

Policy+Review

**A collection of 35 issues of Policy+ to mark the 35th anniversary
of the National Nursing Research Unit**

Contents

Acknowledgements	2
Foreword	3
Introduction	4
Theme 1: Education and training	6
Policy+ 5 Points of entry and specialization in nurse education: International perspectives	7
Policy+ 7 Educating students for mental health nursing practice: Has the UK got it right?	9
Policy+ 14 Moving to an all-degree nursing profession at registration: How might the nursing workforce and quality of care be affected?	11
Policy+ 16 Providing preceptorship for newly qualified nurses: What are the components of success?	13
Policy+ 18 Nursing competence: What are we assessing and how should it be measured?	15
Policy+ 28 Managing poor performance in nursing and midwifery: Does the evidence make the grade?	18
Theme 2: The nursing workforce	22
Policy+ 1 Informing <i>Modernising Nursing Careers</i> with NRU cohort data	23
Policy+ 15 Who wants to be a nurse?	25
Policy+ 34 Is it time to set minimum nurse staffing levels in English hospitals?	27
Policy+ 2 Will an ageing nursing workforce work?	29
Policy+ 3 Nurses on the move: Implications of internal migration in the UK	31
Policy+ 8 Preserving the nursing workforce: The importance of job satisfaction in early career	33
Policy+ 33 What are the implications of changes in nurse migration?	35
Policy+ 10 Career planning in a changing landscape: Do nurses need support?	37
Theme 3: Quality of care	40
Policy+ 9 What matters to patients: The nursing contribution	42
Policy+ 32 Measuring patient experience in the primary care sector: Does a patient's condition influence what matters?	44
Policy+ 13 High quality nursing care: What is it and how can we best ensure its delivery?	46
Policy+ 12 Can you measure nursing?	48
Policy+ 31 Can we measure 'failure to rescue'?	50
Policy+ 20 RN+RN = better care: What do we know about the association between Registered Nurse staffing levels and patient outcomes?	52
Policy+ 30 RM+RM = better midwifery care: What do we know about associations between registered midwife staffing levels and better care for women?	54
Policy+ 26 What are nurse sensitive patient outcomes in ambulatory chemotherapy?	56
Policy+ 6 Advanced nursing roles: Survival of the fittest?	58
Policy+ 23 Do we need more practice nurses?	60
Policy+ 21 Is there a case for the UK nursing workforce to include grades of qualified nurse other than the registered nurse?	62
Policy+ 27 Should healthcare support workers be regulated?	64
Theme 4: Delivering nursing care	68
Policy+ 35 Intentional Rounding: What is the evidence?	69
Policy+ 4 Does 'Cohort Nursing' help control healthcare acquired infection?	71
Policy+ 25 'Somebody else's problem'? What do we know about staff perceptions of the sources and control of Healthcare Associated Infection?	73
Policy+ 17 Splendid isolation? The pros and cons of single occupancy rooms for the NHS	75
Policy+ 22 Interruptions to nurses during medication administration: Are there implications for the quality of patient care?	77
Policy+ 11 How can nursing services increase day case rates for elective surgery?	79
Policy+ 24 The Productive Ward: What do we know about uptake and impact on staff and patients?	81
Policy+ 29 Implementing and sustaining change in the contemporary NHS: Lessons from the Productive Ward™	83
Policy+ 19 From bench to bedside: What role for nurses in helping the NHS make better and quicker use of technological innovations?	85

Acknowledgements

The Policy+ briefings presented in this volume, have been supported by the Department of Health in England as part of the Policy Research Programme which provides funding to the National Nursing Research Unit. The views expressed are those of the authors, not of the Department of Health.

With thanks to staff past and present across the Unit who have authored and supported publication of the 35 issues in this volume and to our loyal readers, who have embraced our work and used it to influence others.

For further information about the Policy+ series, please contact the current editors: Caroline Nicholson and Jane Ball, at the National Nursing Research Unit.

Contributors

Jane Ball
Janette Bennett
Rebecca Blackwell
Dalia Dawoud
Vania Gerova
Peter Griffiths
Astrida Grigulis
Simon Jones
Jill Maben
Elizabeth Morrow
Trevor Murrells
Caroline Nicholson
Sally Redfern
Glenn Robert
Sarah Robinson
Vicki Tsianakas

National Nursing Research Unit
Florence Nightingale School of Nursing and Midwifery
King's College London
James Clerk Maxwell Building
57 Waterloo Road
London SE1 8WA

Email: nuru@kcl.ac.uk

NNRU website: <http://www.kcl.ac.uk/nursing/research/nuru/index.aspx>

© King's College London 2012

Foreword

More than 100 years ago Florence Nightingale pioneered the use of data to inform nursing practice; she collated and analysed mortality rates to address problems in care delivery in the Crimea. The need for evidence to inform nursing policy and practice has always been high, yet never more so than today, as we face major changes in society and in healthcare delivery.

Demographic, technological and societal changes affect the care that is needed and also how that care can best be delivered. For example how can we create better integration between health and social care? How do we gauge the quality of nursing care delivered? What is the link between nurse staffing, education, skill mix and patient outcomes and experience? And how do we recruit and retain the best nurses?

The need for synthesised evidence to inform policy, identify gaps in the evidence base and underpin nursing practice and service delivery has never been higher. We need to be able to review recent evidence and best practice in each dimension of nursing to support the workforce to meet the changing needs of the population, and to make best use of latest developments in care delivery.

Caring cannot be separated from competence. One of the main challenges we face in raising standards of nursing care is in facilitating and spreading best practice. Nursing evidence needs to be robust, transparent and accessible. We need to provide evidence of the quality and effectiveness of the care we deliver. Nurses, policy makers, commissioners and

service users need to understand what nurses are doing and why. This requires mechanisms to ensure that best practice and latest thinking is shared quickly; to enable nursing leaders and practitioners alike to make informed judgements so that the care provided is based on the best evidence available.

Policy+, produced by the National Nursing Research Unit with support from the Department of Health Policy Research Programme, has been providing succinct evidence briefings to inform policy and practice since 2007. This collection of thirty five issues brings together evidence, review and reflection on pertinent nursing issues. Uniquely the collection supports thoughtful reflection on past research, consideration of evidence for current nursing issues and signals the direction for the future context of nursing practice. This collection is an apposite way to celebrate 35 years of nursing research led by the Unit, since its inception in 1977. I commend this volume to you.

Jane Cummings
Chief Nursing Officer
NHS Commissioning Board
June 2012

Introduction

Policy makers, managers, educators and practitioners at all levels in the health service need ready access to the outcome of research relevant to their particular remit for healthcare provision.

In response to the need for readily accessible digests of research, and in consultation with the Department of Health, the National Nursing Research Unit launched Policy+ in 2007. Each issue addresses a key health service concern that pertains particularly to nursing and/or midwifery and that has been the subject of research or review by members of the Unit team. The two page format allows for: discussion of the context i.e. why this question and why now; details of funders and collaborators, design and methods; problems encountered with analysis of existing national data sets; presentation of key findings, and assessment of the quality of the evidence. Policy+ informs healthcare professionals about the implications of research in a succinct and timely manner, without over simplifying the complex issues covered.

While many of the subjects addressed in Policy+ have been the subject of longstanding concern, others have more recently come to the fore with a fast moving health policy agenda; in particular developments arising from Modernising Nursing Careers (DH 2006) and the Next Stage Review (DH 2008) and public and professional concerns about nursing care quality. To date, 35 issues have been produced since our launch in 2007. We are publishing these as a single volume to coincide with and celebrate the 35th anniversary of the Unit and to provide an opportunity to reflect on the diverse range of key health service concerns that comprise the mainstay of the Unit's programme of research. This collection presents the 35 issues as a whole, under the four main themes in the Unit's more recent programme of work: 1) education and training; 2) the nursing workforce; 3) measuring care quality; and 4) delivering nursing care. Individual issues of Policy+ are referenced by number in the text.

The 35 issues of Policy+ published to date reflect the breadth and depth of key health service concerns that the Unit's programme addresses and the key messages for policy and practice arising from this body of work that have been conveyed to healthcare professionals. They also demonstrate the range of sources we have used, including our own research, and the care with which evidence needs to be evaluated before conclusions can be drawn.

While the dissemination of Policy+ began with circulation to colleagues in the Department of Health and senior NHS managers, it is now circulated to

a much wider audience through about a thousand subscribers. Certainly our reader surveys of subscribers and other assessments confirm its usefulness to policy makers and practitioners alike and it generates a significant proportion of traffic to our website. Many subscribers report quoting or referencing Policy+ in briefings, presentations, reports, strategic documents and guidelines. One in ten respondents to our April 2012 survey report have discussed Policy+ with colleagues and one in seven have introduced changes as a result of what they have read. Policy+ features in bulletins issued by the Royal College of Nursing, the NLH specialist health management library and the King's Fund. New issues frequently generate news articles in the professional press and many issues have been cited in recent policy documents from the health department and various professional and statutory bodies. In order to increase the reach of Policy+, we publish concurrently in a widely read professional journal, at present *Nursing Times* in hard copy and online format.

The Nursing and Care Quality Forum (which was established in 2012 by the coalition government and supported by the Prime Minister), has drawn upon the Unit's work through Policy+ to inform initial recommendations. The Unit Director, Professor Jill Maben, is an expert advisor to the Forum and will continue to use the evidence base reported herein to inform debate and discussion across a number of topics during the later stages of the Forum's work in 2012.

Policy+ provides a highly effective mechanism for dissemination of research in addition to traditional publishing avenues; it is set to continue into the next phase of the Unit's life with issues planned on current projects within the four main themes of our research programme.

Work across all four themes is set to continue and we look forward to sharing our next 35 issues with you at our 40th anniversary event in 2017!

With thanks to staff past and present across the Unit who have authored and supported publication of the 35 issues in this volume and to our loyal readers, who have embraced our work and used it to influence others.

Professor Jill Maben, Director
Dr Sarah Robinson, Senior Research Fellow
Editors 2007-2010/11

Theme 1: Education and training

Theme 1: Education and training

Historically and in contemporary society, the training, education and initial preparation of nurses has been a 'hot topic' with numerous reviews, commissions and reforms to nurse education. The advent of all degree entry level preparation of nurses in 2013 is an historic moment for the profession in England, which continues to polarise opinion. Drawing upon the evidence base to inform policy decision making in the education and training of nurses has been an important strand of the Unit's work in recent years. Our work in this theme addresses key questions about nurse education: debates about the shape of pre-registration education; assessment and consolidation of clinical skills; and managing and improving poor performance.

Proposals in the UK and EU with implications for the shape of pre-registration nurse education provided the impetus for three NNRU reviews. The first (PP5), a comparison of the UK with 17 other OECD countries, revealed a range of access points to initial qualification from one, as in the UK, to four elsewhere and raised the question of whether several access points encouraged a greater diversity of entrants. The UK's unique system of specialist branch qualification at the point of registration was also highlighted by this review and pursued further in a second review (PP7) on the implications for mental health and learning disability nursing in the UK of moving to the generic system that characterises most other OECD countries. The evidence suggests that this move has had a range of adverse effects and that several countries are now re-introducing specialist training and/or qualification at the pre-registration level (PP7). The third review (PP14) considered possible effects of the move to an all-graduate profession at the point of registration on the profile of the workforce and the quality of care. A range of potential benefits and risks were identified, and the difficulties in extrapolating from four-year degrees and different countries to the three-year degree in the UK were highlighted.

Recognising that newly qualified staff need support in consolidating clinical skills in the early post-qualification period led to the introduction of a period of formal support (preceptorship) and, following the NMC's more recent recommendation that this should be mandatory, we reviewed research to identify factors that help or hinder its implementation (PP16). The evidence indicated the importance of organizational commitment to preceptorship, the need for consistent provision that enables flexibility to meet individual need, and the potential for competency assessment to overshadow the less tangible aspects of support. The Unit has more recently undertaken further

research on mentorship in nursing which will be reported in forthcoming issues of Policy+. Developing competencies linked to new curricula (NMC) and to career progression (DH) brought debates about approaches to assessment and concerns about robustness of instruments to the fore; these were the subject of PP18. The review highlighted the lack of consistent definition of competence, implications for nurse education of behaviouristic and holistic approaches to competence assessment, and lack of attention to the reliability and validity of assessment instruments. Concerns about how poor performance is defined and managed underpinned our collaborative scoping review of studies on the subject from the early 1980s onwards (PP28). The findings suggest little consistency in recording of suspensions, lack of understanding of reasons for suspensions and the need for support of staff involved – both those suspended and those who are responsible for their management.

The education of nurses and the training of wider nursing support teams will no doubt continue to be in the media and policy spotlight, and we will continue to provide our review and analysis of the most up to date evidence in this area to inform debate and policy as nursing finally moves to all degree entry across the whole UK.

Points of entry and specialization in nurse education: International perspectives

'Modernising Nursing Careers' heralded a review of the content and structure of pre-registration nurse education⁽¹⁾. Recommendations for change, however, must be considered in an international context in light of the Bologna process of harmonising higher education in Europe⁽²⁾ and directions being pursued in nurse education in other, non-EU, countries. Drawing on a comparative review of pre-registration nurse education in selected OECD countries⁽³⁾, here we identify key international perspectives and the policy considerations these raise for the UK.

Reviewing UK nurse education: the wider context

'Modernising Nursing Careers' suggests changes are needed to pre-registration nurse education as a basis for reforming the nursing careers framework, developing a competent and flexible workforce, and achieving the optimum balance between generalist and specialist roles⁽¹⁾. Any changes, however, should also encourage recruitment of the 'best and most suitable' people into nursing and ensure that careers and working conditions encourage retention⁽¹⁾.

Like the UK, many developed countries are in the throes of debate and change to their systems of nurse education and are also challenged by problems of recruitment and retention of their nursing workforce. In most European countries, including the UK, nursing is based wholly or partly in the higher education sector and so changes in the UK must take into account moves to achieve comparability of credits and competencies at first degree, masters and doctoral level⁽⁴⁾.

Our review aimed to identify how the four UK countries compared with others on two key issues: point of entry into nursing and specialization before or after initial qualification⁽³⁾. Information was obtained from 17 OECD countries (12 European and 5 others), selected for economic comparability. Sources included the literature, national and international professional and government websites and personal communication with senior nursing personnel⁽³⁾.

Initial nurse qualification: diversity of provision

Aspects of diversity

- 10 countries offer first and second level training, 8, including the UK, offer first level only (first level training leads to a registered nurse qualification and second to an enrolled or licensed practical nurse qualification).
- 13 countries offer one first level qualification: either a degree (9) or a diploma (4) while others offer two or three first level qualifications.
- Most countries with more than one entry level offer opportunities to upgrade from second to first level training and/or from one first level qualification to the next e.g. associate degree to degree.
- The range of further and higher education institutions varies from academically focused universities to more vocationally/practically oriented institutions (polytechnics, schools of nursing and colleges associated with universities).

Country variation

- Wales, Scotland and Northern Ireland offer one entry point (3-yr. university degree). Other one entry-point countries include: Italy, Norway and Spain (3-yr. university degree); Ireland (4-yr. university degree); Denmark (3.5 yr. degree at nursing school in university college sector); and France (3-yr diploma at nursing school).
- England retains two points of access at first level (university diploma or degree). Switzerland offers a first level diploma and degree; the former based at nursing schools in the vocational sector. More commonly, two entry-point countries offer second level and one first level entry: Australia, New Zealand and Sweden (3-yr. university degree); Finland (3.5 yr. polytechnic degree); Belgium (3-yr. degree at nursing school in university college sector) and the Netherlands (4-yr. degree level nursing school diploma).
- Canada and Germany offer three entry-points; one at second level and two at first level. Canada offers a 4-yr. university degree and 3-yr. community college diploma at first level while in Germany there is a 3-yr. nursing school diploma and a recently introduced professional and academic qualification at several universities.
- Japan and the US offer four entry-points: second level entry and three first level qualifications (3yr. nursing school diploma, 2 or 3 yr. college associate degree and 4yr. university degree).

Gaining specialist nurse qualifications

Diversity exists over the point at which specialist qualifications are gained; main models in evidence for first level training are:

Specialist qualification at first level after a direct entry course

- 2 countries have direct entry: Germany to general, paediatric or geriatric nursing and Ireland to general, children and general integrated, intellectual disability and psychiatric nursing. Some Canadian provinces offer direct entry to psychiatric nursing and in Italy, there is a contested move to introduce direct entry paediatric nursing.

Specialist qualification at first level after a core plus branch course

- The UK offers 4 specialist branches after a common core: adult, children, mental health and learning disability.

Generalist qualification at first level after a generic course

- Most countries have moved from a direct entry model to a generic model. Some countries offer specialist options in the latter part of the generic course, in others all students follow the same generic course throughout.

Currently, considerable debate exists about appropriateness of different models for specialist practice and particularly in relation to mental health and learning disability nursing.

Policy considerations

The review of pre-registration nurse education in the UK will have to take account of recommendations resulting from the Bologna declaration to harmonize higher education in Europe and experiences of countries (EU and non-EU) that have different systems from the UK. Key issues are:

- What are the benefits and problems of the UK's unique system of specialist preparation (a 3-yr, core plus branch course)? Careful comparison of this with other approaches is required: direct entry; specialist options within a generic course; specialisation only available after generic first level training.
- Does more than one entry level encourage recruitment of a wider diversity of people into the profession than a single entry level?
- How can nurse education best be developed to facilitate the mutual recognition of qualifications required for international mobility and at the same time be appropriate for the demands of health care service delivery in the UK?

Key issues for policy

- The UK review of pre-registration nurse education needs to be considered in light of changes taking place in other EU and non-EU countries.
- The 4 countries of the UK have a unique system for specialist preparation. Careful assessment of its benefits and problems is required if change is considered.
- Diversity exists over the number of access points to initial qualification. The effects on retention and recruitment of having more than one point and providing support for upgrading need considering.

References

1. Department of Health (2006) Modernising nursing careers – setting the direction. Department of Health, London
2. Zabalegui A et al (2006) Changes in nursing education in the European Union. *Journal of Nursing Scholarship* 38 (2): 114-118
3. Robinson S, Griffiths P (2007) Nursing education and regulation: international profiles and perspectives. Nursing Research Unit, King's College London www.kcl.ac.uk/schools/nursing/nru/prog/edu.html
4. Gobbi M (2005) Summary of Tuning subject area findings, final version. http://tuning.unideusto.org/tuningeu/images/stories/template/Template_Nursing.pdf accessed 31/07/07.

Educating students for mental health nursing practice: Has the UK got it right?

Improving mental health is an international priority and much attention focuses on whether there are sufficient numbers of adequately trained nurses to care for clients with mental illness and promote mental health⁽¹⁾. Many countries are debating how best to educate nurses for mental health practice including the UK⁽²⁾. Here we present evidence from a review of mental health nurse education in order to explore the range of models and relative merits of different approaches⁽³⁾.

We reviewed experiences in 17 OECD countries (12 European and 5 others) selected for economic comparability⁽³⁾. Information was obtained between June and November 2007 from: computer and hand literature searches; national and international professional and government websites; and personal communication with senior nursing personnel⁽⁴⁾.

Models of Pre-Registration nurse education

There are several models of pre-registration nurse education. These range from wholly specialist to wholly generalist preparation⁽³⁾.

Model 1: Specialist qualification following a direct entry specialist course.

Model 2: Specialist qualification following a common foundation programme (CFP) and a specialist branch course.

Model 3: Generalist qualification following a generic course with optional specialist components.

Model 4: Generalist qualification following a generic course with students all taking the same components.

While the UK moved from direct entry specialism (Model 1) to specialist qualification following a common foundation programme (Model 2) with the advent of 'Project 2000' in the 1990s, most countries moved from direct entry specialism (Model 1) to a generalist qualification (Models 3 or 4) as nurse education moved into higher education. Considerable debate exists about the benefits and problems of specialist and generalist models^(5,6).

As part of its consultation on pre-registration education, the Nursing and Midwifery Council

(NMC) is inviting comment on whether to retain Model 2; move to Model 3, or move to Model 4. One key rationale for moving towards a generalist model in the UK is to achieve consistency with other countries⁽²⁾. UK debates can usefully be informed by experiences elsewhere of such a move and our review provided information in relation to mental health nurse education.

Only Ireland now offers direct entry to mental health nursing. Germany has a direct entry system but not to mental health and in Canada, western provinces offer direct entry while eastern provinces have adopted a generic model. 14 countries offer a generalist qualification with (Model 3) or without (Model 4) specialist options in mental health.

What are the impacts of generic training?

There is scant formal evaluation of the impact of a change to generic training. Moving from specialist to generalist training (of 3 or 4 yrs. length) is perceived as having adverse impacts on mental health nursing⁽³⁾. Concerns are expressed by employing organizations, national and/or regional governments about effects on service delivery because graduates are perceived as inadequately prepared for mental health practice, especially for clients with complex and/or multiple conditions. Other issues identified include:

- Insufficient time allocated to mental health clinical experience and theoretical content, a dominance of general nursing, and a lack of distinction between psycho-social concepts required by all nurses and specialist knowledge and skills required by nurses caring for clients with a mental illness.
- Insufficient numbers of faculty staff with mental health nursing experience and qualifications and problems providing all students with mental health clinical placements, especially in community settings.
- Reduced numbers embarking on mental health careers at course completion.

What is the response to concerns about generic training?

- Increasing mental health nursing content in generic courses (Model 4) has been recommended but when attempted, competes with other claims for curriculum time. Hence some countries have decided to introduce specialist mental health options (Model 3); for example in the form of branches (Holland) and major subjects running through the course (some universities in Australia).
- Some success has been reported in developing post-registration courses and/or periods of supernumerary practice as a means of gaining mental health nursing

knowledge and skills not obtained during initial training. However, problems have been encountered with: providing funding for courses; student willingness for further study; and having sufficient staff to provide supervision and support.

- Widespread consultation in Ireland led to rejection of the generic model since it was perceived that this would be dominated by general training to the detriment of gaining specialist knowledge needed at the point of registration by the minority branches⁽⁷⁾.
- Elsewhere, little enthusiasm emerged for returning to direct entry on grounds that all nurses need an introduction to physical and mental health concepts.

Policy implications for the UK

International experience suggests that changing from the CFP plus branch model to a generic model is likely to present substantial challenges in producing competent beginning practitioners in mental health nursing.

These include:

- Balancing the curriculum to ensure that sufficient mental health content is delivered to produce competent mental health practitioners at qualification without having a negative impact on 'general' nursing competence.
- Providing sufficient mental health experience for ALL students.
- The need to fund post-registration courses/periods of supervised practice to achieve competence in mental health practice if this is not achieved through a generalist initial training.
- Challenges in attracting students into mental health careers.

Key issues for policy

- International experience identifies issues that need to be considered if a move to generic training is to avoid adverse impacts on mental health nurse education.
- Benefits of the current UK system need careful assessment.
- Achieving consistency with other countries, many of which are in the process of debate and change themselves, may not necessarily be consistent with meeting community jobs.

References

1. World Health Organization (2007) Atlas: nurses in mental health. Accessed on 24.09.07 at: http://www.who.int/mental_health/evidence/nursing_atlas_2007.pdf

2. Nursing and Midwifery Council (2007) The future of pre-registration nurse education. Nursing and Midwifery Council, London
3. Robinson S, Griffiths P (2007) Approaches to specialist education at pre-registration level: an international comparison. National Nursing Research Unit, King's College London. Available at: www.kcl.ac.uk/schools/nursing/nuru/reviews/specialist
4. Personal communication with senior personnel in nursing professions in Australia, Belgium, Denmark, France, Holland, Norway, Switzerland, Sweden, USA
5. Cutcliffe J, McKenna H (2006) Generic nurses: the nemesis of psychiatric/mental health nursing. In: Cutcliffe J, Ward M (eds) Key debates in psychiatric/mental health nursing. Churchill Livingstone, Elsevier, London
6. Younge O, Boschma G (2006) Debating the integration of psychiatric/mental health nursing in undergraduate nursing programs. In: Cutcliffe J, Ward M (eds) Key debates in psychiatric/mental health nursing. Churchill Livingstone, Elsevier, London
7. An Bord Altranais, University College Dublin (2005) An examination of the rationale for and impact of maintaining the five points of entry to the register of nurses. An Bord Altranais, Dublin.

Moving to an all-degree nursing profession at registration: How might the nursing workforce and quality of care be affected?

Moving to an all-degree workforce at the point of registration has been recommended as a key strategy in modernising nursing^(1,2). The challenges it poses, however, have long been debated: potential advantages of increased attractiveness of nursing as a career for some and enhanced quality of care have been contrasted with potential risks of deterring other potential applicants and concerns about proficiency in 'basics' of care and workforce retention. Drawing on a recent review⁽³⁾, this Policy + presents evidence on these and other questions to identify potential challenges for the NHS in England if it is to move successfully to an all-graduate profession.

What sources of evidence exist to inform the all-graduate debate?

A degree-only route to registration in England will most likely be via a 3-year course. Hence the ideal studies to inform such a decision are those comparing qualifiers from existing 3-year degrees with qualifiers from the majority route, the 3-year diploma.

Most UK research, however, investigates the longer-standing 4-year degree. Some UK studies follow careers of 4-year degree qualifiers⁽⁴⁾ and others compare their workforce and competence outcomes with those for non-graduates (certificate course and/or diploma course qualifiers)⁽³⁾. Some studies also include nurses with post-registration degrees. From the 1990s, universities increasingly offered 3-year degrees alongside diplomas and some research compares outcomes for these two groups^(5,6).

Some other countries also offer more than one route to registration⁽⁷⁾ and in two of these (US and Canada) comparative studies exist. Outcomes for qualifiers from 4-year baccalaureate degrees are compared with those for 3-year diploma qualifiers (US and Canada) and 2-year degree qualifiers (US only). Our review considered the implications of UK and North American studies for moving to a single level degree qualification in England.

How might an all-graduate nursing profession affect the workforce profile?

- Little evidence exists to indicate what might be the impact of degree entry only on absolute numbers of qualifiers.
- Evidence exists that some groups (e.g. those keen to gain graduate status) might be more encouraged to apply while others (e.g. mature entrants) might be deterred.
- UK studies suggest that graduates have higher career aspirations than diplomates as indicated by: greater certainty of plans; wider diversity of aspirations; and greater expectations of reaching higher grades by specified time-points.
- Findings on pathways followed are inconsistent. Several studies suggest that many diploma qualifiers are positively motivated to subsequently undertake degrees and many do so, but others encounter difficulties in pursuing this course of action.

Evidence on satisfaction of graduates is mixed. Two UK early career studies point to graduates becoming less satisfied with aspects of professional and working life but US studies suggest that graduates in later career stages are more satisfied.
- Findings from US and UK studies on intention to stay are contradictory, but the strongest evidence points to initial high commitment to the profession followed by a decline for UK graduates. Little evidence exists on graduates' short and long-term retention in nursing.

How might an all-graduate nursing profession affect the quality of care?

- A comparison of UK 3-year degree and diploma qualifiers during their first three years found no significant differences in competence that would be meaningful in practice.
- There is some evidence that qualifiers from 4-year degrees, and those who take post-registration degrees, are more competent than non-graduates in certain aspects of nursing and that experience further develops these enhanced competencies.
- Evidence cited for better patient outcomes derives from large North American studies; these report associations between reduced patient mortality and higher proportions of baccalaureate degree qualifiers in the nursing workforce.

Conclusions and implications

Design limitations and comparator groups used, mean that caution must be exercised in extrapolating findings from studies primarily based on a minority

of 4-year degree qualifiers to a situation in which all nurses would qualify via 3-year degrees. The evidence on potential advantages and risks of moving to graduate status at registration has the following implications.

- More research is needed on the impacts on absolute numbers of qualifiers. The profile of qualifiers may change with increased/total degree provision and mature entrants in particular may need encouragement through provision of access courses.
- An all-graduate workforce may have higher expectations of career progress and job satisfaction than the current mixed workforce. Expectations will need to be recognized and managed to promote retention.
- Career progress, morale and retention of the existing diploma/certificate workforce will need careful assessment and management. Increased numbers of diplomates wanting to upgrade to graduate status has individual and organizational resource implications.
- Studies showing that 4-year, but not 3-year, degree qualifiers had enhanced competencies suggest that these may be attributable to the additional year, plus smaller teaching groups⁽⁸⁾. This, combined with findings that these enhanced competencies are further developed by experience, underlines the importance of a supported post-qualification period.
- Implications of findings that higher proportions of 4-year baccalaureate qualifiers are associated with better patient outcomes are not entirely clear: the causal factor in the lower mortality reported is not necessarily the proportion of baccalaureate degree prepared nurses; and interpretation of data has been contested.

Key issues for policy

- The evidence base provides some insight into the likely consequences of a move to a single level of qualification achieved by a three-year degree.
- Lower competence of graduates is not a significant risk.
- Potential advantages include attracting more people seeking graduate status and holding higher career expectations.
- Potential risks include: deterring some applicants with resulting loss.

References

1. Department of Health. A high quality workforce. NHS next stage review. London: Department of Health, 2008.

2. Nursing and Midwifery Council. Developing new standards for nursing education in the uk: <http://www.nmc-uk.org/aFrameDisplay.aspx?DocumentID=4617>, 2008.
3. Robinson S, Griffiths P. Moving to an all-graduate workforce at registration: Assessing potential effects on workforce profile and quality of care. London: National Nursing Research Unit, King's College, 2008.
4. Winson G. Career paths of nurse graduates. *Senior Nurse* 1993;13(1):50.
5. Robinson S, Murrells T, Hickey G, Clinton M, Tingle A. A tale of two courses: Comparing careers and competencies of nurses prepared via three-year degree and three-year diploma courses, 2003.
6. Robinson S, Bennett J. Career choices and constraints: Influences on direction and retention in nursing. London: National Nursing Research Unit, King's College, 2007.
7. Robinson S, Griffiths P. Nursing education and regulation: International profiles and perspectives. London: National Nursing Research Unit, King's College, 2007.
8. While A, Fitzpatrick J, Roberts J. An exploratory study of similarities and differences between senior students from different pre-registration nurse education courses. *Nurse Education Today* 1998;18:190.

Providing preceptorship for newly qualified nurses: What are the components of success?

The NHS Next Stage Review included a commitment to support a period of preceptorship for all health professionals, including nurses⁽¹⁾. Details await finalisation but an understanding of factors that facilitate or constrain existing schemes will inform further development. Drawing on a recent review⁽²⁾, this Policy+ presents evidence from the UK and elsewhere on challenges likely to be encountered in implementing successful programmes of preceptorship in nursing.

What does preceptorship mean?

Providing support for newly qualified health professionals through preceptorship has long been advocated as a means of improving patient care by assisting new practitioners in developing clinical skills, and encouraging workforce retention by supporting students in the transition to registered practitioner. Some confusion surrounds the concept of preceptorship in that it is used to refer to support for student nurses (particularly in the North American literature) as well as to support for newly qualified nurses. Here, we use it in the latter sense only.

Recognition of new nurses' need for support first found formal expression in the UKCC's 1986 proposals for a four-month post-qualification period of preceptorship⁽³⁾. Each newly qualified nurse was to be allocated to an experienced practitioner (preceptor) working in the same setting. Provision was voluntary but recommended as highly desirable. Now the Nursing and Midwifery Council has included mandatory preceptorship as a confirmed principle of their proposed new framework for pre-registration education, with further work needed on the feasibility of implementation⁽⁴⁾. Issues currently under discussion^(4,5) include:

- How long should preceptorship last?
- How formal and standardized should programmes be?
- How to deliver it in community and non-NHS organizations?
- How to meet the resource implications entailed?

Our review found few robust studies in the UK or elsewhere focusing specifically on preceptorship⁽²⁾.

We included: our own national survey of preceptorship experiences of newly qualified diplomates from all four branches; several in-depth UK studies of the implementation of preceptorship for adult or children's nurses in one area or trust; and overseas studies of preceptors and preceptorship relationships⁽²⁾.

Is preceptorship being provided?

- Our study showed that:
 - Most newly qualified nurses wanted preceptorship.
 - Allocation to a preceptor was not universal and there was considerable discrepancy between being allocated a preceptor and actually receiving preceptorship.
 - There was some limited evidence that those working in non-NHS organizations were less likely to receive preceptorship than those working in the NHS.
 - Periods of preceptorship ranged from one month to more than six, satisfaction was greater with four months or longer than with shorter periods.
- Findings from small-scale studies confirmed that most newly qualified nurses wanted preceptorship but that provision was not universal.

