

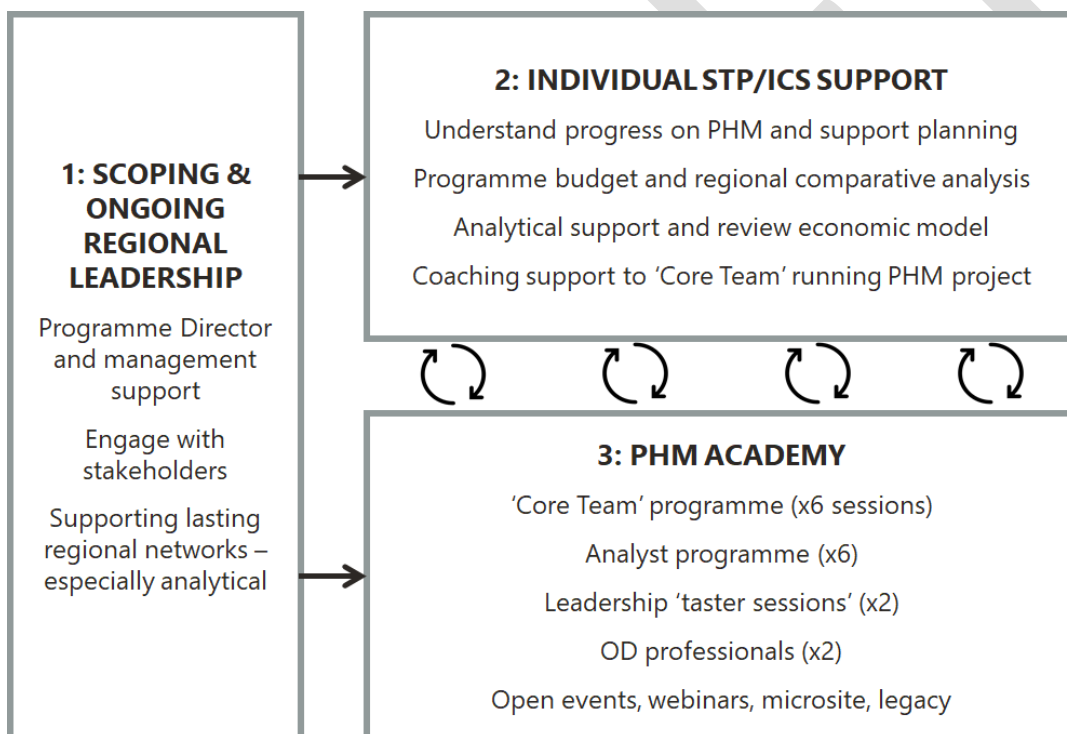
Midlands Population Health Management Programme

Analyst Development Programme (DRAFT 11-06-19)

Population health management (PHM) is essential to integrated care. It provides health and care systems with an evidence-based means of achieving better population outcomes within the resources available. PHM’s basic theory is that: better insight = better decisions; and that better decisions = better outcomes. NHS England and NHS Improvement (Midlands) has therefore commissioned a programme of support to develop approaches to population health management in the region.

The support is being provided by a multi-disciplinary partnership led by the [Strategy Unit](#) (part of [Midlands and Lancashire Commissioning Support Unit](#)) and including: [Oxford Centre for Triple Value Healthcare](#); [Dartmouth Institute](#); [The Centre for Health and Social Care Leadership](#) (University of Birmingham); and [Milliman](#), with many others providing specific inputs.

The programme is organised into three workstreams. These are summarised in the diagram below:



This document describes the analyst development programme, run under the PHM Academy. This will be led by [Professor Mohammed A Mohammed](#) and [Steven Wyatt](#). Subject matter experts will contribute materials throughout the programme.

The programme will introduce analysts from CCGs, NHS Trusts, CSUs, Local Authorities and national bodies (NHSE/I, PHE) to PHM. It will equip analysts with the conceptual frameworks, knowledge and skills so that they can play a central role in the development and deployment of PHM within STPs/ICS.

The analysts programme comprises a launch event, followed by subject-specific workshops on:

- Needs assessment and opportunity analysis
- Impact assessment and evaluation
- Risk prediction and population segmentation
- An introduction to actuarial modelling
- Problem structuring and communicating analytical results

In addition there will be a sixth workshop, focused on the STAR (Socio-Technical Allocation of Resources) method which will be jointly attended by analysts and the STP Core Team members.

The programme will run alongside the Core Team element of the Academy. We anticipate that the lead STP analyst will attend both the Core Team and the analyst development programme. The STP lead analyst will attend the analyst development programme as a participant, but also to coordinate the attendance and participation of analysts from within their STP. Whilst the STP lead analysts will be expected to attend all sessions, other analysts will be invited to attend on a session-by-session basis, according to their role, interests and prior knowledge.

