CENTRE FOR WORKFORCE INTELLIGENCE

# Mapping the core public health workforce

## Literature review

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**This paper explores the context and key considerations for mapping the core public health workforce under the following headers:**

1. **public health workforce policy**
2. **counting the public health workforce**
3. **previous recommendations on numbers and roles**
4. **the Public Health Skills and Knowledge Framework education and training**
5. **education and training**
6. **registration and revalidation of the workforce, and**
7. **previous attempts to examine the public health workforce.**

**The findings from this review informed the detailed mapping work contained in the main report.**

## 1. Public health workforce policy

The major development in shaping the public health workforce is *Healthy Lives, Healthy People: a public health workforce strategy* (Public health workforce strategy) published jointly in 2013 by the Department of Health (DH), Public Health England (PHE) and the Local Government Association (LGA) (DH, PHE and LGA, 2013).

The purpose of this strategy was to propose measures necessary for meeting the vision laid out by the Government in their 2010 White Paper *Healthy Lives: Healthy People: Our Strategy for Public Health in England*, of creating a public health workforce renowned for expertise, professionalism, commitment to the population's health and wellbeing and flexibility (DH, 2010a). The strategy included a commitment to the following actions:

- a new 'skills passport' to support career development, based around the Public Health Skills and Knowledge Framework (PHSKF)
- a National Minimum Data Set for the public health workforce to facilitate workforce planning
- greater support and development of the non-medical workforce in public health, notably nursing and midwifery, scientists, knowledge and information staff, and academia (with all those workforces recognised explicitly in the strategy)
- statutory regulation for non-medically qualified public health specialists
- review of the curriculum and assessment system of training (DH, PHE and LGA, 2013).

Moves toward strengthening the role of the dental public health workforce was explored in a 2010 DH report into the dental public health workforce (DH, 2010b). The main challenge identified in dental public health was the thin spread of the profession, with a third of primary care trusts in 2010 lacking direct access to consultant advice and a fifth lacking direct advice from a dental practice adviser (DH, 2010b). In response, the 2010 report strongly advocated development of the dental public health workforce in order to improve outcomes, notably through increasing numbers of professionals working and training in dental public health (by approximately 50 full time equivalent (FTE) consultants and six FTE dental practice advisers across England) and involving other practitioners to add to teams according to local need (DH, 2010b).

Although such measures and proposals will take some time to embed, both workforce strategies highlighted above signal moves towards encouraging a more numerous and more diverse workforce (notably through strengthening the role of nurses, midwives and healthcare scientists and by making it easier to move between different roles) that may require different skills and will be more regulated in future.

There has also been a move towards 'making every contact count' (MECC) – a Government backed initiative across the NHS, which emerged in discussions around the development of the Health and Social Care Act 2012 (NHS Future Forum, 2012). This has been implemented in a range of settings and formats across the health and social care system through initiatives led by the former strategic health authorities in Midlands and East, Yorkshire and Humber, South Central and by individual organisations including former primary care trusts (PCTs), NHS provider trusts and local authorities. MECC is about combining the vast human resources of the NHS and other health and social care organisations to inform and enable people to make positive changes through the systematic delivery of consistent and simple healthy lifestyle advice. In the Midlands and East region alone, MECC has been implemented by more than 100 organisations. In addition, over 9,000 staff have completed the West Midlands' online MECC training tool and delivered lifestyle advice and signposting (HE West Midlands, email communication, 2014).

A good example of where MECC has become embedded into workforce practice comes from Health Education West Midlands. MECC and prevention are both now embedded in the undergraduate curricula of West Midlands' commissioned courses, with specific questions regarding this incorporated into the annual *Education Commissioning for Quality* process (whereby universities are quality-checked and risk assessed with payment attached). A West Midlands Higher Education Institution (HEI) MECC Network meets twice a year to enable universities to learn from each other on the practicalities of training staff in MECC and to keep their knowledge up to date. Health Education West Midlands and PHE colleagues from across the Midlands and East region continue to build on existing resources, bringing them up to date with the latest National Institute for Health and Care Excellence (NICE) guidance. Activities have included launching a new version of the West Midlands online tool for training local authority staff in MECC/brief advice, incorporating MECC into the update of the West Midlands NHS Health Checks e-tool, and continuing to support universities in embedding MECC and prevention into their training of our future workforce (Health Education West Midlands, email communication, 2014).

At the same time, a number of reviews and projects taking place during 2013 and 2014 are expected to have implications for shaping the public health workforce in the future and include the following pieces of work.

Since PHE took up its formal responsibilities on 1 April 2013, there has been considerable interest in the public health workforce in England, with many publications in the last 12 months providing or due to provide additional information. These include:

- the Association of Directors of Public Health (ADPH) survey of Directors of Public Health (DsPH) on future plans and the state of their workforce (ADPH, 2014)
- the British Medical Association (BMA) survey of all public health doctors around the state of public health medicine, including work conditions, the profession as a whole, the future of the profession and perceptions of the 2013 reorganisation (BMA, 2014)
- the Centre for Workforce Intelligence (CfWI) survey of public health consultants and specialists around job satisfaction and career intentions (CfWI, 2014a)
- the House of Commons Health Select Committee report on PHE's work during the first year of operation (House of Commons Health Select Committee, 2014). This followed a previous report by the House of Commons Communities and Local Government Select Committee in March 2013 on the role of local authorities in health, which welcomed the reforms to public health but expressed concern over the delay in announcing funding allocations (House of Commons Communities and Local Government Committee, 2013)
- the King's Fund resource for local authorities on improving public health locally (The King's Fund, 2013)
- PHE's staff satisfaction survey (PHE, 2014)

- the Royal Society of Public Health (RSPH) survey of all public health staff working within local authority teams (RSPH, 2014)
- a joint report in January 2014 by the LGA and PHE outlining a series of case studies demonstrating how local authorities had delivered public health since April 2013 (PHE and LGA, 2014)
- a House of Commons Library briefing by research clerk Sarah Heath published in March 2014, which provides a concise explanation of the literature surrounding the main statutory responsibilities of public health, public health funding and for what it has been used, and accountability arrangements of public health staff (Heath, 2014).

A consistent theme posed by these publications is that while organisations have largely responded to the challenges posed by the 2013 reorganisation, challenges remain, notably around:

- job satisfaction (PHE, 2014; BMA, 2014; CfWI, 2014a)
- career development and support (CfWI, 2014a)
- how effectively new players such as PHE and local authorities are establishing themselves in the new system (House of Commons Health Select Committee, 2014; RSPH, 2014)
- financing of public health (RSPH, 2014; ADPH, 2014)
- possible loss or downgrading of public health posts (ADPH, 2014; BMA, 2014).

Initiatives have sought to deal with education and training, both for public health as a specialty and medical training as a whole. *The Shape of Training* review led by Professor David Greenaway in 2013 recommended changes to medical training, and once implemented may serve to broaden the training medical students receive (Shape of Training, 2013). *Shape of Training* is explained in greater detail on pages 15 and 16 of this paper. Also, the Faculty of Public Health (FPH) began a curriculum review at the end of 2013-2014 to establish whether the public health training curriculum needs to be updated (FPH, 2013). Changes arising from the FPH review are due to be implemented from 2015.

