This is funded by Novartis Pharmaceuticals UK Ltd

NHS Confederation

NOVARTIS

Integration and Innovation in Action

# Transforming health and wellbeing services through population health management

November 2023
UK | MLR ID: 318240

# About us

## NHS Confederation

The NHS Confederation is the membership organisation that brings together, supports and speaks for the whole healthcare system in England, Wales and Northern Ireland. The members we represent employ 1.5 million staff, care for more than 1 million patients a day and control £150 billion of public expenditure. We promote collaboration and partnership working as the key to improving population health, delivering high-quality care and reducing health inequalities.

For more information visit www.nhsconfed.org

## Novartis

Our purpose is to reimagine medicine to improve and extend people's lives.

We use innovative science and technology to address some of society's most challenging healthcare issues and we work together with the system to implement solutions that drive access for UK patients.

From research to delivery, we are a valued partner in the healthcare ecosystem, supporting in times of crisis and beyond, to build solutions that provide better care and access opportunities for every patient in the UK.

For more information visit www.novartis.com/uk-en/

## About this report

The NHS Confederation is responsible for the editorial content of this report.

The NHS Confederation Population Health Management Report is part of the Integration & Innovation into Action Series activity as part of a Collaborative Working Agreement between Novartis Pharmaceuticals UK Ltd and the NHS Confederation. Funding for the Collaborative Working Agreement is provided by Novartis Pharmaceuticals UK Ltd. UK | MLR ID: 318240 | November 2023

This is funded by Novartis Pharmaceuticals UK Ltd

NHS Confederation

NOVARTIS

# Contents

# Foreword

**Marie-Andrée Gamache**
**Country President and Managing Director,**
**UK and Ireland Novartis**

The nation's health and care needs are changing. As we continue to live longer, there is a higher prevalence of long-term health conditions due to various lifestyle factors which are also being further impacted by increasing health inequalities. Waiting times for treatments have been lengthened due to the COVID-19 backlog and NHS costs to deliver care are continuing to rise.

Identified as a core strategic aim for the NHS, population health (PH) has a vital role to play in improving the health of all citizens, alleviating pressure on services, and ultimately delivering a sustainable healthcare system through prevention. Population health management (PHM) can prevent patients from slipping through the net by bringing together data and proactively pioneering new interventions, helping individuals most at risk to lead healthier lifestyles with improved outcomes.

While the pandemic has caused a significant disruption in healthcare, it has also shown us the power of cross-industry partnerships, with the best in science and business coming together in the vaccine taskforce. Despite facing numerous difficulties, this experience provides us with insights into how we can strengthen our approach towards PHM. Partnering and collaborating with the wider healthcare system, including local authorities and community and voluntary organisations, is a key priority for us at Novartis UK and to demonstrate our commitment towards this, we made a public

pledge to work with the healthcare system to address health inequalities[1] and enable improved access to healthcare, faster diagnosis and earlier interventions.

Across the industry, we need to look to pioneering solutions which achieve broader and more rapid and equitable access to new treatments and interventions for those population groups most in need. That is why we have partnered with the NHS Confederation, to accelerate the pace and scale of action on health inequalities and population health.

We know data saves lives. We at Novartis also recognise and support the need for the public's health data to be handled securely safely and transparently. In line with the ambitions of the government's Life Sciences Vision and Data Saves Lives strategy, we know that data sharing and partnerships are essential to improve care and support the development of new treatments. Appropriate access to data would allow healthcare system stakeholders to provide analysis and research that could drive pathway and service transformation.

One area in which we have been able to harness data is cardiovascular disease (CVD). Due to its largely preventable nature, CVD is identified in the NHS Long Term Plan as a clinical priority and the single biggest area where the NHS can save lives and is also one of the focus areas within the upcoming major conditions strategy. To help address this issue and maximise data available to us, we developed a partnership with Our Healthier South East London Integrated Care System to identify the most at risk groups and drivers which impact their behaviour, and then co-create solutions to provide faster diagnoses and earlier CVD intervention. We hope this partnership will benefit the NHS in improving health outcomes and reducing health inequalities for underserved communities, in a clinical area which has also been set out as a focus within Core20PLUS5 framework.

Life sciences organisations can make a meaningful contribution in PHM by supporting innovations, data modelling and individualising therapies to a person's environment and needs. However, it is critical that as an industry we explore how we move beyond simply treating disease to identifying how we can take a more preventative approach.

