



Mapping the coverage of health and work topics in healthcare and business undergraduate and postgraduate degree courses in England

14 July 2017

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Mapping the coverage of health and work topics in healthcare and business undergraduate and postgraduate degree courses in England

A report submitted by [ICF Consulting Services Limited](#)

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Executive summary

This is the final report for a study mapping the coverage of health and work topics in healthcare and business degree courses. The study was commissioned by Public Health England and conducted by ICF Consulting Services. It began in February and was completed in April 2017.

Context

There is a compelling need to reduce rates of sickness absence and health-related worklessness in the UK. Last year 2.3 million (25%) of the UK's working age population were economically inactive due to ill-health, with sickness absence and worklessness together costing the UK more than £100 billion a year.

Existing research suggests there is much to be done to improve healthcare and business professionals' knowledge of health and work. A study by PwC (2008) found many UK employers still do not consider it their role to improve the health and well-being of their workforce or do not understand the business case for doing so, and a survey of UK employees found only 40% have access to occupational health support or independent counselling through their workplace. A national survey of GPs recently found that although almost all GPs recognise they have a role to play in helping patients remain in or return to work, many do not feel confident in doing so.

To ensure healthcare professionals and business managers recognise the importance of health and well-being in work, the subjects need to be well-covered in their undergraduate and postgraduate programmes. However, currently there is little information on the extent to which the relationship between health and work, and workplace well-being, is taught and assessed.

Purpose of this research

The study mapped the coverage of six core health and work topics in a selection of business, healthcare and social work courses in England. This included examining:

- Perceptions among course leaders on the importance of health and work topics for particular healthcare and business occupations;
- The extent to which health and work was included in course objectives and curricula;
- How health and work topics are assessed; and
- Factors influencing the teaching of health and work.

The healthcare courses examined in the study included undergraduate career-entry provision for medicine, dentistry, nursing, allied health professionals (AHP) and social work. The business courses examined in the study included both undergraduate and postgraduate courses, with a particular focus on Masters of Business Administration (MBA) courses.

The six core topics examined in depth in the study were organised into clinical skills and management skills. They are presented in the table below.

Clinical skills	Management skills
Understanding the relationship between health and work	Skills development to support managing staff health and well-being

Clinical skills	Management skills
Skills development to support self-care and resilience	Skills development to support a diverse and inclusive workplace
Understanding of the value of diversity and inclusion in the workplace	Skills development around core skills for good management of staff health and work issues

Methods

This research consisted of the following key tasks:

- A **literature review** examining research on the provision of health and work education in healthcare and business courses. This was undertaken in the scoping stage of the study to inform our study approach. A systematic search of research documents identified an initial long list of 57 studies, of which 43 were found to be relevant and consequently reviewed in depth.
- A **quantitative mapping of 221 healthcare and business courses**. For each course we examined provider websites and prospectuses to assess the extent to which health and work topics were included in course objectives, curricula and assessment. We examined 120 undergraduate healthcare courses (comprising 35 medicine courses, eight dentistry courses, 33 AHP courses¹, 23 nursing courses and 21 social work courses) and 101 business courses (which included 41 undergraduate courses, 23 MBA courses and 37 other postgraduate courses).
- **Qualitative interviews with 38 course leaders** responsible for healthcare or business HE courses. The qualitative interviews were used to corroborate and address gaps in the data identified from the course mapping. We interviewed course leaders in 14 medical departments, three dentistry departments, five nursing departments, three social work departments, seven AHP departments and six business departments.

The literature review took place in February 2017 and was incorporated in the study interim report. The final quantitative review and course leader interviews took place between March and April 2017.

Study findings

The coverage of health and work topics in degree courses for particular occupations is presented below.

Medicine and dentistry

- Medicine and dentistry course leaders generally believed health and work was an important topic for undergraduate students, but most only highlighted 1-2 topics that they felt were crucial. Medicine course leaders believed the most important health and work skill required by students was to understand how work influences a patient's history. Dentistry course leaders stated self-care was of key importance to dentists to ensure they avoid common health conditions such as back pain and carpal tunnel syndrome.
- Relatively few medicine (7 of 35) or dentistry courses (4 of 8) explicitly included health and work topics in course objectives or curricula. Those that did mostly only included one

¹ Covering: diagnostic radiography; dietetics; occupational therapy; orthoptics; paramedicine; physiotherapy; podiatry; prosthetics; speech and language therapy; and therapeutic radiography.

topic. Dentistry courses mainly included content on dentists' self-care and medicine courses mostly included topics on the impact of work on patients' health. This was explicitly mentioned in some module descriptions, and course leaders stated that even when it was not explicitly included it was commonly embedded in some clinical modules.

- Very few medicine (2 of 35) or dentistry courses (2 of 8) contained content on managing the health of staff. Course leaders argued that these skills were best acquired in the workplace, where they could be contextualised for particular medical roles.
- Most medicine course leaders reported that health and work topics would be assessed through Objective Structured Clinical Examinations (OSCEs). However, the extent to which these assessed health and work depended on the subject. It is covered extensively for conditions where work can be a major contributory factor, such as lung disease.
- Course leaders stated that they did not include more provision on health and work as there was little space in the curriculum and they prioritised topics that directly contributed to the professional standards. There was also perceived to be little student demand for health and work training, although when students undertook health and work training then most acknowledged it was useful for their work.

Nursing and social work

- Course leaders generally believed it was crucial for nurses to understand the relationship between health and work, as they often support patients to implement recovery plans or manage long-term conditions. It was also considered useful for social workers, who have to consider what adaptations and support patients may need if they transition back to work.
- Relatively few (4 of 23) nursing courses explicitly included clinical content on health and work topics in the course objectives or curriculum. Those that did mostly included content on the relationship between health and work. However, nursing course leaders reported that health and work topics were also commonly *embedded* across a range of modules, including clinical modules and modules on public health and the determinants of health and well-being.
- Six of 21 social work courses included clinical health and work topics, but this mostly focused on resilience. There was little provision on the relationship between health and work or valuing diversity in the workplace.
- Eight nursing courses included content on management skills, and some of these courses explicitly included content on managing staff safety and resilience. In social work, however, management skills were only taught in one course.
- In the qualitative interviews, most nursing course leaders reported that their courses assessed health and work topics through scenario-based testing, or in some cases through module exams. However, they stated that it was not done consistently or systematically across the course.

Allied Health Professions

- Course leaders believed that an understanding of health and work was crucial to the diagnosis and/or treatment of some specific conditions. For occupational therapists, understanding the positive impacts of work on improving health was also considered important.
- Only two of 33 AHP courses contained explicit reference to a health and work topic in their course objectives and only eight included content in the course curriculum. However, in the qualitative interviews almost all course leaders stated that their courses covered student self-care, usually as a cross-cutting theme across their programmes.

Most also stated they embedded content on the relationship between health and work when it was a major contributory factor for certain conditions, such as mental health or musculoskeletal problems. Occupational therapy and physiotherapy courses also frequently included content on preparing patients to re-enter work.

- Four of the 33 AHP courses included generic management modules, but in the qualitative interviews we found that these courses did not generally cover managing staff health and well-being or valuing diversity. Most course leaders expected students to acquire these skills through their work experience.
- Only one of the course leaders stated that health and work knowledge and skills were explicitly assessed in the course, although some stated that it would be covered through OSCE assessments when it was relevant to certain conditions.
- A few course leaders felt that the variable coverage of health and work topics was because teachers had mixed views on the importance of these subjects and the extent to which work contributes to patient's health and well-being.

Business programmes

- Health and work topics on resilience and stress management were widely regarded as being important for business programmes. There was significant awareness among both students and industry of the importance of these topics. The study found, however, that there was little awareness of the importance of other health and work topics.
- Very few business courses (6 of 101) included clinical health and work topics in either their course objectives or in the content of their modules. Where health and work content was included, it was primarily on factors contributing to staff well-being. This was broadly consistent in undergraduate and postgraduate programmes, although postgraduate programmes were less likely to include health and work topics as it was expected that most postgraduate learners would acquire these skills in industry.
- Very few business courses explicitly included content on managing health and work in their course curricula. When it was included, it primarily covered diversity and managing stress and anxiety in the workplace. However, some course leaders stated that they embedded content on managing stress in people management modules.
- While business course leaders believed tutors largely recognised the importance of health and work, some stated that they did not always have the technical knowledge to deliver these topics effectively. Student demand for health and work (except for stress management) was also mixed, and consequently some courses included these topics in optional modules.

Conclusions

Health and work topics in course curricula

Across all healthcare and business courses, there was relatively little coverage of health and work topics. Where health and topics were covered, most courses only included one health and work topic, and in some cases only a small component of a health and work topic (such as managing stress within the broader topic of self-care and resilience).

The type of health and work topics covered in different subjects varied. For example, dentistry and social work courses included significant content on self-care, whereas medicine and nursing courses most commonly included information on the impact of work on patient history. The only subject to routinely discuss the benefits of work (as opposed to its negative

impacts) was occupational therapy. This reflects that some health and work topics are seen as more applicable for some occupations than others.

While some programmes included content on management skills, relatively few included content on managing the health of staff. In healthcare courses, course leaders generally believed that these skills should be acquired during students' professional work.

There was also very little evidence of the assessment of health and work skills. This may reflect that in many cases it was only a small part of a broader module and, as a result, is not seen as a core part of the end-of-module assessment. When it was included, it was commonly through OSCE assessments. However, the limitation with this approach is that the assessment of health and work skills depends on the scenarios that are used. Clinical topics where work is not a major contributory factor are unlikely to effectively assess students' knowledge of health and work.

There are also some subjects, most notably self-care and resilience, that are regarded as cross-cutting themes and touched upon in induction and in practical placements. This is rarely assessed, however, and consequently it is unclear the extent to which students are prepared for working in a stressful work environment, or to manage and identify 'warning signs' in the health of colleagues.

Implications of findings

The study identified the following priorities for Public Health England and its partners:

- **Promote importance of all health and work topics to HEI course leaders, framed around the role it can play in improving health.** The study found that there is relatively little health and work provision, and where it was included it was primarily focused on the role of work as a contributor to particular health conditions. Highlighting how work can lead to positive health outcomes will encourage course leaders to include more content on health and work;
- **Focus on promoting importance of skills in managing staff health and encouraging diversity and inclusion.** Most healthcare courses contained relatively little content on health and work management skills, either on managing staff health or on inclusion and diversity. Where they did cover management skills, they generally only appeared to cover generic skills. These topics could be included in modules on professionalism or covered within students' work placements;
- **Raise student awareness of the importance of health and work.** At present, there is relatively little demand for health and work provision, which means that even if provision is available through optional learning, very few students are taking it up. However, when students undertake optional learning on health and work they come to appreciate health and work's relevance to their practice, indicating they would be receptive to more teaching on these topics;
- **Engage standards setting bodies to promote the importance of health and work.** Most course leaders stated that their courses prioritised topics required by their respective degree standards, and some also reported making changes following guidance from degree setting bodies. Working with these organisations would therefore be an effective route for promoting the importance of health and work to course leaders; and
- **Assess students' knowledge and awareness of health and work topics.** The research found that in many courses health and work training was delivered through one-off sessions with students (e.g. introductory lectures, pre-placement workshops) or within a broader module, which was not commonly assessed. Consequently, it would be

valuable to assess students' knowledge and awareness of health and work topics to understand how effective these approaches have been.

1 Introduction

This is the final report for a study mapping the coverage of health and work topics in healthcare and business degree courses. It draws on a rapid review of literature on health and work education, a systematic review of a selection of degree programmes, and qualitative interviews with course leaders in Higher Education Institutions.

The work was commissioned by Public Health England (PHE) and conducted by ICF Consulting Services (ICF). The study began in February 2017 and was completed in April 2017.

1.1 Context

There is a compelling need to reduce rates of sickness absence and health-related worklessness in the UK. Last year 2.3 million (25%) of the UK's working age population were economically inactive due to ill-health², with sickness absence and worklessness together costing the UK more than £100 billion a year³.

In recent years the Government has taken steps to support individuals with health issues to re-enter the workforce. The introduction of fit notes in 2010 aimed to ensure GPs provide greater clinical advice on patients' capacity for work and the 'vital role that work can play in... patient's health'⁴, and the Fit for Work service (launched in 2013) allows employers to refer employees off work for over four weeks to a Fit for Work assessment. In 2015 the joint Department of Health/Department for Work and Pensions Health and Work Unit was established to drive policies and initiatives to improve health and employment outcomes for working age people. The Unit's initial work focused on establishing the Fit for Work service nationally. Medium term aims are for Jobcentre Plus and NHS services to be co-located and for work outcomes to start to be embedded within NHS services.