Work is also taking place on strengthening the contribution of other workforces in public health, particularly those of nurses and scientists. The nursing profession and PHE have worked actively to understand how every nurse and midwife can contribute to public health, whether at individual, community or population level (PHE, 2013c), while the Government's public health workforce strategy stated that PHE in future would direct support to specialist public health nurses and midwives to ensure better care for children and families (DH, PHE and LGA, 2013). Similarly, the Government is committed to strengthening the role of healthcare scientists, who play an important role in health protection and who have been subject to new education and training programmes under the *Modernising Scientific Careers* programme (DH, PHE and Local Government Association, 2013; DH, 2011).

Work has started on developing a voluntary National Minimum Data Set (NMD) for the public health workforce. This development follows concerns over the quality of data available to support workforce planning, as outlined in the Government's *Public Health Workforce Strategy* (DH, PHE and LGA, 2013). The NMD will help identify public health staff working in local government— while staff working in PHE and the NHS will be covered by the Electronic Staff Record (ESR). However, this work will not be complete until 2015 to 2016. Please refer to pages 55 and 56 of the main report for further information on the National Minimum Data Set.

There has also been a recent refresh of the PHSKF to make the framework easier to understand and more accessible, particularly for local authorities, who have previously used their own frameworks for professional development (Skills for Health, 2008a, updated 2013). The review focused on lower levels (1-4) of the framework. The current thinking is that PHE will use the refreshed framework to develop the new skills

passport for public health and to support career development within public health (DH, PHE and LGA, 2013). Part of the work will also help to redevelop the Public Health Online Resource for Careers, Skills and Training (PHORCaST) website, to provide interactive information about public health careers, and integrate it more closely with NHS Careers and Medical Careers (DH, PHE and LGA, 2013).

Finally, a joint review announced in January 2014 by PHE, the FPH, the ADPH and the LGA will develop guidance to support local authorities in identifying what skills mix they may wish to have in their public health teams, including around employing doctors and supporting staff mobility. The review is expected to report later in 2014 (FPH et al., 2014).

## 2. Counting the public health workforce

The public health workforce, in a broad sense, has tended to be understood in terms of two main categories:

- **consultants and specialists**, who work at a strategic or senior management level and who shape, design and manage public health services
- **practitioners**, who work primarily at operational level in delivering public health services (Skills for Health, 2008a).

In addition, **the wider workforce** could have a role in health improvement and reducing inequalities but may not be aware of this (Skills for Health, 2008a).

The quality and availability of data on these workforces is variable. While there is some clarity on the numbers of consultants and specialists (due to people previously working in the NHS and being more likely to be on an official register such as the General Medical Council (GMC) and General Dental Council (GDC), the numbers of those working in public health and coming from a practitioner background are much harder to determine. Moreover, the numbers of those in the wider workforce with a public health role are unknown, but potentially very high (assuming that all those working in health and social care are included, as well as other professional groups such as teachers, social workers, and civil servants).

A previous attempt to estimate the size of the workforce was done by Dunkley and Speller in 2001 in an unpublished report (known as the *National Public Health Workforce Development Plan*) for the Department of Health (Dunkley and Speller, 2001). This found that there were 20,664 WTE in the public health workforce:

- 854 specialists (which includes medical/dental consultants, other career grade medical staff, and non-medical specialists)
- 708 academic staff (124 medical, 584 non-medical)
- 87 public health laboratory staff
- 19,102 practitioners which include:
    - 3,867 environmental health officers in local authorities
    - 203 public health practitioners working in health authority public health departments
    - 1,625 staff working in health promotion
    - 847 staff working in health protection
    - 10,046 health visitors
    - 2,400 school nurses (Dunkley and Speller, 2001).

The most recent estimate to date was provided by the *Public Health Workforce Strategy*, which reported that in April 2013 around 4,500 people working in public health transferred to local authorities, including

consultants in public health, commissioners, health promotion specialists, and knowledge and intelligence staff (DH, PHE and LGA, 2013). In addition a further 5,500 people transferred to PHE, which includes consultants and specialists, public health nurses and scientists. This gives an approximation of 10,000 people who transferred to PHE and local authorities, mostly at consultant/specialist and practitioner level. This figure excluded other workforces who play a significant role in delivering public health services operationally, notably environmental health professionals (who have always been based in local authorities and play a considerable role in protecting health) and key nursing groups such as school nurses and health visitors, who are more likely to work at a community level rather than at the individual level.

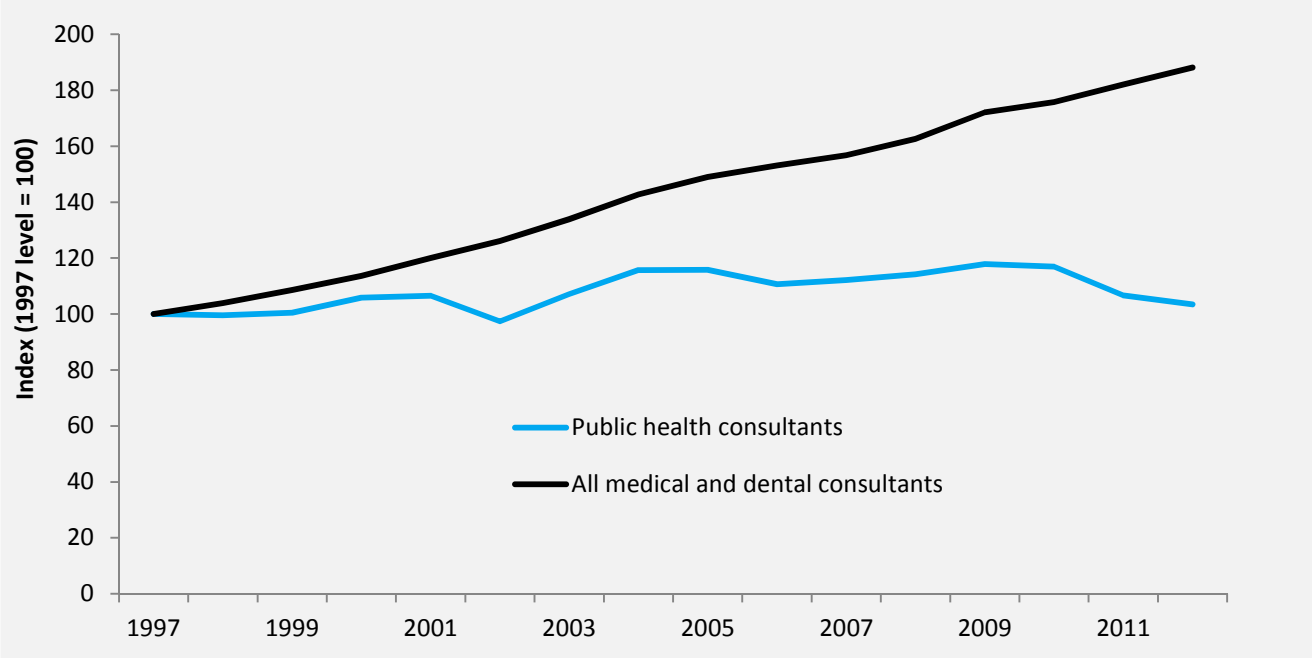
The *Public Health Workforce Strategy* estimated that there were 1,200 specialists who had completed the training programme or the portfolio routes working as public health consultants (DH, PHE and LGA, 2013). This is consistent with Health and Social Care Information Centre (HSCIC) 2012 census figures, which suggest that there were 1,186 working in consultant, associate specialist, specialist doctor/dentist and staff grade roles (HSCIC, 2013a).

