# Review of small rural health services in Victoria: how does the nursing-medical division of labour affect access to emergency care?

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#### Aims

This paper is based on a review of the Australian and International literature relating to the nursing-medical division of labour. It also explores how the division of labour affects patient access to emergency care in small rural health services in Victoria, Australia.

## **Background**

The paper describes the future Australian health workforce and the implications for rural Victoria. The concept of division of labour and how it relates to nursing and medicine is critically reviewed. Two forms of division of labour emerge – traditional and negotiated division of labour. Key themes are drawn from the literature that describes the impact of a traditional form of division of labour in a rural context.

#### Methods

This paper is based on a review of the Australian and international literature, including grey literature, on the subject of rural emergency services, professional boundaries and roles, division of labour, professional relationships and power and the Australian health workforce.

#### Results

In Australia, the contracting workforce means that traditional divisions of labour between health professionals cannot be sustained without reducing access to emergency care in rural Victoria. A traditional division of labour results in rural health services that are vulnerable to slight shifts in the medical workforce, unsafe services and recruitment and retention problems. A negotiated form of division of labour provides a practical alternative.

## Conclusion

A division of labour that is negotiated between doctors and nurses and supported by a legal and clinical governance framework, is needed to support rural emergency services. The published evidence suggests that this situation currently does not exist in Victoria. Strategies are offered for creating and supporting a negotiated division of labour.

# Relevance to clinical practice

This paper offers some strategies for establishing a negotiated division of labour between doctors and nurses in rural emergency care.

Key words: access, emergency care, nurses, nursing, rural health, workforce

#### Introduction

The gap between demand and supply for health professionals is growing at an accelerated rate as the population ages and the workforce contracts (RWAV 2006). This is felt most acutely in small rural hospitals responding to the emergency needs of their communities. To maintain these services, the traditional nursing-medical division of labour needs to be renegotiated.

According to government rhetoric, patient care delivered on the basis of traditional professional boundaries is not sustainable as the current models of care delivery create unnecessary restrictions on health services' ability respond to the supply/demand gap. In general, professional medical and nursing groups express opposition to strategies that shift or encroach on their traditional professional boundaries. Anecdotally, the division of labour is being renegotiated informally at the hospital level as rural hospitals struggle to fill vacant positions in Victoria. There are limited examples in Victoria of this change occurring in a deliberate and formal way.

This paper aims to review the Australian and international literature relating to the nursing-medical division of labour, and explores how division of labour affects access to emergency care in small rural health services in the Australian state of Victoria. The literature review considered current Australian government reports on the health workforce. There appeared to be consensus that the key imperative for renegotiating the division of labour is a contracting workforce. The concept of division of labour as it is portrayed in the literature was also examined in terms of its relevance to nursing and medicine. Evidence was considered that showed how the nursing-medical division of labour manifests in rural health services in Victoria and its impact on access to safe services, health care, patient safety. In combination, the literature reviewed supports the argument that the traditional nursing-medical division of labour cannot sustain emergency services in small rural health services in Victoria. The paper concludes by discussing some strategies that may provide a means of achieving a nursing-medical division of labour that ensures rural emergency care is sustainable in the face of workforce contraction.

# Methodology

The methodology used to examine the impact of nursing-medical division of labour on rural Victorian emergency care services was an extensive review of the Australian and international literature. This review was not intended to be definitive. Rather it was intended to gather sufficient evidence to explain the concept of division of labour and provoke debate about its impact on access to rural emergency care and thought as to the solutions.

The literature review was not a meta-analysis as it included all types of publications to understand the subject fully. The literature reviewed included papers reporting on both quantitative and qualitative research, discussion papers, position papers, government reports, practice and service guidelines and literature reviews.

An initial literature search was undertaken using Ovid (Books@Ovid and Ovid MEDLINE [R]), PubMed, proquest, Medline, CINAHL and the Cochrane Library. The search terms included rural health, rural health services, emergency care, rural emergency care, nurse–physician relations, collaboration, communication, unplanned presentations, outpatient clinics, division of labour, rural nurse scope of practice and roles. No limitations were placed on the publication period or language, although only papers in English were retrieved.

Using a snowballing technique thereafter, papers and books were identified from the reference lists of references retrieved in the initial search. A total of 219 papers, guidelines, reports and book chapters was retrieved and reviewed. Endnote was used to store reference details and record descriptive and analytical notes made during their review. From this review, it was possible to paint a picture of the current and future health workforce in Australia; the rural emergency service context in Victoria; explore the concept of division or labour and how it manifests in rural Victoria and propose strategies for creating a form of division of labour that will sustain rural emergency services.

