

Population Health Fellowship – Rough Guide

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

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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 Rough Guide outlines the first national Population Health Fellowship for healthcare workers in the NHS from a non-population health specialist background. The programme is now recruiting its third cohort. The fellowship is a 1-year part-time programme (i.e., 2 days a week alongside their substantive post) where fellows will lead on a population health project. Fellows will be supported by a blended learning programme. The aim of the programme is to develop a network of professionals from a non-population health background with population health skills to benefit place-based healthcare systems across England. The fellowship programme will be available across all HEE's 7 regions and will be supported by the HEE Long Term Conditions and Prevention Programme. The start date for the third cohort will be Tuesday 6th of September 2022 and the posts will be advertised from February 2022.

The programme is normally open to clinical healthcare professionals from a broad range of backgrounds who have not worked or trained in population health. However, we are piloting the extension of the eligibility criteria to include the wider workforce.

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. There are examples of population health projects in this guide to inform readers. 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.

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 and reducing health inequalities. 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. Most 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 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 sufficient 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, 2 days a week, alongside their permanent clinical post. Fellows will be working on a population health project at a host organisation. Examples of possible host organisations include hospital and community trusts, public health organisations, integrated care systems (or sustainability and transformation partnerships), clinical commissioning groups and primary care networks.

Project supervision and support will be provided by a named supervisor from the host organisation. The project will also be supported by a formal blended educational programme, which will consist of a series of virtual contact days and e-learning modules. See Appendix 2 for examples of population health projects.

There will be a focus on health inequalities through the project experience and blended educational programme. Fellows will sign a learning agreement to familiarise themselves with their responsibilities and learning objectives. Currently the approach to the assessment of the learning outcomes is formative (via reflective learning logs and presentations). After successful completion of the programme, fellows will have developed the core competencies of population health. In addition to population health competencies there is also a strong focus on leadership development.

The value of a population health fellowship

The programme provides an infrastructure to train future population health practitioners. We aim to recruit professionals 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 various professions. Population health skills are highly sought after and

fellows from a previous local population health fellowship have ended up working in leadership positions across the NHS.

Application cycle and number of posts

The fellowship is national and available in every HEE region. There are 21 posts in total, with 3 posts allocated to each region (the final numbers per region may vary). Each region will conduct its own selection process with support from the HEE national team. Prospective applicants will be expected to continue in their substantive NHS post alongside this part-time fellowship.

The process of identifying host organisations (including their proposed projects) will be undertaken from November 2021. The selected host organisations and the HEE regional teams will then advertise the available projects, with adverts going out from February 2022. Applicants will complete a short online application before the interviews in March 2022.

The year-long fellowship is planned to start on Tuesday 6th September 2022.

Eligibility

The aim is to support early to mid-career healthcare professionals from diverse career paths. In all HEE regions the fellowship is open to fully registered clinical healthcare professional providing NHS services (AfC band 6 and above, or equivalent, dentists-in-training, doctors-in-training post FY2 and their SAS equivalent). Additionally, we are also piloting the extension of the fellowship to the wider workforce (AfC band 6 and above, or equivalent). We are working to have 1 pilot post (i.e. the wider workforce being eligible) available in each HEE region, but this will depend on the projects available at the host organisations. Therefore, please contact your HEE regional population contact to enquire about the pilot availability.

Appendix 1: Person Specification

Applicants will be judged against these criteria relative to their level of experience. In addition to the application process requirements applicants can also demonstrate achievements through certificates, publications, letters, and other supporting information.

