

Building a ‘place-based’ health and care system in York based on population health need

Summary

1. This report is intended to summarise and involve Health and Wellbeing Board members in work which is being carried out across organisations in York to better understand our population, and to use data and intelligence to plan and build a health system in York based on population health need. This work comes in the context of national changes to NHS commissioning structures recently announced, and local discussions of how health, council and community services can work more closely together.

It will be accompanied by a presentation setting out some of the key aspects of the work in detail, together with some key recent insight into the health of the public in York.

Health and Wellbeing Board members are asked to:

- Endorse this approach from partners in York to base future changes within the health and care system on linked data and intelligence on population health need.
- Comment on the ‘population health management’ approach, and in particular suggest which areas of need and inequality faced by the York population the Board sees as their priorities for this type of work.

Background

2. There are three key contexts for this work:
 - a. The **impact of COVID-19** on the health and wellbeing of people in York, shown by the rapid Health Needs Assessments written

in 2020 as the pandemic unfolded. These impacts are multiple, encompassing mental health, community cohesion, long term conditions, family wellbeing and vulnerability, economic shock, and – as some estimates suggest – a reduction of up to a year of life expectancy for our population. Our approach to services will inevitably (and indeed must) change in response to this, in order to safeguard and improve the public's health, acknowledge the strong links between 'health' and 'wealth', and move the city towards recovery.

- b. The **NHS Long Term Plan**, which sets out an ambitious programme of work to base health and care services on what people and residents need, not merely on the how they currently access care (which is often influenced by a lack of options in what care is available). The Plan states that:

'We will deploy population health management solutions to support ICSs to understand the areas of greatest health need and match NHS services to meet them.

The use of de-personalised data extracted from local records, in line with information governance safeguards, will enable more sophisticated population health management approaches.'

- c. The recently announced changes to NHS commissioning structures set out in the NHS England December 2020 document '**Integrating care: Next steps to building strong and effective integrated care systems across England**'. The implications of this document for York are still to be determined, but nationally will include the establishment of the existing Integrated Care Systems on a formal footing, absorbing many of the commissioning functions currently carried out by CCGs, but with 'significant budgets delegated to 'place' level'. It is likely that locally York will be considered the natural geography for this 'place' level.

Main/Key Issues to be Considered

3. The summary below aims to explain what population health and Population Health Management (PHM) are, before moving to give examples of PHM work, and to suggesting ways we might use PHM in York in the future.

What are Population Health and Population Health Management?

4. These two similar terms denote two different and discrete things:
 - a. **‘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 partners. Much ‘population health’ work is done by public health teams in local authorities, PHE and the NHS, however there is an acknowledgment that the whole NHS and public sector has a huge role to play.
 - b. **‘Population Health Management’** improves population health by data driven planning and delivery of care to achieve maximum impact. It includes segmentation, stratification and impactability modelling to identify local ‘at risk’ cohorts - and, in turn, designing and targeting interventions to prevent ill-health and to improve care and support for people with ongoing health conditions and reducing unwarranted variations in outcomes’
(NHS England PHM Flatpack)

‘Population health’ is therefore an umbrella label for a set of programmes geared towards improving health and wellbeing in a local area, some or all of which may individually deploy ‘Population Health Management’ solutions.

