Council of Deans of Health

Public Health England

Embracing the Challenge

Public Health in Allied Health Professional Pre-registration Education

Contents

Public Health England & the Council of Deans of Health
October 2015

Foreword

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As a nation, we have seen an increase in average life expectancy; however people spend more years in poor health and experience major health inequalities. This is despite us having one of the best health care systems in the world. The ageing population and increase in long term conditions alongside worrying trends such as increases in childhood obesity mean our current health and social care system is increasingly unsustainable.

We need a fundamentally new approach to creating and sustaining health, both mental and physical, at every stage of life, across all our communities. We know this can't be achieved by just relying on the traditional public health workforce; we need to engage a much broader range of people and allied health professionals (AHPs) are essential to this.

AHPs have demonstrated their commitment to be recognised as an integral part of the public health workforce. They have identified education as one of the drivers to achieve the required shift in focus from treatment to prevention. Much of this will need to focus on education for the existing workforce but we also need to make sure that new graduates are consistently equipped with the knowledge, skills and attributes to enable them to contribute to population health outcomes.

This initial scoping report provides a welcome indication that AHP undergraduate programme leaders see public health as a priority and have already taken steps to include it in their education programmes, with many planning to do more.

We welcome this report and look forward to supporting the continued journey of AHPs and other health care professionals throughout their education as they develop their roles in preventative healthcare as part of the wider public health workforce.

Executive Summary

In 2013, the professional bodies for all 12 Allied Health Professions (AHPs) agreed to a shared ambition to recognise and promote AHPs as an integral part of the public health workforce. Although it is only one piece of the jigsaw, the initial (pre-registration) education of these professionals has a vital contribution to make in achieving and sustaining this ambition. In England alone, over 7,000 new AHP education places are commissioned by the Government via Health Education England (HEE) each year from universities, in addition to those students who fund their own education. Yet there has been little work to date to understand and analyse how the education of the future workforce prepares AHPs for their public health role.

This is a complex area. The level of initial education of the different allied health professions varies significantly, from some professions (such as arts therapists) where pre-registration education is at Masters level only, through to paramedics, where the threshold education level for entry to the professional register is set at equivalent to a Certificate of Higher Education. The size of the professions also varies hugely, from professions such as physiotherapy or occupational therapy where there are more than 1,500 new places commissioned at universities in England each year, through to prosthetists and orthotists, where there are 30 new places per year in England and only two universities in the UK providing the course. The roles of the professional bodies in education also differ, from those that play a very substantial role in education curricula to those that are more 'light touch' in their approach.

In spring 2015, the Council of Deans of Health (CoDH) and Public Health England (PHE) decided to jointly conduct a small scoping study on the place of public health in AHP pre-registration curricula. The aim has been to get under the skin of current practice and explore in detail how public health is being taught in pre-registration education, with a view to determining whether there is scope for further work in this area. The study is based on two data collections: the first, a survey open to university programme leaders in all universities in England with AHP pre-registration education, specifically focused on collecting information on learning outcomes within curricula; the second, a survey open to all UK universities with relevant programmes, seeking examples of good practice in public health education.

We found:

- A high level of consensus on the main areas of knowledge and skills that future AHPs will need to play their part in the public health agenda, with a positive consensus on eight proposed areas that ranged from 83% to 97%.
- Evidence of substantial work to embed public health into the curriculum, with most respondents reporting that they have learning outcomes related to each area (ranging from 86% to 97% depending on the area).
- Evidence of differences in the maturity of public health input in different curricula, with some indications of patterns in particular professions.
- A widespread appetite to do more within AHP pre-registration curricula on public health. Only 11% said they did not consider it to be a priority compared to other aspects of the course; 10% reported that they can see its growing importance but have yet to reflect this in their course; 52% of respondents reported that they include public health in their course but plan to do more; 28% said that they are confident that their course has a strong public health component already.
- Examples across the professions of good practice, including students being involved in teaching public health in schools, developing public health campaigns and providing public health services to the general public.

1. Context

What are the Allied Health Professions?

The Allied Health Professions (AHPs) are a group of 12 professions working in almost every health and social care setting and beyond, in the NHS and in the private and voluntary sectors, supporting people of all ages in their recovery from illness or in coping with disability.[1] AHPs may be first-contact or sole-contact practitioners, such as a paramedic who is first at the scene of an accident, or a podiatrist who sees a client in private practice; or they might work in a team, such as a physiotherapist in a hospital or a speech and language therapist working in a school. AHPs also work at many different points of a care pathway, from prevention or diagnosis to disease management and rehabilitation. They comprise:

- Arts Therapists including Drama Therapists, Art Therapists and Music Therapists (number on the HCPC's UK-wide register[2]: 3,632)
- Chiropodists/Podiatrists (12,905)
- Dietitians (8,557)
- Orthoptists (1,381)
- Occupational Therapists (36,138)
- Paramedics (21,271)
- Physiotherapists (49,630)
- Prosthetists/Orthotists (1,012)
- Radiographers (29,812)
- Speech and Language Therapists (15,016)

What is the role of AHPs in public health?

