

Developing the Population Health Management Approach in Birmingham & Solihull ICS

August 2021



Population Health Management

PHM...

... improves the health and wellbeing, and reduces inequalities, **of an entire population**

Uses **data driven planning and delivery** of proactive prevention and care to achieve maximum impact.

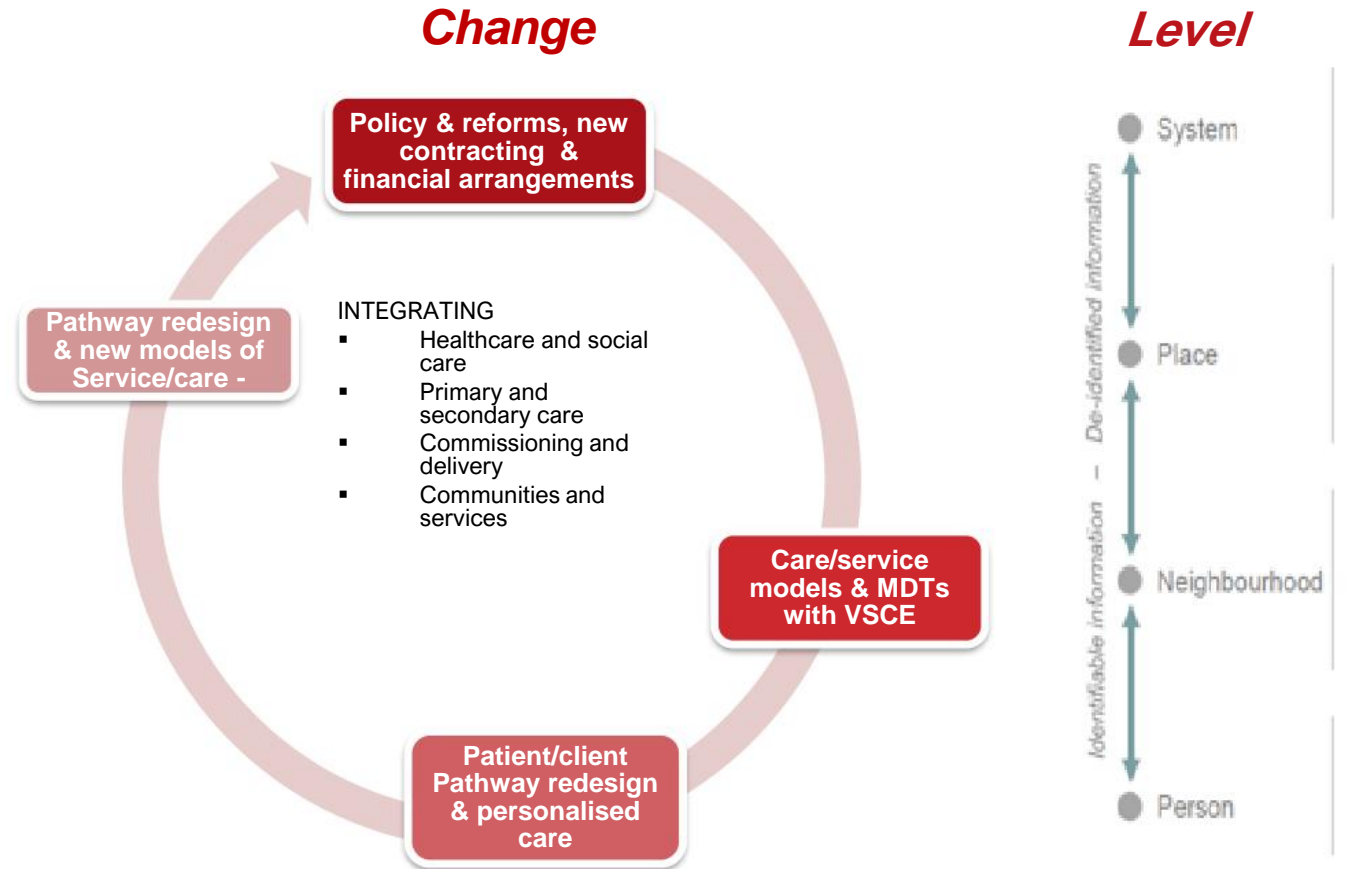
Includes **addressing wider determinants** of health problems, and requires coproduction by communities and partner agencies

PHM activities

... include segmentation, **risk stratification** and impactability modelling to identify local 'at risk' cohorts - and, in turn, designing and **targeting interventions** and **Pathways rationalisation**

to reduce risk and prevent ill-health and support people with ongoing health and social problems - **reducing unwarranted variations in outcomes**

Changes at levels driven by insights from integrated data



Issues with integrating social care data with health care data

- It is non-standardised
 - In terms of codes and terminology
 - In terms of data structure
- Does not use NHS numbers as unique identifiers
 - Cannot be easily linked with health data
 - Requires the use of fuzzy logic matching which the CSU does not employ.



