SYB ICS Population Health Management Update

SOUTH YORKSHIRE AND BASSETLAW
INTEGRATED CARE SYSTEM

COLLABORATIVE PARTNERSHIP BOARD

10th May 2019

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Sponsor	

Is your report for Approval / Consideration / Noting

For Noting

Links to the STP (please tick)

☑ **Reduce inequalities**	☑ **Join up health and care**	☑ **Invest and grow primary and community care**	☑ **Treat the whole person, mental and physical**
☑ **Standardise acute hospital care**	☑ **Simplify urgent and emergency care**	☑ **Develop our workforce**	☑ **Use the best technology**
☑ **Create financial sustainability**	☑ **Work with patients and the public to do this**		

Are there any resource implications (including Financial, Staffing etc)?

Additional short term SYB ICS expertise and capacity requirements for PHM being quantified

Summary of key issues

The NHS Long Term Plan sets out clear intentions that ICS's will focus on population health, population health management together with more health action on prevention and health inequalities to support the integration of care and delivery of the *quadruple aim; improving the health of populations, enhancing the experience of care for patients, reducing the per capita cost of healthcare and improving the staff experience of providing care*

This paper sets out the PHM progress and issues to date in SYB ICS

Recommendations

Members of the Collaborative Partnership Board are asked to discuss the SYB PHM approach and progress to date and note the recommendations set out in the paper.

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SYB ICS Population Health Update

Collaborative Partnership Board

10th May 2019

1. Aim

1.1 This paper provides an update to members of the Collaborative Partnership Board on progress of developing Population Health Management in the SYB ICS.

2. NHS Long Term Plan PHM Requirements

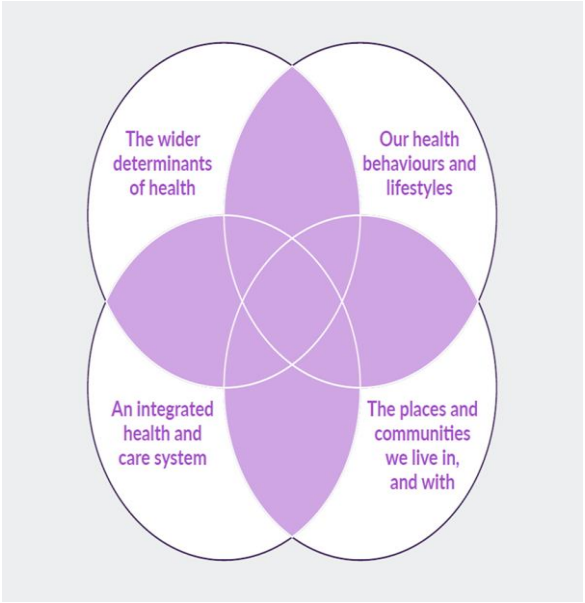
2.1 The NHS Long Term Plan sets out clear intentions that ICS's will focus on population health, population health management together with more health action on prevention and health inequalities to support the integration of care and delivery of the *quadruple aim; improving the health of populations, enhancing the experience of care for patients, reducing the per capita cost of healthcare and improving the staff experience of providing care.*

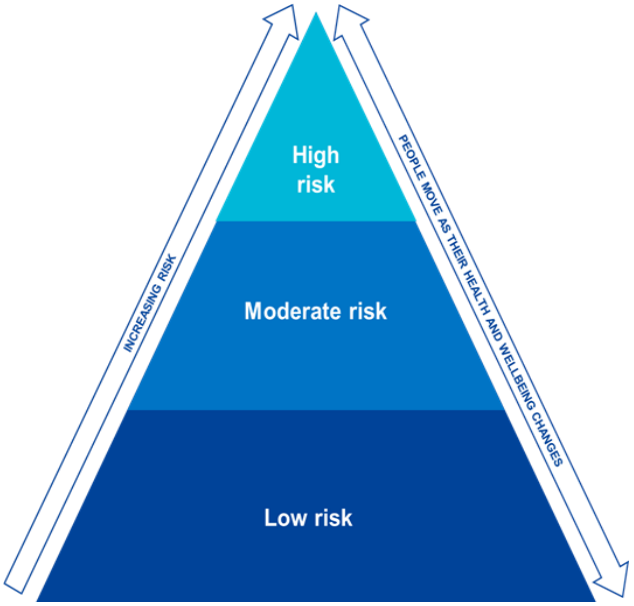
2.2 The LTP PHM requirements for 2019/20 are:

