NHS Health Education England

Population Health Fellowship

A national programme to empower healthcare professionals to innovate at a population level

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This document only serves as a guide and is correct at the time of writing. The programme may change at any time and the guide will be updated accordingly.

Programme summary

Population health is an approach aimed at improving the health of an entire population. It is about improving the physical and mental health outcomes and wellbeing of people, whilst reducing health inequalities within and across a defined population. It includes action to reduce the occurrence of ill-health, including addressing wider determinants of health, and requires working with communities and partner agencies. Contemporary healthcare is increasingly focused on optimising patient care and outcomes at the population level and therefore clinicians across all of healthcare require skills in population health to achieve this. There have been many examples of population health approaches that have significantly improved patient care and outcomes.

This document proposes the first national Population Health Fellowship for clinical healthcare workers in the NHS from a non-population health specialist background. The fellowship is a one -year, part-time programme (i.e. 2 days a week alongside their clinical practice) where fellows will lead on a population health project, normally under the supervision of a senior medical leader. Fellows will be supported by a blended teaching programme led by population health advisors.

Successful applicants will be seconded to HEE part-time and may be placed in their current healthcare organisation or in a different one, following a careful matching process. We will initially launch the programme with 14 posts across the HEE regions. The aim of the programme is to develop a network of clinicians with population health skills to benefit place-based healthcare systems across England. The programme is open to healthcare professionals from a broad range of clinical backgrounds. We want to attract early to mid-career fully registered (and, where appropriate, licensed) healthcare professional providing NHS services (AfC band 6 and above, or equivalent; dentists-in-training; doctors-in-training post- FY2, and their SAS equivalent).

The fellowship programme will be delivered through the HEE national programme, Population Health and Prevention. This guide presents the importance and value of population health in contemporary healthcare. The relationship of population health and public health is discussed. The guide outlines the structure of the fellowship and the eligibility for the first cohort of prospective applicants based on experience and evaluation of previous programmes, whose educators are advising on this development. There are examples of population health projects in this guide to inform readers. The intention is to recruit the first cohort of population health fellows to start in the New Year, 2020. Recruitment will start in September through an online application and the interview process is scheduled to begin in October.

What is population health?

There are many definitions of population health and recently it has proved to be an evolving discipline of medicine. The agreed definition across the NHS for *population health* is:
Population health is an approach aimed at improving the health of an entire population. It is about improving the physical and mental health outcomes and wellbeing of people, whilst reducing health inequalities within and across a defined population. It includes action to reduce the occurrence of ill-health, including addressing wider determinants of health, and requires working with communities and partner agencies.

The importance of population health

The NHS Long-Term Plan (2019) places significant emphasis on prevention of disease and population health. Contemporary healthcare is increasingly focused on optimising patient care and outcomes at the population level. Population health and individualised healthcare are essential partners rather than concepts in conflict. Population health applies a broader and more proactive view than traditional health care by extending the 1:1 individual approach to a targeted cohort of people (e.g. specific medical condition, community, age-group, etc.). It also adds the delivery of interventions such as risk factor modification, health promotion and community engagement within the interaction of a patient and a healthcare professional. Population health considers the determinants of health that fall beyond the immediate reach of the healthcare setting such as social circumstances, environmental exposures and behaviours. Chronic conditions such as obesity, diabetes mellitus and cardiovascular disease are suited to a population level approach. The vast majority of health determinants are associated with lifestyle, behaviours, social circumstances and environmental exposures, yet the focus is often aimed solely at medical care.

Defining populations

Populations can be defined using various parameters e.g. geographically, by medical conditions, ethnicities, disease risk factors, etc. Individuals can belong to more than one population and these can be viewed through different perspectives. Population health is therefore relevant across all the health disciplines.

