AGENDA ITEM
4.1

POPULATION HEALTH & PARTNERSHIPS COMMITTEE

POPULATION HEALTH MANAGEMENT: UPDATE

Date of meeting	4th May 2022

FOI Status	Open/Public

If closed please indicate reason	Choose an item.

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Approving Executive Sponsor	Executive Director of Public Health

Report purpose	ENDORSE FOR COMMITTEE APPROVAL

Engagement (internal/external) undertaken to date (including receipt/consideration at Committee/group)		
Committee/Group/Individuals	**Date**	**Outcome**
Primary, Community, Population Health and Partnerships	30/10/2019	ENDORSED FOR APPROVAL
Primary, Community, Population Health and Partnerships	10/02/2020	ENDORSED FOR APPROVAL

Primary, Community, Population Health and Partnerships	07/07/2021	ENDORSED FOR APPROVAL
Population Health and Partnerships Committee	06/10/2021	ENDORSED FOR APPROVAL

ACRONYMS	
CTMUHB	Cwm Taf Morgannwg University Health Board
PSRS	Population Segmentation and Risk Stratification
DHCW	Digital Health and Care Wales
SWIYC	Stay Well in Your Community
CHWT	Community Health and Welfare Team
GP	General Practitioner
IPC	Institute of Public Care
IGRP	Information Governance Review Panel (for SAIL)
DPA	Data Process Agreement
DPIA	Data Protection Impact Assessment
SAIL	Secure Anonymized Information Linkage

1. SITUATION/BACKGROUND

1.1 This report provides an update on the population segmentation and risk stratification (PSRS) approach to Population Health Management in Cwm Taf Morgannwg University Health Board (CTMUHB) for the committee to see, discuss and endorse.

1.2 **Population Health Management** seeks to understand patient populations, groups or clusters by characteristics related to their need and use of health care resources. In CTM one PHM tool has been developed – the PSRS tool - which can help Primary Care Clusters, GPs,

ILGs and other partners to decide how best to use limited time and resources to deliver anticipatory and pre-emptive care for patients. Segmenting the population based on a range of factors can identify groups by their holistic need and ability to benefit from anticipatory care.

1.3 The feasibility of the population segmentation and risk stratification (PSRS) approach was previously piloted in the Rhondda primary care cluster. The roll out of this approach previously formed one Workstream of the *Stay Well in Your Community* (SWIYC) Programme of work supported by Transformation funding by the Welsh Government. The aims and objectives of the Workstream are available in Annex A and will form part of the wider Population Health strategy for CTMUHB. PSRS supports new models of care being implemented within the other work streams of SWIYC, in particular, the Community Health and Welfare Teams (CHWT) and Assistive Technology. As part of the work, PSRS is being evaluated by Welsh Government.

1.4 As described in the last report, following the successful Rhondda Pilot the Data Quality Group and GPC Wales requested that roll out of the approach uses data from the SAIL Databank rather than create a new integrated dataset as done in the pilot. This approach benefits from the well-developed information governance framework surrounding the SAIL Databank. However, SAIL was developed for research purposes and holds only anonymised patient data, whereas the programme requires the supply of de-anonymised data to respective GPs, which is being accommodated through the support of DHCW and Sollis, a data processing supplier. Further, there is agreement that while the LPHT PSRS project team will have access to named GP Practice data for analytical purposes, only anonymised data will be released and will be safeguarded by data safeguarding/confidentiality rules. The technical solution (see Figure 1) has taken some time to develop and was revisited in late 2021 leading to final adjustments to SAILs IGRP and the DPA.

1.5 A refreshed business case was submitted to the Welsh Government in June 2021 to implement this approach across other Health Boards. This is still pending and no further update on this element is provided in this report.