# **Findings**

## Australian workforce contracting

The current annual growth of working age population in Australia is 170 000 on average. This growth will decrease to an average of 12 500 per annum by the 2020s and by 2020s the growth in the working age population will be zero (Department of Health and Aged Care (Aust) 2001, p. 28).

This decline in the growth of working age population will be felt most in Victoria, where it will reach zero growth by 2012 (Fig. 1).

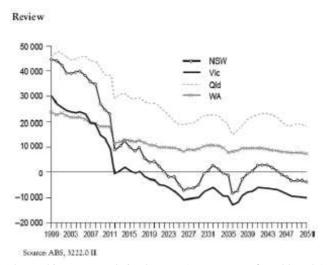


Figure 1 Annual change in the working age population by state (Department of Health and Aged Care (Aust) 2001, p. 28)

The following figure taken from the Productivity Commission's Report into the workforce demonstrates that rural and remote areas will feel the impact of the contracting workforce sooner and more acutely than their urban counterparts (Productivity Commission 2005).

It also suggests that, in a rural context, nurses will be central to the solutions, as they comprise the professional group that remains relatively constant while the numbers of other professional groups diminish rapidly with remoteness (Fig. 2). This is hardly surprising given that nursing continues to occupy the largest proportion of the health workforce at 54% compared with other professional groups: medicine comprises 11% and allied health workers 9% (Australian Institute of Health and Welfare 2004). If the current workforce trend continues and the Australian Department of Health and Aged Care's projections are correct, then rural and remote area nurses (RAN) will need to be far more engaged in planning, developing and implementing solutions that respond to the workforce challenges to maintain health services delivery in rural and remote areas.

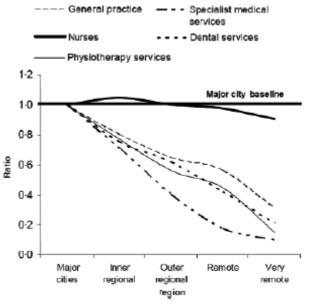


Figure 2 Practitioner to population ratios by area (Productivity Commission 2005, p. xxvii)



Figure 3 Hospitals with visiting Medical Officers

#### Victorian rural health setting

A significant proportion of the Victorian rural population is dependent on rural health services and Bush Nursing Centres (BNC). Most of these health services rely on visiting medical officers that are not on site (Fig. 3). It is becoming increasingly difficult to retain and attract doctors to rural communities who are willing and able to be 'on-call' (Rural Doctors Workforce Agency 2001). Many rural communities see the doctor as the key to the delivery of emergency services as well as the continuation of hospital services (Kenny & Duckett 2004). Understandably, rural communities feel exposed when their doctor leaves, or talks about leaving when the on-call roster becomes too onerous. This is despite the evidence that up to 40% of patients presenting for emergency care will be treated by a nurse rather than a doctor in Victorian rural hospitals (Kenny & Duckett 2004).

The following discussion will show how the division of labour between nursing and medicine is context specific and how rigid traditional views of this division of labour may not fit the rural context.

# The division of labour - traditional vs. negotiated

The nursing-medical division of labour manifests in the clinical work done; in the involvement in and influence over decisions about patient care as well as the division of labour itself. It manifests at an organisational, political and economic level (Bates & Linder-Pelz 1987, Willis 1990, Short & Sharman 1995).

In this paper, we refer to two forms of division of labour between nurses and doctors in the rural emergency care context: a traditional form and a negotiated form. We argue that a traditional division of labour is one that reflects historical work allocations and professional boundaries, past assumptions about the work that men and women do and relative value placed on the skills associated with the groups that make up the division of labour (Marx 1969, Hartmann 1979, Barrett 1980). It is argued that the traditional divisions are maintained by those that most benefit from them (such as men and occupational groups) through strategies that restrict entry into the groups, determine the allocation of work and define the division of labour of other subordinated groups (Freidson 1976, Hartmann 1979, Barrett 1980, Abercromie *et al.* 1984, Porter 1991, Witz 1992).