There is also evidence that healthier workplaces can help reduce rates of sickness-related absenteeism, as well as raising staff productivity. Creating healthier workplaces, however, requires leaders and managers to have effective skills to support the health and well-being of employees. Moreover, it requires healthcare professionals⁵ to have skills in supporting patients with workplace-related health issues, developing plans to help individuals to re-enter the labour market and effectively managing the workplace health needs of the teams they manage.

Existing research suggests there is much to be done to improve healthcare and business professionals' knowledge of health and work. A study by PwC (2008) found many UK employers still do not consider it their role to improve the health and well-being of their workforce or do not understand the business case for doing so. Young and Bhaumik's (2011) survey of UK employees found only 40% had access to occupational health support or independent counselling through their workplaces. A national survey of GPs recently found that although almost all GPs recognise they

² ONS, 2017. *Labour Force Survey*.

³ DWP and DoH, 2016. *Improving Lives: The Work, Health and Disability Green Paper*.

⁴ DWP, 2013. *Getting the most out of the fit note – GP guidance*.

⁵ Including doctors, dentists, nurses and the allied health professions (such as paramedics, physiotherapists and dietitians).

have a role to play in helping patients remain in or return to work, many do not feel confident in dealing with patient issues around a return to work⁶.

To ensure that healthcare professionals and business managers recognise the importance of health and well-being in work, the subjects need to be well-covered in their undergraduate and postgraduate programmes. However, there is little information on the extent to which the relationship between health and work, and workplace well-being, is taught and assessed.

As the national agency for improving health and well-being, PHE can play a constructive role in addressing any gaps and thus bring significant health benefits for the population. This could include developing support for higher education institutions (HEIs), such as spiral curricula, which was rolled-out by PHE to address gaps in education on physical exercise and health⁷.

1.2 Purpose of study

The study mapped the coverage of six core health and work topics in a selection of business, healthcare and social work courses in England. This included examining:

- Perceptions among course leaders on the importance of health and work topics for particular healthcare and business occupations;
- The extent to which health and work was included in course objectives and curricula;
- How health and work topics are assessed; and
- Factors influencing the teaching of health and work.

The healthcare courses examined in the study included undergraduate career-entry provision for medicine, dentistry, nursing, allied health professionals⁸ (AHP) and social work. The business courses examined in the study included both undergraduate and postgraduate courses, with a particular focus on Masters of Business Administration (MBA) courses.

The findings from the study will provide an evidence base to inform future PHE and partner interventions to improve the quality of health and work teaching.

1.3 Definitions of core topics

There are six core health and work topics in scope for the study. These were organised into two categories: clinical skills; and management skills. Clinical skills relate to the skills healthcare professionals require to manage the health and work needs of patients and themselves. Management skills refer to the skills professionals require to support the health and well-being of the people they manage.

These core health and work topics are listed below:

⁶ Hann and Sibbald, 2011. *General Practitioners' attitudes towards patients' health and work*.

⁷ Developing spiral curriculum materials in cooperation with the University of Nottingham: <https://www.nottingham.ac.uk/news/pressreleases/2015/september/exercise-resources-to-revolutionise-health-care-education.aspx>

⁸ Allied Health Professionals comprise of: art/drama/music therapists; chiropodists/podiatrists; diagnostic radiographers; dietitians; occupational therapists; orthoptists; prosthetists; orthotists; paramedics; physiotherapists; speech and language therapists; and therapeutic radiographers.

Clinical skills

- **Understanding the relationship between health and work** – being aware of the benefits of work on an individual's health and understanding the various work-related factors that can impact upon an individual's physical and mental health.
- **Skills development to support self-care and resilience** – these are skills to manage one's own health in the workplace. This includes skills in identifying, preventing and alleviating workplace-related stress, anxiety and depression, as well as skills to manage physical risks. We would expect healthcare practitioners to both develop these skills themselves and also instil within patients the skills to manage their own health.
- **Understanding of the value of diversity and inclusion in the workplace** – this topic relates to being cognisant of the value of enabling individuals with physical and/or mental health conditions or disabilities to remain and participate effectively in the workplace.

Management skills

- **Skills development to support managing staff health and well-being** – these are skills in being able to manage workplaces and teams in a manner conducive to the good health and well-being of staff. This is important for both business students and healthcare professionals that manage multi-disciplinary teams.
- **Skills development to support a diverse and inclusive workplace** – these relate to skills and tools to design and maintain workplaces that do not exclude people from opportunities to work, and to provide support / adapt to the needs of different employees that maximise their contribution to the workplace.
- **Skills development around core skills for good line management of staff** – these are skills in controlling health risks and recognising and responding to workplace-related health issues in staff.

1.4 Approach and methodology

Our methodology is structured in three stages:

- **A rapid literature review and scoping stage.** In this stage we examined research on how health and work is taught in business and healthcare courses and reviewed a selection of courses to identify the information sources we could use to measure on how they incorporate health and work topics. The findings from the literature review and our finalised methodology were incorporated in an interim project report, which was submitted at the end of February 2017.
- **A qualitative and quantitative research stage.** In this stage we mapped the provision of health and work topics in 220 higher education courses and interviewed 40 course leaders.
- **A reporting stage,** where we produced a final report (this report) summarising the findings from the literature review, course mapping and qualitative interviews. After the report has been agreed with PHE, we will disseminate the findings at two events, produce an infographic presenting the key findings from the study and publish the report in a peer-reviewed journal.

The key research tasks that have informed this report are described in depth below.

1.4.1 Rapid literature review

The rapid literature review focused on UK literature or international literature that contained a specific UK component. We initially developed a literature review protocol which set out the key search terms that would be used to identify relevant articles. We then conducted a rapid search of:

- A selection of literature databases, including MEDLINE, CINAHL, Education Research Complete, Education Resource information Center, Professional Development Collection, Academic Search Complete, Social Care Online, SocIndex, and Social Work Abstracts;
- Individual journals in business and healthcare education. This included the Journal of Education for Business, The International Journal of Management Education, the Journal of Management Education, and the Journal of International Education in Business;
- Website search of key organisations and educational institutes, (Chartered Institute of Personal and Development, Council of Health and Work, Faculty of Occupational Medicine, British Medical Association, Medical Research Council, Academy of Medical Sciences, Royal College of General Practitioners); and
- Website search of government and government agency websites (Department for Work and Pensions, Department for Education, Department for Business, Energy and Industrial Strategy, NHS England, Department for Health).

The search identified an initial 'longlist' of 57 articles. The abstract of each article on the longlist was then reviewed for a deeper analysis of the article's likely fit with study aims and objectives. This created a final list of 43 articles.

Each of the 43 articles were reviewed in depth, using a systematic data extraction template. This collected information on:

- The coverage of health and work topics in professional standards;
- The inclusion of the core topics within course curricula;
- The coverage of health and work within student assessments;
- The extent to which learners are equipped to manage their own and others' workplace health; and
- Existing gaps in provision.

A full bibliography of the literature reviewed is included in Annex 1.

1.4.2 Quantitative mapping of healthcare and business courses

We examined the coverage of health and work topics in the objectives, curricula and assessment of 221 degree courses. This included 120 undergraduate healthcare courses (out of a population of around 1,750⁹ in-scope courses) and 101 undergraduate and postgraduate business courses (out of a population of around 11,500 courses¹⁰). The sample size ensures that we can be confident in the findings of the mapping to within a 10 per cent margin of error.

⁹ Based on Unistat data for 2015/16.

¹⁰ *Ibid.*

For healthcare courses, we examined courses for a mix of occupations, including all medical courses in England and at least eight dentistry, nursing, social work and AHP courses. This sample selection is described in Table 1.1 below.

Table 1.1 Number of healthcare courses reviewed

Course type	Sample	Total number of courses of this type	Proportion of courses covered
Medicine	35	35	100%
Dentistry	8	14	57%
AHP	33	550	6% ¹¹
Nursing	23	308	7%
Social work	21	575	4%
Total	120	1,482	8%

Source: Unistat data and ICF analysis

Other than in medicine – where every course on offer was analysed – healthcare course samples contained a mixture of courses ranked in the top, middle and bottom thirds of their respective Guardian university subject league tables¹². This was to ensure that any variation in course content between programmes of different quality would be reflected in the analysis.

For business courses, we reviewed 41 business undergraduate programmes; 37 business postgraduate programmes (non-MBA); and 23 MBA programmes. Undergraduate business courses were balanced by Guardian subject league table position. MBAs were balanced according to their Eduniversal Palmes of Excellence ranking.

For each course, we reviewed, where available:

- The course aims and objectives;
- Course descriptions and learning outcomes;
- The list of units available within each course;
- Module descriptions;
- Vocational frameworks/guidelines for work placement;
- Assessment criteria; and
- Reading lists.

Documentation was gathered from HEI websites and online prospectuses, with requests for more information sent to HEIs in instances where little was publicly available. Almost all course webpages included their course's overall aims, a course description and a list of modules (including work placement units). Most also provided information on the topics taught within modules.

¹¹ Comprising: 18% of diagnostic radiography courses (4 of 22); 50% of dietetics courses (4 of 8); 11% of occupational therapy courses (3 of 28); 66% of orthoptics courses (2 of 3); 25% of paramedicine courses (5 of 20); 12% of physiotherapy courses (4 of 34); 27% of podiatry courses (3 of 11); 1 of 1 prosthetics course; 42% of speech and language therapy courses (5 of 12); and both (2 of 2) therapeutic radiography courses.

¹² For example, the 23 nursing courses sampled comprised eight from the top third of the nursing subject league table, seven from the middle third of the league table, and eight from the bottom third of the league table.

Most detailed the assessment methods used throughout the course, and a small number provided information on how course learning objectives were mapped against modules. However, details on assessment content (e.g. the specific topics included in assessments, weighting given to these topics in final marks) were only published by two courses. Information on assessment approaches was therefore drawn primarily from qualitative interviews.

A full list of the courses we reviewed is included in Annex 2.

1.4.2.2 Qualitative interviews with course leaders

We conducted qualitative interviews with 38 course leaders for HE healthcare or business courses. The purpose of the interviews was to verify and address gaps in the information collected from the course mapping. They specifically explored:

- How the six core topics are incorporated in courses and the rationale for this approach;
- Tutors' knowledge and awareness of the six core topics, and perceptions of how effectively the topics are taught;
- How health and work topics are assessed. This includes their inclusion in end-point assessments, coursework and clinical placements;
- Any future organisational plans to improve coverage/quality of the teaching of the six core topics; and
- Any factors that inhibit the organisation from more extensively embedding health and work topics.

Interviewees were sampled to ensure a mix of HEIs by region and subject league table position, as well as a mix of course leaders for healthcare and social work and business courses. These interviews covered:

- 32 healthcare courses, comprising 14 medical course, three dentistry course, eight nursing courses, three social work courses, and seven AHP courses;
- Six business schools, responsible for five undergraduate and 14 postgraduate courses;
- Eleven HEIs ranked in the top third of the Guardian / Eduniversal Palmes of Excellence subject league ranking, 15 HEIs in the middle third and 12 HEIs in bottom third; and
- At least three HEIs in eight of the nine English regions¹³.

1.4.3 Limitations

There are some limitations that affected the analysis possible in the study:

- The level of detail supplied on course webpages was inconsistent, with some module or assessment descriptions providing little detailed information on the content of their courses (for example, sometimes giving a broad outline of taught modules but not the exact topics covered or learning objectives). This limited the extent to which the study could precisely quantify coverage of some of the topics within curricula and assessments. In some cases we have therefore

¹³ The one exception was East of England, where we only interviewed one of the seven HEIs offering courses that were in scope for the study.

had to make qualitative judgements on coverage by triangulating the quantitative data collection with the findings from the interviews.

- There was particularly little information in course documentation on how health and work is assessed. This was therefore mostly identified from the qualitative interviews, and may be less representative of the diversity of provision.
- The sample of healthcare courses gives greater overview of some areas than others. Coverage of medicine and dentistry courses was relatively robust (most courses mapped and half of schools interviewed), but for other occupations the research only covers a small proportion of the overall number of courses. In particular, the sample of AHP courses is representative of all AHPs as a group but analysis for individual AHP subjects is only indicative. Consequently, the findings for these occupations need to be viewed with caution.
- The large number of business courses in England means the sample of business courses reviewed is relatively low compared to the total number of courses on offer. While the sample allows for representative analysis of business courses as a whole, the sample is too small to allow us to disaggregate findings by type of course (e.g. MBAs, management courses tailored to specific sectors) with a reasonable degree of confidence.