Is preceptorship effective?

- All studies showed that preceptorship was regarded as having a key role in new nurses gaining confidence and competence.
- Our study showed that:
 - Developing and consolidating clinical skills were aspects of preceptorship for which demand was greatest but least likely to be met.
 - Evidence indicating that dissatisfaction with preceptorship can contribute to nurses leaving a particular job was limited and no link was found with overall retention.
- There was no evidence of effects of preceptorship on: quality of care; choice of career direction; and organizational use of resources.

What factors influence effectiveness of preceptorship?

- All studies found that:
 - High workloads and/or low staffing were the most common constraining factors.
 - Relationships between preceptees and preceptors were generally viewed positively by both parties; difficulties arose over interpersonal conflicts, off-duty rotas not coinciding, and provision ceasing through personal circumstances.

- UK and US studies of preceptors indicated that:
 - UK preceptors were less likely to receive preparation for their role than their North American counterparts.
 - Benefits of being a preceptor need to be tangible if commitment to the role is to be maintained.
- In-depth studies of preceptorship for children's nurses and neonatal intensive care unit nurses indicated that introducing more formalized programmes can improve clinical skill development but that preceptorship relationships can be undermined if there is an over focus on competency assessment.
 - ensuring provision is robust including back-up preceptor systems to cover absences or job changes.
- Future preceptorship policies need to take account of increasing health care provision in community settings and non-NHS organizations.

Key issues for policy

- Preceptorship is perceived to have benefits for newly qualified nurses, preceptors and employers.
- Many factors, especially workload, militate against effective provision.
- Effective preceptorship requires organizational commitment and resources of time and staffing which are likely to vary by setting and organization.
- A balance is required between formalized frameworks and speciality and individual flexibility, and between support and assessment.

Conclusions and implications

- Many newly qualified nurses receive preceptorship which is perceived as central to the successful transition from student to staff nurse. Workload, staffing and relationships can constrain effective delivery.
- Organizational commitment to preceptorship is essential if positive aspects are to be maintained and negative aspects addressed. This requires: workload planning that allows staff time to provide preceptorship, undergo training, and develop programmes; appointing senior staff responsible for preceptorship⁽⁶⁾; and a culture that rewards clinical expertise of preceptors and their contribution to supporting newly qualified nurses^(5,6). This will have considerable resource implications and thus presents a challenge in the face of competing budget demands.
- Developing trust-wide preceptorship frameworks facilitates commitment to, and consistency of, provision. These must be sufficiently flexible, however, to meet specialty specific requirements and needs of individual nurses. The less tangible, but no less important, aspects of preceptorship should not be overshadowed by an over focus on competency assessment.
- A senior nurse in each unit or setting should have direct responsibility for ensuring effective preceptorship. This role should encompass:
 - ensuring preceptors are properly prepared for their role;
 - ensuring all newly qualified nurses are allocated a preceptor and receive preceptorship;
 - ensuring preceptors support clinical skill development;
 - addressing difficulties in preceptee/preceptor relationships;

References

1. Department of Health (2008) A high quality workforce. NHS next stage review. Department of Health, London
2. Robinson S, Griffiths P (2009) Preceptorship for newly qualified nurses: impacts, facilitators and constraints – a scoping review. National Nursing Research Unit, King's College London
3. UKCC (1986) Project 2000: a new preparation for practice. UKCC, London
4. Nursing and Midwifery Council (2009) Confirmed principles to support a new framework for pre-registration nursing education <http://www.nmc-uk.org/aArticle.aspx?ArticleID=3396>
5. Holland K (2008) Proposed changes for nurse education in England (UK) as a result of the Darzi report-NHS next stage review: some initial observations. *Nurse Education in Practice* 8: 299-301
6. Farrell M, Chakrabarti A (2001) Evaluating preceptorship arrangements in a paediatric setting. *Journal of Child Health Care* 5 (3): 93-100

Nursing competence: What are we assessing and how should it be measured?

Developing and assessing competence are high on the current nursing agenda. The Nursing and Midwifery Council (NMC) is developing new pre-registration competencies to meet changing healthcare priorities; work proceeds apace on developing competencies for post-registration specialties; and policies for nursing careers advocate progression through demonstration of competency linked to the Agenda for Change banding. But there is ongoing debate over definitions and on how best to link competence development and competence standards, and there is little hard evidence on robustness of methods and instruments. Drawing on recent reviews of debate and evidence on the subject, this Policy+ highlights challenges for nursing practice, education and management.

Why the current focus on competence?

The higher education-based nurse diploma was recognised as developing more analytical and critical approaches to care than the apprenticeship-based model, but was accompanied by concerns about insufficient focus on developing clinical competence^(1, 2) and over assessment criteria being defined locally rather than nationally as previously⁽¹⁾. Despite the UKCC's 1999 'Fitness for Practice' review⁽³⁾ and subsequent changes designed to increase competence at registration⁽²⁾, concerns remain about skill deficits and lack of national approaches to assessment⁽¹⁾. Concerns also exist over: the extent to which post-registration courses include assessment of clinical competence⁽²⁾; how to assess expertise of nurses as they become more experienced⁽⁴⁾; and that the basing of careers on titles rather than on roles and competences inhibits career flexibility⁽⁵⁾.

Developments to address these concerns are in progress. The NMC is developing competencies for the new 2010 pre-registration curriculum and a framework for teaching, learning and assessment⁽⁶⁾. The Knowledge and Skills Framework (KSF) links competency to the Agenda for Change banding with progress assessed by annual review and fed into nurses' professional development plans. Competencies are being developed for specialist areas⁽⁷⁾. It is proposed that nurses should develop a 'competency passport' which will facilitate career progression and movement between specialties and career paths⁽⁵⁾. All these

developments face challenges of conceptualization of competence and its assessment; here we consider some of these, drawing on reviews of the substantial literature in the field^(1, 2, 4, 7-14).

How is competence defined?

Reviews of competence conclude that no single definition is accepted nationally and the term is used interchangeably with competency and competencies^(2, 11). Drawing on Eraut's work, attempts have been made at clarification^(2, 8, 12). Competence is defined as a generic quality referring to a person's overall capacity and competency refers to specific capabilities such as leadership, which are made up of knowledge, attitudes and skills. While performance is concerned with demonstrated ability to do something; consensus is lacking as to whether this demonstrates competence and whether performance is required to demonstrate competence⁽²⁾. Thus competence may represent potential to perform, not actual performance. The NMC uses competence to describe skills and ability to practise safely and effectively without the need for supervision⁽⁹⁾.

How is competence conceptualized?

Reviews describe two main approaches to conceptualizing nursing competence^(2, 4, 9, 12). One approach (usually referred to as behaviouristic) focuses on tasks and skills and depends on direct observation of performance of each for evidence of competence. Overall competence depends on the level of every specific competency. This approach is criticized as reductionist: being concerned more with what people can do than with what they know; ignoring underlying attributes; and failing to acknowledge linkages of tasks that may transform the whole^(2, 4, 9, 12).

The other approach (usually referred to as holistic) regards competence in terms of broad clusters of abilities which are conceptually linked and focuses on general attributes that are essential to effective performance^(2, 4, 9, 12). These underlying attributes, such as knowledge or critical thinking, provide the basis for transferable or more specific attributes⁽¹²⁾. In the holistic approach, overall competence is assessed as more than the sum of individual competencies. Criticisms include concerns as to whether generic competences exist and that expertise is domain specific with little capacity for transference^(2, 12).

How should competence be assessed?

From the behaviouristic perspective, assessment of competence can be made by direct observation of tasks. However, such observation is acknowledged as problematic. Moreover, it fails to measure underlying cognitive and affective skills needed for effective practice and to analyse and assess critical thinking

skills^(2, 4, 9, 12). Competence viewed holistically cannot always be observed but rather inferred through competent performance of tasks; measurement of the underlying competencies requires the evaluation of constructs that underpin the accessible and quantifiable performed tasks⁽⁸⁾. Various US instruments have been evaluated in the UK for usefulness in assessing attributes such as critical thinking⁽¹⁰⁾. If UK curriculum planners only follow the NMC approach of individual competencies being performed to desired standards, there is a risk that integration with more holistic/multiple skills may go unnoticed.

Assessment has to address the level of performance indicating competence and at what level individuals should be judged incompetent. Approaches include: a binary scale in which individuals are judged as either competent or not; a number of sequential stages, for example Benner's 5 stage model⁽⁴⁾ from novice to expert with competent being stage 3; and a continuum assigning a level of competence (regarded as most useful in comparing groups, since it provides the sensitivity often required to detect small differences⁽⁸⁾).

Reviews conclude that no 'gold standard' exists for measuring clinical competence^(2, 8, 9, 13). Reliability and validity of instruments are rarely addressed⁽²⁾; most are not specific or sensitive enough and theoretical frameworks are rarely reported⁽¹⁴⁾.

Reviews indicate that:

- Few instruments have been used repeatedly except for Schwiran's six-dimension scale of nurse performance⁽¹⁴⁾.
- Questions of subjectivity arise, whether competence is measured using instruments or by assessors making judgements, and may lead to biased assessments⁽²⁾.
- Mentors need training to ensure competence as assessors and time to make assessments⁽⁹⁾.
- While OSCEs (objective structured clinical examinations) may meet criteria of reliability and validity⁽¹⁾, they are performed under artificial conditions and do not necessarily extrapolate to performance in clinical practice⁽²⁾.
- Portfolios can be used to encourage self-directed learning and reflection but concerns exist about their reliability and validity⁽¹²⁾.

Developments in assessment also include: 'critical companionship' as a method of developing and assessing nursing expertise⁽⁴⁾; advocacy of combining self-report methods with other methods⁽¹³⁾; and recommendations that different approaches to assessment may be more appropriate for certain career stages than others⁽⁴⁾.

Conclusions and implications

- There is no consistent definition of competence and its relationship to associated concepts remains unclear.
- The difference between behaviouristic and holistic approaches to competence is central to debates about the purposes and goals of nurse education.
- The two approaches have different implications for assessment but both face challenges that include choice of method used and reliability and validity of instruments.
- A multi-method approach to assessment is advisable in the absence of a gold standard.

Key issues for policy

- Clarification and consistent adoption of terms are essential.
- Further critical debate is needed on the overall goals of nurse education and appropriate concepts of competence.
- More research is needed on developing and testing methods of assessing competence.
- Caution should be exercised in relying on results from a single method of assessment.
- Partnership working between education providers and NHS trusts is essential to promote an integrated approach to competency development and assessment.

References

1. Bradshaw A, Merriman C (2008) Nursing competence 10 years on: fit for practice and purpose yet? *Journal of Clinical Nursing* 17: 1263-1269
2. Watson R, Stimpson A, Topping A, Porock D (2002) Clinical competence in nursing: a systematic review of the literature. *Journal of Advanced Nursing* 39: 421-431
3. UKCC (1999) *Fitness for practice: the UKCC Commission for nursing and midwifery education*. UKCC London
4. Manley K, Garbett R (2000) Paying Peter and Paul; reconciling concepts of expertise with competency for a clinical career structure. *Journal of Clinical Nursing* 9: 347-359
5. Department of Health (2006) *Modernising Nursing Careers - setting the direction (2006)* Department of Health, London
6. Nursing and Midwifery Council (2009) *Review of pre-registration nursing education-Phase 2*. <http://www.nmc-uk.org/aArticle.aspx?ArticleID=3566>
7. Davis R, Turner E, Hicks D, Tipson M (2007) Developing an integrated career and competency framework for diabetes nursing. *Journal of Clinical Nursing* 17: 168-174

8. Clinton M, Murrells T, Robinson S (2005) Assessing competency in nursing: a comparison of nurses prepared through degree and diploma programmes. *Journal of Clinical Nursing* 14: 82-94
9. Dolan G (2003) Assessing student competency: will we ever get it right? *Journal of Clinical Nursing* 12: 132-141
10. Giroit E (2000) Graduate nurses: critical thinkers or better decision-makers? *Journal of Advanced Nursing* 31: 288-297
11. Lauder W, Watson R, Topping K et al (2008) An evaluation of fitness for practice curricula: self-efficacy, support and self-reported competence in pre-registration student nurses and midwives. *Journal of Clinical Nursing* doi:10.1111/j.1365-2702.2007.02223.x
12. McMullan M, Endacott R, Gray M et al (2003) Portfolios and assessment of competence: a review of the literature. *Journal of Advanced Nursing* 41: 283-294
13. Redfern S, Norman I, Calman L et al (2002) Assessing competence to practise in nursing: a review of the literature. *Research Papers in Education* 17: 51-77
14. Merotoja R, Leino-kilpi H (2001) Instruments for evaluating nurse competence. *Journal of Nursing Administration* 31: 346-352

Managing poor performance in nursing and midwifery: Does the evidence make the grade?

The way in which poor performance in nursing and midwifery is managed is of concern to individual practitioners, managers, employing organizations and to patients. The National Clinical Assessment Service (NCAS) which helps healthcare managers and practitioners understand, manage and prevent performance concerns, commissioned a review to identify which groups of nurses and midwives might benefit from the service⁽¹⁾. The scoping study, undertaken in collaboration with the NNRU, included a review of evidence on the definition and management of poor performance in nursing and midwifery and here we present its findings and consider its implications of policy and practice.

Context

Nurses and midwives represent the largest clinical group in the NHS and often care for the most vulnerable in society. However health policy on suspension and management of poor performance has largely focused on doctors⁽²⁾. Nurses and midwives are subject to local procedures by their employing trusts and no longer have an appeal route in cases of suspension to the NHS regions. Some argue that changes in the NHS over the past two decades including the rise of managerial power have left some nurses and midwives vulnerable to individual suspension rather than organizational scrutiny⁽³⁾.

The review

The review identified 68 studies from 1981 relating to poor performance. Evidence was sparse, qualitative in nature and focussed on systemic and individual contributions to the poor performance of trained nurses. Hence issues relating to the increasingly important health care assistant work force are unknown as are factors contributing to one nurse performing poorly over another. Further evidence was collected through analysis of recorded NMC hearings (Oct 2009-March 2010) and observation of one day of NMC fitness to practice cases.

Is there a problem?

At present ascertaining an accurate picture of how many nurses are 'poorly performing' is impossible as there is no effective requirement on the NHS or other organizations to report cases of suspension to the DH. There is little collation of evidence relating to

performance concerns regarding nurses and midwives. Many such incidents are dealt with by the individual's employer, yet despite a voluntary reporting system, there is little available evidence which documents the scale of the problem. A National Audit Office report⁽⁴⁾ is the only major national study on this topic. The study found that between April 2001 and July 2002, 562 nurses and midwives were suspended for at least one month; amounting to 53% of all NHS staff suspensions. Nurses were more likely to be formally suspended than doctors; their average length of suspension was nineteen weeks with only a small proportion then referred to the NMC.

A 2002 RCN survey noted that 207 trained nurses were suspended, 1 for every 1,500 members. Of these, the majority returned to work after a disciplinary hearing, 18% were dismissed. Our review of NMC cases, over a 9 month period (n=185), revealed nurses working in mental health and care home settings represented the biggest group of nurses referred to the NMC (NMC 2008-2009). This may suggest a link with care setting rather than individual nurse competency. Organizational issues e.g. staff shortage and bullying and discordant relationships with other staff and managers increased the likelihood of complaints⁽²⁾. Notable in the NMC data is the low number of hearings associated with clinically autonomous practitioners.

What is the definition of poor performance?

Several recent high profile cases of poor practice in the NHS, individual and institutional, have highlighted the importance of managing and learning from poor performance. NCAS have recently defined poor performance as: 'any aspects of a practitioner's performance or conduct which: pose a threat or potential threat to patient safety; expose services to financial or other substantial risk; undermine the reputation or efficiency of services in some significant way; are outside acceptable practice guidelines and standards'⁽⁵⁾. However this definition has yet to be evaluated against practice and the extent to which it proves to be a robust and shared definition of poor performance, necessary to assess, best manage and improve practice, is unknown. Whilst current NCAS guidelines define poor performance primarily in relation to patient safety and risk, in practice fewer than 20% of nurses were suspended for professional competency reasons. Professional and personal conduct comprised the majority of cases (65%). Exclusions where patient safety is an issue was uncommon and complaints from colleagues (rather than patients) was the highest reason for referral for performance management.

Is there consistency in managing poor performance?

There is considerable variation in procedures and in quality management of performance between

trusts. Eighty six per cent of trusts carried out initial investigations on clinicians, but the quality and rigour of investigations was variable. Two thirds who used DH guidance felt it was of little use and resulting local procedures were open to interpretation and widespread inconsistency. Inconsistent use of suspensions for nurses was noted and immediate exclusion, for reasons other than patient safety, was common. Managers often used suspension and exclusion as a tool of first choice⁽⁶⁾ and approaches to poor performance were often punitive despite the lack of efficacy of this approach improving performance⁽⁷⁾. Furthermore nurses are not always aware of reasons behind the decision and documentation is poor. The evidence also suggests that clinicians who report poor performance are not clear what action is taken as a result⁽⁸⁾.

What is the cost of nurse/midwife suspensions financially, professionally and personally?

The financial cost of managing poor performance is hard to determine because of lack of accurate evidence. Data from the National Audit Office estimates that £40 million was spent to cover staff exclusion, of which £10 million were nurse and midwife costs. The average gross cost to the NHS of the suspension of a midwife or nurse is £17,600 (at 2001-2 prices). Murray estimates the cost to her sample of suspended RCN members would be in the region of £4,429,800⁽²⁾. There are ongoing effects on productivity and quality of care due to the remaining workforce knowing a colleague had been suspended⁽⁹⁾ and some work has highlighted the trauma of suspension for individual clinicians - the grief response and threat to identity⁽⁷⁾.

Conclusions and Implications

In conclusion, the management of poor performance in nursing and midwifery is variable and there is existing evidence of unsatisfactory practice. Overall, lack of policy guidance in relation to performance management and inconsistency in practice has led to a piecemeal, individualistic and often reactionary response to alleged poor practice.

1. There is little evidence in relation to the recorded number and management of poor performance. What evidence there is points to inconsistent management which is costly to the organisation, the provision of high quality care and individual nurses.
2. There is little evidence that autonomous workers or advanced clinical roles are a higher risk of poor practice and some suggestion that organisational rather than individual or role factors may be a better predictor of poor performance.
3. The evidence suggests that most nurses are not aware of the full reasons for suspension.
4. The evidence is sparse and there is a need for greater development and evaluation of policy guidelines already in place.

Key issues for policy

There is a need for:

- better data reporting requirements such as reason, length and outcome and national data on suspensions and exclusions for nurses and midwives.
- better communication with staff who are performance managed and suspended so they understand the reasons and can learn from the process.
- better support systems for the reintegration of suspended/performance managed staff into the workforce.
- specialist provision to support staff whose suspension causes specific problems e.g. addiction.
- greater understanding of the perspective and support needs of managers who are responsible for the management of poorly performing staff.

References

1. Traynor, M., et al., Literature Review on Performance Concerns in Nursing and Midwifery. A Summary report to the National Clinical Assessment Service. 2010, Middlesex University London.
2. Murray, H. and Researching the lived experience of nurses suspended from the workplace: implications for practice, in Faculties of Humanities, Department of Education: Manchester.
3. Cooke, H., Examining the disciplinary process in nursing: a case study approach. *Work Employment and Society*, 2006. 20(4): p. 687-707.
4. National Audit Office, The Management of Suspensions of Clinical Staff in NHS Hospital and Ambulance Trusts in England., R.b.t.c.a.a. general, Editor. 2003: London.
5. National Clinical Assessment Service, Handling Performance Concerns in Primary Care: An NCAS guide to good practice, N.P.S. Agency, Editor. 2010: London.
6. Fagan, J. and Suspension failure in the NHS: Report for Brian Jenkins MP, Member of the Public Accounts Committee. 2004.
7. Cooke, H., The surveillance of nursing standards: An organisational case study. *International journal of nursing studies*, 2006. 43(8): p. 975-984.
8. Firth-Cozens, J., R.A. Firth, and S. Booth, Attitudes to and experiences of reporting poor care. *Clinical Governance: An International Journal*, 2003. 8(4): p. 331.

9. The Work Foundation, Health and Well-being of NHS Staff A Benefit Evaluation Model; Report prepared for the Department of Health in NHS Workforce Health and Wellbeing Review. 2009, The Work Foundation: London.

Theme 2: The nursing workforce

Theme 2: The nursing workforce

The nursing workforce is the largest in the National Health Service (NHS) with more than 350 thousand registered nursing, midwifery and health visiting staff and 270 support workers working in NHS hospital and community services in 2012. Using this important human resource wisely and getting value for money for the public purse is of great importance, particularly in times of financial austerity. Recruiting and retaining the best people to the profession has also been an important focus of our work, informing policy and practice in a range of areas. Theme 2 is concerned with the nursing workforce; both from an individual perspective on job satisfaction and choice of career direction and an organisational perspective on providing a workforce of appropriate diversity and numbers to meet service delivery commitments.

The first issue of Policy+ (PP1) provided an overview of many of these topics. Drawing from the Unit's series of longitudinal cohort studies of certificate, diploma and degree educated nurses, it highlighted the following: diversity of age, gender and ethnic group of different cohorts; the influence of experiences during the pre-registration course on subsequent choice of speciality; the effect of meeting aspirations on retention; and the availability of career planning advice. Each of the other six issues in this theme addressed a particular workforce topic in detail.

A review of national statistics and recent research (PP15) drew attention to the projections of a likely shortfall in the number of nurses required, and factors affecting recruitment into the profession. The latter indicated the need to focus on recruitment from currently under-represented groups (men, members of ethnic minority groups and workers in mid-life) and to improve and update the image of nursing portrayed to school leavers and other groups of potential entrants. Strategies to retain the workforce were the focus of two issues within this theme. More recently, fears that economic pressures may lead to cuts in staffing levels has heightened the debate on mandated minimum nurse staffing levels, and PP34 reviewed the evidence from other countries.

In PP8, we focused on nurses in early career with a review of data on retention and turnover among this group and factors associated with job exit. Providing support through preceptorship and mentoring, the availability of flexible working, and good communication with managers were identified as important for job satisfaction among this group. At the other end of the spectrum, PP2 considered the implications of an ageing workforce for absolute numbers in the profession but also the

loss of experience and knowledge as this group retires. A review of recent UK studies, including a large NNRU study, identified a range of challenges that older workers may face such as extended caring responsibilities and the physical toll of working, and a range of strategies that might facilitate their retention such as continued career development and innovative approaches to working hours and skill deployment.

Understanding the migration patterns of nurses within and between countries is important for both regional and national organisations when developing employment policies. Movements of nurse diplomates between the region in which they trained and other English regions, combined with national data sets, showed which regions were at greatest risk of a net loss of nurses and which regions were net gainers (PP3). Regional strategies to retain locally trained students were recommended, particularly for the groups found to be most mobile, and recommendations made for regionally comparable tracking systems to be put in place. However, it is migration between countries that has been the focus of most attention with concern about the impact on developing countries of the loss of their nurses through overseas recruitment; subsequently codes of practice were introduced to prevent this practice. A recent study of nurse migration from Malawi (PP33) suggested however, that stricter regulations have not improved nurse retention as many Malawian nurses opted for other employment once the migration route to the UK was closed.

In the interests of career development and retention, career planning services for nurses have long been advocated. The NNRU cohort studies suggest that career planning support may contribute to maximizing career potential and enhancing retention but have consistently found substantial unmet demand for career advice, particularly for longer term planning (PP10).

The new NHS architecture will continue to require high quality evidence of relevance to commissioners and providers of services and we plan to continue to focus our work in this important area.

Informing *Modernising Nursing Careers* with NRU cohort data

'Modernising Nursing Careers' envisages changes in training and an increasing shift toward autonomous roles and away from hospital based provision. It recognises the importance of the image of nursing. Here, we draw together key findings from the Nursing Research Unit cohort studies on nursing careers in England. These focus in particular on aspects of pre-registration training, including the image of the 'degree nurse' and influences on choice in early career.

Diversity in the workforce

- Financial penalties associated with a degree course relative to the diploma may account for some of the less diverse composition of the graduate group.
- It is not clear what proportion of current diploma applicants would be able to gain entry at degree level or would find this attractive.
- The perception of nursing degrees may not be positive among all prospective applicants.

Qualifiers from adult branch degree courses did not differ from those of adult diploma courses in terms of gender and membership of ethnic minority groups. Graduates were younger on average than diplomates. Those qualifying with a degree had entered nursing with higher academic qualifications and were less likely to have entered nursing without traditional academic qualifications. Nurses established in their careers thought that a move to all graduate entry would deter potential applicants, particularly older applicants. Graduate nurses were also characterised as lacking skills. They did think that graduate status would improve standing of nursing and justify better pay^(1,2,3).

Competence

- There is scant evidence to support negative perceptions of graduate nurses.
- The evidence that exists is potentially biased by self-report and of questionable significance.

Self and line manager assessment of competence showed that both degree and diploma qualified nurses scored highly. Small but significant differences indicated that diplomates were more able in some respects but these would unlikely be reflected in observable differences in performance^(2,4).

Aspirations, directions and progression

- Experience in training is important in shaping career choices and is an important source of

recruitment for mental health and learning disability.

- Early experience also has negative effects and for graduates in particular there is evidence that career plans are formed that take them away from some specialties.
- Exposure to community work is important in influencing students to consider this career path.
- Current student training does not leave students feeling adequately prepared to work in the community.

A sizeable proportion of diploma qualifiers in learning disability and mental health began on another branch and were influenced to change by experience on the CFP. Course experiences of working in the community encouraged students to consider working in this setting. Care of the elderly experience for adult and mental health nurses made many less likely to consider this specialty. Similarly theatre experience had a negative effect on aspirations. Degree nurses were more likely to be working in A&E and Intensive Care than diplomates and less likely to be working in elderly, theatres and ENT. Jobs in the community or as practice nurses were identified as attractive, but few outside learning disability began their careers in this way. Students did not feel prepared to take up such a job immediately^(2,5).

Post-registration degrees

- Many of those who do not have a degree at qualification are likely to embark upon one in early career. As 'generic' academic components must be taken it could limit their opportunity to consolidate their clinical specialty.
- Availability of opportunities to take a degree may influence diplomates' choice of specialty.

A significant proportion (25%) of nurses with diplomas begin a degree course within three years of qualifying with many others taking degree level courses but undecided about committing to a full degree. However the majority take no degree level courses in the three years after qualifying. Interviews with established staff suggest that a degree is increasingly seen as essential for career progression in nursing and a useful transferable qualification^(3,5).

Satisfaction and retention

- Nursing is perceived as an attractive career by those taking degrees.
- They are likely to be highly motivated and ambitious.
- This enthusiasm must be harnessed if it is not to translate into disappointment.

- Current careers do not meet the aspirations of many graduate nurses who become dissatisfied.
- In the short term retention is not adversely affected.
- Career guidance and opportunity to progress will be important factors in supporting a more highly qualified workforce.
- Currently there is insufficient guidance available.
- This may become even more of an issue for those developing careers spanning multiple employers and specialties.

Graduates appeared more career-minded than diplomates. They were more likely to have started nursing to gain a professional qualification and to have an occupation with career prospects. They were initially more certain about their career plans and initially express higher commitment to nursing but become less satisfied over time and express higher levels of disappointment in opportunity to provide quality care, pay, grade attained and educational opportunities. Those qualifying with a diploma show increasing levels of job satisfaction over time. Progression and educational opportunities are the same and so this seems to reflect higher ambition among graduates. Few differences were manifest in relation to actual retention up to three years^(2,6).

Career guidance is a positive influence on career progress and retention but is limited. Available guidance tends to focus on progression in a specific speciality and the 'next stage' rather than longer term planning. Interviews with those established in the profession identified lack of career guidance as a factor in considering leaving the profession^(3,5).

Key issues for policy

- Degrees attract ambitious career-minded nurses.
- Experience in training and early career is highly influential on choice of speciality and commitment.
- Early experiences deter graduates from entering specialities such as elderly care.
- New nurses feel unprepared for community jobs.
- Career guidance would be welcomed and may prove a positive influence.

References and information

1. Clinton M, Robinson S, Murrells T (2004) Creating diversity in the healthcare workforce: the role of pre-registration education in the UK. *Journal of Health Organization and Management* 18 (1): 16-24
2. Robinson S, Murrells T, Hickey G, Clinton M, Tingle A (2003) A tale of two courses; the careers and competencies of nurses prepared via three-year degree and three-year diploma courses. Nursing Research Unit, King's College London

3. Robinson S, Bennett J (2006) Career choices and constraints: influences on direction and retention in nursing. Nursing Research Unit, King's College London
4. Clinton M, Murrells T, Robinson S (2005) Assessing competency in nursing: a comparison of nurses prepared through degree and diploma programmes. *Journal of Clinical Nursing* 14 (1): 82-94
5. Robinson S, Murrells T, Marsland L et al (2000, 2001) Reports on adult, child, mental health and learning disability diploma nurses at qualification and six months. Nursing Research Unit, King's College London
6. Robinson S, Murrells T, Clinton M (2006) Highly qualified and highly ambitious: implications for workforce retention of realising the career expectations of graduate nurses in England. *Human Resources Management Journal* 16 (3): 287-312

The data-sets used are: Adult, child, mental health and learning disability branch diplomate nurses (nationally representative cohorts surveyed longitudinally by questionnaire at qualification 6, 18 and 36 months). Adult branch graduate nurses (4 cross-sectional cohorts, qualification, 6, 18 and 36 months, surveyed by questionnaire. Adult branch diplomates and graduates purposively selected and interviewed at 7 years.

Who wants to be a nurse?

Nursing roles and the configuration of health services will change in the future, but there will be an ongoing need to draw large numbers of talented people into nursing careers to deliver the Next Stage Review's vision of a 'quality workforce'. In this Policy+ we consider who is currently entering nursing and what can be done to maintain or increase the number of high calibre applicants to nursing courses. Drawing on work recently undertaken in the National Nursing Research Unit and other analyses^(2, 3) which have explored the current and future nursing workforce we consider 'who wants to be a nurse?'

Attracting and recruiting nurses: current issues

Nurses are a central resource in the NHS and are crucial to the delivery of healthcare in the 21st century⁽¹⁾. The need for nursing care and therefore nurses is likely to increase. Yet:

- Between 2003-7 applications for nurse training in the UK fell by 26%, from 31,917 in 2003 to 23,722 in 2006-7⁽²⁾. In the same period applications from men fell by 48% from 10,863 in 2003 to 5,535 in 2006-7.
- The UK along with other developed countries has an ageing nursing workforce⁽⁴⁾. In 2005 28% of nurses in the NHS were aged 50 or over; with more than 100,000 nurses on the Nursing and Midwifery Council (NMC) register aged 55 or older, and a further 80,000 aged 50-55⁽⁵⁾.
- Women, who make up 90% of the nursing workforce, have many more career choices open to them than in the past⁽¹⁾ and once recruited are more likely to take career breaks, work part-time and retire early⁽⁶⁾.
- Recent projections identify a possible shortfall of 14,000 nurses by 2011 if there is no increase in training commissions⁽⁷⁾.
- There is a worldwide shortage of nurses and the UK has in the recent past relied on internationally qualified nurses to fill NHS nursing posts⁽⁷⁾.

Attracting and recruiting the best people into nursing is important to maintain and drive forward high quality healthcare initiatives⁽¹⁾. Yet research undertaken 10 years ago reveals most school pupils were 'indifferent' to nursing and gave it no consideration as a career⁽⁸⁾. Currently very small numbers of school age children

see nursing as a potential career. An online survey of 11-18 year olds in 2006⁽⁹⁾ found:

- Students wanted a future job that was interesting, made best use of their skills, was well paid and included working in a team and helping people.
- Only 2% were interested in a career in nursing and only 5-7% in medicine.
- Those considering nursing as a career saw nursing as hard work with long hours rather than seeing it as caring and helping work, although nurses themselves were seen as caring and dedicated⁽¹⁰⁾.
- Nursing may lack attraction as a career because of the conflicting and stereotypical images that prevail, with few modern nursing images conveying the complexity of the role⁽¹⁾.