Traditionally, medicine has dominated the 'health division of labour economically, politically, socially and intellectually' (Willis 1990, p. 2). A traditional nursing-medical division of labour has been defined in terms of the care – cure continuum; or assertions that nurses do not diagnose or perform invasive procedures (Willis 1990). In terms of autonomy and capacity to define division of labour, traditionally, nurses are thought to follow medical orders and their clinical practice, or scope of practice, is defined by doctors (or lack of them) (Hughes 1988, Benner 2001). Many of the theories relating to the division of labour could be said to promulgate the 'traditional' view of division of labour. For example, theories focusing on the division between medicine and nursing often represent nurses as subordinated and as 'passive victims of medical power' (Wicks 2002, p. 307). This may have the unintended affect of diminishing nurses' power to assert themselves in the division of labour and undermine their attempts to renegotiate the boundaries.

In contrast, Freidson coined the term 'negotiative interaction' to describe a division of labour that more closely reflected what he saw as the 'empirical reality'; how the division of labour was constructed on the ground between workers and managers. The negotiated form of division of labour is defined according to Freidson as a:

process of social interaction in the course of which participants are continually engaged in attempting to define, establish, maintain and renew the tasks they perform and the relationships with others which their tasks presuppose (Freidson 1976, p. 311).

The following discussion outlines the issues resulting from adhering strictly to a traditional nursing-medical division of labour in rural Victoria, argues for a negotiated division of labour and proposes strategies for adopting a negotiated division of labour.

# Implications arising from the division of labour in a rural health context

There are three key implications arising from the division of labour in a rural health context: unchallenged medical power in rural and remote settings, reduced access to safe services and undermined recruitment and retention efforts. These will now be discussed in more detail.

Unchallenged medical power in rural and remote settings

Despite the evidence that other professional groups such as nurses and paramedics can meet the emergency care needs of residents, rural communities are still easily mobilized into public action with the prospect of losing their doctor (Kenny & Duckett 2004). In their study of rural health services in Victoria, Kenny and Duckett (2004) found that medical power and dominance continued to be 'firmly entrenched' (Kenny & Duckett 2004, p. 1059). Doctors' position in Victorian rural communities was attributed to the view that they were 'extricable linked to the sustainability of the hospital and the whole community' (Kenny & Duckett 2004), p. 1062).

The power of the medical profession to dictate how health services can be delivered as well as the role of other health professionals has been well documented. The major themes that arise from an analysis of the literature around medical power are:

- Disciplinary power and its subjugation (Hegney 1998, Lupton 2002, Foucault 2003);
- Gender and class (Porter 1991, Short & Sharman 1995, Wicks 2002);
- Bio-medical orientation of health care (McMahan et al. 1994, Wicks 2002);
- Inter-occupational conflict (Turner 1995, Kenny & Duckett 2004);
- Market failure owing to information asymmetry, maldistribution and capture (Arrow 1963, Johnson 1979, Richardson 1986, McMahan et al. 1994, Kenny & Duckett 2004).

The outcomes of medical power have been (Pearson 1993, Svensson 1996, Kenny & Duckett 2004):

- A focus on acute health service delivery rather than prevention (sickness rather than wellness);
- Community reliance on treatment by doctor resulting in accepting a poor standard of medical care faced with no medical care;
- The development of a culture whereby some rural nurses are reluctant to make a nursing decision, preferring instead to defer to the doctor's opinion;
- Lack of development of alternative models within the health professional workforce;
- Fragmentation of service delivery;
- Lack of teamwork, poor to non-existent interprofessional communication and diminished motivation and work commitment.

Allowing the traditional view of division of labour and medical dominance to go unchallenged in rural communities raises concern about the level of healthcare options available to these communities and the potential dependence on one or two individuals which can reduce health services resilience (Humpreys *et al.* 2002). For example, a primary care nurse practitioner is a sensible response to inadequate medical support in

rural communities. However, this continues to be resisted by key medical groups such as the Australian Medical Association (Yates 2006) and is evidently not supported by the Commonwealth government which continues to refuse access for nurse practitioners to the Commonwealth Medicare Benefit Scheme and the Pharmaceutical Benefit Scheme.

#### Access to safe services

Kenny and Duckett found that, in Victoria, the critical shortages of doctors lead rural communities to 'take any doctor for any amount of time' (Kenny & Duckett 2004, p. 1067). The communities' traditional view of the nursing-medical division of labour places medicine in this extremely powerful position and clearly has implications for access to safe emergency services.

Inflexible division of labour create gaps Like any divisions, gaps occupy the space between the boundaries; the stricter these boundaries are, the more likely there will be gaps between them. For example, the traditional view that nurses do not diagnose will invariably create a gap in emergency service when there is no doctor available (Porter 1991). Some rural health services in Victoria are restricting their accident and emergency hours because they cannot access GP on-call support after certain times of the day or week and their nurses are unable to provide this service without medical support (Fowles 2006, Schmeizi 2006, Scopelianos 2006).