1.5 Structure of this report

This report is structured as follows:

- **Chapter 2 to 5** present the coverage of health and work topics for certain occupations:
 - **Chapter 2** examines medicine and dentistry courses;
 - **Chapter 3** explores nursing and social work courses;
 - **Chapter 4** examines Allied Health Professions courses; and
 - **Chapter 5** explores the coverage of health and work topics in business programmes.
- **Chapter 6** presents the conclusions from the study and the potential implications for PHE and its partners.

2 Medicine and dentistry

This chapter examines the extent to which health and work topics are incorporated in undergraduate medicine and dentistry courses. It specifically explores course leader perceptions of the relevance of health and work topics for newly trained doctors and dentists; the extent to which it is incorporated in the professional standards underpinning the degree programmes; and how and to what extent it is included in course objectives, curricula and assessment.

The chapter draws on a mapping of 35 medical courses and eight dentistry courses, as well as interviews with course leaders from 14 medical and three dentistry schools.

2.1 Perceived relevance of health and work for medicine and dentistry professionals

2.1.1 Medicine

Nearly all medical course leaders believed doctors needed a good understanding of health and work in order to effectively interpret a patient's history. This included understanding patients' work history and the potential interplay between their work and health conditions.

A few course leaders stated that doctors must understand the positive impact of work on health. This was felt to be particularly important for GPs, who, since the introduction of Fit Notes, need to play a more active role in managing patients' re-entry to work and ensure they progress as quickly as possible. However, some course leaders did not see this as a priority, arguing that it is covered indirectly in patient plans for managing their medical conditions.

Just over half of interviewees believed self-care and resilience were essential skills for medical students to develop, reporting that medical students needed to apply these skills to manage their own workloads and avoid stress. Few stated that students would learn to deal with patients' resilience.

Relatively few course leaders believed medical students needed to acquire skills in managing the health of multi-disciplinary teams, as most believed this should be acquired post-graduation. Course leaders argued that the different roles students may choose to pursue following graduation (e.g. GP, consultant, surgeon) may mean they work within different team structures, and consequently a 'one-size-fits-all' approach to training them on managing their staff health would not be effective.

2.1.2 Dentistry

Nearly all course leaders stated that dentists need to be aware of risk factors at work that could exacerbate dental health issues. This could, for example, include a stressful work environment, which contributes to patients' grinding their teeth. However, nearly all course leaders acknowledged that in most cases, work issues were a secondary factor in most dental health issues or treatments, and consequently the relationship between health and work was not seen as a major priority.

Most course leaders believed that self-care and resilience were important skills for dentists to acquire in order to manage their physical safety at work. Dentists

commonly suffer from back pain (from poor posture while conducting examinations) and Carpal Tunnel Syndrome (from repetitive strain on their wrists). Dental students therefore need to understand how to manage these issues in their workplace.

Some course leaders also stated that it was important for students to develop skills for managing the health and well-being of staff and creating an inclusive work environment. One interviewee noted that dentists need to be seen as 'leaders' of an oral health team, and good leadership skills were therefore essential. However, most course leaders believed these skills should be acquired during professional practice rather than taught in a degree programme.

2.2 Coverage of health and work topics in qualification standards

There are explicit standards that specify the topics to be included in medicine and dentistry degrees. These standards are maintained by the General Medical Council (GMC) and the General Dental Council (GDC). The extent to which these standards cover health and work topics are described below.

2.2.1 Medicine standards¹⁴

The medicine standards set out some requirements directly or indirectly relate to health and work topics. These are set out below:

■ Clinical skills

- Explain the sociological factors that contribute to illness, the course of the disease and the success of treatment (including the links between occupation and health);
- Recognise the role of environmental and occupational hazards in ill-health and discuss ways to mitigate their effects; and
- Recognise their own personal health needs, protecting patients from any risk posed by the doctor's own health.

■ Management skills

- Recognise the duty to take action if a colleague's health, performance or conduct is putting patients at risk; and
- Demonstrate ability to build team capacity and positive working relationships and undertake various team roles including leadership and the ability to accept leadership by others.

The standards explicitly cover key clinical health and work such as the impact that patients' occupations have on their health and their course of treatment and taking action if colleagues' health is putting patients at risk. However, they do not explicitly cover students' skills for self-care and resilience (i.e. preventing health issues from arising) and there was no explicit reference to understanding the positive impact of work on health or in valuing and managing diversity in the workplace.

The GMC also publishes a separate set of standards on doctors' leadership and management capabilities¹⁵. However, these standards are aimed at practicing

¹⁴ *Tomorrow's Doctors*, 2009.

¹⁵ *Leadership and management for all doctors*, 2012.

doctors and not students. Consequently, they are not expected to be covered in undergraduate programmes.

2.2.2 Dentistry standards¹⁶

The dentistry standards set out some requirements that could incorporate health and work topics. These include:

■ Clinical skills

- Obtain, record, and interpret a comprehensive and contemporaneous patient history; and
- Describe and evaluate the role of health promotion in terms of the changing environment, community and individual behaviours to deliver health gain.

■ Management skills

- Demonstrate ability to build team capacity and positive working relationships and undertake various team roles including leadership and the ability to accept leadership by others;
- Where appropriate lead, manage and take professional responsibility for the actions of colleagues and other members of the team involved in patient care;
- Recognise the duty to take action if a colleague's health, performance or conduct is putting patients at risk; and
- Recognise, take responsibility for and act to raise concerns about their own or others' health, behaviour or professional performance.

Understanding the relationship between health and work could be considered part of exploring a patient's history, and patient self-care could be considered part of an objective of promoting health to an individual. The standards also include clear requirements for students to be able to manage the work of colleagues and manage their health. This was largely framed around protecting patients, but the standards also specify that dental professionals need to raise concerns about their own or others' health.

2.3 Inclusion of health and work in course objectives and curricula

Each degree programme's documentation states the high level skills and knowledge outcomes that students will gain following their course. It also provides details of the taught content delivered to students during the course. This section analyses the extent to which these outcomes and taught content cover our six core health and work topics.

¹⁶ *Preparing for Practice*, 2015.

2.3.1 Medicine

2.3.1.1 Clinical skills

Only seven of the 35 medicine courses reviewed made explicit reference to clinical health and work skills in their learning objectives, and six included health and work content in their course curricula. These courses commonly covered only one or two health and work topics. Four included content of self-care and resilience, and five covered understanding the link between health and work.

When health and work topics were included in course objectives, this was primarily as part of a broader learning outcome, such as such as *'delivering whole-person care'* and *'apply social science principles, method and knowledge to medical practice'*. Although programme documentation did not specify people's workplaces as part of the social context of health, course leaders stated that this content would consider work as one of several societal factors influencing health (alongside family, wealth or region).

Similarly, when health and work topics were explicitly included in course curricula, they were commonly part of a wider module. Content on understanding the relationship between health and work was primarily included in modules on public health or the social context of health. Self-care and resilience was sometimes delivered as part of units on professional development. These units included learning aims such as:

- *"Help students recognise their own physical and emotional needs and their responses to stress"; and*
- Support students to be able to *"recognise own personal health needs, consult and follow the advice of a suitably qualified professional"*.

Some course leaders also stated that understanding the relationship between health and work was embedded in core clinical modules. In particular, work was considered a key factor influencing conditions such as lung disease, musculoskeletal conditions and mental health. Here this would be included in unit content but would not be explicitly referenced in course documentation.

In the qualitative interviews, some course leaders reported that content on self-care was covered through enrichment activities, such as workshops and guest lectures. A few also stated they covered these issues as part of mandatory induction programmes. Such induction programmes state the importance of self-care and also direct students to counselling and support services they can access should they have any problems. Course leaders stated this induction programme was not included in the course documentation.

A few course leaders reported that self-care and resilience in students was an area they were hoping to introduce or expand on in their courses in the next few years. One stated this had been prompted by recent GMC guidance on the importance of medical students developing resilience¹⁷.

The results of the mapping are in keeping with the findings of the literature review. Boon et al.'s (2007) survey of medical school heads found that just six out of 30 reported addressing work and health in their course aims and objectives, and Gillam and Bagade's (2006) survey of UK medical schools found that less than half reported teaching occupational health to medical undergraduates.

¹⁷ <http://www.gmc-uk.org/news/28841.asp>

2.3.1.2 Management skills

Six out of 35 medical courses included management skills in their learning objectives, and two courses included topics on leadership and management in their course curricula. However, only one of these courses made explicit reference to managing the health needs of staff. This course included a mandatory professionalism module where students were expected to learn *'anxiety and stress recognition and management in self and others'*.

In the qualitative interviews, most course leaders stated that when objectives on staff management were included, they did not aim to develop skills specifically for managing staff health and well-being. The objectives commonly related to managing organisational change, rather than staff management. This is despite the qualification standards stating that medicine students should have the ability to lead teams once they complete their degree.

Among interviewees, management skills were consistently viewed as being best acquired in the workplace, rather than being taught during their programme. This workplace experience could include experience acquired during placements, although interviewees reported that this was not a formal requirement of the placements.

Recent surveys of UK medical school faculties and medical school students have found that most schools and the vast majority of medical students value or highly value the teaching of leadership and management topics (Stringfellow et al., 2014; Butrous et al., 2012).

2.3.2 Dentistry

2.3.2.1 Clinical skills

Only one of the eight dentistry courses included clinical health and work topics in its course objectives. This course included an objective on dental professionals' self-care and a broad objective on public health, as shown below:

- *'[Understand] issues associated with being in a practice environment, e.g. health and safety at work'*; and
- *"Focus on... public health dentistry"*.

The lack of coverage of health and work topics within dentistry course objectives likely reflects that most course leaders did not regard health and work as a major priority. However, as with medical courses it could be an implicit component of other, broader, objectives.

Four of the courses explicitly did, however, include clinical health and work topics in their course curricula. Three included content on the relationship between health and work and two included content on self-care and resilience. None of the courses included content on valuing diversity in the workplace.

When health and work topics were included in course curricula, they were commonly embedded within wider subjects. For example:

- One course contained a module on applied dental knowledge that included a learning outcome on giving students an understanding of how employment can influence patient behaviours and therefore oral health; and
- Two courses included modules on public health and epidemiology. Course documentation did not explicitly include health and work, but in the qualitative

interviews most course leaders reported that they commonly include patient employment as part of public health.

Two courses also included content on self-care and resilience in modules on safe working practices. One of these courses required students to assess health and safety in their workplace as part of their placement portfolio. In the qualitative interviews, all course leaders stated that they informally discussed the physical risks of dentistry during students' practical sessions.

2.3.2.2 Management skills

One of the eight dentistry courses referenced management skills within its course objectives. The objective of the course was to provide “*emphasis on the dentist's role as a diagnostician and team leader.*”

Only two of the eight dentistry courses included content on managing teams in their curricula, and they both included content on broader management skills rather than skills specific to managing health in work. One course included a mandatory module on inter-professional engagement that covered, among other skills, ‘management and leadership skills’. The other course included an optional module on management and leadership for dentistry.

It is not clear the extent to which these courses included content on managing the health of the teams that dentists' manage. However, in the qualitative interviews course leaders reported that managing health and safety in the workplace is a common part of management training, given the use of x-rays and hazardous materials. This included managing the health of dental nurses and other staff that work in surgeries.

2.4 Assessment methods

2.4.1 Medicine

Relatively few HEIs provided information on how topics in their undergraduate courses would be assessed. However, when health and work topics were included in modules on public health or patient history, course leaders stated that understanding how certain job roles can affect health was included in the end-of-module exams.

When content on the relationship between health and work is embedded in clinical topics, course leaders stated that health and work knowledge would be primarily assessed through Objective Structured Clinical Examinations (OSCEs). In OSCEs, students are assessed on their ability to take and interpret a patient's history, including an occupational history. The extent to which these assessments cover health and work will vary depending on the examples used in the assessments. Course leaders stated that for some subjects where work is a significant contributory factor to health (such as lung disease and mental health), students would most likely need to demonstrate they are able to identify the effect of the work environment on these conditions in order to pass the assessment.

Self-care and resilience are commonly delivered as part of modules on professionalism. Course leaders stated that they were a major part of these modules and consequently would be assessed as part of the end-of-module exam or a coursework assignment.

