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Undergraduate Public Health Curriculum for UK Medical Schools

Consensus Statement 2014



FACULTY OF PUBLIC HEALTH

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Public Health Educators in Medical Schools



"The superior physician helps before the early budding of disease."

HUANG TI (2697-2597 BC) The Yellow Emperor's Textbook of Medicine

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"The aim of medicine is to prevent disease and prolong life; the ideal of medicine is to eliminate the need of a physician."

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WILLIAM J MAYO (1861-1939) Proceedings of the National Education Association



TOMORROW'S doctors will practise in changing and complex environments. Emerging diseases, an ageing population, inequalities, rising expectations among patients and the public, and changing societal attitudes will impact on how medicine is practised in the 21st century. In addition, developments in science and technological advances, such as genomics and informatics, will also influence how today's medical students – tomorrow's doctors – practise medicine.

In 2009 the General Medical Council (GMC) published an updated version of Tomorrow's Doctors. The content covers the development of the knowledge, skills, and behaviour that students must demonstrate by the time that they graduate, under the headings 'scientist and scholar', 'practitioner' and 'professional'. The common thread that runs through all three sections is public health. Public health education varies a great deal between medical schools though. While each medical school can design its own curriculum to suit its own circumstances, the overall curriculum must allow students to meet the outcomes specified in Tomorrow's Doctors. This is to ensure that graduates have the necessary knowledge, skills and behaviours to practise.

In order to facilitate public health education in medical schools in line with the outcomes prescribed in Tomorrow's Doctors, the Faculty of Public Health (FPH) organised a workshop in April 2013. The workshop brought together Public Health Educators in Medical Schools (PHEMS) in the UK to revisit and revise Public Health Education for Medical Students – a Guide for Medical Schools published in 2008. Follow-up workshops, discussions and feedback from medical educators in the UK medical schools have resulted in this document.

This document is a comprehensive guide that outlines what the undergraduate public health curriculum needs to include. It identifies what a core public health curriculum should cover to support and enhance the development of undergraduate public health education. It also describes potential educational approaches and assessment methods for public health, and opportunities for introducing public health throughout the clinical curriculum. It will be an important and useful resource for anyone working in medical education, to enable them to design a public health curriculum that incorporates the GMC recommendations.

FPH is delighted with this valuable addition which will enable medical educators to develop excellent education in public health and inspire medical students. A comprehensive public health component in medical education will ensure that tomorrow's doctors will be able to improve the health of the population as scholars and scientists, practitioners and professionals.

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Stephen J. Gillam, PHEMS

1. Introduction

"The doctor's role must be defined by what is in the best interest of patients and of the population served. [...] All doctors have a role in the maintenance and promotion of population health, through evidence based practice. Some will enhance the health of the population through taking on roles in health education or research, service improvement and re-design, in public health and through health advocacy." (Medical Schools Council 2008)¹

Learning about the sciences underpinning public health brings substantial benefits both to the practice of clinical medicine and to the health of the population. Doctors can practise medicine more effectively, despite clinical uncertainty, by applying critical appraisal skills to their decision-making. This involves using diagnostic tests efficiently, weighing up the benefits, risks and costs of treatments, and understanding the natural history of patients' diseases, to help prevent disease and promote health in individual patients.

Doctors with a clear understanding of their role within the wider context of health and social care can influence the planning and organisation of services. They can ensure that the development and delivery of health service interventions will benefit patients and contribute to the effective and fair allocation of resources. An understanding of the wider determinants of health can enable doctors to work in partnership with local agencies and communities to advocate for interventions that will help to reduce health inequalities².

The absence of public health practice from medical students' workplace-based learning (in contrast with the representation of other specialties) can contribute to the perception of public health as wholly distinct from the clinical role of doctors³. Previous mapping of the public health curriculum across medical schools has revealed great variability in goals, content, delivery, and modes of assessment⁴.

This consensus statement aims to outline a concise core public health curriculum to support and enhance the development of undergraduate public health education in medical schools, despite the variety in learning context in each school. This document also describes educational approaches and assessment methods for public health, and opportunities for introducing public health throughout the clinical curriculum.