Nurses operating without a supportive clinical governance framework Anecdotally, in Victoria there are small rural health services that are often forced to respond to emergency presentations in the absence of direct and indirect medical support and supervision. This may be happening in the absence of sound clinical governance structures that could afford them, their employers and their patients' protection (Kenny & Duckett 2004). There is evidence that nurses will extend or expand their practice to compensate for the absence of medical, pharmacy, radiography and other allied health professionals (Hegney *et al.* 1997, Benner 2001). Many nurses will be administering and supplying medications, taking X-rays, administering physiotherapy and/or counselling patients. This is often the only means to sustain a health service in a smaller community (Hegney *et al.* 1997). Unless this nursing role is formally acknowledged, the appropriate clinical governance and legal infrastructure will not be put in place to support rural nurses and ensure safe practice (Thurgood *et al.* 1992).

Poor interprofessional relations and communication The link between positive, honest, respectful, interprofessional relationships and patient outcomes are illustrated most dramatically when their evident lack contributes to health service catastrophes such as those that occurred at Bristol Royal Infirmary, Bundaberg Hospital, King Edward Memorial Hospital, the Campbelltown and Camden Hospitals and the Royal Melbourne Hospital (Forster 2005, Queensland Government 2005). Several studies have identified links between patient safety and outcomes, error rates and team collaboration and communication (Knaus *et al.* 1986, Rosenstein 2002, Australian Council for Safety and Quality Health Care 2005).

Strategies to achieve harmony, such as those reflecting Stein's 'doctor–nurse game' (Stein 1978), do not always produce effective clinical teams. Effective teams, through their mutual respect and capacity to question each other, have inbuilt quality assurance and ability to respond flexibly to the changing needs of their communities. The relationship between doctors and nurses in small rural health services is co-dependent; the nurse and doctor need each other to operate effectively as a team (Masterson 2001).

Recruitment and retention

A traditional, restrictive division of labour is likely to be self-defeating; it leads to a reduction in available workforce, which in turn cannot support the traditional division of labour.

*GP on-call impost* Arguably, the greatest obstacle in attracting and retaining doctors in Victorian rural communities is the expectation that they will provide on-call support to the local hospital (Strasser *et al.* 2000, RWAV 2006). Increasingly, the focus of interprofessional conflict in rural health services is the 'call-back' arrangements for GPs after hours. Anecdotally, many GPs believe they are unnecessarily called back to lower acuity patients (i.e. Australasian Triage Scale category 5 and 4) that the nurses should be able to manage without direct medical support. The low acuity unplanned presentations represent between 70–80% of all unplanned presentations in hospitals reporting into the Victorian Emergency Minimum Dataset; it would be expected this would be the similar for the hospitals not reporting into the VEMD (Department of Humans Services (Victoria) 2006).

*Nursing satisfaction* Numerous studies have identified the factors that influence nurses' work satisfaction and its impact on recruitment and retention. Many of these factors can be linked to the nursing-medical division of labour, such as:

- Perceptions that the community, superiors and medical staff value nursing work (Adams & Bond 2000, Hegney et al. 2006);
- Teamwork and collegiate support they receive (Hegney *et al.* 2006);

- Good communication between peers and cohesive nursing teams (Adams & Bond 2000);
- Good quality and quantity of interaction with medical staff (Adams & Bond 2000);
- Devolved decision-making and flat organisational structures (Adams & Bond 2000);
- Strong nursing representation on executive (Adams & Bond 2000);
- Role expansion and extension, where this is linked to career advancement and greater clinical autonomy (Furlong & Glover 1998, Adams *et al.* 2000, Hegney *et al.* 2006).

The importance of remuneration to nurses' satisfaction is not straightforward. However, a lack of parity between their own remuneration and those of other professionals will have an impact on satisfaction (Hegney *et al.* 2006). This observation may become more salient as States/Territories and health services continue to outbid each other to retain and attract doctors. Maintaining the satisfaction of nurses is as important as it is for doctors; this will become more difficult to ignore as the nursing shortages continue to grow.

It is apparent that there are simply too few health professionals to support the traditional division of labour in the delivery of rural emergencies services. We would argue that the solution to sustainable rural emergency services is a negotiated, flexible division of labour that is supported by government and employers. The following discussion offers strategies for adopting and supporting a flexible, negotiated nursing-medical division of labour.

