Skill Mix in Secondary Care: A scoping exercise

Report to the National Co-ordinating Centre for NHS Service Delivery and Organisation R & D (NCCSDO)

November 2003

prepared by
Roy Carr-Hill, Liz Currie and Paul Dixon
Centre for Health Economics, University of York

Address for correspondence
Roy Carr-Hill
Centre for Health Economics
University of York
York
YO10 5DD

E-mail: irss23@york.ac.uk

© NCCSDO 2003
Executive Summary

Introduction

This is the final report on the scoping review *Skill Mix in Secondary Care*. In our agreed final proposal, we said that we would:

1. Carry out a comprehensive but not systematic literature review
2. Explore grey literature and current activity through:
   - distributing a questionnaire survey to all National Health Service (NHS) trusts (see Appendix 2)
   - contacting the Workforce Development Confederations (WDCs)
   - holding a seminar/workshop with leading experts in the field to obtain leads to additional material and discuss the policy context and implications.

We have carried out a comprehensive literature review, completed a questionnaire survey with all trusts and interviewed or received material from nearly all the WDCs. A seminar/workshop was held at the beginning of September 2003 to discuss these findings with experts in the field (see Appendix 6).

Literature review

Methodology

Searches were made of the following databases: MEDLINE, CINAHL, EMBASE, HMIC, SIGLE, CCTR, Sociological Abstracts, The British Nursing Index, Inside Conferences, the Cochrane Database of Systematic Reviews and the National Register Records. An initial research database of nearly 18,000 references has been compiled from these and has been manually searched by consulting both title and abstract for material relevant to the purview of this review. Records relating to the Cochrane Database of Systematic Reviews and National Register Records were searched separately for details of research projects currently in progress or recently concluded which may not yet have been formally published.
References that were deemed to be potentially relevant have been assigned a series of keywords to provide a ‘mapping’ or classification of the literature.

**Overview of the literature**

Apart from a large body of mainly irrelevant material in the form of articles dealing with specific medical conditions (for example, the cancers), the literature - as anticipated - is dominated by topics relevant to nursing. A large proportion of these as well as other topics take the form of editorials, commentaries and general debate over health care and hospital reform, restructuring and new staff roles or training needs.

**Health care reform and hospital restructuring**

One whole section of the identified literature broadly addressed issues of health care service reform and restructuring including significant commentary and debates over the NHS Plan (Department of Health, 2000a) and patient-centred care. A large amount of this literature took the form of editorials, commentaries and general debate over health care and hospital reform as well as restructuring, new staff roles, training needs and the implications of these.

**Workforce: general staffing, management and service provision issues**

Another broad theme to emerge concerned hospital staffing and organisation of services. This literature - as anticipated - was dominated by topics relevant to nursing which included nursing models and workforce planning and trends (for example Project 2000 - an approach to pre-registration nursing education; in-house staffing agencies), collaborative nursing, nurse practitioners and leadership models, nursing roles (for example, nursing diagnoses; nurse-managed centres; nurse-led multidisciplinary care teams), nursing workload measurement systems and workload problems related to retention, nursing shortages and ‘burnout’, empowerment, job satisfaction, and professional governance. There was a certain amount concerning other clinical staffing issues such as ward staffing and ward rotas. Management issues also emerged in terms of staff planning or training for clinicians and nurses in delegation and leadership skills. There was also a moderate corpus of surveys of hospital personnel (such as nurses, junior doctors, paediatric specialists or others).
Skill mix

A considerable literature on skill mix emerged. A lot of it, however, was in the nature of general debate over what was actually meant by skill mix; what constituted an acceptable staff mix or how this was influenced by cost-containment issues. There was also much discussion about what ratio of (for example) qualified nurses to health care assistants (HCAs) should be employed.

Staffing roles

Staffing roles in terms of role substitution, development or change emerged as another important category. Although much of this literature related to debates surrounding the increasing delegation of duties to unlicensed clinical personnel or non-professional personnel (such as HCAs), a range of different nursing (for example, ‘modern matrons’, clinical nurse consultant; clinical nurse specialists) and physicians’ roles were also well represented. Some debate surrounding problems with perceived structural and medical dominance was also observed including, for example, barriers to nurses’ workplace satisfaction or the way in which traditional work culture, rituals, norms, and boundaries were perceived to stand in the way of the development of new working methods and roles.

Multi-/interdisciplinary teamworking or collaborative activities

Other important categories to emerge, particularly in the context of integrated care or critical pathways were inter- or multi-disciplinary care teams and teamwork, team building and collaboration. A great majority of these were patient group or condition-specific (for example intermediate care unit [ICU]; AIDS, cancer, diabetes, stroke management and pain management; elderly/geriatric/dementia; peri-operative and surgical care; trauma and wound care; ward rounds and record keeping.). Included within this context were papers addressing multi-skilling and cross-training initiatives.