- Population health management solutions will support ICSs to understand areas of greatest health need and match NHS services to meet them.
- NHSE controls will be introduced to ensure new systems purchased by the NHS comply with agreed standards including those set out in The Future of Healthcare.
- Primary care networks will from 2020/21 assess their local population by risk of unwarranted health outcomes and working with local community services make support available to people where it is most needed.
- All providers across acute, community and mental health to advance to a core level of digitisation by 2024 and by 2020, five geographies will deliver longitudinal local health and care records with 3 additional areas in 2021.

3. Recap on Population Health

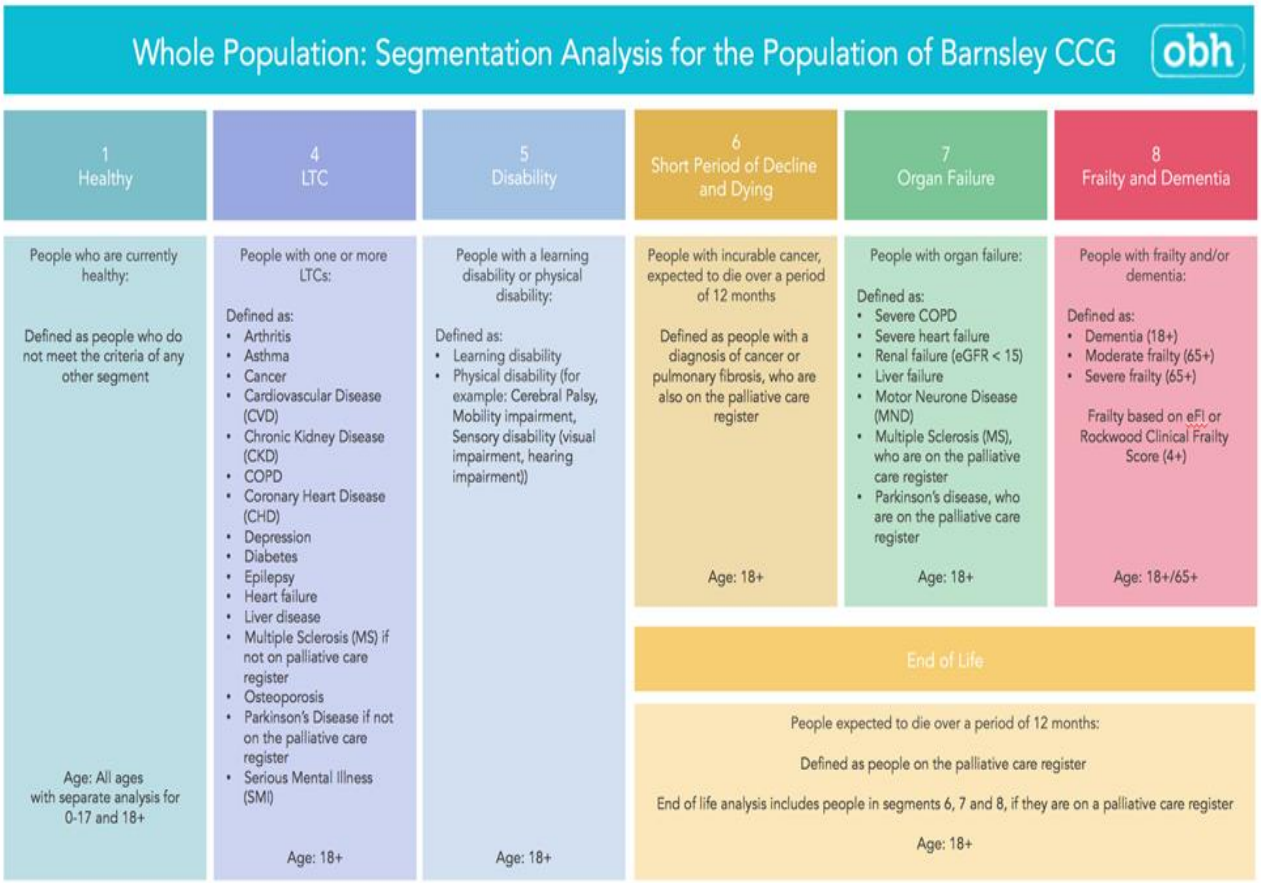
3.1 Population Health is an approach aimed at improving the health of an entire population, improving the physical and mental health and wellbeing of people whilst reducing health inequalities within and across a defined population. It includes action to reduce the occurrence of ill-health, including addressing wider determinants of health, and requires working with communities and partner agencies.