The sessions will be scaled to allow up to 70 people to attend the launch event and 40-50 analysts to attend each of the subsequent workshops. We will ensure each STP has the opportunity to nominate analysts to attend each session. Attendees may be asked to undertake some pre-workshop learning in the form of reading / reviewing on-line materials.

At the end of each session, participants will be able to use the workshop venue for informal networking with their colleagues and peers.

We will evaluate each session and the programme as a whole through participant feedback.

## Launch Workshop – 9<sup>th</sup> July 2019

External speaker confirmed

### Objectives

- To introduce the programme, its structure, content and ethos
- To introduce the concept of population health management, its origins, methods, principles and its relationship with current health policy
- To showcase the PHM flatpack and dashboard
- To consider the analytical skills and experience that already exist within STPs
- To set the programme within the wider framework of the science of improvement

### Provisional programme

9.00 – 9.30	Registration and coffee	
9.30 – 10.15	Welcome & introduction to the day Introduction to PHM & the STP PHM programme	MA Mohammed, SU Lucy
10:05 – 10.15	Mentimeter questions	Facilitated by PHE
10.15 – 10.40	National context & PHM flatpack	J Chin, NHSE
10.40 – 11.05	PHM dashboard	N Martin, NHSE
11.05– 11.30	Coffee break	
11.30 – 12.00	Population Health Intelligence skills mapping exercise	G Wrench, PHE
12.00 – 12.30	Overview of the PHM analytics programme	S Wyatt, SU
12.30 – 13.30	Lunch	
13.30 – 15.45	Science of Improvement <ul style="list-style-type: none"> <li>- Understanding systems</li> <li>- Understanding variation</li> <li>- Understanding people</li> <li>- Understanding knowledge and learning</li> </ul>	MA Mohammed, SU
15.45– 16.15	Review and look ahead to Session 1	S Wyatt, SU
	Close	
16.30 – 18.00	Informal networking (optional)	

## Session 1 – Needs assessment and opportunity analysis – 3<sup>rd</sup> September 2019

External speaker confirmed

### Objectives

- To review the Healthcare Needs Assessment process
- To explore the distinction between need, demand and supply of healthcare
- Sources of data to derive population need
- To consider patient-focused, holistic needs assessments
- To peer-review JSNAs
- To explore methods of identifying and measuring improvement opportunities

### Provisional programme

9.00 – 9.30	Registration and coffee	
9.30 – 9.45	Welcome & introduction to the day	MA Mohammed, SU
9.45– 10.15	Need, demand & supply	S Wyatt
10.15 – 11.15	An epidemiological approach to needs assessment	G Wrench
11.15 – 11.30	Coffee break	
11.30 – 12.00	Approaches to opportunity analysis	S Wyatt, SU
12.00 – 12.30	Data sources - population & prevalence rates	TBC
12.30 – 13.30	Lunch	
13.30 - 14.00	Holistic / individual needs assessment	D Wright, Inside Outcomes
14.00 – 14.45	Automated JSNAs	TBC
14.45 – 15.45	JSNA Peer-to-peer facilitated session	MA Mohammed, SU TBC
15.45– 16.15	Review and look ahead to Session 2	MA Mohammed, SU
	Close	
16.30 – 18.00	Informal networking (optional)	

## Session 2 – Impact assessment & evaluation – 8<sup>th</sup> October 2019

### Objectives

- To explore the role and the process of developing a logic model
- To review methods of modelling the impact of an intervention at the design stage
- To review methods of estimating the impact of an evaluation
- To understand the role of qualitative research in evaluations

### Provisional programme

9.00 – 9.30	Registration and coffee	
9.30 – 9.45	Welcome & introduction to the day	S Wyatt, SU
9.45– 10.15	An apple a day : Logic models & Qual Methods <b>Mentimeter</b>	A Mulla, SU
10.15 – 10.30	(Ex-ante) Design stage evaluations / impact assessments vs (Ex-post) summative evaluations	S Wyatt, SU
10.30 – 10.45	<i>Coffee break</i>	
10.45 –12.30	<b>Modelling approaches (RIGHT Framework)</b>	<b>TBC</b>
12.30 – 13.30	<i>Lunch</i>	
13.30 – 14.00	<b>Business case development – multi organisation – STP / ICS</b>	P Taylor, Provex
14.00 – 15.30	<b>Experimental study designs</b> <ul style="list-style-type: none"> <li>- <i>Randomised controlled trials</i></li> <li>- <i>Cluster randomised trials</i></li> <li>- <i>Stepped wedge designs</i></li> </ul> <b>Observational study designs</b> <ul style="list-style-type: none"> <li>- <i>Interrupted time series analysis (exercise)</i></li> <li>- <i>Matched cohort design</i></li> <li>- <i>Synthetic controls</i></li> </ul>	P Seamer, SU
15.30-15.45	Break	
15.45– 16.15	Review and look ahead to Session 3 <i>Close</i>	S Wyatt, SU
16.30 – 18.00	Informal networking (optional)	