HSCIC census figures from 2013 onwards for public health consultants (i.e. those in consultant and Director of Public Health roles who have received a certificate of completion of training) are of limited validity, because staff working in both local authorities and PHE are neither counted nor included in reported statistics (HSCIC, 2014a)[1].

Between 1997 and 2012, the number of consultants and registrars (i.e. doctors and dentists in training) working in public health and dental public health grew at a much smaller rate when compared to all medical specialties as a whole. The number of public health consultants increased by 4 per cent, compared to 88 per cent for all medical specialties (see Figure 1). Figure 2 shows that the number of public health registrars fell by 26 per cent between 1997 and 2013, while the number of registrars as a whole more than tripled.

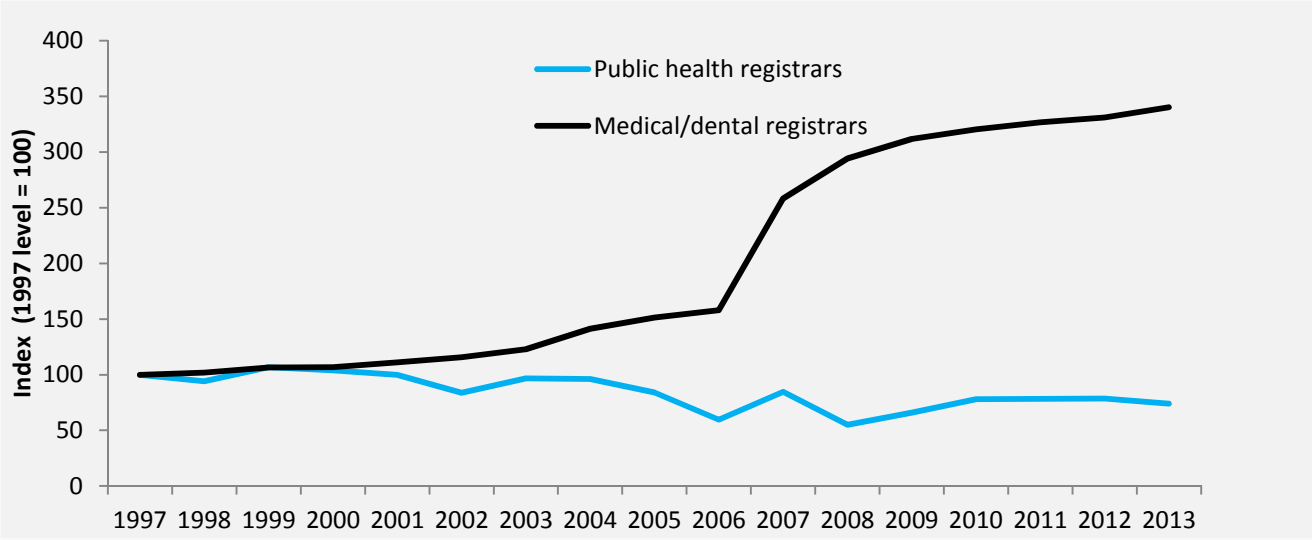
1 The HSCIC census for 2013 figures suggested that there were 582 staff working in consultant, associate specialist, specialist doctor/dentist and staff grade roles. This represents a fall of more than 50 per cent on the 2012 census figures, but which can be explained, at least in part, by the shift of public health staff to PHE and local authorities.

**Figure 1: Historical trend in increase of consultants, England, 1997 to 2012 (1997 =100)**




**Source:** HSCIC, 2013a

**Figure 2: Historical trend in increase of registrars, England, 1997 to 2013 (1997 = 100)**




**Source:** HSCIC, 2014a

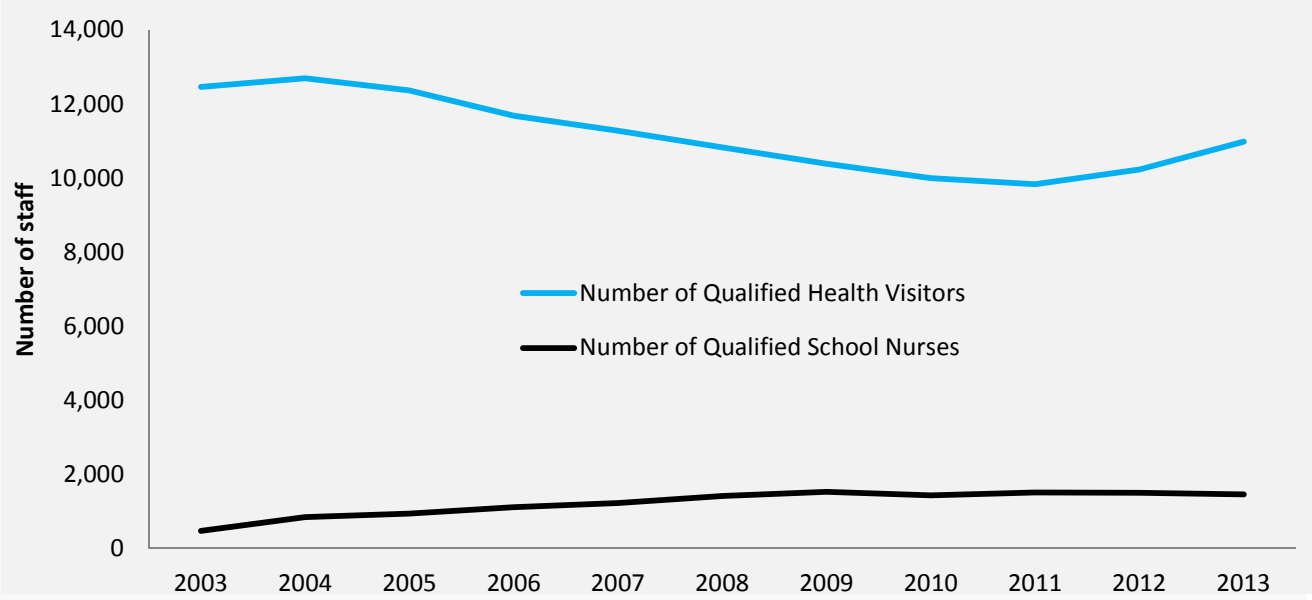
Defining the total number working at practitioner level in public health is more difficult, with limited data available relating specifically to public health practice in England (DH, PHE and LGA, 2013). This was highlighted as early as 2009, where the Workforce Review Team (WRT) in recommending excluding public health consultants from the shortage occupation list emphasised the difficulty of clearly identifying public health practitioners (WRT, 2009).

