Faculty of Public Health

Of the Royal Colleges of Physicians of the United Kingdom

Working to improve the public's health

Curriculum for Training to Consultant Level
Learning Outcomes Framework

This document contains the expected learning outcomes for all trainees in Public Health wishing to achieve generalist specialist consultant level accreditation via CCT or the UK Voluntary Register for Public health Specialists. Learning outcomes are grouped into 9 themes (Key Areas):

1. Surveillance and assessment of the population's health and well-being
2. Assessing the evidence of effectiveness of health and healthcare interventions, programmes and services
3. Policy and strategy development and implementation
4. Strategic leadership and collaborative working for health
5. Health Improvement
6. Health Protection
7. Health and Social Service Quality
8. Public Health Intelligence
9. Academic Public Health

The curriculum is delivered over three phases of training:

Phase 1 The period of time (normally a maximum of two years) up to demonstration of a secure public health knowledge base (knows and knows how). In addition, by the end of phase 1 (of which knowledge is a component and typically assessed by success in the MFPH Part A examination) trainees will achieve learning outcomes in simple situations (assessed in the service environment) for example: those which are complicated by the influence of at least two external factors; involve a small population which is relatively homogeneous in make up; involve simple issues (eg can be decided by a single manager); are demonstrated as part of a larger project led by others. The total period of time in phase 1 would normally allow one year full time equivalent, in three university terms, on an academic course plus a further year in early service work. Trainees who take their academic course in a modular structure across two years would achieve the same service level experience across that period of time. A secure knowledge base is an essential requirement to train effectively in public health and must therefore be evidenced through examination early in training

Phase 2 The period of time (typically 6-9 months) between demonstration of a secure public health knowledge base/know how and demonstration of the core public health skills examined via the MFPH Part B (OSPHE – objective structured public health examination) and further demonstration of competence in the service environment. The Part B MFPH can only be attempted after success at Part A. In addition, by the end of phase 2 trainees will achieve learning outcomes in more complex situations for example: those which are complicated by two or more external factors the influence of which is not completely defined; involve a population that has more complex make up, eg multiple age groups, social groups or ethnic groups; involve intermediate issues (require a committee or subcommittee to make a decision); are demonstrated where the trainee is making a significant contribution to a larger project led by others or leading a smaller project. The very nature of public health practice may mean that trainees may be gaining some phase 2 competencies during phase 1, when they may start to put into practice their expanding knowledge base in pieces of service based work. The move into phase 3 is conditional upon success in Part B MFPH and satisfactory achievement of the learning outcomes designated for this phase of training.

Phase 3 The period of time after award of MFPH to CCT (typically 24-30 months). By the end of phase 3 trainees will achieve learning outcomes in complex situations for example: those which are complicated by a number of factors whose influence and interaction is uncertain; involve a large population with disparate make up and spread over a wide area such as a whole district or part of a region; involve a substantive issue (require senior management or multi-agency decision making). This phase may include opportunity to develop special interests and higher competence in specific areas of practice or further experience in specialist settings. Special interest options, experience in specialist settings or further consolidation in generalist public health settings will allow a diversity of public health practice to flourish and will support career opportunity. For a normally progressing trainee, consolidation of core competence would require the full indicative period identified for this phase. A rapidly progressing trainee would be able either to develop a special interest and higher competence or might complete training at an earlier stage. It will be made clear in the assessment package that satisfactory completion of training is not simply a signing off of individual learning outcomes but will also require evidence both of experience of several settings as context for competence and of integration of competencies to evidence performance at consultant level. Competence in this phase is assessed in the workplace through a variety of methods.

Each key area of public health practice is presented in a standard format

1. A general descriptor of the area of practice

2. Xa Learning experience This section broadly delineates the expected learning outcomes in each of the three phases of training. It describes potential vehicles and settings for demonstration of competence in the particular area of public health practice.

3. Xb Good Public Health Practice The Faculty of Public Health has adapted the GMC document Good Medical Practice to be relevant for public health consultants (ie those entitled to management and intellectual authority in public health through their knowledge, skills and experience) and their practice.

The purpose of the document is to set out a framework of professional values which underpin public health practice. The practice of both medical and other graduate public health consultants is governed by this framework.

On completion of training it is expected that the public health consultant can work with clinical practitioners rather than function as a clinical practitioner.

Some medically qualified public health consultants, especially those working in health protection, may undertake work of a clinical nature and will also be governed by Good Medical Practice and the documents should be used alongside each other. The full document *Good Public Health Practice* can be found at http://www.fph.org.uk/prof_standards/downloads/appraisals/B_GPHP.pdf

A summary of *Good Public Health Practice* is included in Key Area 1 but not repeated thereafter.

4. Xc Knowledge base and knows how This section outlines in general terms the knowledge and knows how needed to underpin required learning outcomes

The learning outcomes for each key area are presented in tabular form which links specific competencies with their target phase for achievement, the related KSF competency, suitable assessment methods, the Part A MFPH syllabus and related curriculum areas

Learning outcome This covers the skills, attitudes and expertise expected of a Consultant in Public Health and outlines what the trainee will know, understand, describe, recognise, be aware of and be able to do at the end of training. Some learning outcomes use words such as ‘complex’, ‘weight’ etc which are defined in the glossary and give a fuller description of the level of attainment expected. The learning outcomes framework should therefore be read in conjunction with the glossary.

Target phase of achievement This is the point in training at which most trainees will achieve the outcome. It does not necessarily preclude a trainee achieving outcomes earlier but may act as a trigger for remediation if the outcome is significantly delayed.

Link to related KSF competency The NHS *Knowledge and Skills Framework* defines and describes the knowledge and skills which NHS staff need to apply in their work in order to deliver quality services. It provides a single, consistent, comprehensive and explicit framework on which to base review and development for all staff. The NHS KSF lies at the heart of the career and pay progression strand of Agenda for Change and linking the KSF requirement to this new curriculum is therefore essential for trainees from a background other than medicine. Public health specialist training is open to graduates from other disciplines. The KSF relates closely to the knowledge and skills expected of medical trainees.
http://www.dh.gov.uk/PolicyAndGuidance/HumanResourcesAndTraining/ModernisingPay/AgendaForChange/fs/en

Suitable assessment methods Each learning outcome will be assessed by multiple methods and by multiple assessors. Suitable methods are outlined. These are described further and blueprinted in the curriculum section on assessment/examination.

Knowledge base The knowledge base necessary for public health consultant level practice is outlined in the public health knowledge/knows how syllabus and is not included in the learning outcomes framework. Each learning outcome is mapped to a relevant part of the knowledge syllabus which is also included as a separate section in this curriculum. The knowledge base is fundamental to acquisition of competence in the core key areas 1 – 4. There are some areas of the knowledge base specific to the key areas 5-9 (in particular key area 6, health protection) but in the main the knowledge base gained for key areas 1-4 can then be further developed and applied in practice to gain competence in the other areas of practice

Related curriculum areas Each theme is cross referenced to the other themes

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To jump straight to key areas click the links below:

1. Surveillance and assessment of the population's health and well-being
2. Assessing the evidence of effectiveness of health and healthcare interventions, programmes and services
3. Policy and strategy development and implementation
4. Strategic leadership and collaborative working for health
5. Health Improvement
6. Health Protection
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Learning Outcomes: Good Public Health Practice

This section of the learning outcomes framework focuses on the behaviours expected of all public health specialists identified in *Good Public Health Practice.*
http://www.fph.org.uk/prof_standards/downloads/appraisals/B_GPHP.pdf

Good Public Health Practice describes the professional behaviours and values which underpin public health practice and relates directly to the GMC document *Good Medical Practice.* The practice of both medical and other graduate public health consultants is governed by this framework.
These behaviours are not specific to any key area and are therefore listed in this separate section. Some areas of GPHP are specific and are therefore included in the relevant learning outcomes framework for a specific key area.

	Learning outcome	**Target phase**	**Link to related KSF competency**		**Suitable assessment methods**	**Link to knowledge base**[2]	**Related curriculum areas**
			Foundation gateway[1]	Final gateway[1]			
GPHP 1	Recognise and work within the limits of professional competence	all					all
GPHP 2	Be willing to consult colleagues	all					all
GPHP 3	Keep clear, accurate and contemporaneous records	all					all
GPHP 4	Keep colleagues well informed when working in partnership	all					all
GPHP 5	Establish and maintain trust by listening to and respecting others' views	all					all
GPHP 6	Treat others with courtesy	all					all
GPHP 7	Respect the rights of the public to be involved in choices	all					all
GPHP 8	Treat colleagues fairly and maintain the public's trust through avoidance of unfounded criticism	all					all
GPHP 9	Respect skills and contributions of colleagues and maintain professional relationships and effective communication in multi disciplinary teams	all					all
GPHP 10	Be readily accessible to the public and colleagues when on duty	all					all

[1] The gateways are further explained in the Knowledge and Skills Framework and are fundamental requirements for pay progression under Agenda for Change

[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Core curriculum areas

1) Surveillance and assessment of the population's health and well-being
2) Assessing the evidence of effectiveness of health and healthcare interventions, programmes and services.
3) Policy and strategy development and implementation
4) Strategic leadership and collaborative working for health

Key area 1
Surveillance and assessment of the population's health and well-being

This area of practice focuses on the quantitative and qualitative assessment of the population's health, including managing, analysing, interpreting, and communicating information that relates to the determinants and status of health and well-being. Integral to this is the assessment of population needs and its relationship to effective actions.

