

Bibliography: Nurse Practitioner Role

Relevant Governmental Reviews

1. Australian Government Productivity Commission Research Report_Australia's Health Workforce; 22 December 2005.

This research report examines institutional, regulatory and funding arrangements and identifies reforms to produce a more sustainable and responsive health workforce while maintaining a commitment to high quality and safe health outcomes.

Extracts relevant to nurse practitioner role: The current arrangements of the Australian health workforce of almost a half million people, excluding volunteers and primary carers are examined. This work force functions in a climate of significant pressure expected to increase and include profession shortages that are most evident in outer metropolitan, rural and remote areas. The report notes that the ...'efficiency and effectiveness of the health workforce is inextricably linked'

Australia's Health Workforce addresses the nurse practitioner role as follows:

While worthwhile innovation is occurring, it most often remains at the local level. Indeed, recent experiences provide ample evidence of the problems of achieving major job redesign within the current regime. For example, the introduction of nurse practitioners to Australia — a profession which has existed in some other countries for forty years — has been a drawn out process and is still encountering resistance from parts of the medical profession. Similarly, contested issues in relation to the roles of physiotherapists, radiographers and the various levels of the nursing profession seem likely to remain intractable in the absence of institutional reform. (p xxi)

Nurse practitioners are nurses with advanced educational preparation who can function autonomously and collaboratively in an expanded clinical role. They may prescribe medications, initiate diagnostic investigations and refer patients, but only in accordance with clinical guidelines while practising in defined positions. From initial investigation of the concept in the early 1990s, there are still only a handful of authorised nurse practitioners operating in Australia, with NSW having the highest number. (Now 70 nurse practitioners in NSW in a range of 21 nursing specialties in both including 23 nurse practitioners in rural or remote NSW and a further 20 positions in the process of being filled. A further 47 nurses are in transitional roles and working towards authorisation.

Many doctors and pharmacists have been reluctant to accept the introduction of nurse practitioners, expressing concern over a number of issues, including with prescribing.

Recently, the AMA has stated that patients are being 'short-changed' when offered care by a nurse practitioner instead of a GP:

When GPs examine a particular ailment, they are assessing the whole person. ... [Nurse practitioners] don't have the diagnostic ability to analyse patient history and look at symptoms with regard to total systems in the body. Nor can they work out management plans for an individual that take into account the whole person.

(Glasson, AMA) There are also regulatory and funding barriers to the wider practice of nurse practitioners, for example: ... as there is limited opportunity for nurse practitioners to operate under the Medicare Benefits Scheme, it is difficult for such roles to exist, when clients who use a nurse practitioner are required to pay full fees. (South Australian Government)

In seeking to introduce nurse practitioners, each jurisdiction has moved at a different pace, with seemingly uncoordinated processes of review and different trial procedures. While jurisdictions have had to work through their own legislative barriers to change, such as Poisons Acts and so on, it appears that opportunities for greater inter-jurisdictional learning, coordination and cooperation have been missed.(p 55)

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The experience with nurse practitioners also illustrates that such major change can be very difficult to progress in the face of opposition from key workforce groups. The Australian Nursing Federation commented: One of the major obstacles to the utilisation of nurse practitioners in Australia is the opposition of medical practitioners; opposition which has its roots in their desire for control over the activities that nurse practitioners undertake (such as prescribing medicines, initiating diagnostic investigations), which they see as their exclusive domain. (p 96)

Also bringing a mental health perspective to bear, the Centre for Psychiatric Nursing Research and Practice couched its support for a review body in the context of the potentially important role of nurse practitioners in this area: '... Nurse Practitioner roles potentially have considerable benefits for consumers of mental health services. The capacity for these roles to fulfil this potential requires changes to the Medicare Benefits Scheme and Pharmaceutical Benefits Scheme. '(p 174)

Also, as noted previously, health workforce shortages in rural and remote areas have encouraged a variety of innovation in job design and scopes of practice. For example:

- The shortage of medical practitioners in these areas has been a key driver for the introduction of nurse practitioners in Australia.
- Physician's Assistant and Perioperative Nurse Surgeon's Assistant roles are currently being trialled in a number of non-metropolitan areas.
- The Queensland Government has begun consideration of enhancing the role of paramedics in rural areas, seeing this as a response to the shortage of specialist health care providers particularly in regional and rural areas of the State. Qualified, experienced paramedics would complete a two year post graduate degree as Paramedic Practitioners and would assist doctors in a variety of medical procedures such as minor surgery, investigative procedures such as endoscopies, anaesthetics and be able to request diagnostic tests such as x-rays and routine pathology. Such initiatives offer the prospect of more timely provision of services or, in some cases, access to services that would otherwise have been unavailable. (p 215)

Aboriginal Medical Services Alliance Northern Territory highlighted the lack of nurses available to work in remote areas, ...'the current largely unregulated manner in which recently graduated nurses can go and begin practise *in remote Aboriginal communities as 'Remote Area Nurses' is unsafe and needs to be phased out as soon as possible. Unfortunately, in spite of the important work that they do, Remote Area Nurses still have poorly defined legal and professional status. ... Whether generalist nurse practitioners can simply be up skilled to work in remote areas or whether they need a completely separate training and registration process to work in remote areas as 'Remote Area Nurses' is not entirely clear. (p 248).*

The Aged Care Association of Australia contended that workforce shortages across medical, nursing and allied health professionals are the result of both the poor image of aged care work and inappropriate remuneration arrangements. While acknowledging recent initiatives to support GPs and allied health professionals working in aged care, it suggested workforce problems could be further ameliorated by, for example: funding salary-based (as opposed to Medicare-based) GP services to the aged care industry; expanding roles for enrolled nurses and personal care assistants; and designating aged care as an 'area of need' to promote the development of nurse practitioners in the industry. (p 275)

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Several stakeholders referred to the difficulties that people living in residential aged care have in gaining access to medical practitioners. Resthaven (aged care facility) noted that doctors earn less for successive consultations during a visit to a residential aged care facility and are not paid for travel time. It expressed concern about the impact on residents, as it: *'... raises the risk that financially disadvantaged residents are subject to non bulk bill charges to ensure access to doctors. There is also concern that the current few 'champion' doctors who take on heavy workloads in aged care facilities are ageing and it is not clear how their work in aged care will be replaced when they retire in the future.'*