An exception applies for nursing, where data exists from the Nursing and Midwifery Council's (NMC) Specialist Community Public Health Nursing (SCPHN) Register. This part of the register contains registered nurses and midwives who are working in public health roles, and who have undertaken NMC-approved SCPHN courses that incorporate the 10 recognised public health competencies (NMC, 2014). Analysis by the Royal College of Nursing (RCN, 2013) found there were a total of 27,133 people on the SCPHN register in the UK, including:

- 37 family health nurses
- 175 public health nurses
- 3,521 occupational health nurses
- 3,033 school nurses
- 20,367 health visitors.

Not all those registered may be working, for example HSCIC recorded that in September 2013 there were 10,980 qualified health visitors and 1,455 qualified school nurses working within the NHS (HSCIC, 2014b) (see Figure 3).

**Figure 3: Numbers of qualified school nurses and health visitors working in the NHS, 2003 to 2013, England, by headcount**




**Source:** HSCIC, 2014b

Several reports have previously estimated numbers working within specific public health functions, including:

- a 2005 report by the DH estimated that there was a workforce of 2,000 FTE staff specialising in health promotion in England and Wales (DH, 2005)
- a 2010 paper by Jenner et al. on knowledge and intelligence teams found that there were approximately 550 to 600 working in public health intelligence posts in England (Jenner et al, 2010)
- a 2008 benchmarking tool by the WRT for the public health workforce found that there were approximately 9,120 FTE roles in public health in England:
    - 2,174 FTE in health protection
    - 4,770 FTE in health promotion

- 1,549 FTE in services and quality
- 626 FTE in knowledge and intelligence (WRT, 2008).

These reports provide some context for understanding the public health workforce as a whole. The WRT's 2008 figure of 9,120 FTE public health posts is also reasonably consistent with the DH's 2013 estimate of 5,500 staff transferring to PHE and 4,500 transferring to local authorities (although the number of staff remaining in the NHS has not been considered nor have staff already in local authorities). However, as these examples make clear, understanding the shape of the public health workforce is challenging, with significant variation in what data is available.

## 3. Previous recommendations on numbers and roles

The Acheson report in 1998 recommended a target of 15.8 consultants per million population (Acheson, 1998). The FPH later increased this to 25 consultants per million population (FPH, 2004). In 2006, the Faculty made recommendations for the number of consultants working within local primary care trusts, in order to meet a target of 25 consultants per million population (FPH, 2006).

It is becoming less common for organisations and bodies to make specific recommendations in terms of workforce numbers as a proportion of the population (FPH and ADPH, 2012). Current service recommendations instead tend to focus on outcomes, and on providing support for employing organisations in their decision-making.

A good example of this trend is the PHE and LGA's 2014 report on public health transformation in local authorities, which provided a series of case studies demonstrating how local authorities had delivered public health since April 2013 with the intention of supporting local authorities in developing their services (PHE and LGA, 2014).

The FPH and ADPH in 2012 recommended how public functions could be sustained in future, based around the functions needing to be delivered by a team, the outcomes, and the team required to deliver the functions and outcomes both nationally and locally (FPH and ADPH, 2012). This document has since been superseded by an updated report by the FPH in 2014, which outlines three key domains of public health practice (health improvement, health protection and health services) and three underpinning functions (public health intelligence, academic public health and workforce development) as the key functions to be delivered by a local public health system (FPH, 2014a).This has also been followed by a joint project announced in January 2014 by PHE, the FPH, the ADPH and the LGA to develop guidance to support local authorities in identifying what skills mix they may wish to have in their public health teams, including around employing doctors and supporting staff mobility (FPH et al., 2014).

PHE, the FPH and the LGA have also published recommendations on appointing DsPH (FPH, LGA and PHE, 2013) and on appointing consultants (FPH, LGA, PHE and UCEA, 2013). These specify the roles of various organisations in recruitment, and the expectations of the roles a DPH and consultant should fill. For example, a DPH is expected to be responsible for all public health functions within a LA, including preparing annual reports of the health of the local population and to sit as a member of the local health and wellbeing board (HWB). Similarly, consultants in public health need to have a number of skills and competencies to fulfil their roles, including awareness of current policy developments, evaluating evidence, developing strategies, working on multiple projects and responding to emergencies if necessary (FPH, LGA and PHE, 2013; FPH, LGA, PHE and UCEA, 2013).

## 4. The Public Health Skills and Knowledge Framework (PHSKF)

The key guidance to understanding the shape of the public health workforce is the 2008 *Public Health Skills and Career Framework,* which after an update in 2013 to levels 1 to 4 became the Public Health Skills and Knowledge Framework (PHSKF) (Skills for Health, 2008a and PHORCaST, 2013).

The main objective of the framework is to identify the key skills and knowledge required to make a contribution to the public health workforce, through four core areas of practice in which anyone working in public health would need to have, and five areas of practice in which individual practitioners will develop and work. The nine areas are shown below (Table 1), and these form the basis of registration and revalidation processes (Skills for Health, 2008a).

**Table 1: The core and defined areas of the PHSKF**

| Core areas | Non-core (defined) areas |
|---|---|
| 1. Surveillance and assessment of the population's health and wellbeing<br>2. Assessing the evidence of effectiveness of interventions, programmes and services to improve population health and wellbeing<br>3. Policy and strategy development and implementation for population health and wellbeing<br>4. Leadership and collaborative working for population health and wellbeing | 5. Health improvement<br>6. Health protection<br>7. Public health intelligence<br>8. Academic public health<br>9. Health and social care quality |
| **Source:** Skills for Health, 2008a | |

Another aim of the framework is to take into account differences existing between those developing public health policies, those delivering public health services, and those contributing to public health secondary to their main profession. The Chief Medical Officer's 1998 report – used later by Walters, Sim and Schiller (2001) and by the PHSKF (2008) – has long provided the standard categorisation in distinguishing between three different categories: *the wider workforce, public health practitioners, and public health specialists* (DH, 1998; Walters, Sim and Schiller, 2001; Skills for Health, 2008a). The PHSKF within each area identifies nine individual levels within each core and non-core area, from 'one' representing little previous knowledge, skills or experience in public health to 'nine' representing setting strategic priorities and direction and providing leadership to improve population health and wellbeing (see Table 2).

### Table 2: The nine levels of the PHSKF

| Level | Definition |
|---|---|
| 9 | Sets strategic direction across organisations and/or areas of work. Provides multidisciplinary or multi-sectoral public health leadership that determines priorities. Works at executive level. |
| 8 | Has a high level of expertise in a specific area of public health work or across a substantial breadth of public health service delivery and/or programmes. Is accountable for work across boundaries and agencies. Has leadership responsibility and autonomy to act. Sets strategic direction in own area of work. |
| 7 | Has autonomy and expertise in a number of areas of public health. Will lead on areas of work within a defined field. |
| 6 | Has autonomy and responsibility in coordinating complex public health work, reflecting wider and deeper expertise in own area of work. Able to develop, facilitate and contribute to programmes of work in multi-agency or multidisciplinary environment. |
| 5 | Has autonomy in specified public health areas, continually develops own area of work and supports others to understand it. May contribute to a programme of work in multi-agency or multidisciplinary environment. |
| 4 | Has responsibility for specific areas of public health work with guidance, which may have a breadth and/or depth of application. |
| 3 | May carry out a range of public health activities or small areas of work under supervision. May assist in training others and could have responsibility for resources used by others. May use public health knowledge to set priorities and make decisions in a wider context. |
| 2 | Has gained basic public health knowledge through training and/or development. May undertake a range of defined public health activities under guidance or may use knowledge to influence public health in a wider context. |
| 1 | Has little previous knowledge, skills or experience in public health. May undertake specific public health activities under direction or may acknowledge the value of public health in a wider context. |

**Source:** Skills for Health, 2008b

Table 3 below shows what levels specialists, practitioners and the wider workforce are expected to achieve under the PHSKF.