The Government defines public health as being:

> ...helping people to stay healthy, and protecting them from threats to their health. The government wants everyone to be able to make healthier choices, regardless of their circumstances, and to minimise the risk and impact of illness.[3]

The UK Faculty of Public Health defines public health as:

> The science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society.[4]

Traditionally, the public health workforce has been understood as practitioners who are employed in public health departments or hold specialist public health qualifications. However, the public health agenda is so broad and the challenges to improving health so great that it is impossible for these to be addressed by the relatively small specialist workforce alone. There is therefore an increasing recognition that a much wider range of health professionals (and those in other public services, including the fire service, teachers and the police) have significant opportunities to promote health and prevent ill-health. For example, the 'Making Every Contact Count' initiative, which encourages conversations to support healthier lifestyle choices and awareness of the wider factors that impact on health, is aimed at everyone who comes into contact with members of the public and has the opportunity to have a conversation to improve health.[5] At a community rather than individual level, this broader perspective on the public health workforce also dovetails with evidence of the positive impact on health outcomes of investing in interventions that increase people's support networks and social connections.[6] This emphasis has also been reflected in the NHS's Five Year Forward View, which recognised that:

> We have not fully harnessed the renewable energy represented by patients and communities, or the potential positive health impacts of employers and national and local governments.[7]

1 DH (2008) Modernising AHP Careers: a competence-based framework, p. 4.
2 http://www.hcpc-uk.org/aboutregistration/professions/ May 2015
3 https://www.gov.uk/government/topics/public-health
4 http://www.fph.org.uk/what_is_public_health
5 http://www.makingeverycontactcount.co.uk/
6 Wilton, C. (2012) Building Community Capacity: Evidence, efficiency and cost-effectiveness
7 NHS England (2014) Five Year Forward View, p.9.

In this broader context, AHPs are already an integral part of this wider public health workforce and make a significant contribution to almost every public health priority, from dietitians helping local communities to improve their health through their diet and physiotherapists supporting clients to increase their exercise levels, to radiographers encouraging patients to give up smoking. The question is how to ensure that we make the most of the contribution to public health from this vital workforce.

Where does initial education fit in preparing AHPs for their public health role?

All AHPs who are educated in the UK undergo initial, or pre-registration, education before they can practise. This education is usually led by a university but all students spend substantial time in different service settings on placement, so education should be properly understood as a partnership between higher education and service providers. If an education programme is successfully completed, individuals are then eligible to apply to join the professional register. In the case of AHPs, this register is maintained by the Health and Care Professions Council (HCPC), who also set the standards for education.

The standards for education set by the HCPC fall into two parts, the Standards of Education and Training (SETs), which cover all the HCPC's professions and the Standards of Proficiency (SOPs), which are profession-specific. The SETs are common to all professions regulated by the HCPC and do not contain any overarching reference to public health. The SOPs differ by profession and some do contain expectations in relation to public health. For example, public health nutrition is one of the elements that dietetics programmes are expected to cover; students are also expected to 'understand public health relevant to the dietetic management of individuals, groups or communities'.[8] In addition to these standards, a number of the AHP professional bodies also offer curriculum guidance.

Within these parameters, education programmes will have many different components and incorporate different ways of teaching and assessing what students have learnt. There is therefore substantial scope for pre-registration programmes to incorporate teaching on public health, both in the theory-based part of the curriculum and through practice experience.

8 HCPC Standards of Proficiency for Dietitians, pp. 12-13. http://www.hpc-uk.org/assets/documents/1000050CStandards_of_Proficiency_Dietitians.pdf

2. Methodology

Identifying the knowledge and skills needed by AHPs

The first step in the scoping study was to develop a list of suggested skills and knowledge that current and future AHPs will need to support their wider public health role. Eight areas were proposed through PHE's work with the AHP professional bodies:

1. An awareness of population health needs
2. An awareness of lifestyle risk factors, mental wellbeing and wider determinants of health
3. An ability to raise health risks for discussion and undertake brief interventions (including key messages for major lifestyle risk factors)
4. An understanding of behaviour change concepts and skills
5. An understanding of public health interventions specific to their profession/area of specialism
6. Competence in assessing evidence of effective interventions
7. Understanding of a range of quantitative and qualitative research methods
8. Recognition of the importance of prevention in health policy, strategies and care pathways

These eight areas were used as a starting point for the study, with a view to finding out whether programme leads agreed with these, disagreed or had alternative suggestions. The eight areas were also used as a framework to ask for greater detail on the learning outcomes within curricula.

Gathering data

Two surveys were used to gather data from universities. One survey focussed on identifying public health learning outcomes within pre-registration AHP curricula in England. The other survey aimed to gather examples of good practice in teaching public health knowledge and skills in AHP pre-registration programmes across the UK.

An initial pilot of both surveys was shared with three member institutions for feedback on the length and usability of the surveys, layout and information provided to participants and clarity of questions and wording. In light of comments received a small number of adjustments were made to the wording of questions. Both surveys used a mixture of open and closed questions.

The survey of learning outcomes aimed to discover whether respondents agreed or disagreed with the eight areas of proposed skills and knowledge, the extent to which they were taught and the learning outcomes. They were also asked to describe the priority currently given to public health and whether they had received feedback on their approach to public health from students, employers or professional bodies.

The survey of good practice aimed to identify different approaches to teaching public health knowledge and skills, the development of the approach and to reflect on what it is that makes it different. Members were also asked to consider enablers and barriers to delivering public health learning outcomes within the curriculum.

Following the completion of the pilot survey and subsequent amendments, the revised survey was sent to the 85 member institutions of CoDH via the organisation's membership database. Members had an initial four week window in which to return the completed surveys, this was subsequently extended by a further six weeks. Reminders were sent on a weekly basis via the CoDH policy bulletin and follow-up emails were sent from the project team to individual contacts at the HEIs. The surveys were also promoted through the AHP Education Leads meeting, the Chartered Society of Physiotherapy (CSP) and the College of Occupational Therapists (COT). The good practice survey was further promoted via social media.