¹ Medical Schools Council (MSC). The Consensus Statement. The Role of the Doctor: Past, Present and Future. (Statement supported by: Chief Medical Officers of England, Scotland, Wales and N Ireland, Academy of Medical Royal Colleges, Association of UK University Hospitals, British Medical Association, Conference of Postgraduate Medical Deans in the UK, General Medical Council, King's Fund, Available at (last accessed May 2014): http://www.medschools.ac.uk/AboutUs/Projects/Documents/Role%200nf%20Doctor%20Consen-

² Ali A, Wright N, Rae M [editors], on behalf of Health Inequalities Standing Group (RCGP). Addressing Health Inequalities: A Guide for General Practitioners. London: RCGP, 2008. Available at (last accessed May 2014): http://www.lkrs.lincolnshire.nhs.uk/HPAC/Click-

³ Public Health Educators in Medical Schools (PHEMS) / Faculty of Public Health (FPH) Joint Workshop on Undergraduate Public Health

⁴ Gillam S, Bagade A. Undergraduate public health education in UK medical schools – struggling to deliver. Medical Education 2006;

Medical Schools Council, NHS Employers and Postgraduate Medical Education and Training Board.) London: MSC, 2008 sus%20Statement.pdf

Counter?action=d&resourceId=94900&url='uploads/hplincoIn/pdf/BK600009.pdf' Curriculum in Medical Schools. London: 2 April 2013.

^{40: 430-436}

2. Developing the curriculum

The consensus statement fulfils the General Medical Council's (GMC) requirements in Tomorrow's Doctors (2009)⁵ and outlines an indicative set of broad curricular goals for students to achieve by graduation. Foundation Year doctors must then build on these goals to achieve their key public health competencies⁶. This curriculum also relates to the Faculty of Public Health (FPH) curriculum (2010)⁷ for those who enter public health specialty training. The goals have been developed following a joint workshop of the UK network of Public Health Educators in Medical Schools (PHEMS) and FPH.

This guidance document is timely given the substantial changes that have influenced the practice and education of medicine and public health. The changes are:

- Epidemiological, eg. changing patterns of disease, the ageing population
- Organisational, eg. National Health Service, public health function and social care reforms
- Political, eg. changes to the welfare state, changes in government
- Professional, eg. changes in concepts of 'professionalism'
- Social, eg. the persistent gap between rich and poor, changing public expectations
- Technological, eg. advances in genetics, therapeutics, etc.

3. A core curriculum for public health

In Tomorrow's Doctors (2009), considerable emphasis was placed on public health knowledge and skills. The core curriculum in this consensus statement is intended to provide a context for those learning outcomes and for future iterations of GMC guidance.

The learning outcomes fall within FPH's three domains of public health practice:

- 1. Health protection measures to control infectious disease risks and environmental hazards, including public health emergencies
- 2. Health improvement societal interventions (to promote health, including preventing disease) that are not primarily delivered through health services
- 3. Health services the organisation and delivery of safe, high quality services for prevention, treatment, and care.

Medical students need core knowledge, skills and attitudes to fulfil their public health role as doctors in the health care system. The public health-related learning outcomes of Tomorrow's Doctors (2009) can be usefully mapped to the FPH domains, and this helps to suggest relevant topics around which to build learning experiences/sessions (Table 1).