### Table 3: Professions identified by the PHSKF

| Category | Level of PHSKF | Definition |
|---|---|---|
| Specialists | 8 and 9 | 'Public health consultants and specialists [who] work at a strategic or senior management level or at a senior level of scientific expertise, such as in public health statistics... specialists may come from a variety of professional backgrounds such as public health sciences, environmental health, social science, medicine, nursing, health promotion and dentistry. They will have a common core of knowledge, skills and experience acquired from postgraduate public health qualifications, successful completion of approved training and experience gained in practice.' |

| Category | Level of PHSKF | Definition |
|---|---|---|
| Practitioners | 5 to 7 | 'A smaller number of professionals compared to the wider workforce [who] spend a major part, or all of their time, in public health practice delivering public health at operational levels. These include those who work with groups and communities as well as with individuals, such as the public health work of health visitors, environmental health officers or community development workers ...' |
| Wider workforce | 1 to 4 | '... have a role in health improvement and reducing inequalities, although they may not have recognised this. This is true, for example, of teachers, local business leaders, social workers, transport engineers, care assistants, housing officers, other local government staff, those working in the voluntary sector, as well as all health care professionals.' |
| Source: Skills for Health, 2008a | | |

The framework therefore aims to highlight the skills and competences required to deliver activity in each of the nine core and defined areas, and thereby support employers in determining what workforces can deliver public health services. However, while the framework helps underline what skills and competences are required, it provides little guidance on what skill mix is required to deliver public health services, and how many individuals would be required to deliver these services. A challenge that the framework demands is applying it to different workforce settings. The PHSKF is therefore a guide towards identifying and delivering services, and a step towards identifying core roles and numbers within public health teams.

## 5. Education and training

**Higher specialty training in public health** begins at specialty training level ST1, which is the first year after foundation training for new doctors. Specialty training is open to both medically qualified doctors (following completion of foundation training) and candidates from other professional backgrounds with appropriate experience. The same curriculum is followed for both. National training numbers (NTNs) are given to all trainees on these schemes, regardless of professional background. Trainees from a background other than medicine are also known as Specialty Registrars in Public Health (StRs). Once training has been successfully completed, a certificate of completion of training (CCT) is awarded (FPH, 2010).

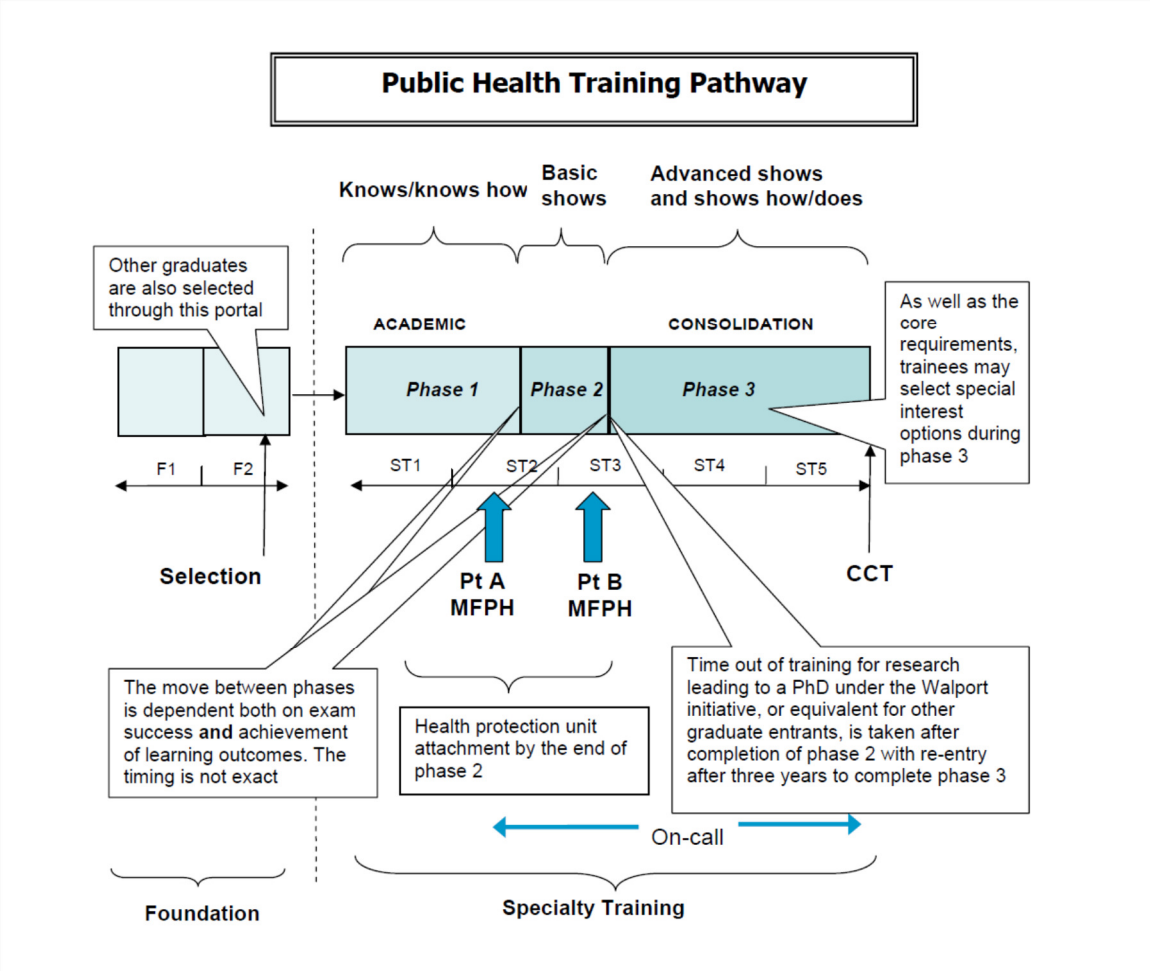
Specialty training typically takes place in three phases over approximately five years:

- a first phase of two years as an introduction to developing a solid knowledge base (equivalent to ST1-ST2)
- a second phase of six to nine months designed to develop core public health skills and practical competence (equivalent to ST3)
- a third phase of 24 to 30 months to consolidate skills and develop areas of expertise; in addition, trainees must have worked in health protection by the end of their second phase of training, and can choose to develop special interests during the third phase (equivalent to ST4-ST5) (FPH, 2010).

A visual and general representation of the specialty training pathway for public health is outlined in Figure 4 (FPH, 2010).