Of the 141 AHP pre-registration programmes in England of which the Council of Deans of Health has a record, 62 responded to the survey on learning outcomes, a response rate of 44 per cent. We also received responses from five Operating Department Practitioner programmes, a Public Health Nutritionist programme and a Respiratory Physiology (Healthcare Science) programme. We received responses from all AHP disciplines where education is commissioned but not from any Arts Therapy programmes.

Programme	Responses
Occupational Therapists	13
Physiotherapists	13
Radiographers	12
Paramedics	8
Dietitians	6
Speech and Language Therapists	5
Operating Department Practitioners	5
Podiatrists	3
Prosthetists/Orthotists	1
Orthoptists	1
Public Health Nutritionists	1
Healthcare Scientists (Respiratory Physiologists)	1

Figure 1: Responses to the learning outcomes survey by profession

A total of 23 good practice surveys were completed and submitted from 20 universities, plus one submitted by the British Dietetic Association's Specialist Public Health Group. Although we opened this survey to institutions in the other home nations, we received most responses from England, with 19 responses from England, three from Wales and the British Dietetic Association's UK-wide response.

Limitations

As an initial scoping study, the methodology had significant limitations. Although a response rate of 44 per cent is much higher than the average survey response rate, it is still a relatively small proportion of the total number of programmes and a small sample, so any conclusions must be tentative. There is a risk that the data collected came from those programmes that are more engaged with public health and its place within AHP pre-registration curricula. The timeframe of the study was limited, so there was also relatively little opportunity to pursue programmes that had not responded and no scope to deploy other methods of gathering data, for example a questionnaire of individual students or focus groups with programme staff.

Using the eight areas developed through PHE's work with the AHP professional bodies was helpful in giving a structure to allow more detailed responses on the learning outcomes within curricula. However, there are limitations of using a pre-existing framework rather than a methodology such as a Delphi process that would generate a framework 'bottom-up'. Although a question was specifically asked on other areas that respondents would want to include, starting with a proposed structure makes it more likely that other areas would be missed.

There are also inherent disadvantages in self-reported responses to questionnaires in which there may be a perceived desired response (in this case, to positively report the inclusion of various aspects of public health within curricula). This is a particular risk for the responses to questions on whether an area is covered within a curriculum, where the 'socially desired' response would be to be positive. The questionnaire attempted to mitigate this by asking for detail on how the area was taught, seeking to generate evidence behind positive responses. However, without a more substantial study and the use of different methodologies, for example collecting data in a way that easily allows anonymity, this remains a difficult hurdle for this type of scoping study.

The conclusions should therefore be taken as initial indications rather than a complete and comprehensive survey. However, the substantial interest in the data collection from pre-registration programme leads suggests that a further, more in-depth study might generate further data that could be used to confirm or challenge the conclusions of this initial work.

3. Summary of Results: the Current State of Play

Introduction

A principal aim of the project was to get below the surface of broad sign up to the importance of public health to find out what areas of public health are being taught to AHP students. Using eight dimensions generated by PHE through its work with the AHP professional bodies, we asked respondents to the survey to tell us if they agreed that an area was part of required public health knowledge for AHPs (responses: yes, no, partially/unsure). We then asked whether it was taught within their programme (responses: yes, no, does not apply to this profession). We also asked about the learning outcomes for students. Alongside this data collection, we also asked universities across the UK to send us examples of good practice in teaching public health in AHP curricula.

Area 1: Population health needs

- 97% of respondents agreed that an awareness of population health needs is one of the areas of knowledge required as part of public health education for AHPs; the remaining 3% thought it was partially required or were unsure.
- 95% of respondents said that they already teach an awareness of population health needs in their programme, with 5% not including it.

The **University of the West of England** has devised an enquiry based learning module to encourage diagnostic imaging and therapeutic radiography students to think about their role in health education and promoting healthy living. With a focus on public health issues such as drugs and alcohol, the students work in groups to produce a wiki page relating to the module outcomes.

Area 2: Lifestyle risk factors, mental wellbeing and wider determinants of health

- 97% of respondents agreed that awareness of lifestyle risk factors, mental wellbeing and wider determinants of health is one of the required areas of knowledge for AHPs.
- 97% said that they already teach awareness of lifestyle risk factors in their programmes. One respondent did not teach it and one respondent thought that it did not apply to their profession.

In 2014, the **University of Cumbria** introduced a new public health module into its paramedic programme, looking specifically at health promotion and mental health. As students, the programme team had been taught public health from the perspective of transport links, something they found to have little relevance to their paramedic practice. The team therefore used public health expertise in the wider faculty to design the module but with a strong emphasis on specific content with relevance for paramedics.

Recognising the particular challenges for paramedics in dealing with public health issues related to children, the **University of Greenwich** has set up joint work between its paramedic and child mental health teams to deliver pre-registration education on child developmental issues and immunisation awareness. The University has also developed education on safeguarding issues for paramedics at both pre-registration and post-registration levels.

Area 3: Raising health risks and undertaking brief interventions

- 84% of respondents agreed that being able to raise health risks and undertake brief interventions is a required area of knowledge for AHPs. 11% partially agreed or were unsure and 3% disagreed.
- 84% already teach it in their programmes, 9% do not teach it and 7% thought that it was not relevant for their profession.

Students on the **University of Central Lancashire's** physiotherapy programme undertake two specific modules related to public health, including looking at risk factors, behaviour change and

brief interventions. The students also put their knowledge into practice, undertaking public health teaching sessions at primary schools, visiting local services that are working on public health issues and developing a public health campaign as part of the module assessment. Students evaluate both modules highly and the approach was recognised as being innovative by both the HCPC and CSP when the programme was revalidated in 2012.