Who are the current entrants to nursing?

In the UK, 66% of diploma entrants and 58% degree entrants in 2006-7 were over 21 years of age⁽³⁾. In England in total 40% of all nursing and midwifery entrants were over 26.3. 90% of entrants are women^(2, 3). Of all accepted applications 25% were from students from a black and minority ethnic background (BME). The mental health branch has the greatest proportion of BME students at 30% of all accepted entrants⁽²⁾.

Analysis of the 2007 highest qualifications on entry reveal 94% of all applicants held a qualification of NVQ level 3 (equivalent to 5 GCSE grades A-C) or higher and 46% NVQ level 4 (equivalent to A levels or higher) compared with 64% and 27% respectively in the general population. In the UK, 35% of entrants to diploma programmes and 44% of entrants to degree programmes held GCSE/A levels and 9% of diploma entrants and 18% of degree entrants held other Higher Education or professional qualifications⁽¹¹⁾.

Conclusions and implications

- Nursing no longer attracts sufficient numbers of school leavers and will need to continue to work to attract entrants from a diverse age group. Considerable effort will be required to change the image of nursing among future school leavers and other entrants⁽¹⁾.
- Nursing remains a largely female workforce and males are severely under represented. Men could be a significant recruitment pool in the future⁽⁶⁾ if barriers to male recruitment could be overcome.
- Nursing appears to be an attractive career prospect for some, but not all, members of black and minority ethnic groups⁽²⁾ and increased recruitment

of BME students could help improve representation of minority ethnic workers in the NHS.

Given proposed moves to an all degree entry for nursing it is worth noting that 31% of current entrants could be excluded from a degree programme based on analysis of their qualifications⁽²⁾. However, new degree level programmes could attract a new pool of potential recruits; people who had previously rejected nursing because they would not get a degree or had not considered it as a career option. Nonetheless, it will be important to keep the entry gate to nursing wide with a range of entry levels and career options including non registered associate nurse grades. The diploma for 14-19 year olds in health and social care may be a new potential access route into the nursing profession in the future².

Key issues for policy

- Young people have a multitude of career options open to them in the 21st century. The non-visible aspects of nursing (intellectual and decision making) need to be more identifiable to potential recruits through school careers advice, social networking and early career experiences.
- Workers in mid-life, men and ethnic minority entrants provide a potential pool of new recruits for nursing. Promotional campaigns need to be more tailored to attract workers in mid-life; male entrants; ethnic minority students and other non-traditional entrants.
- Resources will be required to continue to develop access courses for non traditional students; to continue to develop foundation degrees for assistant practitioners that will facilitate access to registered nurse courses in the future.

References

1. Maben J, Griffiths P. Nurses in Society: starting the debate. London: King's College London. 2008.
2. Juson P, Mullen C. Nursing and Midwifery Recruitment Analysis-England Admission Service Statistics: NHS North West, 2008.
3. Higher Education Statistics Agency (HESA). Age group of first year full time nursing students (UK wide) (HESA Tables 3a and 3b). 2008.
4. National Nursing Research Unit. Will an ageing nursing workforce work? Policy+: King's College London, 2007.
5. Buchan J, Seccombe I. From Boom to Bust? The UK Nursing Labour Market Review 2005-6. London: Royal College of Nursing, 2006.
6. Juson P, Mullen C. Nursing and Demographic Statistics: NHS North West, 2008.

7. Buchan J. Nurse workforce planning in the UK. A report for the Royal College of Nursing. London: RCN, 2007.
8. Foskett NH, Hemsley-Brown JV. Perceptions of Nursing as a Career. Southampton: University of Southampton, 1998.
9. NHS Careers. The teenagers' view of Careers in the NHS: 'b-healthy with the NHS': NHS Careers, 2006.
10. Arnold J, Loan-Clarke J, Coombs C, Park J, Wilkinson A, Preston D. Looking good? The attractiveness of the NHS as an employer to potential nursing and allied health professionals. Loughborough: Loughborough University, 2003.
11. Higher Education Statistics Agency (HESA). Highest qualifications on entry of first year UK domiciled students in nursing. 2008.

Is it time to set minimum nurse staffing levels in English hospitals?

Increasing economic pressures on healthcare systems raise concerns about how workforce cuts and reconfigurations may affect quality⁽¹⁾. Currently there are no centrally set minimum staffing levels for National Health Service organisations; providers are responsible for determining staffing requirements locally. In this Policy+ we look at the impact mandated minimum Registered Nurse (RN) staffing levels have had in other countries and consider current guidelines and recommendations.

Why are mandated staffing levels an issue in 2012?

In the UK, the Royal College of Nursing (RCN) has played a key role in lobbying for safe nurse staffing levels⁽²⁾ and at Congress in 2011 they voted in favour of legally enforceable nurse staffing levels. It is argued that assessment of adequate staffing levels requires robust data on current staffing, as well as data on patient outcomes and quality⁽³⁾. The issue was recently debated in the House of Lords (as an amendment to the health and social care bill) where it was proposed that a maximum number of patients per registered nurse should be mandated⁽⁴⁾. In 2004, the RCN commissioned Prof James Buchan to critically review the use of nurse to patient ratios⁽⁵⁾. A key concern is that a 'minimum' ratio of nurses to patients can become a 'maximum' and that nationally set levels fail to take account of local variation. But arguably ratios are simple and easy to use, and where they lead to improved staffing levels, they can create a more stable workforce that is less dependent on temporary staffing cover.

Experience outside the UK: The impact of standardised and mandatory nurse to patient ratios

In California, United States of America, ratios were set in 1999 (e.g. 1:5 on medical and surgical wards). To date fifteen states in the US have legislation aimed at addressing safe nurse staffing but California is the only state to have specific ratios applying to each speciality in all hospitals. Evidence of reported impact in California includes:

- No evidence that ratios have increased costs⁽⁶⁾.
- Hospital nurses typically care for one patient less than nurses in other states, the lower caseload is significantly related to lower patient mortality⁽⁷⁾.

In Victoria, Australia minimum nurse to patient ratios were legally mandated in the public sector in 2001 (1:4, plus one in charge on medical/surgical wards). In 2004 the way in which the registered nurse to patient ratio was expressed was changed to 5:20, to give more flexibility on registered nurse deployment across the ward⁽⁸⁾. The Australian Nursing Federation (ANF) reports that ratios have led to:

- Better recruitment and retention of nurses and greater workforce stability.
- Adequate numbers of nurses rostered six weeks in advance.
- Directors of Nursing having fully funded budgets to provide safe staffing levels, and a reduced reliance on agency staff.
- Better patient care; beds are not kept open unless there are sufficient staffing levels.
- More manageable nursing workloads.
- Increased job satisfaction for nurses, more workplace stability, and reduced stress⁽⁹⁾.

Recommendations and guidance on staffing levels in the UK

Professional bodies and associations in the UK have put forward recommendations for nurse staffing levels in different specialities. For example, it is recommended that every patient in a critical care unit has access to a RN with a post-registration qualification in the specialty, and that there is a ratio of 1:1 for ventilated patients⁽¹⁰⁾. Whilst on children's wards, a daytime RN to patient ratio of 1:3 is recommended for children under 2 years of age, and 1:4 for other ages⁽¹¹⁾. On mental health wards, the Royal College of Psychiatry⁽¹²⁾ suggests that a daytime ratio of 1:5 RN's per patient is likely to be needed for acute wards. But they go on to caution about the use of minimums, and recommend that 'the determination of appropriate staffing will involve dialogue between managers, nurses and other clinicians'⁽¹²⁾.

This is a common thread; staffing recommendations provided in the UK are accompanied by a proviso that staffing needs to take into account specific local factors and be based on an assessment of clinical need and other factors that influence staffing requirement (such as range of services, unit/ward layout, team mix).

Conclusions and implications

- International evidence suggests that mandated registered nurse to patient ratio can improve nurse staffing and lead to better recruitment, generate a more stable workforce, and more manageable workloads for staff. The impact on patient outcomes is less clear but there is evidence that the resultant lower caseloads are related to lower levels of patient mortality.

- Ratios and recommendations are specialty specific. Existing recommendations are focussed on clearly defined and delineated settings, where patient need is relatively predictable and consistent. Data about current staffing related to safe and effective care delivery is needed to determine the appropriate 'minimum' or recommendation for a wider range of settings, such as acute care for older people.
- There is a need to clarify how existing ratios are expressed and to explore other measures of staffing, such as nursing hours per patient, or per bed.

Key points for policy

- Defining minimum nurse staffing levels could help to stabilise the nursing workforce, ensure safe levels of staffing, and deliver care to an agreed standard. However, careful consideration needs to be paid to variations in patient needs and local clinical contexts, as well as the potential impact on patients.
- Setting a mandated minimum has major consequences not just in terms of investment required to set up and establish (and periodically recalibrate), but also in terms of mechanisms needed to monitor compliance and deal with non-compliance.
- Ratios currently in use focus on numbers of registered nurses to patients. There is also a need to look at overall staffing levels, and the skill mix of the nursing team.
- Ratios do not obviate the need for robust mechanisms for workforce planning locally, to ensure that the right staff with the right skills are in place to meet patient needs.

References

1. Letter from Sir David Nicholson (2010) Equity and Excellence: Liberating the NHS – Managing the transition and the 2011/12 Operating Framework. Gateway Ref: 15272.
2. RCN (2010) RCN policy position: Evidence based nurse staffing levels. London: RCN.
3. Ball J, Catton H (2011) Planning nurse staffing: are we willing and able? *Journal of Research in Nursing*. 16, 551- 558.
4. Hansard. Amendment 138 moved by Baroness Audrey Emerton. 3:40 pm 30th November 2011. <http://www.publications.parliament.uk/>
5. Buchan, J (2004). A certain ratio? Minimum staffing ratios in nursing. : a report for the Royal College of Nursing. London: RCN
6. McGillis Hall, L. Buch, E (2009). Skill mix decision-making for nursing. International Centre for Human Resources in Nursing. Geneva: ICN

7. Aiken L, Sloane D et al (2010) Implications of the California Nurse Staffing Mandate for Other States. *Health Services Research*. 45 (4) 904-21.
8. Gerdtz M, Nelson S (2007) 5-20 A model of minimum nurse- to-patient ratios in Victoria, Australia. *Journal of Nursing Management*. 15, 64-71.
9. ANF Victoria Work/Time/Life Survey (2003) – reported on p148-150 Gordon S, et al (2008) Safety in numbers. Nurse-to-patient ratios and the future of health care. Cornell University Press.
10. British Association of Critical Care Nurses (2009) Standards for nurse staffing in critical care (updated 2010), Newcastle upon Tyne: BACCN.
11. Royal College of Nursing (2003) Defining staffing levels for children's and young people's services, London: RCN.
12. Royal College of Psychiatrists (1998) Not just bricks and mortar: Report of the working group on the size, staffing, structure, siting and security of new acute adult psychiatric inpatient units. London RCP.

Will an ageing nursing workforce work?

The world is in the midst of a 'global age-quake'⁽¹⁾. Decreasing fertility and increasing longevity mean the world's population is ageing. In 2001, for the first time, the UK had more people over 60 than under 16⁽²⁾ and the workforce is losing technical and practical skills through retirement. It is therefore timely to consider and highlight the evidence base on the ageing profile of the workforce and the nursing workforce in particular. Drawing on recent UK studies including work carried out by the Nursing Research Unit⁽³⁾ we identify the implications for policy and practice of an ageing nursing workforce and the challenge of retaining these important workers.

Ageing workforce profile

Compared to the wider economy, the health and social care sector has an unusually old workforce, with a high proportion of employees over 45 years⁽⁴⁾.

- In 1996, 20.6% of nurses in the NHS were aged 50 or over; by 2005 the figure was 28% - a 36% increase⁽⁵⁾.
- More than 100,000 nurses on the Nursing and Midwifery Council (NMC) register are aged 55 or older, and a further 80,000 are aged 50-55⁽⁶⁾.
- The net annual loss of nurses due to retirement is expected to be approximately 25,000 whole time equivalents by 2015⁽⁷⁾.
- There may be a higher proportion of older nurses in the primary and community workforce than in the NHS as a whole but obtaining accurate workforce numbers is problematic⁽⁸⁾.

Challenges facing older workers

An older workforce may face additional challenges. Age discrimination legislation is expected to address many of these issues but local implementation and interpretation will be key⁽⁹⁾. Challenges include:

- Physical toll of working and health problems associated with ageing^(2,3,8,9).
- Age discrimination and a failure to value experience by managers^(2,8,9).
- Extended financial and caring responsibilities for dependent children and frail elderly parents (often simultaneously)^(3,10).
- Gaining access to retirement planning and flexible work options^(2,3,8,9).

- The pace of technological change and adapting to new technology,^(9,10) but older workers may be more willing to learn⁽¹⁾.

The case for retention of older workers

Replacing retiring nurses will not be easy given the global shortage of nurses. There is a strong economic case to retain the existing nursing workforce in terms of the cost of training and replacement^(1,9). Other key reasons to retain older nurses include their experience, knowledge and skills^(1,9), their commitment^(3,9), comparatively low sickness and absence rates^(1,9), they are often preferred by patients who report a better experience^(3,9), and they have the ability to teach and mentor younger nurses^(1,3,9) and to withstand and endure change⁽²⁾. Best practice views mature workers as "a resource to be cherished rather than a liability to be minimised"⁽⁸⁾.

Factors causing older nurses to leave the NHS early—Push factors

Retaining older nurses may not be easy. In the past 12 months a number of key reports^(1,3,8,9) added to existing work^(2,10,11,12) identifying factors which may 'push' older nurses towards retirement.

- Reduced job satisfaction and increased stress contribute to older nurses' decisions to leave the NHS. Increased workload, perceived understaffing and compromises to the quality of patient care are important underlying factors in these decisions^(2,8,9,10,11).
- Pay becomes more important when other aspects of job satisfaction are unmet⁽⁸⁾. Government restructuring of pay under Agenda for Change is not perceived to be rewarding older nurses clinical experience sufficiently^(3,8).
- Older nurses are dissatisfied with career opportunities, the way change is implemented, the style of supervision and generally do not feel properly valued and supported^(2,8,9,10).
- Unsuitable or insufficient educational opportunities are strong de-motivators and a push factor towards retirement^(2,3,9,12).
- Deterioration in physical health is another important factor pushing older workers out of work^(2,3,9,12).
- Older nurses experience an inflexible approach to retirement and to reduced work and hours and access to flexible working opportunities are limited^(3,9).

How to encourage the retention of older nurses

Retention of older nurses is paramount and more needs to be done to age-proof employment policy and to

introduce a more flexible pension provision supporting a phased approach to retirement.

Specifically:

- Good working conditions that facilitate the delivery of high quality patient care^(1,2,8,9) and adequate reward for clinical experience^(8,11).
- Effective management and communication strategies to convey value and appreciation of skills and experience and challenge negative perceptions of older workers^(5,8,9,10).
- Innovation in and adequate use of the skills and experience of older nurses in new roles and ways of working e.g. mentorship roles with younger nurses^(3,8,9).
- Career advice, development and progression remain important to nurses approaching retirement age. Access to tailored education and training to reflect and build upon prior learning^(1,2,3,8,9,10,11,12).
- A proactive occupational health service to reduce the risk of older workers leaving the workforce for reasons of poor health e.g. a confidential 'open door' occupational health scheme^(2,3,9,10,12).
- Equal access to flexible working across all generations of nurses^(1,2,3,8,9,10,11,12).
- Flexible approaches to retirement including active retirement planning, phased retirement income and innovative schemes such as 'wind down' and 'step down' and 'retire and come back' with protection of full pension rights^(1,2,3,8,9,10,11,12).

Key issues for policy

Retaining older nurses requires:

- Adequate resources and support to deliver high quality patient care.
- Appropriate recognition and utilisation of skills and experience.
- Tailored education and training.
- Continuing opportunities for career advice and progression.
- Equal access to flexible working.
- Proactive occupational health systems.
- Flexible approaches to retirement.

References

1. Hatcher B, Bleich M R, Connolly C, Davis K, O'Neill Hewlett P, Stokley Hill K (2006) *Wisdom at work: The importance of the older and experienced nurse in the workplace*. Robert Wood Johnson Foundation: USA
2. Meadows S (2002) *Great to be grey*, London: King's Fund
3. Bennett J, Davey B, Harris R (2007) *Nurses working in mid-life*. Nursing Research Unit, King's College London, London.
4. McNair S, Flynn M (2006) *Managing a workforce in health and social care*. Department for Work and Pensions: HMSO
5. HEPI (2005) *The Education and Training of Medical and Health Professionals in Higher Education Institutions*. Higher Education Policy Institute
6. Buchan J and Seccombe I (2006) *From Boom to Bust? The UK Nursing Labour Market Review 2005/6*. Royal College of Nursing: London
7. Buchan J (2005) *RCN UK Nursing Labour Market Commentary 2004/5*, Queen Margaret University College, Edinburgh
8. Storey C, Ford J, Cheater F, Harding N, Buchan J, Hurst K, Leese B (2006) *Improving the retention of women in the primary and community care nursing workforce after the age of fifty years*. University of Leeds
9. Wray J, Watson R, Stimpson A, Gibson H, Aspland J (2006) *A wealth of knowledge: The employment experiences of older nurses, midwives and the NHS*. The University of Hull
10. Watson R, Manthorpe J, Andrews J (2003) *Nurses over 50 - options, decisions and outcomes*. The Policy Press: Bristol
11. Buchan J (1999) *The greying of the UK nursing workforce: implications for employment policy and practice*, *Journal of Advanced Nursing*, 33 (9), p.818 – 826.
12. Phillipson C, Smith A (2005) *Extending Working Life: A review of the research literature*. Department for Work & Pensions: HMSO

Nurses on the move: Implications of internal migration in the UK

Migration of healthcare professionals across and within national boundaries may benefit individual career progress but can result in certain regions and countries having insufficient resources to meet healthcare needs^(1,2). Developing strategies to ensure a balanced distribution of staff requires information about patterns of migration but this is often inaccurate and lacks comparability across borders⁽¹⁾. Here we consider how regionally comparable data can inform nursing workforce planning in the UK; we draw on a Nursing Research Unit study of nurses' movements between regions^(3,4), and other research on the internal migration patterns of health professionals⁽⁵⁻⁹⁾ and of the general population⁽¹⁰⁻¹⁴⁾.

Analysing patterns of UK internal migration

Internal migration of the UK general population has been investigated using:

- British Censuses⁽¹⁰⁾; the longitudinal study linking individuals across censuses⁽¹¹⁾; the National Health Service Central Register⁽¹¹⁾; the Labour Force Survey⁽¹²⁾ and the British Household Panel Survey^(11,13).
- Studies of nurses in these data sets have investigated satisfaction and retention but analyses of internal migration patterns are limited by sample size and incomplete career histories.
- The new Electronic Staff Record (ESR) system will provide a job movement record between NHS organizations but not periods in non-NHS healthcare organizations.
- The UK Nursing and Midwifery Council requires nurses to re-register every three years; so career histories are incomplete.
- Longitudinal research based on representative national samples and comprising complete career histories, reveals more complete patterns of internal migration for doctors⁽⁵⁾ and nurses^(3,4).

Do English regions retain their locally trained nurses?

- The majority (64%) of nurses qualifying in England worked continuously in the region in which they had trained for 3 years after qualification⁽³⁾.

- London retained fewest nurses (55%) while North West region retained most (79%)^(3,4). Similar findings in general population studies are attributed to: stronger local and cultural identities in northern and western parts of the country; and high living costs in the South-East increasing likelihood of leaving^(11,13).
- Regional retention may vary by course: in the West Midlands, 69% of diploma nurse qualifiers were retained in early career⁽⁴⁾ compared with just under half of degree qualifiers during the same period⁽⁶⁾.

Do some regions gain nurses at the expense of others?

- In early career, many nurses take jobs outside their training region^(3,6). General population migration studies suggest this is a means of gaining experience and skills to enhance subsequent progress⁽¹³⁾.
- London and the South-East are net losers of nurses^(3,4). Similar findings have been reported for doctors⁽⁵⁾ and all health professionals⁽⁹⁾. General population studies indicate that London and the South East may act as an escalator region; i.e. people migrate there to gain training and experience to enhance subsequent progress⁽¹¹⁾ but then leave in response to high living costs^(11,13).
- Northern and North-West regions were also net losers of nurses, although having lower than average vacancy rates for nurses overall^(3,4). As with the general population, nurses may be less likely to move from southern to northern parts of the country than vice versa⁽¹⁰⁾.
- The South-West was a net gainer of nurses in early career^(3,4). General population studies also indicate trends to move to the South-West (and Wales) in mid to later career, as part of the wider phenomenon of counter-urbanization⁽¹⁰⁾.

Are some groups of nurses more likely to move than others?

- Younger nurses are more mobile; with higher turnover rates in the NHS⁽⁸⁾ and less likely to work in their training region^(3,4). General population studies confirm that mobility is highest among younger people^(12,14); reasons include career benefits and, for younger women, moving to accommodate a partner's career.
- Nurses with families are less likely to move than their childless counterparts^(3,4). This may reflect findings for the general population attributed to stability of children's education⁽¹⁴⁾.

Understanding patterns of UK internal migration: policy implications

Regional retention strategies

- Recruitment of local students, established in the housing market, may reduce the loss from training region. Availability of affordable accommodation and childcare is likely to influence migration⁽⁹⁾.
- Keeping in touch with locally trained nurses who move may encourage a subsequent return.
- Retention strategies in early career include: access to continuing education; peer support; preceptorship; and rotation to optimize career development through increasing the range of clinical experience⁽⁷⁾.

Developing national tracking systems

Recommendations for systems to track nurses' movements⁽¹⁾ will entail:

- Allocating each nurse a unique identifier to ensure record linkage.
- Using postcodes to identify place of residence/work. Postcodes are less likely to change than administrative regions and can be grouped into larger units for analysis⁽³⁾.
- Developing and using a consistent definition of retention in the nursing workforce of a specific geographical area⁽³⁾.
- Longitudinal in-depth work on reasons for moving and future plans.
- Ensuring sufficient numbers of skilled personnel to implement followup systems, ensure high participation rates and analyse data⁽³⁾.

Key issues for policy

- Understanding internal UK migration patterns requires national data that are comparable across regional boundaries and contain complete event histories.
- Robust data can inform strategies to retain locally trained workforces and attract new entrants.
- Many factors influencing mobility of nurses are reflected in the general population; strategy development should take place within this broader context.

References

1. Diallo K (2004) Data on the migration of health-care workers: sources, uses and challenges. *Bulletin of the World Health Organization* 82 (8): 601-607
2. International Council of Nurses (2002) Career moves and migration: critical questions. ICN, Geneva, Switzerland
3. Robinson S, Murrells T, Griffiths P (2008) Investigating the dynamics of nurse migration in early career: a longitudinal questionnaire survey of variation in regional retention of diploma qualifiers in England. *International Journal of Nursing Studies* 45(7): 1064-1080
4. Murrells T, Robinson S (2006) Regional profiles of diploma nurses retention in early career. Working paper available from Nursing Research Unit, King's College London
5. Parkhouse J, Lambert T (1997) Home, training and work: mobility of British doctors. *Medical Education* 31(6): 399-407
6. Wheeler H, Cross V, Anthony D (2001) Limitations, frustrations and opportunities: a follow-up of nursing graduates from the University of Birmingham. *Journal of Advanced Nursing* 32 (4): 842-856
7. Gould D (2004) Locally targeted initiatives to improve staffing levels by senior nurses responsible for recruitment and retention in acute NHS trusts in England. *Journal of Nursing Management* 14: 255-261
8. Gray A, Phillips V (1996) Labour turnover in the British National Health Service: a labour market analysis. *Health Policy* 36: 273-289
9. Hutt R, Buchan J (2005) Trends in London's NHS workforce: an updated analysis of key data. King's Fund for London, London
10. Boyle P (1994) Metropolitan outmigration in England and Wales 1980-81. *Urban Studies* 31 (10): 1707-1722
11. Fielding A (1992) Migration and social mobility: South-East England as an escalator region. *Regional Studies* 26 (1): 1-15
12. Dixon S (2003) Migration within Britain for job reasons. *Labour Market Trends* April 2003 191-201
13. Clark W, Huang Y (2004) Linking migration and mobility: individual and contextual effects in housing markets in the UK. *Regional Studies* 38 (6): 617-628
14. Green A (2004) Is relocation redundant? Observations on the changing nature and impacts of employment-related mobility in the UK. *Regional Studies* 38 (6): 629-641

Preserving the nursing workforce: The importance of job satisfaction in early career

Employing organizations and line managers need to understand how satisfaction can differ by career stage and by area of nursing. Concerns about working conditions and career prospects are often very different for a newly qualified nurse compared with a mid-career nurse and nurses contemplating retirement. Drawing on recent studies from the UK, including work on early career nurses by the National Nursing Research Unit, King's College London⁽¹⁾ we consider why job satisfaction is so important to nurses after transition from student to staff nurse and identify ways in which newly qualified nurses can best be supported.

Why is job satisfaction in early career so important?

When new nurses take up their first job they may experience what Kramer called 'Reality Shock'⁽²⁾, the reaction new nurses feel when they enter a work situation for which they feel unprepared. Responses include stress and dissatisfaction due to lack of experience and organizational skills^(3,4). The depth of satisfaction varies across areas of nursing with those employed in acute care settings particularly vulnerable to dissatisfaction⁽⁵⁾.

In the UK, by the third year post qualification only 82% of registrants are employed as nurses⁽¹⁾. Turnover rates of 35% to 55% in first year of employment have been reported in the USA⁽⁶⁾. Intent to quit has been found to have a strong inverse relationship with job satisfaction^(7,8) however the relationship between job satisfaction and actual turnover is smaller⁽⁹⁾. Losing qualified staff early after investing in training, orientation and recruitment is expensive⁽⁷⁾ because it creates additional replacement costs and the need to hire and orientate new staff⁽¹⁰⁾. High turnover has a negative impact on staff morale and the capacity to meet patient needs, however the effect of nurse turnover on quality of care delivery has not yet been substantiated⁽¹¹⁾.

What are the key components of nurses' job satisfaction?

The international literature emphasises the importance of relationships with co-workers. Pay and benefits,

working conditions and physical surroundings are often mentioned but vary by country. Management style, autonomy and leadership also have an impact⁽¹²⁾. In England eight factors emerge as important for early career nurses: patient care, staffing, relationships with co-workers, professional development, education opportunities, resources, aspects of work-life balance and pay⁽¹³⁾. A US tool designed to measure confidence in delivery of care, perceptions of the work environment and job satisfaction amongst graduate nurses identified 7 factors: professional respect, career development, work schedule, information access, competence, work management, and becoming part of a team⁽⁷⁾.

What difficulties are experienced in the transition from student to nurse?

Generally new nurses say they lack confidence in skill performance and have concerns within a number of areas^(1,3,5):

- Peer and preceptor relationships, dependence (on others).
- Becoming an independent practitioner.
- Work environment.
- Organization and priority setting.
- Communication with doctors.

Most new nurses take up to 12 months to become confident and satisfied with their job. Low-points between 6 and 12 months have been reported in the USA⁽⁵⁻⁷⁾ and between 6 months and 3 years for nurses in the UK⁽¹⁾. US graduates participating in early support initiatives were particularly vulnerable between entry and 6 months when the amount of learning can be overwhelming⁽⁶⁾.

In the US and UK dissatisfaction with patient care, scheduling (work-life balance) and pay may precipitate job exit^(5,7,14). Students go through a 'grieving process' on loss of an academic schedule and this may in part explain why nurses in early career are dissatisfied with work-life balance⁽⁷⁾. Dissatisfaction with pay has been reported in the US⁽⁵⁾ and UK⁽¹⁾ and pay satisfaction has been positively associated with intent-to-stay in early career UK nurses but there were no direct pay effects on turnover⁽¹⁵⁾. Newly qualified nurses often have high ideals and expectations of nursing and their first post and if these are not met they can have a negative impact on job satisfaction leading to early intention to leave^(2,14,16).

What can be done to support newly qualified nurses?

- Establish nurse support groups that meet regularly and beyond the first year⁽¹⁰⁾. Support programmes lasting 1 year have produced good outcomes in the

USA (turnover rates of 12% compared with rates of 35-55% cited above) and positive feedback from participating chief nursing officers ⁽⁶⁾.

- Newly qualified nurses want preceptorship but from fewer preceptors ⁽⁵⁾.
- The development and use of expert nurse mentors should be encouraged ⁽¹⁰⁾. They should receive training and adequate rewards. In particular, nurses who have recently experienced the transition have a lot to offer newcomers.
- Improve employer flexibility to facilitate work-life balance and it is important to describe expected shift patterns at interview and during orientation ⁽⁷⁾.
- Foster good communication between managers and new nurses so that nurses are open about their intentions and solutions can be explored before they decide to leave.
- Measure and monitor job satisfaction and experiences on a regular basis to provide an early warning system for intention to leave.
- Provide further support such as advanced preceptorship to new nurses as they move into positions of greater responsibility.

Key issues for policy

- Current reviews of the future of nursing education in the UK contemplate an extended mandatory period of support for newly qualified nurses.
- Evidence from the USA suggests that such schemes are successful in supporting the difficult transition but need adequate resourcing to ensure success.
- Supporting nurses during this transition would help to maintain confidence and job satisfaction and would reap longer term benefits of reduced turnover, better patient care and reduction in costs.
- Newly qualified nurses often reach a low point at six months or soon thereafter and so extended periods of support should continue beyond this.
- Whether mandatory or not, a formal one year preceptorship programme should be considered best practice.

References

1. Robinson S, Murrells T, Clinton M: Highly qualified and highly ambitious: implications for workforce retention of realising the career expectations of graduate nurses in England. *Human Resource Management Journal* 2006, 16(3):287-312.
2. Kramer M: *Reality Shock: Why nurses Leave Nursing*. St. Louis: CV Mosby; 1974.
3. Maben J, Macleod Clark J: Project 2000 Diplomates' perceptions of their experiences of transition from student to staff nurse. *Journal of Clinical Nursing* 1998, 7(2):145-153.
4. Oermann MH, Moffitt-Wolf A: New graduates' perceptions of clinical practice. *Journal of Continuing Education Nursing* 1997, 28(1):20-25.
5. Casey K, Fink R, Krugman M, Propst J: The graduate nurse experience. *Journal of Nursing Administration* 2004, 34(6):301-311.
6. Williams CA, Goode CJ, Krsek C: Postbaccalaureate Nurse residency 1-Year Outcomes. *Journal of Nursing Administration* 2007, 37(7/8):357-365.
7. Halfer D, Gradf E: Graduate nurse perceptions of the work experience. *Nursing Economics* 2006, 24(3):150-155.
8. Shields MA, Ward M: Improving nurse retention in the National Health Service in England: the impact of job satisfaction on intentions to quit. *Journal Of Health Economics* 2001, 20(5):677-701.
9. Irvine DM, Evans MG: Job satisfaction and turnover among nurses: Integrating research findings across studies. *Nursing Research* 1995, 44(4):246-253.
10. Bowles C, Candela L: First job experiences of recent RN graduates. *Journal of Nursing Administration* 2005, 35(3):130-137.
11. Hayes LJ, O'Brien-Pallas L, Duffield C, Shamian J, Buchan J, Hughes F, Spence Laschinger HK, North N, Stone PW: Nurse turnover: A literature review. *International Journal Of Nursing Studies* 2006, 43:237-263.
12. Upenieks VV: Assessing differences in job satisfaction of nurses in magnet and nonmagnet hospitals. *Journal of Nursing Administration* 2002, 32(11):564-576.
13. Murrells T, Robinson S, Griffiths P: Job satisfaction for nurses in early careers: is it the same for all branches of nursing. *Journal of Nursing Management* 2008, (in press).
14. Maben J, Latter S, Macleod Clark J: The sustainability of ideals, values and the nursing mandate: evidence from longitudinal qualitative study. *Nursing Inquiry* 2007, 14(2):99-113.
15. Murrells T, Robinson S, Griffiths P: Is satisfaction a direct predictor of nursing turnover? Modelling the relationship between satisfaction, expressed intention and behaviour in a longitudinal cohort study. *National Nursing Research Unit, King's College London*; 2008.
16. Maben J, Latter S, Macleod Clark J: The theory-practice gap: impact of professional-bureaucratic work conflict on newly-qualified nurses. *Journal of Advanced Nursing* 2006, 55(4):465-477.

