

Strategic Commissioning

Interconnected Systems Mapping

November 2017

What is Interconnected Systems Mapping?

Interconnected Systems Mapping (ISM) delivers a visual overview of an integrated health, social care and community system for an identified population, using various lenses. The ISM maps are coproduced with the community, and health and social care organisations, and use quantitative and qualitative intelligence to offer insights into the interconnectedness of the system. These insights provide an understanding of the flow of demand on the health and social care system, indicate focus areas for further improvement work, and enable informed strategic decision-making.

The ihub offers two levels of support in relation to ISM:

- Fully supported as part of a larger programme of work or service design.
- Coaching support in the use of ISM as a stand-alone exercise.

Key principles

- **In partnership** – the approach is undertaken in partnership with those within the system
- **Tailored** – the approach is tailored to the specific context and needs of the particular organisation we are working with
- **Agile/flexible** – the approach can be adapted to various timescales and level of detail
- **Iterative** – the map is continually reviewed and refined
- **Quantitative and qualitative data** – the approach uses data and information from a variety of sources to gain a rounded view of the system
- **Visualisation** – the approach brings structure to data and information gained from multiple sources and make it accessible
- **Complementary** – the approach complements other planning tools such as causal mapping, culture mapping, and geographical mapping of services.

When should Interconnected Systems Mapping be used?

ISM should be used when interested in the whole system level rather individual services.

- ISM can be used as a sense-making and communication tool to:
 - Make a complex system visible
 - Understand a complex system before change to avoid unintended consequences
 - Inform decision-making for change
 - Identify which services may be affected by a change
 - Understand where in the system current change and improvement initiatives are focused
 - Analyse the gap between the 'as-is' state and the 'to be' state
 - Enable diagnosis of issues across many parts of a system

- Enable people within the system to understand the interconnectedness of the system of their role within it
- Identify key stakeholders

Please note ISM is not an answer but can be used in order to understand the current system. ISM is not demand-capacity-activity-queue, process mapping, a population needs assessment, an indication of Best Value, a list of recommendations, a future prediction or forecast, or a vision of the ideal system. By itself ISM will not provide insights in to context, culture, behaviours, experiences, or the reasons behind failure demand. However, ISM can be used in conjunction with other complementary diagnostic tools, some of which are outlined below.

Complementary tools

- Can be used in conjunction with causal mapping – ISM can help to identify areas of concern, causal mapping helps to identify the root-causes of issues.
- Can be used in conjunction with management thinking techniques (to understand how the attitudes and behaviours of leaders impact on a system) or culture mapping (to understand power and relationships) to provide further understanding of the context and culture of a system.

Risks and limitations

Risks

- There is a risk that undue focus is given to the approach/the tool itself (analysis paralysis). Responses need to be timely – ISM is not an outcome in itself – the map needs to be used.
- There is a risk that the map is never finished (the system is continually changing). To mitigate this risk we ensure that there is a clear aim for the work (to focus our analysis) and a clear exit point.
- There is a risk that the map only reflects one view of the system. To help mitigate this risk we engage with a range of stakeholders to gain multiple perspectives.
- There is a risk that critical parts of the system may be excluded or hidden e.g. non-traditional groups who do not access the system.
- There is a risk that only engaging with those who use the service can further marginalize hard to reach groups.
- There is a risk that the map may be created/seen through a health lens or as supporting a health agenda. There is a need to consider parts of the system that enable people to live well not just those parts which address sickness.
- There is a risk that the impact of schemes of delegation is not understood. There is a need to be clear about which services have been delegated and whether this includes both the planning and delivery of the service (e.g. children's services).

Limitations

- The quality of the map will be impacted by the quality of the data and information on which it is based.
- ISM does not model service user flow or access of community services. However, it is possible to map user pathways and activity within the system.
- The availability of standardised quantitative data outwith the acute sector can impact upon the approach. However, we recognize that data and information of all kinds can be valuable (e.g. access times, locations, eligibility criteria).

Process/ key steps

1. Define scope

Defining the scope requires a number of key questions to be answered:

- How are services grouped (what are the pillars of provisions)?
- Who – which population is in-scope?
- What – which services are in-scope?
- Where – where are in-scope services delivered?
- When – what is timeframe?
- Balancing question – how do we gain an understanding of alternative perspectives? E.g. in-hours services v out of hours services; acute and primary care services v social care services and community assets.
- Data – which qualitative and quantitative data are required? (note: social care and third and independent sector data may be less available)
- People – who are the key stakeholders/contacts?
- What else do we need to know?

2. Research and planning

- Undertake desk-based research to identify services and develop understanding of the system.
- Develop data capture templates and populate with qualitative and quantitative data as identified.
- Develop project and engagement plans.
- Develop initial draft service map(s).

3. Build understanding

- Undertake face to face engagement with service managers/other stakeholders to understand services/challenges (could be on a one to one basis or in a group).