It was further noted that difficulties in accessing the services of medical practitioners in turn makes it more difficult for staff to obtain timely advice on the care and treatment of the residents. To help address these and other workforce problems, Resthaven saw the need to consider the scope for job redesign in aged care. It referred to the 'great potential' of nurse practitioners working in collaboration with GPs in the aged care area. And it also suggested that some traditional nursing tasks (such as administration of medication) could be handled by enrolled nurses and care workers, freeing up RNs to focus their expertise in areas of 'clinical outcomes and leadership' (p 275)

For the purposes of this discussion, it is instructive to look at the roll-out of nurse practitioners, the best recent example of a recent 'new practitioner' in Australia. As outlined in chapter 4, nurse practitioners are nurses with advanced educational preparation who may prescribe medications, initiate diagnostic investigations and refer patients in accordance with clinical guidelines. The concept was originally aimed at augmenting the rural health workforce, although over time the range of clinical settings open to nurse practitioners has increased. Table 13.1 compares the process under the new regime proposed by the Commission with the process that actually took place. The table illustrates several areas where the Commission's proposals would have made an important difference to the process of implementing nurse practitioners in Australia. The first relates to the speed and coordination with which the concept was investigated and adopted. While the State-based reviews produced a variety of evaluative material relating to different nurse practitioner roles, this material could have been better used and roles implemented earlier had there been a greater level of coordination and a core body providing impetus to the task. The second area of difference is that the accreditation of education and training, and registration of nurse practitioners, would be undertaken nationally, avoiding the fragmentation evident today. A third difference relates to nurse practitioners' scope of practice — under the Commission's proposals, a more transparent process would have taken place to assess the appropriate level of access for nurse practitioners to the MBS and PBS. (p 302)

Table 13.1 Differences at a glance: the case of nurse practitioners

Roll-out under current and proposed arrangements

<i>Process</i>	<i>Current</i>	<i>Proposed</i>
Evaluation	Undertaken on a jurisdictional basis over an extended period of time. No transparent, objective, national assessment.	AHMAC would consider the concept and the improvement agency would undertake a benefit-cost assessment, focusing on the potential for it to increase the efficiency and effectiveness of the health workforce.
Assessment	Decisions about roll-out are undertaken independently by each jurisdiction. Process not transparent.	Based on the agency's public report, AHMC would decide whether to facilitate the roll-out on a national basis.
Designing education and training	Curricula are designed by individual education providers in each jurisdiction, in consultation with the peak nursing bodies and relevant nursing board. Course development is profession-focused.	Curricula design would remain the responsibility of universities etc. The advisory health workforce education and training council may provide input, particularly in relation to the potential for any interdisciplinary training.
Accreditation	Education programs for nurse practitioners are accredited by Nurses Boards in each jurisdiction.	The national accreditation board would be responsible for accreditation of courses and institutions based on a uniform set of requirements for the delivery of nurse practitioner courses (but not uniformity in courses), and a nationally consistent level of competency required by graduates.
Regulation	Nurse practitioners are registered on a jurisdictional basis. Each jurisdiction formulates its own description of the core role of the nurse practitioner and the core competency standards required.	The national registration board would automatically accept qualifications accredited by the national accreditation agency, and assess applicants on character, experience and completion of professional development requirements.
Scope of practice	The scope of practice within a designated area or position is governed by position-specific clinical protocols (credentialing).	Codes of practice and guidelines might be drawn up by the nurses' professional panel of the registration board to help define appropriate scopes of work. Credentialing would continue.
Accessing the MBS and PBS	Nurse practitioners are not able to access the MBS or the PBS. The processes for reviewing this status, and the criteria that would need to be met, are not transparent.	Drawing on the recommendations of the workforce improvement agency, the independent standing review committee would assess the benefits and costs of allowing nurse practitioners access to the MBS and prescribing rights under the PBS. It would provide recommendations to the Minister for Health and Ageing, and its report would be made public.
CPD	CPD requirements are the responsibility of the relevant registration board. However, the ANMC may develop national requirements.	CPD requirements would be accredited by the accreditation agency, with the national registration board ensuring compliance.

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2. OECD Health Working Papers: Skill-Mix and Policy Change in the Health Workforce: Nurses in Advanced Roles; James Buchan and Lynn Calman; *Organisation for Economic Co-operation and Development 19-Oct-2004* Directorate for Employment, Labour and Social Affairs, Employment, Labour and Social Affairs Committee

SUMMARY This report was commissioned by the OECD to examine the evidence on role change and delegation from physicians to advanced practice nurses (APN)- nurse practitioners and nurses in other advanced roles in the hospital setting and primary care. The report has three components:-

- a literature review,
- an assessment of country responses to an OECD questionnaire, and
- two more detailed country case studies, on England and US.

The policy focus on cost-containment, quality improvement and efficient use of human resources in health care increased the need to identify the most effective mix of staff within the resources available. Workforce shortages, and changes in regulations and legislative reform (such as the European Working Time Directive, and legislation to enable nurses to prescribe) have also been drivers to investigate or initiate new roles.

The review of current evidence reports on the use of advanced nursing practice roles in terms of costs and benefits, cost-effectiveness and other outcomes reported in evaluations of this role. Most of the evidence relates to the work of advanced practice nurses, specialist nurses or nurse practitioners. Definitions of these roles are not clear-cut. Most of the data and evidence comes from a relatively small number of countries – mainly in North America, with some also from the UK and Australia.

The review concluded that the evidence base, although limited, does support the view that nurses can provide care at least equivalent to doctors in defined care environments, although the full cost/benefit implications of this are not clear with the data currently available.

This review was supplemented by data from the OECD Human Resources in Health Care project. This project investigated, among other things, policies on skill-mix arrangements and their effectiveness, and elicited information about capacity of nurses to prescribe, refer patients to specialists and to be reimbursed for their services.. Eleven countries reported affirmatively on the use of nurses in advanced practice roles, of which eight report some current level of use of nurses in such roles, and a further three report that piloting is underway or is being considered.

The contextual factors that influence the development of new advanced roles for nurses, and associated skill-mix initiatives, are examined by focusing on two country case studies from the US and England. The case studies highlight the key facilitators and constraints on introducing or extending the use of APNs .Policy makers in both countries have been persuaded of the benefits of deploying APNs, and are using a range of different policy interventions to support further use of nurses in advanced roles.

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[NOTE: The British Medical Association has broadly been supportive of the use of nurses in defined advanced roles, primarily because of concerns about shortages of medical staff, and heavy workload for general practitioners- see BMA Health Policy and Economic Research Unit, 2002]

Differences in types of reimbursement for medical practitioners may explain variations in the attitude of doctors to skill substitution. Those paid under a fee for service regime are likely to have a different perspective than those receiving a salary.