Indicative content		.i		2.		'n.	ameliorated, controlled, and communicated? (11e, 11g)	to 4. What are the causes and consequences of accidents? How	n, can they be prevented? (11g)	nd 5. What should you do when you have a patient with a	notifiable disease? (11e, 23h)	6. What should you do in an outbreak situation? (<i>11e, 23h</i>)	7. How would you address environmental health concerns	expressed by local communities or individual patients?	(11 <i>g</i>)	8. What is the relationship between occupation and various	health risks (e.g. occupational cancers, respiratory	diseases, musculoskeletal disorders, and	stress/depression/addiction)? (11g)	9. What is the association between environmental	exposures and health inequalities? (11g)	10. What is the impact of climate change on health and	healthcare systems? (11g)	11. What are the risks to your health during an elective	placement and how would you mitigate these? (11g, 23h)
GMC <i>Tomorrow's Doctors</i> 2009 learning outcomes *(Key: Doctor as scholar & scientist; Doctor as practitioner; Doctor as professional)		(11.e) Explain and apply the basic principles of	communicable disease control in hospital and			occupational hazards in ill-health and discuss ways to	mitigate their effects.	(23.h) Understand the importance of, and the need to	keep to, measures to prevent the spread of infection,	and apply the principles of infection prevention and	control.														
Core curriculum goal	PUBLIC HEALTH KNOWLEDGE	To be able to protect	the health of	individual patients	and populations	against communicable	disease and	environmental	hazards	(a clinical and legal	responsibility)														
Faculty of Public Health domain	PUBLIC HEA	1. Health	protection		Specialty Training	key area 6																			

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⁵ General Medical Council (GMC). Tomorrow's Doctors: Outcomes and Standards for Undergraduate Medical Education. London: GMC, 2009. Available at (last accessed May 2014): http://www.gmc-uk.org/education/undergraduate/tomorrows_doctors_2009.asp ⁶ UK Foundation Programme Office (UKFPO). Foundation Programme (FP) Curriculum 2012. London: UKFPO, 2012. Available at (last accessed

May 2014): http://www.foundationprogramme.nhs.uk/pages/home/curriculum-and-assessment/curriculum2012

⁷ Faculty of Public Health (FPH). Public Health Specialty Training Curriculum 2010. London: FPH, 2010. Available at (last accessed May 2014): http://www.fph.org.uk/uploads/2010MASTERPHCurriculum0610b.pdf

	PHEMS cover_PHEMS cover	23/06/2014	14:16	Page 9
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*(Key: Docto domain *(Key: Docto domain *(Key: Docto 2. Health To be able to use key (8.e) Select ways of principles of principles of principles of principles of principles of principles of provertal levels. Specialty Training key areas 3 and 5 To managing and concepts of health, illn prevention in preventing clinical and psychology to explain so conditions, and preventing clinical and psychology to explain so frequendities (9.d & 10.d) Explain so fractors that contribute disease and the succes issues relating to health between occupation a poverty and affluence.	ctor as scholar & scientist, itioner, Doctor as professional) preventing common diseases. human behaviour at individual s sociological and psychological illness and disease. heoretical frameworks of sociology explain the varied responses of and societies to disease.		
To be able to use key principles of population health and prevention in managing and conditions, and reducing inequalities			
To be able to use key principles of population health and prevention in managing and preventing clinical conditions, and reducing inequalities			
principles of population health and prevention in managing and preventing clinical conditions, and reducing inequalities	logy	1.	What is the role of screening in the prevention of disease?
population health and prevention in managing and preventing clinical conditions, and reducing inequalities	logy		(8e, 11i)
prevention in managing and preventing clinical conditions, and reducing inequalities	logy	2.	How would you explain screening tests and risk to
managing and preventing clinical conditions, and reducing inequalities	logy		individual patients and their families? (8e)
e	logy	З.	What influences behaviour in relation to health and
alities			wellbeing? (9a, 9b, 10a, 10b, 9e, 10e)
	als, groups and societies to disease.	4.	What are the main approaches to health improvement,
(9.d & 10.d) Explain factors that contrib factors that contrib disease and the suc issues relating to he between occupatio poverty and affluer (9.e & 10.e) Discuss aspects of behavior compliance.			including health promotion, community development,
factors that contrib disease and the suc disease and the suc issues relating to he between occupatio poverty and affluer (9.e & 10.e) Discuss aspects of behavior compliance.	(9.d & IU.d) Explain sociological and psychological		prevention, and screening? (8e, 9e, 10e, 11a, 11i)
disease and the suc issues relating to he between occupatio poverty and affluer (9.e & 10.e) Discus: aspects of behavior compliance.	factors that contribute to illness, the course of the	5.	What preventive interventions can involve you as a
issues relating to he between occupatio poverty and affluer (9.e & 10.e) Discus: aspects of behaviou compliance.	disease and the success of treatment – including		clinician? (8.e)
between occupatio poverty and affluer (9.e & 10.e) Discuss aspects of behaviou compliance.	issues relating to health inequalities, the links	6.	What are the wider determinants of health, the effects of
poverty and affluer (9.e & 10.e) Discuss aspects of behavior compliance.	between occupation and health and the effects of		poverty and affluence, and the impact of health
(9.e & 10.e) Discuss aspects of behavior compliance.	r and affluence.		inequalities at a global, national, and local level? (9b, 9c,
aspects of behaviou compliance.	(9.e & 10.e) Discuss sociological and psychological		10b, 10c, 11a, 11j)
compliance.	aspects of behavioural change and treatment	7.	What factors affect the patient's journey (including risk
	ince.		factors, seeking healthcare, treatment, rehabilitation)?
(11.a) Discuss basic	(11.a) Discuss basic principles of health improvement.		(8e, 11i)
(11.b) Assess how h	(11.b) Assess how health behaviours and outcomes	∞.	How can doctors and clinical leaders best contribute to
are affected by the	are affected by the diversity of the patient population.		improving the health of the population? (11a, 11i)
(11.i) Discuss the pi	(11.i) Discuss the principles and application of	9.	What vulnerable groups have particular health needs?
primary, secondary	primary, secondary and tertiary prevention of disease.		What are they, and how can they be addressed? (20e)
(11.j) Discuss from	(11.j) Discuss from a global perspective the	10.	How can health equity best be promoted within a health
determinants of he	determinants of health and disease and variations in		care system? (20e)
healthcare delivery	healthcare delivery and medical practice.		
(20.e) Recognise th	(20.e) Recognise the rights and the equal value of all		
people and how op	people and how opportunities for some people may		
be restricted by oth	be restricted by others' perceptions.		