Population health in action

Kaiser Permanente, a US based healthcare organisation, analysed data from a shared electronic patient record system to establish the health needs and outcomes of different groups. Individuals were then targeted based on their membership to a particular group. For example, the heart disease programme tackled smoking cessation, exercise promotion and lifestyle modification, which contributed to a 26% reduction in cardiovascular mortality among Kaiser Permanente members in Northern California from 1995-2004. Read more about Kaiser Permanente and the evolution of their population health services at:
https://www.kingsfund.org.uk/publications/population-health-systems/kaiser-permanente-united-states

A GP practice in Surbiton, which has a 20% higher known prevalence of diagnosed mental ill health than the national average, responded to the evidence that mental health patients often suffer from chronic physical illnesses by optimising the methods in which they conduct the Quality Outcomes Framework (QOF) physical health checks. The practice designed a new programme to invite patients for physical health checks. The new system was based on patient survey responses and involved nurse consultations and extended doctor consultations. Processes were also implemented to facilitate patient attendance and information sharing with patients and their specialists. This initiative was led by a previous clinical fellow (London population health fellowship for GP trainees) and the abstract of the project can be found in Appendix 2.

Population health and public health

Some use the term ‘population health’ interchangeably with ‘public health’. In this proposal, we suggest that population health describes an approach that can be applied across all of healthcare. Increasingly evidence shows that applying population health skills in clinical practice can prevent disease and improve patient outcomes. Public health is the art and science of improving health and preventing disease across the whole of society, including in healthcare environments. It was never enough for solely public health practitioners and specialists to engage in population health. It is now widely accepted that population health competencies and mindset are essential at all levels in every healthcare organisation in delivering excellent healthcare and this is at the heart of this proposal.

What is a Population Health Fellowship?

Successful applicants will embark on a year-long, part time fellowship. Typically, two days a week, alongside their permanent clinical post, though this may vary according to local circumstances. Individuals will be seconded for these two days to HEE (doctors-in-training will need to apply to train less than full time (LTFT) in order to access the fellowship) and will be based in an HEE-selected host healthcare organisation or system and lead on a population health project. Some fellows may be based in their current healthcare organisation. Examples of possible host organisations include hospital and community trusts, public health organisations, integrated care systems/STPs, clinical commissioning groups and Primary Care Networks.

General project supervision will be provided by a senior leader from the fellowship host organisation. Educational project support will be provided by a population health advisor. The project will also be supported by a formal blended educational programme led by population health advisors. There will be a series of central contact days offering fellows seminars, facilitated workshops and lectures. The location for the face-to-face taught component is likely to vary and associated travel expenses will be reimbursable from HEE. The contact days will be supplemented with online learning resources. Fellows will also have regular educational meetings with their population health advisor via telephone conference and Skype.

The approach to the assessment of the learning outcomes is entirely formative (via written reports and presentations). In addition to population health competencies there is also a strong focus on leadership and management development. See Appendix 2 for examples of population health projects.

The value of a population health fellowship

The programme provides an infrastructure to train future population health practitioners. We aim to recruit clinicians with outstanding potential and develop them into a faculty capable of incorporating population health in their local work systems and thereby improve patient outcomes. As the programme develops there will be an ever-growing group of population health practitioners from multiple disciplines. Population health skills are highly sought after and fellows from a previous population health fellowship have ended up working in leadership positions across the NHS.

Application cycle and number of posts

Adverts will go out in early September 2019. Applicants will complete a short online application before the interview process. Interviews are scheduled for October and posts will be allocated in November. The fellowship is due to start in the New Year.

The fellowship will be national, and we aim to recruit 14 fellows across the 7 HEE regions (2 in each region) in the first cohort. Prospective applicants will be expected to continue in their substantive NHS post alongside this part-time fellowship. One of the aims of the programme is for fellows subsequently to lead change in their own regions.

Eligibility

The aim is to support early to mid-career healthcare professionals from diverse career paths. The fellowship is open to fully registered healthcare professional providing NHS services (AfC band 6 and above, or equivalent, dentists-in-training, doctors-in-training post FY2 and their SAS equivalent).

