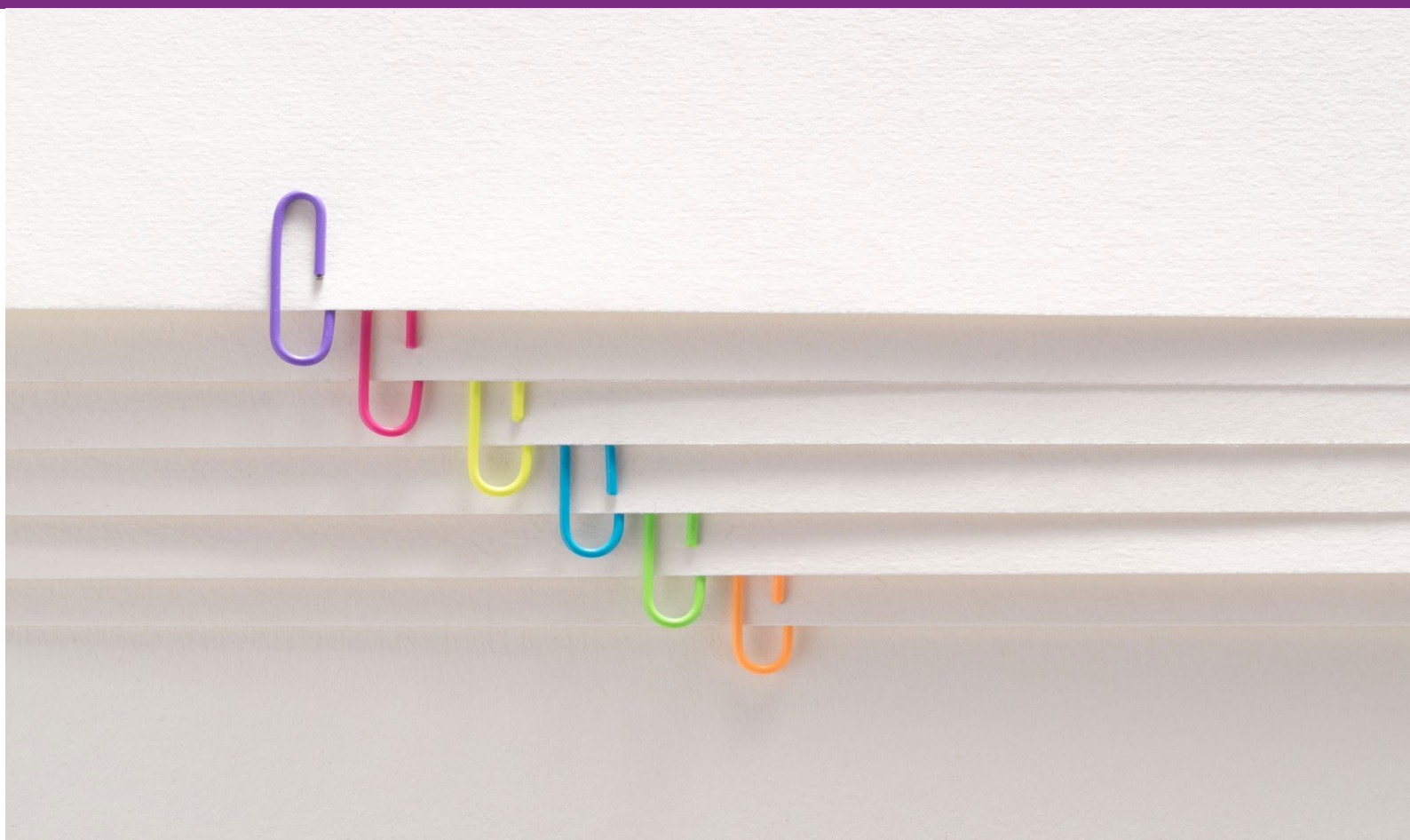
How lifelong learning for doctors is valued, managed and supported in the UK

APPENDICES to research report for the GMC
September 2021

community research

Bringing the voices of communities into the heart of organisations



Appendix A – Literature Review

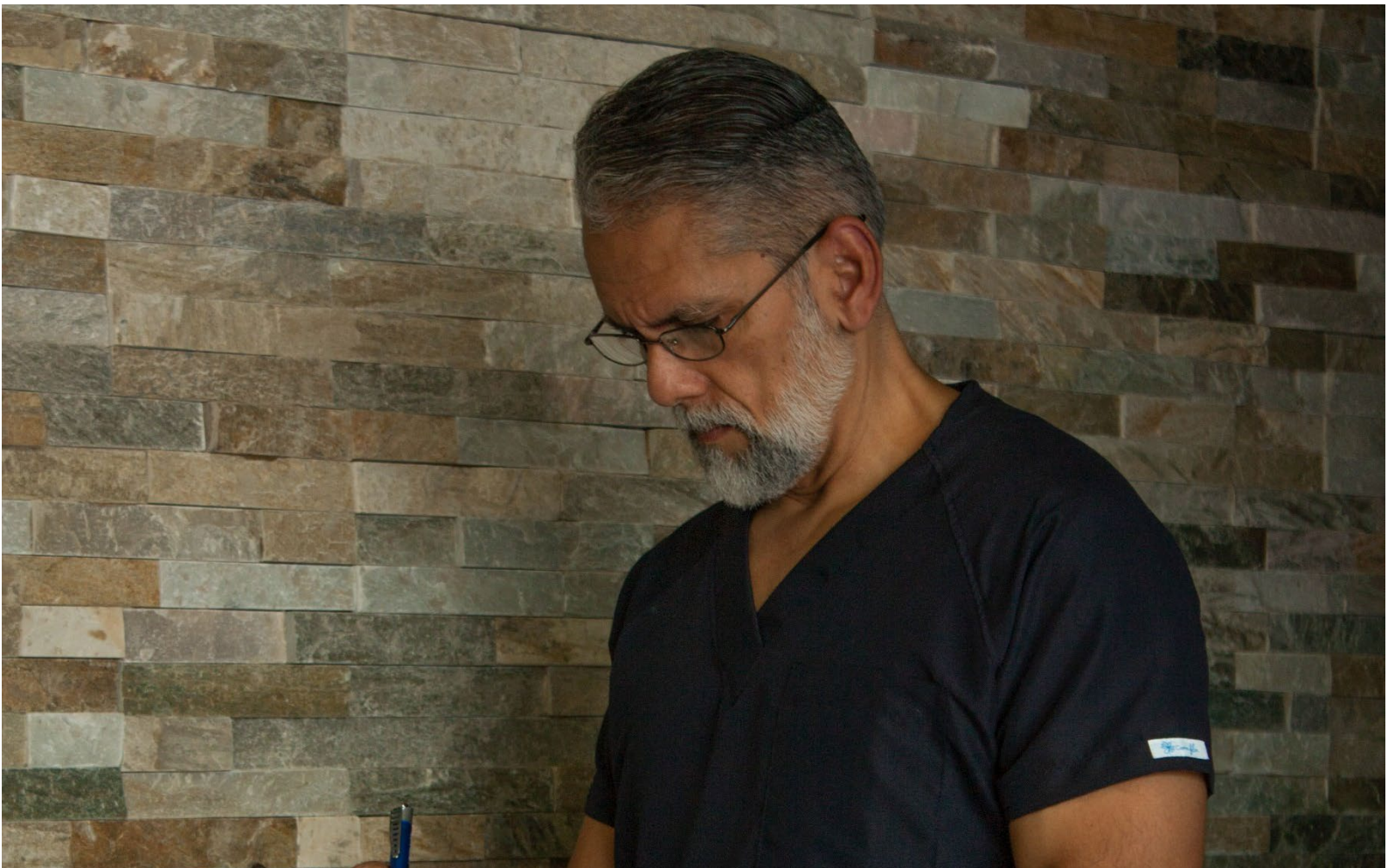
Appendix B - Discussion guide for experts and stakeholders FINAL

Appendix C - Discussion guide for Employers FINAL

Appendix D - Employer sample breakdown

Appendix A - Literature review

How lifelong learning for doctors is valued, managed and supported in the UK
Literature review FINAL
February 2021



Contents

1. Introduction

The purpose of this rapid scoping review is to identify available evidence on employer perspectives of the current situation in relation to lifelong learning for doctors in the UK, and to use this information to inform the development of a programme of qualitative research.

This review was conducted by Community Research's academic partners Dr Jean Ledger and Dr Cecilia Vindrola-Padros, both highly experienced academic researchers, with relevant knowledge and previous track records in health services research.