**Figure 4: The specialty training pathway for public health medicine**

The specialty training pathway for public health medicine takes place typically over five years, with trainees admitted at ST1 level.




**Source:** Faculty of Public Health (2010)

Alternatively, individuals may qualify as a specialist through taking the portfolio route. This involves the presentation of a portfolio of experience for assessment, to demonstrate that the individual has gained sufficient experience despite not completing specialty training (FPH, LGA and PHE, 2013). The portfolio is then accepted by either the General Medical Council (GMC) or the UK Public Health Register (UKPHR) (FPH, LGA and PHE, 2013). More detail of the portfolio route qualification for specialists is provided in Section 3.4 of the report. The main routes for qualifying by portfolio are as follows.

- **Certificate of eligibility for specialist registration (CESR):** This is for doctors who have not followed the training programme but who have gained the same level of skills and knowledge as someone who has

completed the programme. These applications (based around a portfolio of evidence) go through the FPH in the first instance and ultimately the GMC which determines whether a professional may practise

- **Assessment for defined specialists**: This involves assessment of a retrospective portfolio showing sufficient high level experience in a given area of specialist public health. In practice, applicants must have held a senior public health post for a number of years. This can also be achieved within any of the nine local practitioner registration schemes.
- **Recognition of specialist status**: This is for people in senior positions who have previously been unable to take a standard education and training programme. In practice this requires proving sufficient experience, usually through holding a senior level public health post for a number of years (including at least three years at senior strategic level and in a public health consultant post). However, this process is rare and a limited exception to the above process (UKPHR, 2013a).

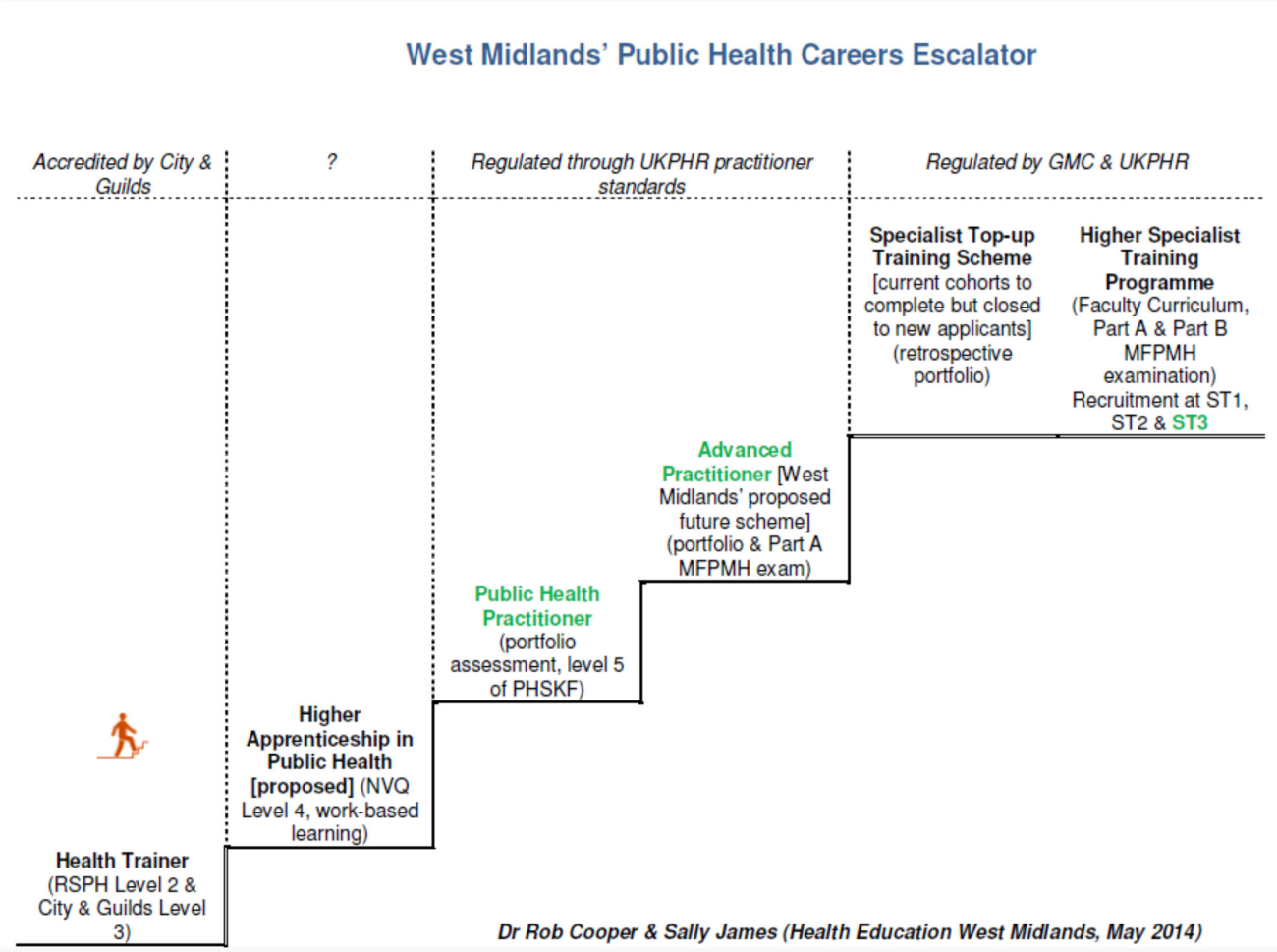
Registration as a practitioner with the UKPHR follows slightly different processes, with assessment and the verification of retrospective portfolios assessed locally against standards set nationally by the UKPHR. In practice, people wishing to register as a practitioner must prove they meet a set of 12 standards (UKPHR, 2013b) at level 5 of the PHSKF (Skills for Health, 2008b) within the following four areas:

- professional and ethical practice
- technical competencies in public health
- application of public health competencies to public health work, and
- underpinning skills and knowledge (UKPHR, 2013c).

There is also a pilot scheme currently being led by Health Education West Midlands to develop advanced practitioners with ST3 entry to the Public Health Higher Speciality Training Scheme. In addition to this, a scheme is in development for recognising registered practitioners who are working at an 'advanced practitioner' level of competence (level 7 of the PHSKF) accrediting them locally. In the West Midlands this is to consist of support via a bespoke Part A Tutorial programme delivered by a university to enable such practitioners to successfully undertake the Faculty of Public Health's Part A exam, with only practitioners who have been through the West Midlands' Public Health Practitioner Development Scheme (see Figure 5) and accepted onto the UKPHR's Register eligible to apply to the Advanced Practitioner Scheme. Other areas of the UK are exploring alternative models for recognising advanced practice, such as Public Health Wales where a portfolio and interview panel process is in development for this purpose.

**Figure 5: The West Midlands Public Health Careers Model**

The diagram below shows West Midlands' Public Health Careers Escalator, which has introduced an advanced practitioner programme and the option of ST3 entry to the specialty training programme (for those who complete the advanced practitioner scheme).




