Education for public health capacity in the nursing workforce: findings from a review of education and practice issues

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Current NHS policy highlights the importance of public health as a strategy to reduce health inequalities and to promote the health of communities, and nurses are recognised as key contributors to the public health function. Changes are also taking place in pre- and post-registration nurse education curricula, in the wake of recent education policy recommendations. However, progress towards effective educational preparation for nurses’ public health function and the educational issues involved, has not been systematically charted. The study reported below investigated the adequacy of public health education and the issues involved in effective education practice through a literature review and interviews with key informants. Findings highlight issues concerned with programme outcomes, practice placement experiences, and continuing professional development. Findings are discussed, and implications and recommendations for educational and other key stakeholders are outlined.

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Background

Current NHS policy emphasises the importance of public health as a strategy to reduce health inequalities and improve the health of communities through health and social care professionals working collectively, collaboratively and competently as public health workers. The Department of Health outlines the scope of a modern public health function in Shifting the Balance of Power (DH 2001a); this includes developing and maintaining a well-educated and trained, multi-disciplinary public health workforce that performs to a consistent standard in all parts of the country.

At the same time, significant developmental changes are taking place in pre- and post-registration nursing education. In the wake of the Fitness for Practice report (UKCC 1999) and Making A Difference (DH 1999) pre-registration curricula are being revised to accommodate, for example, greater emphasis on learning in practice, longer clinical placements, and flexibility in entry and exit points. The emergence of nationally agreed competencies for first level nurses (UKCC 2000) is also significantly shaping curricula. Within post-registration education, nurse educationalists are charged with responding to the requirement to prepare nurses for specialist practice, including a potential role in public health in the context of Primary Care Trusts (PCTs). However, the adequacy of nurse education’s response to the recent
policy emphasis on public health remains largely unexplored.

Simultaneously, the need to develop the public health capacity and capability of the workforce has led to the development of public health competencies and standards for public health specialists (Healthworks 2001), as well as diagnostic and practice development tools such as the public health skills audit tool (Health Development Agency, HDA 2001). This skills audit tool provides a useful outline of public health competencies that can serve as a framework for understanding the knowledge and skills required by nurses. A summary of these public health skills clusters and examples within each cluster are shown in Table 1.

The relationship between these developments in public health and the effectiveness of nurse education as a vehicle for preparing the nursing contribution to the public health workforce remained unexplored. In light of this, the study reported below was commissioned and funded by the Health Development Agency in order to address the aims and objectives described below.

Aim

The overall aim of the study was to provide a nursing perspective to inform a national public health workforce development plan through:

- Providing an overview of progress on nurses’ educational preparation for public health practice
- Identification of the educational issues that need to be addressed to further nurses’ contribution to public health practice

Objectives

1. To conduct a literature review in order to analyse and summarise key policy and research literature on:
   - public health in nurse education and practice
   - developments in pre- and post-registration nurse education curricula
   - health education and health promotion in nursing

2. Identify key informants’ perspectives on current pre- and post-registration preparation for a public health role, including barriers to successful preparation and recommendations for the way forward.

Method

1. The literature review involved identification of key literature through

### Table 1  Public health skills clusters (HDA 2001)

<table>
<thead>
<tr>
<th>Skill cluster</th>
<th>Example skills</th>
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| A. Personal skills            | Communication  
|                               | Working in multi-disciplinary teams  
|                               | IT skills  
| B. Leadership                 | Building a shared vision  
|                               | Empowering others  
|                               | Political sensitivity and awareness  
| C. Policy and strategy        | Understanding national policy context  
|                               | Understanding other organisations  
|                               | Policy development  
| D. Management-implementation  | Prioritising  
|                               | Fundraising  
|                               | Encouraging community participation  
| E. Workplace management       | Managing change  
|                               | Project management  
|                               | Staff appraisal  
| F. Underpinning principles    | Understanding influences on behaviour  
|                               | Understanding inequality issues  
|                               | Advocacy for individuals  
| G. Professional/technical     | Health impact assessment  
|                               | Critical appraisal of research  
|                               | Knowledge management  

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database searching (CINAHL, EMBASE and PubMed). Liaison with key informants at the HDA, DH and Higher Education Institutions (HEIs) also took place to identify and locate both grey literature, and nurse education and public health innovation and research in progress.

2. Interviews with key individuals with responsibility for policy or operation of public health and nurse education took place. Sampling was purposive, and was carried out through national, regional and local networks established as part of the project. A total of nine individuals were interviewed. Interviews elicited opinions on the adequacy of pre- and post-registration education for public health practice, as well as perceived barriers to successful preparation and recommendations for the way forward.

In addition, findings were informed by the research team members’ attendance at key national, regional and local conferences, study days, meetings and workshops on public health and/or nurse education. Outputs from such events (even when not attended by the research team members) were also analysed as part of the literature review (1. above).

Findings

The findings highlighted that, to date, greatest attention in discussion and debate, as well as in research and development, has focused on developing the role of the health visitor in public health. However, staff nurses, midwives, school nurses, practice nurses and district nurses have been included in the foci of some policy and discussion documents, scoping exercises and/or development work.

A number of consistent themes emerged from the review of research and other literature, the outputs of workshops and discussions, and our interviews and discussions with key informants. This indicates a substantial degree of consensus on what the educational and developmental issues are that need to be addressed. It is also clear that progress towards developing the capacity and capability of the nursing workforce for public health is dependent on a variety of different stakeholders, from national bodies such as the UKCC, to PCT nurse executives and HEIs.

Findings highlighted three key areas for consideration: programme outcomes, practice placements and qualified practitioners’ continuing professional development needs. These are presented in turn below.

Programme outcomes

The literature review and key informant interviews identified that pre-registration programme outcomes provide a framework for learning knowledge and skills that are transferable to public health work. There was some consensus that outcomes of first level registration should relate to producing practitioners with awareness of public health contexts and practices, as opposed to outcomes focusing on technical competence to take on public health practitioner roles. A number of key education policy documents outline expectations for the curriculum that have clear relevance to public health. For example, the competencies specified by the UKCC (2000) include those transferable to public health work; these include an ability to contribute to the assessment of health needs, identify opportunities for health promotion and to identify networks of health and social care services – all under the supervision of a registered practitioner. The Quality Assurance Agency (QAA 2001) benchmark standards for nursing also highlight similar outcomes that are transferable to public health contexts and roles, for example, first level nurses should be able to discuss the political and social context within which the provision of health and social care takes place, and analyse and interpret relevant health education and health promotion information and use this knowledge to promote the health and well being of patients, clients and groups. Clearly such competencies could be applied within the context of skill mixed primary care or public health teams and/or could provide the basis for further professional development in public health.

Literature reviewed indicated that recommended curricular content also emphasises core knowledge and skills areas that are relevant to awareness of, or potentially
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transferable to the operationalisation of, public health roles. For example, in relation to the public health competencies outlined in Table 1, students learn about health inequalities, critical appraisal skills, research methods and information management and technology. The WHO (2000) European strategy for nursing and midwifery education recommends that the following supportive subjects must be included at a minimum, and their application to nursing and midwifery made explicit:

• Public health, health promotion, health education and therapeutic patient education
• Epidemiology and care in illness and disease
• Research awareness
• Communication
• Information management and information technology
• Management, leadership and organisation
• Community assessment
• Teamwork
• Working collaboratively and in partnership

In post-qualifying specialist practitioner programmes, key informants reported that current curricular content and practice placement experiences are governed by the need to achieve the specialist programme outcomes specified by the UKCC (2001). These detail both the common core and programme-specific specialist practice outcomes that nurses should acquire. Common core learning outcomes include those that are transferable to public health work, or explicitly focused on public health. For example, specialist community practitioners should all be able to:

support and empower patients, clients and their carers to influence and use available services, information and skills to the full and to participate in decisions concerning their care

and, more explicitly, for example they should:

provide accurate and rigorously collated health data to employing authorities and purchasers through health profiles in order to inform health policies and the provision of health care.

For the programme-specific outcomes, those specified for health visiting most clearly resonate with preparation for a public health role. These nurses should, for example, build health alliances with other agencies for health gain, and support and empower individuals, families and communities to take appropriate action to influence health care and health promotional activities by means of a community development approach.

The benchmark academic and practitioner standards developed by the QAA (2001) for health visiting provide also provide a potential framework within which health visitor programmes could prepare nurses for a greater public health role. The QAA document specifies that:

whilst there is an emphasis within health visiting practice on child and family health, work with populations and communities to address issues of health and social inequalities and social exclusion represent an increasing focus on public health within contemporary practice. (p 7)

The document emphasises that the professional expectations of a health visitor include the ability to work in a multi-professional and inter-agency context, influence local and national policies that impact on health, work with communities as well as individuals and families, and involve and empower users of services. Outcomes range from those that focus on partnership work with individuals and families to promote health, to child protection and contribution to the control of communicable diseases.

However, concern was expressed by some of our interviewees about the capacity of health visitor specialist practice programmes to deliver this agenda in view of the mid-1990s reduction in the minimum length of training to 32 weeks and the integration of health visitor training into the community specialist practitioner training framework. The knowledge and skills required for effective public health working, such as those outlined in Table 1, are considerable, and may require a radical departure from those traditionally offered in nursing specialist practice curricular programmes.