This short report includes results from searching for peer-reviewed publications on the topic, grey literature and hand searching professional websites, and includes a set of implications for the qualitative research design and future research/analysis. The review was delivered in two phases and was informed by guidance for rapid evidence reviews developed by Tricco et al. (2017).

Following the first phase, there was a meeting with Community Research, the authors of the review and the GMC (January 2021) to ensure the work was delivered in line with the project brief and objectives and manageable within the given timeframe. Following team discussion, it was agreed that the highest priority should be placed on evidence relating to employers rather than individual doctors and other stakeholders. The search was narrowed to address the following questions:

- What is the available evidence on employers' approaches and perspectives towards lifelong learning and Continuing Professional Development (CPD) within the health sector?
- Does this vary according to organisation type or setting?
- What recommendations are there for health systems, regulators and employers (i.e. health care providers) given the research evidence available on this topic?
- What research is available on employer perspectives towards to lifelong learning and CPD within the health professions?
- Is lifelong learning viewed differently from CPD?
- Does this vary between health professions and types of doctors?
- Are there any types of learning or training highly valued amongst doctors depending on their career stage, role and / or learning orientation?
- What types of empirical studies have been conducted on the topic of lifelong learning and CPD in health care (e.g., surveys, interview studies, training evaluations, ethnographies, etc)?
- What general lessons are available from comparable professions?

Given the time limitations (10 days of researcher time was allocated to this exercise), what follows is not intended to be a definitive or systematic review of all the literature and evidence on this topic, and the search has been executed as a narrowly defined piece of scoping work sufficient to the needs of the project.

2. Methodology

2.1 Phase 1 – mapping the field and search strategy design

We ran several exploratory searches in December 2020 using multiple academic databases and online tools (PubMed, TRIP, Google Scholar) using experimental key words, Boolean operators and search strings. The search terms were identified following a set-up meeting with the GMC (December 2020) and review of various documents and resources shared by the GMC afterwards (see Appendix 6.5).

We took a deliberatively exploratory and inclusive approach to the literature during this phase to understand the nature of the topic and the extent of available research evidence and grey literature. We initially had a fairly wide focus, searching from 2000 onwards and reviewing a number of reports and surveys, including those commissioned by the GMC (see appendices 6.1, 6.3 and 6.5). We also reviewed the titles of relevant books related to this topic, although due to time limits, theses, dissertations, books and conference proceedings were excluded from the review. During this stage we also identified additional publications by searching the references lists of select articles and citations on PubMed.

The Phase 1 search led to the drafting of an initial report for Community Research and the GMC and the development of the guiding review questions (outlined in the Introduction) and search strategy to be used in Phase 2 (Appendix 6.1). A meeting with the GMC helped to refine the inclusion and exclusion criteria and ensure that Phase 2 – a more targeted search - was focused on a clear evidence gap; the perspectives of health care employers vis-a-vis Continuing Professional Development (CPD) and lifelong learning. In particular, it had become clear during Phase 1 that the final search would need to address employer processes and perceptions about the value of CPD and lifelong learning – from an organisational vantage point - and not focus on evaluations about the impact of CPD interventions or programmes, or professionals' orientations to learning. Importantly, we decided to keep the search open to other health professionals, in particular the nursing profession, to see if there were any learnings to be garnered from other clinical occupations, and adapted our terms accordingly. We lastly sought to ensure that literature on multi-disciplinary team was identified, not only studies about individual self-directed learning.

2.2 Phase 2 – structured and detailed search

Phase 2 built on the steps taken above and the Phase 1 findings and entailed a carefully structured search of academic databases using Boolean search strings. We again searched for grey literature and professional websites seeking to identify relevant policy reports, non-peer reviewed research, and professional guidance.

The structured search was limited to literature published between 2009-2021 to keep knowledge current and the search manageable in scope. The search was conducted using specific terms focused on health professionals, learning processes (e.g. CPD,

revalidation) and employers (for details of the terms used, see Appendices 6.2 and 6.3). Searches were conducted using the following health care and medical databases from late January-mid February 2021:

- PubMed
- Web of Science
- CINAHL Plus (EBSCO HOST)
- Cochrane Library

Grey literature and additional peer-reviewed papers were searched using the following resources/approaches:

- TRIP – a database
- The Institute of Education Sciences (ERIC) – a database
- OpenGrey – a database
- Handsearching websites (in particular, those of professional societies and Royal Colleges)
- An advanced search of British Medical Journal Open (BMJ)
- Targeted searches on Google Scholar

No relevant studies or resources were identified using OpenGrey or ERIC about CPD and employers. Google Scholar was used throughout both Phases 1 and 2 to see if additional peer-reviewed papers could be identified using different Boolean operators, and a targeted search of BMJ Open on 'life long learning' helped to identify additional articles. In addition, we reviewed the various documents recommended by the GMC.

To refine our results, we applied the following criteria (see Appendix 6.1):

- Relevance to research questions and topic.
- Source credibility (determined by the MMAT for published articles based on primary research and the AACODS1 for grey literature).
- Study designs: systematic, scoping, narrative and other types of literature reviews; primary research studies; secondary data analyses.
- Inclusion of any relevant conceptual / guidance frameworks.
- Published in English.
- Published in the past 12 years (2009 – current).
- Focused on the perspective of the employer / professional associations, and/or with explicit reference to health care providers /settings and their influence on CPD and lifelong learning.

[1] AACODS – Authority, Accuracy, Coverage, Objectivity, Date, Significance. Available at: https://dspace.flinders.edu.au/xmlui/bitstream/handle/2328/3326/AACODS_Checklist.pdf;jsessionid=199CB6BE38AB261996CED35B1358B1C8?sequence=4

To make the search more manageable, we excluded PhD theses, dissertations, books, commentaries and opinion pieces, and conference proceedings. We also excluded papers that were focused on non-health occupations or on medical undergraduate courses and curricula.

The structured search of health care databases in Phase 2 identified 35 relevant peer-reviewed papers and the grey literature search was reduced to relevant 30 articles/reports of potential interest across Phases 1 and 2. These were then narrowed down further to a smaller sample of **18 articles and reports** (Appendix 6.4) plus insights from professional societies and colleges websites, which were reviewed to provide a manageable resource list and inform the qualitative research and design (see Section 4). A more complete list of references is provided in Appendix 6.6.

2.3 Limitations

The review was restricted by resource and time limitations, meaning that only a select number of databases and websites were used available via public access or a Reader Pass for the British Library. This was not a systematic review; therefore, it is possible that certain subject headings, keyword terms and synonyms have been missed, and the review should not be treated as exhaustive.

We also observed that there is a large amount of educational and academic literature about lifelong learning published in books, but we were unable to access and review these within the time available. The review was strengthened by having two reviewers searching for and checking peer-review articles for their relevance and quality and applying critical appraisal tools. However, a tool was not applied for assessing systematic and scoping reviews.

Finally, this review was supported by input from the GMC which helped to ensure its relevance, expedite the identification of key policy reports and refine the parameters of the review. Whilst the context of the Covid-19 pandemic was discussed in an early meeting with the GMC, the researchers noted that it was unlikely that there would be much empirical research about the impact of Covid-19 on health professionals and lifelong learning at this time, although the search was run to the current date to capture any potential publications on this topic.

3. Main findings

3.1 The context

Collins (2009) provides a helpful overview of the genesis of the concept of 'lifelong learning'. Lifelong learning is described as learning that 'involves and engages learners of all ages in acquiring and applying knowledge and skills in the context of authentic, self-directed problems.' The process of lifelong learning is viewed as 'largely self-directed' (p. 617), continuous and typically undertaken with support. The process should be inclusive (i.e., going beyond one's profession) and applied.

Another relevant definition was identified via searching the grey literature and in a WHO / European Observatory on Health Systems and Policies report (Merkur et al. 2008). Whilst this policy report was just of the date range of our structured Phase 2 search (2009-2021), it was felt to be extremely useful to include due to its definition of lifelong learning and focus on doctors, and brief discussion of funding issues (see Section 3.2). In the report, which addresses lifelong learning and revalidation for physicians, lifelong learning is defined as:

> A process involving assessing practice, identifying relevant learning objectives, acquiring skills and knowledge and carrying out assessment. The two main components are the process of keeping up to date through continuing medical education and continuing professional development and then assessing whether this has been successful through various assessment and feedback mechanisms.

However, the report emphasises that the simplest definition focuses on medical and clinical knowledge being updated, whilst noting the possibility to extend the definition further:

> The broader concept of continuing professional development includes continuing medical education along with developing personal, social and managerial skills. (Ibid.)

