

# Maximizing the contribution of the public health workforce: the English experience

F Sim,<sup>a</sup> K Lock<sup>a</sup> & M McKee<sup>a</sup>

**Abstract** In the United Kingdom, until the 1990s, specialist practice of public health was dominated by the medical profession. During the past decade, the contributions to specialist public health practice of people from diverse disciplines have become recognized, respected and valued. In parallel to this paradigm shift in culture in the specialist workforce, recognition is growing of the importance to health improvement of the routine activities of people in other jobs, whose daily work can have a significant impact on population health. These people include public health practitioners, such as environmental health officials, but also others in a very wide range of occupations, from local government chief executive officers to catering assistants, who, although their actions can have a substantial influence on public health, would not traditionally have been viewed as part of the public health workforce.

Transforming opportunities for training and professional development to meet the diverse needs of these different groups within the public health workforce for them to recognize and fulfil their potential for health improvement is an important challenge, if we are to achieve continuing improvements in public health. Presenting England's attempts to address the challenges of recruiting and training the range of people needed to deliver effective intersectoral public health may offer insights for those facing similar challenges in other countries.

Bulletin of the World Health Organization 2007;85:935–940.

Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

## Introduction

In many countries the structure of the public health workforce is based on a paradox. It is now widely accepted that improving public health requires intersectoral action and the combined efforts of people from many professions and disciplinary backgrounds. Yet within this workforce, one profession has stood out from the rest, in terms of its regulatory framework, training pathways and status. In many cases, physicians followed clearly structured career pathways involving the acquisition of certain qualifications until they reached positions of leadership that were reserved for those who had followed this route. In contrast, the workforce that they led contained many people who had come to public health through a myriad of pathways, often armed with specialist knowledge in some aspects of public health, but without either access to the breadth of training needed or the legal right to assume these positions of leadership.

This was the situation in England until recently. In this paper, we describe how England has adapted to the new reality of public health practice,

recognizing the many and diverse contributions made to the public health workforce and putting in place the necessary training systems. We begin by summarizing these regulatory and professional changes before describing how the training needs of this workforce are being met. England's attempts to address the challenges of recruiting and training the range of people needed to deliver effective intersectoral public health may offer insights for those facing similar challenges in other countries.

## The changing workforce

In 1974 a structural reorganization transferred the former Medical Officers of Health from local government to the National Health Service (NHS), where they were granted specialist status, with equivalent pay and conditions of service to other medical specialists. As medical practitioners, they had always been required by law to be on a register maintained by the General Medical Council. Henceforth, as with other medical specialities, specialist status required completion of approved training including passing postgraduate medical examinations. This professional route

was closed to the growing number of non-physician graduates (such as statisticians, epidemiologists, economists and experts in health promotion) working in public health departments.

By the late 1990s it became clear that this situation was becoming untenable given the evolving public health agenda and it became necessary to redefine the specialist workforce to include those people from other disciplines who were making a major contribution to public health practice.<sup>1</sup>

The resulting reform of public health training had to take account of several factors. The key issue was that training for specialist status involved a partnership between the NHS, which paid the salaries of those in postgraduate medical posts, and the Faculty of Public Health, a professional association that is part of the Royal Colleges of Physicians, which certified these posts as suitable for training and ran the examinations. The government has delegated responsibility to these Royal Colleges for setting standards for postgraduate training and professional practice. In 2000, following the precedent established by the Royal College of Pathologists which

<sup>a</sup> London School of Hygiene and Tropical Medicine, Keppel Street, London, England. Correspondence to F Sim (e-mail: fiona.sim@lshtm.ac.uk).

doi: 10.2471/BLT.07.044289

(Submitted: 30 May 2007 – Revised version received: 26 September 2007 – Accepted: 27 September 2007)

had opened to non-medically qualified laboratory scientists, the Faculty of Public Health permitted membership by examination for non-medically qualified graduates. The Faculty developed a revised curriculum, agreed in 2007, and created common training requirements for all public health specialists.<sup>2</sup> In parallel, training posts within the NHS in England became multidisciplinary, and most senior posts in public health became open to both medically and non-medically qualified public health specialists.