Faculty of Public Health	Core curriculum goal	GMC Tomorrow's Doctors 2009 learning outcomes		Indicative content
domain		*(Key: Doctor as scholar & scientist;		
		Doctor as practitioner; Doctor as protessional)		
3. Organisation of	To recognise and	(11.d) Discuss the principles underlying the	;	How does healthcare delivery in other parts of the world
health services	be able consider	development of health and health service policy,		differ from the healthcare system in the UK? (11d, 11j)
	the framework	including issues relating to health economics and	2.	What is the commissioning process and why was it
Specialty Training	within which	equity, and clinical guidelines.		introduced? How effective is it in improving population
key areas 3 & 4	healthcare is	(11.j) Discuss from a global perspective the		health, reducing inequalities, prioritising resources
	delivered in the	determinants of health and disease and variations in		effectively and ethically? (11d, 23c, 23g)
	UK and the effect	healthcare delivery and medical practice.	ж.	What principles and skills can you use to design
	on population	(22.a) Understand and respect the roles and expertise		healthcare provision to improve population health and
	health	of health and social care professionals in the context		reduce inequalities (including commissioning and health
		of working and learning as a multi-professional team.		economics principles)? (11d, 11j, 22a, 23c)
		(22.b) Understand the contribution that effective	4.	In what way are international and national policies
		interdisciplinary team working makes to the delivery		relevant to the health and wellbeing of your patients?
		of safe and high-quality care.		(11)