As will become apparent from the findings below, the majority of the literature on lifelong learning and the health professions appears to centre on continuing medical education (CME) and continuing professional development (CPD) linked to performance, assessment, recertification and revalidation - depending on a country's particular regulatory processes. For example, a small study exploring different approaches across European countries to doctors' recertification defines lifelong learning in relation to the assessment of professional competence, noting that it is viewed as a legal and professional obligation (Sehlbach et al. 2018). Most countries were found to have recertification systems placing emphasis on lifelong learning for doctors:

> To demonstrate their knowledge and engagement in lifelong learning, doctors in most countries must earn credits, for instance by participating in workshops and national or

> international conferences, doing individual reading, teaching, writing scientific articles, spending time as visiting doctor and/or e-learning. (Ibid.)

Related to this description of pluralist activities, Continuing Professional Development (CPD) with regards to doctors is defined as:

> A continuing learning process, outside of formal undergraduate and postgraduate training that helps doctors to maintain and improve their performance. It covers the development of knowledge, skills, attitudes and behaviours across all areas of professional practice. It includes both formal and informal learning activities. (Academy of Royal Medical College, 2019)

As such 'lifelong learning' can have slightly broader meaning when compared to Continuing Professional Development (CPD), yet the two concepts are closely related in practice. Lifelong learning may be discussed in relation to broader themes and skills, but so might CPD. The important point is the focus on learning covering the life course, after formal education. It is perhaps unsurprising then that we found that the term 'lifelong learning' required combining with key words to identify articles of relevance for this review, such as linkage with 'health professionals', 'CPD', 'CME', 'revalidation' and 'employers' (see Phase 2 – Appendix 6.2).

Lastly it should be pointed out that there is plenty of research exploring the orientations of students and doctors to lifelong learning. Babenko et al. (2017), for example, conducted a meta-analysis of studies applying the Jefferson Scale of Physician Lifelong Learning (JeffSPLL) which is an instrument to measure orientations toward lifelong learning among physicians. They found that an orientation to lifelong learning does continue amongst doctors after completion of formal training, although they observed differences between cohorts (e.g. students vs practicing health professionals).

3.2 Findings from the exploratory searches (Phase 1)

Exploratory searches undertaken for Phase 1 identified an extensive literature about CPD applied to different professions such as education, accounting, psychology, nursing, pharmacy, and medicine. A helpful scoping review on CPD by Karas et al. (2020), for example, examines the regulatory requirements for 32 health professions finding variation between them.

Phase 1 searches observed that most articles on CPD and CME were about the content, design and delivery of training, with some reference to funding – such as the extent of self-funding or industry support for doctors' educational activities. Here we highlight some headline findings and associated publications:

- **Content**
  - Training for senior hospital doctors should focus on developing and supporting the system of care; changes in the way medicine is practised; and personal wellbeing and caring for colleagues (Jones and Moss 2019).
  - Many professional organisations maintain the importance of the development of a personal development plan (PDP) as a component of CPD. For example, a scoping review found that PDPs across professions in the UK are not used universally, and, when these are required, they are mainly self-directed and self-evaluated (lacking external evaluation by an appraiser based on agreed standards) (Karas et al. 2020). Reflection mainly focusses on past learning and not on the identification of future learning needs.
- **Delivery mechanisms**
  - Only some regulators have included peer learning as a requirement of CPD, despite the evidence on the benefits of group learning, including learning with members of the MDT (Forsetlund et al. 2009; Sargeant et al. 2018).
  - A review of the lifelong learning programme led by the Royal College of Physicians and Surgeons in Canada showed that self-assessment programmes led by doctors and CPD approaches that include practice assessment strategies could be a good approach moving forward (Campbell et al. 2013).
  - Royal Colleges in Canada have introduced ePortfolios to develop CPD plans, set and track progress of established learning goals, document and reflect on learning activities, and self-manage their learning (Gordon and Campbell 2013).
- **Funding**
  - The majority of CPD attended by clinicians – including nurses - in Australia is self-funded (Katsikitis et al. 2013; Lee et al. 2017). There is lack of clarity in institutional policies regarding external funding support for CPD and CME activities, and available policies from professional organisations about industry support can be weak (Shnier and Lexchin, 2017). Formal education about potential conflict of interest (COI) is lacking and issues are raised about funding from the pharmaceutical industry towards revalidation and educational activities (WHO, 2008). Ethical issues therefore persist, due to industry funding of CPD and CME: there is concern about the perceived influence of commercial enterprises on messages conveyed by professional medical organizations, including those transmitted through CME (European Society of Cardiology Board 2012).

- **Processes used for design**
    - Collaboration (between clinicians, employers and professional organisations) is key to identify the topics that need to be included in the training as well as to ensure the training aims are aligned to those of accrediting and certifying organisations (Carlos et al. 2017).
    - Anticipation of the needs of clinicians should be embedded in the design of CPD.
    - Some of the literature argues in favour of reconceptualising the design of CPD as a team-based exercises vs. an individual one (Sargeant et al. 2018).
- **Markers of success as identified by training programme leaders**
    - Adequate clinical exposure, the presence of strong clinical role models, a good hospital environment, support for the education program from multiple sources, and a dedicated and supportive community of providers (Biringer et al. 2018).

The literature therefore raised a number of points for consideration, such as:

- The value of collaboration between direct employers, professional associations and clinicians in the design and implementation of CPD. (e.g. how is this carried out in practice?)
- Variations in approaches across different health professions and regulatory agencies, as well as internationally.
- The assumption that CPD and Personal Development Plans (PDPs) are interrelated, although this is not necessarily the case in practice.
- Concern about funding for CPD (is this self-funded and, if it is funded by external parties, what is their role and potential ethical dilemmas?)
- Different approaches to CPD, notably: CPD as a form of personal/career development; as a process to comply with Trust/hospital standards; as a checklist for revalidation / certification.
    - In the UK, a close relationship between CPD activity, annual appraisal, supporting information (SI) and revalidation was identified. For example, there are concerns that revalidation risks professional development becoming heavily focused on a documentary process rather than professional or reflective practice.
- Evidence about CPD, Continuing Medical Education (CME) and revalidation influencing professional behaviour change, although this depends on the type of learning activities undertaken, individual orientations to learning and other factors (e.g. professional / Responsible Officer support, organisational setting and approaches).
- More recently, the disruptive impact of the Covid-19 pandemic on learning opportunities, especially for trainees and GPs. It is, therefore, critical not to see doctors as a homogenous group given the varied impact of the pandemic and policies on different groups (e.g. doctors from minority ethnic groups, locums, trainees vs non-trainees, generalists vs specialists).

3.3 Findings from the peer-reviewed literature (Phase 2)

In Phase 2, we targeted our search much more explicitly on health care employers and lifelong learning and CPD. Most of the research on CPD, Continuing Education (CE), lifelong learning and CME has, however, focused on evaluating the impact of these types of ongoing training programmes on the knowledge, confidence and attitudes of healthcare professionals, or is linked to undergraduate education or assessment. Previous studies have explored different pedagogical approaches to the delivery of training as well as different formats for instruction and learning. Studies have identified the benefits and limitations of learning programmes using simulations, task-based learning, problem-oriented learning or a combination of these (Grant 2017). Formats have also varied to include face to face training, online, hybrid models (combining face to face and online) and training combining short practice-based sessions or placements (George et al. 2019). Studies are often quantitative, assessing knowledge, confidence and attitudes based on pre-established scales and outcomes (Allen et al. 2019).

The literature described so far has mainly focused on exploring continuous learning from the point of view of healthcare professionals; again, this limits the evidence available on the design and delivery of CPD from the point of view of *employers* and those organisations in charge of appraisal and revalidation (the focus of this targeted review).

