

Major system change

...refers to a complex set of interventions, implemented at regional level, in order to influence care provision and patient outcomes across multiple organisations.

It might include, for example, changing how a care pathway is provided across a number of organisations (e.g. how organisations work together and what roles each adopts), or indeed which organisations contribute to care provision (e.g. reducing/changing the number of providers, or introducing providers from different sectors).

Little is known about how major system change is planned and implemented.

One example of major system change is **centralisation**, where care is provided through a reduced number of services providing specialist care, supported by a larger number of services providing ongoing care closer to patients' homes (a 'multiple hub and spoke' model). Centralisation of this kind has been conducted in a variety of clinical settings, including major trauma, acute stroke, and specialist cancer surgical services.

Centralising acute stroke services

In 2010, across London and Greater Manchester acute stroke services were centralised into a small number of specialist "Hyper Acute Stroke Units" (HASUs). The two areas implemented different models of centralisation, with significantly different results:

- Although mortality fell in both London and Greater Manchester, only in London did it decrease more than in other urban areas in England¹
- After centralisation, London stroke patients were significantly more likely to receive evidence-based care than in Manchester or elsewhere²
- HASUs in both areas were highly likely to provide evidence-based care. However, many more patients were treated in a HASU in London (93%) than in Greater Manchester (39%)²
- In both London and Greater Manchester, length of stay decreased significantly more than in other urban areas in England.¹

*The model matters*³

- London: model was simple and inclusive: all potential stroke patients were eligible for HASU and all HASUs accepted patients 24/7
- Greater Manchester: model was more complex and selective: only some patients were eligible for HASU, and two HASUs only admitted patients in-hours

What made a difference



*How change is implemented matters*³

- **Launch:** London system was launched on a single day; Greater Manchester services launched in multiple stages.
- **Standards linked to financial incentives:** London services could only launch if they met standards, which were linked to financial incentives; Greater Manchester services could launch without meeting service standards.
- **Facilitation:** London's clinical networks provided hands-on support (e.g. project management); Greater Manchester network acted as a platform for learning, but offered no hands-on support.



Why were different models selected⁴



Leadership matters:

- **London:** combined 'top-down' system leadership with 'bottom-up' clinical leadership. This approach aligned multiple stakeholders, and overcame resistance from local hospitals, commissioners, and politicians.
- **Greater Manchester:** more 'bottom-up', relying on agreement across all local partner organisations. Programme leaders lacked power to overcome local resistance, and implemented a less radical (and less effective) service model.



History matters

- Both areas drew on previous experiences of changes to guide their approach, and especially contextual barriers to agreement and implementation of change.
- However, only London drew on this learning to make use of top-down leadership.

Involving a range of stakeholders matters

- Both areas engaged a wide range of relevant stakeholders, including stroke clinicians, commissioners, and ambulance services.
- By using system leadership, London planners were able to incorporate views of local politicians and ambulance service into changes.

Moving beyond traditional approaches to involving patients and the public

- In both areas, involvement of patients and public was limited, and it was used instrumentally to demonstrate support for proposals for change.

Impact³

London: referral pathway was followed reliably by ambulance and hospital staff, and all HASUs were able to provide evidence-based care

Greater Manchester: 39% of potential patients were treated in HASU (mainly because of selectivity); other patients were not treated in HASUs, and received more variable care.

Further change: Greater Manchester responded to this evidence, centralising services further in March 2015 (our team is currently analysing the impact of these changes).

Things to think about when planning and implementing major system change

- Plan how to get buy-in from the range of relevant stakeholders (including patients and the public) from the beginning and throughout
- Combine system-wide 'top-down' leadership with 'bottom-up' clinical leadership to align stakeholders with changes and gain ownership of both the proposed changes and how they are to be implemented.



- Models of care should be based on best evidence and consider how to ensure
 - patients have appropriate and equitable access to specialist care
 - staff have suitable expertise and capacity to provide this care.
- Service models should be specified clearly, have agreed standards, and be linked to financial levers.
- Providers may require hands-on support to meet these standards.
- Change is not a one-off: leaders should attend to emerging evidence, and recognise the potential benefits to patients of making further changes in line with this.

References

1. **Morris S et al.:** Impact of centralising acute stroke services in English metropolitan areas on mortality and length of hospital stay: difference-in-differences analysis. *BMJ* 2014;349:g4757.
2. **Ramsay AIG et al.:** Effects of centralizing acute stroke services on stroke care provision in two large metropolitan areas in England. *Stroke* 2015;46:2244-51.
3. **Fulop NJ et al.:** Explaining outcomes in major system change: a qualitative study of implementing centralised acute stroke services in two large metropolitan regions in England. *Implement Sci* 2016.
4. **Turner S et al.:** Lessons for major system change: centralisation of stroke services in two metropolitan areas of England. *J Health Serv Res Policy* 2016

Find out more

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