What are the implications of changes in nurse migration?

Earlier this decade, a rise in healthcare demands and financial investment in nursing saw the United Kingdom rely heavily on overseas recruitment as a way to fill nursing vacancies in the National Health Service during the so-called 'boom' period ⁽¹⁾. However, the recent 'bust' period with its decline in workforce investment has caused a significant drop in international recruitment to the UK ^(2,3). Stricter registration and work permit regulations introduced around 2005 have significantly reduced the number of non-European Union (EU) nurses entering the UK workforce. In this Policy+ we draw upon a NNRU researcher's recent work on nurse migration from Malawi, a low-income country in sub-Saharan Africa ⁽⁴⁾ to examine the potential implications of these regulations on non-EU source countries and for the UK nursing labour market.

UK reliance on migrant nurses

The UK's colonial history and language have made it a key destination for many nurse migrants, especially those from English-speaking former colonies, like South Africa and Australia. Strong nurse education links and established migrant networks have also made the UK a popular choice for nurses from Malawi. In the early 2000s a combination of active recruitment from the UK and growing dissatisfaction with working conditions and salaries saw Malawi lose a significant proportion of its most qualified and experienced nurses to the UK ⁽⁴⁾. Whilst this exacerbated Malawi's critical nursing shortage ^(4,5), the UK was able to benefit from rapid and inexpensive registered nurse recruitment ⁽²⁾. This outflow of nurses to the UK around 2000 was replicated worldwide and contributed to unprecedented numbers of overseas entrants to the UK nursing register.

Changes in UK migration regulation

However, since 2005 there has been a sharp decline in internationally trained nurses coming to the UK- especially those from non-EU countries- reflected in the fall of annual entrants from 10,000 to 16,000 around 2000 to 2,500 per annum in 2010 ⁽²⁾. This decline has been attributed to reduced UK demand, and rising barriers to UK entry for non-EU nurses, including stricter regulatory and migration controls ⁽³⁾. These controls include ethically motivated regulations such as the Department of Health Code of Practice that prevents the active recruitment of nurses from countries receiving UK aid ⁽⁶⁾. A sharp decline in

the migration of nurses from Malawi after 2005 was attributed primarily to these stricter controls ^(4,7).

Malawi – An example of changing migration to the UK

Recent findings from a study of nurse migration from Malawi suggest that stricter regulations have not led to improved retention of nurses in their home country. Instead nurses have found alternative pathways to migration, with some leaving the profession completely. Whilst intention to migrate is still high amongst nurses in Malawi, in the light of changing opportunities, registered nurses are choosing employment with a Non-Governmental Organisation (NGO) in Malawi as the next best option ^(5,7). In some cases they have settled on non-nursing, administrative roles diminishing the likelihood of them re-joining the nursing profession. On an individual level nurses perceive the current UK regulations as discriminatory, particularly in relation to the preferential recruitment of EU nurses and difficulties with subsequent family reunification. Some nurses felt aggrieved that the doors of the UK that had previously been open to them, were now closed ⁽⁴⁾.

New patterns of migration

But Malawi may be unusual in this pattern of movement as levels of international nurse migration elsewhere have risen ⁽⁸⁾. New destinations have assumed importance on the global nurse migration stage. Recent reports suggest Hong Kong and South Africa are considering foreign nurse recruitment in response to staff shortages, and the Jamaican government has begun recruiting Cuban nurses ⁽⁹⁾. In recent years, Japan has also begun special arrangements to allow nurses from Southeast Asian countries to enter and practice in Japan ⁽¹⁰⁾. Meanwhile the UK has become a passive source country for nurse recruitment with UK educated registered nurses attracted to work in Australia. In 2008, whilst less than 200 Australian nurses registered in the UK (a fall from approximately 1,000 in 2000-1) over 6,000 UK nurses applied to practice in Australia (up from 2,000 in 2000-1) ⁽³⁾.

Conclusions and Implications

Tighter migration restrictions have caused a decline in nurses entering the UK workforce from non-EU countries. In some countries like Malawi, this has led to an absolute fall in nurse migrant numbers. But this has not had the anticipated effect of improving source country retention, as increasingly nurses leave the profession to work outside of nursing. In other countries, such as The Philippines and India, nurses continue to migrate but are taking up employment in a new wave of destination countries. Whilst the UK is not currently recruiting nurses from countries outside

the EU, other countries, including those previously harder to migrate to such as Japan are becoming important destination countries for registered nurses.

Key points for policy

- The UK has been criticised for its 'boom to bust' approach to nurse workforce planning ⁽¹⁾ and its reliance on internationally recruited nurses to fill the gaps created.
- In the long term demand for nursing staff in the UK is likely to increase to meet the challenges of an ageing workforce and population. It may be necessary to re-establish overseas recruitment and there is an opportunity to learn from the past. Tightening up of regulatory and migratory controls to the UK have compromised the 'attractiveness' of the UK as a destination for nurses, and there may be work to be done in the future to convince internationally trained nurses that they are welcome and needed in the UK.

References

1. House of Commons Health Committee (2007) Workforce Planning. Fourth Report of Session 2006–07 Volume I, House of Commons London: The Stationery Office Limited.
2. Buchan, J. and I. Seccombe (2011). A decisive decade: The UK nursing labour market review 2011, Royal College of Nursing.
3. Buchan, J. and I. Seccombe (2010). Sustaining the long view: The UK nursing labour market review 2010, Royal College of Nursing.
4. Grigulis, A. I. (2011). The lives of Malawian nurses: the stories behind the statistics, University College London, UK. Unpublished PhD thesis.
5. Mangham, L. (2007). Addressing the human resource crisis in Malawi's health sector: Employment preferences of public sector registered nurses. London: Overseas Development Institute.
6. NHS Employers (2009). "List of developing countries." Retrieved 28 November 2011, from <http://www.nhsemployers.org/RecruitmentAndRetention/InternationalRecruitment/Code-of-Practice/Pages/developing-countries.aspx>
7. Grigulis, A. I., A. Prost, et al. (2009). "The lives of Malawian nurses: the stories behind the statistics." Transactions of the Royal Society of Tropical Medicine and Hygiene 103(12):1195-1196.
8. Organisation for Economic Co-operation and Development (OECD) (2011). International Migration Outlook 2011. Retrieved 12 November 2011, from http://www.oecd.org/pages/0,3417,en_36734052_36734103_1_1_1_1_1,00.html.
9. International Centre on Nurse Migration. (August 2011). "ICNM News." (15).
10. Inoue, J. (2010). "Migration of nurses in the EU, the UK, and Japan: Regulatory bodies and push-pull factors in the international mobility of skilled practitioners." Discussion Paper Series A No. 526.

Career planning in a changing landscape: Do nurses need support?

Radical changes in nursing career pathways are likely once the new frameworks emanating from the Modernising Nursing Careers (MNC) programme are implemented. Recognizing that nurses may require support in identifying and accessing these new pathways, MNC recommends development of 'career navigation tools' ⁽¹⁾. Drawing on evidence from the National Nursing Research Unit's cohort studies of nurses' careers ⁽²⁾, we consider challenges in developing career planning support programmes.

How are nursing careers changing?

Although long advocated, career planning support for nurses received little attention on grounds that career options were simple and turnover was high ⁽³⁾. Workforce shortages and increasing career complexity, however, led to recommendations for support programmes to facilitate retention as well as maximize career potential ⁽³⁾.

Changes in nursing careers proposed by MNC introduce further change and complexity: diversity of employers; truncating of hierarchies; expanding roles and pathways; more flexibility between pathways; increasing generalist rather than specialist roles; and progression linked to continuing professional development ⁽¹⁾.

These changes mirror those in many other fields where traditional hierarchical careers are being replaced by flatter structures and by more dynamic, flexible careers built on portfolios of skills that cross occupational and hierarchical boundaries ^(4,5). However, alternative career patterns may be associated with lack of accumulated expertise and financial security ⁽⁶⁾. Whether current changes in nursing will allow comparable upward mobility and attendant rewards as traditional careers is unknown.

Our six cohort studies of certificate, diploma and degree course qualifiers illuminate key questions for those developing career planning support policies (figures are presented for the range across the cohorts).

Is career planning support provided?

Support *during the nurse education course* comprised generalised guidance (information/advice) and personalised guidance (discussions about career planning).

- Findings for generalised guidance showed that: it was received by most students (54% to 83%) over obtaining a first job (vacancies, application procedures and performing at interviews); between 37% to 59% about the range of post qualification courses available; and 11% to 41% about course application procedures. Between 12% and 55% received generalised guidance about developing clinical careers but fewer for nursing education, research and management careers.
- Less than half had a personal discussion about career planning (16% to 46%).
- Support during early career distinguished between personalised discussion about next stage of professional development and longer-term career planning. At each career stage, respondents were more likely to have had a discussion about next stage (54% to 68%) than longer term planning (23% to 34%).

Is career planning support wanted?

There was unmet demand for support *during the course*. A majority wanted more information/advice about clinical courses (57% to 83%) and clinical careers (64% to 70%). Between 70% and 93% of those who had not had a personalised discussion about career planning would have liked one.

Unmet demand during early career was usually greater for longer-term planning than next stage of development. Frequency and content of career development discussions were among aspects of jobs with highest dissatisfaction ratings.

Demand varied by career stage and demographic profile: mature entrants were particularly likely to have wanted but not received support ⁽⁷⁾.

Reasons for not wanting support included concerns about impartiality and confidentiality indicating further unmet need.

Who provides career planning support?

During the course guidance was most likely provided by personal tutors followed by clinical staff and during early career by clinical staff including line managers (though formats such as preceptorship, supervision, appraisal and informal discussion).

There was little awareness or use of professional careers advisory services; however, discussions held with these personnel were more likely to have been perceived as useful than those with clinical staff.

Students, staff and those providing support expressed concerns about adequacy of training for the role, being up to date and having an overview of opportunities. Some thought employers should be responsible for

providing support, others that career planning should be a shared responsibility, and others that it was their own responsibility.

Arguments have been advanced in favour of trusts introducing careers advice co-ordinator posts ⁽⁸⁾.

Is career planning support effective?

Little research has investigated effectiveness of career guidance generally ⁽⁹⁾ and in nursing in particular. Our cohort studies show:

- For the mental health cohort there was an association between receiving information about management careers and wanting a management post ⁽¹⁰⁾.
- Seven-year findings indicated that: provision of career support contributed to retention in nursing and lack of support to ambivalence about remaining and to decisions to leave. People worried about impartiality of advice and felt that employers might focus on guidance that encouraged retention and not necessarily on that in an individual's best interests ⁽⁷⁾.

Conclusions

- Substantial unmet demand for career planning support exists during the course and early career, especially for longer-term planning: this needs addressing.
- Provision of Support is primarily ad hoc and, potentially, by people not necessarily best placed to provide it.
- Trusts should develop coherent policies for providing advice and information about career options and one to one career planning discussions.
- Further research is needed to assess organizational and individual effectiveness of different forms of career planning support, such as joint use of career planning models ^(11,12).

Key issues for policy

- Career planning support may contribute to maximizing career potential and enhancing retention.
- The best way of delivering this is uncertain but current provision of advice is ad hoc, often unsupported and may be perceived as potentially partial.
- Demand for support should be assessed and targeted.
- Demand for support is likely to increase as traditional careers and roles change.

References

1. Department of Health (2006) Modernising nursing careers: setting the direction. Department of Health, London
2. For Cohort studies details please contact the NNRU
3. Robinson S, Murrells T (1998) Developing a career in the mental health services: guidance for student nurses. *Journal of Psychiatric and Mental Health Nursing* 5 (2): 79-87
4. Arthur M, Rousseau D (1996) eds. *The boundaryless career*. Oxford University Press, New York
5. Arnold J, Jackson C (1997) The new career: issues and challenges. *British Journal of Guidance and Counselling* 25 (4): 27-33
6. Edwards P, Wajcman J (2005) *The politics of working life* (Chp. 4). Oxford University Press
7. Robinson S, Bennett J (2007) *Career choices and constraints*. National Nursing Research Unit, King's College London
8. Marsland L (2004) Qualifying from the pre-registration nurse diploma course: the demand for career guidance. *Nurse Education Today* 24 (1): 55-65
9. Kidd J (2007) Career counselling. In Gunz H, Peiperl M (eds.) *Handbook of career studies*. Sage Publications, London pp 97-113
10. Murrells T, Robinson S (1997) Developing the nursing contribution to the management of mental health services. *Journal of Nursing Management* 5 (6): 325-332
11. King Z (2001) Career self-management: a framework for guidance for employed adults. *British Journal of Guidance and Counselling* 29 (1): 65-78
12. McGillis Hall L (2008) Career planning and development needs of rural and remote nurses. *Journal of Research in Nursing* 13 (3): 207-217

Theme 3: Quality of care

Theme 3: Quality of care

The quality of care delivered by nurses has come under increasing scrutiny in recent years and has been the focus of much work in the Unit and the Florence Nightingale School of Nursing and Midwifery. Measuring and monitoring the quality of care has presented the nursing and midwifery professions with a series of challenges: what do patients and professionals regard as high quality care; can key indicators for nursing and midwifery care be identified and their outcomes be measured; and are outcomes associated with different groups in the nursing workforce?

This work has been both fed into and been commissioned by a number of inquiries into nursing care quality notably Lord Darzi's review in 2008, and the Prime Minister's Commission on Nursing in 2009/10. Lord Darzi's review commissioned work from the Unit in the form of Nurses in Society (2008) and State of the Art Metrics for Nursing (2008) both of which were summarised in Policy+.

The current Nursing and Care Quality Forum has taken up the challenge in 2012 to help all those involved in providing nursing and care to '*deliver the fundamental elements of good care - compassion, dignity, respect and safety - first time, every time and to everyone and to achieve their ambition of providing the very highest quality of care through supporting the adoption of best practice and promoting innovation*'. The work of the Unit through Policy+ is informing and contributing to these important debates. Twelve issues of Policy+ demonstrate how these questions have been addressed in the third theme in the Unit's programme.

How do patients and professionals define high quality care?

PP9 presents a review of nursing research which showed that aspects of care that matter to patients vary by their personal characteristics, types of treatment received and levels of pain experienced, health condition and status, and the service setting in which they are being treated (PP9). Staff require training in the development of services that are personalised to meet these differences, and time and support to ensure that these can be delivered. Since most of this research was based in acute settings, a second review focused specifically on patients in the primary care sector (PP32). Narrative interviews with patients showed that some of the aspects of care that emerged as valued were condition-specific while others, particularly those concerned with the relational aspects of care, were valued irrespective of condition. Surveys of both patient's and nurses' views (PP13) demonstrated that aspects of nursing valued by both groups included delivering evidence-based practice, effective teamwork and a patient-centred approach to care.

Measuring nursing and midwifery outcomes

A review of literature on existing sets of indicators of nursing care and of systematic reviews linking aspects of nursing to patient outcomes sought to examine whether nursing can be routinely measured in a way which would allow comparison between institutions (PP12). Some outcome indicators were consistently identified but problems noted with the quality of administrative databases and the fact that it may not yet be possible to make the good risk adjustments necessary for robust comparisons between institutions. Failure to rescue was identified from US data as a possible indicator of nursing quality and PP31 reports on an NNRU study that investigated whether the quality of English hospital data enabled failure to rescue rates for surgical patients to be derived. While the analysis suggested that such rates could be derived from English data, failure to rescue did not appear to be a specifically sensitive nurse sensitive indicator.

Two projects focused on evidence of associations between staffing levels and patient outcomes. The first, comprising a review of existing studies (PP20), concluded that there is evidence of an association between low RN staffing levels and adverse outcomes but less evidence of benefit from increasing already high staffing levels. Problems with interpreting observed associations and the impact of multiple factors on outcomes pointed to the need for further research in this area. Evidence on relationships between midwifery staffing levels and outcomes is even more limited than for nursing but much needed given the staffing implications of current policies to improve maternity services. An NNRU analysis using 'Admitted patients' HES data and data from 144 trusts, showed an association between higher midwifery staffing levels and a lower probability of re-admission within 28 days (PP30). Nurse sensitive indicators are also needed for specialist services and outpatient settings; however an NNRU review investigating evidence for these in ambulatory chemotherapy services (PP26) found a lack of quality evidence on relationships between nursing inputs and patient outcomes.

Effectiveness of specific roles

Recent years have seen the introduction of new roles and changes in skill mix, all of which may have implications for the quality of care. In PP6 we reported on a study that responded to requests to evaluate the impact of consultant nurses some three years after their introduction in 2000. Findings indicated that greater impact could be demonstrated in practice and service development than in patient outcome and cost benefit; cautions were offered about drawing conclusions about impacts too early in the life of new roles. Numbers of practice nurses have been increasing

as have the number of consultations that they take. In order to investigate the impact that this might have on patient outcomes, we analysed clinical indicators in the Quality and Outcomes Framework against staffing profiles of GP practices; those employing more nurses performed better in several clinical areas (PP23).

The introduction of associate practitioners into the healthcare workforce has led to concerns in nursing that the post may come to be regarded as a second level qualified nurse (i.e. the associate nurse at Band 4). This prompted an investigation of systematically reviewed evidence, mainly from the US, on patient outcomes associated with different levels of qualified nurse and nursing assistants; conclusions did not support the reintroduction of a second level nursing qualification (PP21). A subsequent review (PP27) considered the longstanding question of whether healthcare support workers (bands 2 and 3 as well as 4) should remain unregulated. The evidence suggested that an unequivocal case could not be demonstrated to support either regulation or its continued lack; moreover a wide range of questions will need addressing if and when regulation proceeds.

This theme will be important to our work in the future and we will continue to review and present evidence from patients and users of nursing services as well as understanding what contributes to variation in service delivery. Finally, we continue to endeavour to shed light on how to support nurses, so that that they can do what they came into the profession to do: provide good quality care to patients.

What matters to patients: The nursing contribution

The issue

In recent months the Department of Health and partner organisations (including the Picker Institute and the Healthcare Commission) have been working to build a picture of what matters to patients, public and staff. The aim is to develop the National Health Service in ways that are important to these groups. The approach has been to distil information from national patient surveys and test it qualitatively with patient and staff groups. There are four key areas that seem to matter to patients:

- Get the basics right - don't leave it to chance
- Fit in with my life - don't force me to fit in with yours
- Treat me as a person - not a symptom
- Work with me as a partner in my health - not just a recipient of care⁽¹⁾

Whilst it is clear that these four areas are essential, the challenge is for care services to deliver what matters to patients every time, in every place for every patient. Here, we draw together examples from nursing research to show that what matters to patients is variable and manifests itself in different ways for different people at different times.

Personal characteristics and views influence what matters to patients

- Young people accessing nurses in general practice want better written information, confidentiality explained, and the option of electronic messaging⁽²⁾, whilst older people place emphasis on meaningful interactions with nurses that support them to self-care and to be a co-participant in care⁽³⁾.
- The physical or mental impairments experienced by patients can affect what matters to them. For example, people who have hearing problems emphasise more time during appointments, better written information, and better use of telecommunication devices and videoconferencing⁽⁴⁾.
- People's attitudes towards health services and how they might look after themselves is important, for example those who see illness as a fact or as a failure may respond differently to self-management or medication regimes⁽¹⁾.

Treatment or care received influences what matters to patients

- Patients emphasise different issues when nurses take on tasks traditionally viewed as part of the role of doctors or other healthcare professionals, such as prescribing or administering drugs⁽⁵⁾.
- The level of perceived risk of the treatment being given influences what matters to patients. For example patients being prescribed medication by nurses consistently say that they want safe and successful treatment from competent nurses⁽⁴⁾.
- The level of pain involved in a treatment influences the amount of preparatory information and verbal explanations that patients want⁽⁶⁾.

Health condition and health status influence what matters to patients

- The severity and degree of emotional trauma associated with a condition influences what patients want. For example, patients accessing emergency services say they want nurses to support them more with social and emotional aspects of distress⁽⁷⁾.
- For patients whose condition means they are frequent users of nursing services the emphasis is on effective treatment and informal, friendly care⁽⁸⁾.
- The stage in a person's illness trajectory is influential. For example, at the time of diagnosis patients with epilepsy emphasise having time with a specialist nurse to discuss symptoms, tests and medication⁽⁹⁾; whilst women living with a long-term diagnosis of epilepsy want better continuity of care and better provision of information about side-effects of drugs⁽¹⁰⁾.
- Possibility of recurrence or relapse is also a significant factor. For example women who have a high-risk pregnancy⁽¹¹⁾ and women with breast cancer⁽¹²⁾ prioritise continuity in their care, personalised information and emotional support.
- Patients who self-care want participation in care to build their confidence, comprehension and a sense of control and strategies for care to be integrated into their daily lives e.g. patients suffering chronic heart failure⁽¹³⁾.

Service setting influences what matters to patients

- Patients accessing primary care and acute nursing services emphasise different things.

In community settings patients want better access to nurses, in terms of ease of making appointments⁽¹⁴⁾; whilst patients in hospitals want better and more organised communication⁽¹⁵⁾ and staff to listen to

their care stories and make use of them to bring about improvements in practice⁽¹⁶⁾.

- Failure to receive a planned treatment is unsettling. Patients say they want staff to recognise this and to explain to them why cancellations have happened, for example because of staff shortages⁽¹⁷⁾.
- Patients can be uncertain about the purpose of a particular service. Patients who have been discharged to nurse-led intermediate care services want clarity about the purpose of the service and more consistency in the quality of care provided⁽¹⁸⁾.
- People living in nursing homes want nursing staff to understand their personal history to maintain their sense of self⁽¹⁹⁾.

Key issues for policy

- What matters to patients is influenced by the personal characteristics and views of the patient, the type of health condition, the type of treatment or care that is being provided and the service setting. These differences offer alternative starting points for assessing and developing responsive care services, for example through research and service assessment.
- Delivering what patients want requires care staff to keep in mind the question – what matters to you today? It also requires training, support and time. Managers can help by supporting staff to meet patients/clients needs fully at each visit and to facilitate their discretion in what needs to be done.
- A one size fits all solution will not create a personalised service and staff development and initial training will need to educate the current and future NHS workforce in this respect. There is also an opportunity for policy-makers to ensure that delivering care that meets what patients want is valued and recognised in future NHS governance and incentive systems.

References

1. Department of Health (2007) What matters to patients, public and staff.
2. Jacobson, L., G. Richardson, et al. (2001). "How do teenagers and primary healthcare providers view each other? An overview of key themes." *British Journal of General Practice* 51(471): 811-6.
3. Frank, D. I. (2003). "Elderly clients' perceptions of communication with their health care provider and its relation to health deviation self care behaviors." *Self-Care, Dependent-Care & Nursing* 11(2): 15-30.
4. Berry, D., M. Courtenay, et al. (2006). "Attitudes towards, and information needs in relation to, supplementary nurse prescribing in the UK: an empirical study." *Journal of Clinical Nursing* 15(1): 22-28.
5. Fitzsimmons, D., S. E. Hawker, et al. (2005). "Nurse-led models of chemotherapy care: mixed economy or nurse-doctor substitution?" *Journal of Advanced Nursing* 50(3): 244-252.
6. Crawford, A. (2004). "Respiratory nursing. An audit of the patient's experience of arterial blood gas testing." *British Journal of Nursing (BJN)* 13(9): 529-532.
7. Hostutler, J. J., S. H. Taft, et al. (1999). "Patient needs in the emergency department: nurses' and patients' perceptions." *Journal of Nursing Administration* 29(1): 43-50.
8. Shaw, C., K. S. Williams, et al. (2000). "Patients' views of a new nurse-led continence service." *Journal of Clinical Nursing* 9(4): 574-82.
9. Ridsdale, L., I. Kwan, et al. (2002). "How can a nurse intervention help people with newly diagnosed epilepsy? A qualitative study (of patients' views)." *Seizure* 11(1): 1-5.
10. Wallace, H. K. and J. K. Solomon (1999). "Quality of epilepsy treatment and services: the views of women with epilepsy." *Seizure* 8(2): 81-7.
11. Dollins, A. M. (1997). *The obstetric patient's experience of a nurse case management system: A hermeneutic analysis*, University of Cincinnati: 237 p.
12. Liebert, B. and S. Furber (2004). "Australian women's perceptions of a specialist breast nurse model." *Australian Health Review* 27(2): 88-93.
13. Eldh, A. C., M. Ehnfors, et al. (2004). "The phenomena of participation and non-participation in health care - experiences of patients attending a nurse-led clinic for chronic heart failure." *European Journal of Cardiovascular Nursing* 3(3): 239-246.
14. Bolton, L. B., C. E. Aydin, et al. (2003). "Nurse staffing and patient perceptions of nursing care." *Journal of Nursing Administration* 33(11): 607-614.
15. Beaudin, C. L., J. C. Lammers, et al. (1999). "Patient perceptions of coordinated care: the importance of organized communication in hospitals." *Journal for Healthcare Quality: Promoting Excellence in Healthcare* 21(5): 18-23.
16. Adair, L. (1994). "The patient's agenda...what do patients really think about the care they receive in hospital?" *Nursing Standard* 9(9): 20-23.
17. Gilmartin, J. (2004). "Day surgery: patients' perceptions of a nurse-led preadmission clinic." *Journal of Clinical Nursing* 13(2): 243-250.
18. Wiles, R., K. Postle, et al. (2003). "Nurse-led intermediate care: patients' perceptions." *International Journal of Nursing Studies* 40(1): 61-71.
19. Graneheim, U. H. and L. Jansson (2006). "The meaning of living with dementia and disturbing behaviour as narrated by three persons admitted to a residential home." *Journal of Clinical Nursing* 15(11): 1397-1403.

Measuring patient experience in the primary care sector: Does a patient's condition influence what matters?

Measuring patient experience has become increasingly central to assessing and improving the performance of healthcare systems worldwide and has been identified as a priority for many national healthcare systems. Little previous research has focused on what matters to patients beyond hospital contexts. Systems for measuring and improving patient experience in the community sector are relatively underdeveloped. For example, there is no national survey programme for primary care patients.

A recent NNRU/King's Fund study, commissioned by the Department of Health, focused on investigating patient experience in primary care settings. The aim was to identify the features of care that mattered most to patients and whether what patients want from their care varies depending on their condition.

Why look at patient experience?

A better understanding of patient experience could help to develop services and deliver the care patients, families and carers need⁽¹⁾⁽²⁾ Patients' views on their experiences can be used for several purposes:

- As part of systems for monitoring the performance of health care organisations (accountability)⁽³⁾.
- To improve patient choice and make healthcare organisations more accountable to their local populations (transparency)⁽⁴⁾.
- As a mechanism to improve patient experiences in - and satisfaction with - specific health care services (local quality improvement)⁽⁵⁾.

The problem is that important dimensions or domains of patient experience are largely derived from research on the experience of patients in acute settings, such as the Institute of Medicine's domains of Patient-Centred Care and Picker framework^(6,7). Do these frameworks adequately reflect what is important to patients receiving primary care?

Does 'what matters' to patients in the primary care setting depend on their condition?

Fifty narrative based interviews were conducted with patients with one or more of the following five

conditions: stroke, Chronic Obstructive Pulmonary Disorder (COPD), depression, diabetes and elective hip replacement. The five conditions were purposively selected to represent:

- A long term condition in which effective self-management contributes to better clinical outcomes (COPD).
- Very intensive use of primary, community and acute services by patients with complex needs and co-morbidities (diabetes).
- A condition for which significant aspects of care are transferred away from acute hospitals and into the community (stroke).
- A mental health condition (depression).
- An elective surgical procedure either requiring or not requiring an overnight stay in hospital (hip replacement).

Interview transcripts were analysed thematically. Initially the researcher looked for emerging themes and patterns that were specific to each of the conditions. Only themes that were mentioned more than three times for each condition were highlighted; these themes across all conditions were then compared to determine whether they were generic or condition-specific. Amongst the fourteen themes that emerged, seven were generic and seven were condition-specific. Generic themes of aspects of care that mattered to all patients included:

- Being treated as a person, not a number.
- Staff who listen and spend time.
- Individualised treatment and no labelling.
- Feeling informed, receiving information and given options.
- Ppatient involvement in care-efficient processes.
- Emotional and psychological support.

Whilst the following themes were related to patients with specific conditions:

- Using language that's easy to understand – mattered especially to *COPD patients* who often were trying to come to terms with their condition.
- Finding out about latest technologies/innovations/medication - mattered most to *diabetic and COPD patients*.
- More public awareness about condition - mattered most to *COPD and hip replacement patients*.
- Knowledgeable health professionals - *patients with diabetes and depression* emphasised knowledge of their condition, available treatment and care options.

- Aftercare support – *hip replacement and stroke patients* often felt ‘lost’ at the end of their treatment.
- Positive clinical outcomes - *hip replacement patients* stressed this theme.
- Continuity of care- patients with *diabetes and depression* stressed the importance of ongoing relationships with the same health professionals.

A key overall finding across the 50 interviews was the strong emphasis patients placed on the relational aspects of their experience, such as dignity, empathy and emotional support which were very significant in terms of overall patient experience. Thus experiences that support the ongoing relationship with the patient and family need to be taken into account alongside the more often measured ‘functional or transactional’ aspects of care experienced e.g. access, waiting times⁽⁵⁾.

Conclusions and Implications

Providing a good patient experience in primary care settings is similar to acute care in that it is multi-dimensional: comprising of the what (functions or transactions) - and the how (relational) of interactions with patients⁽⁸⁾. Whilst some aspects of patients’ experience are condition specific (or condition sensitive) our findings revealed that it is commonly the relational aspects of care which mattered most to all patients in primary care settings.

Tools for measuring these relational aspects of care are in development, (for example, see Williams and Kristjanson, 2008⁽⁹⁾ for description of development of the ‘Patient Experience of Emotional Care in Hospital (PEECH)’ scale) which have recently been validated in the acute setting and extended to the primary care sector (as part of a NNRU study that is exploring the links between patient experience and staff wellbeing).

Our overall conclusion is that a generic framework can be applied to a wide range of conditions, treatments and settings; the Institute of Medicine or Picker frameworks are both broadly appropriate for ‘what matters most’ to patients in both acute and primary care sectors however further work is required to include acute mental health conditions.

Key points for policy

- Policymakers can apply a generic framework of ‘what matters’ to patients to a wide range of clinical conditions in different sectors – including primary care.
- Much of what has been measured to date in terms of patient experience has focused on functional aspects of service provision (access, waiting, food, noise etc). Policymakers should also attend to relational aspects of patient experience such

as compassion, empathy, emotional support, and so on, which can only be collected from patients themselves.

- Commissioners and service providers need to work together to capture patient experience data across organisational and service boundaries in order to improve access, transition and continuity of care,

References

1. Goodrich J, Cornwell J. Seeing the person in the patient. London: The King’s Fund; 2008.
2. Shaller D. Patient Centred Care: What Does It Take? Oxford: Picker Institute and The Commonwealth Fund; 2007.
3. Giordano L, Elliott M, Goldstein E et al. Development, Implementation, and Public Reporting of the HCAHPS Survey, *Med Care Res Rev* February 2010; 67(1): 27-37
4. Fung C, Lim Y, Mattke S, Damberg C, Shekelle P. Systematic review: the evidence that publishing patient care performance data improves quality of care. *Ann Intern Med.*2008;148:111–23
5. Goodrich J & Cornwall J. The Point of Care. Measures of patients’ experience in hospital: purpose, methods and uses London; The King’s Fund; 2009.
6. Gerteis M, Edgeman-Levitan S, Daley J, Delbanco T. Through the patients’ eyes: understanding and promoting patient-centered care, San Francisco: Jossey-Bass;1993.
7. Cleary P., Edgman-Levitan S., Roberts M., Moloney T., McMullen W., Walker J. & Delbanco T.L. Patients evaluate their hospital care: a national survey. *Health Affairs*, 1991; 10, 254–267.
8. Really Learning. Working in health care could be one of the most satisfying jobs in the world. Why doesn’t it feel like that? ‘Take it to the limit’ learning set. http://www.reallylearning.com/Current_Projects/Learning_Sets/take-it-to-the-limit-report2.pdf; 2009 (Last accessed 09 March 2011).
9. Williams A & Kristjanson L. Emotional care experience by hospital care patients: development and testing of a measurement instrument. *Journal of Clinical Nursing*, 2008; 17, 1069-1077.