Appendix 1: Selection criteria

Criteria		
Academic	Essential	Registered healthcare professional providing NHS services (AfC band 6 and above, or equivalent; dentists-in-training, doctors-in-training ST1 and above, SAS equivalent).
	Desirable	Additional degree or postgraduate qualification (egs membership by examination, diploma, etc)
		National or international award/prize in relevant area
		Publication in peer reviewed journal
		Presentations (poster/oral) at an external conference or author in a non-peer reviewed publication
Skills	Essential	Demonstrates strong oral and documented communication skills
		Effective team player
		Basic numeracy: able to understand and manipulate data
		Able to search and critically review literature
		Organisational Skills including time management and project completion
	Desirable	Relevant leadership achievement
Understanding	Essential	Sound knowledge of the English healthcare system (i.e. service provision, research, education, primary and secondary care, etc), its current challenges and future national policy direction
		Familiarity with the population health approaches in England
	Desirable	Involvement in driving service change in your current or a previous workplace
Interest	Essential	Demonstrable interest in health or other relevant researches
		Has been involved with clinical audit or other quality improvement project
	Desirable	Has contributed to health or other relevant research

Appendix 2: Population health projects

In this section we provide examples of potential and previously delivered population health projects. A population health project is an improvement project with a focus on improving the outcomes for a group of patients. It is similar to a service or quality improvement. It is different however, from an audit in that the focus is on identifying population-based outcomes that matter (through an analysis of patient data), developing or re-designing interventions through an understanding of the needs of a local population or community, and monitoring improvements in key outcome measures. A population health project can also demonstrate the importance of sectors outside health, particularly local government, in improving health outcomes.

Real life examples of population health projects

Example 1 – Reducing spread of communicable diseases such as MRSA in the community

Need identified:
Reduction in the spread of communicable diseases such as MRSA in the community.

Method chosen:
Working with the local infection control team to undertake a root cause analysis for each case of MRSA identified in the community. Root cause analysis requires an analysis of the patient's journey and whether any lessons for prevention could be learnt. Usually several patient journeys will be analysed at the same time to understand whether there are any trends/ patterns (such as antibiotics prescribing).

Learning points:
To understand how to perform root cause analysis- there are well established toolkits available.

Possible barrier:
To identify infection control team based in CCG as some may have moved to another sector.

Potential outcomes measured:
1. Reductions in levels of MRSA in the community.
2. Reductions in variations in antibiotic prescribing.

Example 2 – Preventing COPD admissions to secondary care

Need identified:
GP practice has a high proportion of patients admitted to the local secondary care service with exacerbations of COPD.

Potential reasons identified:
1. Lack of awareness of COPD guidelines and training for clinicians managing COPD exacerbations.
2. Lack of engagement with local rapid response community COPD team.
3. Lack of discussion about end of life care for COPD patients with severe disease.
4. Lack of access to smoking cessation interventions.

Interventions:

1. Development of practice guidelines based on local and national information.
2. System for linking at-risk patients with a named GP to improve continuity of care for vulnerable individuals.
3. Educational sessions involving practice GPs, nurses, district nurses, and community COPD liaison nurse.
4. Referrals to community COPD team to improve patient education on managing exacerbations, assessing psychological health, and preventing social isolation.
5. Information on accessing rapid response community COPD team made available to all through practice intranet.
6. Liaison with local palliative care consultants in education on end-of-life care for those with severe end-stage COPD.
7. Education for patients and carers so they can better manage their own condition and recognise and treat an exacerbation at an early stage.
8. Smoking cessation advice tailored for this patient population.

Outcomes measured:

1. Number and cost of admissions for exacerbations of COPD.
2. Smoking quitters among patients with COPD.

Example 3 – Health needs of patients with serious mental illness (SMI)

Need identified:
Patients with SMI are at high risk of potentially preventable physical conditions.

Potential reasons identified:

1. Patient group difficult to engage with.
2. Sharing of information with CMHT variable.
3. Lack of awareness of the physical healthcare needs of SMI patients.

Interventions:

1. Set-up a nurse-led physical health check clinic with proactive sharing of information with specialists.
2. Support from reception with patients to arrange appointments, and where appropriate, reminders.

Results:

1. Proportion of SMI patients with health checks increased.
2. Satisfaction with the health check clinic high.
3. Perception of communication with CMHT improved.
4. Patient satisfaction with service improved.

Example 4 – Improving diabetes care in general practice

Need identified:
Significant variation exists across GP practices in a local area in the proportion of diabetic patients meeting national diabetes audit criteria for good quality care (e.g. HbA1C, BP, and Cholesterol levels, annual foot exam).

