appear to be formally authorised by the relevant nurse registering authority as third level, or advanced nurse practitioners (however titled). Again, the authors make no claim that this list is complete.

In many places, technicians (a largely unregulated group) have replaced nurses in scrub, anaesthetic and other OR roles, especially overseas; this has been the case for some decades. Examples include surgical technologists in the USA and operating department practitioners (ODPs) in the UK. Many argue that the use of technicians fragments and/or replaces professional, competent qualified nurses with unregulated staff. Potentially, this claim has significant validity in terms of patient outcomes, adverse events, complications, infections and other key risk factors. However, there is some difficulty in finding sufficient, reliable data to validate this concern.

There is a current push for some of these HCWs to become regulated; in fact it has already happened in the UK. When/if these currently unlicensed workers become regulated, it would not likely be under the nursing profession and most certainly not with the same educational and philosophical approach that has enabled our competent and professionally qualified nursing workforce to provide holistic care. How this situation is managed in the USA is that the (unregulated) surgical technologist, who performs in the scrub role, does so under the direct supervision of the RN, who acts in the circulating nurse role. Twenty US States have legislation to ensure that an RN only undertakes the circulating role; would Australian perioperative nurses accept this model of care? In contrast, in the UK, ODPs undergo formal training and certification and are now regulated (this was not the case originally) and, consequently, these practitioners are independently accountable and function in all roles.

An example of the overseas trends towards a futuristic approach to healthcare delivery can be seen in the ten high impact changes for service improvement and delivery as set out by the National Health Service (NHS) Modernisation Agency 15. One of their changes includes redesigning and extending roles in line with efficient patient pathways to attract and retain an effective workforce. This is further described as redesigning roles and matching them against skills and competencies that aim to improve patient care, reduce waste, reduce agency spending and recruitment costs, improve working lives, and reduce errors and mistakes. It should be noted that these changes are not specific to the nursing profession, rather the NHS document states they can be applied to a variety of service problems where there is variation in capacity caused by skills shortages 15.

The three categories of role design are administrative and clerical roles, assistant practitioners and advanced practitioners. The advanced practitioners include nurses and allied health professionals undertaking tasks previously assigned to doctors. The assistant practitioners undertake tasks that have previously been within the remit of registered, professional staff. A more recent example than the (now regulated) ODP in the scrub role is the use of healthcare assistants (HCAs) undertaking the scrub role following additional ‘in-house’ training to extend their basic skills 16. Within this strategic intent are both potential opportunities and threats for our existing perioperative workforce structures. Fortunately though, in Australia, the nursing profession already has a tiered structure that would enable us to provide all levels of care delivery in an assistant practitioner/advanced practitioner model.

What does this mean and how can we (should we) capitalise on this notion in the context of perioperative nursing practice? How do we “push both ends of the envelope” as Mary Chiarella said years ago? One example has already been discussed, that of the EEN undertaking the scrub role, something which has previously been within the remit of the RN only. What advanced roles could be considered and developed for RNs? Whatever OR nurses do, if they are to succeed in controlling their own destiny (and their ORs and surgical services), then other ideas for service and job redesign must be considered. And that consideration must have the needs of surgical patients foremost, not necessarily those of the HCW. This cannot be over-emphasised. In broad terms, thought should be given to realigning what perioperative RNs...
do to manage the patient care process, and to predict and achieve acceptable patient outcomes, rather than focusing on technical abilities or tasks and the associated fragmentation of care.

The most successful examples of the development of advanced perioperative practitioner roles reported in the literature have fallen into two broad categories. Firstly, those where the new role (variously called a surgical care practitioner [SCP] or perioperative specialist practitioner (PSP)) centred on improving patients' surgical journey by coordinating the care process from start to finish, in association with the development of advanced skills. Such skills include those of physical assessment and preparation for surgery, along with post-operative management and discharge planning. Such roles may or may not incorporate an active, intra-operative component, and some, such as the SCP, has evolved over a number of years. In contrast, the PEP was created as a direct response to powerful, external pressures.

The various ways in which differing roles themselves have evolved often related to an identified local need to improve the surgical patient's experience. This occurred initially with emergency surgical patients but now extends to many other areas of surgical care. Currently, a pilot is underway in a Sydney hospital whereby the perioperative nurse is seeing (potential) surgical patients in the emergency department (ED) in order to expedite their care and management by assessing and preparing them for surgery and arranging their inpatient bed post-operatively where necessary. Jennifer Dobson, advanced practice nurse, surgical services and transitional nurse practitioner, personal communication, 8 November 2006. The other, more familiar role is that of a surgical assistant (called a perioperative nurse surgeon's assistant [PNSA] in Australia), with perioperative nurses/ODPs in this extended role giving various levels of skilled intra-operative assistance under the supervision of the surgeon; however, overseas, some practitioners are performing minor levels of skilled intra-operative preparation for surgery and arranging their inpatient bed post-operatively where necessary. More importantly, these developments were facilitated, indeed driven, by nationally and internationally developed healthcare policy directives.

These roles have the potential to improve patient care because of the continuity of care/assistance provided by a stable perioperative professional (instead of a rotating junior medical officer). What is emphasised in the literature is the need for a structured, multidisciplinary approach to developing roles that meet surgical patient needs and ensuring, in the case of the surgical assist role, that educational preparation incorporates a broader perspective than simply meeting the needs of the surgeon. It needs to include a clear understanding of the pre- and postoperative management of the particular patients cared for in order to facilitate clear communication and continuity of care. While many of these roles (and the array of them and associated, confusing terminology) have evolved in response to local and contextual requirements, there are a number of commonalities about them. More importantly, these developments are entrenched behaviours, something already identified more widely amongst health professionals by the Productivity Commission. If we don't act, others will find our workforce for us.

It is acknowledged that there will be significant issues including resistance to these radical ideas; dealing with vested interests; disparate beliefs about scope of practice; the need to delegate duties to others in a greater fashion than previously considered; extensive educational and training requirements and the need for some perioperative nurses to take more accountability for their practice.

However, the benefits for the profession and surgical patients will be worthwhile and is a far better option than the alternative of doing nothing and thus perpetuating the current fragmented, poorly coordinated and inflexible perioperative workforce with its entrenched behaviours, something already identified more widely amongst health professionals by the Productivity Commission. If we don't act, others will find our workforce for us.

As we endeavour to be purposeful, effective, accountable and compassionate members of our profession, we need to carefully consider how we can create and optimise opportunities for positive change and develop strategies which will assist us to create our preferred future.

References