#### **Discussion**

#### Negotiated division of labour

There is a growing awareness that traditional forms of division of labour cannot be sustained in the face of slowing workforce growth and technological advances (Masterson 2001, Forster 2005). Interprofessional teamwork is receiving significant attention. 'Interprofessional work implies a willingness to share and indeed give up exclusive claims to specialised knowledge and authority, if the needs of clients can be met more efficiently by other professional groups' (Owens *et al.* 1995, p. 10). Teamwork is even more important in the rural context where there are scarce resources (Bidwell & Ross 2001, Best 2005). The division of labour that support interprofessional teams is flexible and negotiated within the team.

We argue that the purpose of the division of labour in rural emergency care is to ensure access to emergency care services. The division of labour, therefore, needs to be a:

process of social interaction in the course of which participants are continually engaged in attempting to define, establish, maintain and renew the tasks they perform and the relationships with others which their tasks presuppose (Freidson 1976, p. 311).

It is proposed that the following strategies will assist in supporting a negotiated division of labour.

#### Create a negotiating forum

Svensson (1996) found the nurses were not powerless and could influence their work, the norms of the ward and the work of doctors. The key levers enabling nurses to be effective negotiators were ensuring they interacted with the doctors and demonstrated their holistic knowledge of the patients under their care. Svensson did, however, reflect on several examples where the relationship clearly indicated that the doctors were in a more powerful position to negotiate than the nurses (Svensson 1996).

Both Svensson (1996) and Freidson (1976) agree that the capacity for individuals to negotiate division of labour is not unlimited; that 'there are boundaries set on what will be considered legitimate to negotiate, how the negotiation will take place and what bargains will be struck' (Freidson 1976, p. 311). Organisational structure, laws and regulations, policies and rules influence the capacity to negotiate order (or how things are done and by whom). Where these are fairly loose and not prescriptive, there is more room for negotiation (Svensson 1996).

In Victoria, regulatory authorities do not detail the scope of nursing practice, preferring instead to provide a decision-making framework to assist nurses and their employers to determine the scope of their practice (Nurses Board of Victoria 2005). More recently, the National Nursing and Nursing Education Taskforce (2006) delivered a strong statement that acknowledged the validity of 'negotiation of the professional boundaries with other professional groups or employers' and that this resulted in 'the emergence of new practice areas or the need to develop new practice capability' (National Nursing and Nursing Education Taskforce 2006, p. 5).

The key restriction currently imposed on Victorian nurses relates to the administration and supply of certain medications. For example, unlike several other states across Australia, nurses in Victoria are prohibited from

supplying medication under any circumstances. This also contrasts with the prescribing practice of nurses overseas. For example, district nurses in the UK have been permitted to prescribe since 1992 (Berry *et al.* 2006).

Custom and practice at the health service level create the most restrictive and artificial boundaries between health professionals. It is, therefore, critical that, to support a flexible division of labour, employers, clinicians and the communities they serve challenge their views of the current division of labour and support equal negotiation between the health professions.

#### Enable nurses to operate in a flexible division of labour

There are many examples across Australia and internationally of nurses operating in a flexible division of labour or, indeed in contexts where there is no discernable division of labour. This enables them to respond flexibly to the needs of their community and the available medical support. Examples include: the WA (WA RAN), Queensland Rural Isolated Practice Endorsed Nurses (RIPRN), Victoria's RANs and Mt Barker and District Health Service's nurse led emergency service (Kennedy 2000, Litchfield 2004, Queensland Health 2004, Mt Barker and District Health Service 2005, Timmings 2006). The Takapau Health Centre and its outreach Norsewood & Districts Health Centre in New Zealand are similar to Victoria's BNCs, relying primarily on their nurses with limited medical support (Litchfield 2004). Korea has similar services in remote and isolated areas that are delivered by community health practitioners who are specially trained Registered Nurses (Lee *et al.* 2004).

All these nurses operate within a clinical governance infrastructure that comprises some form of designation which acknowledges their training and clinical capacity and clinical guidelines that incorporate a form of medication standing order or drug therapy protocol for nurses to administer and, in some cases, supply medication in the absence of a medical order. These nurses are trained to provide emergency and primary care in the absence of medical practitioner support. Providing a similar clinical governance infrastructure to support nurses in a rural health service context is critical to responding to the clinical inconsistency and workforce shifts evident in rural Victoria.

