

# Population Health Management

## The Analysts' Manifesto

**The need for high quality analysis has never been greater. Public services are highly resource constrained - yet need for support is increasing. Choices must be made. And choices based on high quality analysis beat choices based on history and hunch.**

The promise of Population Health Management (PHM) is significant. PHM is an analytically founded way to understand population need, design responses and evaluate results. This allows health and social care services to make better, more sustainable use of their collective resources. PHM's basic proposition is that better analysis leads to better decisions, which leads to better lives.

Significant change is needed to make good on this promise. Change is needed in the way that analysis is asked for and used; change is needed in the way that analysts work; change is needed in the way that the analytical workforce is supported, developed and networked.

This is a manifesto for such change. It has been produced by analysts involved in the PHM Academy in the Midlands.

Accepting overlaps, it focuses on bespoke analysis, rather than standard performance reporting or business intelligence.

There is some theatre in the use of 'a manifesto'. Yet its agenda is serious. If clinical decisions were made with the lack of rigour and evidence that many managerial decisions are, the resulting harm would be obvious. But managerial decisions commit scarce resources on a vast scale. These resources could be used for frontline services: the opportunity cost of poor decision making can be high.

The manifesto is both ambitious and incomplete. We offer suggestions, but there is no nuanced programme to solve problems cited. Instead, our aim is to spur, shape and galvanise action. So the manifesto is an invitation for decision makers and analysts to come together and improve lives through the better application of analysis.

## Working with analysts

Requests for analysis are often badly formulated. Analysts spend time working to answer 'the wrong question'. Results are typically unhelpful. Questions come from all parts and levels of the health and social care system; for analysts they come 'from above' and can be hard to reshape.

This is not a good use of valuable analytical resource. Nor is the amount of time analysts spend on performance reporting - or interpreting results from dashboards or 'tools'. This blunts skills.

Those requesting and using analysis should work with analysts to formulate questions. Time invested upfront will be repaid in more useable results.

Analysts should be free to determine the methods used for analysis. This is our area of expertise. We should then work with decision makers to interpret, communicate and use results. The analyst community needs to improve its skills here: technical excellence cannot be buried by poor communication.

This requires a shift in the way that decision makers and analysts work together. The aim should be collaboration, recognising respective and distinctive skills and perspectives.

## Valuing and pooling data

Data is fundamental to health and social care services. Florence Nightingale showed that collecting, analysing, and reporting on data is essential to high quality services. She would be astonished at the data available today. Yet analysts are frequently hamstrung by lack of data sharing.

We acknowledge the need for safeguards to protect service users' data, while remaining convinced that better practice is possible within current Information Governance (IG) rules. Current lack of understanding of IG (in some cases between IG professionals and analysts) tends towards overly cautious responses to data sharing requests.

We call for urgent action on data sharing and access across health and social care systems - indeed, across public services more broadly. We can extract more value from the colossal volume of data in existence but held in silos; we can use this data to benefit the populations we serve while retaining safeguards.

Data is a shared resource. System leaders should work with us to maximise the benefits of it.

## Valuing the analytical workforce

Analysts' career structure does not support specialism. The current structure encourages us to follow a generalist management track. Yet technological progress - and the profusion of complex analytical and data science techniques - offers valuable opportunities for specialism.

We need a career structure that rewards sophisticated analytical work, allowing analysts to specialise as analysts. Without this, public services will continue to lose talent to the private sector, which is often more able to pay a premium for scarce skills. This is not a new idea, these ideas have been articulated time and time again - by the Association of Professional Healthcare Analysts, the Health Foundation, the Government Digital Service, and others.

We endorse this agenda and call for leaders to pursue this work and reap the benefits in local systems.

Data science skills should be fostered within public services. External contractors should be used sparingly. When they are used, skills and techniques must be transferred. We should pay once and use multiple times; the reverse is currently more usual. We can make better use of public resources.

Code or algorithms produced using public funding should be freely shared for reuse and improvement. Openness of method and ability to replicate is at the heart of the scientific method: as is the shared endeavour of advancing knowledge.

## Networking the analytical workforce

We call for health and care organisations to nurture and grow their own staff. More sophisticated questions and more complex, system oriented outcome measures require analysts to develop new and deeper skills. Analytical and non-analytical leaders need to articulate a more ambitious vision for analysts - and give them the time, space, and resources to deliver this vision.

At the same time there are already analysts across local systems with high-level skills in data science, machine learning, text analytics, statistics, and more. Yet they often work in isolation, forgoing the benefits of collaboration.

So we must network analytical resources. Analysts should collaborate to learn from each other, to disseminate their skills and develop more junior staff: to offer training,

mentoring, seminars, working groups and other ways of bringing our community together. This means protecting development time. It means working across local systems. It means tapping into local academic expertise. It may also mean recruiting 'high end' analytical talent from other sectors. Analysts want to collaborate and reuse work and learning across the system; they need permission from leaders within their system.

Pooling analytical resources should be a quick win for STPs and ICS. They operate at a scale where specialism can be nurtured; where career paths can be built and followed; and where analytical power can be applied to strategic decision making. The development of Decision Support Units in the Midlands is a positive development here.

# Tools for collaboration

Analysts need the right tools to work with complex datasets. Analytics and data science are fast-moving fields. Pooling resources, networking analysts and curating the commons are key themes in this manifesto. Tools such as R make these concepts a reality. R, which is free, open source and widely used in other organisations (Google, ebay, NASA, Astra Zeneca) allows analysts to create and share code: minimising upfront cost and reducing reinvention. We need easy access to this and similar tools. IT infrastructure must support this.

# Analytical leadership

Data is fundamental to safe and effective services. This fact is not always reflected in governance arrangements. Within the NHS, there have been some moves to appoint chief data analysts on boards. Such posts can bring an analytical perspective to bear on a wide range of issues that come to board. More broadly, networks of analysts are being formed and developed; these can help provide collective and distributed leadership within the analyst community.

More fundamentally, we call for a more analytically literate leadership community. Not everyone needs to know how to undertake analysis: but decision makers do need to know how - and when - to make best use of analytical insights. Joint training and development would help (and has begun under the Midlands PHM Academy). As an analytical community, we can support this.

- ✓ The analyst of the future feels valued
- ✓ They are stretched technically - doing what only they can do
- ✓ They have the tools and data needed to extract valuable signals from the ever-increasing noise
- ✓ They work collaboratively with each other and with analytically literate decision makers at all levels and in all parts of the health and social care system
- ✓ The results of their work lead to better decision making; this leads to improved population outcomes
- ✓ PHM is an opportunity. We need action to make our vision into reality.

## Contact us

Production of this manifesto was supported by the Strategy Unit as part of the Midlands PHM Academy. If you have comments or questions, please contact:

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