High quality nursing care: What is it and how can we best ensure its delivery?

The Next Stage Review *High quality care for all places quality at the heart of the NHS. Nurses are in a powerful position to improve the quality of care, the experience of patients, and health outcomes across health services. Here we summarise key aspects of the recent National Nursing Research Unit report, *Nurses in Society: starting the debate and supporting evidence*⁽¹⁻³⁾. The stimulus for the report was the Next Stage Review and the sense that there is unacceptable variation in the quality of care. Here we consider what high quality nursing care is, the challenges facing the nursing profession regarding the nurse of the future, and suggest ways in which the profession can better ensure high quality care for all.*

What is high quality nursing care?

We have previously examined what patients want⁽⁴⁾ and here draw more specifically on recent empirical evidence^(2,3). Many of the people we spoke with had personal experiences of care as patients and also shared the healthcare experiences of friends or relatives. They identified that patients want to be treated well, to know their nurse is knowledgeable, skilled and competent, to have high quality care every time and want nurses to have a caring and humane attitude, make them feel safe and comfortable – ‘cared about’ as well as ‘cared for’⁽⁵⁾. The attitude and approach of the nurse is the most important factor in securing this experience for patients, enabling them to be ‘*treated as a human being not a case*’ with compassion, respect, empathy and by staff who are ‘*interested in YOU*’. Good quality nursing therefore means ‘a good experience for patients’ and was identified as a ‘how’, not a ‘what’ with six core elements:

1. A holistic approach to physical, mental and emotional needs, patient-centred and continuous care.
2. Efficiency and effectiveness combined with humanity and compassion.
3. Professional, high quality evidence-based practice.
4. Safe, effective and prompt nursing interventions.
5. Patient empowerment, support and advocacy.
6. Seamless care through effective teamwork with other professions⁽¹⁾.

Nurses want many of the same things as patients and the public and identified five main aspects they valued most about nursing:

- Making a difference to patients’ lives.
- Close contact with patients.
- Delivering excellent care.
- Working in a team and being a role model.
- Continuous development - learning and improving⁽¹⁾.

Tomorrow’s Nurse: What are the challenges facing the nursing profession?

The challenges facing society and healthcare mean that there is a need for a different kind of nurse in the future. The relationships between nurses and patients, and the environments in which nurses undertake their education and practice are changing.

Influences on the changed role of nurses:

- New roles and autonomy for community nurses.
- Greater focus on health and prevention of ill health.
- Increasing need to support students in practice.
- Reduced lengths of acute stay.
- Increased incidence of day surgery.
- Independent nurse prescribing.
- Nurses undertaking many junior doctor roles.
- Greater autonomy for nurses in mental health and learning disability.
- Management of whole episodes of care.
- Greater supervision by nurses of care delivered by healthcare assistants.
- Increased nurse specialist, practitioner and consultant roles.
- Increased interdisciplinary teamwork and multiprofessional care.

Some of the enduring qualities of nursing are thought to have been lost with a false polarity emerging between the humanity of caring and the advanced technical tasks and roles that nurses now undertake. This has had a negative impact on the image of the nurse and what a nurse ‘is’ and ‘does’ with high profile commentators asserting in the media that nurses have failed to care⁽⁶⁻⁸⁾. In the past, the brand of nursing was strong with a clear identity: people felt that they knew what a nurse was and what a nurse did. Today the brand appears less strong, nursing is more complex and varied and multiple images prevail. Yet patients and the public are clear about what they want and what part they want to play in their healthcare and

nurses need to be well educated, adaptable and able to demonstrate the value of the work they do.

How can the nursing profession ensure high quality care for all?

For change to happen and to more consistently ensure high quality care for all the nursing profession needs to:

- ♦ Recast the role of the nurse as a practitioner, partner and leader.
- ♦ Embrace a new professionalism to re-establish and reset the values, behaviours and relationships with patients in the future.
- ♦ Reinforce and reiterate the centrality of caring and the patient experience, through an agreed set of nursing metrics which can value and measure the nursing contribution to healthcare.
- ♦ Continue to attract high calibre entrants through a new promotional campaign.
- ♦ Move to a graduate registered nursing workforce and identify strategies to support, retain and develop the current and future workforce.
- ♦ Take ownership and be responsible for the training quality and support for assistant nurses and practitioner roles and establish a scheme to regulate and oversee their education.
- ♦ Identify robust funding streams for nurse education with sufficient resources to support ongoing education and training and professional development to enable nurses to fulfil their future roles.
- ♦ Create cohesive career pathways for nurses, and review the content and structure of pre- and post-registration nurse education to include: core professional values; nurses' acting as guardians of care quality and the patient experience; working as practitioners, partners and leaders; clinical academic careers; new care pathways and increased work in the community and public health roles.

Nurses passionately want to provide excellent care to patients: we suggest starting the debate to ensure that this can be consistently achieved.

References

1. Maben J, Griffiths P. Nurses in Society: starting the debate London: National Nursing Research Unit, King's College London, 2008.
2. Wood V. Nurses in Society: starting the debate. Oral evidence. London: Lala & Wood, 2008.
3. Dawoud D, Maben J. Nurses in society: starting the debate. Written evidence. London: National Nursing Research Unit, King's College London, 2008.
4. National Nursing Research Unit. What matters to patients: the nursing contribution. Issue 9: April 2008. London: King's College London, 2008.
5. Henderson A, Van Eps MA, Pearson K, James C, Henderson P. 'Caring for' behaviours that indicate to patients that nurses 'care about' them. *Journal of Advanced Nursing* 2007;60(2):146-153.
6. Corbin J. Is caring a lost art in nursing? *International Journal of Nursing Studies* 2008;42(2):163- 165.
7. Hansard. House of Lords Hansard text for 28 February 2008. London: English Parliament, 2008. 8. BBC News. 'Grubby' nurses slammed by peer; 2008:28 February 2008.

Can you measure nursing?

This edition of Policy+ explores measures of the quality of nursing care. It is based on a report from the NNRU 'State of the Art Metrics for Nursing: a rapid appraisal'⁽¹⁾. Drawing on a range of existing sets of indicators and systematic reviews linking aspects of nursing to patient outcomes we examine whether or not we are in a position to begin to routinely measure nursing in a way which would allow comparison between institutions and facilitate accountability for the quality of care "from ward to board".

Summary and conclusions

- There are several proposed 'nurse sensitive' indicator sets aiming to demonstrate and measure the quality of nursing care. Work so far is dominated by indicators and research related to acute hospital care, primarily in North America.
- There is considerable disagreement between the different sources as to the key indicators for nursing.
- Evidence from systematic reviews of the association between nurse staffing and patient outcomes consistently supports 'failure to rescue' and healthcare associated infection (especially pneumonia) as nurse sensitive outcomes.
- Evidence for other widely advocated outcomes such as falls and pressure sores is less consistent but these are strongly supported by the profession and by theoretical links.
- Staffing variables such as workforce planning, staff satisfaction, perceived quality of the practice environment and staffing levels are also supported as structural indicators of nursing quality.
- Positive contributions of nursing to patient experience and patient outcomes such as measures of wellbeing function or recovery do not consistently appear in the sources we used, but need to be considered if indicator sets are to be properly representative of the goals of nursing.
- Measures of care structure and processes are particularly vulnerable to 'gaming' and token compliance. Patient and staff reported measures are less vulnerable.
- The scope for using administrative data to generate indicators is limited and the 'audit' burden may be high. Areas to prioritise are those where most benefit can be derived and data can be collected efficiently.

- Failure to rescue, hospital acquired pneumonia, pressure sores, falls and workforce planning and patient and staff experience seem the most promising areas for indicator development in acute care.

Key issues for policy

- It is possible to identify nurse sensitive quality indicators.
- There is scope to measure outcomes from administrative data, but it is limited.
- Outcome indicators need clear and precise specifications.
- Robust comparison between institutions requires good risk adjustment which may not yet be possible.
- 'Process' and 'structure' measures are vulnerable to gaming.

Context

Increasingly, public services are asked to explicitly demonstrate performance, in order to improve public accountability and increase quality. The recent Next Stage Review of the NHS outlined a number of initiatives designed to improve the measurement and monitoring of quality within the NHS. Public concern about the quality of nursing care, coupled with a professional desire to demonstrate contributions and improve quality, have led to an increased interest in measures of nursing. By making the contribution of nursing explicit in performance measures it is hoped that quality can be maintained and enhanced rather than neglected in the drive to meet other performance targets⁽²⁾.

However, developing indicators to properly represent the functioning of such a complex service is not without its pitfalls. This Policy+ presents the results of an overview of the 'state of the art' recently undertaken by the National Nursing Research Unit⁽¹⁾.

The evidence

We populated a list of possible indicators for nursing from a number of sources: Doran's review of the 'State of the Science' of nurse sensitive indicators⁽³⁾, recent systematic reviews of the link between the ward environment, nurse staffing and patient outcomes⁽⁴⁻⁷⁾ and a number of indicator systems⁽⁸⁻¹⁰⁾. Most sources focussed on acute care and we concentrate on these here.

There is a degree of consistency in identifying failure to rescue (death among patients with treatable complications); healthcare associated infection (HCAI); pressure sores and staffing variables as outcome indicators of nursing quality. A systematic review found that falls and pressure sores are not consistently associated with nurse staffing.

The amount of variation in the other outcomes associated with nurse staffing is relatively low⁽⁴⁾. The invisibility of some nursing indicators in the research may be because they are often not recorded in administrative databases⁽⁴⁾. Staffing variables, such as workforce planning, staff satisfaction, perceived quality of the practice environment and staffing levels are also supported as structural indicators of nursing quality based on reviews and individual studies which link these factors with mortality and other outcomes in countries including the UK^(4-7,11). Positive contributions of nursing to patient experience and patient outcomes such as measures of wellbeing function or recovery do not consistently appear in the sources we used although they are clearly important.

There is a danger in focussing on a few narrowly defined indicators in that perverse incentives may be created⁽¹²⁾ resulting in gaming, whereby maximising performance on the indicators detracts from overall performance or changes performance in relation to the indicator in a way that invalidates it⁽¹³⁾. The selection of indicators must consider the potential for gaming and seek to minimise the potential. Experience of gaming in relation to NHS targets suggests that process type indicators (where completion of activities is recorded) seem particularly vulnerable. One notable example was the 48 hour target for GP appointments leading to practices refusing to offer appointments more than 48 hours in advance⁽¹³⁾.

Indicators must be important, scientifically sound, useable and feasible^(14,15). Risk adjustment, to adjust for differences in patient groups and their relative vulnerability, is necessary if comparisons are made between institutions on outcomes. Indicators adopted must fall in the sphere of responsibility of nursing and be recognised as doing so by nurses, other professionals, and hospital managers in order for them to facilitate positive change and accountability. Minimising the burden of data collection is important but this consideration must be balanced with known problems in the quality of data in administrative data sets.

References

1. Griffiths P, Jones S, Maben J, Murrells T. State of the Art Metrics for Nursing: a rapid appraisal. London: King's College London, 2008.
2. Clarke SJ. Research on nurse staffing and its outcomes. In: Nelson S, Gordon S, editors. *The Complexities of Care: nursing reconsidered*. New York: Cornell University Press, 2006.
3. Doran D. *Nursing-Sensitive Outcomes: State of the Science*. Sudbury, Mass; London: Jones and Bartlett Pub., 2003.
4. Kane R, Shamliyan T, Mueller C, Duval S, Wilt T. The association of registered nurse staffing levels and patient outcomes: Systematic review and meta-analysis. *Med Care* 2007;45(12):1195.
5. Lankshear AJ, Sheldon TA, Maynard A. Nurse staffing and healthcare outcomes: A systematic review of the international research evidence. *Advances in Nursing Science* 2005;28(2):163.
6. Kazanjian A, Green C, Wong J, Reid R. Effect of the hospital nursing environment on patient mortality: A systematic review. *J Health Serv Res Policy* 2005;10:111.
7. Lang TA, Hodge M, Olson V, Romano PS, Kravitz RL. Nurse-patient ratios: A systematic review on the effects of nurse staffing on patient, nurse employee, and hospital outcomes. *J Nurs Adm* 2004;34(7-8):326.
8. Savitz L, Jones C, Bernard S. Quality indicators sensitive to nurse staffing in acute care settings. *Advances in patient safety: From research to implementation* (AHRA publication no. 050021): Rockville, MD: Agency for Healthcare Research and Quality, 2005:375-85.
9. AUHUK. Association of UK University Hospitals Nurse Sensitive Indicators.
10. Riehle AI, Hanold LS, Sprenger SL, Loeb JM. Specifying and standardizing performance measures for use at a national level: Implications for nursing-sensitive care performance measures. *Med Care Res Rev* 2007;64(Suppl).
11. Rafferty AM, Clarke SP, Coles J, Ball J, James P, McKee M, et al. Outcomes of variation in hospital nurse staffing in English hospitals: Cross-sectional analysis of survey data and discharge records. *Int J Nurs Stud* 2007;44(2):175.
12. Boyne GA, Law J. Setting public service outcome targets: Lessons from local public service agreements. *Public Money and Management* 2005;25(4):253.
13. Bevan G, Hood C. What's measured is what matters: Targets and gaming in the English public health care system. *Public Administration* 2006;84(3):517.
14. National Quality Forum. *A comprehensive framework for hospital care performance evaluation: a consensus report*. Washington DC: National Quality Forum, 2003.
15. Pencheon D. *The Good Indicators Guide: Understanding how to use and choose indicators*. Warwick: NHS Institute for Innovation and Improvement, 2008.

Can we measure 'failure to rescue'?

'Failure to rescue' refers to a death after a treatable complication. The rate of failure to rescue in surgical patients derived from routine administrative data is recognized as an important indicator of patient safety by the United States Agency for Healthcare Research. It holds the promise of being more sensitive to the quality of care in a hospital than either conventional mortality or complication rates⁽¹⁾.

In this Policy+ we draw on findings from a recent report from the National Nursing Research Unit (NNRU) to consider if it can be used in England⁽²⁾.

What do 'failure to rescue' rates indicate?

Some deaths in hospital are inevitable. Much of the difference in death rates between hospitals has little to do with differences in the quality of care that people receive. Instead it is related to the degree of illness and co-morbidity of patients receiving treatment and how vulnerable they are. Measures like the Hospital Standardised Mortality Rate (HSMR) try to account for this using statistical techniques, but no statistical adjustment can ever be perfect. The rate of avoidable death among surgical patients with treatable complications (another way of referring to failure to rescue) gives another way of exploring how a hospital performs, one which relates to a specific group of (patients) and may offer some advantages.

For people undergoing surgery, the chance of developing a complication, like bleeding or pneumonia, is strongly related to factors such as their age or an underlying condition. But while complications are often a result of patient characteristics, the ability of a hospital to successfully treat a complication once it occurs is strongly related to the quality of care provided⁽¹⁾. The FTR indicator is intended to show how well hospitals perform once the complication occurs. The potential significance of failure to rescue is reflected in recent reports and research which emphasise the complexity of response to deteriorating patients and highlight potential points of failure including:

- Not *taking* observations.
- Not *recording* observations.
- Not *recognising* early signs of deterioration.
- Not *communicating* observations⁽³⁾.

For these reasons failure to rescue has often been considered particularly sensitive to the quality and quantity of nursing care that is available to patients⁽⁴⁾.

How are 'failure to rescue' rates measured?

Failure to rescue rates used for both research purposes and as quality indicators are typically derived from hospital administrative databases. However, their validity can be compromised if the coding of secondary diagnoses (through which complications are identified) is poor, since the indicator relies on the identification of a group of patients who experience particular complications. Less detailed coding of diagnoses means less chance that complications have been recorded. Previously, it has been concluded that English hospital data were unsuitable for deriving failure to rescue measures, primarily because of low rates of coding⁽⁵⁾.

In our study we aimed to assess whether the conclusions made about deriving failure to rescue rates for surgical patients from English hospital data from 1996/7 still hold when using more recent data (up to March 2009) and whether there was evidence that the rates derived were indicative of quality. As a response to concerns about low rates of coding secondary diagnoses, we used alternative approaches that have been proposed including:

- Assuming that all surgical deaths are 'failure to rescue'⁽¹⁾ and
- Using extended hospital stays which fall well outside the average range as an (indirect) indicator of failure to rescue⁽⁶⁾.

We used statistical techniques that allowed us to determine associations between FTR rates and a range of quality related organisational factors derived from routine NHS data; these included staffing variables such as the numbers of nurses and doctors per bed, teaching status of hospital and nursing staff stability.

What do the English hospital data reveal?

Our findings suggest that failure to rescue indicators *can* be derived from English hospital data and that low levels of recording of secondary diagnoses are no longer a significant obstacle.

- Failure to rescue rates are not significantly correlated with the average number of secondary diagnoses coded, which suggests an absence of systematic bias caused by coding practices. We found strong year on year correlation for failure to rescue rates in recent years which suggests a degree of stability consistent with the rate reflecting an underlying characteristic of hospital performance.
- We found a number of associations between the failure to rescue indicators and presumed markers of quality, some of which have been demonstrated in previous US work⁽²⁾.

However, not all the relationships we observed are clearly or plausibly indicative of variations in quality.

It seems likely that there are confounding variables that were not accounted for in our models. Any failure to rescue indicator would need to be adjusted for age and other patient level factors before coming to a final judgement. Non-risk adjusted failure to rescue rates cannot be used to make comparisons between providers.

Conclusions and implications

It is notable that previous work, which showed that higher nurse staffing was associated with lower levels of failure to rescue, did not consider medical staffing⁽¹⁾. Although we observed a similar association when considering nursing in isolation, the association disappeared when we controlled for other factors. Higher levels of clinically qualified staff (doctors plus nurses) were associated with lower levels of failure to rescue, but a higher nurse to doctor ratio was associated with higher rates of failure to rescue, suggesting that medical staffing levels might be more significant.

Although our extended stay 'failure to rescue' measure performed well in some respects, as there are no longer specific problems with secondary coding there is no clear advantage for using this over the mortality based measures. As an indicator of hospital performance, FTR is potentially linked to a number of factors beyond the control of the hospital, such as provision of community services. Also, the absence of any association with the mortality based indicators suggests that the length of stay based measure is not acting as a proxy of failure to rescue as originally conceived. Further work is required to develop and validate FTR as a quality indicator and develop and test.

Key points for policy

- There is clear potential to derive mortality based failure to rescue indicators for surgical patients from routine administrative data in England.
- Our indicator, based on the AHRQ definition, is worthy of further exploration as a potentially valid safety measure.
- Failure to rescue indicators may offer some advantages over standardised mortality measures (such as HSMR) for surgical patients and can thus add to the range of indicators of hospital performance that are available.
- Unadjusted failure to rescue cannot be used to compare the quality of care between hospitals. Failure to rescue does not appear to be a specifically nurse sensitive indicator.

References and information

1. Silber, J.H., et al., Failure-to-Rescue: Comparing Definitions to Measure Quality of Care. *Medical Care*, 2007. 45(10): p. 918-925.

2. Jones, S., P. Griffiths, and A. Bottle, An assessment of failure to rescue derived from routine NHS data as a nursing sensitive patient safety indicator: . 2011, National Nursing Research Unit, King's College London
3. Luettel, D., K. Beaumont, and F. Healey, Recognising and responding appropriately to early signs of deterioration in hospitalised patients. 2007, National Patient Safety Agency.
4. Griffiths, P., et al., State of the Art Metrics for Nursing: a rapid appraisal, in London: King's College London. 2008.
5. McKee, M., J. Coles, and P. James, 'Failure to rescue' as a measure of quality of hospital care: the limitations of secondary diagnosis coding in English hospital data. *Journal of Public Health*, 1999. 21(4): p. 453- 458.
6. Rafferty, A.M., et al., Outcomes of variation in hospital nurse staffing in English hospitals: cross-sectional analysis of survey data and discharge records. *International Journal of Nursing Studies*, 2007. 44(2): p. 175-82.

This Policy+ was produced in collaboration with Professor Peter Griffiths at the University of Southampton, formerly Director of the NNRU.

RN+RN = better care: What do we know about the association between Registered Nurse staffing levels and patient outcomes?

There is considerable evidence of an association between nurse staffing levels and patient outcomes. The evidence has been used to support calls for mandatory nurse patient ratios but the precise significance of the relationship remains unclear. This Policy+ examines the evidence in order to establish what is known, and crucially, what is not known?

What do we already know?

The evidence supporting an association between registered nurse staffing and patient outcomes is mainly derived from large observational studies conducted in North America, which focus on patient safety in hospitals. These studies, most notably the work of Linda Aiken⁽¹⁾ and Jack Needleman⁽²⁾, show associations between nurse staffing levels and patient outcomes including mortality and failure to rescue.

A recent systematic review provided clear evidence of an association between the numbers of registered nurses and patient outcomes in acute care⁽³⁾. The meta-analysis, drawing data from 96 studies, many involving numerous hospitals and data from hundreds of thousands of patients, concludes that each additional Registered Nurse per patient per day was associated with a 4% decrease in the odds of death. The review also found consistent associations with other outcomes such as failure to rescue, reduced length of stay and hospital acquired pneumonia.

The authors estimated that an overall increase by one RN full time equivalent per patient day could save five lives per 1,000 hospitalised patients in intensive care units, five lives per 1,000 medical patients, and six per 1,000 surgical patients. However the relationship is not linear and the improvements in mortality are greater when moving up from the lowest staffing levels with diminishing benefits at higher levels of staffing.

But are such impressive benefits actually caused by higher nurse staffing levels? If they are not, the potential benefits will not be achieved by simply increasing the number of nurses.

Analysis of the results of the systematic review gives mixed evidence of a causal relationship⁽³⁾.

For example, evidence for associations with outcomes such as pressure ulcers, falls and urinary tract infections, that are expected to be highly sensitive to nursing⁽⁴⁾, is not clear.

Is the case clear?

The evidence of an association between nurse staffing and patient outcomes has been used in some countries to set mandatory nurse patient ratios but the expected benefits in terms of patient outcomes have not been realised⁽⁵⁾. A recent study in Belgium, found no association between nurse staffing and outcome at a hospital level⁽⁶⁾, although significant variation in staffing levels between wards within hospitals was reported.

Other factors may also be at work. A UK study found that good human resource (HR) practices (sophisticated training policies, team-working and appraisal) reduced mortality⁽⁷⁾. This study controlled for medical but not nurse staffing.

The majority of studies have utilised data which are now more than 10 years old, covering a period in which there has been considerable change in both the patient population and the profile and roles of the workforce in the NHS and beyond. For nursing in particular there has been a recent upsurge in the use of tools for determining appropriate staffing⁽⁸⁾ and managing an effective work force through the use of quality/outcome measurement⁽⁴⁾.

What about the doctors?

Only a few studies have considered non- nursing staff alongside RN staffing. Most studies originate from North America where both medical and nurse staffing patterns are very different to those in the UK. While in the US, teaching hospital status (training undergraduate doctors) may serve as a proxy for numbers of doctors this is unlikely to be sufficient in systems such as the UK NHS, where most acute hospitals have resident medical staff.

One UK study found that mortality was higher in hospitals with fewer nurses⁽⁹⁾ but this study did not consider medical staffing. An earlier UK study showed a significant association between nurse staffing and mortality when considered in isolation but not when other variables including medical staffing were included in the models⁽¹⁰⁾. This study found the number of doctors per bed to be the stronger predictor of mortality.

Studies in other countries confirm an association between outcomes and medical staff workload in ICU⁽¹¹⁾ and general medicine⁽¹²⁾. More recently, a preliminary analysis conducted by the NNRU and Dr Foster Intelligence concluded total clinical staff (predominantly doctors and nurses) was a better predictor than either the number of nurses or the number of doctors alone⁽¹³⁾.

Conclusions and implications

- There is clear evidence of an association between low registered nurse staffing and some adverse outcomes.
- There is less evidence of benefit from increasing already high staffing levels.
- Current research does not allow for assessment of the impact of recent changes to the organisation of care and does not consider the extent to which crude relationships between staffing and outcomes are moderated by other factors.
- The observed associations between nurse staffing and outcomes may result from a 'halo effect' where hospitals with good nurse staffing are generally well resourced clinically.
- The time is ripe for further research. A major new European study, RN4CAST, will explore the relationship between nurse staffing, aspects of hospital organisation and patient outcomes across Europe. The English arm of this study, led by the NNRU, will be undertaken in 2009-10.

Key issues for policy

- Fixed nurse-patient ratios is an inflexible solution which is unlikely to lead to optimal use of resources.
- Research which concurrently considers multiple factors is urgently needed.
- Potential benefits of increasing registered nurse staffing are greatest where staffing levels are low.
- While low registered nurse staffing levels should be considered a risk factor for poor quality care, increasing nurse staffing may not be a sufficient solution.

References

1. Aiken, L.H., et al., Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction. *Journal of the American Medical Association*, 2002. 288(16): p. 1987-1993.
2. Needleman, J., et al., Nurse-Staffing Levels and the Quality of Care in Hospitals. *New England Journal of Medicine*, 2002. 346(22): p. 1715-1722.
3. Kane, R., et al., The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis. *Medical Care*, 2007. 45(12): p. 1195-1204.
4. Griffiths, P., et al., State of the art metrics for nursing: a rapid appraisal. 2008, King's College London: London.
5. Burnes Bolton, L., et al., Mandated nurse staffing ratios in California: a comparison of staffing and nursing-sensitive outcomes pre- and post-regulation. *Policy Polit Nurs Pract*, 2007. 8(4): p. 238-50.
6. Van den Heede, K., et al., Nurse staffing and patient outcomes in Belgian acute hospitals: Cross-sectional analysis of administrative data. *International Journal of Nursing Studies*, 2009. 46(7): p. 928-939.
7. West, M.A., et al., The link between the management of employee and patient mortality in acute hospitals. *The International Journal of Human Resource Management*, 2002. 13(8): p. 1299 - 1310.
8. Smith, S., et al., Developing, testing and applying instruments for measuring rising dependency-acuity's impact on ward staffing and quality. *International Journal of Health Care Quality Assurance*, 2009. 22(1): p. 30-9.
9. Rafferty, A.M., et al., Outcomes of variation in hospital nurse staffing in English hospitals: cross-sectional analysis of survey data and discharge records. *International Journal of Nursing Studies*, 2007. 44(2): p. 175-82.
10. Jarman, B., et al., Explaining differences in English hospital death rates using routinely collected data. *BMJ*, 1999. 318(7197): p. 1515-1520.
11. Pronovost, P.J., et al., Physician Staffing Patterns and Clinical Outcomes in Critically Ill Patients: A Systematic Review. *JAMA*, 2002. 288(17): p. 2151-2162.
12. Ong, M., et al., House Staff Team Workload and Organization Effects on Patient Outcomes in an Academic General Internal Medicine Inpatient Service. *Archives of Internal Medicine*, 2007. 167(1): p. 47-52.
13. Ford (2009) More nurses equals better care *Nursingtimes.net* 31 March 2009 (accessed at <http://www.nursingtimes.net/whats-new-in-nursing/management/more-nurses-equals-better-care/2007478>. article on September 1 2009).

RM+RM = better midwifery care: What do we know about associations between registered midwife staffing levels and better care for women?

Growing research evidence suggests that there is a strong link between nurse staffing and patient outcomes in the acute sector. However, there is limited empirical evidence on the relationship between maternity staffing, maternity workforce characteristics and birth outcomes. Such evidence is much needed, given current policies aimed at improving maternity care. In this Policy+ we draw on work undertaken by the National Nursing Research Unit that sought to assess the feasibility of using routinely available data to measure the impact that maternity staffing has on birth outcomes in maternity services at trust level in England ⁽¹⁾.

Why investigate maternity staffing and outcomes?

Government and NHS policies have staffing implications for the maternity services: for example: choice of place of birth; continuity of care; one-to-one midwifery support during labour; safety; improving productivity and efficiency of the health sector, and NHS budgetary constraints. Other major concerns with staffing implications relate to rising birth rates and older mothers with complex health needs; ageing of the workforce; changes in graduate training; and the European Working Time Directive which affects the provision of 24-hour care. National policy in England advocates 'normal birth' (i.e. birth without medical intervention) as a desirable outcome ⁽²⁾ with inadequate midwife staffing levels consistently cited as an impediment to achieving this goal ⁽³⁾ and to safe care in general ⁽⁴⁾. Similar concerns are expressed in relation to medical staff; in particular over low numbers and lack of experience ⁽⁴⁾.

A key concern in the Care Quality Commission's 2008 review of maternity services was that in some trusts 'levels of staffing were well below average, indicating that they may have been inadequate'⁽⁵⁾. The review also found wide variations in staffing levels between trusts even when standardised against the number of births; variations in provision of midwife supervisors within the trusts; variations in clinical outcomes; poor attendance at in-service training courses, and evidence of cultural differences between doctors and midwives.

How can existing data be used to investigate maternity staffing and outcomes?

In our study, we used *Admitted Patients HES* data from Dr Foster (April 2008 – March 2009) and accessed data for 144 trusts out of 150 which provide maternity care in England (615042 mothers). The following variables were included in our models: readmissions within 28 days of the birth to any hospital (outcome); age and ethnicity of mother; Carstairs deprivation index; Charlson co-morbidity index; delivery type; professional delivering; number of admissions in the previous 12 months, and pre- and post-birth length of stay. We selected the staff variables from the *Maternity Matters Benchmarking* dataset (2008) and matched them at trust level to the *Admitted Patients HES* data⁽¹⁾. These included five levels of medical staff, two levels of midwife, registered nurses, nursery nurses and healthcare assistants (all expressed as full-time equivalents (FTE)).

The study only explored 'readmission within 28 days' as an outcome, defined as number of women being readmitted to any hospital within 28 days after discharge from the postnatal ward. Logistic regression analysis was undertaken at patient level and Poisson regression at trust level, using SPSS. Expected readmissions were estimated from the patient level model and used as an offset in the trust level model. The relative risk of being readmitted for each woman in each trust was calculated by dividing the actual number of readmissions at 28 days to expected readmissions, obtained from the logistic regression model.

Associations between re-admissions and staffing

There was a significant relationship between all staffing variables and readmissions ($p < 0.001$).

- Higher numbers of midwives (full-time equivalents (FTE)) per births was associated with a lower probability of readmission.
- A higher ratio of consultant obstetricians and gynaecologists (O&G) FTE to midwives FTE was associated with a lower probability of readmission, as was a higher ratio of consultant midwives FTE to midwives FTE.
- A higher ratio of registered nurses FTE to midwives FTE was associated with a higher probability of readmission.

However, risk adjustment was limited in the model and the possibility remains that further risk adjustment might alter the relationships. The question remains of whether the reasons for readmission are a direct consequence of the original procedure/intervention, or to do with the level of aftercare, or the patient's own actions.

Conclusions and implications

Implications for policy

The relationships we demonstrated are certainly plausible with the better outcomes consistently associated with higher levels of more experienced and more highly qualified staff. The findings have potentially significant economic implications in terms of cost of readmissions and related staff costs but also costs associated with the higher staffing ratios implied.

Implications for further research

Aspects of the findings meriting further investigation:

The finding of poorer outcomes associated with a higher ratio of registered nurses to midwives warrants further investigation into the role of nurses on maternity wards in order to understand how nurses are deployed and whether there is some work substitution between registered nurses and midwives. The presence of obstetricians on labour wards is also worthy of further exploration.

Available data had information on the level of FTE healthcare assistants in maternity services, which did not differentiate between maternity support workers and maternity care assistants. Healthcare assistants were excluded from the model because of a high correlation with other staff groups. Support workers may become a more significant part of the workforce⁽⁶⁾ and should therefore be included in future analysis.

Including additional outcomes in modelling relationships

Given that only one outcome (re-admission) was used and that there will be differing risk factors for other birth outcomes, more confidence could be placed in the conclusions if results were consistent across outcomes.