The Queensland Government's legislative framework acknowledges the clinical work rural and isolated practice nurses do and provides a robust clinical governance infrastructure that enables these nurses to operate safely in collaboration with medical practitioners. This framework comprises the Primary Clinical Care Manual (PCCM), nursing training and endorsement. The PCCM contains clinical guidelines that cover the full range of clinical responses from low acuity, primary care presentations to emergency stabilisation. The clinical guidelines contained in this manual are relevant to medicine and nursing. Rural and Isolated Practice Health (Drugs & Poisons) Regulation 1996 Registered Nurse Course is one of several graduate certificate courses that have been accredited by the Queensland Nurses Council for RIPRN endorsement. The programme enables nurses to use the complete PCCM, which includes administering and supplying certain restricted and controlled drugs in the absence of medical orders and supervision. This means that in the communities where these nurses work, patients are able to have their earaches, toothaches and urinary tract infections treated with analgesia and antibiotics immediately even though they may be several hours away from the nearest pharmacist or doctor. In some remote communities in Victoria, these ailments can go untreated for up to 2–3 days because the nurses cannot administer or supply the appropriate medications and there is no immediate access to a medical practitioner.

To replicate this model the Victorian government would need to change its Drug, Poisons and Controlled Substances Act to allow appropriately trained and competent nurses to supply medications. Rural health services would have to support their nurses to deliver emergency care in the absence of medical support through supporting appropriate training and providing evidence-based clinical guidelines.

#### Community education to support a negotiated division of labour

To strengthen nurses' position in the negotiated order, work is needed to replace the image of subjugation and powerlessness with an image of the nurse as integral to the solutions.

This requires promoting the substantial and growing body of evidence that patient outcomes are comparable between nurses, nurse practitioner and doctors (Knudtson 2000, Mundinger *et al.* 2000, Roblin *et al.* 2004, O'Connor 2005, Vlastos *et al.* 2005).

## Government's role in strengthening rural emergency services

The messages government send are key to decrease the power of medicine and enhance the capacity of nurses' to respond to rural communities' emergency care needs. There is evidence that the Victorian government is questioning the traditional division of labour, the most compelling of which could be said to be its preparedness, against significant opposition, to remove doctors from public hospital boards of management where they work. This step is quite significant given the view that the hospital is 'symbolic of the social power of the medical profession' (Turner 1995, p. 153). Further, the Health Professionals Registration Act 2005, gives the Victorian Minister for Health discretionary powers to over-ride the professional registering boards' decisions if these adversely impact on workforce. Decisions that are seen to protect professional boundaries at the expense of service access may be the type that the Minister would be particularly interested in.

Government has a responsibility to establish the legitimacy of rural nursing practice and the blurring of boundaries to assure rural communities that they are not receiving 'second class service, only fit for rural practice' (Pearson 1993, p. 217). Of course, government funding sends the clearest messages of all so it would do well to resist the pressure applied by the medical profession to invest ever-increasing amounts of money solely into a failing on-call roster system. The government could instead send a message that it is not only about doctors; that one powerful bloc does not drive policy; that it is about making rural health services more resilient in a turbulent environment by strengthening the system and health professionals in it.

## **Conclusion**

There is growing congruence between the aspirations of rural nursing and the political and 'economic interests of the state' (Wicks 2002, p. 320). With a contracting workforce, it is becoming increasingly difficult to maintain health services in rural communities using traditional approaches to the division of labour. There are clear benefits in acknowledging and enabling a negotiated nursing-medical division of labour both to rural communities in terms of their access to safe, emergency care and to government in terms of reducing the strangle hold of medicine on rural health services. Nurses in rural practice will have the preparation and support they need to operate at their full capacity and with limited medical support. Wicks (2002), p. 319) identifies key areas of interest for government as 'changes to work organisation, to skill development and to occupational demarcations, especially the removal of restrictive work practices in the part of doctors...' These interests are articulated in the Productivity Commission's Report of Australia's health workforce (Productivity Commission 2005). In rural Victoria, a more flexible division of labour between nurses and doctors delivering emergency care could be achieved by adopting Queensland's collaborative practice model for primary care. This would provide the legal and clinical governance framework currently missing for rural nurses in Victoria. This would include adopting evidence-based clinical guidelines that are relevant to both nurses and doctors, which guide nurses when there is no medical support and nursing training to enable nurses to use these guidelines.

# **Contributions**

Study design: ES, KF, DH; data collection and analysis: ES, KF, DH and manuscript preparation: ES, KF, DH.

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