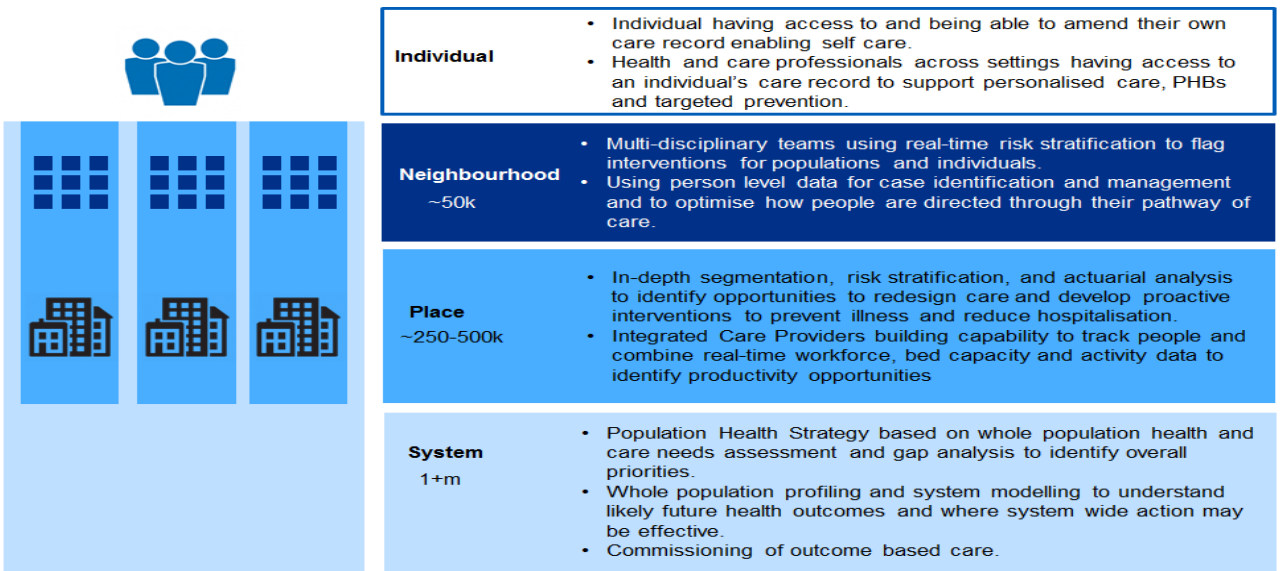
3.2 Population Health Management improves population health by data driven planning and delivery of care to achieve maximum impact. It includes segmentation, stratification and impactabilty modelling to identify local 'at risk' cohorts of people and designing and targeting interventions to prevent ill-health, improving care and support for people with ongoing health conditions and reducing unwarranted variations in outcome.