Method chosen:
A multi professional team - including GPs, diabetologist, practice nurses, clinical nurse specialist, podiatrist, managers, and patient representatives – undertook a process mapping exercise of current diabetic management in primary and secondary care. National and international evidence and guidance were reviewed, and best practice was identified in other parts of the country.

The diabetes pathway was re-designed. Local care networks of GP practices agreed to review diabetes care data, and community-based diabetes review clinics were established in each care network, serving all GP practices within the network. Clinics were run jointly by the diabetes clinical nurse specialist and practice nurses, including podiatrists and dieticians. Clinical management and referral guidelines were agreed, with MDT meetings established with GPs and diabetes medical and nursing specialists to manage complex cases.

Regular GP practice educational roadshows and learning events were established, with training for practice nurses. An expert patient programme was established, with peer-support groups in each local care network.

Outcomes:

1. Increased compliance with national diabetes quality standards and reduced variation between GP practices.
2. Reduced referrals to out-patients and in the longer term, reduced inpatient admissions, reduced incidence of diabetic complications.

Appendix 3: Aims and competencies to be achieved

The broad aims of this fellowship are to encourage healthcare professionals to develop attributes and attitudes focused on a systematic approach to care of a group of patients. Fellows should discuss learning from this fellowship in their annual appraisal with their substantive employer. Fellows who are also doctors-in-training should link their learning to relevant competencies in their training programme curriculum.

Health status assessment

The clinical fellow will demonstrate experience and competence in conducting a health status assessment on a group of patients that have been categorised appropriately, including monitoring of health trends:

- Identify and describe the significant long-term conditions affecting this group including prevalence and resource utilization.
- Identify and describe the health, social, environmental, and political determinants that influence this group of patients burden of disease and community access to health services.
- Define and describe health inequalities locally and nationally.
- Demonstrate use of epidemiological information from sources such as London Health Observatory, and the Atlas of Variation.

Health planning

The clinical fellow will demonstrate competence in designing and implementing a targeted service improvement project that includes:

- Identifying and describing the significant gaps in population outcomes arising from an analysis of relevant population data.
- Developing and describing interventions that seek to reduce gaps in this population’s outcomes (including those affecting vulnerable groups in society) based upon most appropriate and cost-effective interventions.
- Work with other relevant professionals, within the healthcare organisation and local healthcare economy, to implement a service improvement project.
- Evaluate the outcomes of service improvement project with an emphasis on population-based clinical outcomes.
- Reflecting on the structural changes affecting the NHS and the implications this can have on health care planning.

Professional and ethical role

The clinical fellow will demonstrate experience and competence in:

- Utilising information technology systems to extract population and individual data for assessment and planning of health strategies focused on reducing inequalities in population outcomes.
- Understand and routinely utilise approaches to behaviour change when interacting with patients in order to promote patient empowerment and partnership.
- Describing the ethics of allocation of limited health care resources, and the tensions of advocating for individuals as well as populations; and the concepts of prioritisation within a limited state funded system of healthcare.
- Demonstrating the ability to work as a part of a team, both within your healthcare organisation and with health professionals outside your healthcare organisation in ways that actively seek to reduce inequalities in health outcomes
- Being familiar with literature that informs discussion about health inequalities in England

Appendix 4: Competency matrix

Population Health curriculum area	Covered by
Identify and describe the significant long-term conditions and the social, environmental, and political determinants of health in their allocated population. Consider the literature on health inequalities and implications to local and wider populations.	• Seminar series • Support from their healthcare organisation IT system • Content experts • Project • Online resources
Use of epidemiological information (local and national) to help identify the significant gaps in population outcomes and describing interventions that seek to reduce gaps	• Seminar series • Support from their healthcare organisation IT system • Online resources • Project
Work with other relevant professionals, understand approaches to behaviour change in individuals and in teams	• Seminar series • Discussion with supervisor/on synapse/in seminars • Content experts • Project
Evaluate the outcomes and reflect on the structural changes affecting the NHS and the implications this can have on health care planning	• Seminar series • Content experts • Discussion on Synapse Forums • Project
Ethics of allocation of limited health care resources	• Seminar series • Discussion with trainer/Synapse/in seminars • Project