Within these are a further hierarchy of categories, which include:

- staffing models or innovative strategies, addressing individual experiences or experiments within secondary care institutions
- staff education or training issues
- influence of workload on staffing and patient outcomes.
Current local and national initiatives

The survey of secondary care trusts

The overall aim of this survey was to summarise the types of activities that have been introduced to implement the approaches set out in the Changing Workforce Programme and ‘skills escalator’ strategy and, more generally, in the report on the human resources implications of the NHS Plan (National Health Service, 2002a). We wanted to hear about relevant aspects of workforce planning, local innovations and any related evaluation mechanisms; and about the details of any reports that have been produced or any literature/examples found helpful.

A short questionnaire was developed around the main themes of the project, specifically related to recent English NHS workforce initiatives. The questionnaire was piloted with five potential respondents and considerable design changes were made for the final version (see Appendix 2).

The sample

The sampling frame was derived from Binleys NHS database and consisted of all people in England who fell into the following four job groupings on the database:

- directorate nurse manager
- head of nursing
- personnel
- medical staffing officer.

These four groups comprise people with many job titles, though most had some senior management responsibility in nursing or human resources. The selection produced 1393 names at 416 institutions belonging to 247 trusts. We decided on an initial mailing to all 1393, recognising that this involved several questionnaires going to most institutions and the likelihood that individual response rates would be low if several people collaborated on a single reply. We preferred this model to the more conventional strategy of sending a single questionnaire to a senior figure, hoping that it would be forwarded appropriately.

By mid-July, after follow-up phone calls, 131 completed questionnaires had been returned. As anticipated, the individual response rate was low (approximately ten per cent); however the institutional coverage was encouraging with replies from 99 (40 per cent) of the 247 trusts.
Replies to the survey

The geographical base of responses is good. The 82 trusts replying, prior to reminders, were well-distributed across the English regions.

Directorate nurse managers and directors of nursing were most likely to reply although respondents were not limited to those with prime responsibility for nursing.

Although we encouraged people to return questionnaires even if there were no or few relevant initiatives, the replies received had a good deal to report. The questionnaire and covering letter (see Appendix 2) also encouraged people to supply job descriptions and other material relating to initiatives they felt had been particularly successful.

Main findings

Although the survey did not generate much additional material for the central review, there are several very interesting findings in the survey. A few of the highlights are:

- A majority reported a high level of devolution of responsibility to units or wards, though the extent and meaning of devolution clearly differed between institutions. Mechanisms for overseeing the devolution varied from very loose to quite formal arrangements. In addition, several respondents described how the role of modern matron fitted into devolved structures.

- There were few mentions of proprietary systems (amounting to no more than one or two references to the GRASP and NICSM systems). In addition, two institutions reported having developed their own paediatric dependency assessment protocols and another mentioned a similar planning tool for maternity care.

- Few formal mechanisms or tools were reported as aids to planning and varying staff numbers and composition to match dependency. However, the majority of respondents reported that arrangements were in place to vary staffing as necessary and identified the group of people (usually ward managers or matrons) with the relevant responsibility. Variation in staffing was, on the whole, limited to rearranging the work patterns of existing unit staff; for example, by changing shift arrangements. Indeed, flexible working – in a number of forms – was reported to be widespread.

- There was an emphasis on efforts to identify and standardise core competencies and review job descriptions. In relation to shifting job boundaries, many specific examples were cited but most involved some method of developing the nurse’s role to support junior doctors, a variety of nurse practitioner models and the development of the role of HCAs into nursing areas. Many respondents referred to
the training to national vocational qualification (NVQ) Levels 2 and 3, especially Level 3, and other mechanisms for expanding the role of HCAs. Several other types of support roles were described, including: team support workers, ward housekeepers and patient liaison transfer assistants.

- There was consensus on what had been the greatest changes in ways of deploying nurses and nursing support staff in their local institution over the past five years. The most frequently mentioned activities were: creation of specialist posts, especially nurse consultants and nurse practitioners; the development of the HCA role; and the introduction of NVQs. A number of other posts and activities were also described, these included: ward housekeepers and support technicians.

- A significant minority of responses mentioned new educational and training posts for example clinical teachers, clinical education advisors and educational facilitators. Although the skills escalator initiatives were only mentioned by just over half of the respondents, they were often enthusiastic. Schemes mentioned included: IT and basic skills training; rotational programmes for new starters; Royal College of Nursing leadership training; nurse cadet programmes; schemes to encourage domestic staff into HCA roles and then undertake NVQ Level 3; training for managers; and competency-led development programmes.

- Most monitoring efforts related to rather general evaluation tools such as staff and patient satisfaction surveys and audits. Other reported activities included patient focus groups, risk management, incident monitoring, annual reports, local evaluation tools and a 24-hour helpline. It was not always clear whether they were being used to monitor care more widely or the specific effects of workforce deployment initiatives.

- Under a quarter had personally attended events relating to the Changing Workforce Programme. While opinions were generally enthusiastic, there were a few comments on the events being poorly organised and too basic. Only a limited number knew of anyone who had attended the ‘Toolkit for Local Change’ workshops.