3. Nurse Practitioners in New Zealand; Published in 2002 by the Ministry of Health, PO Box 5013, Wellington, New Zealand. ISBN 0-478-25502-0 (Book) ISBN 0-478-25505-5 (Internet) HP 3553 www.moh.govt.nz

Principles: The development of the nurse practitioner role in New Zealand is based on the following guiding principles.

- Nurse practitioners work towards health gain to address and reduce inequalities and inequities in health. In the New Zealand context, this includes addressing the health needs of Māori and Pacific peoples.
- The nurse practitioner is the most advanced level of clinical nursing practice.
- The role of the nurse practitioner is centred on patient and population needs and improving health outcomes.
- Nurse practitioners should continue to evolve in response to changing societal and health care needs.
- Population health status will drive the provision of nurse practitioner services.
- It is acknowledged that development of the role of the nurse practitioner challenges the traditional boundaries of nursing practice.
- The role of the nurse practitioner will mostly complement the role of other health professionals but will inevitably overlap in some areas. This will enable substitution between groups to occur and thus promote efficiency and flexibility in the use of valuable resources.
- Nurse practitioners, like registered nurses, are autonomous practitioners like other expert health professionals and do not require supervision of their practice by other disciplines.

Nurse practitioners have a defined scope of practice and substantial clinical expertise in their chosen scope, and are certified to practise as nurse practitioners by the Nursing Council of New Zealand.

- The practice of nurse practitioners, like other registered nurses is based on collaboration and collegueship, which has been defined as 'interprofessional relationships between the nurse practitioner and other health team members based on:

- concern for mutual goals
- equality in such dimensions as status, power, prestige, and access to information
- diversity in expertise, skills, knowledge and practice.

This translates into a practice environment where joint decision-making occurs, with the overriding goal of better health care uniting the professions, rather than controlling each other's practice' (Hughes 2002).

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Model 1: Integrated nursing teams

A team of nurses and nurse practitioners provides, co-ordinates and manages health promotion and disease prevention across the continuum of care.

For example, integrated primary health care nursing teams working out of primary health organisations and providing risk assessments, first-contact care, case management of clients with chronic conditions, and services for whanau, hap'u, iwi and Maori communities.

Model 2: Nurse consultancy

The nurse practitioner works independently and refers clients to other health professionals, where required. Collaborative practice arrangements and care decisions may also dominate.

For example, within hospital settings, between primary and secondary, and secondary and tertiary, health care services, or between non-government organisations. Provides leadership to nurses and referral to other disciplines.

Model 3: Independent practice

Nurse practitioners are self-employed and establish their own independent practices offering care and services direct to the public. For example, nurse practitioners contract themselves to provide services to other agencies, hospitals, primary health organisations, non-government organisations, direct to clients.

Model 4: Nurse practitioner speciality services/clinics

The nurse practitioner is the recognised lead health professional within the health care team for establishing and managing specialty clinics/services for a particular health specialty and/or population group. For example, pain management, anaesthetists, wound management, rehabilitation, disease management.

4. Canadian Nurses Association, The Regulation and Supply of Nurse Practitioners in Canada Canadian Institute for Health Information, Ottawa, Ontario K2A 4H6, Telephone: (613) 241-7860 www.cihi.ca ISBN 1-55392-669-2 (PDF) © 2005 Canadian Institute for Health Information

Highlights

- A nurse practitioner (NP) is a registered nurse (RN) with additional education in health assessment, diagnosis and management of illnesses and injuries, including prescribing drugs.
- Eleven Canadian provinces and territories have nurse practitioner legislation and regulations in place or in progress as of May 2005.
- Nurse practitioners in each of the 11 jurisdictions can autonomously perform the following three functions:

Diagnose a disease, disorder or condition;

Order and interpret diagnostic and screening tests; and

Prescribe medication. Legislation in many jurisdictions enables nurse practitioners to perform other functions as well.

- There were a total of 878 licensed nurse practitioners registered in the jurisdictions of Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Saskatchewan, Alberta, the Northwest Territories and Nunavut in 2004.

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- Rates of full-time employment are substantially higher for nurse practitioners than for other RNs. In 2004, almost 70% (68.9%) of licensed NPs with employment worked full-time; that compares to rates of 51 to 54% for the RN workforce. Rates of part-time and casual employment were both lower for nurse practitioners in 2004.
- When self-identifying their current position at the time of registration, more than 70% (71.3%) of licensed NPs indicated *nurse practitioner*. The remaining 28% self-identified their primary role as *manager* (3.1%), *staff nurse/community health nurse* (8.6%), *instructor/professor/educator* (4.2%) and *other positions/not stated* (12.8%).
- The eldest nurse practitioners, on average, were the *instructors/professors/educators*, at 47.6 years. The average age of all licensed nurse practitioners was 44.8 years in 2004.

5. Department of Health and Human Services. 1997. *Report on Primary Care Workforce Projects*. Washington: Council of Graduate Medical Education and National Advisory Council of Nurse Education and Practice.

The Council of Graduate Medical Education and National Advisory Council on Nurse Education and Practice reported in 1997 in its' report on primary health care workforce that there were differences in the care that nurse practitioners offer compared with primary care physicians. 'Nurse practitioners excel in providing preventive care, counselling, patient education, management of chronic illness, and follow up care.' Primary health care physician services were found to be better at treating complex medical cases (Department of Health and Human Services 1997).

Bibliography: Nurse Practitioner Role Abstracts

1. Aigner MJ, Drew S, Phipps J; A comparative study of nursing home resident outcomes between care provided by nurse practitioners/physician teams versus physicians only. *Journal of the American Medical Directors Association*. 5(1):16-23, 2004 Jan-Feb.

Abstract Objectives: The objective of this study was to determine if outcomes of care for nursing home residents differ between two groups of providers: nurse practitioners/physicians and physicians only.

Design: A retrospective chart review covering the 12-month period from September 1, 1997, until August 31, 1998.

Setting: We studied eight nursing homes in central Texas.

Participants: Two hundred & three residents who resided in one of the eight nursing homes during the specified time period were randomly selected.

Statistical Analysis: Chi-squared or Fisher exact test for comparisons of percent and Student *t* test for comparison of means; comparisons were made with both the FREQ procedure and the univariate procedure.