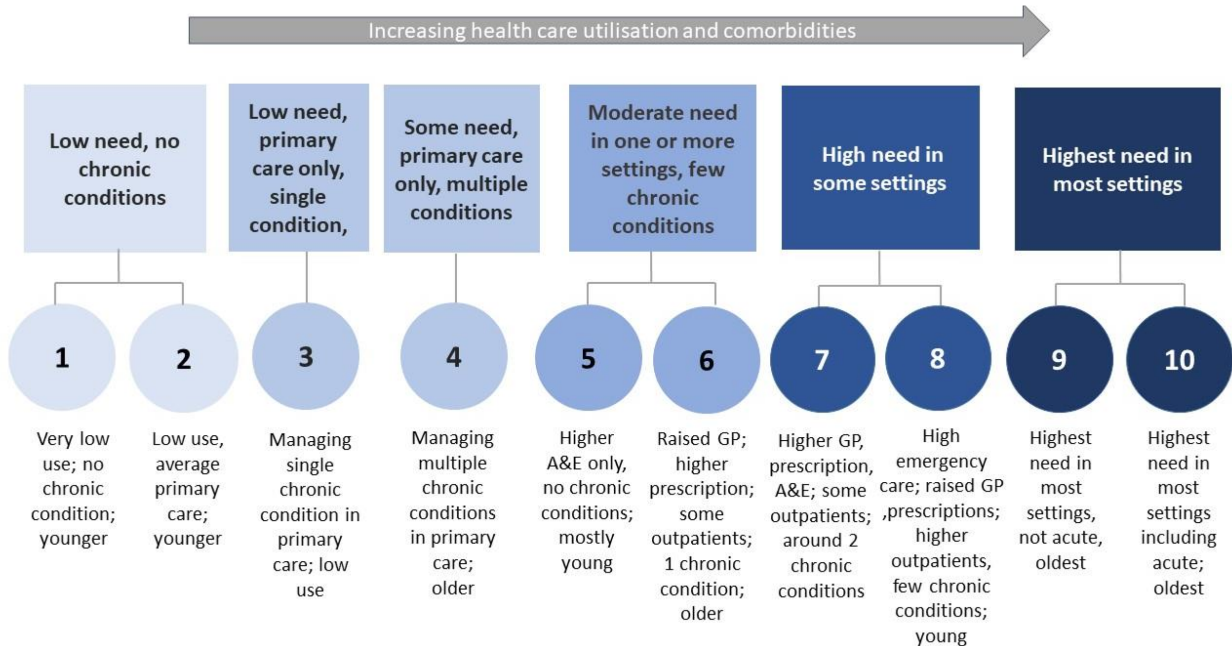
2. SPECIFIC MATTERS FOR CONSIDERATION BY THIS MEETING (ASSESSMENT)

Implementation of PSRS in CTMUHB

2.1 Over October/November 2021, 48 of the 49 GP practices across CTM agreed to the Data Processing Agreement (DPA) for their practice data to be included in the analysis.

2.2 In February 2022, the first data set was received by the LPHT as well as initial GP practices, followed in April by data being received for 45/49 practices in CTM. Data for the remaining signed practices is planned to be accessible following the next quarterly update in May 2022.

2.3 A summary of the initial data has been provided to Health Board executives and stakeholders. This highlights the data which will be available, patient distribution across CTM and allows the stakeholder group to feedback where more detailed analysis is required for targeted health planning. An example of information included are the segment



breakdown as well as proportion of patients within each segment/risk strata by cluster below.

CTMUHB Data-driven segments

Percentage of patients in each segment and risk group by primary care cluster, RCT