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	(23.c) Understand the frameworks in which medicine	5.	What are the links between global and local health? (11j)
	is practised in the UK, including the organisation,	6.	How is healthcare planned, nationally, and locally, and
	management and regulation of healthcare provision;		what is the role of the clinician in this process? (11d)
	the structures, functions and priorities of the NHS; the	7.	What are the financial and ethical issues involved in
	roles of, and relationships between, the agencies and		planning and prioritising the use of resources? (11d, 23c,
	services involved in protecting and promoting		23g)
	individual and population health.	%	How do we know what a population's health needs are?
	(23.g) Demonstrate awareness of the role of doctors		Who should be consulted? What does it tell you? What do
	as managers, including seeking ways to continually		you do with this information? (11d)
	improve the use and prioritisation of resources.	9.	You are a GP/local politician/patient. Which
			service/treatment/patient are you going to fund? Why?
			What informs your decision? (11d, 23c, 23g)
		10.	Why do we screen for breast/cervical/bowel cancer/
			abdominal aortic aneurysm (AAA)? What would you
			advise the Government/GPs/patients regarding particular
			national programmes? What are the cost implications?
			In what ways does screening affect health? (11d, 23c)
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Facurty of Public Health domain	Core curriculum goal	GMC <i>Tomorrow's Doctors</i> 2009 learning outcomes *(Key: Doctor as scholar & scientist; Doctor as practitioner; Doctor as professional)		Indicative content
4. Improving the quality of health services	To improve the clinical effectiveness and other aspects of	(11.c) Describe measurement methods relevant to the improvement of clinical effectiveness and care.(22.b) Understand the contribution that effective	Li I	What are the principles and methods of quality improvement, and how are these applied to the development of services? (11c, 22b, 23e, 23d)
Specialty Training key area 7	the quality of health services by applying the principles and	interdisciplinary team working makes to the delivery of safe and high-quality care. (23.e) Understand and have experience of the	· · ·	Which organisational approaches and systems are most effective in patient safety, quality assurance, clinical governance, and risk management? (11c, 22b, 23e, 23d)
	methods of evaluation, audit, research and	principles and methods of improvement, including audit, adverse incident reporting and quality improvement, and how to use the results of audit to	'n	What can doctors learn from significant adverse events? What are the pros and cons of different ways of assessing quality (safety, effectiveness) in healthcare systems? (11c,
	development, and standard-setting	improve practice. (23.d) Promote, monitor and maintain health in the		22b, 23e, 23d)
		in practice, applying the principles of quality assurance, clinical governance and risk management to medical practice and understanding responsibilities		
		in the current systems for raising concerns about safety and quality.		
PUBLIC HE	PUBLIC HEALTH SKILLS			
5. Epidemiology -	To use epidemiology	(12.a) Critically appraise the results of relevant	.i	What different types of knowledge are relevant to public
practising	as the basic science	diagnostic, prognostic and treatment trials and other		health? (12a)
evidence-based medicine	underpinning public health and clinical	qualitative and quantitative studies as reported in the medical and scientific literature.	2.	What common epidemiological concepts and study designs are used for data handling and the critical
	medicine; to provide	(12.b) Formulate simple relevant research questions in		appraisal of evidence? (12a)
Specialty Training kev areas 2 & 9	evidence to guide public health policy	biomedical science, psychosocial science or population science and design appropriate studies or	ы.	When are quantitative, mixed, and qualitative research approaches appropriate? (12a)
	and clinical practice to	experiments to address the questions.	4.	How should you formulate an appropriate research
	protect, restore, and promote health of	(12.c) Apply findings from the literature to answer questions raised by specific clinical problems.		question and use appropriate evidence to derive a balanced, evidence-based conclusion? (12b, 12c)
	individuals and	(12.d) Understand the ethical and governance issues	5.	What are the barriers to evidence-based healthcare? (12c,