1a Learning experiences

By the end of phase 1, trainees will be expected to assess and describe the health status and determinants of health of a defined population by measuring, analysing and interpreting appropriate routine and ad hoc mortality, morbidity data, and subjective health status.

By the end of phase 2, trainees will be expected to have assessed the status, health needs and determinants of health of a (sub) population systematically for a known reason. This will demonstrate use of appropriate qualitative and quantitative methods, including comparison over time, place and person. It will also demonstrate the ability to accurately describe and clearly communicate findings to others and translate surveillance results and assessment into appropriate recommendations for action.

By the end of phase 3, trainees will be expected to demonstrate that action has taken place as a result of their assessment of health status and needs. If no action has occurred then they will understand why and have developed alternative strategies.

Potential vehicles for the demonstration of this competence area include:

- Gathering, analysis and presentation of data for a health report
- Data set manipulation and analysis
- Development, administration and analysis of questionnaires
- Board reports
- Health needs assessment
- Geographic mapping of health indicators

Potential settings for the demonstration of this competence area:

By the end of training trainees will be expected to have worked with the following types of health data: morbidity, cancer registry, communicable disease, hospital episode statistics and health survey. They will be expected to have done this in a setting where they can demonstrate the contribution made to decision making at a Board / Senor Management level. They will need to have analysed data by geographical levels, by sub-populations (e.g. children), and by risk factors (e.g. smoking).

1b Good public health practice

The professional values which govern public health practice are developed through each of the nine key areas of the curriculum. All populations are entitled to good standards of public health practice which are described through the nine key areas. Professional competence, professional development, good relationships and professional ethical obligations are described in this curriculum and in other Faculty of Public Health documents including guidance for appraisal, revalidation and CPD.

Good public health practice must include:

- high standards of competence in the nine key areas of public health practice
- recognising and work within the limits of professional competence
- being willing to consult colleagues
- keeping clear, accurate and contemporaneous records
- keeping colleagues well informed when working in partnership
- paying due regard to efficacy and the use of resources while not discriminating against a population/individual
- advising only the course of action which best serves the population's needs
- addressing constraints to practice resulting from inadequate resource

Maintaining good public health practice must include:

- keeping knowledge and skills (including statutory legislation) up to date through CPD
- maintaining awareness of practice quality including regular audit, assessment and appraisal

Teaching and training, appraising and assessing must include:

- helping the public to be aware of and understand health issues and contributing to the education and training of other doctors, medical students and colleagues.
- developing skills and attitudes for teaching including appropriate supervision and assessment

Relationships with individuals and communities must include:

- establishing and maintaining trust by listening to and respecting others' views and treating others with courtesy, respecting rights of the public to be involved in choices
- treating information about patients as confidential
- providing information needed and requested and in a way that can be understood
- being readily accessible to the public and colleagues when on duty
- basing research activity purely on professional judgement of the patient/population's needs and the likely effectiveness of any intervention
- taking reasonable steps for protection of the public if a condition or situation poses a potential risk to health while treating individuals fairly
- if a condition or situation poses a potential risk to health while treating individuals fairly
- dealing with complaints fairly and co-operating with formal enquiry
- taking adequate steps for professional indemnity and complying with restrictions on practice
- safeguarding the public from unsafe practice from a colleague

Working with colleagues must include:

- treating colleagues fairly and maintaining the public's trust through avoiding unfounded criticism
- respecting skills and contributions of colleagues and maintaining professional relationships and effective communication in multi disciplinary teams
- ensuring colleagues understand and follow the standards required in *Good Public Health Practice* including those to whom duties are delegated
- ensure adequate emergency cover is provided

Probity in professional practice must include:

- honesty in financial and commercial matters including potential conflicts of interest, hospitality and gifts
- verification of statements and documents
- ensuring appropriate consent and ethical approval for research, following protocols, recording results accurately and reporting evidence of fraud

Avoiding risk from personal health problems must include:

- seeking and following advice where there is a reasonable health concern which could affect judgement or performance

All competencies in the nine key areas of public health practice are directly linked to the seven sections of GPHP above and integrated into training

Link to KSF:

IK2: Information collection and analysis

HWB3: Protection of Health and Wellbeing

G5: Services and Project Management

1c Knowledge base and know how

Populations; collection of routine and ad hoc data; demography; life-tables; population projections; population structure and fertility, mortality and migration; the significance of demographic changes for the health of the population and its need for health and related services.

Sources of routine mortality and morbidity data, including primary care data, collection and publication at international, national, regional and district levels; biases and artefacts in population data; methods of classifying health and disease, appreciation of the importance of consistency in definitions and (public health) language. Methods used to measure health status; notification and registration systems; data linkage within and across datasets.

Use of information for health service planning and evaluation; specification and uses of information systems; common measures of health service provision and usage; the uses of mathematical modelling techniques in health service planning; indices of needs for and outcome of services; the strengths, uses, interpretation and limitations of routine health information; use of information technology in the processing and analysis of health services information and in support of the provision of health care.

Learning outcomes: Key area 1. Surveillance and assessment of the population's health and well-being

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway [1]	Final gateway [1]			
1.1	Show awareness of available data to describe the health status and determinants of a local population and compare with other populations using appropriate statistical and standardisation techniques. Identify localities or groups with poor health	1				1.1.1 to 1.1.9, 1.1.19 to 20, 1.1.35, 1.3.1 to 1.3.8, 1.3.10	KA 7
1.2	Undertake a brief health needs assessment for a defined population for a specific purpose using appropriate qualitative and quantitative methods and make recommendations for action	2				LO 1.1 plus 1.1.27 1.1.29 to 31 1.3 (all)	KA 7
1.3	Demonstrate use of a variety of different methods of assessing morbidity and burden of disease within populations	3				1.1 to 1.3 4.4.5	KA 7
1.4	Demonstrate the uses of working with data in small geographical areas in the context of assessment of health status, determinants and needs of a defined population	3				1.1 to 1.3	KA 8
1.5	Demonstrate the use of data from routine data sources to undertake time trend analysis in the context of an assessment of health status, determinants and a defined population needs	3				As KA 1.1 plus 1.1.25	KAs 7, 8
1.6	Demonstrate the use of a range of routine information sources and surveillance systems including, as a minimum, mortality, hospital admission, census, primary care, communicable disease, cancer registry, reproductive and sexual health data, and government surveys	3				As KA 1.1 plus 1.1.27, 1.1.29 to 31, 1.3 (all)	KAs 7, 8
1.7	Demonstrate the use of qualitative and ad hoc or local survey data	3				1.1.27, 1.1.29 to 31, 1.4	KAs 7, 8
1.8	Undertake a health needs assessment for a defined population for a specific purpose and demonstrate that this work has been considered at a high level in a relevant organisation	3				LO 1.1 + 1.1.27, 1.29 to 31, 1.3 (all), 5	KAs 3, 4, 7

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[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Key area 2
Assessing the evidence of effectiveness of health and healthcare interventions, programmes and services

This area of practice focuses on the critical assessment of evidence relating to the effectiveness and cost-effectiveness of health and healthcare interventions, programmes and services including screening. It concerns the application of these skills to practice through planning, audit and evaluation.

2a Learning experiences

Examples to support training and assessment

By the end of phase 1, trainees would be expected to understand and apply critical appraisal techniques within simple, well-defined contexts (for example writing a briefing on the evidence for a single, non-contentious issue). Findings and recommendations will be communicated to limited audiences.

By the end of phase 2, trainees would begin to incorporate multiple types of evidence into their recommendations; begin to take a greater lead in the incorporation of evidence into practice and apply this competence in a wider range of situations; and appropriately communicate findings to a wider range of audiences. For example provide support to the development of a business case for a defined service.

By the end of phase 3, trainees would be expected proactively to seek out opportunities for using evidence to influence decisions. They would be working with highly complex issues and would be influencing the deliberations of senior decision-makers. For example, through the development of systems and processes for delivering evidence-based recommendations; the supervision of others; horizon scanning or prioritisation. It is expected that trainees at phase 3 will be using evidence to influence change effectively by incorporating fully the competencies of leadership, surveillance, public health intelligence, and strategy and policy development.