As part of our commitment to preventative treatments and the NHS Long Term Plan's calls for a proactive population health approach to identify patients and prevent cardiovascular disease, as well as the stated aims of ICSs to improve population health outcomes and tackle inequalities in health outcomes, in 2021, we entered a partnership with the NHS to improve awareness and implementation of the lipid management pathway. Novartis is collaborating with the NHS Accelerated Access Collaborative and the Academic Health Science Network, with the support of NHS England, to apply PHM strategies and optimise the uptake of lipid-lowering therapies, in line with National Institute for Health and Care Excellence (NICE) guidance.

This partnership represents a new patient identification method, involving the proactive detection of eligible patients through utilisation of NHS England's capabilities, delivery of treatment within primary care, and funding through a central budget. This approach enables treatment to be available at scale, while ensuring equity of access

Fundamentally, the collaboration represents a shift from 'disease/symptom management' to proactive preventative care. While this new approach has been developed initially to support advances in the atherosclerotic cardiovascular disease (ASCVD) pathway, the mechanisms introduced through the collaboration may positively shape the introduction of future healthcare innovations across all areas of primary care, from digital technology to medicines.

We are past a once-in-a-century pandemic and we have the means in terms of data and partnerships at our disposal to improve healthcare access, experience and outcomes across local health and care systems. The time and opportunity is now for us to address population health in a big way.

# Key points

- A rising number of NHS organisations are combining traditional approaches – responding to illness where it occurs – with population health approaches that seek to better understand, target and prevent illness. Our evidence suggests that when these changes are possible, they bring benefits for systems and citizens.

- Understanding how these have developed could help address some of the key challenges of increasing health inequalities and efficient use of resources and, at scale, help health and social care systems to create a better balance between treating existing conditions to preventing illness.

- This report explores four case studies where population health and population health management approaches have been developed in recent years and show demonstrable benefits.

- These case studies, combined with discussions with health leaders involved in their development, reveal some of the key components involved in shifting towards population health and population health management approaches.

- By taking account of the full range of factors contributing to wellbeing and gathering data to understand how they affect populations, it is possible to design far more targeted interventions. These interventions typically involve the NHS developing strong and broad partnerships, working with a range of partners, including the likes of housing associations and the voluntary sector.

- This requires good data and shared understanding, which can greatly support an understanding of specific populations and segments of populations. The more information that can be brought together from across relevant sectors, the greater the insight that is typically possible.

- The interventions which result from population health approaches often differ quite significantly from traditional understandings of how the healthcare system should operate. They involve the NHS taking on different responsibilities or addressing existing responsibilities in very different ways. This means there is a need for new approaches to funding and governance and changing perceptions if such transformation is to truly flourish.

# Background

Health and wellbeing have traditionally been defined by the presence or absence of a diagnosable illness. The responsibilities of health and care services have flowed accordingly: to treat illness when it occurs.

Yet it is increasingly understood that if the aim is to have healthy citizens, this definition is too narrow and this scope is accordingly too small. Most notably both neglect the social determinants of health – the conditions in which people are born, grow, work and live their lives and which influence the likelihood of someone being in good health.

Population health and population health management are approaches that embody this expanded understanding of health and wellbeing. They hold that it is necessary to understand the broad range of factors that contribute to someone becoming unwell, and to address the presence of these factors within particular populations. Specific preventative and curative interventions can then be developed, typically with organisations drawn from across a number of sectors, to help improve wellbeing.

It is necessary to understand the broad range of factors that contribute to someone becoming unwell

## Concepts with increasing transformational currency

With the changing NHS landscape and the formation of integrated care systems with statutory integrated care boards, the concepts of population health and population health management have rapidly gained currency within health and social care. It is widely believed these approaches can lead to better outcomes for citizens and service users through development of preventative,

personalised and predictive health and care interventions, resulting in ensuring the best possible use of resources in local health and care economies.

The influence on social determinants on health is significant, with numerous research studies suggesting these factors account for between 30 and 55 per cent of health outcomes,[2] and they are at the root of health inequalities. Those from poorer socio-economic backgrounds, for instance, can expect to live longer in much poorer health than those from less deprived backgrounds.

As an approach it offers integrated care systems the ability to use data from the NHS and its wider system partners; housing, employment and voluntary and community groups to design new models of care that are medically and socially appropriate, such as reducing and preventing respiratory conditions by improving cold and damp housing conditions.

## Population health and population health management explained

Some see 'population health' and 'population health management' as interchangeable. We consider them as two slightly separate concepts. When we use either term in this report, we are drawing on the definitions offered by The King's Fund:

**Population health** describes an approach that aims to improve the health of a particular population, or a particular segment of a population. It involves the improvement of physical and mental health outcomes, requiring cross-sector collaboration and working closely with communities. Grounded in a belief that there are a wide range of social determinants of health and wellbeing, some of which lie beyond the immediate reach of health and care organisations. →

**Population health management** involves using data-driven insights to identify specific populations that may be in need of additional or different interventions. Data is also used to assess the impact of any new interventions, which are typically centred on preventing rather than treating ill health, or at least on intervening early.

Embodied in both concepts is an understanding of the multitude of factors that contribute to someone's wellbeing, and their complex interactions.

## About this report

There are many NHS, local government and community and voluntary sector organisations implementing population health management approaches. This report, the last in the Integration and Innovation in Action series,[3] showcases some of that work. It considers how such approaches can enable health improvement service transformation and the more effective use of resources to reduce health inequalities within local health and care systems, drawing on four case studies:[4]

- **A new model of funding allocation in Dorset Integrated Care System (ICS)**: Analysis of the populations in each primary care network informed a different decision on how to split a tranche of national funding between them.

- **The creation of community hubs in Cornwall and Isles of Scilly ICS**: 'One stop shops' have been launched that allow easier access to support, frequently centred on addressing the social determinants of health.

- **An entirely redesigned approach to wellbeing and recovery, co-produced by staff at Mersey Care NHS Foundation Trust and service users**: The trust has created The Life Rooms, community-based, non-clinical community centres from which

a range of support is provided – redefining understandings of what the NHS should do and how it can best support health.

- **A programme in Cheshire and Merseyside ICS which addresses a common issue in transformation efforts**: System P is centred on analysing data about local populations, so informing the creation of appropriate interventions and the assessment of their effectiveness.

We are grateful to the healthcare leaders who helped us explore these examples:

- Wes Baker, Director of Strategic Analytics, Economics and Population Health Management, Mersey Care NHS Foundation Trust (System P).

- Michael Crilly, Director of Social Health and Community Inclusion, Mersey Care NHS Foundation Trust (The Life Rooms).

- Ian Jones, Chief Executive, Volunteer Cornwall.

- Dr Simone Yule, Senior Partner, The Blackmore Vale Partnership and Clinical Director for Population Health Management, Dorset ICS.

This report outlines what they and their colleagues achieved and how. It also highlights the learning and insights about how PHM approaches might be spread, scaled and implemented in other local health and care economies.

# Transformation and equitable resource allocation

## Integrated data partnerships

By considering all the factors that contribute to someone's wellbeing, population health approaches require collaboration between a multitude of partners. This means they correlate closely with efforts to create ever more integrated data and services. By using techniques such as population segmentation and risk stratification to create prevention-orientated systems that allow for allocative efficiency, it is also hoped such approaches can lead to greater financial efficiency and deliver improved health outcomes. These potential benefits are leading many local systems to introduce population health and population health management programmes.

In some instances, the development of PHM integrated data projects has been accelerated by the pandemic; COVID-19 starkly illustrated the scale of health inequality and the impact of social determinants of health. System and service transformation using PHM was able to identify people who required greater support due to complex needs, as well as target certain populations through personalised care models, virus testing and deliver vaccination programmes.

The developmment of PHM integrated data projects has been accelerated by the pandemic

## Building shared outcomes and understandings of communities

The pandemic served to illustrate the critical value of high-quality data; data that supports shared understandings between different partners and which illustrates the needs of particular populations.

In Cheshire and Merseyside, leaders were clear as early as April 2020 that a real-time data analytics platform was urgently required to help manage the crisis. To this end, the local NHS, local authorities and the University of Liverpool collaborated to create CIPHA (Combined Intelligence for Population Health Action). This brings together data from acute trusts, GP practices, community trusts, mental health trusts, local councils and emergency services.