4. Visualise services

- Develop service map(s) following engagement with service managers/other stakeholders.
- The initial map should be kept simple to facilitate engagement.

5. Validate service map

- Validate service map(s) with service managers/other stakeholders.
- Undertake face to face engagement with service managers/other stakeholders to understand connections/flows through the system (could be on a one to one basis or in a group).

6. Visualise flow

- Develop ISM map(s) following engagement with service managers/other stakeholders.
- This version of the map adds complexity/insight into service users' points of view/how services are accessed. The map should show the system as it actually operates not the ideal state.

7. Add data

- Add qualitative and quantitative data to the interconnected systems map(s).

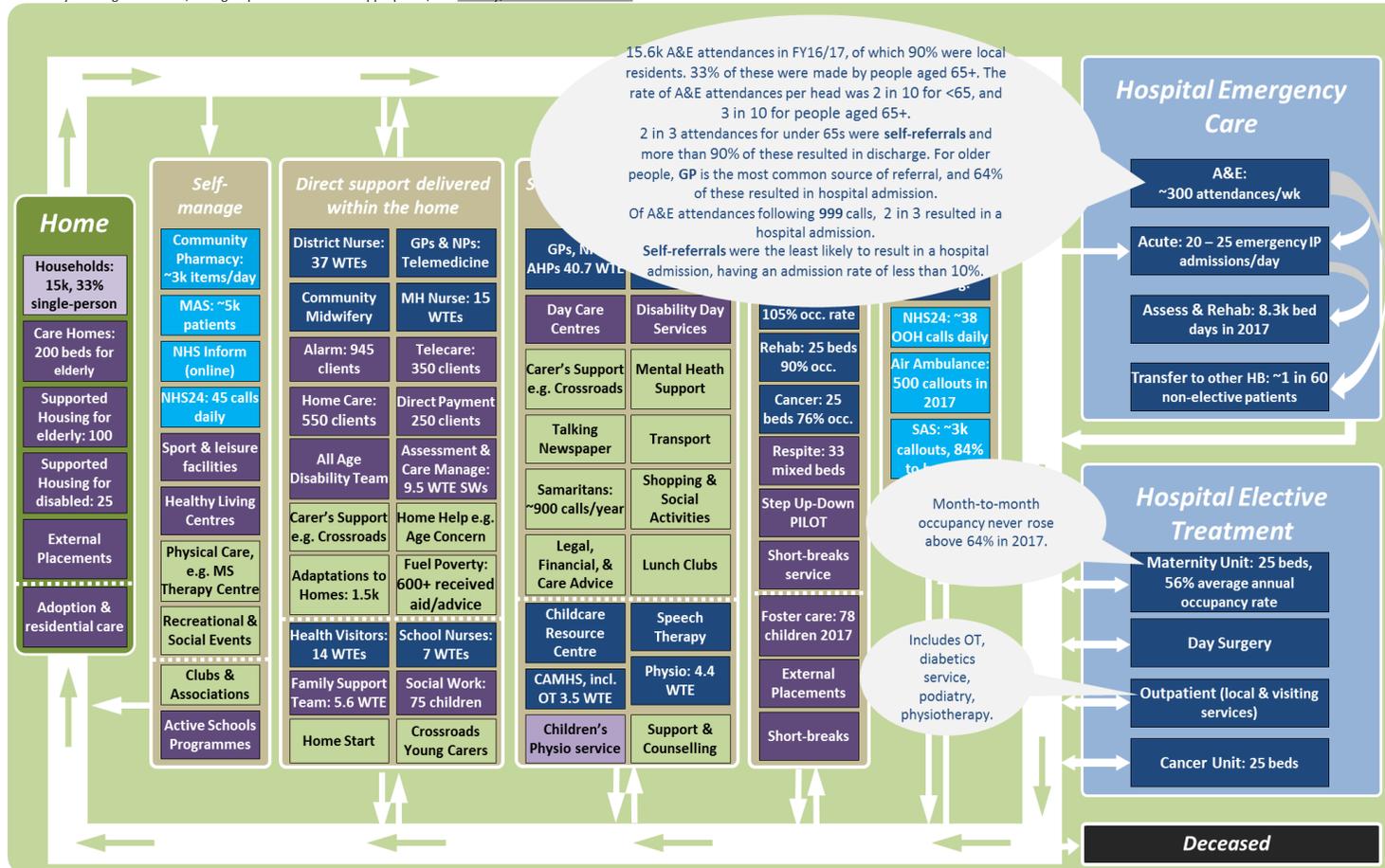
8. Review

- Undertake face to face engagement with service managers/ other stakeholders to discuss interconnected systems map(s) to inform recommendations/ decisions.

An Example

Local Health and Care System - Example

Created by Healthcare Improvement Scotland in collaboration partners
 Whole system high-level view, with grouped services where appropriate, and activity/workforce information



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