% in each Segment	Cynon North	Cynon South	Rhonnda North	Rhonnda South	Taf Ely North	Taf Ely South	RCT	CTM UHB
Segment 1	24.4%	22.7%	23.9%	23.5%	28.0%	27.4%	25.3%	**25.4%**
Segment 2	17.7%	18.0%	17.3%	16.7%	16.2%	17.4%	17.1%	**16.5%**
Segment 3	4.5%	4.6%	4.6%	5.2%	5.0%	6.1%	5.1%	**5.6%**
Segment 4	13.1%	14.4%	13.9%	13.8%	14.0%	12.2%	13.5%	**13.4%**
Segment 5	8.5%	8.6%	7.9%	9.0%	6.3%	7.3%	7.9%	**7.7%**
Segment 6	14.2%	14.0%	14.6%	13.1%	14.8%	14.3%	14.1%	**14.2%**
Segment 7	6.5%	6.6%	6.5%	7.1%	5.5%	5.4%	6.2%	**6.5%**
Segment 8	3.7%	3.4%	3.4%	3.9%	3.0%	3.2%	3.4%	**3.2%**
Segment 9	4.5%	4.5%	4.6%	4.6%	4.5%	3.9%	4.4%	**4.7%**
Segment 10	3.0%	3.2%	3.2%	3.1%	2.8%	2.6%	2.9%	**2.8%**
Risk strata (%):								
High risk	5.4%	5.8%	5.2%	5.7%	4.7%	4.4%	5.2%	**5.0%**
Moderate risk	16.1%	17.1%	16.3%	16.3%	14.1%	13.4%	15.4%	**15.0%**
Low risk	78.5%	77.1%	78.4%	78.0%	81.2%	82.2%	79.5%	**80.0%**

Note: Segments based on health care utilisation and comorbidities; using primary care data from Jan - Nov 2021, secondary care data from Nov 2020-Nov 2021. Risk of emergency admission calculated using Johns Hopkins ACG System based on primary and secondary care.

Percentage of patients in each segment and risk group by primary care cluster, RCT

The full summary documents are available to be shared.

2.4 The LPHT data is at a population level and is being reviewed to create Population Health profiles at local authority and cluster levels. Information in the profiles will include population health measures as well as specific population segmentation data such as: the distribution of patients across segments, proportion within each risk strata and case mix adjusted analysis by practice. As stated above the practices are anonymized. It is hoped these profiles will be utilised in the planning of services to those most in need, reducing inequalities. This analysis allows for more targeted interventions to patients most in need of support.

2.5 GP practices were also provided with patient level data using the DCHW portal which can be accessed via a named administrator in each practice. This allows individual practices to understand both the characteristics and proportion of patients across the segments as well as the patients at high risk of admission in the following year.

2.6 The PHM team are working closely with Primary Care clusters to assess the use of segmentation in service provision. As originally agreed as part of the transformation programme, characteristics of specific segments may help identify patients in need of a more multi-disciplinary approach to support. Pilots will be undertaken with practices to identify patients who would benefit from a referral to the SWIYC Community Health and Wellbeing Teams (Merthyr and RCT) and Integrated Teams (Bridgend). This will include clinicians reviewing the accuracy of the segments to identify specific patient characteristics. This is an initial assessment of

the use of linked data to identify patients who might benefit from targeted interventions.

2.7 A separate research project is being conducted by the LPHT in parallel with the above and examines the predictive ability of segmentation including the development of the CTM UHB data-driven segmentation model to date. This methodological work was originally planned to be a separate project to investigate the predictive ability of segmentation. As the work progressed it was expanded to include the development of the actual segments to be rolled out. Objectives include the determination of whether a new combination of variables in the segmentation could improve prediction of future healthcare need and an assessment on the effect of the Covid time period on segmentation.

2.8 The governance arrangements for PHM in CTM since October 2021 have included a regular stakeholder meeting as well as an overarching Steering Board for PHM. Note that PSRS is one component of PHM in CTM and progress will be reported via these new governance structures.

Evaluation

2.9 The potential for using utilization-based cluster analyses to segment a local General Practice-registered population in the Rhondda cluster was assessed as a pilot during April 2018 – July 2019. A process evaluation assessed the feasibility of the approach and compared the use of a traditional expert-driven segmentation approach with data-driven utilization analysis. The findings have previously been presented and are available upon request.

2.10 An independent evaluation of work streams in the SWIYC is being led by the Institute of Public Care (IPC) at Oxford Brookes University. The LPHT will work with IPC to support the evaluation process and plan the time allocated to the PSRS Workstream. Logic models have been developed in collaboration with Cardiff University. The PSRS Workstream aims to evaluate the effectiveness of PSRS in identifying the health and care needs of the CTMUHB primary care-registered population. This is supported by two objectives:

(1) To evaluate the predictive ability of population segmentation.