The role of employers in CPD, CE, lifelong learning and CME

A few papers have discussed the role employers *should* play in CPD and other forms of lifelong learning, arguing that clinicians will tend to engage actively with this type of learning if employers are able to create a culture of continuous improvement that considers training as a key component of this improvement (Carlos et al. 2017; Sargeant et al. 2018). The development of this culture will be determined by the employer's ability to establish the following processes:

- **Recruitment**: CPD needs to be included as part of the recruitment process, from the inclusion of CPD in job adverts to the discussion of CPD during job interviews (Gdadamosi and Evans 2009). A study on employment advertisement and CPD found that CPD is seldom included in adverts and this has a negative impact on the quality of job candidates (Ibid.) Expectations in relation to CPD should be discussed as soon as clinicians begin their employment.
- **Appraisal**: appraisal mechanisms need to link individual interests with business needs. CPD needs to be considered as a continuous exercise and not as a checklist that needs to be completed for appraisals and revalidation. This is the reason why several countries have opted for the integration of personal development plans (PDPs) as a component of CPD (Karas et al. 2020). A recent review of PDPs in the UK, however, found that reflection focuses mainly on past learning and not on the identification of future learning needs (Karas et al. 2020).
- **A shared responsibility**: a recurrent argument made in the published literature is that the responsibility for CPD should be shared between employers and

clinicians. A study on the management of CPD with nursing staff in Australia indicated that a shared responsibility over CPD entails developing a supportive management culture (recognising the value of new skills and knowledge) as well as establishing protected time and funding for CPD and CE (Katsikitis et al. 2013):

- **Protected time**: realistic resourcing in terms of time needs to be established for CPD and support for CPD provided through active mentoring and coaching. A study with nursing staff from Japan highlighted that employers should consider establishing protected time to allow staff to actively engage with CPD (Mizuno-Lewis et al. 2014).
- **Funding**: clear policies regarding the responsibility of employers in relation to the funding of CPD need to be established (Sargeant et al. 2018). This refers to funding for actual training as well as covering the time of staff members so they can undergo training. Some studies have noted that understaffing is linked to a reduction in engagement with CPD. The international literature further indicates a preponderance of doctors' self-funding CPD and CME activities alongside institutional funding (Venkataraman et al. 2014). Debate about the impact of industry sponsorship and funding of doctors' training - and the risk of bias - continue in the medical literature; professional societies are encouraged to promote stronger guidelines which should be of interest to employers (Shnier and Lexchin, 2017).

Issues for employers to consider regarding CPD, CE, CME, CBME and lifelong learning design

Recent studies have argued that employers will need to consider strategies for professional lifelong learning that take the following factors into consideration:

- **Variability** in terms of length of training, offering short-term and long-term educational interventions (Biringer et al. 2018).
- CPD programmes grounded in the everyday workplace
- Training based on **peer learning** (Forsetlund et al. 2009).
- Training delivered for members of the **multi-disciplinary team (MDT)** (contra individuals) (Sargeant et al. 2018; Waldron et al. 2012).
- CPD and lifelong learning programmes led by clinicians through **e-portals** where they can establish their goals or PDP and track progress (Craig et al. 2013; Gordon and Campbell 2013). In a study on the use of e-portals in Canada, Gordon and Campell (2013: 1) identified the following points for practice:

  > ePortfolios support lifelong learning across the continuum of education from residency to retirement; ePortfolios can support reflection, assessment, and the management of learning; the design and functionality of ePortfolios may vary based on needs and goals, but must be learner-centered; technology standards have facilitated interoperability, data transfer, and reporting.

- Several studies have pointed to the importance of **empowering clinicians** to lead their own CPD, but have also pointed to the fact that not all clinicians will

have the resources to do so (concerns were expressed in relation to locums, those working in night shifts or working in private practice) (Tazzyman et al. 2019).
- CPD that can integrate **wellbeing support** for themselves and for colleagues (Jones and Moss 2019).
- **Competency-based medical education** (CBME) or **Competency-based education (CBE)** as a specific extension to CPD (Lockyer et al. 2017; Glover et al. 2017). This is an approach whereby:
- Education is based on the health needs of the populations served.
- The primary focus of education and training is on the desired outcomes for learners rather than the structure and process of the educational system.
- The formation of a physician or health professional is viewed as a continuous progression of expertise and seamless across the continuum of education and practice.
- There is recognition that competence changes over time and is influenced by professional experience and context.

As such, Lockyer et al. 2017 observe that the implications for health care employers and regulators of a competency model is that 'attention will have to be paid to the development and training of personnel who can work with physician groups to provide data on a regular basis that is related to meaningful clinical work' (Ibid. p. 621).

3.4 Insights from the grey literature and professional associations

The GMC sets out professional and generic principles regarding lifelong learning in specific guidance, *Continuing professional development: Guidance for all doctors*.[2] The guidance is predominantly aimed at doctors but may also be used by employers.

The websites of a number of Royal Colleges, professional societies and health care arm's length bodies were hand-searched for relevant guidance and reports on CPD, training and lifelong learning, in addition to reviewing documents provided by the GMC. These were:

- Health Education England (HEE)
- NHS Employers and NHS Providers
- Academy of Medical Royal Colleges (AMRC)
- British Medical Association (BMA)
- Royal College of GPs (RCGP)
- Royal College of Nursing (RCN)
- Royal College of Surgeons (RCS)
- Faculty of Medical Leadership and Management
- Nursing and Midwifery Council (NMC)

[2] www.gmc-uk.org/-/media/documents/cpd-guidance-for-all-doctors-0316_pdf-56438625.pdf

NHS Employers and NHS Providers had very limited information and, in general, the most detailed guidance is provided by the royal societies/colleges and is focused on providing resources to individual health care professionals. The Royal Colleges generally direct doctors to the GMC's own guidance on CPD, revalidation and appraisal, and the Good Medical Practice (2013). Tailored materials on websites include guidance about preparing for revalidation and appraisals and information about CPD for the different specialities. Nonetheless, recommendations are aimed at employers and contractors of doctors and employers are clearly encouraged to support doctors' learning and CPD needs, even if ultimate responsibility lies with the individual doctor to meet their personal learning requirements.

The AMRC, for example, underscores employers' responsibilities to doctors in the following statement:

> All employers and contractors of doctors' services have a responsibility to ensure that their entire medical workforce is competent, up to date and able to meet the needs of the service; they must facilitate access to adequate resources to allow staff to develop, including time. Employers and contractors should plan and coordinate the CPD needs of their staff and monitor the effectiveness of their doctors' CPD activities. All doctors, including Specialty doctors, Associate Specialists, Staff and Trust doctors follow the same CPD guidelines and should therefore have equal access to protected time for internal and external CPD, funding and study leave. Doctors who work less than full-time are still required to achieve the same balance and coverage/standards of CPD as full-time doctors, so require the same access to funding and study leave (AMRC, Core Principles of CPD, 2016)

The British Medical Association (BMA) has a page dedicated to 'Supporting professional activities (SPA)' which briefly discusses how time should be protected as part of a job planning process and in employment contracts. Relevant CPD learning activities include teaching and training, audit, contribution to service management and planning and the work required for appraisal and revalidation (BMA, Pay and Contracts page, accessed February 2021).

A guide on CPD for surgeons covering the UK (FSSA, RCS - Continuing Professional Development: A Summary Guide for Surgery, 2014) reinforces that employers and contractors (including locum agencies) need to support doctors and, again, ensure the health workforce is competent, stressing employers' responsibility for all types of doctors: trainees, locums, consultants, speciality or associate specialist (SAS) doctors, and sessional general practitioners (GPs). Organisational processes for providing assurance are having Professional Development plans in place, monitoring CPD activities and the wider appraisal system.

The RCGP also recognises a breadth of learning activities to support appraisal and revalidation, highlighting learning processes for doctors that include Continuing professional development (CPD) activities and also: Quality improvement activities (QIA); learning from Significant events (SE); reflective practice; reviewing feedback

from patients and colleagues; reviewing compliments and complaints (RCGP - Guide to supporting information for appraisal and revalidation: accessed, February 2021).

In terms of funding at the employment level, it was difficult to identify detailed information. Health Education England (HEE) states that it is not permitted to fund "basic CPD" such as mandatory training or to maintain professional registration, thus there is an expectation on employers to support staff through funds provided by government (HEE website, accessed February 2021). A policy report from the RCN (2018) includes a call for more support for nurses and their CPD activities to help put the health care workforce on an equal footing with doctors who have protected learning time. A guidance document from HEE on Medical Associate Practitioners (MAPs) strongly recommended they are supported with CPD and learning by their employers (HEE, 2019). The Nursing and Midwifery Council recommends the use of reflection as part of CPD, but does not include the development of Personal Development Plans (PDPs).

The 2008 WHO report discussed earlier (Merkur et al. 2008), which provided background context to the topic, recommends that policy makers 'consider how to fund lifelong learning' given that many countries report issues around supporting education and CPD and the most common sources for funding are professional bodies, government, industry or individual doctors. A section on the 'role of medical regulatory bodies' compares nations across Europe and notes the impact of different system models on medical education (e.g., doctors contracted by social health insurers in Germany may have different access to funds).