For occupational therapy students at **Glyndwr University**, public health and consideration of lifestyle factors and prevention is a strong focus throughout the curriculum. The University has found that engaging students in formal debates helps students critically evaluate issues within public health delivery, such as the practical challenges of promoting preventative interventions in partnership with clients. By taking a structured approach, students are encouraged to look at the evidence in detail and form a clear view. Students evaluate the approach very positively.

Area 4: Behaviour change concepts and skills

- 84% of respondents agreed that understanding behaviour change concepts and skills is a required area of knowledge for AHPs. 2% disagreed and 14% partially agreed or were unsure.
- 83% responded that they are teaching it already, 12% do not teach it and 5% thought that it was not relevant for their profession.

Although recognition of the importance of prevention and health promotion in health policy and care pathways is not new in podiatry, the **University of Huddersfield** has made particular efforts to work in partnership with employers and service users to embed this within the curriculum. This has included development of an expert patient reference group and more inter-professional learning with nursing students. The curriculum now includes motivational interviewing to aid self-management and students on the podiatry and nursing programmes work together to deliver public health awareness initiatives to the general public.

Area 5: Profession-specific public health interventions

- 87% agreed that understanding profession or specialism-specific public health interventions was required for AHPs, with 13% partially agreed or unsure.
- 88% are already teaching profession or specialism-specific interventions in their programme, 5% were not and 7% thought that this did not apply to their profession.

At **Keele University**, public health and behaviour change concepts and skills are introduced from the first year of the physiotherapy programme and are built on in following years. The programme has a Health and Wellbeing team, led by two physiotherapists with qualifications that are specifically focused on public health and an exercise physiologist. This has led to both development of a specific 'Health and Wellbeing' module and integration of public health into other areas of physiotherapy education. Those who designed the programme comment that public health topics are sometimes not seen as core to a physiotherapists' role and practitioners do not always have the opportunity to apply their knowledge and skills, requiring a concerted effort to embed public health across the curriculum, in theory and in practice placements.

At **Cardiff University** the public health focus for Radiography students highlights the wider role of radiographers in health promotion and raising public awareness of the early signs and symptoms of cancer so that early intervention is sought. Students are required to take a 40 credit research project in level 6, often choosing public health related themes including: assessment of public health knowledge of breast self-examination; early presentation of testicular cancer in a group of young men; school children's knowledge of aetiological risks of smoking and alcohol use.

The dietetics programme at the **University of Chester** is supported by a team of public health nutritionists and the public health nutrition cycle is integrated within both theoretical and practical elements of assessment. Although some students initially struggle with understanding the relevance of public health and health improvement, the integrated approach allows this to become apparent in the course of the programme. Students are also encouraged to apply their knowledge. For example, an annual nutrition fair is held at the university, with students running public health information stalls for the general public.

Area 6: Assessing evidence of effective interventions

- 81% of respondents agreed that competence in assessing evidence of effective interventions is a required public health skill for AHPs; 3% disagreed and 16% partially agreed or were unsure.
- 90% are already teaching this in their programme; 8% do not teach this and 2% thought that this did not apply to their profession.

At **Northumbria University** occupational therapy and physiotherapy students develop the knowledge and skills needed to evaluate interventions via a public health module which addresses considering how outcomes are measured during the planning stage of interventions. This is reinforced by the use of evaluative skills developed in other modules including critical appraisal and research and evaluation methodologies.

Area 7: Understanding a range of quantitative and qualitative research methods

- 97% of respondents agreed that understanding a range of quantitative and qualitative research methods is a required area of knowledge. 3% disagreed, with no respondents giving partial agreement
- 95% include this in their programme, with 5% not including it.

Physiotherapy students at **Kingston University / St George's, University of London** undertake a module in Research Methods in Health and Social Care which is designed to equip students with competence in both qualitative and quantitative research skills and enhance their ability to utilise and transfer information, demonstrate critical appraisal, collaborate between professions and co-operate as a team. The module takes a multidisciplinary approach and is designed for all health and social work professionals.

Area 8: Prevention in health policy

- 90% of respondents agreed that recognition of the importance of prevention in health policy, strategies and care pathways is a required area of knowledge. 8% partially agreed or were unsure and one respondent disagreed.
- 90% include this in their programmes, with 7% currently not teaching it. 3% thought that this did not apply to their profession.

Occupational therapy students at the **University of Worcester** explore the current health and wellbeing indicators and risks in the UK in order to understand health and wellbeing as a continuum across the life course and from different perspectives (medical, psychological, social and functional). This approach includes the development of simple health promotion plans which can include public health initiatives as well as individually designed interventions.

The **University of Liverpool** has incorporated health promotion themes in their inter-professional learning modules. Radiography students develop an awareness of the knowledge and skills brought to the healthcare team by different professional groups in order to contribute effectively to the health promotion agenda. Assessment includes the production of a health promotion poster with themes including: alcohol awareness and young women; prostate cancer and African Caribbean men; healthy eating in teenagers; mental health and young men; and preventing heart disease.