Potential vehicles for the demonstration of this competence area include:

- Evidence-based policy briefings (for boards, committees, public health colleagues or the public)
- Writing or appraising business cases
- Health Needs Assessment
- Press release
- Master's level dissertations or assignments
- Clinical or public health audit
- Development of clinical guidelines
- Calculation of population costings for a new technology
- Commissioning plan
- Health improvement strategy/policy/programme
- Peer reviewed publication

Potential settings for the demonstration of this competence area:

By the end of training trainees will be expected to have undertaken critical appraisals of the following study types: ecological, qualitative, aetiological, interventional, and economic. Trainees will need to have evaluated health and health care interventions in at least two different settings/risk factors/sub-populations.

2b Good public health practice

See statement in 1b

Link to KSF

C1: Communication; C4: Service Improvement

IK2: Information collection and analysis

HWB1: Promotion of health and well being and prevention of adverse effects on health and wellbeing

G5: Services and Project Management

2c Knowledge base and know how

Design and interpretation of studies: skills in the design of research studies; critical appraisal published papers including the validity of the use of statistical techniques and the inferences drawn from them; ability to draw appropriate conclusions from quantitative and qualitative research.

Learning outcomes: Key area 2. Assessing the evidence of effectiveness of health and healthcare interventions, programmes and services

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
	Finding and retrieving evidence						
2.1	Generate an appropriate question within a single, narrow, clearly-defined context	1				1.1.19, 1.1.21, 1.4.6	KA 9
2.2	Generate an appropriate question within a broad, but clearly-defined context	2				1.1.19, 1.1.21, 1.4.6	KA 9
2.3	Generate an appropriate question within a general, ill-defined context	3				1.1.19, 1.1.21, 1.4.6	KA 9
2.4	Demonstrate use of health and non-health evidence from formal research and other sources to answer a defined question, taking into account relative strengths and weaknesses of evidence used	2				1.1.19, 1.1.21, 1.1.35 to 40, 1.4.6	KA 1
2.5	Make use of others in finding and retrieving evidence (e.g. librarians, information specialists)	1				As above + 5.1	
2.6	Define a literature search strategy with appropriate inclusion and exclusion criteria to find relevant evidence to answer a question	1					KA 9
2.7	Find, retrieve, select and assimilate sufficient appropriate evidence to answer a question in a short space of time (ie within hours rather than days)	2				5.1.4	
2.8	Clearly document methods used in finding and retrieving evidence	1					KA 9
	Assessing evidence						
2.9	Filter and refine searches to select appropriate evidence, incorporating the hierarchy of evidence	1				1.1.35 to 40	KA 9
2.10	Understand the need for and be able to undertake a rapid appraisal of evidence (ie within minutes/hours not days)	2				5.1.4	
2.11	Undertake scoring of the quality of at least one quantitative and one qualitative study and its design	2				1.4.4 to 1.4.6, 4.1.35	KA 9

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
2.12	Use an appropriate framework to critically appraise each of the following types of study: a) Randomised controlled trial; b) Systematic review; c) Cohort study; d) Case control study, e) Economic analysis; and f) Qualitative study.	1				1.1, 1.2, 1.4, 4.4	KA 9
2.13	Assess the evidence for proposed or existing screening programmes, using established criteria	1				2.2	
2.14	Use appropriate public health evidence to support a policy recommendation	1				1.1, 1.2	KA 1
2.15	Ascertain key public health points from briefing documents and using them appropriately and in relation to wider public health information sources	2					
	Synthesising evidence – formulating justifiable recommendations						
2.16	Formulate a balanced, evidence-based recommendation involving limited sources of evidence within a narrow, well-defined context	1				1.1.35 to 40	KAs 3, 4, 7
2.17	Formulate a balanced view and explain appropriately key public health concepts in a public health setting	2					KAs 3, 4
2.18	Formulate balanced, evidence based recommendations based upon multiple sources of evidence when there is significant uncertainty within a general, ill-defined context	3				1.1.35 to 40	KAs 3, 4
2.19	Provide options for decision makers within a broad, but clearly-defined context	2					KAs 3, 4
2.20	Provide options for decisions within a general, ill-defined context	3					
2.21	Communicate recommendations orally and in writing in order to influence decisions within a narrow, well-defined context	1				6.3	KAs 3, 4
2.22	Communicate recommendations orally and in writing in order to influence decisions within a broad, but clearly-defined context	2				6.3	KAs 3, 4

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
2.23	Communicate recommendations orally and in writing in order to influence decisions within a general, ill-defined context	3				6.3	KAs 3, 4
2.24	Work with others within a broad, but clearly-defined context to generate consensus where there is conflicting evidence or an evidence gap	2				5.1	KAs 3, 4
2.25	Work with others within a general, ill-defined context to generate consensus where there is conflicting evidence or an evidence gap	3				5.1	KAs 3, 4
2.26	Formulate and communicate advice which influences decisions	3				5.1	KAs 3, 4
2.27	Incorporate relevant legal and ethical frameworks into assessment of evidence	3					
2.28	Demonstrate a proactive approach to identifying issues where a review of evidence is likely to make a difference	3					KAs 3, 4

[1] The gateways are further explained in the Knowledge and Skills Framework and are fundamental requirements for pay progression under Agenda for Change

[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Key area 3
Policy and strategy development and implementation

This area of practice focuses on influencing the development of policies, implementing strategies to put the policies into effect and assessing the impact of policies on health.

3a Learning experiences
By the end of phase 1, trainees will comprehend how public health policy is developed and implemented. You will be able to analyse the effect of policies on health. You will know national policy for major public health issues. You will devise policy for problems of low weight and complexity. By the end of phase 2, trainees will start to address more complex problems of policy and strategy but this phase of training is too short for substantive policy work. By the end of phase 3, trainees will translate national policy into local action, explain the implications and health impact of policy and strategy. You will create and justify policy and strategy for problems of high weight and complexity. You will explain and defend policy and strategy to lay, managerial and professional audiences. **Potential vehicles for the demonstration of this competence area include:** • Writing an essay or dissertation • Preparing a health impact assessment • Developing a local policy • Writing a paper for a Board meeting or equivalent • Leading the local implementation of a national policy **Potential settings for the demonstration of this competence area:** By the end of training trainees will be expected to have worked on policy analysis, development and implementation in each of the three public health domains (health protection, health improvement and service quality). Trainees will be expected to appraise the evidence and values that underpin policies and must demonstrate clear understanding of related strategies.
3b Good public health practice
See statement in 1b Link to KSF C1: Communication G5: Services and Project Management
3c Knowledge base and know how
Recognises the need for policy and strategy in public health practice; problems of policy implementation; principal approaches to policy formation; appreciation of concepts of power, interests and ideology; knowledge of major government policies relevant to public health; methods of assessing the impact of policies on health; strategy communication and strategy implementation in public health; theories of strategic planning

Learning outcomes: Key area 3. Policy and strategy development and implementation

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
3.1	Collates and interprets advice from clinical/ other colleagues to inform policy for problems of low weight and complexity	1/2				1.1.19, 1.1.21, 1.1 35 to 49, 1.4.6	
3.2	Proposes evidence-based policy options for solving problems of low weight and complexity	1/2				4.3.8	
3.3	Recognises the need for policy work to address problems of high weight and complexity	3				4.3.8	
3.4	Identifies the key issues which must be addressed when developing policy options	3				4.3.8	
3.5	Collates and interprets information and advice from clinical and other stakeholders when developing policy options	3				1.1.19, 1.1.21, 1.1.35 to 49, 1.4.6	
3.6	Drafts evidence based policy proposals to address problems of high weight and complexity	3				1.1.38	
3.7	Makes appropriate changes to policy proposals in response to discussion with stakeholders	3				5.1 (all), 5.2.2	
3.8	Displays the ability to develop a strategy for moving from a present unsatisfactory position to a desired future state or vision	3				5.3	
3.9	Displays the ability to secure the resources required to implement a strategy successfully	3				4.4.3	
3.10	Displays the ability to overcome problems that arise when implementing a plan or strategy	3				4.3.7, 5.2.7	
3.11	Analyses the process and outcomes of policy implementation	3				1.3	
3.12	Displays awareness of current national public health policies	3				KA 2	

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[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Key area 4
Strategic leadership and collaborative working for health

This area of practice focuses on leading teams and individuals, building alliances, developing capacity and capability, working in partnership with other practitioners and agencies, and using the media effectively to improve health and well-being.