**Source:** Health Education West Midlands (2014)

So what does the future hold? The first thing to note is that the recommendations relating to specialty medical training made in the *Shape of Training* review in 2013 may have considerable implications for public health as a profession. Moreover, these implications of *Shape of Training* may soon be noticeable, with the implementation process for the review about to start.

In future, rather than run through specialist training immediately following the foundation years, the review proposed that all doctors will do four to six years of broad based specialty training (Shape of Training, 2013: 48). This is more consistent with how higher specialist recruitment to public health took place previously for doctors, with entrants having usually had broader experiences in medicine (e.g. general practice) before entering formal training in the specialty. This is also in line with how those from backgrounds other than medicine are currently recruited. Non-medical entrants typically have a Master's qualification in Public Health, and so in the current national recruitment system are generally able to start at ST2. Therefore in future, entry to Higher Specialist Training in Public Health at ST1 level is unlikely to continue.

This new approach, if implemented, would mean students will have obtained common generalised competencies that are currently part of the public health curriculum. As a result the current formal 48 months of specialist training may well be shortened. The *Shape of Training* review recommended that an optional year be available in broad based specialist training (paragraph 134) (Shape of Training, 2013), and this is likely to provide the ideal opportunity to be able to undertake a Master's in Public Health (currently ST1 of run through training) for those planning a career in public health.

This means that in future, recruitment to specialist public health training could start at a higher point in the programme, than is the case with current ST1 entry. Recently, the Medical and Dental Recruitment and Selection Programme at HEE and the FPH have already approved an entry route at ST3 for public health (with the Part A Examination for the Membership of Faculty of Public Health being one of the requirements). This has been successfully piloted in a cluster arrangement of LETBs in 2014, including in the West Midlands where it has been aligned with proposals for the advanced practitioner scheme (see above).

In addition to *Shape of Training,* there are a couple of further developments relating to education and training which may shape the core public health workforce.

Firstly, the FPH is undertaking a review of the Public Health Specialty Training Curriculum across the UK, as announced in the Government's *Public Health Workforce Strategy* in 2013 (FPH, 2013; DH, PHE and LGA, 2013). The curriculum review is expected to make its final recommendations to the GMC by January 2015, with expected implications for future public health training.

Secondly, the *Modernising Scientific Careers* programme (DH, 2010c and 2010d) has recently reformed education, training and career pathways for scientists and practitioners working in healthcare science. The programme aims explicitly to meet the scientific workforce requirements of public health, and therefore it will affect scientists working in health protection, especially in areas such as microbiology, biochemistry, and radiation and chemical services. The *Public Health Workforce Strategy* (DH, PHE and LGA, 2013) commits PHE to supporting and developing its non-medical scientific workforce, and makes the link with *Modernising Scientific Careers* explicit to ensure full access to professional development. In addition, the CfWI is currently undertaking a workforce stocktake into PHE scientists, to provide greater understanding around the issues affecting that workforce (CfWI, 2014b).

With clearer training and career pathways, the crucial tasks will be to confirm ease of transfer into the public health system and to ensure these roles are recognised as being integral to public health. Indeed, the requirement for qualified healthcare scientists and practitioners working in life sciences to be registered with the Health and Care Professions Council (HCPC) (AHCS, 2013) is in line with what is currently proposed for non-medical public health specialists.

## 6. Registration and revalidation of the workforce

Understanding how people are registered as working in public health is useful for understanding the numbers of the workforce. At present, some differences exist between professions on the level of their obligation to register and revalidate, and is outlined in Table 4. However obligatory registration and revalidation is becoming increasingly common, especially for all public health specialists who wish to apply for consultant level positions such as DPH.

'Consultant' is a protected title, and medical and dental consultants must therefore register either with the GMC, the General Dental Council (GDC) or the UKPHR. By contrast, 'specialist' is not a protected title and

public health specialists from a non-medical or dental background are not obliged to register but instead may choose to register with the UKPHR voluntarily. However, in January 2012, the Government announced that non-medically qualified public health consultants and specialists would have to register with the HCPC (DH, PHE and LGA, 2013) with the expectation that full registration of all public health specialists with the HCPC will be in place by 2015 (DH, PHE and LGA, 2013). This may change how registration takes place, with registration with the UKPHR no longer expected to be necessary.

Other professions (such as health visitors, school nurses, family nurse practitioners or environmental health officers) within nine local areas in the UK can choose to register as a public health practitioner with the UKPHR when they have completed their training, provided they meet required standards (UKPHR, 2013c). In addition, some schemes are seeking to develop 'advanced practitioner' roles. For example, Public Health Wales is committed to developing appropriate support and governance arrangements for such advanced roles, which typically involve greater levels of expertise and leadership (PHORCAST, 2013).

The SCPHN part of the NMC's register contains registered nurses and midwives who are working in public health roles, who have undertaken NMC-approved SCPHN courses that incorporate the 10 recognised public health competencies, as defined by the NMC (NMC, 2014). However, if they wish to practise as a public health specialist they should register with the UKPHR, although they may retain their NMC registration (or alternatively, let their registration lapse but not practise as a nurse or midwife). Similar arrangements exist for other professions such as healthcare scientists, who may retain their primary registration (in the case of healthcare scientists, the HCPC), but should register with the UKPHR in order to practise as a public health specialist.

### Table 4: Registration in public health

| Registration body | Profession | Obligatory to be registered as public health professional? | Obligatory to revalidate as public health professional? |
|---|---|---|---|
| GMC | Public health consultants (medical background) | Yes | Yes |
| GDC | Public health consultants (dental background) | Yes | Yes |
| UKPHR | Public health consultants<br><br>Public health specialists<br><br>Public health practitioners | Yes<br><br>Will be in future<br><br>Voluntary | Yes<br><br>Yes, to remain on UKPHR<br><br>Yes, to remain on UKPHR |
| CIEH/EHRB | Environmental health professionals | Voluntary | No, but CPD is required for accredited associate or voting membership or chartered status |
| NMC | Nurses/midwives working in public health | No, but obligatory to be registered as a nursing professional | Yes, obligatory as a registered health visitor (on the NMC register); other nurses must revalidate as a specialist on the UKPHR or as a nurse on the NMC |

| Registration body | Profession | Obligatory to be registered as public health professional? | Obligatory to revalidate as public health professional? |
|---|---|---|---|
| HCPC | Healthcare scientists | No | Yes, to remain on HCPC register |
| **Source:** CfWI analysis | | | |

There is currently no obligation for the majority of professionals working in public health to register as a public health professional, although other professions may require registration and revalidation in terms of practising within that profession (notably nursing and healthcare science, where nurses and scientists play a much larger role in delivering public health services). However, people registered with the UKPHR will be expected to revalidate in future (UKPHR, 2013d).

Overall, there is a move towards greater regulatory parity across public health, notably between consultants/specialists and practitioners. The expectation is that the capability of public health professionals will increasingly be assured through standardised training pathways and through obligatory revalidation. This will have the benefit of making it easier to track who is delivering public health services.