	Essential		Desirable
Academic	Bachelor's degree 2.1 and above (equivalent qualification) Evidence of demonstrable interest in scientific research and evidence-based practice Evidence of continuing professional development		Additional qualifications (e.g. degrees and postgraduate qualifications) Conference participation and/or presentations Has contributed to research Academic publications (e.g., peer reviewed journals, abstracts, posters, book chapters)
Experience	Clinicians	Wider workforce	Can evidence contribution to successful service improvement (e.g., achieving service change, Trust level awards, HSJ/BMJ awards, etc.)
	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).	Currently working in an NHS health services role relevant to population health and with leadership responsibility (AfC band 6 or above, or equivalent)	
	Contribution to delivery of high-quality care (e.g., supporting clinical services, experience of clinical audit cycles, public/patient involvement, quality improvement) Evidence of satisfactory career progression		
Skills	Demonstrates strong oral and written communication skills Effective team player Data-analysis: able to understand and manipulate data (including familiarisation with statistics/charts and word processing packages) Able to search for and critically review literature Organisational skills, including time management and project completion		Delivered presentations to a large audience Evidence of innovation and solution development
Understanding	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 and interest with population health approaches and health inequalities in England		Awareness of the top priorities for the NHS Understanding of epidemiology, health promotion and disease prevention

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

Project 1: Postnatal screening of mothers diagnosed with gestational diabetes

The situation

Women with gestational diabetes have a much greater risk of developing diabetes later in life. [NICE](#) recommends women have postnatal screening 3 months after birth, then an annual screen for the rest of their lives. Black and Asian women have an increased risk of diabetes.

A population health approach

Data from a population health management tool identified that 64% of women were not screened for diabetes postnatally and 99% were not receiving ongoing annual screening. Nationally, black women are least likely to attend the screening service. Interviews were held with black women to gather insight into their screening experiences and barriers to care.

Results

GPs attended a lunch and learn event. Practice screening lists were shared so that GPs could understand the screening rates for their practice.

Insight from the under-represented black women was shared and discussed, to enable GPs to plan changes in their practices' approach to screening to ensure this service was accessible to all women. This includes a culturally sensitive coproduced recipe book to be rolled out to all women in the region.

Impact

The population health management tool will be used to monitor screening uptake rate over time, both overall rate and rates between different ethnic groups.

Project 2: The road to recovery: developing a long COVID-19 Service

The situation

Long-term effects of COVID-19 were observed in both hospitalised patients and those in the community. Patients were being referred with a wide range of debilitating symptoms, often affecting multiple body systems.

A population health approach

A population health approach was used to characterise the population of patients being referred with post COVID-19 syndrome, including demographics, biomedical markers, health interventions received and outcomes.

This highlighted a wide range of health needs in these patients, affecting their ability to work and undertake usual activities of living. It identified the need for additional healthcare, as well as support with wider socioeconomic issues affecting their health.

Results

A multi-professional, multi-sector working group was established to develop and launch a specialised post COVID-19 multidisciplinary assessment clinic and rehabilitation pathway. The resulting service is a holistic, integrated service that aims to investigate and manage symptoms and facilitate the rehabilitation of patients.

Impact

The impact of the post COVID-19 pathway is awaited. Research avenues have opened up and resulted in a large grant application investigating outcome measures for post COVID-19 rehabilitation. The initial analysis work characterising patients referred to the service is now being submitted for publication.

Project 3: A volunteer-lead service to improve equality of access for remote outpatient appointments

The Situation

As part of the COVID-19 response, a large proportion of outpatient appointments moved from face-to-face to telephone and video appointments. While there were many positive impacts of this change, did not attend (DNA) rates were high and there were concerns about digital inclusion, questioning whether the change was negatively impacting on equity of access.

A population health approach

Analysis of DNA rates showed variation by ethnicity and deprivation. A pilot was undertaken using volunteers to support patients to attend virtual appointments, between January 2021 and March 2021.

Volunteer-led pre-appointment calls offered a reminder and infection control measures for those with face-to-face clinics. It also enabled those who required digital support to attend video appointments to be identified and offered support. Volunteers made 400 pre-appointment calls during the pilot period.

Results

The pilot identified that a key driver of DNA rates was incorrect patient contact details or the inability to make contact with patients, or both. Of those patients successfully contacted, 20%

required some form of support, including assistance to reschedule their appointment, some training and practise to access the video platform.