4a Learning experiences
By the end of phase 1, trainees will understand different styles of leadership and work effectively as part of a team, showing insight into their own behaviour within teams in different settings. They will display a professional commitment to ethical practice. They will understand the theory of management and change management and manage straight forward projects. By the end of phase 2, trainees will be part of a multi-disciplinary team, working with and involving other stakeholders as appropriate. They will display critical self appraisal and reflective practice. They will be able to manage projects, manage change and handle uncertainty, the unexpected, challenge and conflict in an appropriate manner. They will have experience of working with the media. By the end of phase 3, trainees will manage more complex change management situations, understanding and managing the conflict involved and negotiating solutions. They will show appropriate leadership styles in different settings, including multi-agency settings. They will use appropriate communication skills in a variety of public health settings, listening and responding appropriately. They will be expected to demonstrate the appropriate management of people and financial resources. **Potential vehicles for the demonstration of this competence area** • Working effectively as part of team • Chairing a multi-disciplinary meeting • Leading a public health project • Successfully completing a change management project • Identifying and engaging stakeholders in projects to improve the public's health • Working with the media **Potential settings for the demonstration of this competence area:** By the end of training trainees will be expected to have developed leadership skills in each of the three domains of public health and to have worked collaboratively with at least two of the following agencies/organisations: local authorities, regional departments of government, consumer groups and clinicians. The leadership contribution in each setting must be clearly demonstrated by tangible outcomes of delivery and /or demonstrable skill development.
4b Good public health practice
See statement in 1b <ins>Link to KSF</ins> C1: Communication C3: Health, Safety and Security C5: Quality C6 Equality and Diversity HWB 1: Promotion of Health and Wellbeing and Prevention of Adverse Effects on Health and Wellbeing G5: Services and Project Management G7: Capacity and Capability
4c Knowledge base and know how
Organisation and management of health care and health care programs from a Public Health perspective <ins>Understanding individuals, teams / groups and their development:</ins> Motivation, creativity and innovation in individuals, and its relationship to group and team dynamics; barriers to, and stimulation of, creativity and innovation (e.g. by brainstorming); learning with individuals from differing professional backgrounds; personal management skills (e.g. managing: time, stress, difficult people, meetings); the effective manager; principles of leadership and delegation; principles of negotiation and influencing; principles, theories and methods of effective communication (written and oral) in general, and in a

management context. Interactions between managers, doctors and others; the theoretical and practical aspects of power and authority, role and conflict; professional accountability - clinical governance, performance and appraisal; behaviour change in individuals and organisations.

Understanding Organisations, their function and structure: understanding the internal and external organisational environments - evaluating internal resources and organisational capabilities; identifying and managing internal and external stakeholder interests; structuring and managing interorganisational (network) relationships, including intersectoral work, collaborative working practices and partnerships; social networks and communities of interest; assessing the impact of Political, economic, socio-cultural, environmental and other external influences.

Management and Change: understand the basic management models and theories associated with motivation and leadership and be able to apply them to practical situations and problems; critical evaluation of a range of principles and frameworks for managing change; an understanding of the issues underpinning the design and implementation of performance management against goals and objectives.

Finance, management accounting and relevant theoretical approaches: the linkages between demographic information and health service information - its public health interpretation and relationship to financial costs; budgetary preparation, financial allocation and service commissioning; methods for audit of health care spend.

Learning outcomes: Key area 4. Strategic leadership and collaborative working for health

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
	Leadership – achieving change with and through people						
4.1	Demonstrates insight into own leadership style and personality type and preferences in different circumstances	2				5.1 to 5.3	
4.2	Displays critical self-appraisal and reflective practice	2				5.1 to 5.3	
4.3	Demonstrates the effective use of appropriate leadership styles in different settings and circumstances	3				5.1 to 5.3	
4.4	Demonstrates the ability to develop a vision and communicate that effectively to other key stakeholders	3				5.1 to 5.3	
4.8	Demonstrates appropriate presentation communication skills in a typical public health setting	2					
4.9	Demonstrates ability to communicate the concept of risk in terms of health/ financial/ reputational and political risk						
4.10	Demonstrates appropriate listening communication skills in a typical public health setting	2					
	Operational management – managing people, resources and process						
4.11	Shows the ability to manage a project to successful completion within available resources and timescales	3				5.1 to 5.3	
	Change management						
4.12	Analyses appropriately a situation or project and identify the steps required to achieve change	2				5.1 to 5.3	
4.13	Displays leadership within a team and a multi-agency setting	3				5.1 to 5.3	
4.14	Demonstrates the ability to handle appropriately and sensitively uncertainty, the unexpected, challenge and moderate levels of conflict in an appropriate manner	2					
4.15	Demonstrates the ability to handle appropriately and sensitively uncertainty, the unexpected, challenge and major levels of	3					

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
	conflict in an appropriate manner						
4.16	Demonstrates techniques of negotiation and influencing in a multi-agency arena	3				5.1 to 5.3	
	Collaborative working – working with partners and stakeholders to achieve change						
4.17	Identifies and engages relevant stakeholders for a project to improve public health	2				5.1 to 5.3	
4.18	Works in partnership with other agencies on problems of high complexity	3				5.1 to 5.3	
4.19	Demonstrates the ability to work collaboratively with the media to communicate effectively with the public	2				5.1 to 5.3	

[1] The gateways are further explained in the Knowledge and Skills Framework and are fundamental requirements for pay progression under Agenda for Change

[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Areas of specialist/defined experience

5) Health Improvement
6) Health Protection.
7) Health and Social Service Quality
8) Public Health Intelligence
9) Academic Public Health

It is important to note that many of the generic learning outcomes in the four core competency areas are applicable to each of the following five areas of more specialist/defined experience. The section describing potential settings for demonstration of competence in KA 1 - 4 details the possible settings (including specialist settings) in which this generic competence may be demonstrated. These learning outcomes are therefore not repeated in the learning outcomes frameworks for KAs 5 – 9. For example, undertaking a health needs assessment, the competencies for which are detailed in KA 1, can be applied in several settings such as health protection, health promotion etc. The number of core competencies for KAs 5 -9 may therefore be small but complemented by a number of higher level competencies listed in the special interest option section. All trainees are required to be competent in all core competencies for all nine areas of public health practice. The higher level competencies are optional and will apply to those making good progress in training who are aiming at a more focussed area of practice after CCT. Higher level competencies are designed to be acquired alongside core competencies and are therefore not sequenced in time.

Key area 5
Health improvement

This area of practice focuses on promoting the health of populations by influencing lifestyle and socio-economic, physical and cultural environment through methods of health promotion, including health education, directed towards populations, communities and individuals.

5a Learning experience
By the end of phase 1, trainees would be expected to have a basic understanding of the part played by the main determinants (economic, cultural, environmental and lifestyle) of health in the causation of health and disease, the relative importance of individual and society decisions in influencing these, ethical issues raised by health promotion activity, the main theories as to why people engage in different behaviours relevant to health, the theories as to how these behaviours can be influenced, main methods of health education, use of different settings for health promotion, theory of social marketing, theory of individual counselling, theory of community action, place of legislation in influencing environment and behaviours and be able to engage in critical debate with informed colleagues on these subjects. By the end of phase 2, trainees have started working to apply this knowledge to promoting the health of local populations, should have worked in teams analysing the need for health promotion activity of local population, planning health promotion activities and implementing those plans. They would also have been involved with the production and issue of press releases. By the end of phase 3, trainees would be involved in activities described in phase 2 in more complex settings and situations including community development activities in their locality, becoming familiar with the philosophy of community development activity, being invited by community groups to assist them with certain projects and understanding the position of the health professional as technical assistant to rather than director of community groups. They will have encouraged various professional groups having patient / client contact to use opportunities for individual counselling (e.g. brief interventions for smokers / hazardous drinkers), understood the difficulties of such counselling and the barriers that hinder professionals from adopting this role and have tried a variety of approaches to get round these barriers. They will have taken part in interviews on radio / television with the intention of promoting health and have looked at national /regional strategies for improving health and possibly contributed to national / regional working parties considering legislation and /or strategic policies to promote population health. For simpler health education activities (such as producing a limited local health promotion programme or writing a press release it is to be expected that the trainee will have taken a lead role before completing training. For others such as community development programmes or national policy development it is only expected that they have been sufficiently closely involved with the processes to understand what the issues are and how more experienced colleagues approach them. They are expected to know enough to work intelligently with those doing the job rather than be able to do it themselves. The aim is to produce someone who has a sufficiently deep theoretical and practical understanding of health promotion to be able to work intelligently with and possibly direct health promotion specialists rather than to produce someone who is a health promotion specialist. **Potential vehicles for the demonstration of this competence area include:** • Briefings for boards, committees, colleagues on health promotion issues • Proposals (business cases) for health promotion activities • Reports and evaluations of health promotion activities showing ability to reflect on own contribution and relate practical experience to theory • Logs of joint projects undertaken (probably in assistant capacity) with health promotion specialists • Elements of Masters submissions • Peer reviewed publications **Potential settings for the demonstration of this competence area:** By the end of training trainees will be expected to have undertaken health promotion/community development work in both a health care setting and a community setting. Trainees must demonstrate their personal contribution to a specific programme or intervention, and how it is perceived by users and/or the press.

5b Good public health practice
See statement in 1b
5c Knowledge Base and know how
Principles and practice of health promotion Models of behavioural change Notions of health physical, mental and spiritual Distinction of health education and health promotion Balance of responsibility for health between individual and collective Ethical and political issues underlying responsibility for health, balance of rights and notions of choice Determinants of health, genetics and individual characteristics, lifestyle choices, family and peer influence, social cultural environment, physical environment, wider socio-economic political and cultural context. The prevention paradox – community vs. high risk approaches Relative importance of lifestyle and social/economic/physical environment Relative importance of preventive vs. curative approaches in reducing disease frequency Theories of health related behaviour and behavioural change Limitations of knowledge skills and attitudes as determinants of behaviour Methods of health education Settings for health education Role of regulation, legislation and fiscal measure in promotion of health Assessment of health promotion needs Development and implementation of health promotion programmes Theory and practice of partnerships in health promotion Evaluation of health education activities – outcomes – appropriateness of different methods – limitations and strengths of RCT type and qualitative approaches. Theory of individual counselling and application to patients and others Motivational interviewing, Stages of change, and other models of behavioural change Risk reduction versus harm minimisation as counselling objectives Social marketing theory (diffusion of knowledge) Mass communications about health Theory and practice of community development. Strengths and weakness of community development approaches. Practical problems of community development. Place of professional in community development.

Learning Outcomes: Key Area 5. Health Improvement

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related Curriculum Areas
			Foundation gateway[1]	Final gateway[1]			
5.1	Demonstrate awareness of the relative importance of individual and society decisions for health	1				2.1, 2.3 to 2.6	
5.2	Debate the major ethical issues relating to health promotion	1				2.1, 2.3 to 2.6	
5.3	Discuss the theory of community development and action					2.1, 2.3 to 2.6	KA 4
5.4	Debate the strengths and weaknesses of a variety of health promotion interventions directed at large populations including social marketing	1				2.1, 2.3 to 2.6	
5.5	Assess and communicate the need for health promotion in a defined community, presenting a case for action/inaction in response to the presenting health problem	2				As above plus KA 1	KA 1
5.6	Develop a plan to address a health promotion need in a defined community making clear the theoretical base for a proposal and developing a business case for an activity	3				As 5.1, 4.3.8, 1.1.19, 1.1.21, 1.1.35 to 49, 1.4.6, 5.1, 5.2.2, 4.4.3, 4.3.7, 5.2.7	KA 4
5.7	Implement a plan for health promotion activity in a defined community	3				2.1, 2.3 to 2.6 plus KA 4	KA 4
5.8	Evaluate a health promotion intervention, defending outcomes and methods chosen, identifying strengths and limitations of intervention and making suggestions for improving future activity and communication of findings	3				2.1, 2.3 to 2.6 plus KA 3	KA 2
5.9	Influence a community development project or action demonstrating understanding of relationships with the community and community development staff including issues of power and politics	3				2.1, 2.3 to 2.6 plus KA 4	KA 4

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related Curriculum Areas
			Foundation gateway[1]	Final gateway[1]			
5.10	Apply the theoretical models of behaviour change for the general population and high risk/ hard to reach groups	3				2.7	KA 4 KA 2
5.11	Influence the involvement of professional groups outside public health in giving advice to and making brief interventions with patients /clients on health behaviour issues.	3					

[1] The gateways are further explained in the Knowledge and Skills Framework and are fundamental requirements for pay progression under Agenda for Change

[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Special interest option

	Learning outcome	Target phase*	Link to related KSF competency	Suitable assessment methods	Knowledge base	Related curriculum areas
5.12	Contribute to formulation of policy/ legislation having a bearing on population health at a national or regional level.	3		Documents, reflective summary, discussion		KA 3 KA 4
5.13	Apply understanding of a range of organisations and their different cultures and perspectives to bring about effective health promotion activity	3				

* All learning outcomes for special interest options would be expected to be gained in phase 3

Key area 6
Health protection

This area of practice focuses on the protection of the public's health from communicable and environmental hazards by the application of a range of methods including hazard identification, risk assessment and the promotion and implementation of appropriate interventions to reduce risk and promote health.

6a Learning experiences
By the end of phase 1, trainees would be expected to be able to draw general conclusions from routine surveillance data, to identify risks to health from a commonly occurring agent, perhaps also characterising that hazard and assessing the degree of risk associated with it. They would also be able to meet the Educational Requirements for commencing supervised on call. They would be able to demonstrate an understanding of the health protection issues and needs for services in particular settings (eg schools, prisons, care homes) and risk groups for example men who have sex with men, intravenous drug users, travellers, ethnic minorities). They will comprehend the complexity of risk communication and the need for a range of approaches. They would also be able to demonstrate core interpersonal skills in terms of communication and team-working with a range of individuals and settings. By the end of phase 2, trainees would be expected to use data on exposure, potential health effects and outcomes for common hazards to address a real life health protection problem, accessing expertise and other resources as necessary. They would be able to integrate hazard identification, characterisation and assessment into risk assessment for a commonly occurring hazard, knowing the questions to ask, able to interpret the answers and confirm the conclusions reached. The trainee would be able to demonstrate an understanding of the management of a range of potential incidents and have contributed to the management of an outbreak/incident and may have played a significant role together with evaluating the process. The trainee will have demonstrated successful interaction with individuals, groups and communities, clearly explaining risk and benefit in health protection issues and may be working with the media to this effect. The trainee will have experience of supervised first-on call, including regular out of hours. By the end of phase 3, trainees would be expected to be able to pull together different types of complex data to draw conclusions for disease control, environmental and chemical hazards control as well as health improvement in the health protection context. They will be able to complete a full risk assessment for less commonly found hazards to the population. The trainee will have met the Educational Requirements for unsupervised on call and will be able to determine the public health action required in an incident or outbreak situation. The trainee will have carried out a health care needs assessment, impact assessment, equity audit and service evaluation and be able to apply these approaches in a health protection context. They will have undertaken a health needs and inequality assessment for health improvement and be able to apply these in health protection settings. At least one project will have been completed involving cross sectoral work in improving health in the context of health protection. The trainee will be able to interact well with the range of professional colleagues and will have supported training sessions in health protection, as well as being able to manage communication of health risk in a potentially hostile or emotive environment. **Potential vehicles for the demonstration of this competence area:** • Parts A and B MFPH • Logbook • Workplace based assessment eg on-call scenarios • Observation • Scenario based exercises • Reports – at various levels and complexities • Outbreak/incident reports • peer reviewed publications • Presentation of material at peer groups, internal peer audit or external meetings or conferences **Potential settings for the demonstration of this competence area:** By the end of training trainees will be expected to have dealt with a broad range of communicable disease and environmental incidents and threats to health in both health care and community settings.

6b Good Medical Practice

The generic standards of the FPH publication *Good Public Health Practice* are as relevant to health protection as to other areas of public health and are not reproduced here. However, as there are also aspects of health protection work that involve direct interaction with individuals with communicable and environmental diseases or who have been exposed to communicable and environmental hazards (and their relatives and carers), then the following extracts from the GMC publication *Good Medical Practice* must also be integrated into training.

Good clinical care

Good clinical care must include:

- an adequate assessment of the patient's condition(s);
- providing or arranging investigations or treatment where necessary;
- taking suitable and prompt action when necessary;
- referring the patient to another practitioner, when indicated

In providing care you must:

- recognise and work within the limits of your professional competence;
- be willing to consult colleagues;
- be competent when making diagnoses and when giving or arranging treatment;
- keep clear, accurate, legible and contemporaneous patient records which report the relevant clinical findings, the decisions made, the information given to patients and any drugs or other treatment prescribed;

Keeping up to date

Some parts of medical practice are governed by law or are regulated by other statutory bodies. You must observe and keep up to date with the laws and statutory codes of practice which affect your work.

Obtaining consent

You must respect the right of patients to be fully involved in decisions about their care. Wherever possible you must be satisfied, before you provide treatment or investigate a patient's condition, that the patient has understood: what is proposed and why; any significant risks or side effects associated with it and has given consent.

Respecting confidentiality

You must treat information about patients as confidential. If in exceptional circumstances there are good reasons why you should pass on information without a patient's consent, or against a patient's wishes, you must follow GMC guidance on *Confidentiality: Protecting and Providing Information* and be prepared to justify your decision to the patient, if appropriate, and to the GMC and the courts, if called on to do so.

Maintaining trust

Successful relationships between doctors and patients depend on trust. To establish and maintain that trust you must:

- be polite, considerate and truthful;
- respect patients' privacy and dignity;
- respect the right of patients to decline to take part in teaching or research and ensure that their refusal does not adversely affect your relationship with them;
- respect the right of patients to a second opinion;
- be readily accessible to patients and colleagues when you are on duty.

Good Communication

Good communication between patients and doctors is essential to effective care and relationships of trust. Good communication involves:

- listening to patients and respecting their views and beliefs;
- giving patients the information they ask for or need about their condition, its treatment and prognosis, in a way they can understand, including, for any drug you prescribe, information about any serious side effects and, where appropriate, dosage ;
- sharing information with patients' partners, close relatives or carers, if they ask you to do so, having first obtained the patient's consent. When patients cannot give consent, you should

share the information which those close to the patient need or want to know, except where you have reason to believe that the patient would object if able to do so.

Complaints and formal inquiries

You must co-operate fully with any formal inquiry into the treatment of a patient and with any complaints procedure which applies to your work. You must give, to those who are entitled to ask for it, any relevant information in connection with an investigation into your own, or another health care professional's, conduct, performance or health.