Despite this co-ordination of training and employment an important issue remained. Only one part of the specialist workforce (those who were medically trained) was now regulated, leaving populations potentially vulnerable to unsound professional practice. In 2003, a new regulator, the United Kingdom Voluntary Register for Public Health Specialists, was established with government support. Non-medical specialists are now expected to register before taking up senior posts in the NHS in England.

## Who makes up this workforce?

These reforms addressed specialist training but also highlighted the recurrent problem of how to define the boundaries of the public health workforce. This issue was addressed by the senior medical adviser to the United Kingdom Government, the Chief Medical Officer for England (there are also Chief Medical Officers in Scotland, Wales and Northern Ireland, who advise the devolved administrations on areas within their remit). In his 2001 report, he identified three major categories in the public health workforce: specialist, practitioner and wider workforce.<sup>3</sup>

The specialist public health workforce is easiest to define, comprising people who have higher qualifications in public health and who occupy positions exclusively or substantially focused on population health. Within this category are individuals working at local, regional and national level in the NHS, local and central government, and higher education, in teaching and research. Few public health specialists are employed in the private sector, although a growing number are in independent practice, frequently resulting from the serial reor-

ganizations of the public health delivery system over recent years.

The public health practitioner workforce comprises many core disciplines – from health visitors and community nurses to health promotion practitioners and environmental health officers. Their common denominator is day-to-day responsibility for influencing population health through front-line, operational interventions with individuals, families or local communities, rather than at a higher level of policy or planning. Public health practitioners may have obtained their core education in areas such as teaching or clinical practice, although some, such as environmental health officers, may have trained primarily in a core public health discipline.

The most diverse of the three categories is the “wider” public health workforce, comprising people from all sectors and at all levels of organizations, from chief executives to front-line service providers. They include, potentially, journalists, pharmacists, social care staff, teachers and workers in the retail, leisure and hospitality sectors (Table 1). This is a largely undefined and substantially underutilized workforce in public health terms. In 2002, the size of the wider public health workforce in London (population 7.5 million in 2005) was estimated<sup>4</sup> to be of the order of a quarter of a million people. If even a fraction of this wider workforce was properly trained, empowered and motivated, they could offer tremendous potential for improving population health.

This category illustrates the absence of a hierarchy. While a catering assistant may aspire to acquire the skills to become a public health practitioner, there is no expectation or requirement that they should do so. However, it seems less likely that a local government chief executive will share such an aspiration. The key challenge is to find ways for the diverse members of the wider workforce both to recognize that they have a public health role and to ensure they gain the competencies that will enable them to fulfil the requirements specific to their role.

## Improving population health

These three heterogeneous categories have complementary roles in improving population health. The role envisaged

for the specialist workforce is to act as a catalyst to support evidence-based interventions that can be undertaken locally by competent public health practitioners and the wider workforce.<sup>5</sup> The English Department of Health has published a Commissioning Framework for Health and Well Being that emphasizes the need to communicate to staff in the NHS and in local government what their potential roles might be.<sup>6</sup> This offers opportunities for public health specialists but also creates challenges, as recent National Health Service reorganizations have reduced the specialist workforce.<sup>7</sup>

Experience so far confirms that those in the practitioner workforce are willing and able to enhance their public health skills where they have strategic, technical and professional support, training opportunities, and scope for career progression and organizational development. Other research emphasizes the positive role played by local public health champions in health promotion campaigns.<sup>8</sup> However, many clinicians do not view themselves as promoters of public health, nor may they have the competencies to deliver effective public health interventions at the individual patient level. This could in part reflect the nature of undergraduate medical and nursing curricula.<sup>9,10</sup> Public health typically plays a small part in clinical curricula and is often isolated from mainstream clinical teaching. The situation seems little better in continuing professional education; for example, staff induction programmes in the NHS rarely include public health topics other than infection control through hand washing.