Future methods should include multilevel logistic regression at trust and patient level and should strive to incorporate additional variables such as midwifery and other maternity staff workforce characteristics, grades, skill mix, job relevant training, supervision and turnover. Additional maternal characteristics such as previous mode of birth, parity, multiple births, gestational age and co-morbidities such as diabetes, hypertension, renal disease, cardiac disease and obesity should be considered to attempt to improve the predictive power of the risk model.

Key issues for policy

- The results to date support assertions that adverse outcomes are potentially associated with lower midwifery staffing levels, with implications for the current safety and quality of care policy agenda⁽²⁾.
- There is a limitation to what can ultimately be learned by modelling associations between staffing levels without consideration of the complex interactions involved; for example how staff should be deployed to maximise clinical and cost effectiveness.
- Within a fixed budget, consideration is needed as to whether it is better to have higher numbers of more qualified and skilled staff but fewer staff overall, as opposed to more staff overall but fewer of the more highly qualified and skilled groups.
- There is considerable scope for economic modelling if the underlying effectiveness model is robust.

References

1. NNRU 2010 report <http://www.kcl.ac.uk/content/1/c4/33/06/NNRUMidwiferyReportDec10.pdf>
2. Department of Health (2007), 'Maternity Matters: choice, access and continuity of care in a safe service'.
3. Page, L (2003), 'When normal birth is in the minority', *British Journal of Midwifery*, 11 (6), 356-56.
4. Smith, A. H. K., Dixon, A. L., and Page, L. A. (2009), 'Health-care professionals' views about safety in maternity services: a qualitative study', *Midwifery*, 25 (1), 21-31.
5. Health Care Commission (2008), 'Towards Better Births. A review of maternity services in England'.
6. P Prowse, J and Prowse, P (2008), 'Role redesign in the National Health Service: the effects on midwives' work and professional boundaries', *Work, Employment & Society*, 22 (4), 695.

What are nurse sensitive patient outcomes in ambulatory chemotherapy?

Since the Next Stage Review, the development of quality measures has continued apace. While the new government is abandoning process based targets, their emphasis on outcomes raises further challenges for specialist nursing services to demonstrate their contribution. This Policy+ outlines the findings and implications of a review undertaken by the National Nursing Research Unit investigating nurse sensitive patient outcomes in ambulatory chemotherapy⁽¹⁾.

Measuring the quality of nursing care

The Cancer Reform Strategy identified the need for action in relation to securing better and faster treatments for cancer. Chemotherapy services have been identified as an area where there appears to be a considerable variation in quality⁽²⁾. A recent report 'Chemotherapy Services in England: ensuring safety and quality'⁽³⁾ aimed to bring about a 'step change in the quality and safety of chemotherapy services' and proposed actions that need to be taken by commissioners and providers to ensure high quality care. It identified that information on outcomes was not routinely collected in a systematic way across the country and the need to progress work on metrics that can be used to monitor safety and quality. What evidence is available on whether interruptions to nurses' work contribute to medication errors?

In common with other areas, there is interest in determining the nursing contribution to quality care in chemotherapy services. This is frequently a nurse led care and treatment management environment where the quality of nursing care may potentially have a significant impact on patient outcomes across the range of domains of effectiveness, safety and experience identified in the Next Stage Review. Assessment of the quality and impact of care provided by nurses in this context is a high priority.

The Next Stage Review signalled the development of national measures of the quality of nursing care⁽⁴⁾. National work has progressed with a number of proposed nurse sensitive outcome indicators linked to 'high impact actions' being piloted⁽⁵⁾. Nurse sensitive outcome indicators are measures which are sensitive to variation in the quality of nursing care and either:

directly indicate patient outcome

or

measure a nursing care process which will result in a desired outcome.

While the items on the draft national list (falls, pressure ulcers and urinary tract infections) are useful in a wide range of inpatient and community settings they are not likely to yield useful indicators for more specialised, or outpatient settings. Building on our previous work which focused on acute inpatient care, the National Nursing Research Unit undertook a series of scoping reviews in consultation with clinical experts to identify and assess evidence for indicators in ambulatory chemotherapy⁽⁶⁾.

Evidence on quality indicators for ambulatory chemotherapy

Whereas plausible sets of well developed outcome indicators for nursing quality already exist for acute settings we found none suited to this setting. Combining findings derived from literature, including evidence based guidelines, with expert consultations, we developed a shortlist of ten outcome domains that were widely cited and thought to be important to both nurses and patients in ambulatory chemotherapy settings (Box 1). Of these, we identified three areas; patient experience, control of nausea & vomiting and safe medication administration; as the highest priority for development because they were best supported by evidence of sensitivity to nursing.

Box 1 Shortlist of outcome domains

Diarrhoea
Education & Communication
Experience
Fatigue
Nausea & Vomiting
Nutrition
Oral Mucositis
Pain
Safe medication administration
Septicaemia
Wellbeing & Function

However, similar to the findings of our previous review we found that the evidence supporting a link to specific nursing factors (e.g. Nurse Experience, specialist training or staff numbers) or interventions was weak and most of the evidence rested upon the availability of treatments or other interventions that nurses could use which were known to be effective.

So, for example, some of the outcomes would only be nurse sensitive if nurses were able to prescribe effective medications or make referral to other specialists.

Conclusions and implications

The lack of quality evidence supporting relationships between nursing inputs and outcomes in ambulatory chemotherapy highlights the need for caution in using indicators as direct measures of quality but also the urgency for collection of data so that relationships to quality can be established. In seeking quality indicators for nursing teams in ambulatory chemotherapy the aim is to identify measures that relate to important outcomes that are not just sensitive to the contribution of nurses but which also fulfil a range of other criteria to ensure that they can engage and motivate the nursing team.

These include the avoidance of duplication of effort, the ability to use data collected in practice, and rapid feedback and action based on the results. It will also be important to involve patients in identifying the most important elements of quality, including experience, on which to focus. With the development of indicator sets also comes the need for standardisation of data recording methods and content. This presents a challenge as there is already considerable, often paper based data collection, for example patient self assessment questionnaires. As recording and electronic record keeping in healthcare develops, it will be vital to make links to ensure data is not duplicated needlessly. It is feasible to develop a set of indicators for nurse sensitive outcomes in ambulatory chemotherapy.

Further development work and piloting of such a system is now underway, supported by the National Cancer Action Team.

Key issues for policy

- Decisions regarding the role and training of nurses in ambulatory chemotherapy, as in other specialty settings, can usefully be guided by examining the relationship to nurse sensitive outcome indicators.
- The current lack of evidence for impacts of specialist qualifications should not be interpreted as demonstrating that there is no added value - rather that current measures of quality are inadequate to show any value added.
- The proposed indicators under development have clear importance and hold the promise of providing robust evidence to monitor quality and guide the development of nursing services.

References

1. Griffiths P, Richardson A, Blackwell R. Nurse Sensitive Outcomes & Indicators in Ambulatory Chemotherapy. London: King's College London, 2009.
2. Mort D, Lansdown M, Smith N, Protopapa K, Mason M. For better, for worse? A review of the care of patients who died within 30 days of receiving systemic anti cancer therapy
3. National Chemotherapy Advisory Group. Chemotherapy Services in England: Ensuring quality and safety. London: National Cancer Action Team, 2009.
4. Department of Health. NHS Next Stage Review: A High Quality Workforce. London: Department of Health, 2008.
5. The Information Centre. What is happening on indicators for...? In: NHS, editor. London: The Health and Social Care Information Centre, 2009.
6. Griffiths P, Jones S, Maben J, Murrells T. State of the Art Metrics for Nursing: a rapid appraisal. London: King's College London, 2008.

Advanced nursing roles: Survival of the fittest?

Proliferation of innovative advanced roles such as clinical nurse specialists, nurse practitioners and the broader roles of consultant nurse and community matron is increasing in the UK especially where they substitute for physicians^(1,2,3). Role diversity is valuable if it improves health and wellbeing for patients and workers but are the new roles all sustainable? Drawing on recent studies from the UK, including work on consultant nurses by King's College London's Management Department and the National Nursing Research Unit⁽⁴⁾, we consider whether some advanced roles are more likely to flourish and survive than others.

Consultant vs. specialist nurses

The consultant nurse/midwife/health visitor role was introduced by the Department of Health in England in 2000 for all branches of acute and primary care. Clinical nurse specialist posts, established in England in the 1980s, are more numerous.

The purpose of the consultant role is to improve practice and patient outcomes, strengthen leadership in the professions and help retain nurses by establishing a new clinical career opportunity. Some overlap occurs with specialist nursing posts in that half the consultant's time is spent in expert practice but, whereas the specialist works principally with patients in a clearly-defined area of clinical practice, the consultant role is expected to be more strategic and broad-based, to improve the practice of others and occupy a leadership position in nursing similar to that held by medical consultants.

Context of innovation

The establishment of consultant posts in NHS trusts without new funds from central sources meant that other initiatives could not be funded. This led to increased scrutiny by managers and other professionals wanting resources diverted elsewhere. Constant and premature scrutiny makes the consultant role vulnerable⁽⁴⁾. For example, improving practice through the work of others requires time for planning, baseline outcomes assessment, development, staff training and implementation of the change before its effects on patients can be evaluated. Achieving all that in less than five years is unlikely.

We need to understand the drivers behind decisions to introduce these new roles.

Have advanced roles been established to pioneer progressive change in nursing or are they fulfilling workforce needs of the medical profession and responding to pressure from the health service to cut costs?⁽²⁾ Specialist nurses who substitute for physicians may be sustainable because they have clear role boundaries, their impact is amenable to clinical outcome measurement and unambiguous evidence exists for their effectiveness^(2,5). For consultant nurses, whose tenure has been less than five years, there is evidence that evaluation is undertaken before the role has had time to develop fully, making decisions about its effectiveness premature and misleading. This is a problem for primary care particularly⁽⁶⁾.

What is known

- Role substitution by nurse specialists and practitioners replacing doctors has been shown to have a positive impact on patient outcomes and experiences⁽²⁾.
- Consultant nurses have so far made their greatest impact in practice and service development rather than in patient outcome and cost-benefit^(5,7).
- It is difficult for consultant nurses to demonstrate impact when their effects are made indirectly through the work of others^(5,8).
- However, evidence of positive impact by consultant nurses on patient outcome is beginning to emerge, in critical care for example⁽¹¹⁾.
- Sustainability of new roles depends on continued organizational support from managers, peers, other professionals and funding^(7,6,10,11). Consultants have been left to cope without support after the posts have been established and filled⁽⁴⁾ when what they need, in particular, is support to improve their leadership skills⁽⁶⁾.

Conclusion

The specialist is more likely to survive than the consultant if pressure by the health service to cut costs takes precedence over the need for development and growth in nursing and if decisions about the consultant's value are made prematurely. Hasty decisions on sustainability of advanced roles will threaten the more strategic consultant role because of the time needed to pioneer new developments.

Key issues for policy

- Research published early in the life of broad-based advanced roles in nursing, such as consultant nurses, cannot reach reliable conclusions about their impact on patient outcome and costeffectiveness. At least five years before impact is evaluated would be realistic to allow for planning, development and implementation of change.

- Research evaluations completed at an appropriate time will ensure that decisions made about the role's sustainability are reliable. An appropriate time is when consultant nurse innovators have had time to mature and craft their roles according to local requirements.

References

1. Griffiths C, Foster G, Barnes N et al. 2004 Specialist nurse intervention to reduce unscheduled asthma care in a deprived multiethnic area: the east London randomised controlled trial for high risk asthma (ELECTRA) *British Medical Journal* 328: 144-150
2. McKenna H, Richey R, Keeney S et al. 2006 The introduction of innovative nursing and midwifery roles. *Journal of Advanced Nursing* 56(5): 553-562
3. Czuber-Dochan W, Waterman C, Waterman H 2006 Atrophy and anarchy: third national survey of nursing skill-mix and advanced nursing practice in ophthalmology. *Journal of Clinical Nursing* 15: 1480-1488
4. Guest D, Peccei R, Redfern S, Coster S et al. 2004 An Evaluation of the Impact of Nurse, Midwife and Health Visitor Consultants. Management Centre, King's College London, <http://www.kcl.ac.uk/schools/nursing/nru>
5. Coster S, Redfern S, Wilson- Barnett et al. (2006) Impact of the role of nurse, midwife and health visitor consultant. *Journal of Advanced Nursing* 55(3): 352-363
6. Abbott S 2007 Leadership across boundaries: a qualitative study of the nurse consultant role in English primary care. *Journal of Nursing Management* 15(7): 703-710
7. Humphreys A, Johnson S, Richardson J et al. (2007) Evaluating the effectiveness of nurse, midwife/allied health professional consultants: a systematic review and meta- synthesis. *Journal of Clinical Nursing* 16(10):1792-1808
8. Graham IW 2007 Consultant nurseconsultant physician. *Journal of Clinical Nursing* 16(10): 1809–1817
9. Fairley D, Closs SJ 2006 Evaluation of a nurse consultant's activities and the search for patient outcomes in critical care. *Journal of Clinical Nursing* 15(9): 1106-1114
10. Read S, Lloyd Jones M, Collins K et al. 2001 Exploring New Roles in Practice (ENRiP). School of Health and Related Research, University of Sheffield
11. Woodward V, Webb C, Prowse M 2006 Nurse consultants: organizational influences on role achievement. *Journal of Clinical Nursing* 15(3): 272-280

Do we need more practice nurses?

Over the past ten years there has been a large increase in both the number of nurses employed in general practice and the proportion of consultations undertaken by them. Some have argued that there is considerable scope to further increase the amount of primary care delivered by nurses but the potential extent and desirability of substitution is contested. In this Policy+ we summarise a recent study by the National Nursing Research Unit which examined whether practices which employed more nurses delivered better quality care for patients.

What we already know

Higher levels of registered nurse staffing has been linked to quality of care and improved patient outcomes in acute care settings⁽¹⁾. Quality of care in general practice has been linked to a number of organisational factors including practice size, number of GPs and list size per full time equivalent GP^(2,3). While it is thought that larger practices are able to better deliver multidisciplinary care⁽³⁾, few studies examining performance in general practice have directly considered nurse staffing. However when considering quality of clinical aspects of care, not all studies show the expected benefits of a larger team^(4,5) and those covering limited geographical areas have failed to find a link between nurse staffing and quality of clinical care⁽⁶⁻⁷⁾. There is evidence from controlled trials that nurse for doctor substitution can be effective and deliver care that is essentially equivalent⁽⁸⁾, but evidence from such experimental implementation does not necessarily translate into routine care.

Relationship between quality and staffing in England

A recent study conducted by the National Nursing Research Unit⁽⁹⁾ examined whether general practices who employ more registered nurses deliver better clinical care as measured by clinical indicators of the Quality and Outcomes Framework (QOF), a pay for performance system that records the quality of care for a number of significant patient groups⁽¹⁰⁾. Most English general practices participate in the scheme and, in many practices, much of the work involved in delivering results against the QOF indicators has been undertaken by nurses⁽¹¹⁾. The study used QOF data for 2005/2006 linked to practice and population data. There were 7,456 practices in the analysis, representing about 48 million patients registered in England.

Results

Nurse staffing (list size per fulltime equivalent (FTE) registered nurse) was significantly associated with a number of practice and patient population characteristics. After control for these variables higher levels of nurse staffing was associated with better performance in a number of areas. A high level of nurse staffing (fewer patients per full time equivalent practice employed nurse) was significantly ($p < 0.01$) associated with better performance in 4/8 clinical areas (Chronic obstructive pulmonary disease [COPD], Coronary heart disease [CHD], Diabetes and Hypertension, and in 4/10 clinical outcome indicators.

More patients with diabetes had good control of blood glucose (2 indicators) and cholesterol in practices with higher levels of nurse staffing. For patients who had a history of stroke more had good control of cholesterol. It has been suggested that additional nurses simply add to the number of clinical staff available and thus lead to larger and more diverse teams⁽⁷⁾. However, there was no consistent relationship between performance and other characteristics of practices to strongly support this assertion. Bigger practices (those serving a larger population) were associated with worse QOF scores for the clinical areas of asthma, CHD, hypertension, mental health and stroke. Although list size per FTE GP was negatively associated with QOF scores for the clinical area of asthma and the total cholesterol clinical outcome indicators for CHD and stroke, it was positively associated with QOF scores for mental health and numbers of patients with good diabetes control. Single handed GP practices had fewer people with good levels of diabetes control but had more patients with epilepsy convulsion free for 12 months and more patients with good control of high blood pressure.

Conclusions and implications

The study demonstrates that practices which employ more nurses perform better in a number of areas measured by the QOF and that patients of these practices have better intermediate clinical outcomes such as blood glucose control for people with diabetes. These findings offer some support to the call for an increased nursing contribution in primary care and suggest that there may be scope for more growth in the number of nurses being employed in UK general practice. While this observational evidence supports the findings of controlled trials of nurse for doctor substitution, further research is required to determine if the relationship is causal. This study did not explore the costs of care. It has been suggested that adding nurses to the workforce may add to the overall workload by generating additional demand through meeting unmet need^(8,12). Cost savings through substitution are likely to be context dependent and depend on pay differentials between nurses and

GPs⁽⁸⁾. Further we did not explore the impact on quality of the increasing use of healthcare assistants to substitute for some nursing roles, for which there is little if any evidence⁽¹³⁾. Variations in results across clinical areas may relate to variations in activity or effectiveness of nurses in those areas and future research needs to investigate the configuration of services and deployment of nurses more specifically. Further evidence is required to determine if the clinical benefits suggested by intermediate outcomes are translated into substantial benefits to patients, ideally using data external to the QOF.

Key issues for policy

- The practice nurse workforce is often neglected but they have a significant role to play in delivering high quality primary care.
- There may be scope to further shift the skill mix in primary care from doctors to qualified nurses.
- The cost effectiveness of this and other skill mix changes have yet to be assessed and should be a priority for future research.

References

1. Kane, R., et al., The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis. *Medical Care*, 2007. 45(12): p. 1195-1204.
2. Doran, T., et al., Pay-for- Performance Programs in Family Practices in the United Kingdom. *New England Journal of Medicine*, 2006. 355(4): p. 375-384.
3. Ashworth, M. and D. Armstrong, The relationship between general practice characteristics and quality of care: a national survey of quality indicators used in the UK Quality and Outcomes Framework, 2004-5. *BMC Family Practice*, 2006. 7(1): p. 68.
4. Wang, Y., et al., Practice size and quality attainment under the new GMScontract: a cross-sectional analysis. *British Journal of General Practice*, 2006. 56: p. 830-835.
5. Hippisley-Cox, J., et al., Do single handed practices offer poorer care? Cross sectional survey of processes and outcomes. *BMJ*, 2001. 323(7308): p.320-323.
6. Khunti, K., et al., Features of primary care associated with variations in process and outcome of care of people with diabetes. *British Journal of General Practice*, 2001. 51: p. 356-360.
7. Sutton, M. and G. McLean, Determinants of primary medical care quality measured under the new UK contract: cross sectional study. *BMJ*, 2006. 332(7538): p. 389-390.
8. Laurant, M., et al., Substitution of doctors by nurses in primary care. *Cochrane Database of Systematic Reviews*, 2004(4): p. DOI: 10.1002/14651858.CD001271.pub2.
9. Griffiths, P., et al., Nurse Staffing and Quality of Care in UK General Practice: Cross sectional study using routinely collected data. *British Journal of General Practice*, 2010
10. Roland, M., Linking Physicians' Pay to the Quality of Care -- A Major Experiment in the United Kingdom. *New England Journal of Medicine*, 2004. 351(14): p. 1448- 1454.
11. Leese, B., New opportunities for nurses and other healthcare professionals? A review of the potential impact of the new GMS contract on the primary care workforce. *Journal of Health Organisation and Management*, 2006. 20(6): p. 525-36.
12. Laurant, M.G.H., et al., Impact of nurse practitioners on workload of general practitioners: randomised controlled trial. *BMJ*, 2004: p. BMJ.38041.493519.EE.
13. Bosley, S. and J. Dale, Healthcare assistants in general practice: practical and conceptual issues of skill-mix change. *British Journal of General Practice*, 2008. 58: p. 118-124

Is there a case for the UK nursing workforce to include grades of qualified nurse other than the registered nurse?

Debate continues about the hierarchy of skilled roles comprising the nursing workforce: should there be grades of qualified nurses other than registered nurses; should all registered nurses be prepared to degree level; and to what extent should the nursing workforce comprise staff not qualified as nurses? Such questions raise critical issues on how different configurations of staff impact on patient care outcomes and whether judgements can be made about their cost effectiveness. Against a background of challenging economic circumstances, this Policy+ considers the implications for UK nursing of systematically reviewed international evidence on one of these questions; namely the impacts of including a second level qualified nurse in the skill mix of the nursing workforce.

Skill mix: recent developments and research challenges

Second level entry to nursing (enrolled nurses [ENs]) ended in the UK when nurse education moved into higher education. In many settings, the enrolled nurse had been the main provider of direct patient care; subsequently, this role was fulfilled by diploma educated registered nurses supported by nursing aides (now healthcare assistants)⁽¹⁾. Recent developments suggest that new direct care-giving roles may be emerging; Agenda for Change creates a hierarchy of nursing workforce posts below the Band 5 registered nurse; these include Band 2 and 3 healthcare assistants and a direct care-giving role is being fulfilled by the new Band 4 assistant practitioner, sometimes called an associate nurse.

Skill mix research presents challenges of definition, method (e.g. disentangling separate effects of staffing levels and skill mix) and data quality^(2, 3, 4) and limitations posed in having to use grade mix as a proxy for skill mix⁽⁵⁾. Most studies are North American, focus on acute care settings or nursing homes, use routinely collected staff and patient outcome data; and include second level entry nurses (known as licensed practical

or vocational nurses). Studies differ in the extent to which registered nurses (RNs), second level nurses (LPNs) and nursing assistants (NAs) feature separately or jointly in analyses.

How do different nursing workforce configurations impact on patient care?

Needleman et al investigated associations between staffing levels and mix, and adverse outcomes (including failure to rescue, shock or cardiac arrest, rates of UTI) in medical and surgical wards in 799 US hospitals in 11 states⁽⁶⁾. Higher proportions and, to a lesser extent, higher levels of RNs were consistently associated with lower rates of adverse outcomes. No associations were found between lower rates of adverse outcomes and higher levels of LPN or NA staffing or a higher proportion of NAs in the mix. Person et al investigated the association between nurse staffing and 30 day mortality for Medicare patients with acute myocardial infarction in a study involving 6668 US hospitals and just under 119000 patients⁽⁷⁾. Nurse staffing variables comprised: ratio of RNs to inpatient days; ratio of LPNs to inpatient days; and the ratio of RNs to LPNs. After adjusting for a range of patient, treatment and hospital variables, findings showed that patients treated in hospitals with higher RN staffing were less likely to die in hospital whereas those in hospitals with higher LPN staffing were more likely to die in hospital. Another US study, using data from 12,000 nursing homes, showed that the higher the proportion of LPNs, the higher the incidence of pressure ulcers⁽⁸⁾.

An observational study of nurse-patient interaction on 15 acute medical or surgical wards at seven English hospitals indicated that the higher the grade of nurse providing care, the better its quality but that variation in quality of care between different staff grades was reduced when higher grade staff worked in combination with lower grade staff⁽²⁾.

What is the cost effectiveness of different workforce configurations?

Assessing cost effectiveness of different skill combinations is complex; some US work has made a start by modelling costs of different staff combinations against costs of treating adverse outcomes.

Hendrix and Foreman⁽⁸⁾ modelled optimal staffing levels for long-term US nursing home care. Investing in less qualified LPNs was associated with more pressure ulcers and the apparent wage bill savings were more than offset by treatment costs. Investing in RNs and NAs made better business sense by reducing the incidence of ulcers and thus the costs of their treatment.

In another US study, data were used to investigate the business case for 3 options for qualified nursing hours⁽⁹⁾:

1. Increase proportion of RN hours but not the total number of nursing hours;
2. Increase total number of hours of RNs and LPNs without changing the proportion;
3. Increase proportion of RN hours and the total number of nursing hours of both groups.

National estimates of staff costs and associated reductions in length of stay, levels of avoided deaths and adverse outcomes were constructed for each option. Options 1 and 3 resulted in higher levels of avoided deaths than Option 2 and much higher levels of avoided adverse outcomes. Options 2 and 3 had higher levels of hospital days avoided. When costs of treating adverse outcomes and avoided hospital days were set against the wages bill, only Option 1 led to a net decrease in hospital costs. There was thus a business case for increasing richness of skill mix but not total nursing hours.

Conclusions and implications

Evidence on relationships between skill mix, patient outcomes and costs is limited and most research is from the US. More work is required to confirm whether assumptions and relationships in existing studies hold for other settings, health economies and nurse education systems.

- There is no simple relationship between either numbers or skill mix of nursing staff and either outcomes and cost.
- Where studies have explored the impact of second level nurses, similar to the old 'EN' qualification, the evidence is not supportive of the role.
- Better clinical and cost outcomes are achieved by a qualified nursing workforce comprised primarily of RNs.
- There is little evidence to suggest a benefit from replacing unlicensed NAs with LPNs.
- The implications of this for formal training and accreditation of practitioners at Band 4 is unclear but well-defined role boundaries and RN leadership are likely to be essential for success.

The reinvention of a second level nurse, akin to that of the Enrolled Nurse, does not offer a simple solution to current workforce challenges.

Key issues for policy

- Much more work is needed to determine optimal nurse staffing skill mixes and how requirements may vary across clinical specialties and settings.
- The limited evidence available does not support the UK introducing a nurse in a direct care-giving role below that of the Band 5 registered nurse.
- The success of initiatives to formalise the training of Band 4 assistant practitioners is likely to depend on clear role boundaries and strong leadership.
- The cost effectiveness of skill mix decisions depend on long term as well as short term economic considerations.

References

1. United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1986) Project 2000: the final proposals. UKCC, London
2. Carr-Hill R et al (1992) Skill mix and the effectiveness of nursing care. Centre for Health Economics, University of York, York
3. Lankshear A, Sheldon T, Maynard A (2005) Nurse staffing and health outcomes: a systematic review of the international research evidence. *Advances in Nursing Science* 28 (2): 163-74
4. Flynn M, McKeown M (2009) Nurse staffing levels revisited: a consideration of key issues in nurse staffing levels and skill mix research. *Journal of Nursing Management* 17: 759-766
5. Spilsbury K, Meyer J (2001) Defining the nursing contribution to patient outcome: Lessons from a review of the literature examining nursing outcomes, skill mix and changing roles. *Journal of Clinical Nursing* 10: 3-14
6. Needleman J et al (2002) Nurse- staffing levels and the quality of care in hospitals. *New England Journal of Medicine* 346 (22): 1715-1722
7. Person S et al (2004) Nurse staffing and mortality for Medicare patients with acute myocardial infarction. *Medical Care* 42 (1): 4-12
8. Hendrix T, Foreman S (2001) Optimal long-term care nurse- staffing levels (2001) *Nursing Economics* 19 (4): 164-175
9. Needleman J (2006) Nurse staffing in hospital: is there a business case for quality? *Health Affairs* 25 (1): 204-211

Should healthcare support workers be regulated?

Support workers play an essential role in healthcare by providing many aspects of direct patient care and supporting the work of registered nurses and midwives. However, as the scope of support worker practice widens, there is an increasing concern about their lack of regulation and the risks that they may present to public safety. In response to growing calls for the introduction of healthcare support worker regulation, the Nursing and Midwifery Council commissioned the National Nursing Research Unit to undertake a scoping review of the subject; this Policy+ presents our main findings and conclusions ⁽¹⁾.

What is the context for healthcare support worker regulation?

The NHS employs approximately 300,000 healthcare support workers (HCSWs) and greater numbers work in the independent and voluntary sectors. Safeguarding checks and opportunities for education and training exist, but lack of regulation means little control over entry to employment and minimal standardization of roles, competencies and education.

Widening of support worker practice, particularly through the assistant practitioner (AP) grade, has lent increasing urgency to long-standing calls for HCSW regulation. But the environment to implement such a policy is challenging: government seeks proof that regulation will increase public safety ^(2,3) and diverse opinions exist over the degree of regulation required and the appropriate regulatory body ⁽¹⁾. Benefits will need to be considered hand in hand with costs, given current economic circumstances. Our review considered government reports on extending regulation, position papers by statutory and professional organisations, research studies, existing models of regulation and the views of an expert group.

What evidence exists on the lack of regulation and on benefits of regulation?

HCSWs perform diverse tasks including various invasive procedures. Assistant practitioners in particular undertake protocol-based nursing tasks. Most HCSWs (over 70%) are trained, mainly at NVQ level 2 or 3, but invasive procedures are sometimes undertaken by HCSWs without requisite training ⁽⁴⁾. Trusts differ in proportions of trained to untrained HCSWs ⁽⁵⁾. Lack of supervision of tasks that should be supervised is not uncommon ^(6,7,8). HCSW deployment may depend on levels of registered staff; trust and departmental policies;

perceptions of registered staff; and preferences of HCSWs, rather than on experience and training ^(4,6).

There is a lack of robust measures to ensure suitability for employment and there are instances of HCSWs dismissed from one employer obtaining a similar post elsewhere and of nurses removed from the NMC register obtaining employment as a HCSW.

Existing models of regulation are perceived to have benefits ⁽⁹⁾ but, as reviews of other professions have indicated ⁽¹⁰⁾, it is unlikely that evidence can be generated that will demonstrate unequivocally that regulation will prevent risks to public safety. It is equally unlikely, however, that evidence can be generated that will unequivocally demonstrate that regulation will not benefit patient safety.

What questions need addressing in taking regulation forwards?

Some models of regulation are perceived as presenting less risk to public safety than others; in particular nationally rather than employer based regulation, and compulsory rather than voluntary regulation. Regulation could have significant but unintended consequences; for example, the extent to which employers consider such staff as 'registered professionals' may tacitly sanction the employment of higher proportions of HCSWs to registered staff with attendant risks to patient outcomes ⁽¹¹⁾.

Six broad areas of unanswered questions were identified:

- What roles and competencies does the health service require of its support workforce?
- Who should the regulator be?
- Should Assistant Practitioners in nursing be regulated as senior support workers or second level qualified nurses?
- How should education be provided and accredited?
- What is the impact of regulation on recruitment, career progression, expectations and retention?
- What are the risks from the processes and outcomes of regulation itself?
- Any regulation needs to be accompanied by an associated framework of roles and competencies. While many frameworks already exist which provide a partial solution, a new overall framework is required based on decisions about roles required and associated competencies.
- Current educational provision is diverse and would need to be accredited; linking it to a new role and competency framework. Mandatory education raises significant challenges in providing on-site and off-site provision; meeting continuing professional development needs, and ensuring availability of staff time and course funding.

- Clearly, such decisions and work needs to be undertaken taken by or in tandem with the regulatory body, but there is no clear cut answer to the question of who the regulator should be. If all HCSWs are to be regulated as a single group, the Health Professions Council seems a natural solution but HCSWs have taken on work that is already regulated as part of existing professions. For example, those working with nurses and midwives might be regulated by the NMC. Synchronising regulation with safeguarding regulations and registrations could reduce costs and complexity. The nature of task and extent of supervision deployed can also effect decisions on the necessary level of regulation.
- Regulation will have implications for workforce planning and may have unpredictable effects on recruitment; career progress expectations; and retention.

Conclusions and implications

A strong case exists for HCSW regulation given evidence of risks to public and the likelihood that its introduction will further control access to employment and lead to standardized roles, competencies and education.

A wide range of questions need addressing in developing a model of HCSW regulation. Further work required to inform the process includes:

- Decisions: committing in principle to regulation; and deciding on status of assistant practitioners;
- Reviews: analysing adverse incidents involving HCSWs and identifying how regulation could have reduced risk; drawing together existing information on roles, competencies and education as the basis for a new framework;
- Research: on impacts of regulation on recruitment and retention;
- Analysing specific aspects: synchronizing regulation with safeguarding, allocating costs of regulation between practitioners, employers and central government.

A challenge is where to start, given complex inter-relationships between the various elements of the process and dangers of adopting a piecemeal rather than a holistic approach. Once an overall framework of decisions has been made, a logical starting place is developing a role and competency framework and deciding on the status of APs.

Key issues for policy

- Decisions and actions required to take regulation forwards involve a range of organizations, particularly the four devolved administrations.

- The NMC, as the regulatory body for nursing and midwifery, has a central role in initiating action and providing advice although it does not necessarily follow that they should be the regulator.
- Initially, the NMC should: make the case for regulation; initiate debates on decisions needed; and lead formation of a group of relevant stakeholders to develop a new HCSW role and competency framework.

References

1. Griffiths P, Robinson S (2010) Moving forward with healthcare support worker regulation. A scoping review: evidence, questions, risks and options. National Nursing Research Unit, King's College London
2. Department of Health (2009) working to put people first: the strategy for the adult social care workforce in England. Department of Health, London
3. Department of Health (2009) Extending professional and occupational regulation: the report of the working group on extending professional regulation. Department of Health, London
4. Knibbs W, Smith P, Magnusson C et al (2006) the contribution of assistants to nursing. Final report for the Royal College of Nursing. Healthcare Workforce Research Centre, University of Surrey, Surrey
5. Kessler I, Dopson S, Heron P et al (2010) the nature and consequences of support workers in secondary care: end of project conference. Presentation at Said Business School, university of Oxford, Oxford
6. Spilsbury K, Meyer J (2004) Use, misuse and non use of healthcare assistants: understanding the work of healthcare assistants in a hospital setting. *Journal of Nursing Management* 12: 411-418
7. Bridges J, Meyer J, Glynn M et al (2003) Inter-professional care co-ordinators: the benefits and tensions associated with a new role in UK acute healthcare. *International Journal of Nursing Studies* 40: 599-607
8. Sandall J, Manthorpe J, Mansfield A et al (2007) Support workers in maternity services: national scoping study of NHS Trusts providing maternity care in England in 2006. King's College London
9. NHS Quality Improvement Scotland (2008) Working to standard. Final project report on pilot for the regulation of healthcare support workers. NHS Quality Improvement Scotland
10. Cornes M, Manthorpe J, Huxley P et al (2007) Developing wider workforce regulation in England: lessons from education, social work and social care. *Journal of Inter- professional Care* 21: 241-250
11. National Nursing Research Unit (2009) RN+RN = better care. What do we know about the association between registered nurse staffing levels and patient outcomes? Policy+ issue 20. National Nursing Research Unit, King's College London

Theme 4: Delivering nursing care

Theme 4: Delivering nursing care

Nursing care delivery is critically important to patients and users of nursing services and to nurses themselves. Thus, reviewing the evidence on existing processes in the delivery of care and how these might be improved, and understanding factors facilitating the adoption of new approaches comprise the fourth theme in the Unit's programme. With the Nicholson challenge of saving £20 billion and the drive to improve productivity, quality and cost effectiveness, this is timely and relevant. The ten issues of Policy+ discussed here demonstrate the diversity of aspects of care delivery that we have investigated. PP35 explored the evidence for Intentional Rounding. The review suggests intentional rounding can help staff to organise their workload and provide more systematic reliable care. However, nurse leadership, staff training and accountability structures are essential to ensure intentional rounding supports improved patient outcomes and experiences of care. It also points to the need for evidence on comparing intentional rounding to other interventions to promote patient-centered care and the consideration and cost of implementation.

PP4 drew attention to the distinction between cohort nursing (i.e. grouping and isolating colonised patients) and nurse cohorting (i.e. designating nursing staff to work with isolated and colonised patients) and reviewed evidence for both approaches in relation to controlling HCAI. The evidence was limited and inconclusive, but there was sufficient indication of the benefits of nurse cohorting to support its use as a primary strategy in infection control. HCAI was also the focus of PP25 which reported on an NNRU study that investigated perceptions of staff in hospitals and in care homes as to the source of MRSA. Each group was most likely to perceive the source as the setting other than the one in which they worked; a series of recommendations focused on joint action strategies to reduce incidence. Reduction of the spread of infection was one of the reasons that lay behind the introduction of single room accommodation for patients as well as meeting preferences for privacy; however little information is available to date on the impacts on patients and staff (PP17). A review of available evidence, mainly from the US and Scandinavia, suggests a complex picture of potential advantages for patients and staff but also a range of potential disadvantages and limitations pointing to the need for ongoing evaluation.

Accurate medication administration is a key aspect of patient safety and PP22 drew together evidence from systematic reviews and an NNRU pilot study on how interruptions to nurses involved in this task can lead to

errors. The review also presented evidence on which interventions are successful in reducing interruptions to nurses when engaged in giving out medication. Recent years have seen many initiatives to improve service delivery by expanding nursing roles; PP11 focused on whether nurse led pre-assessment services might increase day case rates for elective surgery. Using laparoscopic cholecystectomy as an example, our review indicated that good clinical outcomes can be achieved with high day case rates as long as there is effective pre assessment and high quality information provided to patients – services which nurses can provide with appropriate training.

A strand of Unit work within this theme has focused on the assimilation and spread of innovations in healthcare with particular reference to those relevant to care delivery by nurses. A systematic review indicated a complex interaction of factors: viewing adoption as on going, not a one off, process; staff perceptions of value and feasibility of assimilation; and formal organizational decisions as well as informal individual decisions (PP19). Some of these emerged from an NNRU study of the uptake of the 'Productive Ward' initiative, a ward based quality improvement programme with a high degree of service and political commitment (PP24). While frontline staff perceived the programme positively, findings suggest that continued regional support is necessary to spread intake and ensure continuing impact. A subsequent study identified processes which had adversely affected the spread and sustainability of the Productive Ward programme (discontinuation, isolated uptake, and loss of commitment) and built on these findings to develop a checklist for maintaining the momentum of innovations (PP29).

Intentional Rounding: What is the evidence?

In January 2011 the British Prime Minister called for changes in the way nurses deliver care. Following a number of critical reports, concern had been expressed about the need to ensure essential aspects of nursing care are consistently delivered. One of the Prime Minister's recommendations is for NHS hospitals to implement hourly nursing rounds, to check on patients and ensure their fundamental care needs are met – an approach related to 'intentional rounding' in the United States. Within the United Kingdom some organisations refer to this type of nursing activity as 'care rounds' or 'comfort rounds'. In this Policy+ we examine different approaches to intentional rounding and review available evidence.

How has intentional rounding evolved?

For many years nurses working in NHS hospitals undertook task based rounds e.g. two hourly back rounds to check on the position of patients, prevent pressure sores, or monitor mouth care or toileting needs. Many nurses felt regularly checking on patients helped them to feel reassured and cared for ⁽¹⁾.

Intentional Rounding has been developed as an evidence-based structured process in the United States (US) by the Studer Group ⁽²⁾. Over 400 international healthcare systems hospitals and medical groups have made use of their methodology and scripted tools, which include a documentation log, an hourly reporting dashboard, competency checklist and scheduled meetings between shift leaders and nursing staff to review rounding behaviours ⁽²⁾. In the United Kingdom (UK) intentional rounding methods or Proactive Patient Rounds have been introduced as part of larger quality improvement initiatives, such as the Hospital Pathways Project ⁽³⁾, or the NHS 'Harm Free' care campaign (www.harmfreecare.org).

What are the key elements of intentional rounding?

In acute settings key aspects that are usually checked during intentional rounds include the "Four P's" ^(2,3):

- Positioning: Making sure the patient is comfortable and assessing the risk of pressure ulcers.
- Personal needs: Scheduling patient trips to the bathroom to avoid risk of falls.
- Pain: Asking patients to describe their pain level on a scale of 0 - 10.

- Placement: Making sure the items a patient needs are within easy reach.

During each round the following behaviours (which may be summarised on a prompt card) are undertaken by the nurse ^(3,4):

- Use an opening phrase to introduce themselves and put the patient at ease perform scheduled tasks.
- Ask about the 'Four P's' (described above).
- Assess the care environment (e.g. fall hazards, temperature of the room).
- Use closing key words e.g. 'Is there anything else I can do for you before I go?'.
- Explain when the patient will be checked on again.
- Document the round.

Structured methods of intentional rounding are underpinned by leadership support, e.g. regular staff meetings to review activities and progress. Staff training and accountability structures are used to 'hardwire' the required behaviours and competencies into routine practice ⁽²⁾.

How does intentional rounding vary?

In some US hospitals the whole team (qualified nurses, healthcare support staff, physicians, allied health professionals, etc.) take part in rounding ⁽⁴⁾. In the UK the focus has been on registered nurses undertaking rounds, with the support of healthcare assistants. In some hospitals registered nurses and healthcare assistants may undertake rounds alternately each hour ⁽⁴⁾, elsewhere the whole interdisciplinary team are involved ⁽³⁾.

How frequently rounds are undertaken also varies between hospitals and wards. For example, patients who are acutely ill or people with dementia may need more frequent checks ⁽⁵⁾. Where implemented in the UK, rounds are typically undertaken every hour or two hours during the day and night depending on the patient's clinical condition or level of need ^(3,4).

Which patients are included also varies. Some hospitals in the US consider that all patients should receive intentional rounding because they have a right for their fundamental care needs to be identified and met promptly ⁽²⁾. However, in some hospitals, only patients at risk of falling or skin damage, or people requiring emergency or critical care are included ⁽⁴⁾.

What is the evidence of impact?

The majority of information on intentional rounding comes from development and testing in US hospitals in the last 10 years ⁽⁴⁾. The evidence focuses on 'before and after' measures of call bell usage, falls and pressure sore incidence, but the scale of improvement can be small on already well performing wards ⁽⁴⁾.

In the UK a range of outcomes for patients and staff have been reported in the literature but the quality of the evidence is limited because the small number of studies that do exist are descriptive rather than using comparative or controlled methods^(3,5,6).

Reported improvements in clinical outcomes include: pain management^(3,4), decrease in falls^(2,4,7-11) and pressure ulcers^(2,6).

Patient reported outcomes include: better patient experience^(3,4) and satisfaction⁽⁵⁾, reduction in patient complaints^(2,4,6,8,9), reduction in the frequency of call bell usage and the length of time patients wait to have their call bells answered^(2,4,6,8,10).

There is little evidence about the impact on staff time. It has been suggested that time taken to carry out rounds is offset against time savings from improved patient management^(4,5). Research has not explored the cost effectiveness of intentional rounding.

Conclusions and implications

The available evidence suggests that intentional rounding can help staff to organise their workload and provide more systematic reliable care. However, nurse leadership, staff training and accountability structures are essential to ensure intentional rounding supports improved patient outcomes and experiences of care.

Patients are reported to generally like intentional rounding because they feel less isolated and know they will be checked on regularly.

Currently there is no evidence evaluating intentional rounding against other interventions to promote patient-centred care.

Key questions remain in relation to intentional rounding, such as: Who does it, how often, and for which patients? What are the implications for skill mix and nurse staffing? What are the costs associated with different models?

Key points for policy

- Intentional rounding takes many different forms. The available evidence suggests that in general it can achieve improved outcomes for patients.
- As with any new quality improvement initiative, success and sustainability depend in part on adequate preparation, ongoing support, and a readiness to change.
- Further evaluation of intentional rounding is needed to determine the evidence of its effectiveness and cost implications within the UK.
- Essential to determine the evidence of its effectiveness and cost implications within the UK.

References

1. Fitzsimmons, B. et al (2011) Intentional rounding: its role in supporting essential care. *Nursing Times*; 107: 27, 18-21.
2. Studer Group (2007) Best Practices: Sacred Heart Hospital, Pensacola, Florida. Hourly Rounding Supplement. Gulf Breeze, FL: Studer Group.
3. Bartley, A. (2011) The Hospital Pathways Project. Making it happen: Intentional rounding. The King's Fund Point of Care and The Health Foundation.
4. Halm, M. (2009) Hourly rounds: what does the evidence indicate? *Am Ass of Critical Care Nurses*. 18; 581-584.
5. Lucas, B. et al. (2010) Report on - Proactive Patient Rounding: Developing Nursing Practice to Improve the Quality of Patient Care. Whipps Cross University Hospital Trust, London.
6. Dix, G. et al. (2012) Engaging staff with intentional rounding. *Nursing Times*; 108: 3, 14-16.
7. Johnson, L. and Topham, D. (2007) Reducing falls through RN rounding. *Clin Nurs Spec*. 21(2):114.
8. Culley, T. (2008) Reduce call light frequency with hourly rounds. *Nurs Manag*. 39(3):50-52.
9. Assi, M. et al. (2008) Why making the rounds makes sense. *Am Nurse Today*. 3(2):12.
10. Weisgram, B. and Raymond, S. (2008) Using evidence-based nursing rounds to improve patient outcomes. *Medsurg Nurs*. 17(6):429-430.
11. Woodard, J. (2009) Effects of rounding on patient satisfaction and patient safety on a medical-surgical unit. *Clin Nurs Spec*. 3(4):200-206.

Does 'Cohort Nursing' help control healthcare acquired infection?

This appraisal was conducted rapidly by the Nursing Research Unit, King's College London to scope the strength of the evidence behind the use of 'cohort nursing' in infection control. Cohort nursing refers to the grouping of patients with a given infection within an isolated area, stopping short of single room isolation. Searches were conducted on the Cochrane Library, PubMed and Google Scholar on 28 June 2007. Priority was given to evidence from prospective controlled trials and systematic reviews. The rapid nature of the appraisal means that it should not be regarded as definitive.

Summary & conclusions

- Our rapid scoping review of the evidence identified some limited evidence to support cohort nursing. Evidence is weak and inconclusive.
- 'Cohorting' - grouping of infectious patients and nursing them within an area of a hospital ward - is widely recommended as a strategy for controlling transmission of healthcare acquired infection.
- It is often recommended as an overflow strategy when single room isolation is not available.
- The practice of 'cohorting', in common with other isolation procedures, is associated with successful infection control interventions.
- Evidence for the independent effect of cohorting in controlling MRSA is weak, in common with that for other isolation policies.
- A study of patient 'cohorting' in intensive care suggests no effect over and above standard contact procedures.
- Cohorting did not improve compliance with hand hygiene.
- Modelling suggests that any benefit comes from cohorting of nurses, which is not necessarily correlated with cohorting of patients.
- Policies should emphasise the primacy of reducing opportunity for transmission and thus contact procedures.
- Recommendations for cohorting should be clear that nurse cohorting is the primary goal.

The evidence used

There are no cluster randomised studies examining the independent effect of cohort nursing. There is one prospective controlled trial listed in the Cochrane Library. This relates to paediatric care and control of viral respiratory infection. This study concludes that neither contact procedures nor cohort nursing alone had an impact on the spread of infection but that a combination of the two did⁽¹⁾. However, the strength and relevance of this evidence to HCAI in general, and particularly infections such as MRSA in adults, is low.

A wider search identified a relevant systematic review of isolation for controlling MRSA⁽²⁾. This concluded that no quality evidence existed that allowed the determination of the distinct impact of isolation measures including cohort nursing. A more recent prospective study of spread of MRSA in intensive care found that a policy of cohorting or isolation did not reduce risk of colonisation (HR 0.72, p=0.94) and did not alter staff compliance with hand hygiene precautions⁽³⁾. Most studies that support cohorting or isolation are studies of a multifaceted policy of isolation and contact procedures⁽²⁾ and it is not possible to tell whether isolation was a significant independent factor.

However, it is also fair to say that although the overall quality of evidence was weak, most of the studies included in the systematic review reported positive results from interventions including some degree of isolation including cohorting⁽²⁾. Evidence on isolation wards was more mixed⁽²⁾.

One study presented a mathematical model which claimed to demonstrate the importance of cohorting in reducing transmission and containing outbreaks⁽⁴⁾. However this is simply a model with no observational evidence. Importantly, the model does emphasise the significance of nurse cohorting. It may be that isolation of patients has little correlation with this.

This study emphasises the important distinction between cohort nursing (ie grouping and isolating colonised patients) and nurse cohorting (ie designating nursing staff to work with colonised or infected patients) in order to minimise transmission pathways from colonised to non-colonised patients.

This point is emphasised by the results of a study which examined the impact of moving from a hospital facility with mainly open bays to one in which most patients were in single or double rooms. In spite of the fact that the new facility also had optimal hand washing facilities, MRSA prevalence was unaffected⁽⁵⁾.

Recommendations for cohorting should emphasise the primacy of contact procedures and the importance of nurse cohorting to reduce potential transmission pathways.

Key issues for policy

- Despite the equivocal evidence isolation must remain a core strategy in control of HCAI.
- Recommendations to support cohorting must emphasise the importance of nurse cohorting.
- Nurse cohorting is easier to achieve in dedicated isolation units or areas although evidence on isolation wards *per se* is mixed.

References

1. Madge, P., et al., Prospective controlled study of four infection- control procedures to prevent nosocomial infection with respiratory syncytial virus. *The Lancet*, 1992. 340(8827): p. 1079- 083.
2. Cooper, B.S., et al., Isolation measures in the hospital management of methicillin resistant *Staphylococcus aureus* (MRSA): systematic review of the literature. *BMJ*, 2004. 329(7465): p. 533-.
3. Cepeda, J.A., et al., Isolation of patients in single rooms or cohorts to reduce spread of MRSA in intensive-care units: prospective t two centre study . *The Lancet*, 2005
4. Beggs, C.B., et al., The influence of nurse cohorting on hand hygiene effectiveness. *American Journal of Infection Control*, 2006. 34(10): p. 621-626.
5. Vietri, N.J., et al., The effect of moving to a new hospital facility on the prevalence of methicillin- resistant *Staphylococcus aureus*. *American Journal of Infection Control*, 2004. 32(5): p. 262-267

‘Somebody else’s problem’? What do we know about staff perceptions of the sources and control of Healthcare Associated Infection?

Reducing Healthcare Associated Infection (HCAI) rates and improving hospital cleanliness remains a high priority for the NHS⁽¹⁾. In spite of considerable evidence of success in reducing HCAI⁽²⁾, staff infection control behaviours are often less than optimal and there is an ongoing need to address the issue in all care settings including care homes. Drawing on a recent NNRU study, this Policy+ examines the possibility that, in the context of uncertainties about the source and control of HCAI across health systems, staff may perceive infection spread as caused by others and as something which happens elsewhere – in fact ‘somebody else’s problem’.

What is known about the sources and staff control of HCAI?

Across the healthcare system advances in HCAI policy and practice have not always impacted upon individual staff behaviours and most HCAs continue to result from cross-transmissions related to poor infection control practices⁽³⁾. Studies of staff infection control behaviour tend to ascribe poor practice simply to a lack of staff knowledge. Yet, provision of infection control education frequently fails to improve knowledge and good levels of knowledge do not always correspond with good practice⁽⁴⁾.

Staff working in acute settings are generally very aware that infection risk is associated with patient factors (such as age, health status, previous history of infection) and they recognise the importance of infection control practices⁽⁵⁾. The identification of reservoirs of colonisation in care homes, however, creates ambiguity about the original sources of HCAI⁽⁶⁾. This reduces the sense of responsibility and ownership of the problem that has been key in successful action so far.

Preventative strategies in care homes may be suboptimal. Care homes often lack clear up-to-date policies for infection control and many of the measures undertaken in hospitals such as surveillance, screening, isolation and decolonization⁽²⁾ are not recommended because these facilities are considered a person’s home. At the same time, other research suggests that transmission of antibiotic resistant bacteria and the

development of infection in care homes are both uncommon events⁽⁷⁾. It could be that the ‘reservoir’ in care homes consists largely of people who were carriers at discharge from hospital⁽⁶⁾.

In the face of uncertainty and incomplete information, particularly in community settings⁽⁸⁾, theories from behavioural science show some promise in explaining infection control behaviours⁽⁹⁾. They also highlight potential challenges for maintaining momentum and spreading effective action to the community.

What is known about staff perceptions of the sources and control of HCAI?

Research reviewed includes a Scottish study of 301 nurses, a US study of 44 nurses in one long-term care facility, and an NNRU London based study of staff in one general hospital (44) and six local care homes (53).

- A Scottish study of the ‘false consensus’ effect⁽¹⁰⁾ shows teams can operate under false consensus about what is normal and acceptable infection control practice. Staff who said they believed or practised a particular behaviour were more likely to think that their peers believed/behaved in the same way as them.
- A US study of nursing staff’s perceptions of MRSA, infection control and prevention strategies⁽¹¹⁾ found that staff perceptions of risk of MRSA transmission varied considerably but overall staff perceived the risk to be greater elsewhere. Lack of supplies (26%) and lack of information/communication (24%) were reported as primary barriers to infection control. All participants perceived patient behaviour to be a barrier to infection control.
- A recent NNRU study⁽¹²⁾ used causal attribution theory to examine staff perceptions of the sources, risks and prevalence of MRSA on either side of the hospital/care home interface. Key findings were that:
 - Staff in both hospital and care home settings generally perceived the risk of MRSA to be high (56.5%, [52] regarded MRSA as posing a serious threat to society). However participants found it difficult to estimate prevalence and transmission of MRSA in relation to their own work environments.
 - While 45 of 53 care home staff (84.9%) attributed the source of most MRSA infections to hospitals, only 11 of 44 hospital staff (25%) felt hospitals were the main source. Their perception was that the majority of cases originated in the community, including care homes.
 - Individual staff tended to attribute the source of MRSA to external human factors (not self)

including patient risk factors and poor infection control practices of others.

- Teams tended to attribute group 'successes' in infection control to good team infection control policy and performance, whilst attributing their 'lapses' to situational factors including high risk client groups, patient movement through systems of care, and work pressures.
- Overall, staff stated they are motivated by a range of factors including: personal safety, fear of blame or stigma, 'bad press' from the media/public opinion, as well as positive feelings of wanting to deliver high quality patient care and willingness to behave in accordance with clear organisational practices.

Conclusions and implications

- In the absence of information about where the risk of HCAI is coming from staff tend to perceive the problem as being caused by other staff elsewhere in the health system.
- This creates a lack of ownership within and between organisations.
- The existence of such perceptions may present challenges to extending effective infection control into community settings and also challenge the sustainability of efforts to encourage ownership of the problem by staff in hospitals.

Key issues for policy

- Infection control teams and service managers have a key role to play in comparing performance across and between organisations allowing benchmarking to reduce the potential of false consensus.
- Education and promotion campaigns should engage more with staff's willingness to understand the specific reasons behind their 'successes' and 'lapses'.
- Control of HCAI requires strategies that are jointly owned and implemented by staff in hospital and staff in care homes in order that action on one side of the hospital/care home interface is not perceived as reducing the need for action in the other.

References and information

1. DH (2008) Clean, safe care: reducing infections and saving lives. Department of Health: London.
2. Pratt, R., Pellowe, C., Wilson, J. et al. et al. (2007) epic2: National Evidence-Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England. *Journal of Hospital Infection*, 65, S1-S59.

3. Pittet, D. (2004) The Lowbury lecture: behaviour in infection control. *Journal of Hospital Infection*, 58, 1, 1-13.
4. Chan, R. et al. (2002). Nurses knowledge of and compliance with universal precautions in an acute care hospital. *International Journal of Nursing Studies*, 39, 2, 157-163.
5. Gill, J. et al. (2006) Methicillin-resistant *Staphylococcus aureus*: Awareness and perceptions. *Journal of Hospital Infection*, 62, 3, 333-337.
6. Bradley, S. (1997) "Methicillin-resistant *Staphylococcus aureus* in nursing homes. Epidemiology, prevention and management." *Drugs Aging* 10, 3: 185-98.
7. Crossley, K. (2001) "Long- term care facilities as sources of antibiotic-resistant nosocomial pathogens." *Current Opinion in Infectious Diseases* 14, 4: 455-459.
8. Tacconelli, E. et al. (2004). "Methicillin-resistant *Staphylococcus aureus* bacteraemia diagnosed at hospital admission: distinguishing between community-acquired versus healthcare-associated strains." *Journal of Antimicrobial Chemotherapy* 53, 3: 474-479.
9. Ajzen, I. (2002) Perceived Behavioural Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology*, 32, 4, 665-683.
10. Burns, L. and Knussen, C. (2005) False consensus and accuracy of perceptions of nurses regarding universal precaution practices. *Psychology, Health Medicine*, 10, 4, 344-354.
11. Wolf, R. et al. (2008) Nursing Staff Perceptions of Methicillin- Resistant *Staphylococcus aureus* and Infection Control in a Long- Term Care Facility. *Journal of the American Medical Directors Association*, 9, 5, 342-346.
12. Griffiths, P. et al. (2009) MRSA Origins Report. NNRU: London.

In the text, we use the English spelling *meticillin* rather than the US spelling *methicillin*. References retain the spelling used in the original document.

Splendid isolation? The pros and cons of single occupancy rooms for the NHS

Until the 1960s most patients entering NHS hospitals were cared for in 'Nightingale wards'. Since then new builds have experimented with 'racetrack' wards and 4-6 bedded bays. More recently the case has been made for more single room accommodation in new hospital designs and some argue for the abolition of all shared accommodation; here we explore the evidence on the advantages and disadvantages of such a move.

Context

The proportion of single-occupancy rooms in NHS hospitals is on the rise. Currently single rooms account for 28% of NHS beds. Since 2001, Department of Health guidance has been that 'the proportion of single rooms in new hospital developments should aim to be 50% and must be higher than the facilities they are replacing'⁽¹⁾. Thus increasingly new hospital design includes greater ratios of single bedded accommodation and in some cases all single rooms⁽²⁾. The National Patient Safety Agency (NPSA), is currently testing a single room pilot ward comprising 24 single-occupancy en suite bedrooms with three different bedroom designs for effects on staff and patients⁽²⁾.

The likely increase in single bed hospital rooms in the NHS is in part a response to the perceived public desire for such personal accommodation and also a response to the problem of mixed sex wards and the potential for reducing healthcare acquired infections (HCAI)⁽³⁾. However there is little evidence from the UK on which to base such decision making, and little is known about likely impacts on staff and patients. Most evidence derives from studies in the USA and Scandinavia where a large proportion of hospital accommodation is single occupancy rooms⁽³⁻⁵⁾ but is unlikely to directly translate to the UK owing to different financial, cultural and organisational systems.

Advantages and disadvantages of single room accommodation for patients

- Potential advantages for patients include: increased privacy, dignity and comfort and less disruption from other patients. Improved control over their environment, enhanced sleep, enhanced contact with families, increased patient comfort, privacy and safety, and increased patient satisfaction⁽³⁻⁵⁾. Potential outcome advantages include: reduced infection rates, fewer medical errors and faster patient recovery rates⁽³⁻⁵⁾.

- Potential disadvantages include: reduced social interaction and thus patient isolation; less surveillance by staff, increased failure to rescue and increased rates of slips, trips and falls⁽²⁻⁵⁾.
- An IPSOS Mori survey found that around 35% of the public would prefer single rooms, while around 40% preferred small (single-sex) bays⁽⁶⁾. However this was a survey of the perceived (and future) needs and desires of the general public not of recent hospital patients and thus these results must be treated with caution. In other studies patients rated privacy and personal space important but they also said that when ill they wanted nurses to be closer⁽⁷⁻⁹⁾.
- Some authors suggest that single rooms improve infection control⁽³⁾. However, others remain unconvinced. The European Health Property Network (EuHPN) which conducted a study on behalf of NHS estates remains sceptical of the evidence claiming single rooms help infection control⁽¹⁰⁾.

Advantages and disadvantages of single room patient accommodation for staff

- Perceived advantages for staff include: potential for more personalised patient contact; potentially fewer interruptions and with medical storage in rooms, a decreased chance of prescribing errors and less walking for nurses⁽³⁾.
- Perceived disadvantages conversely include an increase in staff travel distances; the potential need for an increase in staffing levels as a result of more single room occupancy and/or adjustments to staff skill mix^(2, 4, 5).
- An NPSA study concluded that with good design (layout with observation points and large glazed windows and doors) single patient rooms do not reduce staff-to-patient observation or increase accidents or 'near miss' injuries and also refuted the suggestion that single patient rooms require increased levels of staff to prevent patient alienation⁽⁵⁾. However, no patients were directly involved in the study suggesting this statement is based on the evidence from other countries.
- Some authors argue that bays can improve patient-nurse contact, but under-staffed wards, whatever the layout, lead to negative outcomes⁽¹¹⁻¹³⁾. Clearly, the situation is complex and trade-offs may be necessary⁽¹²⁾.

Conclusions and implications

As yet there are few wards or hospitals in the UK with all single room accommodation, and the opportunities for evaluation have been few.

- The international and UK evidence available is equivocal suggesting a range of potential benefits for patients and staff but also a range of potential disadvantages and limitations.
 - Experts and nursing unions are concerned about the impact that a greater move to all single room accommodation will have on the workforce^(2, 4). Currently most agree there is not yet 'sufficient' evidence available in the UK to be able to draw valid and reliable conclusions in terms of the impact on nursing workforce requirements, or indeed requirements of other staff groups.
 - With rising numbers of Strategic Health Authorities and individual NHS trusts keen to explore higher proportions of single room accommodation in any new builds, the time is ripe for more research on the effects on patient outcomes, experiences, staff and organisations.
10. Dowdeswell, B., J. Erskine, and M. Heasman, Hospital Ward Configuration Determinants Influencing Single Room Provision. 2004, European Health Property Network: NHS Estates England.
 11. Lawson, B., M. Phiri, and J. Wells-Thorpe, The Architectural Healthcare Environment and its Effects on Patient Health Outcomes: A Report on an NHS Estates Funded Research Project. 2003, The Stationery Office: London.
 12. Stichler, J.F., Creating a healing environment in critical care units. *Critical Care Nursing Quarterly*, 2001. 24(3): p. 1-20.
 13. Seelye, A., Hospital ward layout and nurse staffing. *Journal of Advanced Nursing*, 1982. 7(3): p. 195-201.

Key points for policy

- To date little empirical work on single occupancy rooms has been undertaken in the UK with most research emanating from the USA and Scandinavia.
- Available evidence points to a range of potential advantages and disadvantages, a complex situation where trade offs are necessary.
- Moves to increase single room hospital accommodation should be evaluated for impact on patients, staff and organisations.

References

1. Hutton, J., NHS Hospitals. House of Commons Hansard, 2004. 28 Apr 2004(Column 1092W).
2. Snow, T., Planning the future of ward design. *Nursing Standard*, 2008. 23(11): p. 12- 13.
3. Ulrich, R.S., et al., A Review of the Research Literature on Evidence-Based Healthcare Design, in *Healthcare Leadership: White paper series*. 2008, The Center for Health Design.
4. Mooney, H., Single rooms: A blueprint for better care? *Nursing Times*, 2008. 104(45): p. 14-16.
5. Young, P. and R. Yarandipour, Examining the case for Single Rooms. *Health Estate Journal*, 2007 (September): p. 85-86.
6. Department of Health, Public perceptions of privacy and dignity. 2007, Department of Health: London.
7. Hutton, A., Issues in clinical nursing: consumer perspectives in adolescent ward design. *Journal of Clinical Nursing*, 2005. 14(5): 537-545.
8. Lawson, B., Phiri, M. Hospital design: room for improvement. *Health Service Journal*, 2000. 110(5688): p. 24-27.
9. Pattison, H.M. and C.E. Roberston, The effect of ward design on the well-being of post-operative patients. *Journal of Advanced Nursing*, 1996. 23(4): p. 820-826.

Interruptions to nurses during medication administration: Are there implications for the quality of patient care?

Medication errors can occur at any stage of the medication process including: prescribing, dispensing, preparation, administration and monitoring⁽¹⁾. Medication administration is acknowledged as a major aspect of patient safety⁽²⁾ and it has been argued that any distraction or interruption during medication administration can result in errors. In this Policy+, we review the evidence on the contribution to medication administration errors of interruptions to nurses' work. We also consider how such interruptions might be reduced.

What do we mean by interruptions?

The literature broadly distinguishes between three types of interruption: interruptions mid task, interruptions between tasks⁽³⁾, and system failures (e.g. poor access to equipment and supplies)⁽⁴⁾. A pilot study conducted by the National Nursing Research Unit, King's College London, showed that interruptions are contextually dependent on ward layout, patient care, trust/ward protocols and the seniority of the nurse undertaking the task. Interruptions affect staff cognitively, interfering with working memory, causing lack of focus⁽³⁾ and invoking feelings of frustration and stress. However, it has to be noted that interruptions are not always harmful, and in healthcare settings may be essential to communication between staff, minimising or eradicating harm and/or error.

What evidence is available on whether interruptions to nurses' work contribute to medication errors?