Similarly, you must assist the coroner or procurator fiscal, by responding to inquiries, and by offering all relevant information to an inquest or inquiry into a patient's death. Only where your evidence may lead to criminal proceedings being taken against you are you entitled to remain silent.

Working in teams

Healthcare is increasingly provided by multi-disciplinary teams. Working in a team does not change your personal accountability for your professional conduct and the care you provide. When working in a team, you must:

- respect the skills and contributions of your colleagues;
- maintain professional relationships with patients;
- communicate effectively with colleagues within and outside the team;
- make sure that your patients and colleagues understand your professional status and specialty, your role and responsibilities in the team and who is responsible for each aspect of patients' care;
- participate in regular reviews and audit of the standards and performance of the team, taking steps to remedy any deficiencies;
- be willing to deal openly and supportively with problems in the performance, conduct or health of team members.

Arranging cover

You must be satisfied that, when you are off duty, suitable arrangements are made for your patients' medical care. These arrangements should include effective hand-over procedures and clear communication between doctors.

Sharing information with colleagues

It is in patients' best interests for one doctor, usually a general practitioner, to be fully informed about, and responsible for maintaining continuity of, a patient's medical care.

You should ensure that patients are informed about how information is shared within teams and between those who will be providing their care. If a patient objects to such disclosures you should explain the benefits to their own care of information being shared, but you must not disclose information if a patient maintains such objections.

Delegation and referral

Delegation involves asking a nurse, doctor, medical student or other health care worker to provide treatment or care on your behalf. When you delegate care or treatment you must be sure that the person to whom you delegate is competent to carry out the procedure or provide the therapy involved. You must always pass on enough information about the patient and the treatment needed. You will still be responsible for the overall management of the patient.

Referral involves transferring some or all of the responsibility for the patient's care, usually temporarily and for a particular purpose, such as additional investigation, care or treatment, which falls outside your competence. Usually you will refer patients to another registered medical practitioner. If this is not the case, you must be satisfied that any health care professional to whom you refer a patient is accountable to a statutory regulatory body, and that a registered medical practitioner, usually a general practitioner, retains overall responsibility for the management of the patient.

Further, more specific guidance is available from the GMC publication *Serious Communicable Diseases* (http://www.gmc-uk.org/guidance/library/serious_communicable_diseases.asp).

6c Knowledge base and know how
The sections of the Part A syllabus that are particularly relevant to this key area are: 2b Epidemiology of diseases (and their risk factors) of public health significance: knowledge of the defining clinical features, distribution, causes, behavioural features and determinants of diseases which currently make a significant impact on the health of local populations, with particular reference to those that are potentially preventable, or require the planned provision of health services at individual, community and structural levels, or are otherwise of particular public concern, 2c Diagnosis and Screening: principles, methods, applications and organisation of screening for early detection, prevention, treatment and control of disease, examples being *Chlamydia* screening and certain antenatal / neonatal screening tests 2d Genetics: elementary molecular biology as related to genetic epidemiology and microbiology. 2e Health and social behaviour: e.g. drugs, smoking, sexual behaviour and sun exposure. 2f Environment: environmental determinants of disease; risk and hazard; the effects of global warming and climate change; principles of sustainability; the health problems associated with poor housing and home conditions, inadequate water supplies and sanitation; methods for monitoring and control of environmental hazards (including food and water safety, atmospheric pollution and other toxic hazards, noise, and ionising and electromagnetic radiation); the use of legislation in environmental control; appreciation of factors affecting health and safety at work (including the control of substances hazardous to health); occupation and health; transport policies and health impact assessment for environmental pollution; chemical incident management. 2g Communicable disease: definitions (incubation, communicability and latent period; susceptibility, immunity and herd immunity); surveillance - national and international -, its evaluation and use; methods of control; the design, evaluation, and management of immunisation programmes; choices in developing an immunisation strategy; outline the steps in outbreak investigation including the use of relevant epidemiological methods; knowledge of natural history, clinical presentation, methods of diagnosis and control of infections of local and international Public Health importance (including emerging diseases and those with consequences for effective control); organisation of infection control; a basic understanding of the biological basis, strengths and weaknesses of routine and reference microbiological techniques (see also 2d); international aspects of communicable disease control including Port Health. 3c Equality, equity and policy: inequalities in the distribution of health and health care and its access, including inequalities relating to social class, gender, culture and ethnicity, and their causes; migration, and the health effects of international trade; international influences on health and social policy. **The effective application of health protection also requires knowledge of the following generic sections of the syllabus (likely to be covered under other key areas):** 1. Research methods appropriate to public health practice, including epidemiology, statistical methods, and other methods of enquiry including qualitative research methods 2h Principles and practice of health promotion + 2i Disease prevention, models of behaviour change 3. Health information 4d Health economics 5. Organisation and management of health care and health care programs from a Public Health perspective

Learning outcomes: Key area 6. Health protection

Health protection is practised in a number of different settings and contexts. Many of the competencies in KAs 1 - 4 are essential for health protection practice and are not repeated here. It is important for training breadth to ensure that, during phase 3 of training, some core competencies are developed in a health protection context as the three months during phase two spent in a health protection unit may not be enough time to cover this. (Examples are when health protection is just one element of a holistic approach eg settings like prisons or schools; risk groups like asylum seekers or intravenous drug users; diseases such as asthma or COPD; services like sexual health etc or when health intelligence, health improvement or service improvement skills are applied to problems related to communicable or environmentally related diseases in general service based work).

Some essential health protection experience cannot be guaranteed during the three month attachment (eg outbreak investigation/management) and may instead be covered during phase 3.

Some competencies will be further developed by doing on-call. On call does not start until phase 2, requiring a firm knowledge base. The specific competencies to be assessed for competence to start out of hours on call are detailed separately.

Some competencies require clinical knowledge and experience and may therefore not be appropriate for other graduate trainees without a medical background. Other graduate trainees may still progress to CCT (and admission to the UKVRPHS) but may not be able subsequently to provide unsupervised on call cover. This will be assessed on an *ad personam* basis by a health protection specialist.

	Learning outcome	**Target phase**	**Link to related KSF competency**		**Suitable assessment methods**	**Link to knowledge base[2]**	**Related curriculum areas**
			Foundation gateway[1]	Final gateway[1]			
	Surveillance and Intelligence						
6.1	Demonstrate the ability to use routine data systems (eg. mortality, notifications and laboratory data) to draw general conclusions about: • what data is available • the strengths and weaknesses of the data • the potential applications to solve simple and straightforward problems	1				KA 1 plus 1.1.34	KA 1
6.2	Use and analyse data on common hazards in communicable disease, environmental and chemical hazard control, for a real public health issue (small area health stats, enhanced surveillance systems, environmental monitoring data)	2				KA 1	KA 1
6.3	Describe the availability of further expertise and resources, and negotiate the utilisation of these resources	2 or 3				KA 4	

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
	Risk Assessment						
6.4	Identify known or potential health effects associated with a particular hazard relevant to health protection which is common in a population	1				2.1.2, 2.3 to 2.6	
6.5	Characterise the hazard identified, both quantitatively and qualitatively	2				1.1.10 to 1.1.12, 1.4	
6.6	Assess the degree of risk associated with exposure to a hazard commonly found in a population	2				1.1.10 to 1.1.12	
6.7	Integrate hazard identification, characterisation and assessment into an estimate of the adverse events likely to occur in a population, based on a hazard commonly found in that population	2				1.1.10 to 1.1.12	
6.8	Be able to complete a risk assessment for a hazard not commonly found in a population, drawing on external expertise as appropriate	3					
	Risk Management **(a) Interventions –managing risks to health**						
6.9	Meet the educational requirements for commencing supervised on call *Particular standards to be reached before commencing on call are identified in a separate document*	2				2.2 to 2.7	
6.10	Meet the educational requirements for unsupervised on call *NB This competency may not apply to other graduate trainees whose cases will be assessed individually (see note above)*	3				2.2 to 2.7	
6.11	Ask appropriate questions to recognise a problem when presented with a health protection challenge	2				2.2, 2.6	
6.12	Interpret the answer received and recognise the need to ask for relevant advice where relevant	2				2.2, 2.6	

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
6.13	Identify and confirm the risks and possible exposures	2				1.1.10 to 1.1.12, 2.2, 2.6	
6.14	Co-ordinate the public health action required particularly in the light of existing local & national policies and guidelines	2 or 3				2.6	
	(b) Interventions – incident management						
6.15	Describe the general principles of emergency planning and managing a major incident	2				2.6	
6.16	Participate in and make a significant contribution to the investigation of an incident/outbreak including preparation of final report	2 or 3				2.6	
	(c) Interventions – service improvement						
6.17	Demonstrate an understanding of the heath protection issues and need for services in particular settings and in high risk groups (eg. prisons, with asylum seekers, in dental health)	2 or 3				2.1.2	KA 7
6.18	Demonstrate an understanding (development, commissioning and evaluation) of the services required for protecting health, including sexual health, TB, immunisations, infection control, antibiotic resistance, occupational health, travel health and screening	2 or 3				5.1 to 5.3	KA 7
	(d) Interventions – health improvement						
6.19	Understand and apply theoretical models of behaviour change, in a health protection context	2				2.7	
6.20	Undertake a simple health protection health needs assessment	2				AS LO 1.1 + 1.1.27, 1.1.29 to 31, 1.3 (all)	KA 5
6.21	Complete at least one cross sectoral project which involves the promotion of health in a health protection context (e.g. sexual health, exposure to sunlight, drug misuse prevention)	2 or 3				2.7, 5.1, 5.2	KA 5

[1] The gateways are further explained in the Knowledge and Skills Framework and are fundamental requirements for pay progression under Agenda for Change

[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Special interest option

	Learning outcome	Target phase*	Link to related KSF competency	Suitable assessment methods	Knowledge base	Related curriculum areas
6.22	Integrate different types of data, using complex data sets, or collection of ad hoc data to draw appropriate conclusions for disease control, environmental and chemical hazards control and health improvement	3				KA 1
6.23	Lead or take a major role in the investigation and management of an incident/outbreak	3				
6.24	Evaluate the management of an outbreak or incident	3				
6.25	Evaluate a health protection service improvement	3				KA 7
6.26	Apply heath protection principles to services relevant to health protection in particular settings and in high risk groups (eg. prisons, with asylum seekers, in dental health)	3				KA 7
6.27	Undertake a complex health protection health needs assessment	3				KA 5
6.28	Understand and apply the theoretical models of behaviour change, in the context of health protection for the general population and high risk/ hard to reach groups	3				
6.29	Develop and test/audit a multi agency incident control plan	3				
6.30	Develop and/or evaluate and assure the quality of a health protection surveillance system	3				
6.31	Advise others on the interpretation and appropriate implementation of national health protection guidance	3				
6.32	Show appropriate judgement on the basis of available clinical information	3				
6.33	Identify and intervene when a clinical risk to the health of the public is identified	3				

	Learning outcome	Target phase*	Link to related KSF competency	Suitable assessment methods	Knowledge base	Related curriculum areas
6.34	Generate hypotheses for health protection problems and test them in appropriate epidemiological studies	3				
6.35	Participate in the management of a range of health protection incidents including non infectious incidents and emergencies	3				

* All learning outcomes for special interest options would be expected to be gained in phase 3

Key area 7
Health and social service quality

This area of practice covers commissioning, clinical governance, quality improvement, patient safety, equity of service provision and prioritisation of health and social care services.

7a Learning experiences

By the end of phase 1 trainees should know the basic principles of commissioning, clinical governance, quality improvement, patient safety, equity of service provision and prioritisation related to this area.

By the end of phase 2 trainees should know how to collate and assess relevant evidence and make recommendations for service change and prioritisation.

By the end of phase 3 trainees should have implemented and led change in some of the areas above. They will also have proactively sought out opportunities to use evidence to influence decisions. They will have worked on highly complex issues and influenced the decisions of senior decision-makers both within and across organisations and outside it.

Potential vehicles for the demonstration of this competence area:

- Evidence briefings providing recommendations for policy (for boards, committees, public health colleagues, the public)
- Writing or appraising business cases and service specifications
- Health needs assessment
- Press releases
- Clinical or public health audit and governance reports
- Development of clinical guidelines and quality standards
- Calculation of population costings for new technologies
- Reports on commissioning and delivery of clinical services
- Quality improvement strategy/policy/programmes
- Peer reviewed publication

Potential settings for the demonstration of this competence area:
By the end of training trainees will be expected to have led work in developing, evaluating, improving and commissioning health services in at least two of the following: an acute service setting (including clinical networks), a primary care setting, a mental health care setting and in a wider preventive / community setting all at local and/or regional/national level

7b Good public health practice

See statement in 1b

7c Knowledge base and know how

The following knowledge areas in the curriculum are important for practice in this area

- Research methods appropriate to public health practice, including epidemiology, statistical methods, and other methods of enquiry including qualitative research methods
- Disease causation and the diagnostic process in relation to public health; prevention and health promotion
- Health information and audit methodology
- Medical sociology, social policy, and health economics
- Organisation and management of health care and health care programmes from a public health perspective
- Ethical and legal frameworks
- Clinical governance

Learning outcomes: Key area 7. Health and Social Service Quality

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
7.1	Applies the principles of evaluation and audit in improving quality	2/3				5.1, 5.3	KAs 2, 9
7.2	Designs and implements data collection for a defined service question and integrates data outputs with other routinely available and relevant data	2/3				1.1.21 to 22, 1.2.11 to 15, 4.2, 4.4	KAs 2, 8
7.3	Critically appraises a business case or cost/budget assessment for a new service development or configuration from either a provider or commissioner perspective	3				KA 2	KAs 2, 3
7.4	Conducts a health economic and cost/budget assessment in response to a clinical priority setting question	3				4.4	KAs 2, 3
7.5	Contribute to a project using techniques of resource mapping and economic appraisal of resource redeployment, such as programme budgeting and marginal analysis					4.3.1 to 4.3.3	
7.6	Prepares and presents a service specification document to a relevant committee or management group within the organisation	3				KAs 3 & 4	KAs 3, 4
7.7	Assesses an individual funding request using sound legal and ethical principles	3				KA 2	KA 3
7.8	Monitors and appraises the impact of screening or other similar disease prevention programme	3				1.1.21 to 22, 1.2.11 to 15, 2.2	

[1] The gateways are further explained in the Knowledge and Skills Framework and are fundamental requirements for pay progression under Agenda for Change

[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Special interest option

	Learning outcome	Target phase*	Link to related KSF competency	Suitable assessment methods	Knowledge base	Related curriculum areas
7.9	Models and projects a new service configuration resulting from a focused exercise in horizon scanning for new technologies, treatments	3				
7.10	Identifies and deals with uncertainty in service change decision making processes	3				
7.11	Carries out an appraisal of the quality and outcome of an under-performing clinical or provider area and report back with recommendations for action to relevant multi-disciplinary management forum	3				
7.12	Designs and co-ordinates a multi-trust or cross organisation (primary-secondary care) audit or evaluation of a clinical or service area or topic including the development and assessment of guidelines	3				
7.13	Conducts a health economic and cost/budget assessment in response to a clinical priority setting question	3				
7.14	Develops policy on cost-effective commissioning of new procedures or treatment taking into account exceptional care and legal guidelines	3				
7.15	Establishes a new (or adapts an existing) local or national policy framework for priority setting within the commissioning process	3				
7.16	Applies the results of a healthcare needs assessment for a relevant local population or community leading to service development	3				
7.17	Sets up a service review and leads change management process	3				
7.18	Leads the development of clinical outcome measures and standard setting within the context of clinical networks and or commissioning	3				

	Learning outcome	Target phase*	Link to related KSF competency	Suitable assessment methods	Knowledge base	Related curriculum areas
7.19	Establishes links with existing clinical networks or set up new clinical groups to direct changes in service configurations across and within different organisations and health care settings	3				
7.20	Takes a lead role in setting budgetary programmes and marginal cost analysis in the context of business planning and option appraisal and disinvestment	3				
7.21	Prepares a service commissioning policy and associated contractual documentation eg service level agreement, incorporating outcome measures demonstrating rationality in the local and national context	3				
7.22	Leads the assessment and investigation of breaches related to medical and professional regulatory problems	3				
7.23	Leads the project management of a clinical governance issue eg an adverse event or serious untoward incident within or across provider organisations or within a clinical network demonstrating impact through change	3				KAs 4, 6
7.24	Investigates and reports back on findings relating to an adverse event or serious untoward incident or other clinical governance issue	3				KAs 4, 6

* All learning outcomes for special interest options would be expected to be gained in phase 3

Key area 8
Public health intelligence

This area of practice focuses on the collection, generation, synthesis, appraisal, analysis, interpretation and communication of intelligence that measures the health status, risks, needs and health outcomes of defined populations. The area involves a clear understanding of the systems and capacity needed to deliver surveillance and early warning functions. This area addresses systems that should deliver intelligence using formats and methods that are relevant to particular needs and specific to particular audiences. The area also includes the critical appraisal of effectiveness and cost effectiveness, evidence of relevant interventions, the evaluation of the implementation of such interventions and the quantification of performance management systems for health care and public health systems. Lastly, this area relates to the skills necessary to draw together information from different sources in new ways to improve health and the importance of looking ahead to give an early warning of future public health problems.