4. Analysis

A high degree of consensus on public health knowledge and skills

Overall, there was a high level of consensus on the eight areas suggested as key areas of knowledge and skills to prepare the future AHP workforce for their role in the wider public health agenda (ranging from 81% to 97%). The areas with the highest levels of consensus were 'awareness of population health needs' (Area 1, 97% agreed), 'awareness of lifestyle risk factors, mental wellbeing and wider determinants of health' (Area 2, 97% agreed) and 'understanding a range of quantitative and qualitative research methods' (Area 7, 97% agreed). The area with the lowest level of consensus was 'competence in assessing evidence of effective interventions (Area 6, 81% agreed). This was also the area with the highest levels of partial agreement/unsure responses (16%).

The level of consensus suggests that the set of knowledge and skills identified by the AHP professional bodies working with PHE is credible with educators and that it could be used as a framework for further discussion and development. This level of consensus across a very diverse range of professions also suggests that there is value in working across the AHPs and not only looking at profession-specific knowledge and skills.

Evidence of substantial work to embed public health in the curriculum

There was evidence of the key elements of public health already being embedded in the curricula of most of the programmes that responded to the survey. The range of responses varied by area from 83% of respondents who reported that their programmes teach raising health risks and undertaking brief interventions to 97% of respondents who reported teaching awareness of lifestyle risk factors, mental wellbeing and the wider determinants of health.

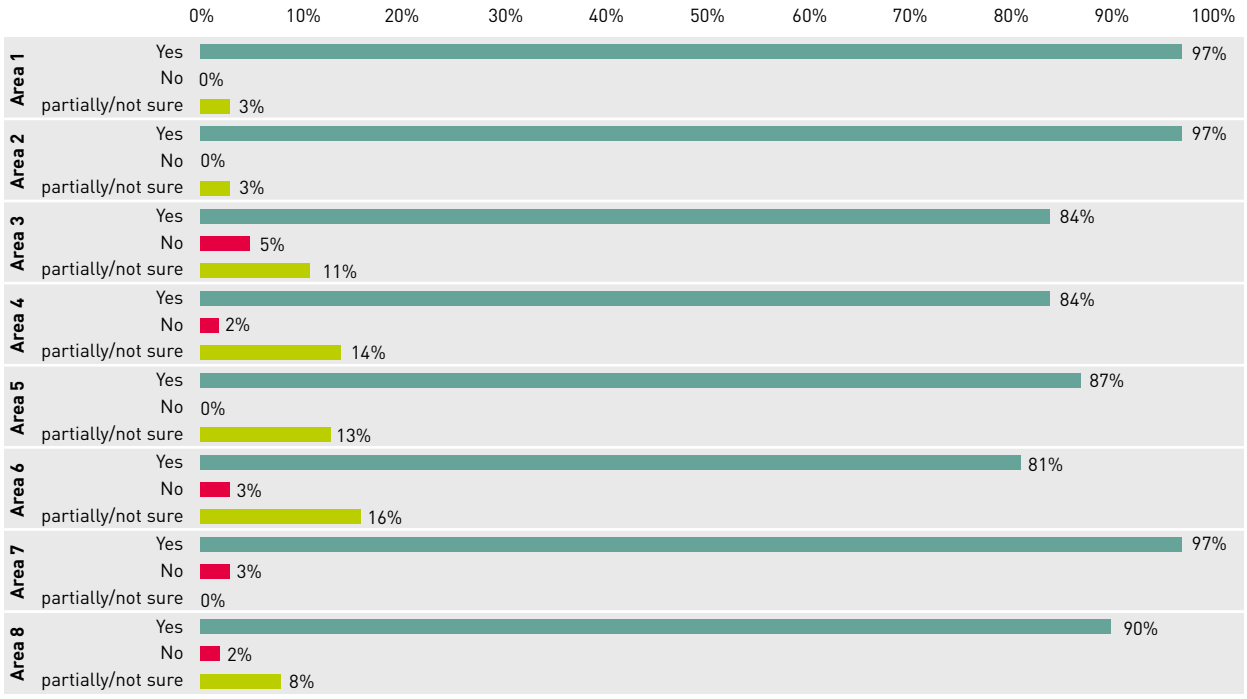

Figure 2: 'Do you agree that the following is one of the areas of knowledge or skill required by the future AHP workforce?'

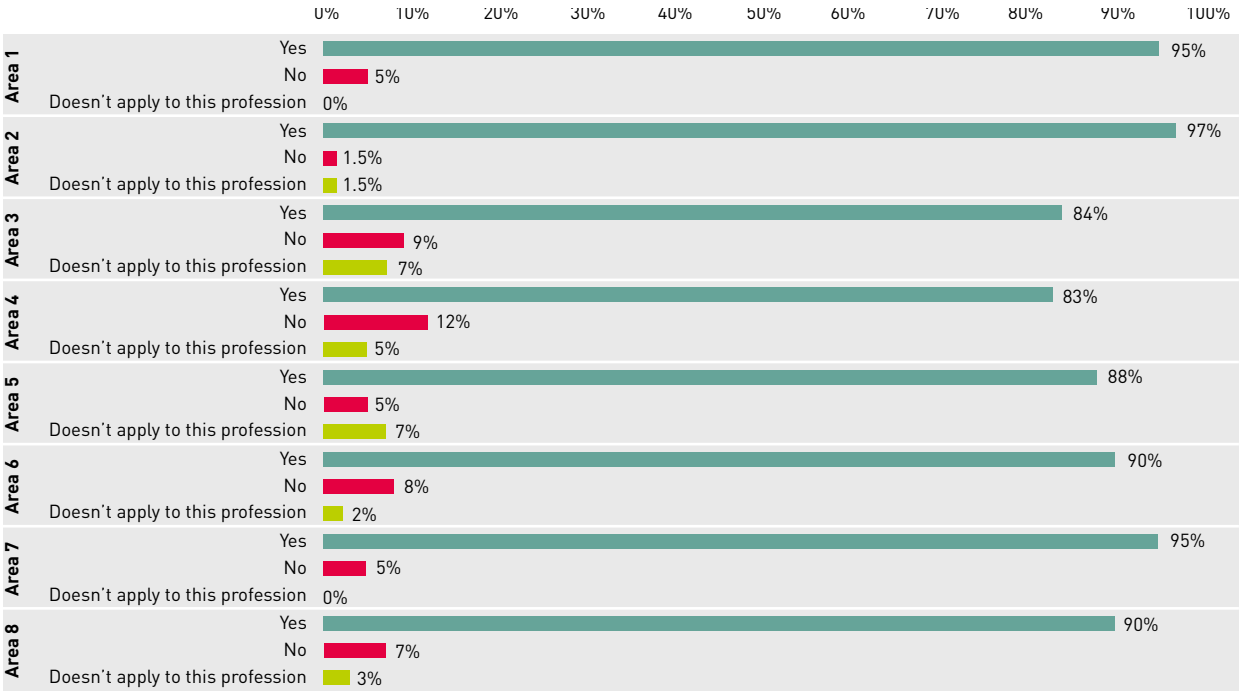

Figure 3: 'Is this area covered within the programme?'

Differences between the professions

As might be expected, there were indications of professions where there is still work to be done to capture the relevance of the public health agenda in a way that was appropriate for the profession. There were very few respondents who thought that the public health knowledge and skills captured in the eight areas were not relevant to their profession. Radiography and paramedic programmes made up the majority of responses. Of the 14 total 'not applicable' responses across all questions, eight were from radiography programmes and three from paramedic programmes. Although the numbers are too small to draw any kind of definitive conclusions, this suggests that there may be some challenges in translating the public health contribution of these professions into pre-registration education.

However, there were examples from each of these professions of good practice in seeking to integrate public health in a meaningful way into pre-registration curricula which suggests that further dialogue, discussion and sharing good practice would be valuable.

The importance of partnership with employers and professional bodies

The data collection did not explicitly ask about the role of partnerships with other stakeholders in designing public health content within the context of AHP pre-registration curricula, something that was beyond the scope of the study. However, in a number of free text comments and in the comments given by respondents on feedback on the course, employers and professional bodies were mentioned repeatedly as contributing to the design of programmes and public health content.

"Recent revalidation and re-accreditation of the Dietetics pre-registration programme in 2013 included employer feedback, which highlighted the increasing need for newly qualified dietitians to have a greater understanding of public health, as services are increasingly provided in the community."
Associate Head, Academic

"When designing the curriculum or going through a periodic review, we have contributions from service users, students [and] clinical partners at all stages of the process. Changes reflect the guidance from our professional bodies and are communicated to them in the various monitoring/audit processes."
BSc Course Director, School of Rehabilitation Science

Both for courses looking to develop their public health content and for future national policy discussions on these issues, the comments suggest that working with the professional body and employers is an important factor in success.

More than 'Making Every Contact Count'

In recent years there has been particular policy focus on 'Making Every Contact Count', also known as 'healthy conversations': promoting healthy lifestyle choices and signposting relevant healthcare services.[9] The data from this project suggest that this is already embedded in many AHP pre-registration programmes, with 84% reporting that they covered raising health risks and undertaking brief interventions. However, it is striking that the public health content in the pre-registration programmes that responded is much broader than raising health risks and behaviour change with individuals, with prevention within health policy, campaigns and understanding community or population health all important themes within the curricula. This suggests that there is potential to make the most of the future AHP workforce to promote public health in a broader range of contexts than is commonly understood. This is of particular importance given the increasing policy focus on the impact of well-connected, sustainable communities on health outcomes. Although current curricula seem to include this to a certain extent, the focus on individual behaviour change suggests that a debate is needed on what AHP public health leadership might look like in a community asset-based model and the implications for education both pre- and post-registration.

Pressure on the curriculum

The data collection focused specifically on public health and not on the wider context of the curriculum. However, a number of respondents raised the issue of the pressure on pre-registration courses to include more content across a greater breadth of issues:

"The increasing need to include more input from all areas of healthcare within profession-specific programmes, although needed and completely justified, does effectively mean that programme content is stretched and student workload increased."
Senior Lecturer

"It is not a public health course and neither should it try to be one... within our curricula there are many competing priorities that need equal if not more emphasis put on them."
Course Leader, Paramedic Science

Future work must be cognisant of the pressures on the pre-registration curriculum and the role that education at other stages, particularly post-registration can play in helping develop AHPs' knowledge and skills in public health.

9 Public Health England and the Royal Society for Public Health (2015) Healthy Conversations and the Allied Health Professionals

5. Avenues for Future Work

Future intentions on public health

In a short scoping study which relies on a snapshot of data, it is difficult to track the progress of a topic or area over time. For the future, it is important to know whether universities are aspiring to do more on public health or whether they have hit a 'steady state' in terms of the input to the curricula.

We asked respondents to the survey on learning outcomes to judge which best described the current priority they give to public health:

- 11% of respondents said they did not consider it to be a priority compared to other aspects of the course;
- 9% can see its growing importance but have yet to reflect this in their course;
- 52% said that they include public health in their course and plan to do more;
- 28% said that they are confident that their course has a strong public health component.

Although numbers are too small to draw firm conclusions, the professions with the greatest proportion of programmes planning to 'do more' were paramedics, radiographers and physiotherapists. Dietetics programmes were those most confident that they already had strong public health component.

In line with the wider findings of the learning outcomes survey, this suggests that most programmes that responded have already made efforts to include public health as a priority in their programmes. However, it is interesting that half of the respondents are actively planning to expand input on public health. This suggests that there is still a widespread desire to push further with the public health learning in AHP pre-registration education. The number of examples of good practice in teaching public health submitted in the second survey demonstrates that there is already much that programmes could learn from each other. Creating fora in which these could be exchanged would be a natural extension of this work.

Modifying the framework: other areas of knowledge and skills

As well as seeking to understand the level of consensus on the eight areas of public health knowledge and skills, we asked respondents to identify any areas that they thought were missing from the list.

There were 18 responses to this question. Of these, 10 identified areas that were not already included explicitly in the eight identified areas. Details of these responses are given below:

Programme	
Speech and language therapy	Specific clinical placement learning outcomes: devising management plans, communication skills, skills of reflection
	Campaigning work on awareness of communication issues
Physiotherapy	Global health
	Exercise for health
	Health profiles and awareness of local service provision
Dietetics	Ecological approaches versus individual approaches to nutrition; food sustainability
	Food access/poverty, sustainability and social injustice
Radiography	Service development and service improvement
	Common risk factors/ symptoms for disease and illness
Multi-programme response – OT and Physiotherapy	Epidemiology and demographic data in regard to a geographic/ service user population; health inequalities through a health needs assessment or community profile

Some of these responses might be classified as profession-specific knowledge (such as exercise for health and campaigning on awareness of communication issues). However, there are a number of themes that would benefit from reflection to see if they can be incorporated in the eight areas, or whether a further area(s) is necessary:

- Demographic data and epidemiology, with a link to health inequalities
- Population/community focused interventions and the creation of healthy communities
- Global health
- Service development and improvement

Mapping against other frameworks

There are a number of public health frameworks that are used by different Government departments and professions, as well as statements on public health within both the HCPC SOPs and professional body curriculum guidance. Given the appetite to continue working on public health signalled through this study, a logical next step would be to map these different frameworks and statements against the key areas of knowledge and skills identified through this study to look for any further gaps. A survey of the evidence base could also be usefully carried out as underpinning to a finalised framework.

Scope to focus on particular professions

Although the approach taken by PHE and the AHP professional bodies to identify core areas that cross professional boundaries is supported by the broad cross-professional consensus in these initial findings, there may also be an opportunity to focus work on particular professions.

The sample in this study is too small to make more than tentative suggestions. However, with paramedic education programmes set to expand significantly in number and paramedics rapidly taking on new roles within urgent and emergency care, there are particular opportunities to understand how pre-registration curricula can best embed public health in a way that is appropriate for paramedics' current and future roles. Exchanging learning on effective ways of including public health within radiography programmes may also be fruitful.

6. Recommendations

1. Further investigation

PHE should consider a follow-on study, to include:

- Mapping the proposed eight areas explored here against other frameworks, professional body guidance and regulatory standards;
- More detailed work with universities on the content of the areas, aiming to capture input from programmes that did not respond to this scoping study and reduce the risk of socially desired responses, for example by using different methodologies, such as focus groups;
- Engagement with students and newly qualified practitioners on their perceptions of public health within their pre-registration courses and use of knowledge/skills in employment;
- Engagement with employers and service users on their views of the particular emphases most valuable in public health learning in pre-registration education;
- Engagement with community-focused organisations, such as 'Think Local Act Personal' to stimulate debate on community based public health approaches and the implications for AHP curricula;
- Consideration of the applicability of the modified framework to other professions, particularly given the importance of inter-professional learning.

2. Opportunities for sharing learning

CoDH should create opportunities to allow universities to exchange learning on their approaches to embedding public health, particularly where these have been evaluated and disseminated more widely.

3. Particular emphasis on paramedic and radiography programmes

Professional bodies and CoDH should pay particular attention to the opportunities to support paramedic programmes in developing appropriate public health content and address how best to support radiography programmes.

4. Connections to post-registration education

PHE and other stakeholders should consider work on the scope and opportunities of post-registration education in supporting the wider public health role of AHPs.

7. Acknowledgements

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CoDH Executive Team Lead for the project

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And particular thanks to all the universities who submitted data on learning outcomes within their courses and examples of good practice.

Appendix 1: Operating Department Practitioners

Introduction

Although the report was intended to survey responses from AHP courses we received five responses relating to education for Operating Department Practitioners which offer some insight into the status of public health within ODP education. We have therefore included these as an additional appendix.

Summary of results

Area 1: Population health needs

- Of the five ODP respondents, three agreed that an awareness of population health needs is one of the areas of knowledge required as part of public health education and two partially agreed or were unsure.
- Three of the ODP respondents reported that this was taught, one reported that it was not taught and one thought that it did not apply to their profession.

The **University of West London** is using the Day Surgery setting as an opportunity to raise awareness of public health and health promotion among Operating Department Practitioners. The students engage with and demonstrate skills in pre-operative assessment of patients and work with registered practitioners in planning and undertaking patient discharge. Public health and health promotion issues are identified to support practice.

Area 2: Lifestyle risk factors, mental wellbeing and wider determinants of health

- All five respondents agreed that this was a required area of knowledge.
- All four respondents reported that this was being taught.

Area 3: Raising health risks and undertaking brief interventions

- All five respondents agreed that this was a required area of knowledge.
- Only one of the four ODP respondents thought that it did not apply to their profession.