While initially created in response to the pandemic, the use of CIPHA now goes much further. Since September 2021, the ICS has been running System P, a population health management programme that has involved segmenting the population according to health status, healthcare needs and priorities. It makes it possible to identify populations which share similar characteristics that influence their use of services.

System P aims to take a predictive, preventative and precise approach to population, patient, and person health outcomes. Data analysis enables the identification of populations with high need, and then informs the development of interventions to better meet that need of individuals and population.

Two groups are being focused on initially: those living with frailty and/or dementia, and those living complex lives (defined as someone who has a long-term condition and/or additional challenges such as homelessness or substance abuse). As a result, data packs have been created for each of the nine ‘places’ in the ICS that empower and enable service leaders to not only understand how many people within these populations are living within a particular geographic patch, but also their characteristics

and levels of need. Because of this, new predictive and participatory interventions are being developed to improve health and care outcomes.

## New approaches to funding and resource management

Frailty has also been part of the focus for a population health management approach in Dorset, a popular retirement destination with a higher-than-average percentage of older frail people. The county also has significant variations in economic prosperity and includes some very rural areas from which health services are difficult to access. Both of these issues can be significant for health and wellbeing.

In allocating funding to primary care networks (PCNs), the ICS has typically split monies based on a weighted population formula (The Carr Hill Formula). Using this, a PCN would receive its proportion of funding for older people's services based purely on the weighted population for that age group, with no consideration of other factors that impact on access and wellbeing.

More recently, a population health management-style approach has been used. The Dorset Intelligence and Insight Service unites data from most of the ICS's constituent organisations and includes socio-economic information. System leaders at the ICS decided to make use of this integrated data in deciding on the allocation of ageing-well funding from NHS England.

For each PCN, a calculation was made on the proportion of people living in deprivation, in rurality, with frailty and at high risk of an emergency admission or fall. This enabled an understanding of local need in each population, which was based on a more sophisticated analysis than age alone. Funds were then allocated on this basis. The result is that a PCN with more people living in poverty and rural areas received a greater share of the money than

one with a higher proportion of people living in prosperity and in urban settings with easy access to support.

Ease and equitable access to services is often an issue population health projects seek to address. In Cornwall, this transformation has involved the creation of community hubs. Located in the heart of local communities, these are central points through which citizens can access a range of support provided by the voluntary sector. Since late 2022, there has also been a phone line which serves as one point of access to services from around 50 local charities. A trained member of staff works to create an individualised programme for the caller, often centred on addressing social determinants of wellbeing. The helpline and hubs are provided by organisations in the local voluntary sector, but are funded by the ICS.

In Merseyside, an NHS trust has taken on the responsibility for funding such facilities. The Life Rooms consolidate non-clinical, socially focused interventions at settings in the heart of the community (the first centre – there are now three – was opened in a former library).

Services provided fall into one of three categories:

- Learning for wellbeing sees the NHS partner with, for example, local theatres for confidence and self-esteem boosting courses.

- The pathways advisory service offers social prescribing, typically non-clinical community-based interventions where partnerships with the voluntary sector are key here.

- The final focus is on inclusion. Through this work, specific high-need groups are identified and supported, including specific teams working with refugees and asylum speakers, and those with struggling with digital exclusion.

## Changing perceptions through personalising care

No referral is required to use The Life Rooms, and the services are available to everyone – there is no need to have a formally diagnosed illness, or to be a patient of Mersey Care NHS Foundation Trust. This is a pure population health intervention, focused on the determinants of wellbeing rather than on illness per se, and there is no clinical care involved. In this way, it differs significantly from the traditional understanding of what the NHS is and what it should be.

Population health management approaches often involve this sort of departure from traditional concepts. For this reason, building understanding and support for these new understandings is important to success.

Population health management approaches often involve a departure from traditional concepts

In the Dorset funding allocation project, communication with staff was prioritised. There were two online events at which the methodology and rationale behind the changed method for funding allocation was discussed. Each PCN also received a document detailing the proposed methodology, and this was followed up with individual meetings with each PCN. The ICS leads were keen to ensure wide understanding of the aims behind the shift, emphasising that it was a new method of trying to deliver the best possible care to older frail disadvantaged people in the county.

Likewise, engagement at the most senior levels is cited as having been important to the development of The Life Rooms. The trust chief executive and fellow members of the board understood, encouraged and shared the vision of non-clinical, community-based services centred on social determinants of wellbeing. Having this high-level support enabled those implementing the project to move forward with confidence, knowing that there was full backing for the vision.