8a Learning experiences
By the end of phase 1, trainees will know the different sorts of intelligence and how they are used by practitioners, decision makers and policy makers. By the end of phase 2, trainees will know a wide range of specific sources of intelligence including their quality and relevance in specific circumstances. The will be capable, and will have had experience, of assembling such intelligence to provide valued decision support t practitioners, senior decision makers and policy makers. By the end of phase 3, the trainee will be skilled at working with senior management, in understanding the needs* of sub populations served and in linking those needs with explicitly described interventions, policies and strategies which where possible are costed. The trainee will have addressed the evaluation of such interventions and policies and strategies. The trainee will have quantified inequalities and inequities within and between populations in valid ways which make sense to the relevant audience/commissioner. The trainee will understand how to evaluate their actions and will be able to identify why/if a contribution appears to have been unvalued or unsuccessful and have subsequently developed alternative strategies. The trainee will have made a significant contribution in helping wide groups of professionals and the public and will appreciate the role of good data and research evidence as a vital part of modern question formulation and decision making. The trainee will also be able to design, implement and evaluate intelligence/knowledge/decision support systems. *needs as expressed through population preference and through objective measurements **Potential vehicles for the demonstration of this competence area include:** • Implementation of national surveillance policy • Development of systems to extract intelligence and decision support from data sets **Potential settings for the demonstration of this competence area:** By the end of training trainees will be expected to have contributed to the surveillance of the public health from within, or via, a local, regional or national intelligence centre.
8b Good public health practice
See statement in 1b
8c Knowledge base and know how
Advanced techniques in surveillance and dissemination. Methods of trending and modelling health status. Linkage of data sets; Design of knowledge management systems for both data and research literature (libraries); The role of ICT in intelligence based and evidence based decision support; Integration of clinical data systems and population based systems to reduce inequalities and improve health; Technical, legal and ethical issues relating to data security, disclosure and trust. Pseudonymisation. Clear understanding of the role of information and intelligence to policy formulation and implementation, and to local clinical and public health practice.

Learning outcomes: Key area 8. Public health intelligence

	Learning Outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway[1]	Final gateway[1]			
8.1	Formulate and articulate problems so they can be addressed by using public health intelligence	1					
8.2	Organise data, meta-data, information and knowledge (knowledge management including libraries)	1				3.1. to 3.3	
8.3	Appraise the validity and relevance of data and data systems in order to assess their quality and fitness for purpose	2				KA 2	
8.4	Use data with a full appreciation of the legal and ethical aspects of data collection, manipulation and release (confidentiality, security, privacy and disclosure) in order to balance societal benefit with individual privacy	2					
8.5	Present and communicate population health intelligence in innovative and compelling ways in order to improve decisions of colleagues, practitioners and senior decision makers	3				6.3	
8.6	Present and communicate population health intelligence in innovative and compelling ways in order to monitor system performance	3				6.3	
8.7	Present and communicate population health intelligence in innovative and compelling ways in order to develop local and national policy	3				6.3	
8.8	Contribute to management of a health intelligence function	3				5	
8.9	Treat information about patients as confidential	1 - 3					
8.10	Provide information needed and requested and in a way that can be understood	1 - 3					

[1] The gateways are further explained in the Knowledge and Skills Framework and are fundamental requirements for pay progression under Agenda for Change

[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Special interest option

	Learning outcome	Target phase*	Link to related KSF competency	Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
8.11	Design, deliver and run an intelligence service that collects and collates intelligence to inform the commissioning of health care and public health	3				
8.12	Establish a communicable and/or non communicable disease surveillance system including reporting and early warning. Such a system could include environmental hazards, disease incidence/prevalence or behavioural risk factors	3				
8.13	Lead the delivery and quality assurance of an intelligence unit function	3				

* All learning outcomes for special interest options would be expected to be gained in phase 3

Key area 9
Academic public health

This area of practice focuses on the teaching of and research into public health.

9a Learning experiences

By the end of phase 1, trainees should understand the important areas of uncertainty in public health and have the ability to distinguish those areas which are amenable to research, and how, within available resources. The importance of these uncertainties should be related ultimately to potential population health gain. The main outlines of the methods, including elements of main statistical theory for significance testing, for effective research in public health should be understood with reference to public health strategies for which the optimum solution is unclear. This should begin with an understanding of the importance of proper review and communication of existing knowledge by systematic literature search or synthesis of research. The key areas of deception from inadequate methodologies should be understood. The strategies and methods for effective goal based teaching will be understood, both organisational and in practice.

By the end of phase 2, trainees will be able to distinguish evidence-based strategies from others and to prioritise accordingly and to have participated in a teaching programme. They will have presented, in an academic setting of critical peers, their own primary or secondary research, and taught or supervised others.

By the end of phase 3, trainees will have demonstrated their ability to teach reflectively and with enthusiasm, in class and individually, will have had experience of prioritising, writing and presenting research findings. They will demonstrate an ability to write proposals and to critique research substantively and to undertake primary or secondary research and disseminate research findings in verbal and written form.

Potential vehicles for the demonstration of this competence area include:

- Written research reports including literature reviews
- Course documentation, demonstrating participation in design and/or delivery
- Conference proceedings
- Diplomas and higher degrees
- Published peer reviewed papers
- Articles in the media
- Referees reports on other people's articles submitted for publications
- Research proposals submitted (possibly in collaboration)
- Peer observation of teaching and student feedback
- Teaching or research prizes
- Book Chapters etc

Potential settings for the demonstration of this competence area:
By the end of training trainees will be expected to have undertaken some original research in association with an academic unit and taught public health to a range of audiences including medical students, other health care professionals and local authority staff.

9b Good public health practice

See statement in 1b

9c Knowledge base and know how

Epidemiology, statistics, economic evaluation and qualitative research methods
Social and health psychological sciences
Biological, social, environmental and therapeutic determinants of health and disease
Mechanism of therapeutic interventions, including complex interventions

Learning outcomes: Key area 9. Academic public health

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway [1]	Final gateway [1]			
	Using research methods						
9.1	Apply and interpret appropriate statistical methods	1				1.2	
9.2	Interpret the results of simple commonly used multivariate statistical models	1				1.1, 1.2	
9.3	Formulate a specific public health research question	3					
9.4	Interpret a meta-analysis and explain heterogeneity in context	3				1.1.35 to 37, 1.2.19 to 21	
9.5	Define appropriate outcome measures and data requirements for specific research proposals, both quantitative and qualitative	3					
9.6	Identify the resource implications of varied research strategies	3				5.4	KA3
9.7	Identify the potential for misleading findings from different research methods and identify ways to avoid them	1				1.1	KA2
9.8	Draw appropriate conclusions in context and make recommendations other's research	1				1.1, 1.2, KA 2	KA3
9.9	Base research activity purely on professional judgement of the patient/population's needs and the likely effectiveness of any intervention	3					
9.10	Ensure appropriate consent and ethical approval for research, following protocols, recording results accurately and reporting evidence of fraud	3					
	Facilitate learning						
9.11	Help the public to be aware of and understand health issues and contribute to the education and training of other doctors, medical students and colleagues.	3					

	Learning outcome	Target phase	Link to related KSF competency		Suitable assessment methods	Link to knowledge base[2]	Related curriculum areas
			Foundation gateway [1]	Final gateway [1]			
9.12	Develop skills and attitudes for teaching including appropriate supervision and assessment	3					
9.13	Supervise a junior colleague in a one-to-one project mentorship, completing an induction programme	3					KA4
9.14	Conduct a group tutorial	3					
9.15	Develop and give a large class lecture ensuring that this is conducted in a safe environment where risks to others are minimised	3					KA4
9.16	Advise on the relative strengths and limitations of different research methods to address a specific public health research question	3				1.1, 1.2, KA 2	

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[2] Numbers link either to Key Areas (KA), learning outcomes (LO) or to the Part A syllabus

Special interest option

	Learning outcome	Target phase *	Link to related KSF competency	Suitable assessment methods	Knowledge base	Related curriculum areas
	Understanding research methodology					
9.17	Design, undertake and analyse research project(s)	3				
9.18	Conduct a systematic review on a defined research question	3				
9.19	Present an accepted research paper at a national public health scientific meeting	3				
9.20	Prepare and submit a research paper to a reputable peer reviewed journal	3				
9.21	Scope research priorities in own area	3				
9.22	Critique research proposals for their validity and feasibility	3			KA 2	

	Learning outcome	Target phase *	Link to related KSF competency	Suitable assessment methods	Knowledge base	Related curriculum areas
	Facilitate learning	3				
9.23	Relate proposed or existing curricula and courses to learning objectives	3				
9.24	Participate in developing and teaching courses and related material	3				
9.25	Organise the design and delivery of an academic course or lecture series	3				
9.26	Supervise others(eg MPH or other aspiring academics) and demonstrate ability to assess and to respond reflectively to being assessed	3				
	Leadership and advocacy					
9.27	Engage in leadership roles in curriculum development	3				
9.28	Play a role in a teaching committee	3				
9.29	Advocate beneficial changes in research funding and administrative arrangements for improving public health	3				
9.30	Practice inter-professional and interdisciplinary academic public health	3				
9.31	Be a reflective educator, evaluating practice across research, teaching and administration	3				
9.32	Communicate complex research issues that can affect health to a variety of audiences	3				

* All learning outcomes for special interest options would be expected to be gained in phase 3