Development «*PHM by doing*»

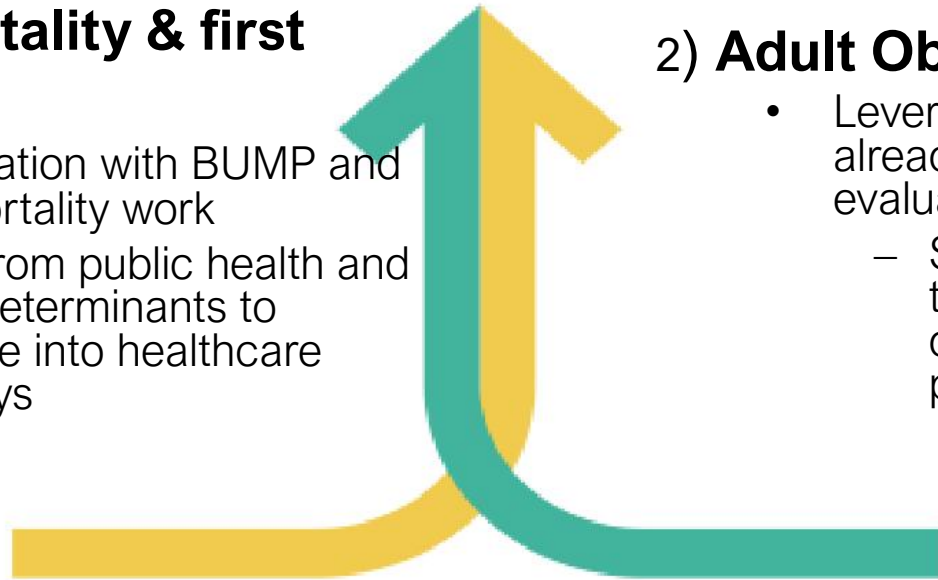
- Scope the digital and data infrastructure, and capacity and capability (for statistical modelling and forecasting) we have
- Build system wide relationships & trust, supporting organisational culture shift and citizen engagement
- Apply to two topics in PHM pilots that links up health and social factors

1) Infant mortality & first 1001 days

- Collaboration with BUMP and infant mortality work
 - Start from public health and social determinants to integrate into healthcare pathways

2) Adult Obesity

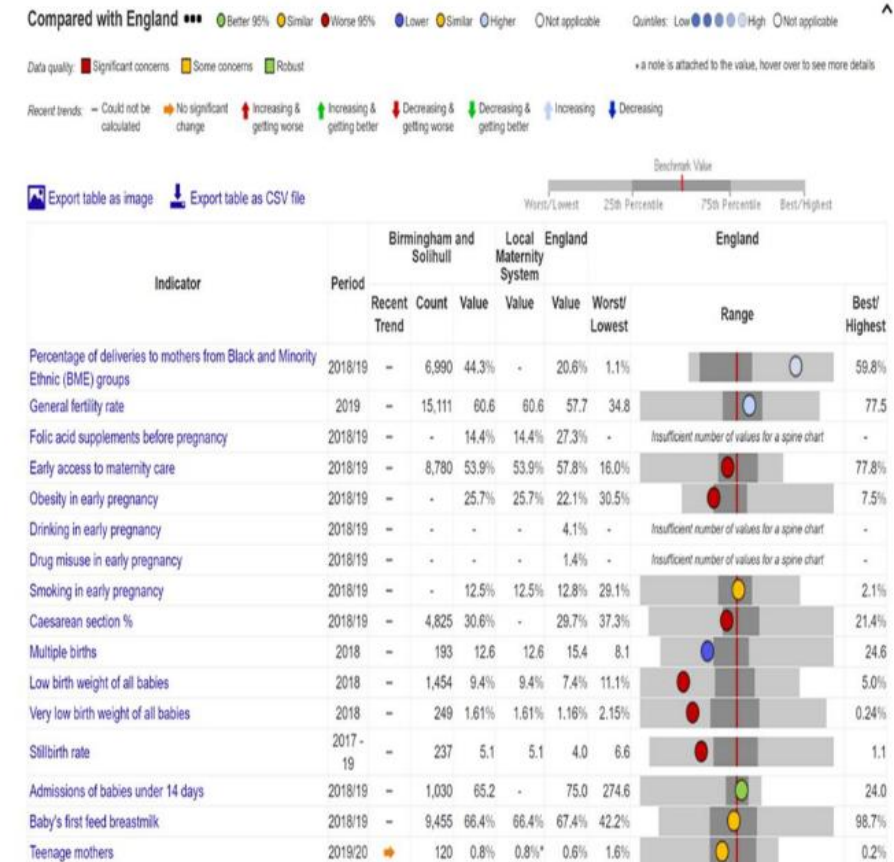
- Leveraging the work that is already underway to evaluate the care pathway
 - Start from healthcare to reach into social determinants and public health