(2) To undertake a process evaluation to inform wider roll out of this approach, to other clusters and to other Health Boards.

2.11 The evaluation does not include evaluation of specific interventions, which are implemented using the findings of the segmentation, over and above identifying the added benefit that segmentation offers. For example, the Community Health and Welfare Teams (MDTs) which are being implemented as a separate Workstream within the SWIYC programme will be evaluated separately. However, this evaluation will work closely with this Workstream to ensure outcomes that support evaluation of segmentation, are measured using a coordinated approach.

Next steps

- Complete and share Population Health Profiles with stakeholders to inform planning.
- Continue evaluation of PSRS and use this to inform delivery.
- Await a decision from the Welsh Government regarding provision across Wales.

3. KEY RISKS/MATTERS FOR ESCALATION TO BOARD/COMMITTEE

None

4. IMPACT ASSESSMENT

Quality/Safety/Patient Experience implications	There are no specific quality and safety implications related to the activity outined in this report.
Related Health and Care standard(s)	Staying Healthy
	If more than one Healthcare Standard applies please list below:
Equality Impact Assessment (EIA) completed - Please note EIAs are required for <u>all</u> new, changed or withdrawn policies and services.	No (Include further detail below) If yes, please provide a hyperlink to the location of the completed EIA or who it would be available from in the box below.

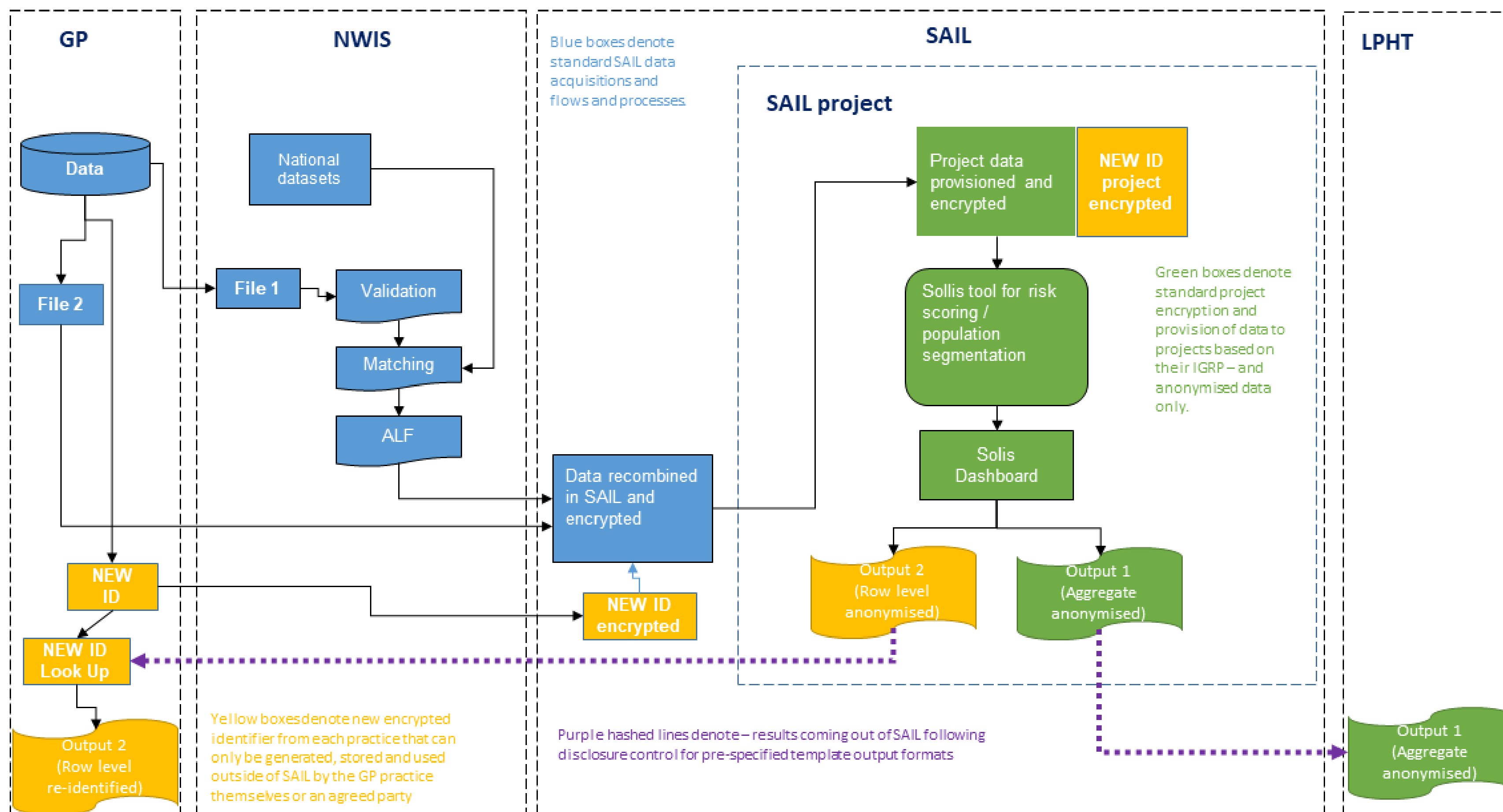
	If no, please provide reasons why an EIA was not considered to be required in the box below.
	EIA not required as this report is an update to population health management approach previously agreed. EIA to be completed in next stage of implementation.
Legal implications / impact	There are no specific legal implications related to the activity outlined in this report.
Resource (Capital/Revenue £/Workforce) implications / Impact	There is no direct impact on resources as a result of the activity outlined in this report.
Link to Strategic Goals	Creating Health