Finally, searching via the Faculty of Medical Leadership and Management led to the discovery of a report from a research study conducted by the King's Fund (King's Fund, 2013) on the perspectives of Responsible Officers (ROs) who oversee revalidation in the UK. Whilst findings need to be interpreted with much caution as this was a small-scale study of one region, carried out during the early phase of revalidation, issues were raised about a perceived lack of organisational support/investment in revalidation processes by organisations; for example, views were favourable where ROs were working in organisation with better IT systems and advanced processes to support revalidation (p. 7).

4. Implications for qualitative research

Given the findings from the literature above, interviews could be used to delve into themes and areas where there are gaps in the literature. Indeed, the evidence base on employers' perspectives or the health care manager/director view on CPD and lifelong learning was lacking which suggests that there is an evidence gap that can be usefully filled by primary research. Interviews could consider:

- The views of employers on CPD and lifelong learning, with questions about:
    - Protected time (how they ensure / protect this);
    - Funding sources (including monitoring of any COI) ;
    - CPD within the recruitment and employment process;
    - Any discussions regarding shifts towards competency-based models for CPD;
    - Employer expectations of CPD vs. medical staff/workforce expectations;
    - Variations across health professionals (e.g. doctors, nurses, AHPs) in attitudes and approaches to lifelong learning and CPD and how these are accommodated;
    - Organisational / local system investment in eportals and technology to support and monitor lifelong learning and CPD within the medical workforce;
    - Team-based CPD activities and peer learning, including those targeting multi-disciplinary teams involving doctors.

In terms of sampling, the review suggests advantages to:

- Capturing views across different health care settings (e.g. general practice and community, specialist / tertiary care, secondary care, independent and NHS – if feasible).
- Engaging with the GMC's Employer Liaison Service and Responsible Officers which act as a point of contact between employers/organisations and the medical regulator.
- Speaking with NHS HR directors / senior workforce development leads.
- Potentially speaking with educational leads in a sub-group of professional societies to better understand what they expect from employers for different types of doctors (e.g. RCS, RCGP), with a comparison to another clinical health profession (e.g. RCN) or discussion with Health Education England. The focus could be on employers (e.g. examples of good practice to support lifelong learning) and funding models to support work based learning.

5. Conclusions and recommendations

Overall, the literature supports the development of CPD and lifelong learning programmes that:

- Offer varied short- and long-term educational interventions that are appropriate to meeting identified needs;
- Are grounded in the everyday workplace;
- Are integrated into the health care system and supported by it;
- Are oriented to patient and clinical outcomes;
- Are guided by multiple sources of performance and outcome data;
- Are team-based;
- Employ the principles and strategies of Quality Improvement, and
- Are taken on as a responsibility by physicians, CPD provider organisations, regulators and the health system (Sargeant et al. 2018).

As previously mentioned, there is a lack of published empirical research and studies of CPD and lifelong learning from the perspectives of employers, compared to the study of interventions on the impact of CPD on professionals. The results of this scoping literature search suggest the following implications for research, policy and practice to address knowledge gaps:

- More analysis of lifelong learning programmes that have shifted from individual to MDT models to determine their impact on routine practice.
- Exploration of the variability of learning experiences to determine different training responsibilities of employers based on the type of employee (due to the findings that some clinicians might not have the same type of access).
- Exploration of lifelong learning models that have sought to empower clinicians to lead their own training and the impact of this on the culture of their own employing organisation.
- Analysis of partnerships created between professional organisations or societies and employing organisations to deliver and evaluate CPD.
- Analysis of whether there are any digital innovations and/or novel organisational tools used by employers to better support doctors and the wider health care workforce to achieve their learning and CPD objectives.

6. Appendices

6.1 Search design and process

Research question(s) / themes to be addressed

• What is the available evidence on employers' approaches and perspectives towards lifelong learning and CPD within the health sector?
  ◦ Does this vary according to organisation type or setting?
• What recommendations are there for health systems, regulators and employers (i.e. health care providers) given the research evidence available on this topic?
• What research is available on perspectives towards to lifelong learning and CPD within the health professions?
  ◦ Is lifelong learning viewed differently from CPD?
  ◦ Does this vary between health professions and types of doctors?
  ◦ Are there any types of learning or training highly valued amongst doctors depending on their career stage, role and / or learning orientation?
• What types of empirical studies have been conducted on the topic of lifelong learning and CPD in health care (e.g., surveys, interview studies, training evaluations, ethnographies, etc)
• What general lessons are available from comparable professions?

Inclusion and/or exclusion criteria
Exclusion criteria: • Commentaries and opinion pieces, including blogs • Theses and dissertations • Books • Study protocols • Conference proceedings • Farming / agriculture - any non-relevant, non-health professions or occupations • Studies solely focused on undergraduate medical courses and curricula Inclusion criteria: • International literature, but limit to English language publications. • Systematic, scoping, narrative and other literature reviews; primary research studies; secondary analyses; relevant regulatory and/or professional guidance • Relevant conceptual frameworks • Timespan: literature from the last 12 years (Note: 5 years was initially suggested but this was too short given research knowledge can take up to 10 – 15 years to enter the field and the limited research available). • Regulated health care professions

Search and review process to be executed (rapid review)

- Key words strategy and Boolean search strings developed (Phase 1)
- Searches across specified databases – both exploratory and structured (Phases 1 and 2)
- Search grey literature and relevant websites (Phases 1 and 2)
- Two reviewers critically appraise and discuss findings
- Thematic organization of findings
- Report writing (draft)
- Feedback
- Additional searches / validation (if required)
- Final report submitted

Search sources and databases

1. Peer-reviewed, published articles [health and medical databases]:
- PubMed
- Web of Science
- CINAHL Plus (EBSCO HOST)
- Cochrane Library
- BMJ Open

2. Grey literature
- Open Grey
- TRIP
- ERIC
- Google Scholar
- Select websites (professional societies/colleges and health bodies)

Appraisal process (quality assessment and prioritization)

- Relevance to research questions and topic
- Source credibility (e.g. peer reviewed/ organizational reputation/ research quality)

Critical appraisal questions:
- Is it of interest and relevant to the wider study objectives?
- How was the study conducted (methods)? What was the nature of the intervention?
- What was found?
- What are the implications for doctors and employers?
- What else might be of interest for the GMC from this paper/report/output?

Critical appraisal tools:
- MMAT – Mixed Methods Appraisal Tool
- AACODS – Authority, Accuracy, Coverage, Objectivity, Date, Significance.

6.2 Structured search terms and strings – health care databases (Phase 2)

("doctor s"[All Fields] OR "doctoral"[All Fields] OR "doctoring"[All Fields] OR "physicians"[MeSH Terms] OR "physicians"[All Fields] OR "doctor"[All Fields] OR "doctors"[All Fields] OR "physician associates" [All Fields] OR "nurse's"[All Fields] OR "nurses"[MeSH Terms] OR "nurses"[All Fields] OR "nurse"[All Fields] OR "nurses's"[All Fields] OR nursing [All Fields] OR "healthcare workers"[All Fields] OR "healthcare professionals"[All Fields])

AND ("revalidate"[All Fields] OR "revalidated"[All Fields] OR "revalidating"[All Fields] OR "revalidation"[All Fields] OR "revalidations"[All Fields] OR "appraisal"[All Fields] OR "appraisals"[All Fields] OR "appraise"[All Fields] OR "appraised"[All Fields] OR "appraiser"[All Fields] OR "appraisers"[All Fields] OR "appraises"[All Fields] OR "appraising"[All Fields] AND ("CPD"[All Fields] OR "life long learning"[All Fields] OR "continuing professional development"[All Fields] OR "continuing medical education"[All Fields] OR "competency-based education"[All Fields] OR CME [All Fields] OR "continuing education" [All Fields] OR CE [All Fields])

AND ("royal college" OR professional[All Fields] AND ("association"[MeSH Terms] OR association[Text Word]) OR "societies"[MeSH Terms] OR society[Text Word] OR employer OR employee OR hospital OR Trust OR funding OR commissioning)

Supplementary search (PubMed only)

((CME[Title/Abstract] OR CPD[Title/Abstract] OR 'lifelong learning'[Title/Abstract]) AND (industry[Title/Abstract] OR Pharma*[Title/Abstract])) AND (funding[Title/Abstract])

6.3 Other online resources - key word searches and strings

Google scholar

- profession AND CPD OR CME OR reflect* OR train* OR 'career development'
- career AND CPD OR CME OR reflect* OR train* OR 'career development'
- career OR profession and lifelong learning
- CPD or lifelong learning and employers
- CPD or lifelong learning and employers and human resources
- Medical revalidation or CPD and literature review
- Impact and Continuing Professional Development (CPD) and medical performance and reviews
- (doctor or nurse or 'health professional') AND employer AND (CPD OR CME OR lifelong learning OR revalidation OR appraisal)