PHM Pilot: Infant Mortality and & first 1001 days

Birmingham's infant mortality rate (deaths at ages under 1 per 1,000 live births) remains higher than the national rate despite downwards trend over the last 20 years

BSol has high rates of low birth weight and stillbirth - one of the highest in England.



PHM Pilot: Infant Mortality & first 1001 days

Assessed Need for-

responsive anticipatory
pregnancy, new-born, & yearly
years care to

-reduce *high rates of LBW rates & stillbirth* reducing perinatal morbidity & mortality

-promote early year health and development



Requires clinicians and commissioners ability to use

Clinical notes and **data** which contains stratification by risk e.g.

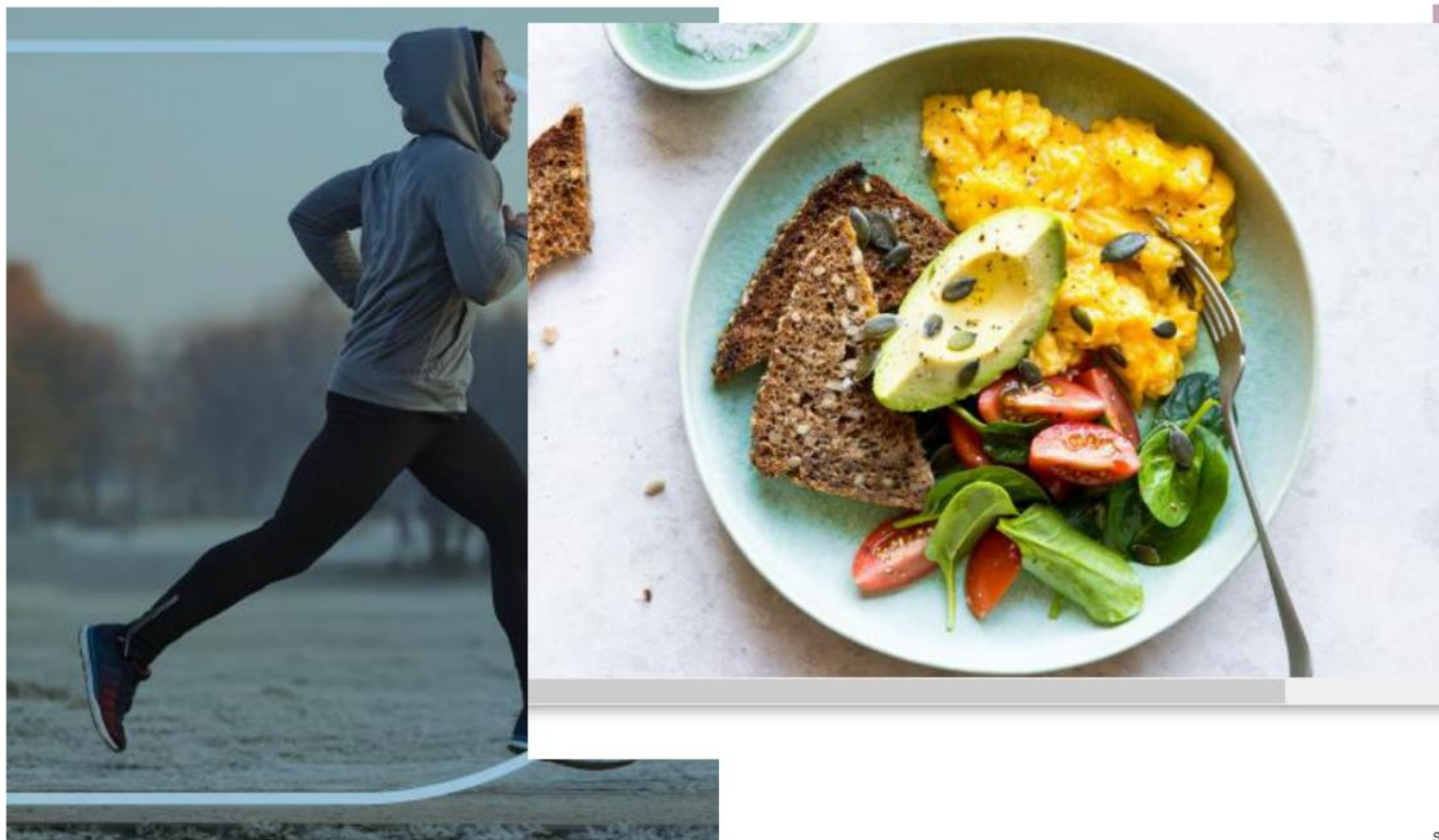
- *Late antenatal booking*
- *smoking while pregnant*
- *substance and alcohol misuse*
- *pregnancy health and nutrition*
- *pregnancy-related complications*
- *a mother's young age*