Harnessing the contribution of the wider workforce is challenging because it is enormous, diverse and largely ignorant of its own potential for improving health. However, two reports published by the United Kingdom Treasury emphasized the crucial role that non-specialists need to play.<sup>11,12</sup> These reports examined the determinants of future health expenditure and proposed a range of policy scenarios. In the ideal “fully engaged scenario” the general population are health-literate and enabled to make healthy decisions. This scenario was essential to achieve the improvements in population health needed to maintain a strong economy and, by reducing the future burden of

Table 1. Examples of the wider public health workforce

Sector	Who	Contribution	What they are doing now
Politics	National – finance minister Local government – e.g. mayor	Taxation; other regulation Local regulation	Taxation Smoke-free public places in some countries
Retail industry	Manufacturer Retailer	Diversification to less unhealthy products Content specification; pricing policy, product placement	Highly regulated retail sector – variable compliance (e.g. under-age shoppers) Variable compliance with voluntary agreements
Hospitality industry	Hairdresser	Health promotion advice Non-smoking environment	Basic hygiene practice Environmental regulation compliance
	Restaurateur	Non-smoking environment Healthy food options	Relatively scarce involvement in health promotion beyond hygiene
Health care	Doctors, pharmacists, dentists and others	Opportunistic evidence-based health improvement advice in context of patient's condition	Variable engagement with health improvement role
Child education	Care-givers, teachers, head teachers, governors in nurseries, schools	Use opportunities to influence behaviour – integrating health into teaching curriculum – e.g. sport, geography, history, economics	Occasional public health champions
Mass media	Journalist	Balanced, evidence-based programmes, articles	Variable degrees of responsible practice
Nongovernmental organizations	Community workers, working with minority communities, hard-to-reach groups	Health-oriented interventions – e.g. in language teaching and family welfare advice	Variable, dependant upon public health competence of workforce

preventable disease, an affordable publicly funded health service. However, little is known about the training needs of this wider workforce and how best to meet them.

A key issue in developing an effective wider workforce is whether the design of existing jobs supports a contribution to public health and whether potential role changes will help or hinder it. Although there is a growing body of research on the changing roles of the healthcare workforce,<sup>13</sup> particularly skill mix changes in the medical and nursing workforce,<sup>14</sup> there is little research on non-health-sector workers adopting health roles.

The limited research does offer some insights. Tensions within multi-agency health promotion coalitions have been dealt with by creating “boundary workers” who develop new “roles within roles”. This allows people to work at the interface between organizations, sticking to boundary issues that do not threaten the main agenda of any organization.<sup>15</sup> Efforts to enhance functional flexibility of jobs may be welcomed as creating greater variety for staff, although possibly associated with increased work intensity and stress.<sup>16</sup> Finally, it is important to understand how occupational and professional roles are interlinked,

with continuous negotiation between different groups of workers, so that changes to the role of one group will have implications for others.<sup>17,18</sup>

There is an urgent need for research that will identify what is needed to establish effective public health roles within jobs outside the traditional public health workforce, and what educational approaches, incentives and workforce development policies can most effectively empower this important group. However, this approach must be accompanied by policies to ensure that they have a defined and legitimized public health role within their job specification, allowing them to improve the health of populations in their work.<sup>19</sup>

### Making it happen

In the United Kingdom many elements are already in place to develop the capacity of public health, although they are not necessarily coordinated. The United Kingdom traditionally has a strong academic base in public health, with numerous postgraduate training opportunities. A 2005 survey of master's-level courses<sup>20</sup> revealed 58 courses in 45 British universities whose titles contained the term “public health”. Approximately half of these covered less

than two of the five main knowledge areas required by the Faculty of Public Health for its diploma examination (which must be passed by those aspiring to be public health specialists in the United Kingdom). In contrast, there are many postgraduate courses that do not include the term public health but which clearly include some public health knowledge, such as epidemiology or health economics.

Discussions among employers and educational providers have identified a widely held desire for mechanisms to coordinate these activities. While recognizing the diversity of training content and methods, there are potential benefits to be obtained from exchanging experiences and ensuring synergy between training programmes and employment needs. This view has been influenced by some observed successes, such as the strengthening of public health within curricula for nursing, midwifery<sup>21</sup> and environmental health training.<sup>22,23</sup>

In 2006, the English Department of Health established nine regional Teaching Public Health Networks in response to the perceived need for wider coordination of training. The networks are intrinsically collaborative, seeking to break down historical boundaries between the further and higher education sectors,

and barriers between education, health and other sectors. In the United Kingdom, further education has traditionally focused on acquisition of practical job skills while higher education, based in universities, has focused on academic training and research. Competition between sectors is inevitable, but it should be offering benefits rather than barriers to public health training. The networks have to engage with all sectors. Considerable efforts are being made, for instance, to engage academic departments that might not otherwise associate themselves with the public health agenda, such as town planning and architecture. Another important initiative is to achieve a better understanding of the nongovernmental sector. Poorly-resourced voluntary organizations frequently have greater insights into the health needs of disadvantaged groups within communities than do statutory organizations.