A further issue identified in the review concerns the variations in the content of specialist practitioner courses across different
academic institutions. Pearson et al.’s (2000) research into developing the specialist practitioner role in public health, also identified that whilst the strongest public health function across all disciplines’ curricula was health needs assessment, ‘there was great variation in the level of detail described and the prioritisation of issues’.

Practice placements

The literature review and key informant interviews highlighted that pre-registration students’ exposure to public health practice in practice placements is limited at present, due to the demands on placement availability created by large student cohorts, the requirement for longer placement experiences and the comparative lack of development of public health nursing roles to date.

A key educational issue to emerge from the review is the opportunity for students on specialist practitioner programmes to learn about and engage in public health work on practice placements under the supervision of a practice educator and/or mentor/assessor. The fact that such opportunities are currently limited is identified in the research of Pearson et al. (2000) as well as Roffe’s (undated) review of public health continuing professional development (CPD) opportunities as part of the national health visitor and school nurse development programme funded by the DH. Theory-based public health preparation in knowledge and skills areas such as community development and health impact assessment is therefore unlikely to be consolidated, applied or developed in practice by community nurses.

Nevertheless, the review identified nurses working in innovative public health roles, although they were not necessarily acting as specialist practitioner programme student mentors/assessors.

Key informants suggested a number of solutions. For example, learning contracts developed between students and mentors/assessors could incorporate a period of practice with nurses or others, such as community development workers or environmental health officers, working in a public health capacity. The overall responsibility for achievement of learning contract outcomes would however remain with the student and the student’s mentor/assessor.

It was suggested that Trusts and HEIs should systematically develop databases of public health practitioners and experiences locally that could act as role models and resources for student placement experiences. Key informants interviewed also highlighted the need for HEIs to build links with leads for public health in Strategic Health Authorities, PCTs and other provider organisations to establish a supportive network of mentors for nurses developing their public health skills. It was felt that this could enhance both the multi-professional nature of public health practice and maximise the exposure of nurses to a range of public health activity. Trusts and HEIs also need to work in partnership to ensure a strategic approach to the formal preparation of mentors/assessors, including those working in innovative public health roles.

Continuing professional development for qualified practitioners

A number of training needs analyses in primary care were found to have been carried out across the regions [South Yorkshire Education Training Consortia (SYETC 1999); Chapman Andrews and Dunkley (2000); NHSE South West (2000); Burke et al. (2001)]. These have identified skills deficits in a number of areas. Burke et al.’s (2001) findings indicate that nurses showed more skills gaps than other groups in the areas of management and management of change. They also lacked a comprehensive vision of what the current policy on public health meant for them. Nurses were often found to be marginalised in carrying out their public health roles. The most commonly cited gaps across all groups were in the areas of advocacy to influence high level policy, negotiation and influencing, indicative of gaps in the leadership skills cluster (see Table 1). Additionally, skills allied to partnership working and community development were identified as gaps across all groups. Similarly, the SYETC (1999) and Chapman Andrews and Dunkley (2000) identified that nurses lacked clarity about public health and their potential contribution.
within a broader vision of health improvement. Chapman Andrews and Dunkley (2000) also identified a need for training in ‘wider skills needed to support public health roles’ such as change management, leadership and alliance working, in addition to more specific public health skills such as health needs assessment and community development. Findings from this project highlighted self-diagnosed skills gaps for nurses in information technology and planning service provision based on needs assessment and effectiveness.

Nurses’ preferred learning methods as a means of addressing such deficits were identified from literature and interviews as those that focus on flexible, practice-based, problem-solving and work-based strategies delivered in a variety of formats. Burke et al’s (2001) HDA public health skills audit tool pilot, for example, highlights that practitioners want CPD that is delivered in forms such as action learning, shadowing and mentoring.

Learning resources for public health practice development were found to be available; these include the HDA’s (2001) skills audit tool, the health visitor and school nurse practice development resource packs (DH 2001b, 2001c), examples of good practice and frameworks for action identified in published case studies (DH 2000), and web sites listing innovative practice.

Where nurses are working in innovative public health ways, learning was often reported to have occurred ‘on the job’ rather than through formal public health education programmes or CPD in the workplace. Key informants also identified that although there are excellent examples of nurses being involved in public health work, the nurses themselves do not always recognise the key public health role that they are playing. They suggested that explicit recognition of their function is needed to encourage greater confidence in the workforce. Key informants interviewed identified that development work with managers and trainers is needed to ensure management validation of the public health function of nurses.

Organisational constraints to accessing CPD opportunities were identified, and these included: lack of protected time and staff replacement, and funding and availability of courses.