Individuals assigned to tailored care pathway/services

Groups provided with accessible services efficiently

PHM Pilot: Obesity and Weight Management



Percentage of Obese Adults by Birmingham LSOA
(January 2019 to March 2021)

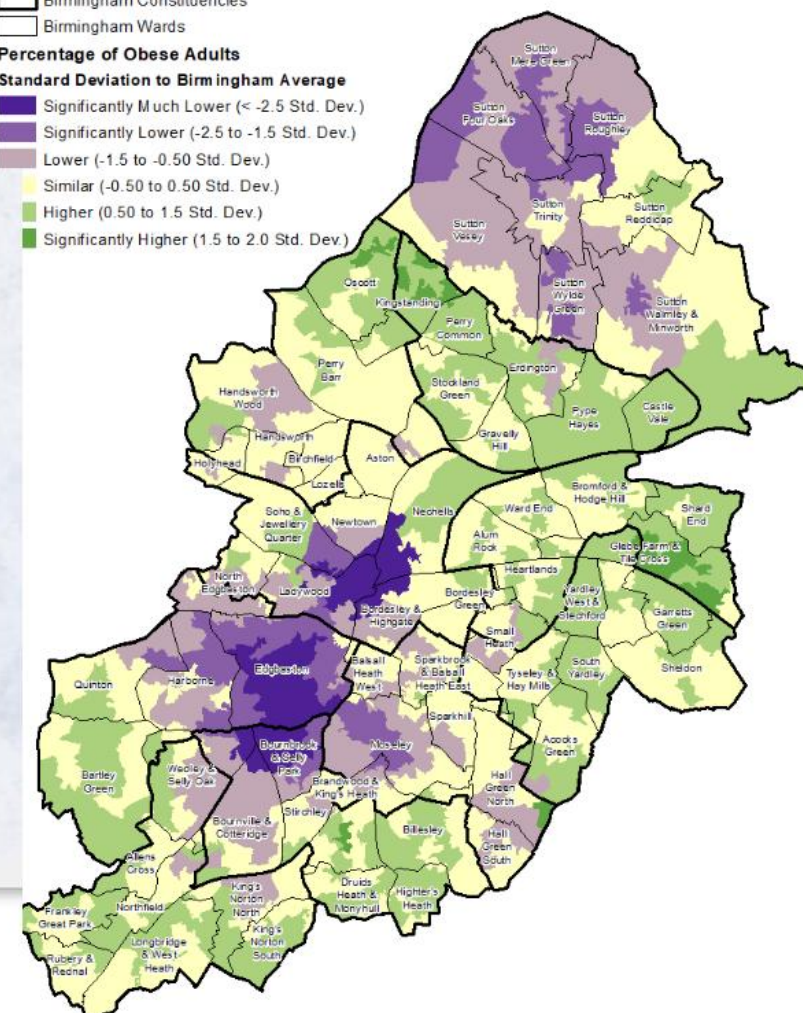
Legend

- Birmingham Constituencies
- Birmingham Wards

Percentage of Obese Adults

Standard Deviation to Birmingham Average

- Significantly Much Lower (< -2.5 Std. Dev.)
- Significantly Lower (-2.5 to -1.5 Std. Dev.)
- Lower (-1.5 to -0.50 Std. Dev.)
- Similar (-0.50 to 0.50 Std. Dev.)
- Higher (0.50 to 1.5 Std. Dev.)
- Significantly Higher (1.5 to 2.0 Std. Dev.)



Source: GDPPR (GP extracted data) for Birmingham & Solihull CCG and Sandwell & West Birmingham CCG (Birmingham patients).
Produced by Birmingham Public Health Division (29th March 2021)
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PHM Pilot: Obesity and Weight Management



Infrastructure

Data from community and services



Intelligence

Statistical modelling, visualisation & forecasting



Interventions

Insight used to design Service and assigned individuals to tailored care pathways & services

Tier 1: Universal weight literacy and advice

Wellbeing Service –
(e.g. Be Active Plus,
Weight Management App,
DPP)

NHS Health Checks

Tier 2: Community Services

Tier 3 Clinician led multi-disciplinary team

Tier 4 Bariatric care pathways