Faculty of Public	Core curriculum goal	GMC Tomorrow's Doctors 2009 learning outcomes		Indicative content
domain		*(Key: Doctor as scholar & scientist; Doctor as practitioner; Doctor as professional)		
	populations; to think	involved in medical research.		14g)
	critically, challenge	(14.g) Formulate a plan for treatment, management	.9	How should you deal with uncertainty in evidence? (12c,
	the status quo,	and discharge, according to established principles and		12d, 14g)
	evaluate and apply	best evidence.	7.	What are the incidence and prevalence of various health-
	evidence, and			related states or events? (12b, 12c)
	synthesise evidence		œ.	How can you best quantify the risk of disease (relative
	of different types			risk, odds ratio) and its outcome (prognosis, survival,
				mortality)? (12b)
			9.	How can you interpret and communicate risk
				appropriately, and how should epidemiological concepts
				inform your everyday clinical practice? (12a, 12c, 12d,
				14g)
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10. What are the common misconceptions in interpreting	risk, and what is their impact on risk perception? (12a,	12c, 12d)	11. How can you show causal mechanisms for disease in	populations (aetiology, prevention)? (12a)	(11.f) Evaluate and apply epidemiological data in [1. What are the various sources of epidemiological data, and	managing healthcare for the individual and the how would you use these data to inform decisions	munity. relating to population and individual health? (11f, 19d,	(19.d) Access information sources and use the 19e)	information in relation to patient care, health 2. What is the role of public health organisations (public	promotion, giving advice and information to patients, health teams in local government; Public Health England)	research and education. in the surveillance and assessment of the population's	(19.e) Apply the principles, method and knowledge of health and wellbeing? (19d)	health informatics to medical practice. 3. Which data sources can be used to assess population	health status and needs and how? (19d, 19e)	4. How would you use quantitative data handling (including	statistical) skills in relation to population and individual	health? (11f, 19e).
					(11.f) Evaluate and apply epide	managing healthcare for the ir	community.	(19.d) Access information sour	information in relation to patie	promotion, giving advice and i	and research and education.	(19.e) Apply the principles, me	health informatics to medical				
					To use, analyse, and	interpret health	information to	improve clinical	practice								
					i. Using health	information		Specialty Training	key areas 1 & 8								

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Faculty of Public Health	Core curriculum goal	GMC Tomorrow's Doctors 2009 learning outcomes		Indicative content
domain		*(<i>Key</i> : Doctor as scholar & scientist; Doctor as practitioner; Doctor as professional)		
ATTITUDES & VALUES	& VALUES			
7. Adopting public	To adopt a	(20.e) Recognise the rights and equal value of all	1.	What are the legal, moral, and ethical responsibilities
health attitudes	'population	people and how opportunities for some people may		involved in protecting and promoting the health of
and values	perspective' in	be restricted by others' perceptions.		individual patients, their dependants, and the public,
	everyday clinical	(20.f) Understand and accept the legal, moral and		including vulnerable groups? (20e, 20f)
Specialty Training	practice and in	ethical responsibilities involved in protecting and	2.	What is the role of clinicians in advocacy for public health
key area 4 &	considering health	promoting the health of individual patients, their		at a global, national and local level? (15h, 20e, 20f, 21a)
ethical	inequalities	dependants and the public – including vulnerable	ъ.	What are the ways in which you can advocate for your
management of		groups such as children, older people, people with		patients? (15h, 20e, 20f, 21a)
self		learning disabilities and people with mental illnesses.	4.	What is the public health impact of drug prescribing?
		(21.a) Acquire, assess, apply and integrate new		(20e)
		knowledge, learn to adapt to changing circumstances	5.	What is a doctor's role in policy-making? (15h, 20f, 21a,
		and ensure that patients receive the highest level of		22b)
		professional care.	6.	What makes an effective public health advocate? (15h,
		(22.b) Understand the contribution that effective		20e, 20f, 21a)
		interdisciplinary team-working makes to the delivery	7.	What are the ethical issues in public health, and their
		of safe and high-quality care.		implications for practice? (20e, 20f, 21a)
		(15.h) Communicate effectively in various roles, for	%	How can an interdisciplinary team contribute to safe and
		example as patient advocate, teacher, manager or		high-quality care (case-studies)? (22b)
		improvement leader.		

4. Learning and assessment

There is no single best curriculum design, management structure or educational approach; rather, each medical school should be able to show a coherent approach to learning and assessment. As with all elements of medical education, it is important to ensure that the curriculum is delivered using a range of educational approaches and assessments to engage students' cognitive, affective and practical capacities as well as cater for different learning styles and preferences⁸.

The function of the learning goals and recommended related curriculum (Table 1) is to illustrate the relevance of public health to clinical practice, and emphasise the role of doctors in protecting and improving the health of the population and reducing health inequalities. Embedding public health throughout the entire medical programme as a 'vertical strand', and integrating public health concepts into core learning in clinical practice, should help to promote a 'population perspective' as a relevant and useful tool in the doctor's repertoire.