### Session 3 – Population segmentation & risk prediction and – 12<sup>th</sup> November 2019

#### Objectives

- To introduce the concept of risk prediction, its applications and limitations
- To explore the use of risk prediction for targeted case-finding
- To explore the concept of impactability
- To review the approaches to population segmentation and its use

#### Provisional programme

9.00 – 9.30	Registration and coffee	
9.30 – 9.45	Welcome & introduction to the day	MA Mohammed, SU
9.45 – 11.00	Population segmentation <i>Mentimeter</i>	Gareth Wrench, PHE
11.00 – 11.15	Introduction to cluster Analysis	Paul Seamer
11.15 – 11.30	<i>Coffee break</i>	
11.30– 12.30	Introduction to risk prediction / stratification - <i>statistical methods</i> - <i>accuracy &amp; limitations</i>	MA Mohammed, SU
12.30 – 13.30	<i>Lunch</i>	
13.30 – 15.15	<i>Prediction for targeted case finding</i> <i>A case study</i>	T Marshall, UoB
15.15 – 15.45	<i>Impactability</i>	TBC
15.45– 16.15	Review and look ahead to Session 4	S Wyatt, SU
	<i>Close</i>	
16.30 – 18.00	Informal networking (optional)	

## Session 4 – An introduction to actuarial modelling – 10<sup>th</sup> December 2019

### Objectives

- To introduce the concept of actuarial science, its principles and applications
- To review approaches to actuarial modelling
- To explore approaches to reconciling data and to setting and testing assumptions

### Provisional programme

9.00 – 9.30	Registration and coffee	
9.30 – 9.45	Welcome & introduction to the day	S Wyatt, SU
9.45 – 10.45	Introduction to actuaries and actuarial work <ul style="list-style-type: none"> <li>- <i>The profession and professional body</i></li> <li>- <i>Training, skills and qualification</i></li> <li>- <i>Health and public sector actuaries</i></li> </ul>	J Buckle & T Haywood, Milliman
10.45 – 11.00	Coffee break	
11.00 – 12.00	Introduction to actuarial modelling <ul style="list-style-type: none"> <li>- <i>Actuarial control cycle</i></li> <li>- <i>Common projects and approaches</i></li> </ul>	J Buckle & T Haywood, Milliman
12.00 – 12.30	Case study – the use of actuarial techniques to support an NHS integrated care system	J Buckle & T Haywood, Milliman
12.30 – 13.30	Lunch	
13.30 – 14.30	Reconciling data & case study	J Buckle & T Haywood, Milliman
14.00 – 15.45	Setting and testing assumptions <ul style="list-style-type: none"> <li>- <i>Assumption settings and testing</i></li> <li>- <i>Sensitivity analysis</i></li> <li>- <i>Deterministic vs. stochastic approaches</i></li> <li>-</li> </ul>	J Buckle & T Haywood, Milliman
15.45– 16.15	Review and look ahead to Session 4	MA Mohammed, SU
	Close	
16.30 – 18.00	Informal networking (optional)	

## Session 5 - Problem structuring and communicating analytical results – 14<sup>th</sup> January 2020

### Objectives

- To explore methods of engaging with managers to understand their context, imperatives and objectives
- To review conceptual frameworks and methodologies for structuring analytical problems
- To explore approaches to preparing a brief for an analytical project
- To explore methods of organising analytical outputs to effectively communicate results
- To develop written and verbal presentation skills

### Provisional programme

9.00 – 9.30	Registration and coffee	
9.30 – 10.00	Welcome & introduction to the day <i>Update from core team (2 mins per team)</i>	S Wyatt, SU
10.00 – 11.00	Informal problem structuring – useful frameworks <b>Mentimeter</b> <ul style="list-style-type: none"> <li>- <i>Problems, puzzles and messes</i></li> <li>- <i>Hard and soft complexity</i></li> <li>- <i>The Cynefin framework</i></li> <li>- <i>Agile methodologies</i></li> </ul>	S Wyatt & MA Mohammed, G Wrench / J Battersby
11.00 – 11.15	<i>Coffee break</i>	
11.15 – 11.30	Formal approaches to problem structuring	S Wyatt, SU ( <i>HSMC or video</i> )
11.45 – 12.30	<i>Organising and presenting analytical outputs</i>	TBC
12.30 – 13.30	<i>Lunch</i>	
13.30 – 15.45	Designing an analytical project <i>Role play exercise with STP Lead</i>	S Wyatt, SU
15.45– 16.15	Review and look ahead	MA Mohammed, SU
	<i>Close</i>	
16.30 – 18.00	Informal networking (optional)	



## **Additional Session – STAR (Socio-Technical Allocation of Resources) – Date TBA**

Jointly with STP Core Teams

### *Objectives*

- To introduce programme budgeting data, its structure, derivation and use
- To explore how programme budgeting data can be used to understand patterns of spend and the relationship between spend and outcomes
- To explore how the STAR methodology can be used to support decision makers to allocate resources

*Provisional programme TBA*

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