The Strategy Unit.

Intelligence-driven health and care: what should the future look like?

Design principles

May 2018

NHS
Midlands and Lancashire
Commissioning Support Unit

Introduction to the project

As we move towards more integrated care, it's clear that we need to fundamentally rethink how we use data, information and analysis more effectively to drive improvement and innovation. For too long, the NHS has focused on using intelligence to drive performance management and arguably, this has resulted in waste and duplication that is no longer sustainable. Integrated Care System's therefore need to fundamentally rethink the purposes of their information/data/intelligence needs.

What are the important questions that need answering and for whom, in order to deliver the best outcomes for the population served? What information and intelligence is needed and how should it be made accessible to those who will actually respond to it?

This project has looked to explore this notion, with the aim of producing outputs that are fully informed by evidence, best practice and cutting edge technology – nationally and internationally.

To date, this has included:

- a review of the relevant literature,
- interviews with key stakeholders,
- an analysis of the current market,
- a knowledge exchange with international health systems – New Zealand, Nuka, Buurtzorg,
- and several detailed case studies of ACOs in the US – through our partner ICF

Introduction to the four design principles

We needed a means of moving from the evidence gathered to a process for re-designing intelligence systems. To do this we used design principles. These principles were tested in draft at the Design Summit; they are presented here in revised form.

As such the principles are suitable for use - although they may benefit from further, post-use, refinement. We can see how each could be elaborated into a tool for assessment (where are we now?) and a framework for strategy (where do we want to be and how will we get there?).

This is the next stage of our work and we will be seeking local systems to work with to take these principles and turn them into action.

Understand what really matters

Get the questions right

- Start by finding out what really matters to the population, patients / communities, clinical teams, managers and leaders
- Should relate to strategy of the organisation / place
- Questions about: need / use; strategy / operations; future / present; individuals / populations; change / unwarranted variation
- Focus on value: quality, outcomes and impact - not just processes
- Questions then define system requirements; system outputs must then inform action

Enable a collaborative learning culture

Use data for ongoing improvement not (just) performance / contract management

- Feedback loops are an essential component of change; systems should design these in
- Grow and nurture analytical talent: from reporting to coaching, interpreting and aiding improvement (significant change for the current analytical workforce)
- Develop an open, non-defensive culture that values information, and is ready for / receptive to it

Be open and transparent

Build trust in the data (and the system)

- Be clear about limitations and potential biases of all data
- In outputs: note method and provenance of data/analysis: be clear where the uncertainties are
- Comparison can be a very powerful tool: over time, between teams / areas / organisations / standards. Statistical process control useful here ‘RAG’ dashboards limited
- Leaders / all users act on the data

Develop an enabling infrastructure

Link diverse sources of data to connect the "story"

- Not just health / social care
- Relevance at various levels – patient, household, neighbourhood, system
- Qualitative and experiential (free text mining)

Automation where possible, releasing capacity

- AI can free up human capacity: from reporting to translating
- Quality checks and data mining for large volumes
- Alerts for clinical teams

Applying the four principles

The next stage of our work will take these principles and apply them. We expect that this will turn up useful revisions to them, so don't expect this to be the 'final word'.

In applying the principles, we can see how any one of them might be useful as they stand. They provide a broad framework for discussion of approaches to the gathering and use of intelligence in organisations and health / care economies.

But, with development, the principles could also serve as a more detailed framework for assessment, which could then feed strategy. Each principle could be elaborated into a set of statements or questions to assess current performance; results from this could then be used to inform strategy and action planning.

Perhaps even more powerfully, this exercise could be undertaken recognising that the combination of principles is likely to offer the greatest gains. The diagram overleaf – based on a Ikigai diagram (borrowing the form, but not the profundity!) – shows what this might mean. It adds a layer of subtlety, what the implications might be of combining different principles and of addressing some without the others.