The networks have begun to map the range of public health courses, building bridges among educational providers and employers. For example, an ongoing exercise to catalogue adult training courses that have a public health content in London has so far elicited over 80 courses at all levels. Providers include further and higher education establishments, the National Health Service, Health Protection Agency and local government. Courses range in duration from days to three years of full-time study. Some offer degrees or other formally accredited qualifications, while others are work-based courses that are tailored to meet the needs of specific jobs. While national occupational standards for public health practice have been published,<sup>24</sup> there is little sign that many existing courses are benchmarked against these standards.

The greatest challenge to improving public health capacity is engagement with the wider workforce and especially those employed in the nongovernmental sector. This is work in progress that has three elements: first, to engage in extensive discussions with the many organizations involved to highlight the contributions they can make to public health and to identify their perceived training needs; second, to learn from other relevant experiences. In 2004, the NHS in England adopted a Knowledge and Skills Framework defining knowledge and skills that all staff should be able to apply in their work to deliver quality services. It provides a consistent, comprehensive and explicit framework against which to review personal development, providing a systematic mechanism to increase understanding of public health among different occupational groups.<sup>25,26</sup> Third, entry points must be identified that build on existing activities. For example, there is scope to introduce public health concepts into leadership programmes for public-sector workers such as head teachers.

## Conclusion

Meeting the complex future challenges to public health will require the engagement of many people, from specialists and practitioners to a wider workforce comprising individuals making discrete contributions in their everyday work, often without realizing the health impact they could have. If these collective efforts are to achieve their full potential, several things must happen. The first is that those with the appropriate skills and expertise should not be confronted with a glass ceiling because of the particular education or career pathway they took. The second is that those who deliver public health interventions in

their everyday work yet do not aspire to become public health specialists should be supported with appropriate training. Finally, communities must recognize the contributions to public health being made by many people who are unaware that they are fulfilling these roles.

All of these approaches require new ways of public health capacity-building. These must build on traditional and existing professional links, but must become more open to and inclusive of people from a wide range of educational and occupational backgrounds not previously the target of public health training. Delivery will require new educational partnerships and flexible approaches to training that can take account of the diverse needs of a workforce embracing people from all walks of life, from chief executives to school cooks. While these needs cannot be met by a "one size fits all" approach, it is also important to adhere to clear educational standards. There is a need to establish evidence for the contribution to population health of developing the role of the wider public health workforce. Such evidence, whether across the breadth of public health action, or, more realistically, in selected exemplar areas of public health action, would permit a shift from theory to an evidence-based identification of the contribution by the wider public health workforce to sustainable health improvement. Only then are decision-makers in the public and private sectors likely to invest in training and incentives for the wider public health workforce to fulfil its potential. ■

**Competing interests:** F Sim, K Lock and M McKee are members of the London Teaching Public Health Network; however, the views expressed in this article do not necessarily represent those of the network.

---

## Résumé

### Maximiser la contribution de la main d'œuvre au service de la santé publique : l'expérience britannique

Au Royaume-Uni, jusque dans les années 90, les spécialistes en santé publique étaient surtout des médecins. Au cours de la dernière décennie, les contributions à la pratique de la santé publique de spécialistes appartenant à diverses disciplines ont été reconnues, respectées et appréciées. En parallèle à cette évolution du modèle de culture pour la main-d'œuvre spécialisée, on reconnaît de plus en plus l'importance, pour l'amélioration de la santé publique d'autres activités professionnelles pouvant quotidiennement avoir un impact conséquent sur cette santé. Il s'agit notamment de

professionnels de la santé publique, comme les agents chargés de la santé environnementale, mais aussi d'une grande variété de professions, allant des chefs de gouvernement locaux aux employés de la restauration qui, malgré l'influence importante de leurs actions sur la santé publique, n'étaient traditionnellement pas considérés comme faisant partie de la main-d'œuvre au service de la santé publique.