Where feasible, opportunities for experiential learning (such as placements with community groups, charities, and social care networks) can enable students to see how a variety of social situations affect the health of the people living within them. Simulating practical scenarios in the classroom can foster a sense of participation in public health activities. Opportunities should be sought for students to interact with "strong and active role models"⁹ from a variety of sectors.

Examples of new technologies for public health education emerging in medical schools throughout the country include e-modules, or real-time exercises using social media such as Twitter debates and discussions, developing webpages or wikis, online journal clubs, videos and webinars.

Student-selected modules can further students' interest in particular public and social health topics and methods beyond the core curriculum, including:

- Global health
- Environmental change
- Public and private systems of healthcare
- Epidemiological research projects
- Qualitative data collection and interpretation
- Social justice.

Assessments should emphasise the importance of public health to clinical practice and follow from core learning outcomes. It is important to make use of a range of assessment modes including single best-answer questions, extended-matching questions, short-answer questions, essays/reports, posters, public health-related components in objective structured clinical examinations (OSCEs), portfolios, and reflective accounts built around patient case studies⁴. For example, multiple-choice or extendedmatching items are well suited to examine applied epidemiological knowledge, whereas written short-answer questions and written project work support assessment of critical analysis for clinical practice and related attitudes. Specific practical public health skills can be assessed as part of OSCEs.

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Health promotion in non-clinical settings, eg. schools, worksites, prisons and third sector

⁸ The Association of Faculties of Medicine of Canada (AFMC). Public Health Task Group. An Environmental Scan of Best Practice in Public Health Undergraduate Medical Education (Prepared by the Nevis Consulting Group): Report 5: Strengths, Weaknesses, and Applicability of Teaching Methods in Public Health. Toronto: AMC, 2009. Available at (last accessed May 2014): http://www.afmc.ca/social-public-

⁹ Atkinson S, Cottam B (Royal College of General Practitioners (RCGP)). How doctors can close the gap: Tackling the social determinants of health [Conference report from Royal College of Physicians, 10 June 2010]. Clinical Medicine 2011; 11(1): 57-60. Available at (last accessed

health-e.php

May 2014): http://rcpjournal.org/content/11/1/57.full.pdf+html

5. Who is a public health educator?

Varying capacity within public health departments may not allow educational delivery by public health specialists at all levels of the curriculum. Public health education could involve a range of departments and disciplines focused on populations and community health (for example, primary healthcare, occupational and environmental health, child health, clinical epidemiology, biostatistics, health services research, health promotion, health economics, behavioural sciences, demography, ethics, education, social policy and sociology). Working closely with colleagues from other clinical specialties and disciplinary backgrounds increases public health educator capacity within medical schools, and illustrates the clinical relevance of public health and its relationship with other disciplines.

Facilitators of problem-based learning (PBL) groups (and other such student-centred learning approaches) may need support (educator development workshops or written guidance) in understanding how to prompt students towards considering public health aspects in case scenarios. Irrespective of who is responsible for public health education, a named public health specialist lead within each medical school should provide oversight of public health learning outcomes across the whole curriculum to ensure coherence and constructive alignment (between intended outcomes, what students learn, and what is assessed).

The educational contributions of service public health specialists and other NHS clinicians are supported by FPH. The GMC's Good Medical Practice¹⁰ states that all doctors "should be prepared to contribute to teaching and training doctors and students" (paragraph 39). Sharing public health expertise and promoting a public health approach is an important role for public health consultants, to ensure a population approach is understood by and fostered in the doctors and commissioners of tomorrow, as well as inspiring the new generation of medical doctors in specialty training. FPH development programmes and support structures will be important to support a community of public health educators, both locally and nationally through the PHEMs network.

Workshop participants:

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¹⁰ GMC (2013). Good Medical Practice. Available at (last assessed May 2014): http://www.gmcuk.org/guidance/good_medical_practice.asp