Meanwhile in Cornwall, collaboration has been at the very heart of creating the community hubs. The project involved forging new and enhanced relationships within the local voluntary sector – charities that might once have come from a position of competition moving to one of cooperation – as well as between the sector and the ICS that is commissioning it.

This need to forge new relationships, or change and/or expand existing ones, is common to many population health management approaches. Without strong relationships in place, interventions are far less likely to succeed.

# Key challenges

The case studies outlined here underline some of the key characteristics of projects seeking to take a population health approach: strong and broad local partnerships, good data and shared understanding, new approaches to funding, governance and changing perceptions. In addition, the discussions we had with health leaders identified further insights and important challenges around outcome evaluation, funding and governance.

In some cases, this use of local engagement and data may confirm existing knowledge and the instincts of the professionals who created it. For example, the data analytics of System P emphasises that just because an intervention was designed before the project was launched does not mean that it's 'wrong'. In these instances, data analysis is useful to prove the strength of the approach and to monitor its outcomes, not necessarily to inform service redesign.

That sort of outcome monitoring is a nut that often remains to be cracked. Population health approaches are firmly centred in prevention, in intervening before someone develops an illness, or before someone needs to use intensive and expensive services. What that means is that proving success often means proving a negative. That is far from straightforward.

Proving success often means proving a negative – that is far from straightforward

At The Life Rooms, qualitative data has already shown the difference that services have made to individuals. With the creation of CIPHA in Cheshire and Merseyside, there are now efforts underway to identify the service's quantitative benefits and the wellbeing outcomes of 6,000 service users are being analysed to create a numbers-based view of the approach's benefits.

There are challenging practicalities to be overcome on funding too. Health and care services have been set up to receive payment

when an activity is performed; an illness fixed or eased. What funding mechanisms need to look like to recognise an episode of preventative care remains a live and complicated question.

Information governance is an obvious issue; getting data-sharing agreements in place and deciding what level of access to information is appropriate for each organisation or individual. In addition, new partnerships and relationships which are forged through population health management approaches will need new forms of governance. The NHS is likely to be contracting with organisations or types of organisations with which it previously had far fewer relationships. Working out how to do this to ensure efficiency for both parties may take some work and is likely to need wide consideration across the health system.

# Viewpoint

A key message shared by all the leaders interviewed for this report is that population health management is fundamentally about people rather than numbers. This can seem counterintuitive given that such projects hinge on data, with collated information from a variety of sources and sophisticated data analysis. Qualitative insights are often just as or more important than quantitative insights: data analysis is only as good as the data inputted and often those with the most marked health inequalities do not show up in the data.

Population health management is fundamentally about people rather than numbers

Yet the value of local knowledge, held by patients, people who are close to communities and close to the services within those communities, cannot be underestimated. For example, at Mersey Care NHS Foundation Trust, the model for The Life Rooms model has been expanded to three centres with the same core service themes in place each time. The specific implementation, however – the services that are on offer – vary each time, depending on the community, based on local understanding.

These kinds of approaches require new ways of working and allocating time and resources. Indeed, another area of agreement amongst the health leaders we spoke to, was that population health and population health management approaches are not quick fixes and are likely to take some time before interventions are shown to have a difference.

In the current environment – in which the system is under immense pressure – that may prove difficult to accommodate. However, the case studies explored here suggest that if we are to a shift to population health and population health management approaches at scale, this an essential challenge we need to meet.

# References


1. Holmes, J (2022). What is a population health approach?. King's Fund. https://www.kingsfund.org.uk/publications/population-health-approach

2. World Health Organization. Social determinants of health, [online], accessed 13 November 2023. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1

3. NHS Confederation. Integration and Innovation in Action, [online], accessed 13 November 2023. https://www.nhsconfed.org/topic/campaigns/integration-and-innovation-action

4. NHS Confederation. Integration and Innovation in Action: case studies, [online], accessed 13 November 2023. https://www.nhsconfed.org/topic/campaigns/integration-action/case-studies

18 Smith Square
Westminster
London SW1P 3HZ

020 7799 6666
www.nhsconfed.org
@NHSConfed

If you require this publication in an alternative format, please email **enquiries@nhsconfed.org**



Registered charity no. 1090329