Pour améliorer constamment la santé publique, il importe d'exploiter les opportunités de formation et de développement

professionnel pour répondre aux divers besoins des différentes catégories de main d'œuvre au service de la santé publique, en identifiant et en mettant en pratique leurs capacités à améliorer la santé. Présenter la tentative anglaise pour répondre aux problèmes

de recrutement et de formation de l'éventail de personnes nécessaires pour délivrer des prestations intersectorielles de santé publique efficaces pourrait fournir des idées aux personnes confrontées à des problèmes similaires dans d'autres pays.

## Resumen

### Optimización del perfil del personal de salud pública: la experiencia británica

Hasta los años noventa en el Reino Unido los especialistas de la salud pública pertenecían en su mayoría a la profesión médica. Durante el último decenio, sin embargo, se ha constatado un creciente reconocimiento, respeto y valoración de la labor desempeñada por expertos de otras disciplinas en ese campo. Paralelamente a ese cambio de paradigma, se observa también un creciente reconocimiento de la importancia que para la mejora de la salud tienen las actividades habituales de personas de otras profesiones, cuyo trabajo diario puede tener gran impacto en la salud de la población. Entre ellos se encuentran profesionales de la salud pública, como funcionarios de salud ambiental, pero también otras personas con muy diversas ocupaciones, desde directores generales de gobiernos locales hasta ayudantes de servicios de restauración, los cuales, pese a la gran influencia

que puede tener su trabajo en la salud pública, no han sido considerados tradicionalmente como parte de la fuerza laboral que actúa en esa esfera.

Transformar las oportunidades de formación y desarrollo profesional para atender las diversas necesidades de esos distintos grupos del personal de salud pública con miras a que reconozcan y lleven a la práctica sus posibilidades para mejorar la salud es un desafío importante que hay que afrontar si deseamos propiciar mejoras continuas de la salud pública. La presentación de las iniciativas emprendidas por Inglaterra a fin de superar los retos de la contratación y formación de todo el espectro de personal necesario para garantizar eficazmente la salud pública intersectorial puede servir para proporcionar algunas claves a quienes afrontan retos similares en otros países.

## ملخص

### تعظيم مساهمة القوة العاملة الصحية: التجربة الإنكليزية

والذين لم يكن ينظر إليهم باعتبارهم جزءاً من القوة العاملة الصحية، برغم أن أنشطتهم يمكن أن تحدث تأثيراً كبيراً على الصحة العمومية. إن إتاحة الفرص لهذه الفئات المختلفة داخل القوة العاملة الصحية، للتدريب والتطوير المهني لتلبية احتياجاتها المتنوعة، بما يتيح لها التعرف على قدراتها على تحسين الحالة الصحية وتحقيق هذه القدرات، تُعتبر تحدياً مهماً، إذا ما أردنا أن نحقق تحسناً مستمراً في الصحة العمومية. وإن عرض محاولات إنكلترا في التصدي لتجديدات توظيف وتدريب العاملين للزمين لتوفير خدمات الصحة العمومية المشتركة بين القطاعات، قد يقدم أفكاراً واضحة لمن يواجهون تحديات مماثلة في بلدان أخرى.

ظل أرباب المهنة الطبية يهيمنون على الممارسة التخصصية للصحة العمومية في المملكة المتحدة حتى تسعينات القرن الماضي. أما في العقد المنصرم، فقد حظيت مساهمات أصحاب تخصصات أخرى متنوعة في الممارسة التخصصية للصحة العمومية بالاعتراف والاحترام والتقدير. وقد ترافق مع هذا التحول في الإطار المفاهيمي في ثقافة القوة العاملة التخصصية، تزايد الاعتراف بأهمية الأنشطة الروتينية لممارسي الوظائف الأخرى في تحسين الوضع الصحي، والذين من شأن أنشطتهم اليومية أن تؤثر تأثيراً ملموساً في صحة السكان. ويندرج تحت هذه الوظائف ممارسو الصحة العمومية، مثل المسؤولين عن صحة البيئة، إضافة إلى غيرهم من ممارسي مجموعة متنوعة من المهن، بدايةً من كبار الموظفين التنفيذيين في الحكومات المحلية إلى العاملين في المطاعم،