TRIP (Basic Version):

- 'profession and CPD'
- 'profession and lifelong learning'
- 'doctors and lifelong learning'
- (title:health professional or health worker)(title:CPD or CME or CBME)(learning)
- (title:doctor or nurse or health professional or health worker)(title:CPD OR CME OR revalidation OR appraisal OR 'lifelong learning') AND (employer OR contract OR funder OR manag* OR director)

BMJ Open

- 'Lifelong learning' OR 'life long learning'

ERIC

- "lifelong learning" AND "health professional"

6.4 Selection of recommended peer-reviewed papers/grey literature

No.	Authors and date	Scope	Recommendations for health care employers	Type of publication
1	Merkur et al. (2008)	Lifelong learning, doctors, revalidation	Compares nations across Europe. Raises issue of pharmaceutical industry funding CPD and performance and assessment activities undertaken by doctors. Considerable variation found across countries. Lifelong learning associated chiefly with clinical and medical knowledge.	Policy report
2	Gordon and Campbell (2013)	CPD, lifelong learning ePortfolios, doctors, Canada	ePortfolios for the management of lifelong learning allow physicians to set and track progress of established learning goals, document and reflect on learning activities, and create the foundation for them to manage their learning	Published article
3	Katsikitis et al. (2013)	CPD, nurses, Australia	This study highlights the importance of supportive management in encouraging their workforce to embrace ongoing learning and change.	Published article
4	Mizuno-Lewis et al. (2014)	CPD, CE, occupational nurses, Japan, barriers	Nursing organizations must provide expert oversight to ensure the quality of continuing education offerings. It may be easier for nurses to conduct research if their working environments provide increased time for CE and CPD.	Published article
5	Waldron et al. (2012)	CPD, EU, MDT	The study supports a standardised, accredited approach to training and CPD of the MDT and for individual professions and has developed a standardised curriculum.	Published article
6	Tazzyman et al. (2019)	Revalidation, doctors, UK	No direct recommendations	Published article
7	Karas et al. (2020)	CPD, UK, regulator requirements	It has been suggested that modes of training that involve group or peer learning are more effective at influencing practitioner behaviour and this type of learning can encompass a wide range of activities beyond the lecture room, such as learning with peers in the workplace.	Published article

8	Forsetlund, et al. (2009)	CE	Strategies to increase attendance at educational meetings, using mixed interactive and didactic formats, and focusing on outcomes that are likely to be perceived as serious may increase the effectiveness of educational meetings.	Published article
9	Jones and Moss (2019)	CPD, UK, doctors	Doctors need to be adept at working with the system changes required for translation of research into practice, the development of new ways of working, and for the organisational changes that underpin continual quality and safety improvement.	Published article
10	Sargeant et al. (2018)	CPD, CBME, QI	The future CPD system should adhere to the following principles: it should be grounded in the everyday workplace, integrated into the health care system, oriented to patient outcomes, guided by multiple sources of performance and outcome data, and team-based; it should employ the principles and strategies of QI, and should be taken on as a collective responsibility by physicians, CPD provider organisations, regulators and the health system.	Published article
11	Jeong et al., (2018)	CDP, doctors, Canada	No specific recommendations. Reviews barriers and facilitators to self-directed learning in CPD by physicians. The highest number of barriers are to do with the environmental context and resources, e.g. time constraints, cost, limited access to useful tools etc. Barriers should be considered at different levels (e.g. individual, technological, environmental, organizational/workplace).	Published article
12	Lockyer et al. (2017)	CBME, CPD, doctors, workplace learning	Roles needed to work with physician groups and provide data to support CBME-CPD. Medical regulators and professional colleges will need to review and revise their expectations for planning, demonstrating, and reporting on CPD outcomes to accommodate a CBME-CPD	Published article

			framework. This framework promotes assessment of competence and performance in the workplace using data, to evidence physician effectiveness.	
13	Manley et al. (2018)	Health care practitioners, CPD	Aimed to identify strategies for effective CPD. Focus on team approach to develop skills and competences and team effectiveness – not only individuals. Workplace culture and values shapes context for CPD. Organisations should value work based learning and development.	Published article
14	Babenko et al. (2017)	Doctors in training and practicing, international	No recommendations for employers. However, this group-level meta-analysis suggests that the orientation toward lifelong learning is higher for practicing health professionals than trainees. Health professionals are likely to be highly motivated learners, following their formal education.	Published article
15	RCN (2018)	CPD, nurses, UK	Nurses in independent and care home settings most likely to complete CPD in their own time. Inconsistencies in funding for nurses based in General Practice. Variation across devolved nations, independent / public sector and settings. Health Education England funding cuts reported for CPD. UK health employers need to recognise the value of CPD, ensure access to CPD due to impact on revalidation. Comparison made to doctors: nurses should also have protected CPD time guaranteed. This should be the same for all members of health care teams.	Policy report
16	Health Education England (2019)	CPD, Medical Associate Practitioners, UK	Report seeks to establish common standards for CPD, assessment and appraisal for Medical Associate Practitioners (MAPs), e.g. Physician Associates (PAs) and Anaesthesia Associates (AAs). Employers must ensure that the MAP workforce is competent and opportunities for CPD, assessment and appraisal to	Framework for Medical Associate Professionals

			assure patient safety. Employers need to provide financial support and study leave for external activity (e.g. education and training led by Medical Royal Colleges, Faculties etc., and agreed via the appraisal process and personal development planning - PDP).	
17	UK Medical Revalidation Evaluation coLLAboration (UMbRELLA) (2018)	Revalidation, UK, doctors	Highlights role of the responsible officer (RO) and employer liaison service (ELS). Variations in employers' approaches to revalidation – risks being a documentary process focused on task completion, not change to professional practice. Recommendation: Potential to link CPD to QI. Not a 'tick box' exercise. Support locums who may have issues with completing annual appraisal.	Report
18	Glover et al. (2017)	Health professionals and competence life-cycle: risks and supports	Most literature focuses on doctors/physicians. Continuing education participation and educational information/programmes a support mechanism. Focus on competency based education (CBE) which is orientated towards outcomes.	Scoping review

6.5 GMC recommended documents and reports

The table below summarises observations from review of reports recommended by the GMC.

Source / author(s)	Background and scope / observations
GMC: The reflective practitioner - guidance for doctors and medical students	Encourages reflection as part of professional practice and development; contribution to patient care and service improvement.
GMC: Generic Capabilities Framework (2017)	Sets out core expectations for professional behaviour and practices, addressing variation in postgraduate medical education and curricula. Addresses core domains and on from *The Shape of Training Review* (2013).
The State of Medical Education and Practice (SoMEP) *Barometer* - (online) survey 2019 Commissioned by the GMC (n=3,590, 12% response rate). New baseline questions to track trends going forwards.	Survey of the medical profession across specialities. Finds limited time for reflective practice, mentoring, safeguarding meetings and CPD, informal workplace learning (sharing expertise and ideas with colleagues). Activity / CPD difficult for GPs (due to workloads). Issues around working beyond contracted hours.
GMC: The state of medical education and practice in the UK (2020)	Report accounting for the impact of the Covid-19 pandemic on the profession. Impact of pandemic on medical education (especially trainees and FY1). Inequalities for black, minority and ethnic doctors (BME). Reduced opportunities for training and learning opportunities (doctors concerned about this). Heterogenous experiences of doctors. Revalidation dates moved for one year.
Survey of specialty and associate specialist (SAS) and locally employed (LE) doctors: initial findings report (2019) N= 6,400	Not all licensed doctors are on a trainee scheme to be a specialist or GP, or in a GP or consultant post (approx.. 47,000 in the UK): some are very experienced and some are newly qualified and likely to change employers more frequently. Activity reported in training and CPD (e.g. teaching, audit and clinical governance), but some may have difficulties in accessing it - around 40%. This may be linked to lack of funding or available support if not on a trainee scheme. This group often play an important role in the training and education of other doctors and medical students.