5. RECOMMENDATION

5.1 The Population Health and Partnerships Committee is asked to:

5.2 **ENDORSE** the approach to Population Health Management outlined in this report.

Figure 1: Data flow for the proposed technical solution



Note: this map of data flow does not distinguish between current process that are already in place (data flows from GP to DHCW, and DHCW to SAIL) and processes that will be adapted as part of this project (data flows within SAIL and out to GP and LPHT via the Sollis application (operating within and outside the SAIL environment)). It also does not depict the project actions e.g. IGRP and DQS applications (please see project action plan).

This map requires an amendment for output 2, whereby it will be provided via DHCW (formerly NWIS) to the GP portal.

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ANNEX A: AIMS AND OBJECTIVES OF THE PSRS SWIYC WORKSTREAM

Aims

a) To undertake population segmentation and risk stratification for the primary care-registered population of CTMUHB using data from the SAIL Databank.

b) To provide GP practices with patient-level identifiable information on the health and care needs of patients registered in their practice using individually-assigned segments and risk stratification scores.

c) To evaluate the effectiveness of population segmentation and risk stratification in identifying the health and care needs of the CTMUHB primary care-registered population.

Objectives

i. To establish the processes by which data will flow in the project.

ii. To set out the roles and responsibilities of all parties collaborating on this project.

iii. To ensure all legal and information governance requirements for data sharing, processing and dissemination are met.

iv. To ensure GP practices are provided with information on the segmentation and risk stratification of individual patients in a format that allows that information to be easily linked to patient records.

v. To ensure the Local Public Health Team (LPHT) are provided with sufficient information to: (1) support GP practices in the interpretation and use of the data; and (2) to consider, advise and/or initiate effective interventions for patient segments and risk strata in their population.

vi. To ensure that this project closely aligns, and that outputs produced are compatible, with any separate research projects undertaken by the LPHT to evaluate the effectiveness of population segmentation and risk stratification.

vii. To undertake a process evaluation to inform wider roll out of this approach, to other Health Boards.

viii. To evaluate the predictive ability of population segmentation.