## 7. Previous attempts to examine the public health workforce

Previous work has been undertaken by various organisations in understanding the distribution of the entire public health workforce in England, with mixed success. The HSCIC's occupation codes manual, which tracks professions in the NHS, contains 20 professions which refer directly to public health, and another five that make overt references to health education, promotion and protection (HSCIC, 2013b). With public health staff increasingly working in local authorities, knowing how many work within these professions will become more difficult, as local councils do not use the ESR, which routinely collects data on NHS professions. In addition, staff working in PHE are not reported publicly within health workforce statistics, though they are collected by the HSCIC (HSCIC, 2014a).

Concerns over the quality of data available has resulted in the establishment of a group to develop a National Minimum Dataset (NMD) for public health similar to the NMD for social care in England, to improve both the quality of data and understanding around where people in public health are working (DH, PHE and LGA, 2013).

The Government's consultation document *Healthy Lives, Healthy People: Towards a workforce strategy for the public health system* (2012) offered one potential approach, outlining four distinct groups (consultants/specialists; specialist practitioners; practitioners with some public health component to their work; and the wider workforce) (DH, 2012). This was similar to a previous approach taken by NHS London with regard to health promotion in 2001 (Walters, Sim and Schiller, 2001), and in the unpublished *Public Health Workforce Development Plan* in the same year (Dunkley and Speller, 2001). However, this approach was not adopted in the final document *Healthy Lives, Healthy People: A Public Health Workforce Strategy* (DH, PHE and LGA, 2013), which instead distinguished between the wider public health workforce and the specialist community.

The FPH and the ADPH, in their joint 2012 document *Standards for Effective Public Health Teams* took mapping a stage further, in identifying key functions, tasks, outcomes and core public health team members required to deliver those outcomes across five areas of defined practice: health protection, health improvement, health

services, health intelligence and academic public health (FPH and ADPH, 2012). Table 5 shows how it functioned for 'strategically assessing the health and wellbeing needs of communities', a function within health improvement.

**Table 5: Worked example of defining workforce required to deliver a public health function**

| Health Improvement Function | PH Team Prototype Quality Standard(s) | Indicative Outcomes | Workforce required |
|---|---|---|---|
| Strategically assess health and wellbeing needs of communities | Lead the joint strategic needs assessment (JSNA) to set strategic direction and vision for health and wellbeing and communicate it effectively to a wide range of stakeholders including the communities.<br><br>Identify where new policies and strategies are needed to improve | To reduce 'all age all cause mortality,' Infant mortality, childhood obesity | Consultant in public health and public health intelligence officers – to analyse and interpret a wide range of NHS and non-NHS data sources as well as local qualitative information |

**Source:** FPH and ADPH (2012)

This approach identified key functions, roles and even what people may be required to fulfil these functions and roles. However, the FPH and ADPH paper recognised that a better understanding of the sizes of populations for whom teams are delivering services was needed for determining the exact number of public health professionals needed to deliver these roles (FPH and ADPH, 2012).

The FPH and ADPH's work has since been superseded by an updated FPH report in 2014, which outlines three key domains of public health practice and three underpinning functions as the key functions to be delivered by a local public health system. The three domains are:

- **health protection:** action for clean air, water and food, infectious disease control, environmental health hazards and emergency response
- **health improvement:** wide ranging action to improve health and wellbeing and reduce health inequalities
- **health services:** action in service planning, commissioning and development, clinical effectiveness, clinical governance and efficiency (in support of clinical commissioning groups).

The above reflect three of the domains from the Public Health Outcomes Framework for England, 2013-2016 (DH 2012), and those used to help define core public health practice in this report (as described in Section 1.3). The three underpinning functions described by FPH (2014) are:

- **public health intelligence:** surveillance, monitoring and assessment of health and determinants of health, plus development of the public health evidence base and knowledge
- **academic public health:** protect and promote evidence/knowledge base, evaluation, and research
- **workforce development:** training and development for public health professionals, registrars and colleagues.

This covers the five defined areas of practise of the PHSKF, and adds workforce development to include education, training and CPD, underlining the growing importance of workforce considerations within public health. As Table 6 below demonstrates, the effect of the FPH's work was to give greater emphasis to the functions needed for local delivery, with less emphasis on determining what workforces would be required (FPH, 2014a).

### Table 6: Example of requirements to deliver a function

| Health improvement function | | Quality function |
|---|---|---|
| Needs assessment | Strategically assess the health and wellbeing needs of the local population | • Advise the Health and Wellbeing Board on the development of the Health and Wellbeing Strategy based on the assessed needs of the population and proven interventions to improve health<br>• Lead the Joint Strategic Needs Assessment to set strategic direction; provide a vision for health and wellbeing; and communicate it effectively to a wide range of stakeholders including local communities<br>• Identify where new policies, strategies and initiatives are needed to improve the populations' health and wellbeing, and reduce health inequalities |
| **Source:** FPH (2014) | | |

A review announced by PHE, the FPH, the ADPH and the LGA in January 2014 will develop this work further, through providing guidance to support local authorities in developing their public health teams. This work will include considerations around employing doctors (who make up roughly half of all staff in training), and supporting staff mobility (FPH et al, 2014). A key consideration of the review is to allow for diversity in professional backgrounds but ensure that doctors continue to play a critical role in councils and especially around healthcare commissioning. The review, when published, may help to further contribute to the debate around mapping functions in terms of helping local authorities consider how best to manage public health locally.

Finally, a step towards mapping the public health workforce has been the Workforce Information Architecture project, set up by the Department of Health in 2011 to develop a Workforce Minimum Data Set (wMDS) across health and social care (HSCIC, 2013c). The wMDS is a subset of the existing National Workforce Data Set (NWD). The aim of wMDS was to ensure all organisations delivering care and funded by the NHS provided data on their current workforce and thereby support education and training commissioning, in the following areas (HSCIC, 2013c):

- absence (e.g. sickness and absence rates)
- deployment (e.g. areas of work)
- education, training and development (e.g. registration/revalidation status)
- organisation (e.g. employer)
- personal/operational (e.g. demographic information)
- staff movement (e.g. headcount, vacancy rates).

As part of this work, a number of organisations underwent mapping exercises to identify all roles and functions of strategic health authorities and primary care trusts. These were mapped onto the new NHS architecture, to support staff transfers into new organisations such as Public Health England, where mapping exercises were highlighted in PHE's transition policy (DH, 2013). Similarly, as identified by the Government's *Public Health Workforce Strategy* (DH, PHE and LGA, 2013), work has begun on developing a minimum dataset for public health. The aim of the project is to determine the information that local authorities will need to collect on their staff, based on the parameters agreed by the wMDS. This national minimum dataset will be voluntary, with organisations encouraged to collect basic data on its workforce to support workforce planning, and is expected to be ready in 2015-16. More information on this project is available on pages 55 and 56 of the main report.

In addition, HEE has led the way in understanding its public health workforce further, locally, regionally and nationally. Two examples from the North West and Thames Valley are outlined in more detail in the case studies available in *Mapping the Core Public Health Workforce Final Report*.

A key challenge is to understand the numbers of people working with core public health teams delivering the key public health services. Previous attempts of mapping the public health workforce in England have not sought to understand the regional variation within core teams. Given that public health issues differ between localities and some services (such as in microbiology) tend to be provided by particular centres of expertise, understanding the scale and the locations of the core public health workforce has been difficult to date.

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