Discussion

Findings from the literature and key informant interviews indicated that recommended pre- and post-registration learning outcomes are consistent with developing nurses’ capability for a public health role. Within pre-registration curricula, these subject areas need to be linked and applied to the new public health agenda, public health contexts and roles. This application needs to include the potential public health contribution of nurses working in institutional settings such as acute hospitals and nursing homes. The application to public health is especially significant as the nature of knowledge and skills relevant to public health awareness and practice is disparate and likely to cross modular structure boundaries, and thus be embedded at different points in different parts of the curricula programme. Therefore, the public health content of pre-registration programmes needs explicit consideration in curricular planning.

In specialist practice programmes, recommended learning outcomes were found to include a clear focus on public health, as well as preparation for other roles such as working with individuals and groups. In light of the concern expressed by some of the interviewees about the capacity of specialist practice programmes to deliver this agenda, perhaps the issue here is the extent to which nurses can be adequately prepared through a level three, 32 week-minimum programme, to undertake the breadth of roles envisaged, or indeed, to what extent it is necessary for them to do so, could also be questioned. Related to this, the opportunity for specialism within specialist practice pathways may be worthy of consideration. This issue is clearly related to local workforce requirements and skill mix reviews in primary health care (see below).

Limited learning about public health in practice placements was identified as an issue for both pre- and post-registration students. As long as the opportunities for role model exposure continue to be limited, pre-registration placements with qualified practitioners functioning in a public health
capacity may necessarily be limited to those who express an interest in developing it as a specialist option and/or career choice, where such choices are possible. Pearson et al’s (2000) research study concluded that experience in community settings prior to specialist practitioner programmes appeared to be important in furthering learning about public health work.

Specialist practitioner students’ limited exposure to public health learning in practice is of concern. Innovative and flexible ways of facilitating public health learning in practice were recommended by interviewees, and these need serious consideration by programme leaders and those responsible for facilitating learning in practice in order that theoretical learning is consolidated and applied in practice. Increased opportunities for learning about public health in practice may well become available in time, as already qualified practitioners access CPD, and organisational and service delivery changes are created to facilitate the development of public health roles (see below).

Findings also highlighted that skills deficits have been identified in qualified nurses’ ability to deliver public health in practice, and a range of strategies to deliver CPD were recommended. The latter emphasise the need for flexible and practice-based learning, and require HEIs to consider innovation in education delivery, as well as partnership working with those delivering training in practice. CPD is clearly necessary to enable qualified practitioners to meet the policy agenda, and to provide role modelling for those nurses currently preparing for specialist practice.

These educational issues and their implications need to be considered together with discussion and debate about workforce planning to meet public health needs. Whilst Workforce Development Confederations and NHS Trusts are being asked to plan human resource strategies taking Health Improvement Programmes (HImPs) into account, the relationship between health need and health care professional capacity needed to meet such need remains largely unexplored.

The limited workforce planning to date has implications for addressing the education issues identified in this review. It is not known what proportions of specialist community practitioners need to be in post to fulfil public health needs of local populations within Strategic Health Authority and Trust boundaries. Therefore it is unclear whether, for example, all community nurses need to be developing public health as part of their roles, or whether a certain number within local trusts need to focus on public health activity and relinquish their more traditional roles. Clearly, this then has implications for effective deployment of education and training resources. To some extent, solutions will rest with analysis of local health care need, identification of the skills and competencies required to meet these needs, estimates of human resource required, and skill mix reviews within primary health care.

The attention given to date to commissioning public health education and training has been patchy and uneven across the UK. Workforce Development Confederations may need to ensure public health development is recognised more formally in their sub-groups and structures, and not simply added to other groups’ work, in order to ensure effective education commissioning.

In addition, the need for service delivery and organisational change is apparent from, for example, the findings concerning the lack of exposure to public health in student practice placements. Education alone is insufficient to enable nurses to achieve their potential. Burke et al’s (2001) HDA public health skills audit report concludes that organisational changes are as important as skills gaps in developing public health potential. Pearson et al. (2000) also identified that there is often attrition of public health skills and knowledge acquired on completion of specialist practice programmes when opportunities in practice for public health work are limited.

**Conclusion**

The literature review and key informant interviews allow a number of conclusions to be drawn about the educational issues involved in preparing nurses for a public health role. Nationally specified outcomes for pre- and post-registration nurse education programmes...
create a framework within which nurses can acquire public health skills and competencies.

Access to learning about public health in practice placements is currently limited; flexible and innovative approaches to managing learning in practice, through, for example, learning contracts, as well as creating databases of the practice placements that could be used by students is required to broaden and diversify public health learning experiences.

A number of reviews have highlighted the need for CPD in public health knowledge and skills for nurses already qualified in practice. Nurses’ preferred strategies for CPD were also identified are those that are flexible, practice-based, problem-oriented, work-based strategies and delivered in a variety of formats.

Educational solutions to the above need to be considered in the context of workforce planning to identify public health capacity needed and service delivery and organisational changes to allow nurses to relinquish traditional roles and role boundaries and to fulfil their public health potential.

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