## References

1. Evans D, Knight T. Guest Eds. The history of multidisciplinary public health minisymposium. *Public Health* 2007; 10.1016/j.puhe.2007.03.011.
2. *Public health training curriculum 2007*. London: Faculty of Public Health of the Royal Colleges of Physicians of the United Kingdom; 2007. Available at: [http://www.fphm.org.uk/training/downloads/curriculum\\_2007.pdf](http://www.fphm.org.uk/training/downloads/curriculum_2007.pdf)
3. *The report of the Chief Medical Officer's project to strengthen the public health function*. London: Department of Health; 2001.
4. Walters R, Sim F, Schiller G. Mapping the public health workforce 1: a tool for classifying the public health workforce. *Public Health* 2002;116:201-6.
5. *Choosing health: making healthy choices easier*. London: Department of Health, 2004.
6. *Commissioning framework for health and well-being*. London: Department of Health, March 2007.
7. Donaldson L. *On the state of the public health: annual report of the Chief Medical Officer 2005*. London: Department of Health, 2006.
8. Riley B, Taylor SM, Elliott SJ. Organisational capacity and implementation change: a comparative case study of heart health promotion in Ontario public health agencies. *Health Ed Res* 2003;18:754-69.
9. Gillam S, Bagade A. Undergraduate public health education in UK medical schools – struggling to deliver. *Med Educ* 2006;40:430-6.
10. Evans D, Fathers P. *Mapping public health across the nursing pre-registration branch programmes curricula* [unpublished]. Middlesex University; June 2006.
11. Wanless D. *Securing our long term health: taking a long term view*. London: HM Treasury, 2002.
12. Wanless D. *Securing good health for the whole population: final report*. London: HM Treasury/Department Health, 2004.
13. *The world health report 2006: working together for health*. Geneva: WHO; 2006.
14. Buchan J, Dal Poz MR. Skill mix in the health care workforce: reviewing the evidence. *Bull World Health Organ* 2002;80:575-80.
15. Stern R, Green J. Boundary workers and the management of frustration: a case study of two Healthy Cities partnerships. *Health Promot Internation* 2005;20:269-76.
16. Desombre T, Kelliher C, Macfarlane F, Ozbilgin M. Re-organising work roles in health care: evidence from the implementation of functional flexibility. *Br J Manage* 2006;17:139-51.
17. Wrzesniewski A, Dutton JE. Crafting a Job: Revisioning Employees as Active Crafters of their Work. *Acad Manage Rev* 2001;26:179-201.

18. Strauss A, Schatzman L, Ehrlich D, Bucher R, Sabshin M. The hospital and its negotiated order. In Freidson E ed., *The hospital in modern society*. New York: Free Press; 1963.
19. Sihota S, Lennard L. *Health literacy: being able to make the most of health*. National Consumer Council, 2004.
20. Gray D, Smith C. *Review of taught masters courses in public health offered in the UK* [unpublished]. Dept of Public Health, Medical School, University of Aberdeen, September 2005.
21. *Standards of proficiency for specialist community public health nurses*. London: Nursing and Midwifery Council, 2004.
22. *Environmental health 2012*. Health Development Agency and CIEH; 2002.
23. *A curriculum for courses leading to the registration of environmental health practitioners, April 2003*. Chartered Institute for Environmental Health. Available at: [http://www.cieh.org/library/Careers\\_and\\_training/Getting\\_qualified/EH\\_degree\\_students/CIEH\\_2003\\_core\\_curriculum.pdf](http://www.cieh.org/library/Careers_and_training/Getting_qualified/EH_degree_students/CIEH_2003_core_curriculum.pdf)
24. *National occupational standards for practice of public health guide 2004*. Skills for Health. Available at: <http://www.skillsforhealth.org.uk>
25. Wright J. *Public health careers framework*. Oxford: Public Health Resource Centre, 2006.
26. *Workforce matters: a guide to role design in the wider healthcare team*. London: NHS Modernisation Agency, Department of Health, 2002.