Whilst the pilot was not able to demonstrate a reduction in inequalities, information about the key drivers of DNA rates enabled interventions to be targeted to those with greatest need.

Project 4: Medicines management of mental illness in pregnancy

The situation

Perinatal mental health problems affect between 10% and 20% of women. Data from a population health management tool showed that 66% of women in a London borough stopped their antipsychotic or antidepressant medication in the 1st trimester of pregnancy. Many women later became unwell.

Feedback suggested that both women and health professionals were confused about mental health medication advice for pregnant women.

A population health approach

A multidisciplinary team of a GP, midwife, health visitor, psychiatrist and pharmacist came together to address this issue. They reviewed the evidence base for antidepressant and antipsychotic medications in pregnancy; conducted a survey of GPs, midwives and health visitors to understand their perspectives and worked with a 3rd sector organisation to gain insight into pregnant women's knowledge, feelings and concerns.

Results

This information was brought together to create an interactive, evidence-based decision-making toolkit that would be made available to all pregnant women and healthcare professionals in the area's primary care networks (PCNs).

The tool is available as an interactive pdf and poster and includes links to the evidence base, self-help support and helplines. The health professional's toolkit gives a link to local perinatal mental health teams, which aims to speed up referral time and offer pharmacological advice.

Impact

The tool will be evaluated through a maternal health dashboard available through the population health management tool. Women's and GP's views will also be captured, to ascertain changes in confidence with respect to decision-making about medication use during pregnancy.

Appendix 3: aims and competencies to be achieved

The programme has been designed to encourage and support you to develop competencies that will enable you to incorporate population health in your local work systems to improve patient outcomes. 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.

The learning programme comprises blended learning content that includes:

- Virtual contact days
- Online learning
- Host workplace and project-based learning
- Peer learning
- Reflective learning
- Presentations

The programme aims and objectives and the project learning outcomes are outlined below.

Aims

- To encourage a mindset among fellows that encourages an appreciation of the potential for prevention and improved outcomes, particularly in the presence of health inequalities.
- To instil an appreciation of the impacts, beyond medical interventions, on the health and wellbeing of their patients/clients and factors that may influence or determine outcomes of care.
- To enable application of their knowledge and skills to exploit opportunities for prevention and to improve patient outcomes.
- To encourage the creation of an increasing number of population health-oriented health and social care workers.
- To inspire ongoing routine application of population health competencies in day-to-day work.

Curriculum areas

1. Identifying populations and individuals, including those patients/clients at increased risk of potentially modifiable, less favourable outcomes
2. Understanding prevention, including primary and secondary prevention – of infectious and non-infectious diseases – to protect and promote both their own health and wellbeing and those of their patients/clients
3. Understanding health promotion and improvement, and the role of human behaviour in influencing personal and population health
4. Understanding risk to individual and population health
5. Prioritising decisions, triage, resource allocation
6. Understanding basic epidemiology

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7. Appreciation of social, economic, environmental, and other determinants of health and ill health and wellbeing in the short and longer term
8. Recognising and addressing health inequalities
9. How to make decisions, at level appropriate to an individual's role, to optimise population health
10. How to access and interpret and use commonly available demographic/health/social care data to support improvements in service provision at their level
11. Impact and lessons learnt from the 2020 Novel Coronavirus Pandemic and how to enhance and optimise effectiveness of the response to future outbreaks of infectious disease.

Learning objectives

1. Understanding the meaning of population health
2. Appreciating why population health is relevant to their day-to-day role in service delivery or commissioning
3. Understanding what we mean by health inequalities and why it is imperative to tackle them
4. Identifying a population or community
5. Accessing and utilising relevant routine sources of population health data
6. Understanding and contributing to population health status assessment
7. Understanding and contributing to population health and healthcare needs assessment
8. Understanding and explaining risk at individual and population level
9. Appreciating ethical dimensions and resource distribution in health and social care
10. Encouraging healthier behaviours: understanding behaviour change to improve health
11. Understanding leadership and project management approaches for achieving population health improvement.