- In the descriptions and names of specific initiatives, the level of activity was moderate: on most topics 30 per cent or less had something to report. However, when we asked a question that could be more easily be answered from a trust or institution-wide perspective, a much higher level of activity was reported. The implication that workforce development is limited to certain units within trusts raises further questions, for example are some settings more amenable to these initiatives, or is the need greater in some areas?
Survey of WDCs

The local delivery plans and other materials were obtained from the WDCs.

Concordant with the last highlight in the previous sub-section, the local delivery plans and related material obtained from WDCs suggests that there is much activity taking place across the different strategic health authorities (SHAs) in terms of skill mix changes and the development of new roles at the trust level. Role redesign and development are seen by many trusts as useful strategies to address shortfalls in staff numbers. Much of the reported activity is reported to be taking place outside of a formal relationship to a Changing Workforce Programme scheme or project. In some cases the change processes are further complicated by moves towards major service redesign that may be already underway in a particular trust (see for example Surrey and Sussex SHA local delivery plan 2003-2006, section 5: workforce).

Although many trusts and health communities appear to be engaging in the change processes with enthusiasm (or at least with resignation), other organisations have expressed their concern at the validity of the productivity and skill mix assumptions that are being used at the national level and have called for further validation work to be carried out. There is a noted lack of confidence in respect of convincing clinicians and achieving the necessary change management agenda, particularly in the short term (see for example Greater Manchester local delivery plan for 2003, workforce section).

Implicit in the NHS Plan and the whole NHS Modernisation Agency’s Agenda for Change policy is an emphasis on ‘new ways of working’ involving the skill mix changes and role redesign or development schemes that the health care sector is now actively in the process of taking on. However, with a few exceptions, including those schemes which are being formally piloted through the Modernisation Agency’s own Changing Workforce Programme (outcomes from the first phase of which are already well-summarised in their report – see NHS Modernisation Agency, 2003), there remains relatively little evidence of the formal monitoring or evaluation of many of these skill mix changes and role redesigns or substitutions which would allow any serious conclusions to be drawn about their real value or long-term effectiveness.

Implications for research

While this has not been a comprehensive systematic literature review, it is clear that much of the evidence base for current and projected reforms is anecdotal. Both the literature review and the survey have highlighted a
large number of gaps in our knowledge especially in respect of the
detailed implementation of skill mix changes, the development,
acceptability and effectiveness of new roles and in cross-boundary
working and team working. Some of these topics could be the subject of
systematic large-scale research in the form of a randomised control trial.
But many of them call for small-scale, often qualitative enquiry, because
they are specific to certain settings and contexts.

What is striking, however, is the under-developed nature of the research
tools in this area, both for professional researchers and for reflexive
practitioners. Many of the relatively few empirical researchers are still
searching for appropriate ways of measuring quality and methods of
evaluation. Indeed, from a service point of view, the most urgent need is
to understand how to collect routine data about activity in secondary
care, and what are the most appropriate approaches to monitoring the
impact of any changes. Without these essential building blocks, it will
often be impossible for local champions of an initiative or innovation to
take advantage of research findings, however sophisticated their
methods. On this level, the most important research and development
(R&D) tasks are methodological: to find out how to collect reliable routine
data on the wards; and to develop appropriate evaluation tools.

However, in the workshop, it was clear that the service participants
placed most emphasis on the use and training of HCAs and other support
staff (including both housekeepers and ward clerks) and lower priority on
the other three topics. While we do not suggest slavishly following
demand, given the evident difficulties of carrying out research with the
support of overworked staff, it would seem politic to organise research
topics that, if not focused on HCAs (for example), are relevant to the
most frequent activities.

While it was not possible from the survey to judge the quality of current
initiatives - though we did get respondents’ reports of what they felt to be
the most notable and successful changes recently - overall, three types of
activity stood out. Firstly, there were many schemes to expand the role of
HCAs, usually through an NVQ programme. Secondly, there was a great
diversity of activities around expanding the role of senior nurses. Finally,
there were projects to make more use of non-clinical staff such as
technicians, people who managed technicians, ward housekeepers, ward
clerks and a variety of posts that dealt with non-clinical aspects of patient
welfare and discharge. But the systematic evidence base for the
enthusiasm is lacking. Perhaps research should first of all focus on these
three issues, combined with one of the other issues of more general
interest (for example new roles or some of the methodological issues
discussed in the next section).
Disclaimer

This report presents independent research commissioned by the National Institute for Health Research (NIHR). The views and opinions expressed therein are those of the authors and do not necessarily reflect those of the NHS, the NIHR, the SDO programme or the Department of Health.

Addendum

This document was published by the National Coordinating Centre for the Service Delivery and Organisation (NCCSDO) research programme, managed by the London School of Hygiene and Tropical Medicine.

The management of the Service Delivery and Organisation (SDO) programme has now transferred to the National Institute for Health Research Evaluations, Trials and Studies Coordinating Centre (NETSCC) based at the University of Southampton. Prior to April 2009, NETSCC had no involvement in the commissioning or production of this document and therefore we may not be able to comment on the background or technical detail of this document. Should you have any queries please contact sdo@southampton.ac.uk