Results: Acute visits were significantly higher for the nurse practitioner/physician team (3.0 ± 2.4) versus the physician-only group (1.2 ± 1.5). The nurse practitioner/physician group treated significantly more eye, ear, nose, and throat and dermatologic diagnoses than the physician-only group. Emergency department visits, emergency department costs, hospitalizations, length of stay, hospital costs, performance of mandated progress visits, and performance of annual history and physicals did not show significant differences between the two groups.

Conclusion: The level of care provided for patients by the two groups of providers was basically the same and of similar quality; however, the nurse practitioner/physician group patients were seen more often. Increased visits by nurse practitioners are assumed to result in time and cost savings for physicians and improved access to care for patients.

2. Bagg, Judy Rural Nurse Practitioners In South Australia: Recognition For Registered Nurses Already Fulfilling The Role *Australian Journal of Rural Health* (2004) 12, 3-5 LIAN NURSE PRACTITIONERS J. University of South Australia, City East Campus, Adelaide, and Murray Bridge Soldiers' Memorial Hospital, Murray Bridge, South Australia, Australia

ABSTRACT: The introduction of the nurse practitioner role is hailed as a new initiative in the South Australian public health system. In reality, some registered nurses working in rural public health care facilities have been practicing in the role for many years. The role of the rural registered nurse, the pathway towards achieving rural nurse practitioner status and the anticipated advantages of implementing the rural nurse practitioner role are presented.

In the past 22 years of practicing as a rural registered nurse, my experience has included the daunting task of moving from the security of working in a large city hospital with the support of numerous other health professionals, to the rural health setting where this support is limited. In the absence of medical practitioners being employed on site in rural public hospitals, it is a necessity that many rural registered nurses are competent to practice at an advanced level to meet the health needs of the community. To achieve this level of competence, dedication and continuous professional development is required, both generally achieved at the expense of the individual nurse in their own time. In the

past the trust and appreciation of the rural community has been the main reward. At last the work of the rural registered nurse is about to be professionally and legally recognised by the proposed implementation of the rural nurse practitioner role.

3. Buppert C. HEDIS for the primary care provider: Getting an "A" on the managed care report card. *Nurse Practitioner*, 1999;24(1):84.

Summary: In 1999, quality indicators in primary care will be measured and reported in a form that consumers can use to compare health plans. A health plan's accreditation will depend on its performance on a series of 14 performance measures, the Health Plan Employer Data and Information Set, Version 3.0 (HEDIS 3.0), which have been developed by the National Committee for Quality Assurance (NCQA). This article introduces the primary care clinician to HEDIS quality measures and recommends tools clinicians can use to score well in performance evaluations.

4. Dahle KL, Smith JS, Wilson JR. Impact of a nurse practitioner on the cost of managing inpatients with heart failure. *The American Journal of Cardiology*, 1998;82(5):686.

Summary: We examined the impact on hospital costs of having a nurse practitioner manage uncomplicated patients hospitalized for decompensated heart failure. This strategy was associated with a significant decrease in total hospital costs (\$6,659 +/- 5,843 vs \$5,211 +/- 4,137 [p<0.03]), a trend toward decreased length of stay (4.0 +/- 3.0 vs 3.4 +/- 2.4 days [p=0.13]), and no significant change in the 30-day readmission rate (13% of patients vs 16% of patients [p=NS]).

5. Duckett Stephen J. Health Workforce design for the 21st century. *Australian Health Review* May 2005 Vol 29 No 2.

Abstract: The Australian health workforce has changed dramatically over the last four 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 recorded shortages of most health professionals, but this paper argues that future workforce planning should not be based upon providing more of the same. Rather the roles of the health professionals will need to change and workforce planning needs to place a stronger emphasis on issues of workforce substitution, that is, a different mix of responsibilities. This will also require changes in educational preparation, in particular an increased emphasis on interprofessional work and common foundation learning.

6. Erickson V; Prescriptive practices of nurse practitioners for acute otitis media (AOM). *Program and abstracts of National Organization of Nurse Practitioner Faculties 26th Annual Meeting; April 13-16, 2000; Washington, DC. Session MR6.*

Summary: This study evaluated children with acute otitis media or middle ear infection in three practice sites over a 2-year period. Data collected regarding the prescribing patterns of all nurse practitioners, paediatric nurse practitioners and family nurse practitioners revealed that family nurse practitioners prescribed lower-cost antibiotics 98% of the time, compared with paediatric nurse practitioners, who prescribed lower-cost antibiotics 88% of the time. Summary analysis of the data, when compared to the physicians in Berman's study, revealed that nurse practitioners prescribe high-cost antibiotics less often than do physicians.

7. Hummel J, Pirzada S. 1994. Estimating the cost of using non-physician providers in an HMO: where would the savings begin? *HMO Practice* 8(4): 162–4.

The authors showed that, when compared with the cost of teams made up solely of doctors of medicine (MDs), the overall costs of using an MD/NP team in a long term care facility were 42 percent lower for immediate and skilled-care residents and 26 percent lower for long-term residents. The study also showed significantly lower rates of emergency room transfers, hospital length of stays and specialty visits for patients covered by MD/NP teams.

8. Kernick D, Scott A.; Economic approaches to doctor/nurse skill mix: problems, pitfalls, and partial solutions. *British Journal of General Practice*. 52(474):42-6, 2002 Jan. St Thomas Health Centre, Exeter. su1838@eclipse.co.uk **Unique Identifier** 11791815

Abstract Against a background of government calls for a radical change in the way the medical workforce is planned and trained, the concept of skill mix seeks to match clinical presentation to an intervention based on an appropriate level of skill and training. Health economics is not the only framework within which these changes can be analysed. However unless the economic issues are thought through clearly there is a danger that resources may be used inefficiently. The aims of this paper are to outline the economic issues in the area of doctor/nurse skill mix and the problems of obtaining correct solutions from the perspective of efficiency. It concludes by offering a pragmatic framework which can facilitate decisions in this area. Although this paper is written from the perspective of primary care, it is equally relevant to skill mix in the secondary care sector.

9. Kuehn AF, Hardin LE. Development of a computerized database for evaluation of nurse practitioner student clinical experiences in primary health care: Report of three pilot studies. *Computers in Nursing*, 1999;17(1):16.

Summary: Quantitative and qualitative measurement of patient encounter information.

10. Moody NB, Smith PL, Glenn LL. Client characteristics and practice patterns of nurse practitioners and physicians. *The Nurse Practitioner*, 1999;24(3):94.

Summary: This article discusses the findings of a study that described the practice patterns of nurse practitioners in Tennessee—specifically, the demographic characteristics and health problems of their clients and the therapeutic services they provide. An instrument adapted from the National Ambulatory Medical Survey allowed comparison of the nurse practitioner findings to a national survey of office-based physicians in five areas: client demographics, client health status, diagnostic tests ordered, therapeutic interventions provided, and client disposition.