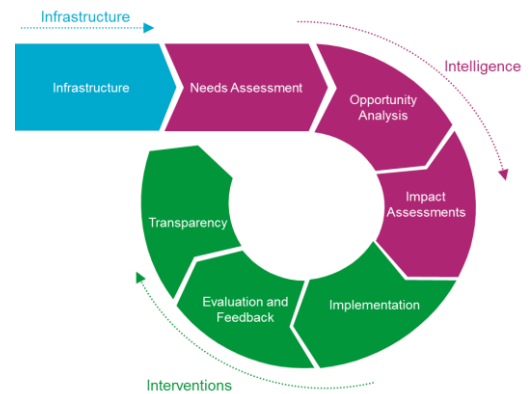
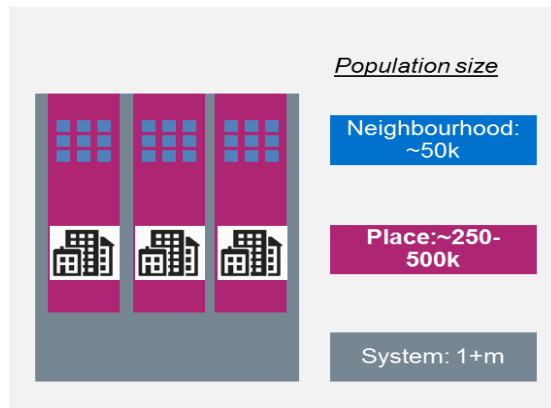
5. Population Health Management can help focus programmes of work on the right areas. For instance, when considering the growing demand on hospitals, much attention is given to the ‘ageing population’ as a driver of this growth. However PHM would point to strong evidence that the changing age structure of England is estimated to contribute to a growth in demand for care of around 0.4% a year, whereas hospital demand is growing by around 4% a

year; better explanation would be to understand the data on patterns of chronic disease incidence in each local population. Since 2009/10 the Vale of York area has gained a huge amount of 'additional' chronic disease: from 142 thousand people on a GP disease register a decade ago, by 2018/19 this had grown to 202 thousand, a 36% increase against a background population increase of 5%. This includes a:

- 65% rise in the number of diagnosed diabetics
- 106% increase in the number of people with Atrial Fibrillation
- 10% increase in the number of people with Depression.

PHM tools help health and care systems to understand these patterns and specific needs of the local population, and to target prevention and treatment resources appropriately; it can be applied to physical and mental health needs as illustrated above, but is most powerful when it specifically incorporates social, community and economic needs, and also recognises and harnesses their accompanying assets within a community.

6. As a distinct component of a population approach, PHM tools help understand current and future health and care needs so action can be taken to design joined up and sustainable health and care services, and make better use of public resources. Routine data is interrogated to understand the factors driving poor outcomes in different population groups, and to inform the design of new proactive models of care, stopping people becoming unwell in the first place or improving the way the system works to support them when they do.
7. As illustrated in the following diagrams, PHM tools work at three geographies: *neighbourhood* (e.g. PCN), *place* (e.g. LA or CCG), and *system* (e.g. ICS). And they need three capabilities: the right *infrastructure* to bring linked datasets together across primary, secondary, and social care; the right *intelligence* colleagues to analyse the data (including from a BI, population health and clinical perspective; and the evidence-based *interventions* which are implemented, evaluated and fed back.



8. There are a number of tools which PHM applies to health and social care data:

a. Risk stratification

This takes data on a whole population and analyses historical health conditions and healthcare usage to see how likely an adverse event e.g. hospital admission, was in the past. A risk pyramid then stratifies the population into levels of risk and enables the prediction of healthcare use in the future according to the level of need. For instance, we know that people with a high frailty score are around 5 times as likely to be admitted to hospital after a fall than those with a low score, so it makes sense to proactively identify those patients in general practice and offer them the full range of interventions to prevent falls

This approach can run the risk of focussing on 'low volume high risk' groups where even a good reduction in risk for some has little effect on the whole population; it is often more effective to focus on 'rising risk'. Risk stratification tools also need to be evidence-based, as some have low predictive value.

b. Segmentation

This approach divides the population into meaningful and mutually exclusive 'segments' e.g. healthy children, End of Life, adults with Long term conditions, and then looks at the activity, costs and outcomes associated with each segment by sector e.g. primary care, urgent care. This can be compared within area and between area to highlight segments of the population who may benefit from additional preventive support, and also to design new payment and contracting tools which incentivise providers towards prevention. For instance, we may find that children with complex care needs in York (a population 'segment') currently have a high


level of service use but poorer outcomes than elsewhere, leading to redesign of services and better health.

c. Impactability

Impactability further sorts individuals based on how likely they are to respond (be impacted) by different treatment or prevention options. This involved clinical and social judgement from groups of professionals around willingness and ability of patients, sometimes using measures such as patient activation scores. So, for instance, if evidence shows us that female patients with Diabetes between the ages of 50-64 are the most likely to respond to a referral to structured education programme for diet, physical activity and condition management, that is where we target our resources.