Area 4: Behaviour change concepts and skills

- Of the five ODP respondents only one disagreed that this is a required area of knowledge.
- Only one of the four ODP respondents thought that it did not apply to their profession.

Area 5: Profession-specific public health interventions

- Four of the respondents agreed this was a required area of knowledge and one was unsure.
- Of the four respondents, two thought that it did not apply to their profession and two thought that it did.

Area 6: Assessing evidence of effective interventions

- Of the ODP respondents three agreed, one disagreed and one partially agreed or was unsure.
- Only one of the five ODP respondents thought that it did not apply to their profession.

Area 7: Understanding a range of quantitative and qualitative research methods

- All five respondents agreed that this was a required area of knowledge and reported that it was being taught.

Area 8: Prevention in health policy

- All five respondents agreed that this was a required area of knowledge.
- Of the four respondents, three reported that it was being taught.

Summary analysis

Of the five ODP respondents to this question, three said they included public health in their course and plan to do more, one was confident that their course has a strong public health component and the other recognised its growing importance but had yet to reflect this in their course.

It is important to recognise that there is an intrinsic need to work harder in some professions than others to see and take public health opportunities: ODPs, for example, only have limited contact with patients when they are conscious. However, whilst acknowledging the relatively small sample size for ODP practitioners there were very positive indications that key elements of public health are already being embedded in the curricula and that there is a recognition of the need to do more.

Appendix 2: Data collection

Survey of learning outcomes

i. This concerns education for (please tick all relevant boxes):

Art therapists ☐
Chiropodists/Podiatrists ☐
Dietitians ☐
Drama therapists ☐
Occupational therapists ☐
Music therapists ☐
Orthoptists ☐
Paramedics ☐
Physiotherapists ☐
Prosthetists/Orthotists ☐
Radiographers ☐
Speech & language therapists ☐
Other (Please specify) ☐

ii. Area 1: Do you agree that an awareness of population health needs is one of the areas of knowledge required?

Yes ☐
No ☐
Partially/not sure ☐

iii. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

iv. If yes, how do you teach it/what are the learning outcomes?

v. Area 2: Do you agree that an awareness of lifestyle risk factors, mental wellbeing and wider determinants of health is one of the areas of knowledge required?

Yes ☐
No ☐
Partially/not sure ☐

vi. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

vii. If yes, how do you teach it/what are the learning outcomes?

viii. Area 3: Do you agree that an ability to raise health risks for discussion and undertake brief interventions (including key messages for major lifestyle risk factors) is one of the skills required?

Yes ☐
No ☐
Partially/not sure ☐

ix. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

x. If yes, how do you teach it/what are the learning outcomes?

xi. Area 4: Do you agree that an understanding of behaviour change concepts and skills is one of the areas of knowledge required?

Yes ☐
No ☐
Partially/not sure ☐

xii. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

xiii. If yes, how do you teach it/what are the learning outcomes?

xiv. Area 5: Do you agree that an understanding of public health interventions specific to their profession/area of specialism is one of the areas of knowledge required?

Yes ☐
No ☐
Partially/not sure ☐

xv. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

xvi. If yes, how do you teach it/what are the learning outcomes?

xvii. Area 6: Do you agree that competence in assessing evidence of effective interventions is one of the skills required?

Yes ☐
No ☐
Partially/not sure ☐

xviii. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

xix. If yes, how do you teach it/what are the learning outcomes?

xx. Area 7: Do you agree that an understanding of a range of quantitative and qualitative research methods is one of the areas of knowledge required?

Yes ☐
No ☐
Partially/not sure ☐

xxi. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

xxii. If yes, how do you teach it/what are the learning outcomes?

xxiii. Area 8: Do you agree that recognition of the importance of prevention in health policy, strategies and care pathways is one of the areas of knowledge required?

Yes ☐
No ☐
Partially/not sure ☐

xxiv. Is this covered within the programme?

Yes ☐
No ☐
Doesn't apply to this profession ☐

xxv. If yes, how do you teach it/what are the learning outcomes?

xxvi. Are there any other skills/areas of knowledge that you teach and what are the learning outcomes?

xxvii. Which best describes the current priority you give to public health?

a) We do not consider it to be a priority compared to other aspects of the course

b) We can see its growing importance but have yet to reflect this in our course

c) We include public health within our course and plan to do more

d) We are confident that our course has a strong public health component

xxviii. What feedback have you had about the public health component of your course from students/ employers/professional bodies?

xxix. What part of your course (related to public health) are you most proud of and why?

xxx. Do you have any other comments?

Survey of good practice

i. This concerns education for (please tick all relevant boxes):

Art therapists ☐
Chiropodists/Podiatrists ☐
Dietitians ☐
Drama therapists ☐
Occupational therapists ☐
Music therapists ☐
Orthoptists ☐
Paramedics ☐
Physiotherapists ☐
Prosthetists/Orthotists ☐
Radiographers ☐
Speech & language therapists ☐
Other (Please specify) ☐

ii. When was this focus on public health first introduced?

☐ Less than 12 months ago
☐ Between 12 and 24 months ago
☐ More than 24 months ago
☐ Not sure

iii. Please describe the approach you have developed?

iv. What prompted you to develop this approach?

v. In your view, what is it about this approach that makes it different?

vi. What evidence do you have of the impact of this approach? (Evidence may include recognition in internal periodic programme review, student evaluation, or commendation from an external regulatory/ professional body.)

vii. In your experience, what are the barriers and enablers for developing public health learning outcomes within the curriculum?

viii. What would support the delivery of public health learning outcomes within the curriculum?

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