The evidence we examined on the contribution to medication administration errors of interruptions to nurses' work included systematic reviews and primary research studies conducted internationally. The majority of the evidence has been published very recently (in the past four years) reflecting a recent interest in the topic. Most of the evidence has come from hospital settings and utilised quantitative methodology.

Attempts to examine contributors to medication administration errors have almost exclusively been based on secondary analysis of administrative databases; this constitutes an important limitation since unnoticed or unrecorded errors will not be

included. It has been argued that to understand the situated context of interruptions, more direct structured observations of interruptions rather than unstructured observation and self-report data are needed⁽⁵⁾ but such research is limited to date.

What is known about the contribution of interruptions to nurses' work to medication errors?

Based on 14 observation studies, Biron et al (2009) have recently reported that nurses cite interruptions as a significant contributor to medication administration errors⁽⁵⁾. This review reported an interruption rate of 6.7 interruptions per hour to medication administration tasks with information exchanges between nursing staff and system failures being identified as major sources of interruptions. One of the studies in the Biron et al review, showed evidence of a significant association between the frequency of interruptions and the rate of medication administration errors⁽⁶⁾. Evidence from another of the studies suggested that the most frequent location for interruptions is the medication room⁽³⁾.

A more recent observation study reported the frequency of interruptions to 56 nurses' drug rounds in seven Italian surgical wards and revealed a rate of one interruption for every 3.2 drugs given, with the management of telephone calls reported to be a major source of interruptions⁽⁷⁾.

Some studies on nurses' perceptions of the causes of medication errors have highlighted the contribution of interruptions. Lin et al (2007) surveyed the views of 294 nurses, from six district hospitals in Taiwan, of possible causes of medication errors and found that 80.3% of nurses believed that interruption to nurses during medication preparation was a cause of such errors⁽⁸⁾. In a US survey of 284 hospital nurses from hospitals in two states, interruptions were perceived to be the major reason for nurses' medication errors in paediatrics⁽⁹⁾. In a medical directorate of a London teaching hospital, most (94%) of the 138 nurses surveyed highlighted distractions as a major contributor to medication errors⁽¹⁰⁾.

How can we reduce interruptions?

Evidence suggests much more attention should be given to how care systems and work processes complement or interfere with nurses' cognitive work⁽³⁾. Communication technology interventions could be introduced to improve the clinical communication environment. Similarly interventions to reduce interruptions during medication related tasks include: the use of 'protocol checklists', 'interruption vests' and 'No-Talk' signage, which have proved useful in reducing interruptions⁽¹¹⁾. However, these can have a limited impact if staff get used to their presence. The creation of a "patient quiet zone" during

medication administration has also been shown to reduce interruptions by 89% resulting in a decrease of nursing medication errors of 60%⁽¹²⁾. Educational interventions designed to highlight possible strategies to manage these interruptions could further help minimise errors⁽⁵⁾.

Conclusions and implications

- Although the evidence is limited, interruptions to nurses' work have been identified as contributing to medication administration errors.
- Interruptions affect staff cognitively by interfering with working memory.
- A range of interventions have been identified that may minimise interruptions to nurses' work particularly during medication related tasks.

Key issues for policy

- Interruptions represent a risk that needs to be assessed and managed in healthcare settings.
- Innovative interventions to minimise interruptions are needed and should be encouraged.
- More direct observation research exploring possible associations and links between interruptions and medication errors is needed.

References

1. Vincent, C., N. Barber, et al. (2009). The contribution of pharmacy to making Britain a safer place to take medicines. London, Policy Development Unit, Royal Pharmaceutical Society of Great Britain.
2. DoH (2003). Building a Safer NHS for Patients: improving medication safety. A Report by the Chief Pharmaceutical Officer. London, Department of Health
3. Potter, P., L. Wolf, et al. (2005). "Understanding the cognitive work of nursing in the acute care environment." *Journal of Nursing Administration* 35(7-8): 327-35.
4. Tucker, A. L. and S. J. Spear (2006). "Operational failures and interruptions in hospital nursing." *Health Services Research* 41(3 Pt 1): 643-62.
5. Biron, A., C. Loiselle, et al. (2009). "Work Interruptions and Their Contribution to Medication Administration Errors: An Evidence Review." *Worldviews on Evidence-Based Nursing* 6(2): 70-86.]
6. Scott-Cawiezell, J., G. A. Pepper, et al. (2007). "Nursing home error and level of staff credentials." *Clinical Nursing Research* 16(1): 72-8.
7. Palese, A., A. Sartor, et al. (2009). "Interruptions during nurses' drug rounds in surgical wards: observational study." *Journal of Nursing Management* 17(2): 185-192.
8. Lin, L., S. Chen, et al. (2007). "Reasons for medication errors from a nursing perspective." *Mid- Taiwan Journal of Medicine* 12(3): 157-165.
9. Stratton, K., M. Blegen, et al. (2004). "Reporting of medication errors by pediatric nurses." *Journal of Pediatric Nursing* 19(6): 385-92.
10. Fry M, C Dacey (2007) Factors contributing to incidents in medication administration. *British Journal of Nursing* 16 (11): 676-681
11. Pape, T. M., D. M. Guerra, et al. (2005). "Innovative approaches to reducing nurses' distractions during medication administration." *Journal of Continuing Education in Nursing* 36(3): 108-16; quiz 141-2.
12. Rathmann, K., L. Meadows, et al. (2007). "Creation of a "patient safety zone" to reduce pharmacy and nursing distractions and improve patient care." *Ashp Midyear Clinical Meeting* 42(Dec).

How can nursing services increase day case rates for elective surgery?

The NHS Modernisation Agency recommended that ‘...day surgery (rather than inpatient surgery) should be the norm for elective surgery’⁽¹⁾. Despite this advocacy, uptake of this approach has been very slow for some procedures identified as suitable by the British Association of Day Surgery. In this Policy+ we use a Cochrane Review and data from the NHS Commissioning Dataset to examine the uptake of day surgery, focussing on laparoscopic cholecystectomy (gall bladder removal) as an example with high variation in day case rates, in order to explore the potential for increasing rates and the implications for nursing services.

Context

While over 70% of all eligible surgical procedures are now undertaken as day cases for some, such as cholecystectomy, rates remain low with fewer than 20% of patients treated as day cases⁽²⁾. The Audit Commission has identified several factors contributing to low day case rate including poor management and organisation of day surgery units and clinicians’ worries about adverse patient outcomes⁽²⁾.

The NHS Institute for Innovation concluded that an effective, standardised pre-assessment service is essential for trusts to achieve high day case rates and good clinical outcomes for cholecystectomy⁽³⁾. They found that giving patients clear written information about what to expect after discharge was particularly important.

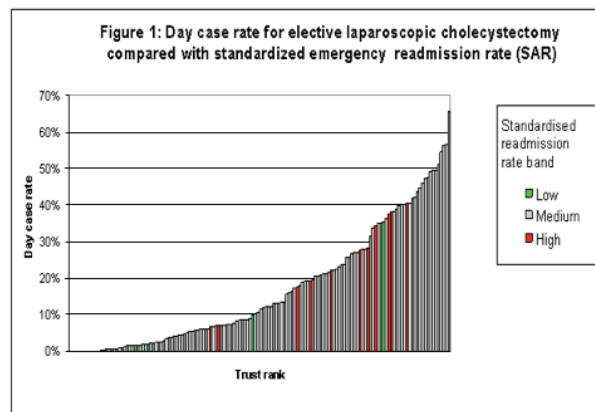
Nurses generally play key roles in pre-assessment and information giving for day surgery patients. A study in a UK elective surgery centre concluded that a nurse-led pre-assessment clinic minimised cancellations and admissions⁽⁴⁾. However, a recent study indicated that most nurses in day surgery units received little preparation for meeting the specific needs of their client group⁽⁵⁾.

The evidence

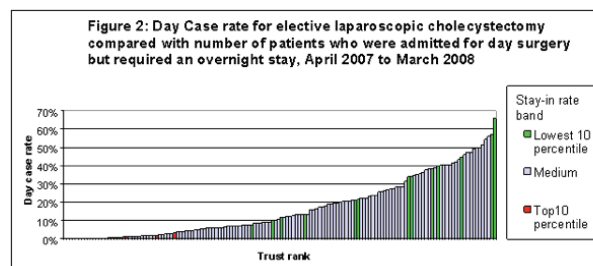
A Cochrane systematic review of 5 trials (429 patients) suggests that day-case elective laparoscopic cholecystectomy seems to be safe and effective in selected patients. There was no difference in patient satisfaction or recommendation between patients treated as day case or with an overnight stay⁽⁶⁾. Over the period from 1996-2008 the number of readmissions

for laparoscopic cholecystectomy have grown from 4% to 6% as day case rates rose from 1% to 17%⁽⁷⁾. The simultaneous rise in day case and readmission rates might indicate that inappropriate patients are now being treated as day cases. However, examination of data from individual trusts paints a more complicated picture.

Figure 1 compares trusts’ day case rates for elective laparoscopic cholecystectomy and 28 day emergency readmission rate (standardised for age, gender, deprivation and co-morbidity) for the same procedure⁽⁷⁾. Trusts with high day case rates tend to have average readmission rates.



Trusts with higher day case rates also tend to have either average or low day case conversion to inpatient stay-in rates (Figure 2) which further suggests that day case surgery is appropriate. Trusts with the highest conversion rates are among those with the lowest day case rates.



Conclusions and implications

Since high day case rates are neither associated with worse outcomes nor a higher proportion of conversion to overnight stays we conclude that there is considerable scope to increase rates of day surgery safely and effectively among trusts with low uptake. Trusts can achieve good clinical outcomes whilst having high day case rates. There is no evidence that low uptake of day case surgery is justified as a result of appropriate and careful selection and some evidence that those with low uptake may have worse outcomes. The high day surgery to overnight stay conversion rates in some trusts with low uptake suggest that services there may be less well developed.

Successful increase in rates requires the development of an effective pre-assessment process and systems for delivering high quality patient information. Nurse-led pre-assessment services may be a key component of a strategy to increase day case capacity but nurses must be properly trained to fulfil the role. As trusts increase their day case rates, they must monitor readmissions, stay-ins and number of planned procedures not carried out.

Key issues for policy

- Good clinical outcomes can be achieved with high day case rates, provided there is an effective pre-assessment process and high quality patient information is given.
- Low uptake of day case surgery seems to result from less developed services, not careful selection and assessment.
- Nurses can fulfil this role.
- Clinical staff undertaking pre-assessments should be appropriately trained and supported.
- Current nurse education does not fully prepare practitioners for this role.

References

1. NHS Modernisation Agency. 10 High Impact Changes Coventry: NHS Institute for Innovation and Improvement, 2004.
2. Audit Commission. Day Surgery - Review of National Findings: HMSO, 2001.
3. NHS Institute. Delivering Value and Quality: Focus on: Cholecystectomy A Guide for Commissioners. Coventry: NHS Institute for Improvement and Innovation, 2006.
4. Rai MR, Pandit JJ. Day of surgery cancellations after nurse- led pre-assessment in an elective surgical centre: the first 2 years. *Anaesthesia* 2003;58:692.
5. Mitchell M. Nursing knowledge and the expansion of day surgery in the United Kingdom. *Ambulatory Surgery* 2006;12(3):131.
6. Gurusamy KS, Junnarkar S, Farouk M, Davidson BR. Day-case versus overnight stay in laparoscopic cholecystectomy. *Cochrane Database of Systematic Reviews* Chichester: Wiley, 2008.
7. Anonymous. Data supplied by Dr Foster Intelligence based on the NHS Commissioning Dataset. 2008.

The Productive Ward: What do we know about uptake and impact on staff and patients?

'Productive Ward: Releasing Time to Care'⁽¹⁾ is a ward-based quality improvement programme that aims to increase the proportion of time nurses spend in direct patient care, improve experience for staff and patients and to make structural changes to the use of ward spaces. These aims fit well with the widely recognised need to improve efficiency of health services in terms of time, effort and money. Developed by the NHS Institute for Innovation and Improvement in partnership with the National Health Service (NHS), the programme has a high degree of political and service commitment. Drawing primarily on a recent National Nursing Research Unit review⁽²⁾ of the programme's impact and learning, here we consider the evidence for whether the promise of the programme is being fulfilled.

Developing and implementing Productive Ward

Since its inception in 2005 there has been substantial interest in supporting the widespread implementation of the Productive Ward programme across the NHS⁽³⁾. Advocates claim the programme is a 'phenomenon' which can drive change in the NHS for the benefit of patients and staff⁽⁴⁾. The programme translates principles of 'lean thinking'⁽⁵⁾ into a programme of 13 modules and a range of tools specifically created to engage frontline staff in the initiation and implementation of service improvement. Learning from four NHS test sites and ten Learning Partner trusts indicates Productive Ward empowers frontline staff to make changes, such as altering patient handover time, reorganising storage facilities or making better use of patient data, and can lead to significant improvements in the reliability, safety and efficiency of care⁽⁶⁾. At the present time, comparable data about implementation and impact is not being consistently collected across the NHS. This leaves the question of whether Productive Ward has 'released time to care' difficult to answer conclusively beyond individual organisations. In order to establish take-up and types of impact so far, the review reported on here made use of a Diffusion of Innovation⁽⁷⁾ framework to draw together evidence from in-depth interviews with national and regional stakeholders (n=15), a national web-based survey of frontline staff (n=150), and five case studies with staff (n=54) within NHS acute trusts.

What has been the uptake of Productive Ward?

At least 140 acute trusts (40% of all those in England) are known to have implemented the programme and many more have downloaded materials from the NHS Institute website (87% in the acute, 92% in the mental health, and 82% in the primary care sectors respectively). NHS staff (60% of 150 web-Survey respondents) report that Productive Ward is running on at least six wards in their organisation. The core foundation modules (Well Organised Ward, Knowing How we are Doing, Patient Status at a Glance) are most commonly in use.

What impact does Productive Ward have?

Most staff (64% of 150) agreed 'There have been measurable improvements as a direct result of Productive Ward'. Areas of 'high' impact included: Teamworking (86%), Staff experience (82%), Efficiency (80%), Patient experience (76%), Safety (75%) and Clinical effectiveness (62%). Specific examples of ward-level impact included: more efficient practices/increase in direct care time, improved appearance and organisation of the ward, reduction in patient falls, reduction in staff sickness absence. Five case studies within NHS acute trusts show that creating a strong vision is essential and that Productive Ward can be a mechanism for organisational change, an opportunity to build leadership capacity, and a way of demonstrating commitment to improving patient care. Despite the widespread perception of benefits some senior stakeholders and frontline staff say that more needs to be done to ensure that impact can be demonstrated in quantifiable terms and include patient perspectives.

What factors support successful implementation?

Strategic Health Authority support has been provided in different ways and SHA leads in this review highlighted the importance of working with NHS providers to support vision, planning and learning, for example through regional network meetings. In most trusts (78%) implementation was supported by specific funding. Other facilitators included dedicated project leadership, strong support and enthusiasm from senior staff, visits to other trusts, steering groups, web networks and learning from colleagues.

Case studies showed that key factors supporting implementation are:

- Staff having a 'felt need' for change: seeing Productive Ward as a simple practical solution to real problems.
- Role of NHS Institute: making use of NHS Institute support and resources.
- Going where the energy is: selecting initial wards on the basis of their desire to work on Productive Ward.

- Emphasising local ownership and empowerment of ward staff, rather than using a directive approach.
- Supportive organisational context and resources: having support of executive board and provision of sufficient resources and support, in particular allocated budgets for backfill of staff time.

Conclusions and implications

- NHS managers and frontline staff suggest Productive Ward can achieve improvements in staff skills, more time for better care, improved patient experiences, cost savings and higher staff satisfaction and retention.
- Nursing staff in particular say the programme connects with their need and desire for change. It facilitates dialogue 'ward' to 'board' by giving a shared language and focal point where the interests of different staff groups can converge.
- Productive Ward could be used by NHS organisations to engage frontline staff in better hospital design and inter-departmental working.
- Nurse educators could teach Productive Ward principles to help improve ward-level leadership and the use of evidence in nursing.
- Whilst there are many perceived benefits of Productive Ward there are limitations in being able to demonstrate measurable impact across the NHS or on patient experiences of care.
- Further research could examine the possibility of using routinely collected data for evidence of impact, for example, falls incidence, MRSA rates, pressure sore incidence, staff satisfaction and staff sickness/absence and patient experiences of care.

Key issues for policy

- The Productive Ward programme is perceived positively by frontline staff.
- There is huge potential for nursing staff and their organisations to make use of the programme to improve service delivery, staff skills and patient care.
- Spreading uptake and impact requires continued regional support and enthusiasm from NHS staff to share their learning and insights.
- More research is needed to assess uptake and measure impact across the NHS and on patient care.

References

1. Productive Ward: Releasing Time to Care, NHS Institute website. http://www.institute.nhs.uk/quality_and_value/productivity_series/the_productive_series.html [accessed Oct 2009]
2. The Productive Ward: Releasing Time to Care. Learning and Impact Review. NHS Institute for Innovation and Improvement, 2010 <http://www.kcl.ac.uk/schools/nursing/nrru/prog/evaluation.html>.
3. Bevan, H. Nursing Times Supplement: The Productive Series. The Six Lessons for Successful Implementation. Nursing Times 105 (9) 7, 2009.
4. Shepherd, S. Nursing Times Supplement: The Productive Series. This is a phenomenon. Nursing Times 105 (9) 4-6, 2009.
5. Crump B. How can we make improvement happen? Clinical Governance: An International Journal, 13 (1) 45-50, 2008.
6. Clarke-Jones, J. Releasing Time to Care: Productive Ward Supplement. Releasing Time to Care. The Way Forward. Nursing Times 103 (16) 18-19, 2007.
7. Greenhalgh, T. et al. Diffusion of Innovations in Health Service Organisations. A systematic literature review. Oxford: Blackwell Publishing, 2005.

Implementing and sustaining change in the contemporary NHS: Lessons from the Productive Ward™

Health care is rich in evidence-based innovations, yet even when such innovations are implemented successfully in one organisation, their systematic spread and sustainability is unpredictable⁽¹⁾. Given the quality and cost challenge currently facing the NHS, it is critical that improvement programmes are implemented quickly, on a large-scale and assimilated and sustained in routine practice. The NNRU reviewed the theory on the spread of innovations and applied this evidence to their ongoing research into the implementation and assimilation of the Productive Ward. Here we present the findings and consider the implications for policy and practice.

The Productive Ward innovation

The Productive Ward has the potential to be adopted throughout the NHS at a scale and pace sufficient to achieve significant quality and productivity benefits⁽²⁾. The programme seeks to increase the proportion of time nurses spend in direct patient care, improve experience for staff and patients, and make structural changes to the use of ward spaces to improve efficiency in terms of time, effort and money. The programme has been rapidly adopted by the NHS; approximately 85% of NHS acute hospitals have downloaded Productive Ward materials and - by March 2009 - 40% (140) of all NHS hospitals had purchased a support package, albeit with large variation between geographical regions (NNRU, 2011). However whilst some organisations have achieved 100% ward implementation others have just a few wards actively implementing the programme. The average proportion of wards in each organisation that are using The Productive Ward is estimated to be 35%. (NHS Institute for Innovation & Improvement).

The NNRU case study research in eight NHS trusts involved interviews with 38 individuals involved⁽³⁾ in implementing the Productive Ward Programme. Findings indicate what hinders and what helps the spread of the Productive Ward and how progress is being made in the current environment.

What hinders the spread of the Productive Ward?

Our research identified three particular processes which adversely affect the spread and sustainability of the productive ward:

1. *Discontinuation* (halting Productive Ward work) does not commonly occur through explicit decisions made at executive level to formally 'stop' but rather through differing perceptions of what the Productive Ward is seeking to achieve amongst frontline staff. There is evidence to suggest that ward staff can sometimes view the Productive Ward as a time-limited project to be completed as quickly as possible rather than as an ongoing way of working (albeit one that encourages local adaptations and customisations of the Productive Ward modules). The evidence did suggest that sometimes the decision to temporarily halt implementation can be beneficial for ensuring the work is picked up at a defined time in the future, rather than struggling on while organisational energy wanes and contextual issues escalate. However assessment of progression requires agreed end points to implementation or completion of the programme.
2. *'Islands of improvement'* occur because of only isolated uptake of the Productive Ward within an organisation. There is strong research evidence to suggest that improvements as a result of the Productive Ward often remain unknown to senior staff and other wards/departments. Whilst some ward teams learn about, implement and see the benefits of the programme, others working alongside them are unaware of the nature of the work going on.
3. *Improvement 'evaporation'* can occur through the loss of staff commitment to continuing to implement the Productive Ward. The research suggests that this was often the result of staff feeling their organisation no longer valued and supported the Productive Ward work as well as problems with the timing, pacing and flow of available support.

What facilitates the spread of the Productive Ward?

The evidence from this research suggests, firstly that organisational energy for programmes such as the Productive Ward is determined by levels of visible executive support, resources for programme leadership and facilitation, and building resilience to times of pressure and change. Continuity of organisational energy helps to avoid discontinuation. Sometimes the decision to temporarily halt implementation can be beneficial for ensuring the work is picked up at a defined time in the future, rather than struggling on while organisational energy wanes and contextual issues escalate.

Secondly, staff energy drives programme spread, but staff need to know about the programme, feel they are backed by organisational energy and have time and space to participate in ways that are meaningful and beneficial to them. In implementing organisations there will naturally be islands of improvement because of patterns of staff energy and approaches to implementation.

Thirdly, communication is essential to spread of the programme and the improvements made. It involves promoting the programme through existing structures such as induction programmes, education and training; maintaining interest on wards using informal interactions and reflection time; and linking monitoring and reporting into organisation-wide improvement meetings.

By being aware of these, those leading Productive Ward work elsewhere (and other similar improvement programmes) can plan to avoid the same processes slowing spread and undermining sustained change in their organisations by, for example, channelling resources and energies into areas where they will have the greatest impact.

Conclusions and implications

This research has led to a set of hypotheses about the spread of large-scale change that can be tested in future change interventions. This could help policy makers to move from a reactive to a more proactive understanding of the spread of large-scale change.

1. Successful implementing organisations invest energy in programmes by providing visible executive support, allocate resources for programme leadership and facilitation, and build resilience to times of pressure and change – continuity of these factors is essential.
2. Programme leads play a vital role as boundary spanners (individuals who carry knowledge between different professional groups). They need skills not only in communicating vision and goals, but also the ability to encourage staff to take on leadership and management of the work.
3. Spreading and sustaining programmes at ward-level involves harnessing staff energy in a mutually beneficial collaboration. Helping ward leaders to manage time and resources to release staff, supporting shared learning through local standardisation of materials (guidelines, notice boards, documents etc.) and procedures (where things can be found, how things are to be done, what things are called), inter-ward visits, and ward-to-ward communication are important.

Key issues for policy

- A checklist designed in the course of the NNRU research to help those leading on the Productive Ward (available at www.institute.nhs.uk/productiveward), provides a guide for local action for those seeking to maintain the momentum of innovations: in particular.
- Connecting the innovation with the wider political and social agendas facing the Trust.

- Understanding the needs and characteristics of those staff throughout your Trust who you hope will adopt the innovation.
- Engaging (i) relevant staff and (ii) respected individuals in your Trust at all stages.
- Providing clear information about (i) the benefits of the innovation and (ii) its operational attributes.
- Examining the organisational context in the Trust.

References and information

For further information about the evidence supporting this article please see Morrow E, Robert G, Maben J and Griffiths P. (2010) Improving healthcare quality at scale and pace. Lessons from The Productive Ward: Releasing time to care. An Executive Summary and the full report can be accessed at www.institute.nhs.uk/productive_ward

1. Berwick D. (2003) Disseminating Innovations in Health Care, *Journal of American Medical Association*, 289:1969-1975
2. Department of Health (2003) Delivering the NHS Plan: Expenditure Report 1 April 2003. DH London.
3. Robert G, Morrow E, Maben J, Griffiths P and Callard L. (2011) 'The adoption, local implementation and assimilation into routine nursing practice of a national quality improvement programme: the Productive Ward in England', *Journal of Clinical Nursing* 20(7-8) 1196-1207

From bench to bedside: What role for nurses in helping the NHS make better and quicker use of technological innovations?

The adoption of innovative healthcare technologies with a proven ability to deliver increased patient benefits and significant efficiencies is perceived as slower and more variable in the NHS than other healthcare systems. Nurses are the largest workforce in the NHS and end users of much technology at the bedside. Drawing on a recently completed systematic review ⁽¹⁾, this Policy+ summarises what we know – and do not know – about the nurses' role in adopting and assimilating such innovations into routine clinical care and considers the challenges for nurse leaders.

Slow on the uptake?

The NHS Next Stage Review 'High Quality Care for All' places great emphasis on the need to encourage and reward innovation, and accelerate the adoption of innovations through actions to 'simplify the pathway by which they pass from development into wider use' ⁽²⁾.

The literature on the diffusion of innovations in health care is large, diverse and complex ⁽³⁾. Research to date has largely taken the 'adoption' decision as a discrete event and the primary outcome measure of interest, ignoring how and why 'adopted' innovations are thereafter used. However, increasing attention is now being paid to the political, social and cultural characteristics of organisations as key determinants not only of adoption but also the assimilation of innovations into routine clinical practice ⁽¹⁾.

But what is currently known about nurses' involvement in the formal and informal decision-making processes, and other factors internal to health care organisations, that determine the speed and success with which technological innovations become part of day-to-day practice? Here we present overall findings from the review ⁽¹⁾ and then those that focus specifically on nursing.

What does the evidence tell us?

There are 10 UK studies which directly illuminate the processes by which technological innovations are adopted and assimilated in healthcare organisations in the NHS.

Findings highlight:

- That there is often no single adoption decision.
- The importance of the history, culture and quality of inter-professional relationships.
- The vital role of power and politics in determining the outcome of decision-making processes relating to innovation adoption and assimilation.
- The impact of different types of formal and informal decision-making processes (and that a short-term perspective typically predominates).
- That professional hierarchies and ways of working in healthcare can be a negative influence on adoption and assimilation.

Twenty-three studies of technology adoption processes from other healthcare systems (largely in the United States) provide further insights, and an additional 54 studies (2 in the NHS and 52 from other healthcare systems) have sought to establish specific organisational factors (as opposed to processes) that influence adoption. Relevant findings include that:

- Senior clinicians are key decision-makers, thus supporting the relative importance of the 'medical-individualistic' system of decision-making ⁽⁴⁾ along with the political nature of these processes.
- Dynamics between the internal decision-making structures of a health care organisation and its relationships with its wider environment (for example, external networks) are important too.

And the nurses role ... ?

Few of these studies have explicitly acknowledged nursing staff as a key group that may influence the adoption, implementation and assimilation of technological innovations in the NHS. One study – of several technological innovations – found that implementation locally depended on effective relationships and cooperation between different healthcare professions ^(5,6). Although two of the innovations were originally seen as a unidisciplinary intervention, involving mainly primary care doctors, the role of nurses became more apparent over time. Innovations that attempted to shift routine work from hospital to primary care and/or from doctors to nurses encountered boundaries between professional groups as new, joint, work practices had to be agreed on and enacted for the innovation to be widely adopted and used.

A study of perceived barriers to the use of a computerised care-planning system by nurses in three UK hospitals found that a wide range of tactics (for example, delaying the writing and updating of care plans by leaving the task to the next shift team) was employed by nurses, aimed at ensuring non-adoption ⁽⁷⁾. These actions were also explained in terms of power relations

and the meaning of the system for staff. Although the technology in this study was successfully implemented in the eyes of hospital managers, resistance to using the computer system persisted long after in the shape of attempts to put off or minimise its use, thereby emphasising the importance of understanding both adoption and assimilation processes. Similarly, a study of a new networked drug distribution system in a long stay care facility in Canada⁽⁸⁾ found it was never assimilated into routine practice because the roles and procedures built into the technology aligned so poorly with the reality of front-line nursing work; the nurses simply reverted to previous ways of working.

More positively, a US study of implementing an innovative technology for cardiac surgery found that putting multidisciplinary groups of doctors, nurses and technicians through extensive simulated training is one way of realising the gains a new technology offers⁽⁹⁾. The study found that successful implementers underwent a team learning process that was qualitatively different from that experienced by those who were unsuccessful. A further US study⁽¹⁰⁾ identified key factors influencing nurses' acceptance and use of a Patient Care Information System to support clinical work in a home health agency. Lessons included the need for training that integrates nurse needs and clinical practice patterns, involving clinical users and management through training, and making onsite adjustments to software and role redesign so that the technology enhances clinical practice. These two examples point towards the importance of training and end user feedback in technologies implementation.

Conclusions and implications

The processes by which NHS organisations adopt certain technological innovations, and how or why such innovations are successfully implemented and assimilated into routine practice is still unclear and better understanding is needed. However, key messages emerge from the evidence:

- In order to realise the potential benefits to patient care of technological innovations it is important to see 'adoption' as a process rather than as a discrete event.
- Adoption comprises both 'formal' organisational decisions and a series of 'informal' decisions by individual users including nurses.
- Outcomes are influenced by interactions between different staff groups involved in the various stages of an innovation's adoption and assimilation into routine practice, and the organisational context, systems and processes.
- These factors interact in a complex way and with varying importance depending upon the innovation concerned.

Very little is known about the nurses' role in the speed and success with which technological innovations become part of day-to-day clinical practice, or how nurses respond to the (often) mandated adoption and top-down implementation of such innovations, and how these responses impact upon the potential longer-term benefits of the technology in question. Furthermore, it is not clear whether nursing leaders always have a voice in formal decision-making about adopting a particular innovation and how they can help to shape implementation and assimilation.

Key issues for policy

Nursing leaders face challenges in helping the NHS realise the benefits of technological innovations better and quicker. Specifically how to:

- Help improve – from a nursing perspective - their organisation's formal decision-making processes and systems with regard to the adoption of technological innovations.
- Increase their organisation's absorptive capacity for new knowledge about technological innovations, specifically in relation to nursing expertise and leading-edge practice.
- Help ensure a receptive context amongst nursing staff for the implementation and assimilation of technological innovations generally.
- Improve nurses' readiness for the implementation and assimilation of specific technological innovations.

References

1. Robert, G., Greenhalgh, T, MacFarlane, F., and Peacock, R. (forthcoming) Organisational factors influencing technology adoption and assimilation in the NHS: a systematic literature review. Report to the NIHR SDO Programme
2. Darzi, A. (2008) High quality care for all: NHS Next Stage Review final report. London: Department of Health
3. Greenhalgh, T., Robert, G., Bate, S.P., Macfarlane, F., and Kyriakidou, O. (2005) Diffusion of Innovations in Health Service Organisations. Oxford: Blackwells
4. Greer AL. (1985) Adoption of medical technology: the hospital's three decision systems. *International Journal of Technology Assessment in Health Care*, 1:669-90
5. Ferlie, E., Fitzgerald L, Wood, M. (2000) 'Getting evidence into clinical practice: an organisational behaviour perspective.' *Journal of Health Services Research & Policy*, 5(2): 96-102
6. Ferlie, E, Fitzgerald, L., Wood, M. et al. (2005) The nonspread of innovations: the mediating role of professionals. *Academy of Management Journal*, 48(1): 117-134

7. Timmons, S. (2001) How does professional culture influence the success or failure of IT implementation in health services? In: L Ashburner, ed. *Organisational behaviour and organisational studies in healthcare: reflections on the future*, p. 218-31. Basingstoke; Palgrave
8. Novek J. (2002) IT, Gender and Professional Practice: Or Why an Automated Drug Distribution System was Sent Back to the Manufacturer. *Science Technology Human Values*, 27(3):379-403
9. Edmondson AC, Bohmer RM and Pisano GP. 2001. Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Science Quarterly* 46:685-716.
10. Stricklin, MLV., and Struk, CM. (2003) Point of care technology: a sociotechnical approach to home health implementation. *Methods Inf Med*, 42: 463-70

Further copies of this report can be obtained from:

**National Nursing Research Unit
Florence Nightingale School of Nursing and Midwifery
King's College London
James Clerk Maxwell Building
Waterloo Campus
57 Waterloo Road
London SE1 8WA**

Email: nuru@kcl.ac.uk

NNRU website: <http://www.kcl.ac.uk/nursing/research/nuru/index.aspx>

© King's College London 2012