Examples of Population Health Management work

9. Population Health Management work has been implemented successfully in several other locations, as illustrated in the examples below.

<p>Chorley</p> <p>Use of NHS and council wheelie bin data to target social Rx</p>	<p>Chorley </p> <p>Chorley had already begun working across practice boundaries and with other stakeholders, including Chorley Council. These prior interests encouraged Chorley to think wider than traditional healthcare data. A lightbulb moment came when realising that people who were receiving assistance with bin collections – data held by the council – could help clinicians find frail people who had fewer social links. Interventions reflected these links between health and social needs. They used a social prescriber to provide care coordination and outreach for patients identified from this data. Patient activation scores were collected from patients. Patients are starting to see improved activation levels and reduced use of their GP practices.</p>
<p>Leeds</p> <p>Use of multiple datasets to target proactive frailty support</p>	<p>An example story from Leeds’ PHM Programme: ‘Paula from Pudsey’</p> <p>PCN cohort identified through population health analytics:</p> <ul style="list-style-type: none"> • 80 people 60-74 within moderate frailty segment, multiple LTCs, balance and nutrition issues, who aren’t connected to the neighbourhood teams (health or social care) <p>Locally-designed intervention:</p> <ul style="list-style-type: none"> • Proactive outreach with telephone-based triage • Assess areas of strength and struggle, including how they feel about ability to self manage • Triage to one of three interventions based on level of activation and need: <ul style="list-style-type: none"> • Refer to group “Live Well” consultation • Individual medical consult in clinic • Home visit led by an OT <p><i>‘Paula’ is a 63 year old woman with moderate frailty. She has multiple medical conditions as well as challenges associated with falls, memory and nutrition. Paula was identified as a person at risk based on the risk analysis and was contacted by the proactive telephone triage process. Paula was then visited at home by an Occupational Therapist. The at-home visit provided a proactive and holistic view—with specific focus on preventing falls, enabling better nutrition and improving Paula’s ability to self-care. The OT identified specific opportunities to enable a healthier lifestyle for Paula at home—for example by bringing in a kitchen trolley and enabling easier use of key kitchen tools. These interventions flowed from a more personal discussion at home about Paula’s goals and the challenges Paula faced associated with managing her own care at home.</i></p>

<p>Halton</p> <p>Use of urgent and primary care datasets to target physical activity interventions</p>	<p style="text-align: center;">Case Study: NHS Halton CCG 'Game Changer' Programme</p> <table border="0"> <tr> <td data-bbox="510 257 790 291">Problem</td> <td data-bbox="798 257 1444 291">Intervention</td> </tr> <tr> <td data-bbox="510 302 790 347">High no. of children visiting A&E unnecessarily</td> <td data-bbox="798 302 1444 347"> <ul style="list-style-type: none"> Increased child fitness and activity levels through the sport, specifically rugby, and through the use of local role models through sporting heroes </td> </tr> <tr> <td data-bbox="510 358 790 392">Understanding the Population</td> <td data-bbox="798 358 1444 392"> <ul style="list-style-type: none"> Used activity-based model consisting of assemblies and classes to influence children and their families into a more positive approach to health & wellbeing, nutrition and participating in local activities </td> </tr> <tr> <td data-bbox="510 403 790 481">Children attending A&E but who didn't correlate with children with child health problems, specifically obesity and diabetes</td> <td data-bbox="798 403 1444 481"> <ul style="list-style-type: none"> Used a tracker given to every child to monitor progress and create competition between schools. 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How do we plan to use PHM in York?