In the management modules, there was little evidence of health and work topics being assessed explicitly in the module assessment. This is unsurprising given that none of the courses explicitly included objectives on managing the health of staff or managing diversity and inclusion.

2.4.2 Dentistry

In the qualitative interviews, course leaders stated that where they had incorporated health and work topics in modules on public health, the assessment included questions on the role of work on health. However, in most cases this was not explicitly stated in the course documentation. Only one course stated that the assessment would examine students' understanding of the influence employment can have on health behaviours and outcomes.

Some of the courses that covered self-care and resilience included these topics as overarching 'themes' that would be covered over the final two years of the course and students' clinical placements. However, the course documentation did not state how or whether these skills would be assessed.

There was no evidence that management skills were assessed during dentistry courses, and this was reflected in feedback from two interviewees who did not believe that management skills could be practically assessed within a dentistry course. One course leader stated that management skills would be discussed between students and their tutors while on clinical placement, but would not feed into any formal assessment.

2.5 Factors influencing health and work teaching

2.5.1 Medicine

Course leaders generally reported that teachers mostly understood the importance of health and work skills, and interviewees did not generally believe there was a shortage of staff knowledge and skills to teach them. However, most reported barriers that limited the extent to which health and work could be included in medicine courses, most notably:

- Lack of space in the curriculum to include health and work topics. Most course leaders reported that there was already a significant amount of information that needed to be covered in the courses, and including more content would lead to 'student burnout'.
- Lack of demand from students. Some course leaders that provided optional health and work learning to students found that demand for learners was low. However, a few reported that this was because students had little understanding of what the course contained. These course leaders stated that when students had attended the training they felt it would be important for their work.
- Lack of explicit reference to health and work and the qualification standards. Most course leaders stated that their courses were largely structured to reflect the requirements of the qualification standards. Health and work topics that are not in the standards would only be included if it was an area of particular interest for course tutors.

A few course leaders also stated that skills in health and work should be acquired later in the students' development. For example, one course leader stated:

"We are in charge of the first four years of a ten year process, which turns someone into a GP or consultant... We are explicitly tasked by the GMC as graduating doctors who are capable of being safe and effective year one foundation doctors and can continue on the continuum of medical education beyond that."

Medical course leader

2.5.2 Dentistry

Dentistry course leaders reported that most tutors recognised the importance of health and work for ensuring dentist safety in the workplace. For many tutors, this was because many had themselves experienced physical health issues arising from their work.

The general consensus among course leaders was that other health and work topics are not covered systematically in dentistry courses because they are seen as less relevant for improving oral health. Moreover, a few also reported that the course was already relatively intensive and consequently there was little opportunity to add additional content.

3 Nursing and social work

This chapter examines the coverage of health and work topics in nursing and social work undergraduate courses. It presents course leader perceptions of the relevance of health and work topics for the respective professions and the extent to which they are included in professional standards, course curricula and course assessments.

The chapter draws on the findings from a mapping of 23 nursing and 21 social work courses, as well as interviews with course leaders in five nursing departments and three social work departments.

Key findings

- Course leaders generally believed it was crucial for nurses to understand the relationship between health and work, as nurses often had to support patients implement recovery plans or manage long-term conditions. It was also considered useful for social workers, who had to consider what adaptations and support patients may need if they transition back to work.
- Relatively few (4 of 23) nursing courses explicitly included clinical content on health and work topics in the course objectives or curriculum. Those that did mostly included content on the relationship between health and work. However, nursing course leaders also reported that content on the relationship between health and work was embedded across a range of subjects, including modules on public health and the determinants of health and wellbeing.
- Six of 21 social work courses included clinical health and work topics, but this mostly focused on resilience. There was little provision on the relationship between health and work or valuing diversity in the workplace.
- Eight nursing courses included content on management skills, although none of these explicitly included content on managing staff safety or wellbeing. In social work, management skills were only taught in three courses.
- In the qualitative interviews, most nursing course leaders reported that their courses assessed health and work topics through scenario-based testing, or in some cases through module exams. However, it was not done consistently or systematically across the course.

3.1 Perceived relevance of health and work for nurses and social workers

3.1.1 Nursing

Course leaders generally believed that it was crucial for nurses to understand the relationship between health and work in order to deliver ‘holistic care’. This included both understanding where work is a contributory factor to health, and also understanding the workplace requirements and adaptations required for patients’ to manage long-term health conditions.

Most course leaders also stated that nurses need to understand the positive impact that work can have on health. This was felt to be particularly important for individuals with mental health problems such as dementia, which can improve significantly with

work. Course leaders also recognised that worklessness, and particularly retirement, can also have a negative impact on work, and consequently it is important for nurses to understand the value of unpaid work such as volunteering or informal childcare.

Some course leaders believed that nurses had to develop a good understanding of self-care and resilience. This was in order to ensure that nurses can maintain their own physical and mental health in what can be a challenging work environment, so as to support patients' to effectively manage their health.

Most course leaders also stated that nurses needed to have effective skills in managing staff health and understanding the importance of workplace diversity. However, some reported that it was not considered a priority at undergraduate level:

"I guess [workplace diversity] is taken for granted a bit, and not really seen as specifically relating to nurses any more than it would to other professions. That is not to say it isn't important, but it is probably not something students expect from a nursing degree."

Nursing course leader

3.1.2 Social work

Most course leaders reported that understanding the relationship between health and work was important for social workers. In particular, it should be expected that social workers understand what adaptations and potential support may be required to support individuals re-enter work after a substantial period of unemployment.

Some course leaders also believed that skills in self-care and resilience were also useful for social workers, particularly when they are working with patients with disabilities or long-term conditions. Social workers need to ensure they can manage their health effectively to ensure they do not experience problems related to stress or depression.

Grant et al. (2015) similarly found that 'emotional resilience' was important to social work practice. Most course leaders stated they felt it was a responsibility of social workers to 'safeguard their own well-being', and almost all therefore felt that techniques to build students' emotional resilience should be included in social work degree curricula.

"If you're not caring for yourself, you're not going to be able to care for other people."

Social work course leader (pg. 2,358)

3.2 Coverage of health and work topics in qualification standards

Nursing and social work degree programmes are required to meet qualification standards, which have been set by the Nursing & Midwifery Council (NMC) and the Health & Care Professions Council (HCPC). Below we describe the extent to which these standards include health and work topics.

3.2.1 Nursing standards¹⁸

The nursing standards do not contain requirements that explicitly relate to health and work. However, some requirements include broad topics that could include health and work knowledge and skills. These are set out below:

■ Clinical skills

- Content on social, health and behavioural sciences that underpin key aspects of practice; and
- Content on the causes of common health conditions and the interaction between physical and mental health and illness.

■ Management skills

- Course content relating to principles of supervision, leadership and management.

In the qualitative interviews, course leaders stated that understanding the social sciences underpinning nursing practice and the common causes of health conditions are generally considered to cover health and work, which is a key contributory factor for certain conditions.

The nursing standards also cover leadership, although they do not explicitly link this to managing diversity or the health and well-being of other staff. Consequently, the extent to which it is covered in degree programmes will depend on course leaders' interpretation of the standards. Other clinical skills on self-care, resilience and recognising the value of diversity are not covered in the standards.

3.2.2 Social work standards¹⁹

The social work standards set out some requirements that directly or indirectly relate to health and work topics. These are set out below:

■ Clinical skills

- Be able to manage the physical and emotional impact of their practice; and
- Be able to identify and apply strategies to build professional resilience.

■ Management skills

- Understand the concept of leadership and its application to practice.

These standards make explicit reference to social workers developing resilience to manage the physical and mental impact of their jobs. They also include requirements on leadership, although do not explicitly include requirements to support the health and well-being of staff, or to manage diversity. The standards also do not include requirements for students to understand the link between health and work.

¹⁸ *Standards for pre-registration nursing education*, 2010.

¹⁹ *Social workers in England*, 2012.

3.3 Inclusion of health and work in course objectives and curricula

3.3.1 Nursing

3.3.1.1 Clinical skills

Only four out of the 23 nursing courses explicitly included course objectives on health and work topics. Of these four courses, only one covered more than one core topic. One course included an objective on understanding of the links between work and health, two courses included an objective on self-care and resilience in nurses, and two courses included an objective on understanding of the value of diversity and inclusion.

Four courses also included explicit content on health and work topics in their curricula. However, these courses only included content on understanding the relationship between health and work, where it was mostly incorporated within broader mandatory modules, such as:

- *'the determinants of health and well-being'*;
- *'public health and primary care'*; and
- *'nursing in context'*.

Some course leaders also stated that content on the relationship between health and work and self-care and resilience were embedded in courses, even when it was not explicitly included in the course objectives. Content on the relationship between health and work was reported to be included in clinical modules on certain conditions, as it was seen as a key factor influencing health and also informed patient's recovery plans. Content on dealing with stress and/or physical self-care were included in modules on clinical practice, or provided to students at course induction.

In the mapping research, no nursing courses included content on understanding the value of workplace diversity, despite this being included in the course objectives of two. Similarly, in the qualitative interviews none of the course leaders stated that they taught diversity in their courses. This may be because these topics are covered in course inductions rather than in taught modules.

3.3.1.2 Management skills

None of the courses we examined explicitly included objectives or content on managing health and work among staff. Eight of the 23 courses included content on developing broader management skills - such as change management, leading professional and caring practice, and building capacity - but course documentation did not explicitly state that they included content on managing staff health and well-being. This was corroborated in the qualitative interviews, where none of the course leaders stated that their courses covered these health and work topics.

3.3.2 Social work

3.3.2.1 Clinical skills

Only two of the 21 social work courses we examined included course objectives that related to one of our six core health and work topics. One course included an objective on understanding of the link between work and health, and another course included an objective on understanding the value of diversity and inclusion in the workplace.

Six of the 21 social work courses did, however, include content that related to one of our core health and work topics. Two included modules specifically covering resilience (one was titled 'Reflective and Resilient Practice' and the other was titled 'Applied Reflective Practice'). Four modules incorporated resilience in modules on professional working standards. Two of these courses also developed skills in resilience through their work placements:

- One stated that during their placement year students would *"With support, take steps to manage and promote own safety, health, well-being and emotional resilience"*; and
- The other course ran in-field skills days as part of one of its taught modules, during which students *"are supported in the development of reflective skills"*.

Higher performing HEIs were more likely to cover resilience in their social work programme. Of the six courses that included content on resilience, four were at the top of the social work league table and two were in the middle tercile. No courses in the bottom tercile included content on resilience.

These six courses did not include resilience in their course learning objectives, despite it being part of their taught content. This may be because it has been included as a broader embedded theme, which was one of the recommendations from Grant et al.'s (2015) research.

3.3.2.2 Management skills

Only one social work course addressed management skills within its objectives. This course included an objective on developing a diverse and inclusive workplace. No other social work courses addressed management or leadership within their objectives, even in generic terms.

Three out of 21 social work courses contained content on management skills. These courses mostly only taught general management and leadership skills (e.g. 'leadership in multi-professional contexts'). However, one contained a module on decision-making that included, among other topics, content on professional mentorship. Peer-coaching and mentoring are popular strategies for enhancing resilience (Grant et al., 2015), so this module may include content on supporting staff health.

None of the courses we examined in the mapping research provided teaching on management skills to support diversity and inclusion in the workplace.

3.4 Assessment methods

3.4.1 Nursing

There was little information in the course documentation on how health and work topics were assessed. However, from the qualitative interviews we found that it was likely to be a key part of module assessments on topics such as ‘public health’ and ‘the social determinants of health and well-being’, which include significant content on the relationship between health and work.

Course leaders also stated that where health and work topics are embedded in courses (such as content on the relationship between health and work), they will mostly be assessed through scenario-based assessments. Here nurses are observed dealing with patients with certain conditions. As part of the assessment, they need to identify any factors that may contribute to their health condition (including work factors) and also develop treatment plans so they can manage their condition. However, work and health-related scenarios are not systematically given to all students.

3.4.2 Social work

Course leaders stated that where resilience is included in a standalone module or component of a module, it would be assessed, primarily through written assignments. Moreover, one course leader stated that resilience was also examined in students’ portfolio from their work experience.

However, some course leaders reported that although they embedded the subject across their programme, they did not specifically assess student achievement of the topic. One course leader argued that this is because it was difficult to assess students’ resilience outside a work-place setting.

3.5 Factors influencing health and work teaching

3.5.1 Nursing

Course leaders believed that health and work was covered to some extent in nursing courses, but it was primarily embedded within course curricula. This was felt to be the best approach for teaching the subject, as they believed it should be considered alongside other contributory factors that influence a patient’s health and well-being. However, a limitation with this approach is that it is not straightforward to assess whether learners have acquired sufficient skills in understanding the relationship between health and work.

Managing staff health and valuing diversity in the workplace were generally not included in courses because they were not viewed as a significant priority. Some course leaders believed that these were generic workplace skills and consequently should be gained through workplace experience. A few course leaders also believed there was little demand from students and teachers to incorporate these topics in a nursing course.

"There is probably going to be more resistance from both teachers and students to things like line management and workplace diversity, as there is a less obvious link between these issues and nursing – it seems these are broader issues that could relate to the majority of jobs."

Nursing course leader

Some course leaders also stated that the NMC standards left very little room for additional content to be included in degree programmes. They therefore felt it would be difficult to add substantive coverage of extra topics in their courses.

3.5.2 Social work

Course leaders stated that most health and work topics would only be relevant for students working with certain types of clients. Consequently, they felt there was little value in teaching health and work topics. Instead, they felt that students could acquire these skills through CPD while they are undertaking certain roles.

Some course leaders also stated that there would likely be little student interest in studying health and work topics. Most were primarily focused on achieving topics that directly helped them achieve the professional standards for social work.

4 Allied Health Professions

This chapter examines the extent to which health and work topics are included in courses for Allied Health Professions (AHPs), which includes:

- Diagnostic radiography;
- Dietetics;
- Occupational therapy;
- Orthoptics;
- Paramedicine;
- Physiotherapy;
- Podiatry;
- Prosthetics/orthotics;
- Speech and language therapy; and
- Therapeutic radiography.

The chapter draws on a review of 33 AHP courses and qualitative interviews with course leaders from seven AHP courses - two from paramedicine, two from occupational therapy, and one each from diagnostic radiography, orthoptics and physiotherapy.

In most cases findings are presented for all AHP subjects collectively, although in some instances where interesting factors have emerged we have disaggregated the findings by specific subject. The latter type of findings are more indicative, but enable potential subject-specific factors of interest to be drawn out in the analysis.

Key findings

- Course leaders believed that an understanding of health and work was crucial to the diagnosis and/or treatment of some specific conditions that practitioners in their fields deal with. For occupational therapists, understanding the positive impacts of being in work was also important.
- Only two of 33 AHP courses contained explicit reference to a health and work topic in their course objectives and eight included content in the course curriculum. However, in the qualitative interviews almost all course leaders stated that they covered student self-care, usually as a cross-cutting theme across their programmes. Most also stated they embedded content on the relationship between health and work when it was a major contributory factor for certain conditions, such as mental health or musculoskeletal problems. Occupational therapy and physiotherapy courses also frequently included content on preparing patients to re-enter work.
- Four of the 33 AHP courses included generic management modules, but in the qualitative interviews we found that these courses did not generally cover managing staff health or valuing diversity. Most course leaders expected students to acquire these skills through their work experience.
- Only one of the course leaders stated that health and work knowledge and skills were explicitly assessed in the course, although some others stated that it would be covered through OSCE assessments when it was relevant to certain conditions.
- Some course leaders felt that the variable coverage of health and work topics was because teachers had mixed views on the importance of these subjects and the extent to which work contributes to patients' health and well-being.

4.1 Perceived relevance of health and work for the AHPs

Most course leads believed that the relationship between health and work had some relevance to their fields, as practitioners will encounter patients whose conditions have been caused or contributed to by work conditions. For example, an orthoptist might have a patient whose use of a computer at work affects their eyesight, or a paramedic may treat a patient with work-related asbestosis.

The positive relationship between work and health was generally not mentioned, except by occupational therapy course leaders. These course leaders highlighted the importance of students understanding the health benefits associated with being in work, given occupational therapists' focus on the positive impact patients' engagement with their environment has on their health.

Course leaders also reported that self-care and emotional resilience were key skills for some AHP practitioners, most notably paramedics, as many encounter upsetting situations in the course of their work. Self-care was also seen as being relevant to the roles of physiotherapists and radiographers, although in these cases the emphasis was more on physical self-care (i.e. managing work hazards).

Most course leaders believed that skills in managing the health of staff was also important for AHP professions, but lay outside the remit of an undergraduate education. They were seen as skills that would start to become relevant to students after they had entered the workplace and progressed to senior positions.

4.2 Coverage of health and work topics in qualification standards

AHP degree programmes are governed by sets of standards developed by the HCPC. These standards set out the minimum content of career-entry degree programmes. In a few cases, professional bodies (such as the College of Paramedics, Chartered Society of Physiotherapy and the British Dietetic Association) also set their own curriculum guidance.

The extent to which these standards include health and work topics are described below.

Clinical skills

There are some HCPC standards relating to health and work that are included in all the standards for AHP professions²⁰. These standards are primarily on understanding the importance of self-care and resilience and taking steps to minimise workplace risks.

They state that students must be able to:

- Understand the importance of maintaining their own health;
- Be able to work safely, including being able to select appropriate hazard control and risk management, reduction or elimination techniques in a safe manner in accordance with health and safety legislation; and
- Be able to establish safe environments for practice, which minimise risks to service users, those treating them and others.

²⁰ <http://www.hcpc-uk.org/education/standards/>

In addition to these three standards, the HCPC standards for occupational therapy include one further standard on health and work:

- Recognise the socio-cultural environmental issues that influence the context within which people live and work.

This standard explicitly references the fact that when delivering support an occupational therapist needs to consider a patient's work situation.

In addition, seven of the 12 AHP professional bodies have also set standards for undergraduate programmes. Six of these include outcomes either directly or indirectly related to health and work. These are set out below:

- **Paramedicine** (from Paramedic Curriculum Guidance: 3rd Edition Revised, 2015):
 - Evaluate the psycho-social determinants of health, including inequality and the factors contributing to the needs of different social groups; and
 - Understand and apply theories of stress and coping, and the effects of stress on individuals;
- **Physiotherapy** (from Learning and development principles for CSP accreditation of qualifying programmes in physiotherapy, 2012):
 - Physiotherapy's role in public health must be addressed; and
 - Rehabilitation and fitness for work must also be addressed.
- **Dietetics** (from A Curriculum Framework for the pre-registration education and training of dietitians, 2013):
 - Student must understand the wider determinants of health and health inequalities;
 - Student must understand public health outcomes; and
 - The public health policy element of health promotion: key players and processes in policy development.
- **Podiatry** (from Regulations and Guidance for the Accreditation of Higher Education Programmes, 2013):
 - Practice with a suitable degree of self-protection.
- **Radiography** (from Education and Career Framework for the Radiography Workforce, 2013):
 - Select and justify evidence for safe, effective, professional practice.
- **Orthoptics** (from Orthoptics Curriculum Framework, 2016):
 - Personal and patient health and safety.

The guidelines for occupational therapy²¹ also contain a range of outcomes on understanding the relationship between occupation and health. However, the term 'occupation' here has a broader definition than just work, also covering recreation, self-care and other meaningful activities.

Most of these standards cover broader requirements on understanding public health or the social determinants of health, which would likely include work. The exception

²¹ Learning and Development Standards for pre-registration education, 2014

is the physiotherapy standards which explicitly include a requirement for the courses to include content on rehabilitation and fitness for work.

Self-care and resilience are covered in most standards. Given that HCPC standards also require students to learn how to work in a safe environment, it is likely that AHP courses will consistently cover self-care to at least some extent.

Management skills

The HCPC standards for all AHP courses include requirements related to leadership and management. These standards state that students must:

- Understand the concept of leadership and its application to practice; and
- Be able to work, where appropriate, in partnership with other professionals and support staff.

The guidance provided by four professional bodies also include outcomes that relate to leadership and management. These are set out below:

- **Paramedicine:**
 - Be aware of how mentorship, coaching and guidance from colleagues and associates can enhance an individual's capacity for clinical leadership.
- **Physiotherapy:**
 - Leadership and decision making;
 - Inter-professional education and multidisciplinary team working.
- **Dietetics:**
 - Knowledge of how to manage oneself;
 - Understanding the impact of oneself on others.
- **Occupational therapy:**
 - Understand and apply the principles of leadership and management to occupational therapy standards.

None of these sets of standards clearly include standards for managing the health and well-being of their staff. They also do not include skills related to creating a diverse and inclusive workplace.

4.3 Inclusion of health and work in course objectives and curricula

4.3.1 Clinical skills

Only three of the 33 AHP courses we examined contained explicit reference to health and work topics in their course objectives. These courses only covered one topic each. These were:

- A dietetics course stated that students should understand the importance of managing their own health. This learning outcome matches the HCPC standard for developing students' understanding of the importance of managing their own health;

- An occupational therapy course listed a course learning outcome that students would be able to *'explain and critically evaluate the influence of social, physical and institutional environments on the way in which people live and work'*; and
- An occupational therapy course that stated *'[students] will develop skills in creative vocational and recreational activities and consider their use in treatment'*.

Occupational therapy courses all also included numerous learning objectives on student's knowledge and skills regarding patients' occupations, such as:

- *'Explain the relationship between occupation, health and well-being and the factors that facilitate or challenge participation in occupations'*; and
- *'You will develop your skills in... occupation-based intervention in a range of settings'*.

However, a significant proportion (eight out of 33) of AHP courses contained modules explicitly covering clinical health and work topics. Seven included content on the relationship between work and health and two included content on students' self-care and resilience. From the qualitative interviews we found that this likely reflects that for some subjects, skills and knowledge for work were seen as a key theme for the programme and consequently would not be listed individually as overall programme-level learning objectives.

Even when health and work was not explicitly included in the course curricula, most course leaders reported that health and work topics were embedded in course modules. Occupational therapy and physiotherapy course leaders reported that their courses contained content on preparing patients to re-enter work. For example, physiotherapy courses will cover adaptations that can be made to a patient's workplace environment to aid their recovery from a condition and/or help them develop healthier behaviours. Occupational therapy course leaders reported that the positive relationship between patients' ability to work and their health would also be discussed in most taught modules.

Other AHP course leaders stated that their courses embedded learning on the relationship between health and work where work was a major contributory factor for a condition (such as musculoskeletal conditions). Moreover, some embedded health and work topics in modules on 'public health' and 'sociology in practice'. In these modules, work was covered as one environmental factor that might contribute to patients' ill-health.

Almost all course leaders stated that self-care was covered in their courses, even when it was not apparent in the course documentation. Course leaders reported that the topic was usually delivered as 'programme enhancement', rather than core content. Some course leaders stated that resilience would primarily be addressed in pre-placement workshops or during students' meetings with placement tutors rather than within core content, while others said that self-care would be discussed in the course of teaching other topics (such as during lectures on changing patient behaviour).

None of the course leaders stated that they taught topics on the value of diversity and inclusion in the workplace, and there was no evidence of these topics being included either explicitly or implicitly in the course modules that were mapped in the research.

4.3.2 Management skills

Six out of the 33 AHP courses included objectives on management skills, although none explicitly related to any of the six health and work topics. In all cases, objectives covered generic management skills such as:

- *“Developing leadership and management skills through teamwork”;*
- *“Building mentoring and leadership skills [to] help nurture the next generation of radiographers”;* and
- *“Demonstrating clear supervision, leadership and management abilities”.*

Four out of 33 AHP courses covered management skills within their curricula. Two covered leadership within standalone modules, also stating that students would be expected to develop these skills during practical placements. The other two covered management and leadership within broader modules on professionalism. However, none of these courses linked management skills to the health and well-being of staff.

In the qualitative interviews, most course leaders stated that modules on management skills did not include content on managing health in work. This was consistent across all AHP subject areas. One stated that they included content on the impact of stress on team performance, but this was not covered in depth.

“At degree level we’re teaching more how to flag issues with your manager rather than what sort of atmosphere you would want to promote if you were managing a department. We’re looking at how they work with their peers.”

Course lead

4.4 Assessment methods

Course leaders stated that health and work would primarily be assessed through OSCEs or case study-based examinations. These would include identifying the effect of work on patients’ health.

One course leader in occupational therapy stated that the relationship between health and work was specifically planned into course assessments. In the course all students were given a case study in which the patient’s ill-health affected their ability to do their job. Students would have to consider the patient’s work when planning a course of treatment.

The main reason given for a lack of formal assessment of health and work was a lack of space, with assessments largely focused on more substantive parts of the course. As one course leader stated:

“There is only so much time and you can only have so many formal assessments per module. Because the health and work topics are not a specific focus of any of the modules being taught, they are not really a large enough part of any of the modules to warrant being formally assessed in coursework or examinations.”

4.5 Factors influencing health and work teaching

Some course leaders stated that the extent to which health and work topics are incorporated in AHP courses is likely to vary due to mixed awareness among teachers. As one course leader stated:

[About self-care and resilience] “Talking to me you’re talking to the converted [but] there is still an element within the ambulance culture of ‘if you can’t deal with it then it’s not the job for you.’”

Similarly, awareness of work as a factor in improving patients’ health was also not considered important by all course tutors. Some course leaders stated that this was because teachers would have varying levels of appreciation for the relationship that work might have on alleviating health conditions.

Course leaders also reported that students initially place fairly little importance on health and work topics, which has affected their inclusion in course curricula. For example, a course leader stated that a standalone physiotherapy public health module has historically had low attendance due to students feeling that public health was not a ‘traditional’ area of physiotherapy. Similarly, some interviewees noted that students yet to acquire much/any experience of healthcare in a hospital setting tend not to see the relevance of resilience training to their roles.

5 Business programmes

This chapter examines the extent to which health and work topics are included in business courses. It draws on findings from the literature review, an examination of 101 business courses and qualitative interviews with course leaders from six business departments, covering five undergraduate and 14 postgraduate courses (including one MBA course).

Key findings

- Health and work topics on resilience and stress management were widely regarded as being important for business programmes. There was significant awareness among both students and industry of the importance of these topics. The study found, however, that there was little awareness of the importance of other health and work topics.
- Very few business courses (6 of 101) included clinical health and work topics in either their course objectives or in the content of their modules. Where health and work content was included, it was primarily on factors contributing to staff well-being. This was broadly consistent in undergraduate and postgraduate programmes, although postgraduate programmes were less likely to include health and work topics as it was expected that most postgraduate learners would acquire these skills in industry.
- Very few business courses explicitly included content on managing health and work in their course curricula. When it was included, it primarily covered diversity and managing stress and anxiety in the workplace. However, over half of business courses contained generic people management modules.
- While business course leaders felt that most of their tutors recognised the importance of health and work, some stated that staff did not have the technical knowledge to deliver these topics effectively. Student demand for health and work (except for stress management) was also mixed, and consequently some courses included these topics in optional modules.

5.1 Perceived relevance of health and work for business management professionals

Interviewees all stated that managing stress and resilience was essential for business students to create effective workplaces. Some also stated that recognition of the importance of stress – to managers and in the teams they manage - appears to be growing among both HEIs and businesses.

"We tend to offer modules that are in demand from employers, and traditionally this has not been an area of interest, but I think employers are becoming more engaged with these issues, so we may look into integrating [personal resilience] more going forward."

MBA course lead

However, some interviewees stated that although the impact of stress is important, it will not be covered in depth in curricula (both at their own institution and others) as it was less of a priority than other topics:

“When you put this subject up against strategy, resourcing, recruitment and so on, without which there wouldn’t be an organisation... I think it has a smaller strategic impact, if you were to compare the important with the urgent.

One has to have effective finances in place, without which there’s no organisation. Stress and its impact on health is a slow burning, long-term disaster in the making – but the bigger issues in the shorter term are finance.”

Departmental head

Relatively few course leaders believed that managing diversity and inclusion in the workplace was important for business students. This is because most course leaders believed that students would acquire these skills in the workplace, as they will be covered by employer policies on equality and diversity.

5.2 Coverage of health and work topics in qualification standards

5.2.1.1 Postgraduate education

The Association of MBAs (AMBA) runs a voluntary accreditation scheme for recognising MBA programmes. While HEIs do not need to gain AMBA recognition in order to deliver MBAs, almost all (43 of 50) business schools in the UK are AMBA accredited²².

The AMBA’s accreditation scheme is less prescriptive in specifying qualification requirements than the healthcare and social work degree standards. Most of the outcomes relate to broader themes of business management, such as understanding the financial implications of decision-making and operating effectively in a global context.

The AMBA standards contain two outcomes that directly relate to the management of people. These are:

- *“Lead themselves and others in the achievement of organisational goals, contributing effectively to a team environment”; and*
- *“Maximise resources for the benefit of organisations and society”.*

Although these standards do not explicitly cover managing the health or well-being of employees, it is possible that some HEIs may consider personal and staff health as falling under one or both of these standards.

5.2.1.2 Undergraduate education

The Quality Assurance Agency (QAA) maintains a Subject Benchmark Statement that sets out its general expectations of business and management undergraduate

²² Full list of accredited business schools available from: <http://www.ambaguide.com/find-an-accredited-programme/schools/united-kingdom/?page=0&pp=10>

degrees, including student learning outcomes²³. These are not mandatory requirements, but help inform QAA approval of degree programmes.

These standards focus primarily on broader themes of business management, such as knowledge and understanding of markets, finance and communications. They do not explicitly reference managing the health or well-being of employees, but include some broader topics which could include health and work:

- Self-management: a readiness to accept responsibility and flexibility, to be resilient, self-starting and appropriately assertive, to plan, organise and manage time;
- People: leadership, management and development of people and organisations including the implications of the legal context; and
- People management: to include communications, team building, leadership and motivating others.

Neither the AMBA standards of Subject Benchmark Statements explicitly include requirements for learners to value and manage diversity and inclusion in the workplace.

5.3 Inclusion of health and work in course objectives and curricula

5.3.1 Undergraduate programmes

5.3.1.1 Clinical skills

Only four of the 41 courses we examined included clinical health and work topics in their course objectives. One course included an explicit objective on self-care and resilience: *“[This course will] enable you to develop the skills and resilience needed for an accounting or business management career.”*

The other courses included health and work topics within broader objectives, such as:

- *“Successful management and leadership can make a huge difference to the well-being and thus the performance of an individual”;*
- *“The types of real world problems studied include business decisions’ effect on... on employee welfare”;* and
- *“Optional modules will allow you to study diverse topics such as... diversity management”.*

Teaching of these health and work topics was not explicitly stated in course curricula, but course leaders responsible for undergraduate business programmes stated that this was because recognising and dealing with stress was embedded within modules that teach management skills. This may reflect that the QAA standards group resilience within a broader set of ‘self-management’ skills, alongside skills such as planning work and organising one’s time effectively.

Only one undergraduate course explicitly mentioned content on valuing diversity. This course included an optional module on ‘Diversity Management’, where one of

²³ <http://www.qaa.ac.uk/en/Publications/Documents/SBS-business-management-15.pdf>

the learning outcomes was *“Interpret and outline the business case for diversity in the workplace.”*

5.3.1.2 Management skills

While nearly half of undergraduate programmes had objectives relating to management skills, only one course explicitly stated a learning objective on managing health in the workplace. This was a human resource management course, which stated that *“students should develop skills to manage people in a way that has a positive impact on their well-being”*. Other courses contained objectives on more general management skills, such as *“an ability to design and implement management systems and processes to meet desired needs”*.

Three business courses included explicit content on managing the health of the workforce in their curricula. These courses primarily included health and work topics as part of a wider module. For example:

- On course contained a *‘Managing People’* module on one course, which included content on *‘work and well-being’*;
- One course contained a *‘Diversity Management’* module, which includes content on strategies for promoting diversity; and
- One course contained a *‘Leadership’* module, which included *‘frameworks and tools to understand the extent to which leadership practices have an impact on individual well-being’*.

A further 22 courses included general management modules such as ‘General Management Course’, ‘People Management’, and ‘Delivering Results through People’. The course leader interviews found that some of these modules contained content on dealing with employees experiencing stress, but did not include any other health and work content.

5.3.2 Postgraduate programmes

5.3.2.1 Clinical skills

Two out of 60 postgraduate business programmes (both MBAs) included objectives that could potentially include health and work topics. These objectives were:

- *“Looking beyond business processes to emphasise self-awareness.”* This does not explicitly cover a health and work topic, but self-awareness could include skills such as resilience; and
- *This theme stresses ethics, diversity and executive accountability to ensure that our students practise leadership that is responsible and sustainable.”*

None of the postgraduate courses examined included clinical health and work topics in their curricula. It is possible that generic management skills modules include some content on personal resilience, but interviewee feedback suggests that this is unlikely for postgraduate courses as there is an expectation that students are experienced professionals. Course leaders stated that while modules on management skills might address staff stress and resilience, they would not cover students’ personal resilience.

One course leader said their course included content on the relationship between health and work, although this focused on the negative impact stress and burnout

can have on productivity, rather than the positive relationship between work and well-being.

5.3.2.2 Management skills

Seventeen out of 60 postgraduate courses addressed management and leadership in their aims and objectives. However, these all discussed management in general terms, listing aims such as:

- *"Foundations of Leadership and Teamwork"*
- *"Develop leadership skills"; and*
- *"[This course] will give you a... collection of tools you can use to be an effective leader and manager."*

Course leaders stated that in practice these objectives mainly focused on dealing with grievances and motivating team members. Similarly, while nearly half (29 out of 60) postgraduate courses (including 15 of 23 MBA courses) included modules on generic management skills, only one explicitly covered a health and work topic. This course included a recruitment module with content on ensuring diversity when hiring new employees.

Course leaders reported very few management modules contained content on health and work. When courses did include health and work information, it was primarily on managing stress in the workforce. Some course leaders, however, stated that training on managing diversity was also available through enrichment activities such as guest lectures and workshops.

5.4 The assessment of health and work topics

Only two of the 101 business courses we examined contained information on how they assessed health and work topics. These were both undergraduate courses that assessed students' health and work skills during modular assessments:

- One course included a module on 'Leadership'. This covered the impact of different leadership practices on employee well-being, and in coursework worth 50% of the final grade students were required to demonstrate an understanding of how they could *'improve their leadership to enhance employee well-being'*.
- Another course included a module called 'Diversity Management'. Here the achievement of learning outcomes in managing the needs of different groups of employees was included in the final course assessment.

Both of these were optional modules, however, and consequently not all students would be assessed on these topics.

In the qualitative interviews, around half of course leaders that included content on stress management stated that it was assessed through the end-of-module exam. Other course leaders reported that it was not formally assessed but students were required to record how they coped with stress and anxiety in a workplace journal.

Some postgraduate courses leaders stated that their courses included written essays or coursework for which the student could choose to write about a subject of their choosing, which could therefore be a health and work topic. However, demonstration of health and work knowledge would not be included in the mandatory assessment criteria for this coursework.

5.5 Factors influencing health and work teaching

Most interviewees felt that course tutors generally appreciated the importance of health and work topics, particularly stress and resilience. However, they felt that teaching of health and work topics was primarily dependent upon the availability of staff with the relevant expertise to deliver the content effectively. One interviewee gave the example of using a psychology specialist to deliver training on the impact of stress. While other tutors appreciated the importance of the subject matter, they would be unable to teach some of this content to the same quality.

Some course leaders also stated that the reason clinical health and work skills were not included in postgraduate curricula was because they did not have enough time to do so on top of other, higher priority, topics.

"There's an issue of prioritising within a 100% full curriculum. Stress and its impact on health is a slow burning, long-term disaster in the making – but the bigger issues in the shorter term are finance."

MBA course lead

Interviewees felt that students mostly perceive managing stress (in either themselves or their staff) to be an important issue. One interviewee said that some students on a broad management module regularly raise questions about how to deal with stressed employees. Another said that they had seen students pick the management of stress in the workplace as their dissertation topic. However, students had relatively little awareness of other health and work topics, which meant there was little demand for including wider content on the relationship between health and work and managing health and work and diversity.

6 Conclusions

6.1 Coverage of health and work topics in healthcare and business courses

6.1.1 Coverage of health and work in course curricula

Across all healthcare and business courses, there was relatively little coverage of health and work topics. Table 6.1 presents the number of courses in each subject area that include health and work topics in their course curricula. Most of these courses only include one health and work topic, and in some cases only a small component of a health and work topic (such as managing stress, which is one component of the broader topic of managing staff health and well-being).

Table 6.1 Inclusion of health and work topics in course curricula, by degree

Subject area	Clinical skills	Management skills	Total courses
Medicine	6	2	35
Dentistry	4	2	8
Nursing	4	8	23
Social work	6	3	21
AHP	8	4	33
Business undergraduate	1	3	41
Business postgraduate (non-MBA)	0	0	37
MBA	0	1	23

Source: ICF analysis of course documentation

The qualitative interviews and literature review generally corroborated the findings from the course mapping. Moreover, it also identified that some health and work topics were commonly embedded within course curricula but did not appear on module descriptions as they were only a small element of the module. For example, the relationship between health and work was often taught when it was a major contributory factor for certain conditions, such as musculoskeletal conditions, mental health and lung disease. Self-care and resilience was often included as a cross-cutting theme or included in student inductions.

The type of health and work topics covered in different subjects varied. For example, dentistry and social work courses included significant content on self-care, whereas medicine and nursing courses most commonly included information on the impact of work on patient history. This reflects that some health and work topics are seen as more applicable for some occupations than others.

6.1.2 Inclusion of health and work topics in qualification standards

There is limited coverage of health and work topics in the qualification standards for healthcare courses. Where they are included, they are primarily implicitly included in

broader requirements on working in a safe environment, managing one's own health, and understanding the factors that contribute to a person's health.

Most of the qualification standards also contain requirements for students to acquire leadership and management skills. However, these requirements similarly focus on general skills which could include health and work topics.

The lack of explicit reference to health and work topics in the standards is contributing to their relatively limited delivery in degree programmes. Many course leaders reported that they have organised their qualifications to meet the professional standards, and not all course leaders perceive health and work to be a core part of the standards.

6.1.3 Assessment of health and work

There was very little evidence of the assessment of health and work skills. This may reflect that in many cases it was only a small part of a broader module, and as a result is not seen as a core part of the end-of-module assessment.

In many cases, understanding the relationship between health and work was also assessed in OSCE assessments. However, the limitation with this approach is that the assessment of health and work skills depends on the scenarios that are used. Clinical topics where work is not a major contributory factor are unlikely to effectively assess students' knowledge of health and work.

There are also some subjects, most notably self-care and resilience, that are regarded as cross-cutting themes and touched upon in induction and in practical placements. This is rarely assessed, however, and consequently it is unclear the extent to which students are prepared for working in a stressful work environment, or to manage and identify 'warning signs' in the health of colleagues.

6.1.4 Key gaps in provision

Clinical skills

Across all types of healthcare and business courses, there was relatively little content on the positive impact of work on health. This is surprising given recent policy developments such as the introduction of Fit Notes, and the work taking place to link healthcare and employment outcomes. At present, most of the course content on the relationship between health and work tends to focus on how work can affect certain conditions.

In some courses there was significant coverage of self-care and resilience, and some HEIs stated content has increased in recent years. The main driver for this development was an increased desire among HEIs to manage the workload of students, and the general recognition that healthcare professional can work in a stressful environment.

However, there was very little content on supporting patients to take effective approaches to managing their own health. The exceptions were occupations such as nursing, where self-care is regarded as important to support patients to manage long-term conditions, and dentistry and dieticians where there is a strong focus on health promotion to reduce the risk of patients acquiring health conditions.

Management skills

While some programmes included content on management skills, relatively few included content on managing the health of staff. In healthcare courses, course leaders generally believed that these skills should be acquired during students' professional work. However, relying on skills being developed in professional work can lead to inconsistent practice, as not all students will receive the support needed to acquire the skills they need.

In business programmes, some of the courses we examined included content on managing stress. However, there is relatively little provision on other mental or physical health issues that need to be managed in the workplace.

Across all healthcare and business courses, there is very little provision on managing diversity and inclusion in the workforce. It was also not included in most of the qualification standards. It is largely regarded as a low priority among course leaders, or a skill that should be developed through industry.

6.2 Perceptions of health and work

Across all healthcare and business courses, course leaders and tutors generally recognised that health and work was an important subject for their students. However, most only focused on one or two topics that they felt were particularly relevant to their students. Dentistry course leaders, for example, focused on self-care and resilience, as many dentists suffer from back pain and carpal tunnel syndrome. Medicine course leaders focused on the relationship of work to patients' histories.

As a consequence, very few course leaders recognised the need to holistically cover all aspects of health and work. In part this may reflect that the qualification standards do not make explicit reference to many of the health and work topics, and consequently inclusion in degree programmes is largely dependent on course leaders' interpretation of the standards.

There was also perceived to be little demand from students for health and work topics. Courses leaders reported that when it has been delivered as optional units, the demand is low as students do not appreciate its importance to their clinical work. However, when learners have undertaken learning on health and work, they have generally given positive feedback on the provision they received and felt it would be useful to their work.

6.3 Factors that influence the teaching of health and work

When asked if there were any limiting factors that might prevent greater coverage of health and work topics within their courses, most course leaders stated that they felt their curricula were already quite full and that space to address additional topics was limited. Several stated that they organised their programme around the qualification standards, which were already challenging to deliver within the given timeframe.

In business courses, most course leaders also stated that their capacity to teach health and work topics – particularly the link between work and health, and skills for dealing with stress – was relatively dependent on the availability of staff with relevant specialist skills.

6.4 Implications of findings

6.4.1 Promoting health and work teaching

The research suggests there is a need to promote the importance of all health and work topics to HEI course leaders. It is particularly essential to highlight the importance of work as a tool for improving health, as course leaders may be encouraged to include more content on health and work if they perceive it to have significant positive health outcomes. This includes sharing good practice in embedding health and work, such as using case studies or OSCE scenarios where work is a relevant factor in patients' conditions and/or recovery.

There is also a need to promote the importance of skills in managing staff health and encouraging diversity and inclusion. Most healthcare courses contained relatively little content on health and work management skills, either on managing staff health or on inclusion and diversity. Where they did cover management skills, they generally only appeared to cover generic skills. These topics could be included in modules on professionalism or covered within students' work placements.

The research also identified a need for raising student awareness of the importance of health and work. At present, there is relatively little demand for health and work provision, which means that even if provision is available through optional learning, very few students are taking it up.

The assessment of health and work topics were also mixed, particularly where they were only part of a larger programme. Course leaders understandably stated that they prioritise topics required by their respective degree standards. The lack of explicit reference to health and work topics in the degree standards has meant that they are not often explicitly assessed.

Engagement with degree standards bodies is a possible option for promoting the teaching of health and work topics. One medical course leader said that they had recently increased coverage of resilience with their programme in response to GMC guidance. Regulatory bodies could help ensure that health and work topics are being consistently taught by providers.

6.4.2 Implications for future research

Interviewees in several subject areas indicated that health and work content was included within their courses in ways not addressed by their course documentation, such as via one-off sessions with students (e.g. introductory lectures, pre-placement workshops) or through a broader module, which is not explicitly assessed. It would therefore be useful to assess students' knowledge and skills regarding key health and work topics. An evidence base in this area could potentially uncover effective practice in teaching health and work to students, or demonstrate to providers that certain types of provision are not effective.

There are also some healthcare courses that do not appear to meet the requirements in the professional standards related to health and work. There may consequently be a need to work with course leaders and unpick the extent to which certain requirements from the standards are being incorporated in their course curricula.

Annexes

Annex 1 Documents examined in literature review

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Annex 2 Course documentation review sample

Provider or institution name	Course name	Course type
Ashridge Business School	MBA	Business PG (MBA)
Aston University	MBA	Business PG (MBA)
Aston University	MSc International Business	Business PG (non-MBA)
Bath, University of	BSc (Hons) Management with marketing	Business UG
Bath, University of	BSc (Hons) Social work and applied social studies	Social work
Bath, University of	MBA	Business PG (MBA)
Bath, University of	MSc in Management	Business PG (non-MBA)
Bedfordshire, University of	BA (Hons) Business management	Business UG
Bedfordshire, University of	MBA Business administration	Business PG (MBA)
Birkbeck	MSc Management with Human Resource Management	Business PG (MBA)
Birmingham, University of	BDS (Hons) Dentistry	Dentistry
Birmingham, University of	MBChB (Hons) Medicine	Medicine
Bolton, University of	BSc (Hons) Business management	Business UG
Bournemouth	BA (Hons) Social work	Social work
Bournemouth	MSc International Hospitality and Tourism Management	Business PG (non-MBA)
Bradford, University of	BSc (Hons) Nursing Mental Health	Nursing
Bradford, University of	MSc in Management	Business PG (non-MBA)
Brighton and Sussex Medical School	BMBS Bachelor of Medicine/Bachelor of Surgery	Medicine
Brighton, University of	BSc (Hons) Paramedic Practice	AHP
Brighton, University of	MSc Management (Public Services)	Business PG (non-MBA)
Brighton, University of	BSc (Hons) Podiatry	AHP
Plymouth	Nursing (adult)	Nursing
Portsmouth	BSc (Hons) Portsmouth	Social work
Bristol, University of	MBChB Gateway to Medicine (Foundation year)	Medicine
Bristol, University of	MBChB Medicine	Medicine
Bristol, University of	MSc Management (Marketing)	Business PG (non-MBA)
Brunel University	Occupational Therapy BSc	AHP
Brunel University	BSc (Hons) Physiotherapy	AHP
Brunel University	MSc Accounting and Business Management	Business PG (non-MBA)
Buckingham, University of	BSc (Hons) Business and management	Business UG
Buckingham, University of	MBChB Medicine	Medicine

Provider or institution name	Course name	Course type
Buckinghamshire New University	BSc (Hons) Nursing (mental health)	Nursing
Cambridge, University of	MB BChir Medicine	Medicine
Cambridge, University of	MBA	Business PG (MBA)
Canterbury Christ Church	BSc (Hons) Paramedic science	AHP
Central Lancashire, University of	BSc (Hons) Sports business management	Business UG
Central Lancashire, University of	BDS Dentistry	Dentistry
Central Lancashire, University of	BSc (Hons) Medical Science	Medicine
Central Lancashire, University of	BSc (Hons) Physiotherapy	AHP
Central Lancashire, University of	MSc Finance and Management	Business PG (non-MBA)
Chester, University of	BA (Hons) Advertising and business management	Business UG
Chester, University of	BSc (Hons) Medical Sciences	Medicine
Chester, University of	BSc (Hons) Mental health nursing	Nursing
Chichester	BA (Hons) Human resource management	Business UG
City University, London	MBA	Business PG (MBA)
City University, London	MSc in Management	Business PG (non-MBA)
Coventry University	BSc (Hons) Dietetics	AHP
Coventry University	BSc (Hons) Mental health nursing	Nursing
Coventry University	Bsc (Hons) Paramedic Science	Medicine
Coventry University	MSc International Business Management	Business PG (non-MBA)
Cranfield School of Management	MBA	Business PG (MBA)
Cumbria	BA (Hons) Social work	Social work
Cumbria	BSc (Hons) Diagnostic Radiography	AHP
De Montfort	BA (Hons) Business and management	Business UG
De Montfort	BSc (Hons) BSc Human communication (speech and language therapy)	AHP
Derby	BA (Hons) Accounting and business management	Business UG
Derby	BSc (Hons) Diagnostic Radiography	AHP
Durham, University of	MSc in Management	Business PG (non-MBA)
Durham, University of	MBBS Medicine	Medicine
Edge Hill University	BA (Hons) Social work	Social work
Edge Hill University	BSc (Hons) Business & management with human resource management	Business UG

Provider or institution name	Course name	Course type
Edge Hill University	BSc (Hons) Nursing (adult)	Nursing
Edge Hill University	MSc Accounting, Finance and Management	Business PG (non-MBA)
Essex	BSc (Hons) Business management	Business UG
Exeter, University of	BA (Hons) Business & management	Business UG
Exeter, University of	BMBS (Hons) Medicine	Medicine
Exeter, University of	BSc (Hons) Medical Imagery (Diagnostic Radiography)	AHP
Exeter, University of	MBA	Business PG (MBA)
Exeter, University of	MSc in International Management	Business PG (non-MBA)
Falmouth University	BA (Hons) business entrepreneurship	Business UG
Gloucestershire, University of	MBA	Business PG (MBA)
University of East London	BSc (Hons) Podiatry	AHP
Greenwich	BSc (Hons) Nursing (Mental health nursing)	Nursing
Greenwich	BSc (Hons) Paramedic Science	AHP
Harper Adams	BSc (Hons) Agri-business	Business UG
Henley Business School	MSc in Management	Business PG (non-MBA)
Hertfordshire	BSc (Hons) Nursing (Learning disabilities)	Nursing
Hertfordshire	Bsc (Hons) Radiotherapy and oncology	AHP
Huddersfield	BSc (Hons) Physiotherapy	AHP
Huddersfield	BSc (Hons) Midwifery	Nursing
Hull York Medical School	MBBS Medicine	Medicine
Hull, University of	BA (Hons) Social work	Social work
Hull, University of	BA (Hons) Management and financial management	Business UG
Hull, University of	MBA	Business PG (MBA)
Hull, University of	MSc Business Management (with Internship)	Business PG (non-MBA)
Imperial College London	MBA	Business PG (MBA)
Imperial College London	MBBS (Hons) Medicine	Medicine
Imperial College London	MSc in Management	Business PG (non-MBA)
Keele University	BSc (Hons) Children's Nursing	Nursing
Keele University	MBChB (Hons) Medicine	Medicine
Keele University	MSc Finance and Management	Business PG (non-MBA)
Kent, University of	MSc Management (International Business)	Business PG (non-MBA)
King's College London	BDS (Hons) Dentistry	Dentistry

Provider or institution name	Course name	Course type
King's College London	BSc (Hons) Business management	Business UG
King's College London	MBBS (Hons) Medicine	Medicine
King's College London	MBBS Extended Medical Degree Programme	Medicine
Kingston- St George's	BSc (Hons) Learning disability nursing (optional year abroad)	Nursing
Lancaster University	MBA	Business PG (MBA)
Lancaster University	MBChB (Hons) Medicine and Surgery	Medicine
Lancaster University	MSc in Management	Business PG (non-MBA)
Leeds Beckett University	BA (Hons) Business & management	Business UG
Leeds Beckett University	MSc Management and Human Resources	Business PG (non-MBA)
Leeds, University of	BA (Hons) Social work	Social work
Leeds, University of	BSc (Hons) Human resource management	Business UG
Leeds, University of	MBA	Business PG (MBA)
Leeds, University of	MBChB (Hons) Medicine and Surgery	Medicine
Leeds, University of	MSc in International Business	Business PG (non-MBA)
Leicester, University of	MBChB (Hons) Medicine	Medicine
Lincoln	BA (Hons) Business and management	Business UG
Lincoln	Bsc (Hons) Nursing	Nursing
Lincoln	BSc (Hons) Social work	Social work
Liverpool John Moores	BA (Hons) Early Childhood Studies	Social work
Liverpool John Moores	MSc International Tourism Management	Business UG
Liverpool, University of	BDS (Hons) Dental Surgery	Dentistry
Liverpool, University of	BN (Hons) Nursing	Nursing
Liverpool, University of	MBChB (Hons) Medicine and Surgery	Medicine
Liverpool, University of	BSc (Hons) Orthoptics	AHP
London Business School	Master in Management	Business PG (non-MBA)
London Business School	MBA	Business PG (MBA)
London Met	BA (Hons) Human resource management	Business UG
London Met	BSc (Hons) Social work	Social work
London South Bank	BSc (Hons) Adult nursing	Nursing
London South Bank	BSc (Hons) Therapeutic radiography	AHP
London South Bank	MSc International Business Management with Marketing	Business PG (non-MBA)

Provider or institution name	Course name	Course type
Loughborough	BSc (Hons) Retailing, marketing and management	Business UG
LSE	BSc (Hons) Management	Business UG
LSE	MSc Economics and Management	Business PG (non-MBA)
LSE	Trium Global Executive MBA	Business PG (MBA)
Manchester Met	BSc (Hons) Speech pathology and therapy	AHP
Manchester Met	BA (Hons) Social Work	Social work
Manchester Met	MSc International Finance and Management	Business PG (non-MBA)
Manchester, University of	BNurs (Hons) Nursing: child nursing	Nursing
Manchester, University of	MBA	Business PG (MBA)
Manchester, University of	MBChB (Hons) Medicine	Medicine
Manchester, University of	MSc in International Business and Management	Business PG (non-MBA)
Middlesex University	MA People Management and Development	Business PG (non-MBA)
Newcastle, University of	BDS (Hons) Dental Surgery	Dentistry
Newcastle, University of	BSc (Hons) Speech and Language Sciences	AHP
Newcastle, University of	MBA	Business PG (MBA)
Newcastle, University of	MBBS (Hons) Medicine and Surgery	Medicine
Newman	BA (Hons) Business management	Business UG
Birmingham City	BSc (Hons) Speech and Language Therapy	AHP
Newman	BA (Hons) Youth and community work	Social work
Northampton	BA (Hons) Social work	Social work
Northampton	BSc (Hons) Midwifery	Nursing
Northumbria	Bsc (Hons) Social work	Social work
Northumbria	Bsc (Hons) Physiotherapy	AHP
Northumbria	MSc Business with International Management and Marketing	Business PG (non-MBA)
Nottingham Trent	MSc Management and Marketing	Business PG (non-MBA)
Nottingham, University of	BMBS Medicine	Medicine
Nottingham, University of	BSc (Hons) Nursing (learning disability)	Nursing
Oxford Brookes	BA (Hons) Business and marketing management	Business UG
Oxford Brookes	BA (Hons) Social work	Social work

Provider or institution name	Course name	Course type
Oxford, University of	BA (Hons) Economics and management	Business UG
Oxford, University of	BM BCh Bachelor of Medicine and Bachelor of Surgery	Medicine
Oxford, University of	MBA	Business PG (MBA)
Plymouth, University of	BSc (Hons) Dietetics	AHP
Plymouth, University of	BDS Dental Surgery	Dentistry
Plymouth, University of	BMBS Medicine and Surgery	Medicine
Plymouth, University of	BSc (Hons) Dietetics	AHP
Portsmouth	BSc (Hons) Paramedic Science	AHP
Queen Mary University of London	BDS (Hons) Dentistry	Dentistry
Portsmouth	BN (Hons) Nursing (Adult)	Nursing
Queen Mary University of London	MBBS (Hons) Medicine	Medicine
Royal Agricultural University Cirencester	BSc (Hons) International business management (food & agri-business)	Business UG
Royal Holloway	BSc (Hons) Management with human resources	Business UG
Salford, University of	BSc (Hons) Prosthetics and Orthotics	AHP
Salford, University of	BSc (Hons) Human resource management	Business UG
Salford, University of	MSc Global Management	Business PG (non-MBA)
Sheffield Hallam	BA (Hons) Social work	Social work
Sheffield Hallam	BSc (Hons) Occupational Therapy	AHP
Sheffield, University of	BDS Dental Surgery	Dentistry
Sheffield, University of	BMedSci (Hons) Orthoptics	AHP
Sheffield, University of	MBA	Business PG (MBA)
Sheffield, University of	MBChB (Hons) Medicine	Medicine
Sheffield, University of	MSc Leadership and Management	Business PG (non-MBA)
SOAS	BSc (Hons) Management	Business UG
Southampton Solent	BA (Hons) Business management	Business UG
Southampton, University of	BMBS and BMedSci (BM6 Widening Access)	Medicine
Southampton, University of	BMBS Medicine and BMedSci (BM5)	Medicine
Southampton, University of	BSc (Hons) Occupational Therapy	AHP
Southampton, University of	BSc (Hons) Podiatry	AHP
Southampton, University of	BSc (Hons) Management	Business UG
Southampton, University of	BMBS Medicine (BM4)	Medicine

Provider or institution name	Course name	Course type
Southampton, University of	MSc Accounting and Management	Business PG (non-MBA)
St George's, University of London	MBBS Medicine	Medicine
St Mark and St John	BA (Hons) Youth and community work	Social work
St Mary's University	MA Charity Management	Business PG (non-MBA)
Staffordshire	BSc (Hons) Nursing practice (adult)	Nursing
Suffolk, University of	BA (Hons) Social work	Social work
Suffolk, University of	BSc (Hons) Child Health Nursing	Nursing
Suffolk, University of	BSc (Hons) Diagnostic Radiography	AHP
Sunderland	BA (Hons) Business & financial management	Business UG
Surrey	BSc (Hons) Business management	Business UG
Sussex	BA (Hons) Social work	Social work
Teeside	BSc (Hons) Nursing Studies (Adult)	Nursing
Teeside	BSc (Hons) Paramedic Practice	AHP
Teeside	MSc International Management	Business PG (non-MBA)
UAL London	BSc (Hons) Fashion management	Business UG
UCL	BSc (Hons) Management science	Business UG
UCL	BSc (Hons) Management science	Business UG
UCL	BSc Applied Medical Sciences	Medicine
UCL	MBBS Medicine	Medicine
UCL	MSci Applied Medical Sciences	Medicine
UEA	BSc (Hons) Speech and Language Therapy	AHP
UEA	MBBS (Hons) Medicine	Medicine
UWE Bristol	BSc (Hons) Midwifery	Nursing
UWE Bristol	MSc Business Management	Business PG (non-MBA)
Warwick	BSc (Hons) Management	Business PG (MBA)
Warwick Business School	MBA	Business PG (MBA)
Warwick Business School	MSc in Management	Business PG (non-MBA)
West London	BA (Hons) Business studies with human resource management	Business UG
Winchester, University of	BA (Hons) Accounting and management	Business UG
Winchester, University of	BSc (Hons) Social work	Social work
Winchester, University of	MBA	Business PG (MBA)

Provider or institution name	Course name	Course type
Worcester	BA (Hons) Youth and community services	Social work
Worcester	BSc (Hons) Nursing (adult branch)	Nursing
York St John	BA (Hons) Accounting and business management	Business UG
York, University of	Bsc (Hons) Accounting, business finance and management	Business UG
York, University of	MSc Management with Business Finance	Business PG (non-MBA)

Annex 3 Interview topic guide

The following is the topic guide used by ICF researchers while conducting semi-structured qualitative interviews with course leads.

A3.1 Introduction

We are conducting a study for Public Health England to investigate how health and work topics are covered within healthcare and business degree programmes. As part of the study, we are interviewing faculty heads and senior lecturers on the ways in which different health and work topics are currently taught within their degree programmes.

We would like to discuss your views on the importance of teaching these topics to undergraduate healthcare students and the ways in which they are integrated into the objectives, course content and student assessments of your degree programmes. Your views will be treated in strictest confidence and will be anonymised when we report to Public Health England.

Thank you for agreeing to speak to us. Your input will help inform the work of Public Health England in supporting public health in England.

A3.2 Background

1. Confirm the interviewee's position and responsibilities relating to degree delivery.
2. Confirm the range of degree programmes they offer that are within the scope of this research.

A3.3 Integration of topic into course curricula

3. To what extent are health and work topics included in your course curricula? *Probe for coverage of clinical health and work topics (primarily for healthcare professionals) and coverage of leadership and management topics.*
4. How are they referenced in the course documentation? *Explore whether they are specifically mentioned in course aims and objectives, in the course learning outcomes or in any other course materials.*
5. How are the subjects embedded in the programme? *Probe for whether certain health and work topics are delivered as self-contained units, and whether other subjects are embedded in the programme of part of broader units.*
6. How are they taught? Probe for the extent to which they are covered in:
 - a. Lectures and seminars
 - b. Assignments and coursework
 - c. Formally or informally as part of work placements
7. Are teachers required to spend a specific amount of time teaching this topic?

A3.4 Assessment of health and work skills

8. How are the health and work skills described above assessed? Probe for the extent to which they are included in:
 - a. End-point assessments
 - b. Module assessments
 - c. As part of an assessment of work placements
 - d. Through assessed coursework
9. What is the reason for this assessment approach?
10. From your experience, how well prepared are students to deliver these topics within their work upon graduation? *Probe for what is covered well and if there are any areas where they expect learners to acquire the skills in industry*

A3.5 Reflections of the inclusion of health and work topics

11. To what extent are the six core topics relevant to the role of [refer to the specific occupation group that undertake the qualification – dentists, doctors, nurses, managers, etc.]? *Probe for areas that are considered essential to the role, those that are considered useful, and those that are not relevant. Explore the rationale for their judgement.*
12. How widely do you believe teachers and students value the importance of health and work topics in their programme? *Probe for perceptions of clinical and leadership and management skills.*
13. Are there any factors that limit the extent to which you can cover health and work issues in your programme? *Probe for issues related to the knowledge and skills of teaching staff, time constraints, resourcing and facilities.*
14. Are there any areas where you feel the coverage of health and work could be improved? *Explore for the inclusion of certain topics or in any improvements to teaching or assessment.*
15. Do you have any future plans to change how you deliver health and work topics? If so, please describe.

THANK YOU FOR YOUR TIME

Annex 4 Summary infographic

Health and work provision in healthcare, social work and business degree courses

Public Health England commissioned a study to examine the coverage of health and work topics in healthcare, social work and business degree courses in England. The study examined the inclusion of health and work skills for supporting patients and managing the health of their staff. The research included a mapping of 221 degree courses and interviews with course leaders in 38 Higher Education Institutions.