Fig1 Barnsley CCG example of population segmentation modelling to identify specific cohorts of the population's needs (using 'Bridges to Health' model)



4. Population Health within a System

4.1 Population health principles and interventions can be applied at each tier with the system at individual, neighbourhood, place and system level.



5. NHSE Core capability and competency for PHM

5.1 NHSE has developed a set of core PHM capabilities to be used to assess ICS and place progress in taking forward PHM and to demonstrate how it is being applied to support delivery of the LTP requirements. The three capabilities are:

Infrastructure

What are the basic building blocks that must be in place?

- **Organisational Factors** - defined population, shared leadership & decision making structure
- **Digitalised care providers and common health and care record**
- **Integrated data architecture** and single version of the truth
- **Information Governance** that ensures data is shared safely, securely and legally

Intelligence

Opportunities to improve care quality, efficiency and equity

- **Supporting capabilities** such as advanced analytical tools and software and system wide multi-disciplinary analytical teams, supplemented by specialist skills
- **Analyses** - to understand health and wellbeing needs of the population, opportunities to improve care, and manage risk
- **Interpretation** of evidence to identify targeted, high impact interventions

Interventions

Care models focusing on proactive interventions to prevent illness, reduce the risk of hospitalisation and address inequalities

- **Care model design** - delivery of integrated personalised care and interventions tailored to population needs
- **Community well-being** - asset based approach, social prescribing and social value projects
- **Workforce development** - upskilling teams, realigning and creating new roles

5.2 A revised PHM maturity matrix (appendix 2) has been released by NHSE for CCGs/places to self-assess themselves against a number of competencies to establish a baseline and identify any gaps. An earlier version of the matrix was completed by the five places in November 18 which demonstrated that most places and ICS were at the early stages in developing a PHM approach (see maturity matrix summary in Appendix 3). The ICS has now been asked to assess itself against the new matrix which aligns PHM requirements to the development of Primary Care Networks.

6. PHM progress in SYB

6.1 Some elements of PHM have been established in each place for a number of years predominantly around risk stratification to support proactive case management and care coordination for older people and people with LTCs/ to avoid unnecessary admission to hospital. Places are working collaboratively with their partners to better understand their population's health and care needs using data and intelligence to target specific groups of the population. This includes implementing data sharing arrangements across health and care providers to improve communication and to better understand population need.

6.2 ICS PHM Delivery Group progress to date:

- Established a SYB ICS PHM Delivery Group to agree a consensus of approach and developed a SYB PHM work plan with clinical priorities agreed (appendix 1)
- Clinical leadership in place for the Delivery Group – Rupert Suckling DPH, Doncaster
- Proposed a number of PHM priorities for system (where it adds value and supports places) and for place
- Secured £380K NHSE Non Recurrent funding to support the programme 2018/19
- Established Programme Director support – Lisa Kell
- Supported and developed PHM understanding & skills development across SYB (including master classes on PHM through a SYB community of practice network, consistent BI/ analytical approaches eg population segmentation, predictive modelling, economic benefits
- SYB is one of 14 PHM wave 1 ICSs nationally. Attend and actively participate in national meetings and events with National lead Jacqui White

- SYB is a member of the national PHM Reference Group led by Nick Harding working with the national teams to shape PHM support to ICS's across the country
- The PHM Delivery Group is working with the national PHM dashboard team, influencing the development of the dashboard for release to all systems in the summer

6.3 PHM Issues

- Lack of public Health analytics, quality improvement and business intelligence expertise and capacity across SYB to develop and lead PHM projects at place and system
- Limited Population Health Management knowledge and experience across SYB to fully understand gaps and develop opportunities
- Difficult to share data and intelligence at place and system due to current national Information Governance rules. NHSE are looking to change arrangements that support the sharing of data and intelligence but this may not be until 2021/22 through implementation of the LHCRE programme.

7. PHM Support

7.1 Due to the lack of PHM subject matter expertise in SYB, and IG issues preventing data sharing across five places, progress on developing PHM interventions at a system level have been difficult to identify. The PHM Delivery Group are drafting a specification to set out what additional short term PHM support, expertise and resource would help to move the PHM programme forward and clarify where the system should focus its PHM efforts that tangibly adds most value to the system and support to the places. Across the country the majority of systems are using external partners to support PHM work and a national PHM framework of providers has been developed by NHSE for this. The request will be discussed at the Health Executive Group in May.

8. Recommendations

8.1 Members of the Collaborative Partnership Board are asked to:

- Note the approach to PHM in SYB and progress made to date
- Note the issues identified and the impact on the programme
- Note the development of a specification to quantify the additional short term PHM expertise and capacity required to take forward the programme.

Paper prepared by

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May 19

SYB ICS Population Health Management - potential priorities for discussion **Draft vs 1 Jan 19** **Appendix 1**

1. What are we trying to achieve for SYB Population health Management through the PHM Delivery Group?
    a. Deliver NHS LTP requirements (and Social Care awaited green paper)
    b. Deliver NHSE requirements – (flat pack and funding objectives)
    c. PHM support to 5 places developing integrated care neighbourhoods / LCNs
    d. Develop SYB Population Health data and intelligence at scale in the ICS
    e. Population health embedded in the transformational SYB ICS work streams
    f. Culture and mind-set shift to embed Pop health principles in the ICS - clinicians / professionals / commissioners/ providers
    g. Promote investment in PHM and prevention

Theme	PHM suggested Priority	Task	Key Activities	Delivery Group Comments
Developing PHM maturity and approaches in SYB	**Understand SYB PHM gaps and needs**	• CCGs to refine the PHM Maturity Matrix v2 to identify gaps and issues that could be improved with an ICS solution /system piece of work to inform the work programme • Developing PHM data capability and capacity in the ICS	• This also needs to interlink with the primary care and personalised care.	
	Addressing SYB PHM gaps	• Use outputs of the v2 Maturity Matrix to inform ICS SYB priorities		
	SYB ICS population intelligence	• Update SYB ICS population profile and segment • Use outputs to inform work plan	• Use existing data ie right care / girft / model hospital and right care equality and inequalities packs	
		• Develop (interim) in-house SYB ICS BI public health analytical platform	• BI / analytical skills and capacity required to establish ICS Data base that builds the platform -	

Understanding the needs of the population through population data and intelligence	**Population Segmentation, predictive modelling and stratification tools**		(LHCRE may do this in the long term	
		• Develop an evidence based Population Segmentation/ profiling model for SYB based on existing models / tools and good practice to target specific cohorts of people and increase impactibility of a PHM intervention and service / workforce/ asset planning (at ICS and place level) • IG – Develop SYB data sharing agreements (with digital workstream • Stratification – undertake a review of good practice stratification models that will be used at place in neighbourhood / LCNs **Hosted Networks, Innovation Hub, HSP**	• Use Bridges to health model for segmenting the population or similar? • Places are developing PHM tools & capabilities • Embed? – BI and Public Health analyst capacity (Nottinghamshire ICS have a PHM segmentation tool developed by Centene –LK to arrange a visit/ demo to del group ?)	
Underpinning and supporting ICS Workstreams in PHM. (PHM is an enabler for transformation)	**Supporting primary care LCNS/ neighbourhood teams to deliver integrated care for local people**	• Support the development of primary care networks/ neighbourhoods multidisciplinary team working across health and care enabled with PHM tools, data and interventions • Implement social prescribing and personalisation proactively in each PCN	• Link with ICS Primary Care strategy	
	Service transformation - PHM interventions that help reduce unwarranted variation in clinical services and	• Suicide prevention young males ? • PHM in Secondary care, ie respiratory admissions (right care issue). others ?	• Personalisation / social prescribing already underway across SYB ICS and in place?	