National training survey (2020) – shorter, targeted survey compared to recent years due to the pandemic. N= 38,000 doctors in training and trainers	Annual survey of trainee doctors and trainers in the UK. Shift to training delivered virtually. Longer term implications of disruptions for the 2020-21 student cohorts (FY1 and postgraduates). Reduced learning opportunities.
GMC: CPD: the international perspective (Murgatroyd, G.B.)	Review providing an international and comparative perspective of continuing professional development (CPD) programmes and requirements for doctors looking at over 30 different countries. Consequences for non-compliance with CPD vary internationally (e.g. license to practice revoked). CPD may be voluntary or compulsory depending on regulatory system. Some systems link CPD compliance to higher payments / fees (both voluntary and compulsory). Oversight varies (e.g. auditing CPD, reliance on submission of evidence of CPD and CME activities).
Sir Keith Pearson review of medical revalidation (January 2017)	Review into the evidence on the impact of revalidation in the UK. Recommendations for health care organisations (therefore relevant to employers): • Work with local patient groups • Improve the quality and consistency of appraisals • Better IT systems or investment in administrative support teams to support doctors (e.g. with Supporting Information) • Ensure quality assurance of local appraisal and revalidation decisions. • Revalidation NOT a lever to achieve local objectives above / beyond the GMC's requirements. • (Trust) Boards to engage with learning coming from revalidation – e.g. in relation to safety and quality assurance for patients

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Appendix B - Discussion guide for experts and stakeholders FINAL

Objectives
This research aims to help the General Medical Council to understand the way lifelong learning including Continuous Professional Development (CPD) for doctors in the UK is valued, managed and supported by those directly involved: employers of doctors; those who contract doctors' services and self-employed doctors.

We are interested in understanding the details of the processes used, for example to prioritise, provide access, and fund/commission lifelong learning for different groups of doctors across the UK. We also would like to understand key stakeholders' perspectives on the value of lifelong learning and how well in their perspective the current situation works.

We would be interested in understanding whether anything in the UK has changed in the approach to lifelong learning as a result of the response to COVID-19.

Approach
15 x depth interviews held with a range of experts/stakeholders.

This is a semi-structured guide, as such these questions are designed more as prompts than to be read out verbatim. The conversation will be guided by individual responses; it is therefore likely that the conversation will differ for each interview and may be conducted in a different order to that shown.

Prior to the interview, participants will be sent a consent form outlining the research and how it will be used.

Outline discussion guide for experts and stakeholders	
Introduction	• Introduce self and Community Research. • Explain the purpose of the interview briefly. • Obtain permission for audio recording, check consent has been received. • Explain analysis and reporting process (that a research report will be produced and published based on all interviews and that organisations/individuals will not be named without their explicit permission).

Career & recent history	• Participant to provide brief introduction.
	  • Stakeholders: List current roles and how they are connected/involved with lifelong learning for doctors. Note – participants likely to have a number of 'hats'.
	  • Experts: An overview of their work in medical education, revalidation and doctors' lifelong learning. Note whether this has involved undergraduates, doctors in training or experienced doctors across their career.

Value placed on lifelong learning	For this study we are interested in lifelong learning, which is a broad concept and covers the learning a doctor undertakes throughout their career. This is often discussed in relation to Continuing Medical Education or Continuing Professional Development – terms that are sometimes use synonymously.
	• What is your understanding of these different terms? Do you have a preferred definition of 'lifelong learning'?
	• Do you see lifelong learning as different from CPD or CME? If so, how? Is this distinction important for discussing educational and training approaches for doctors?
	• To what extent do you think lifelong learning for doctors is valued by health care stakeholders, *including your own organisation*? And explore reasons for why this is before moving on and exploring perceptions of the value placed on lifelong learning by:
	  • By doctors during different stages of their careers?
	  • By the different professional bodies?
	  • By employers – e.g., NHS Trusts or independent health care providers?
	  • By health care regulators?
	• Are there particular learning domains or topics that are most valued when it comes to lifelong learning for doctors?
	  • Does this differ for doctors versus employers? Why is this?
	• For example, as well as keeping clinical knowledge up to date, in what other areas do doctors tend to seek learning areas as they progress with their careers in your view? Probe for:
	  • Leadership or management

	• Continuous quality improvement • Patient safety • Research or audit • Medical education and pedagogy • Communication skills • When thinking about lifelong learning for doctors, would you distinguish between informal and formal learning requirements, such as mandatory training like safeguarding? (Note that the GMC is interested in both) • How and why are do you view these differently? • Is lifelong learning for doctors viewed/valued differently to lifelong learning for other health professionals? E.g., does clinical knowledge tend to take precedence for doctors?
What works well/what works less well	We would like to understand lifelong learning at three different levels - at a wider/overall system level, at an employer level and at an individual (doctor) level. **Structural/System level** • *<u>What are your main observations of the support and processes currently in place for lifelong learning for doctors at the broadest/system level i.e., think about the general approach to lifelong learning in the UK?</u>* • How would you describe the system/current approach to lifelong learning? • What do you see as the main positives associated with current approaches to lifelong learning in the UK? • Probe for any differences by setting • Probe for any observations about how the UK compares to other countries in its approach. • If lifelong learning is not working as well as it could what do you see as the main issues? • Does the level of support vary depending on the type of doctor you are – e.g., GP or hospital-based consultant? • Are there any gaps at a system level or issues for specific types of doctors? (e.g., with protected characteristics, IMG's etc. or specialisms?) • Do you think that the current approach to lifelong learning ensures that doctors have the right skillset at the right stage of career? • Who do you see has responsibility for / accountability of lifelong learning at a system level? • Explore where they see it currently sitting / where they think it should sit. **Employer level**

- *What are your perceptions about how health care employers who contract doctors promote and support lifelong learning at the local level?*
  - In your view, how do employers help doctors to access and engage in lifelong learning? If not mentioned, prompt:
    - Providing courses/training
    - Protected time
    - Funding
    - Job planning
    - Use of e-portfolios and technology to support learning
    - Peer learning
  - What support or guidance (if any) does your organisation provide to employers in relation to lifelong learning
    - Including if they collaborate with employers in any way e.g., in designing CPD
  - Are there forms of learning that you think should be prioritised for doctors at an organisational level by their employers? E.g. informal and formal learning opportunities? [Other prompts]:
    - Multidisciplinary team-based learning
    - Competency based learning
    - Reflective practice
    - Co-design and collaborative approaches
  - Who tends to hold accountability/responsibility within health care organisations for lifelong learning? How does this work in practice? Does it vary across settings and organisations?
    - Probe for specific job titles is possible (to help inform research with employers)
  - How is protected learning time implemented by employers?
  - How is learning funded locally? What are the different sources? Is there monitoring for any conflict of interest – if so, how are conflicts managed if they arise?
  - How do employers manage expectations around CPD and lifelong learning during the recruitment and employment process?
    - Is there more of a focus on mandatory training for new starters than lifelong learning and skills?
    - Do approaches vary for locums?
  - How do you think an employer's organisational culture impacts on doctors' learning?

Individual level

- *In your opinion, to what extent do individual doctors value and engage in lifelong learning?*

	• What would you say are the main motivations and barriers to engaging in lifelong learning at an individual level? And how does this vary by type of doctors?
	• To what extent do you think doctors rely on others to direct/support their learning and to what extent is this self-directed by doctors?
	  ◦ Does this vary by specific groups of doctors/specialism?
	  ◦ If relying on others to support/direct lifelong learning – which organisations do they turn to? What kind of support/direction are they looking for?

Covid-19 impacts	• What have the impacts of the Covid-19 pandemic been on lifelong learning opportunities for doctors? (*Think beyond doctors having limited opportunity to undertake lifelong learning*)
	  • Probe on both new demands on leaders and doctors at a more junior level.
	  • Explore impacts such as changes in mode of delivery and other impacts on employers in delivering lifelong learning.
	  • Probe on both positives and negatives.
	• Will any positive impacts/learnings be sustained after the pandemic? How?
	  • And if not, why not?

Examples of innovation and good practice	• Are you aware of any examples of good practice or new innovations in how lifelong learning is being managed and supported?
	  • Within medicine
	  • Outside of medicine
	• Probe on whether they're aware of employers investing in new technology or e-portfolios etc to support lifelong learning

Looking to the future	• How do you anticipate lifelong learning and CPD approaches for doctors developing in future? • Do you have any recommendations for actions that could be taken at a national level – e.g., by government, professional societies, GMC - to support doctors with lifelong learning? • Do you have any recommendations for health care employers to ensure that their approaches to lifelong learning and local workforce strategies meets the needs of doctors, both now and in future? • Final reflections
Thank and close	

Appendix C - Discussion guide for Employers FINAL

Objectives
This research aims to help the General Medical Council to understand the way lifelong learning including Continuous Professional Development (CPD) for doctors in the UK is valued, managed and supported by those directly involved: employers of doctors; those who contract doctors' services and self-employed doctors.