11. Mundinger MO. Primary care outcomes in patients treated by nurse practitioners or physicians: A randomized trial. *JAMA*, 2000;283(1).

Summary: A landmark study in the Journal of the American Medical Association indicates that Nurse Practitioner quality of care is equal to that of physicians. Released January 5 2000, the study shows that patients in an ambulatory care setting who received care from both physicians and nurse practitioners reported the same level of satisfaction with both physicians and nurse practitioners, and had the same health outcomes. This study is unique in that it examined nurse practitioner outcomes in a practice run autonomously by nurse practitioners who had the same authority, responsibility and patient population as physicians in comparable practice settings

12. Safriet B. Health care dollars and regulatory sense: The role of advanced practice nursing. *The Yale Journal on Regulation*, 1992;9[2]:417-487.

Summary: In 1993 looking over 2 decades of research, the evidence was clear that advanced practice Registered Nurses (RNs) provide care of comparable quality and at a lower cost than physicians. Advanced practice RNs tend to prescribe fewer drugs, use less expensive tests, and select lower cost treatments than physicians. One advantage of a physician/nurse practice is that it costs the patient less than a physician-only practice not because nurses cost less for the same service, but because for similar patients nurses select interventions that are less costly than, but as effective as, the interventions selected by physicians. The review concluded that it appears indisputable that advanced practice Registered Nurses (RNs) are cost-effective health care providers and recommended reducing restrictive barriers to practice such as prescriptive authority to better utilize advanced practice Registered Nurses (RNs) to their fullest capabilities.

13. Sakr M. Kendall R. Angus J. Sanders A. Nicholl J. Wardrope J; Emergency nurse practitioners: a three part study in clinical and cost effectiveness *Emergency Medicine Journal*. 20(2):158-63, 2003 Mar.[erratum appears in Emerg Med Journal 2003 May;20(3):302 Note: Saunders A corrected to Sanders A]. Accident and Emergency Department, Northern General Hospital, Herries Road, Sheffield S5 7AU, UK. **Unique Identifier** 12642530

Abstract AIMS: To compare the clinical effectiveness and costs of minor injury services provided by nurse practitioners with minor injury care provided by an accident and emergency (A&E) department. **METHOD:** A three part prospective study in a city where an A&E department was closing and being replaced by a nurse led minor injury unit (MIU). The first part of the study took a sample of patients attending the A&E department. The second part of the study was a sample of patients from a nurse led MIU that had replaced the A&E department. In each of these samples the clinical effectiveness was judged by comparing the "gold standard" of a research assessment with the clinical assessment.

Primary outcome measures were the number of errors in clinical assessment, treatment, and disposal. The third part of the study used routine data whose collection had been prospectively configured to assess the costs and cost consequences of both models of care.

RESULTS: The minor injury unit produced a safe service where the total package of care was equal to or in some cases better than the A&E care. Significant process errors were made in 191 of 1447 (13.2%) patients treated by medical staff in the A&E department and 126 of 1313 (9.6%) of patients treated by nurse practitioners in the MIU. Very significant errors were rare (one error). Waiting times were much better at the MIU (mean MIU 19 minutes, A&E department 56.4 minutes). The revenue costs were greater in the MIU (MIU pound 41.1, A&E department pound 40.01) and there was a great difference in the rates of follow up and with the nurses referring 47% of patients for follow up and the A&E department referring only 27%. Thus the costs and cost consequences were greater for MIU care compared with A&E care (MIU pound 12.7 per minor injury case, A&E department pound 9.66 per minor injury case).

CONCLUSION: This nurse practitioner minor injury service can provides a safe and effective service for the treatment of minor injury.

14. Sakr, et. al. Care of minor injuries by emergency nurse practitioners or junior MDs: A randomized controlled trial. *Lancet*, 1999;354:1321-1326

Summary: This study sought to assess the care and outcomes of patients with minor injuries who were managed by a nurse practitioner or physician. Findings were that both groups made clinically important errors (less errors by nurse practitioners, but not significantly different); nurse practitioners were better than medical practitioners at recording medical history, and fewer patients seen by a nurse practitioner had to seek unplanned follow-up advice about their injury. There were no significant differences between nurse practitioners and medical practitioners in accuracy of examinations, adequacy of treatment, planned follow-up, or requests for radiography. This was a large study, with a sample of > 700 patients in each group.

15. Vincent D; Using cost-analysis techniques to measure the value of nurse practitioner care. *International Nursing Review*. 49(4):243-9, 2002 Dec. University of Colorado Health Science Centre School of Nursing, Denver, Colorado 80262, USA. deborah.vincent@uchsc.edu **Unique Identifier** 12492946

Abstract Nurse practitioners are in a unique position to deliver high-quality care to a variety of populations and are being utilized in many countries worldwide. Although certain aspects of the nurse practitioner role may differ from country to country, limited financial support and competition for access to patients make it incumbent on nurse practitioners to document the cost-effectiveness of their care. Cost analysis, a business tool that can be used by any practitioner in any health care system, was used to examine business practices of an academic-based nurse-managed centre. In order for this tool to be effective, nurse practitioners must become comfortable with using cost-analysis techniques in their practices. Linking outcome data with cost data was found to be one method for explicating the value of nurse practitioner practice. It is vital for nurse practitioners to document both the quality and the costs of their care in comparing with physicians and other health care providers costs and in order to influence policy and other health-care decision makers.

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Studies on acute care nurse practitioners

List compiled by Ruth Kleinpell, PhD, RN, ACNP

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BMJ Rapid Responses re nurse practitioner role 2004

Nurse practitioners in primary care setting

17 April 2004

Susan Thoms,
nurse practitioner
*Port Clarence Health Centre-
Clarencs Community Centre,
Middlesbrough*

Send response to journal:
[Re: Nurse practitioners in
primary care setting](#)

I agree with the author of this research the results should not be generalised without further work internationally. Although these results may have been valid in the Netherlands, they do not represent the current situation in Britain. Nurse prescribing and triage must have reduced the number of minor ailments seen by GPs - leaving them with more time for complex cases. Nurses who use supplementary prescribing can also reduce the work load in straight forward chronic diseases like asthma for example. This has the added bonus of scoring points for the GMS contract and extra funds for the practice. I dont think nurse practitioners have ever been considered substitute GPs, however they do improve patient access and compliment the primary care team, helping to shoulder the ever increasing work load.
Competing interests: None declared

Nurse practitioners: time we came of age.

18 April 2004

ghislaine c young,
nurse practitioner/partner
Westcliffe M/C BD183EE,
on behalf of Bradford NP
Collaborative

Send response to journal:
[Re: Nurse practitioners: time
we came of age.](#)

The conclusion reached in this article is a reflection of the lack of clarity of the role nurse practitioner. The term it seems can mean any type of nurse, and for the purposes of this article it was a BSc community nurse who had then undergone a two week training period in general practice! Is it surprising therefore, that after such a meagre (not to say, non-existent) nurse practitioner training that the intervention team was found to have no bearing on GP workload? In the UK most NPs are already highly qualified and experienced nurses who then go on to study at a Bacalaureate or Master's degree programmes for a specific nurse practitioner qualification. This involves modules in pathophysiology, pharmacology, clinical and communication skills, and assessment is by written examinations and often by OSCE. How can this be compared with a two-week course? It is high time that the Nursing and Midwifery Council recognised and regulated the title Nurse Practitioner so that in future doctors and nurses will share the same understanding of the term, and more importantly so that the public will be protected! Maybe then we will be able to properly assess the impact of trained NPs on GP workload!
Competing interests: None declared

Nurses and Doctors in Brazil

19 April 2004

Elson Romeu Farias,
Family and Community
Doctor
*Secretariat of the Health/RS, Av
Borges de Medeiros, 1501, Porto
Alegre - RS/ Brazil 90110-150*
Send response to journal:
[Re: Nurses and Doctors in
Brazil](#)

The study of Miranda Laurant and collaborators strengthens the Brazilian strategy of placing doctors and nurses working in sets in teams of primary care. In Brazil, in the strategy for health of the family, initiated in 1994, each health team counts on a family doctor and a nurse to take care of on average 3150 people, working in sets, in the logic of the primary care. Currently 19000 health teams exist. In the centre of Health Murialdo School, of the Secretariat of the Health of the Rio Grande Do Sul, the formation in service in primary care(residence) occurs, jointly, with family doctors and community doctors and nurses psychologists, surgeon-dentist, social assistants and nutritionists.
Competing interests: None declared

Nurse Practitioners in Primary Care

19 April 2004

Benny Harston,
Nurse Practitioner
*Wroxham Surgery, Norfolk, NR12
8DU*
Send response to journal:
[Re: Nurse Practitioners in
Primary Care](#)

I do hope that those reading this article will realise that it is a very different scenario in the UK and Nurse Practitioners are not as those described in Holland. In this country a Nurse Practitioner is a nurse with at least 2 years post registration experience who has undergone degree level training in all the skills necessary to enable them to assess treat and/or refer any patient presenting with undifferentiated problems and who also will have skills in many areas of chronic disease management. We offer an alternative choice for the patient, complementing the existing skill mix in the primary care team. I do not think that this research will reflect the situation in the UK at all.
Benny Harston
Competing interests: None declared

Re: Nurse Practitioners in Primary Care

20 April 2004

Melanie Rogers,
Nurse Practitioner Lecturer
*Primary Care and Huddersfield
University BD18 3EG*
Send response to journal:
[Re: Re: Nurse Practitioners in](#)

I was dismayed to read the research from the Netherlands claiming Nurse Practitioner's did not ease the workload in General Practice. Firstly clarity of the nurse practitioner role is vital, these nurses were clearly not nurse practitioner s as defined by the International Council of Nurses nor the Royal College of Nursing, 2 weeks training is frankly appalling! There is grave concern that research on nurse practitioner role development and practice is lacking, especially in the UK, but this article brings further confusion regarding the role and clearly contradicts previous work internationally stating the impact for patients by seeing a nurse practitioner.

[Primary Care](#)

In conclusion nurse practitioners work closely with their medical colleagues to augment care in general and enhance patient choice. Clarity is needed when research is looking at nurse practitioners and the title should only be used by those with the appropriate qualifications. This research is extremely valid but should not have used the term 'nurse practitioner'

Competing interests: None declared

Nurse Practitioners in Primary Care

20 April 2004

Penny Louch,
Nurse Practitioner / Nurse Lead
*Swanton Morley Nurse-led PMS
Practice, Swanton Morley,
Dereham, Norfolk NR20 4LT*

Send response to journal:
[Re: Nurse Practitioners in
Primary Care](#)

I have to say that I read the study by Laurant et al with increasing dismay. It would appear that the authors of this paper have failed to understand the role of the nurse practitioner who works within general practice in the UK. The job description they provide identifies the role of an experienced practice nurse not a nurse practitioner. The outcome measures used to evaluate the impact of the nurse practitioner on GP workload are also unusual - do COPD, asthma, cancer and dementia make up a large proportion of day to day workload of the average GP? I would suggest, with respect, that this is not the case. Accepting this fact therefore, how can this study expect to demonstrate that the nurse practitioner does reduce the workload of the GP?

A nurse practitioner working in primary care has undertaken an academic course of study at MSc level - considerably more than the 2 weeks used within this study. Experience within the area where I work has also demonstrated that skills essential for working in the community are not necessarily transferable to the skills required to work in primary care / general practice in the UK, this may of course be different in the Netherlands. A nurse practitioner is trained to manage patients presenting with undiagnosed undifferentiated problems; he/she can manage, treat, review and refer these patients as appropriate. Certainly within the busy general practice where I work as a nurse practitioner I see any patient who presents with a new same day problem - this means I have a very diverse surgery list - varying from self limiting illnesses to acute abdomens, chest pains, chest infections, urinary infections, eczema, ENT problems - the list is endless. Prior to the introduction of the nurse practitioner into the general practice these patients would have been seen by the GP, - no longer. Our GPs very rarely see an ill child, a patient with a sore throat.....etc. Gone are the days when 5+ patients would routinely be added onto each GP list at the end of a session.

Although their lists might be shorter, they are full of the more complex medical cases which require the medical skills of the General Practitioner to manage.

Our objectives when we introduced the nurse practitioner role 3 years ago were to:

1) Improve access for patients to a healthcare professional; and

2) To enable the GP to concentrate their skills on the more complex medical cases.

Our in-house evaluations consistently prove that we have achieved these objectives. Less than 10% of appropriate nurse practitioner cases need referral back to the GP. In our view the nurse practitioner does reduce the workload of the GP.

The success of the nurse practitioner role has led to the development of a nurse-led practice, within this practice GP cover is provided 50% of the time only.

Competing interests: None declared

Poor standard of peer review?

21 April 2004

Gary Parkes,
GP and MSc in Primary
Health Care 3rd Year
student
The Limes Surgery EN11 8EP

Send response to journal:
[Re: Poor standard of peer review?](#)

I agree with most of the responses of nurse practitioner colleagues. I have to disagree with Penny Louch's assertion that what is described is a Practice nurse – a nursing degree plus 2 weeks training is not sufficient even for that role which is also highly skilled and needs relevant and adequate training. Nurse practitioners in the UK are right to feel aggrieved by such a poorly designed study. Was the mistake about translation and a difference in terminology? Or was the mistake not getting the proper Peer reviewers who are qualified to comment about Nurse Practitioners.

I challenge the editorial board to reveal the status of the reviewers who allowed such nonsense to get into print with the terminology Nurse Practitioner intact.

Yours

G Parkes

Competing interests: None declared

Our Nurse Practitioner is not like your "Nurse Practitioner"

22 April 2004

Rupert Gude,
General Practitioner
*Abbey Surgery, Tavistock,
Devon, PL19 9EL*

Send response to journal:
[Re: Our Nurse Practitioner is not like your "Nurse Practitioner"](#)

The BMJ has done a great disservice to the development of Primary Care by allowing this article to be published describing the work of nurses with an extended role as the work of nurse practitioners. We have 4 Practice Nurses trained within various special interests like asthma or diabetes who have done a huge amount to improve the care of our patients but we have never looked at their work as reducing our workload.

However 2 years ago we employed a Nurse Practitioner, a very experienced practice nurse who did a 2 year course based at the local University with one day of learning and one day of supervised practice culminating in an exam at Masters level. She works 3 days a week and sees unselected patients who require an appointment that day. Most are for minor but distressing problems like infections or back pain but being unselected there are occasional more complex problems. She refers patients to the General

Practitioner if she feels that they need further assessment or if appropriate refers to consultants or arranges admissions. In the first full year she saw 2700 patients [not 3700 as originally posted], about the same number of patients seen by other General Practitioners working 3 days a week in the practice . Previously these patients would have been seen by a General Practitioner.

We have no doubt that our Nurse Practitioner has helped us to share the ever increasing burden on General Practitioners.

The BMJ needs to issue a correction to the title so that it is not cited as a reference to the real Nurse Practitioners.

Yours sincerely,

Rupert Gude

Competing interests: I am an ardent supporter of using suitably trained professionals in new roles in primary care

The real Dutch Nurse Practitioner is not a Community Nurse

23 April 2004

Carla JM Broers,
Master of Arts in Advanced
Nursing Practice
*Medical Centre Alkmaar,
Wilhelminalaan 12, 1815JD,
Alkmaar, the Netherlands,*
Inge Kemper, Eric de Roode,
Victor Umans

Send response to journal:

[Re: The real Dutch Nurse
Practitioner is not a
Community Nurse](#)

The study of Laurant et al shows that the writers didn't inform themselves about the development of the role of nurse practitioner in the last 6 years in the Netherlands. The role of nurse practitioner is new in the Netherlands. In 1998 the Hanze Hogeschool in Groningen started with the accredited academic study programme Advanced Nursing Practice. Graduated students receive the Master of Arts degree. In the Netherlands there are about 150 graduated nurse practitioners practicing. Most of them in academic and general hospitals, few of them are working in general practices. Evidence based studies in our hospital have proven the benefit of nurse practitioners for example in cardiac revascularisation, pain management and breast cancer groups.

In general practices in the Netherlands we work with so called "doctors assistants" and "practice supporters" and they already have to complete a 2 year training program. It's a big mistake to confuse these workers and the nurse practitioner with the community nurse as described in the article. The title: "Impact of community nurses on workload of general practitioners: randomised controlled trial" would have been the right title for this article.

At this moment we are providing, on behalf of the Dutch Association of Nurse Practitioners (NVNP), title protection for the role of nurse practitioner and the article of Laurant et al shows the need for this.

Yours, Carla Broers

Competing interests: None declared

Denise P Edwins,
Trainee Nurse Practitioner
*The Norwich road surgery, 199
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Ipswich.Suffolk.IP14 5AN

Send response to journal:

[Re: Nurse Practitioners: Still a way to go!](#)

I was disappointed to read the conclusions drawn by the authors of this paper. The paper shows little understanding of the nurse practitioner role as it is developing in the UK. The medical conditions chosen for use in the study seem less than appropriate. Many, if not all nurse practitioners, have a vast knowledge of chronic disease management. This however is not the mainstay of the nurse practitioner role. The majority of the role involves managing patients with undiagnosed medical conditions and giving health promotion advice or issuing a prescription if appropriate.

The use of community nurses with a two week training period to prepare them for the role doesn't seem equitable with the BSc nurse practitioner course I am near to completing.

I agree with the authors that nurse practitioner s should not be considered as substitute doctors, any more than doctors would be considered substitute nurse practitioners. The two roles are separate entities, each with a valuable and complementary role.

I feel the objective of the paper misses the ethos of the nurse practitioner role completely. The role has not been developed by highly skilled and forward thinking nurses to reduce the workload of GP's. It is being continually developed by nurse practitioners in practice to change the way healthcare is delivered, giving patients more choices and improved access to care. We as nurse practitioner obviously have a way to go in educating all around us what we are and what we can achieve for our patients.

Competing interests: None declared

Tony Fitchett,
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As many of the Rapid Responses indicate, the authors use the term ' nurse practitioner' loosely. In New Zealand (NZ) a nurse practitioner has a Master's degree and five years' experience in the specific scope of practice, eg ' nurse practitioner - Neonatal'. The authors could not be expected to write for the NZ context, but it is clear from Broers' response that their terminology is wrong in the Netherlands too.

But irrespective of definitions of nurse practitioner, there are some questions about the design and validity of the study. We note a few:

1. The design of the study does not appear to facilitate teamwork between doctor and nurse. The nurse only made contact with patients on referral by a doctor, and working only with three subsets of patients. This suggests a modular style of patient management quite different from real teamwork and real practice nursing.
2. The intervention used in the study was small: one full time equivalent (FTE) nurse for seven FTE doctors

Send response to journal:

[Re: Real Teamwork](#)

may be too small an input to make a measurable difference.

3. The list of tasks undertaken by the nurse excluded treatment, so the patient was obviously going to have to see the doctor for this, limiting the likelihood of a reduction in doctor workload.

4. The work done by nurses in the study excluded those aspects of practice nursing most likely to reduce doctor workload; ie triage of patients presenting acutely.

5. Doctor workload is an odd outcome to choose to measure. The description of the nurse practitioner's work suggests that access, co-ordination of care, and overall quality of care were more likely to be improved. Are these not more important (though perhaps harder to measure) than doctor workload?

We work in a practice (see www.mhc.co.nz) of twelve FTE doctors and seven FTE nurses, in a teamwork model which deliberately tries to include all staff (manager, administrator, receptionists, van driver and cleaners as well as nurses and doctors) in the planning and provision of services (we are working on increasing patient and community input). Part of the model means using practice nurses in a much less restricted way than in the study, making use of each nurse's specialised field of expertise, and using the nurses' clinic for self or reception referred triage and, where appropriate, treatment of patients with acute problems, as well as ongoing support of those with chronic illness.

This enables us to provide a same-day acute service without grinding the doctors into the ground and is, we believe, a major factor in achieving a manageable workload for all staff.

This approach is only possible with good organisation at all levels, intentional on-going postgraduate training for nurses as well as doctors to ensure that an appropriate and increasing range of nursing and doctor specialties exists in the practice alongside our general nursing and medical skills, and a practice environment that actively encourages a team approach.

The recent moves of the NZ Government to fund general practice by capitation, rather than fee-for-service plus part nurse subsidy, though initiated (we believe) for financial risk-sharing reasons, fits well with this model.

It may be hard to design a prospective study capable of measuring the possible effects of such a practice ethos - and doctor workload is only a small part of primary care. More important are patient outcomes and satisfaction and population health, not to mention cost effectiveness. Subjectively, though, we are convinced that teamwork is what makes the practice successful for us as well as for patients, even on those occasions when the number of doctors able to work has unexpectedly been significantly reduced.

Competing interests: Both of us work in the Mornington Health Centre, as doctor and nurse respectively.

Joanne C. Opsteen,
Primary Health Care Nurse
Practitioner

*East End Community Health
Centre,*

Denise Bryant-Lukosius,
Alba DiCenso

Send response to journal:

[Re: Rapid Response: Threats
to internal and external
validity](#)

Studies examining the introduction of new services in primary health care are complex by nature, and with all studies, there are strengths and limitations. We commend the authors for using matched clusters as the unit of randomization and for incorporating an 18 month follow-up. However, we consider the threats to this study's internal and external validity as fatal flaws. With respect to internal validity, there are 3 serious concerns:

1) a substantial imbalance in response rates between the two groups (control group GP response rate for both workload measures is 94% (15/16) vs. intervention group GP response rate of 74% (20/27) for objective workload and 63% (17/27) for subjective workload);

2) failure to use outcome measures shown to be responsive to nurse practitioner care. Although the questionnaire was a valid and reliable measure of subjective GP workload, it was not tested for sensitivity to changes that may result from the introduction of a nurse practitioner. The authors themselves explain that one subscale, 'inappropriate demands from patients', was not susceptible to change as the GP is the first point of patient contact and therefore, nurse practitioners could not influence this.

3) failure to adjust for the unit of randomization in the analysis. We disagree with the authors' assumption that GP behaviour within groups is no more alike than GP behaviour in different groups.

The threat to external validity, however, is the most central fatal flaw. The nurse practitioner role as defined in this study (i.e. registered nurse with a BSc. degree, 2 years community nursing experience, and 2 weeks training in general practice) cannot be generalised to nurse practitioner roles in other settings. The internationally accepted definition of the Nurse Practitioner is a registered nurse who has acquired the expert knowledge base, complex decision-making skills, and clinical competencies for expanded practice that is achieved through extensive practice experience and completion of a formal nurse practitioner education program at graduate (masters degree) level. This study does not examine the impact of the nurse practitioner on GP workload, but rather that of the community nurse and even then, the length of the training program is highly questionable.

In the past few years, there has been remarkable progress toward the full integration of nurse practitioners into primary health care delivery in North America based on the consistent findings of numerous high quality randomized controlled trials. What a disservice the BMJ has done to publish this misleading study fraught with both internal and external validity issues. Our only hope is that policy makers are not equally misled.

Joanne Opsteen RN(EC) BScN

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1 International Council of Nurses. Definition and characteristics of the role. International Council of Nurses, 2003. Retrieved April 21, 2004 from <http://icn-apnetwork.org>.

http://www.nursing.health.wa.gov.au/resources/NP%20Information%20Update_Feb%202003.pdf,

2 Horrocks S, Anderson E, Salisbury C. Systematic review of whether nurse practitioners working in primary care provide equal care to doctors. *BMJ* 2002;324:819-23.

Competing interests: None declared

A nurse practitioner is not a community nurse in the Netherlands

27 April 2004

Wietie Lolkema,
Nurse Practitioner general
practice
9751BH Haren The Netherlands
Send response to journal:
[Re: A nurse practitioner is
not a community nurse in the
Netherlands](#)

This paper discusses the impact of community nurses, and not nurse practitioners on the workload of general practitioners. In the Netherlands a nurse practitioner is a registered nurse with an advanced nursing practice education at the Masters level. In general practice teams in the Netherlands a nurse practitioner sees patients with undifferentiated problems that are managed independently. In some cases, nurse practitioners in a general practice may also manage patients with a chronic disease. A community nurse is not a nurse practitioner; they have a different level of education and play a different role. A nurse practitioner works in the nursing and medical team, a community nurse in the nursing domain. Therefore, the aim of this study to examine the impact of nurse practitioners on general practitioners is not in agreement with the content of the study which is about the impact of community nurses on general practitioners.

The conclusions of the study on the impact of nurse practitioners on general practitioners are not covered by the content of the study that is about the impact of community nurses on general practitioners.

Wietie Lolkema

Chairman Dutch Association of Nurse Practitioners (NVNP)

Competing interests: None declared

Editorial Responsibility

21 April 2004

Heather J Griffith,
Course Leader, MSc Nurse
Practitioner programme

The Royal College of Nursing accreditation unit have set robust standards for nurse practitioner education in the UK and have defined domains of clinical competencies.

As previous responses have indicated the 'nurse practitioners' in this study bear no resemblance to the

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Send response to journal:

[Re: Editorial Responsibility](#)

majority of those working in the UK, the methodological approach of the study is flawed and the limitations are numerous.

I am surprised that a British journal of such calibre agreed to publish it. Does the editorial board not bear ultimate responsibility for the scrutiny of so-called 'research' articles?

Yours

Heather Griffith

Competing interests: None declared