	care			
	Citizen and Patient communication and involvement	• Empowering and supporting local people to manage their health in the way that suits them best tailored to their level of knowledge skills and confidence. • SYB campaigns to promote good health and well-being / screening / specific areas agreed by the del group	• Use digital technology / develop social media APPs to support people to manage their wellbeing	
	Digital	• ICS Sharing of care records across SYB,- implementation of Y&H LHCRE		
	prevention and early intervention	• Promote a relentless focus on Prevention at ICS and place and ensure alignment of prevention interventions with PHM program • Cardiovascular Disease risk factors (project with the AHSN) Following the PHM learning cycle through to implementation for population groups at risk of CVD. • Quit in hospital Programme		
	Social Prescribing?			
	Data, intelligence and Information reporting	• Develop PHM metrics and outcomes • Measure improvement in outcomes and added value of PHM interventions using SYB PHM dashboard to monitor progress in SYB ICS • Work with NHSE on the development of the national PHM dashboard	• Do we have a health and care data intelligence strategy that links to LHCRE (digital W/ stream) - do we need one ? • Requires BI / analyst	

			capacity and skills in ICS	
	Clinical leadership and influence in PHM interventions	• Clinical involvement from all 5 places important for PHM commitment and buy-in		
	ICS PHM Network	• Establish local SYB CoP to share learning and good practice and rapid implementation of PHM interventions across SYB		

Questions for PHM Delivery Group

1. Risk of overcommitting a plan to deliver PHM requirements when the ICS has limited capacity / skills in PHM– do we pick a few priorities from this list and deliver them for SYB in 2019/20 as our PHM thinking and capability matures?
2. SYB ICS PHM focus needs to be on what we can do once at scale that supports places/ LCNs
3. Work plan aims to develop and deliver a systematic adoption of PHM principles and interventions to impact on population health
4. Is the suggested priorities too NHS / health dominated?
5. We need some quick wins delivered for PHM as an ics - what?
6. QI needs factoring in

NHSE Population Health Maturity Matrix Revised April 2019 appendix 2

	Emerging	Developing	Maturing ICS	Thriving ICS
Infrastructure	• Limited use of local data. Reliance on national data to undertake analysis for planning and commissioning activities. • Poor digital maturity across health and care providers. No secondary care Global Digital Exemplar.	• Some linking of traditional data flows between primary and secondary care. • Information governance arrangements in place between commissioners and primary and secondary care providers to support analysis of population health. • Plans to establish Global Digital Exemplars to increase digital maturity of health and care providers.	• Linked primary, secondary, community, mental health care data available for direct care and care redesign, with plans to link wider data sources, including social care and other sources • ICS wide Information Governance arrangements which support analysis of linked data for care design. • Clear plans for convergence of linked data set with population health data feed from Local Health and Care Record platform. • Demonstrable progress to increase digital maturity of providers through Global Digital Exemplar Programme.	• Full flows of data from all health and social care sources available for direct care and care planning, including demonstrable efforts to link patient level information on wider determinants (housing, unemployment, income etc). • System wide information governance arrangements which allow for analysis of de-identified patient level data for care design purposes and smooth re-identification within ICPs and PCNs for proactive case finding and management. • Responsive data feed from Local Health and Care Record platform to support above data model. • Interoperable care records which support appropriate read and write access for clinicians and patients. • Global Digital Exemplar providers with fast followers across ICS.
Intelligence	• Disparate analytical teams spread across the system mainly undertaking traditional commissioning and reporting activities • Limited intelligence tools to help with understanding population health demands.	• Traditional reporting, intelligence systems and analytical outputs acting at organisation level with limited clinical engagement. • Use of analytical teams and support units to provide population health analytical insight, but not in a systematic and consistent way across the STP. • Costing and performance analysis is organisationally focused rather than patient focused. • An understanding of health inequalities at organisation/place level and insights used to shape delivery.	• Starting to use local linked data to segment and stratify population to understand needs of different patient groups and risk factors. The costs of different cohorts are understood now and in the future. • Some social determinants information being used alongside health data. • Starting to map and understand system analytical workforce and intelligence tools with plans being developed for more streamlined and systematic capability. • Analytical support made available for PCNs to help understand high and rising risk patients and to support care design activities.	• Well developed cross ICS analytical function with skills in predictive techniques that enables actionable insights to be regularly delivered to PCNs and Place based integrated teams. • Analysis which shows current and future costs of different patient cohorts, key risk factors (across health and wider social needs) and those patients who are at greatest risk of a deterioration in health • Operating model in place between analytical team, ICP and PCN teams to provide responsive actionable insight to inform proactive and anticipatory care. • Systematic and sustained use of all insights (including Health Inequalities insights) to inform action and resource use at all levels of the system
Intervention	• Largely reactive health and care system delivered by providers where there is minimal collaboration. • Limited progress to tailor care models for different patient groups.	• Basic population segmentation in place to understand needs of key groups with early insight into resource use. • Limited engagement across primary and secondary care teams to integrate care around high need groups • Limited use of voluntary and third sector to respond to key patient groups. • Social prescribing and anticipatory care activity not linked to needs analysis.	• Forums and working arrangements being established between primary and secondary care, social care and public heath teams - and with third sector involvement - to design proactive care models for different patient groups based on patient level analysis. • Integrated teams (primary and secondary care) being supported to adopt rapid improvement cycles to implement anticipatory care interventions (including social prescribing), measure impact and refine approach. • Personalised care plans in place for at risk groups. • Population health analysis being used to inform modelling for integrated multi-disciplinary teams.	• Clearly defined care models in place for key population groups across vertically and horizontally integrated teams. • A range of anticipatory care interventions have been designed and financial incentives put in place to support implementation through PCN MDTs. • Clear working arrangements between PCNs and voluntary and community sector partners with clear offers of support for specific patient groups. • Ongoing systematic analysis and use of data in care design, case management and direct care interactions to support proactive and personalised care.

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Summary of SYB PHM Maturity Matrix **appendix 3**

Summary of Maturity Matrix						
	Barnsley	Bassetlaw	Doncaster	Rotherham	Sheffield	SYB Level
1. Infrastructure						
1.1. Leadership	Middle	Middle	Middle	Middle	Middle	Basic
1.2. Population Definitions	Basic / Middle	Middle	Basic	Middle	Advance	Basic
1.3. Information Governance	Basic	Advanced	Basic	Advance	Advance	Less than basic
1.4. Digital Maturity	Basic/Middle	Middle	Basic	Middle/Advance	Middle	Middle
1.5. Data Infrastructure	Basic/Middle	Middle	Basic	Middle	Middle	Less than basic
2. Intelligence						
2.1. Supporting capabilities	Basic	Basic	Basic	Basic/Middle	Middle	Less than basic
2.2. Analysis - Understand	Middle/Advance	Middle	Middle	Middle	Middle/Advance	Basic
2.2.1. Identify	Middle	Middle	Basic	Middle	Middle	Basic
2.2.2. Target	Basic	Basic	Basic	Middle	Middle	Less than basic
2.2.3. Pause					Basic	Basic
2.2.4. Refine	Basic/Middle	Middle	Basic	Basic	Basic	Basic
2.3. Reporting and Decision Mgt Support		Basic	Basic	Middle	Middle	Basic
3. Care design						Basic
3.1. Change Support	Basic/Middle	Middle	Basic	Middle	Middle	Basic
3.1.1. Workforce and leadership development support	Middle	Middle	Basic	Middle	Middle	Basic/Middle
3.1.2. Scaling Innovation	Basic	Middle	Basic	Middle	Middle	Basic
3.2. Patient empowerment and activation	Middle	Middle	Basic	Basic	Basic/Middle	Basic
3.3. Care Integration	Middle	Middle	Basic	Middle	Basic/Middle	Basic
3.3.1. Incentivising systems/clinicians	Middle	Middle	Basic	Middle	Middle	Basic
3.3.2 Behavioural insight for citizens	Middle	Middle	Middle	Middle	Middle	Basic