We are interested in understanding the details of the processes used, for example to prioritise, provide access, and fund/commission lifelong learning for different groups of doctors across the UK. We also would like to understand key stakeholders' perspectives on the value of lifelong learning and how well in their perspective the current situation works.

We would be interested in understanding whether anything in the UK has changed in the approach to lifelong learning as a result of the response to COVID-19.

Approach
25 x depth interviews held with a range of employers of doctors, those who contract doctors services and self-employed doctors.

This is a semi-structured guide, as such these questions are designed more as prompts than to be read out verbatim. The conversation will be guided by individual responses; it is therefore likely that the conversation will differ for each interview and may be conducted in a different order to that shown.

Prior to the interview, participants will be sent a consent form outlining the research and how it will be used.

Outline discussion guide for employers	
Introduction	• Introduce self and Community Research. • Explain the purpose of the interview briefly. • Obtain permission for audio recording, check consent has been received. • Explain analysis and reporting process (that a research report will be produced and published based on all interviews and that organisations/individuals will not be named without their explicit permission).

Career & recent history	• Participant to provide brief introduction.
	  ◦ Job title and overview of role
	  ◦ Summary of previous roles/career history
	  ◦ Oversight and/or involvement in lifelong learning of doctors/CPD
	  ◦ Note that some participants will be wearing a number of hats (potentially as an 'employer' and as a doctor who does lifelong learning themselves) and so views will need to be explored in this context

Context setting	• For this study we are interested in lifelong learning, which is a broad concept and covers the learning a doctor undertakes throughout their career. This is often discussed in relation to Continuing Medical Education or Continuing Professional Development – terms that are sometimes use synonymously.
	  ◦ What is your understanding of these different terms? **Do you /your organisation have a preferred definition of 'lifelong learning'?**
	• Do you see lifelong learning as different from CPD or CME? If so, how? Is this distinction important for discussing educational and training approaches for doctors?
	• When thinking about lifelong learning for doctors, would you **distinguish between informal and formal learning requirements**, such as mandatory training like safeguarding? (Note that the GMC is interested in both)
	  ◦ How and why are do you view these differently?

Exploring organisational support for lifelong learning	• Who tends to hold /or share **accountability/responsibility** within your organisation for lifelong learning? How does this work in practice, including budgeting? ◦ Explore sensitively how differences of opinion are managed • Do you have a formal LL or CPD strategy? Or does it sit under any another e.g. organisational development strategy / HR strategy etc? Ask to see a copy if appropriate • How would you broadly describe your organisation's approach to supporting and managing lifelong learning, including CPD.

- To what extent is this influenced by the wider organisational culture? Compare/contrast to experiences of other organisations worked in
- Does if vary for different groups of doctors, for example:
  - SAS doctors
  - LED doctors
  - Part-time doctors
  - Different career stages and ages

- How does your organisation identify future needs and ensure that doctors have a skillset that meets these needs? i.e. adapting to changing technology, patient expectations, increased number of patients with co-morbidities
  - How do you balance the needs/interests/expectations of individual doctors vs. the needs of the organisation/wider healthcare system?
- How does your organisation measure the effectiveness/impact of lifelong learning/CPD?
- More specifically, how does your organisation **help doctors to access and engage in lifelong learning**? If not mentioned, prompt:
  - Providing courses/training
  - Protected time
  - Funding
  - Job planning
  - Providing e-portfolios and technology to support learning
  - Peer learning opportunities
- Are there **forms of learning** that are/ you think should be prioritised for doctors at an organisational level? E.g. informal and formal learning opportunities? [Other prompts]:
  - Multidisciplinary team based learning
  - Competency based learning
  - Reflective practice
  - Co-design and collaborative approaches
- Are there particular **learning domains or topics** that are particularly valued by your organisation? And does this value translate into what is prioritised on the ground?
  - Up to date clinical skills
  - Leadership or management
  - Continuous quality improvement
  - Patient safety
  - Research or audit
  - Medical education and pedagogy
  - Communication skills
- Do you think the views of individual doctors differ from employers on this? Why is this?

	• How is **protected learning time** implemented in your organisation? • How is learning funded? What are the **different sources of funding**? • To what extent is learning self-funded? Is there monitoring for any conflict of interest – if so, how are conflicts managed if they arise? • How does your organisation manage expectations around CPD and lifelong learning during the recruitment and employment process? • Is it part of recruitment and retention strategies? • Is there more of a focus on mandatory training for new starters than lifelong learning and skills? If so, why is this? • Other than protected learning time, how does the planning for and support of lifelong learning for doctors differ to the planning and support for other health professionals that you manage/employ? Are some elements organised centrally or at a profession level? • In terms of funding, how do you balance the lifelong learning needs of doctors vs. other health professionals?

Examples of good practice	• Can you share any **examples of good practice** or new innovations in how lifelong learning is being managed and supported? For example, new technology or e-portfolios etc to support lifelong learning.
	  • Within your organisation
	  • Outside of your organisation

Exploring perceptions of motivations and barriers to engaging in lifelong learning	• What would you say are the main **motivations and barriers to doctors engaging in lifelong learning**? And how does this vary by type of doctors?
	  • How does your organisation help address any barriers?
	  • Explore any specific barriers in relation to doctors with protected characteristics
	• To what extent do you think doctors rely on others to direct/support their learning and to what extent is this self-directed by doctors?
	  • Does this vary by specific groups of doctors/specialism?
	• If relying on others to support/direct lifelong learning – to what extent do they rely on your organisation versus other organisations e.g. professional bodies

Covid-19 impacts	• What have the **impacts of the Covid-19 pandemic** been on lifelong learning opportunities for doctors? (*Think beyond doctors having limited opportunity to undertake lifelong learning*). Probe on: • Both new demands on leaders and doctors at a more junior level.

	• Any **changes implemented by their organisation** • Including changes in mode of delivery and other impacts on employers in delivering lifelong learning. • Will any positive impacts/learnings be sustained after the pandemic? How?
Taking a broader view	• What do you see as the main **positives and negatives associated with current approaches to lifelong learning in the UK more broadly?** • If lifelong learning is not working as well as it could what do you see as the main issues? • Are there any **gaps at a system** level or issues for specific types of doctors? (e.g. with protected characteristics, IMGs etc. or specialisms?) • Do you think that the current approach to lifelong learning ensures that doctors have the right skillset at the right stage of career? Why/Why not? • Who do you see has **responsibility for / accountability of lifelong learning at a system level?** • Explore where they see it currently sitting / where they think it should sit. • Explore perceptions of the GMC's role in this context
Looking to the future	• How do you anticipate **lifelong learning and CPD approaches for doctors developing in future**? • Within your organisation • At a system wide/broader level • How will this help ensure that approaches to lifelong learning meets the needs of doctors, both now and in future? • Do you have any r**ecommendations for actions that could be taken at a national level – e.g. by government, professional societies, GMC - to support doctors with lifelong learning?** • Final reflections
Thank and close	

Appendix D - Employer sample breakdown

Breakdown of interviews recruited via RO recruitment

	Type	Country	Urban/Rural	CQC rating	Workforce
1	Hospital Trust	England	Urban	Requires improvement	3-4,000
2	Integrated	NI	Urban	x	More than 10,000
3	Hospital Trust	England	Urban	Good	5-6,000
4	Hospital Trust	England	Rural	Good	2-3,000
5	Integrated	Scotland	Rural	x	x
7	Mental Health	England	Rural	Requires improvement	4-5,000
8	Hospital Trust	England	Urban	Outstanding	6-7,000
9	Hospital Trust	England	Urban	Requires improvement	7-8,000
10	Hospital Trust	England	Urban	Good	5-6,000
11	Locum provider	England	x	x	x
12	Hospital Trust	England	Urban	Good	6-7,000
13	Private	England	x	x	
14	Integrated	NI	Urban	x	9-10,000
15	Hospital Trust	England	Urban	Good	9-10,000
16	Hospital Trust	England	Rural	Good	6-,7000
17	Integrated	Wales	Urban	x	x
18	Hospital Trust	England	Urban	Good	5-6,000

Breakdown of GP interviews recruited via Acumen

Int. No.	Role	Size of practice (no. of salaried GPs)	Country	Gender
1	GP Partner	Less than 5	South, England	Male
2	GP Partner	More than 10	Harrow	Male
3	GP Partner	Less than 5	Scotland	Female

4	GP Partner	Less than 5	Wales	Female
5	GP Partner	Less than 5	Scotland	Male
6	GP Partner	5-10	North, England	Female
7	GP Partner	More than 10	South, England	Female
8	GP Partner	Less than 5	Northern Ireland	Male