10. There are currently a number of existing assets in the North Yorkshire and York sub-system out of which a population health / PHM approach will be built:
 - JSNA work by Local Authorities which drives the priority setting of local health and wellbeing boards
 - COVID-19 related health impact assessments
 - The newly established North Yorkshire and York Analytics Collaborative between public health and the two CCGs, which can drive the 'infrastructure' element of PHM as well as some of the 'intelligence' element
 - The RAIDR platform, which for the first time provides good linked datasets between primary and secondary care
 - The NHS England PHM programme supported by Optum, which is currently supporting York 'place'

11. The NHS England / Optum supported programme is a 22 week programme in which participants in York from social care, General Practice, public health, the CCG, the voluntary sector and the Hospital take part in 'Action Learning Sets, supported by analytics capacity from the programme team, who supply linked data and analysis for the sets to use. The aim is to learn and develop PHM skills and 'test' out some of the learning. This involves:

- a. Cohort identification *e.g. a focus on people between the ages of 50 and 64 in York with Diabetes who are socially vulnerable*
 - b. Logic model development *e.g what inputs, activities and participants will we draw on, and what outputs and outcomes (short, medium and long term) do we expect*
 - c. Intervention *e.g. assessing the needs of individuals in the cohort using a multidisciplinary team, and triaging them to the most appropriate local services*
 - d. Evaluation *e.g. measuring the Patient Activation Scores of participants at the start and end, to see if we have made a difference.*
12. After the NHS England / Optum programme has completed, this work will be incorporated into the emerging plans for a York 'place' approach to future NHS and council commissioning, supported from public health and the CCG and feeding in analysis into the York Health and Care Collaborative to guide and set direction for its work.

Consultation

13. Work on population health management is at an early stage in York, as is the planning for new arrangements for NHS services based around 'Place'. A range of partners are involved in the population health management work described above, including council, NHS, primary care and voluntary sector staff, and further consultation is planned in early 2021 through York CVS.

Strategic/Operational Plans

14. This paper aligns to the Health and Wellbeing Strategy for the City in following a 'life course' approach; this 'segmented' view of the city aims to achieve comprehensive outcomes for all, and especially relies on strong evidence that conditions for health in early years shape the rest of a person's life.

Implications

- **Financial**

There are no financial implications to this report

- **Human Resources (HR)**

- There are no HR implications to this report

- **Equalities**

One opportunity in using data and intelligence through a population health management approach is to shine a light on hidden inequalities, whether socio-economic or around poorer health outcomes for people based on ethnicity, gender and other protected characteristics. This should lead to service changes which better reflect the needs of the population. An example of this is the targeting of text invites to smoking cessation services on populations who are disadvantaged and more likely to smoke, for instance those living in more deprived areas and those from an Eastern European background.

- **Legal**

- There are no Legal implications to this report

- **Crime and Disorder**

- There are no Crime and disorder implications to this report

- **Information Technology (IT)**

- There are no IT implications to this report

- **Property**

- There are no property implications to this report

Risk Management

15. Given the early nature of this work, there are no risk management implications of this report

Recommendations

16. The Health and Wellbeing Board are asked to

- Endorse this approach from partners in York to base future changes within the health and care system on linked data and intelligence on population health need.

Reason: the board have a key oversight and leadership role in health and care services in the city and should shape the future development of these services

- Comment on the ‘population health management’ approach, and in particular suggest which areas of need and inequality faced by the York population the Board sees as their priorities for this type of work.
- *Reason: the board have a key remit to tackle inequalities, and this is a chance for them to comment on how this work can be optimised to achieve this goal.*

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Report Approved

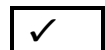


Date 17.12.2020

Specialist Implications Officer(s) None

Wards Affected:

All



For further information please contact the author of the report
Background Papers: