

**Insights from the clinical assurance of service reconfiguration in the NHS: The drivers of reconfiguration and the evidence that underpins it. A mixed methods study**

**C Imison<sup>1\*</sup>, L Sonola<sup>1</sup>, M Honeyman<sup>1</sup>, S Ross<sup>1</sup>, N Edwards<sup>2</sup>**

<sup>1</sup>Policy Directorate, The King's Fund, 11-13 Cavendish Square, London, W1G 0AN

<sup>2</sup>Nuffield Trust, 59 New Cavendish St, London W1G 7LP

\*Corresponding author (c.imison@kingsfund.org.uk)

Competing interests: None declared

## Important

A 'first look' scientific summary is created from the original author-supplied summary once the normal NIHR Journals Library peer and editorial review processes are complete. The summary has undergone full peer and editorial review as documented at NIHR Journals Library website and may undergo rewrite during the publication process. The order of authors was correct at editorial sign-off stage.

A final version (which has undergone a rigorous copy-edit and proofreading) will publish as part of a fuller account of the research in a forthcoming issue of the *Health Services and Delivery Research* journal.

Any queries about this 'first look' version of the scientific summary should be addressed to the NIHR Journals Library Editorial Office [NIHRedit@soton.ac.uk](mailto:NIHRedit@soton.ac.uk).

The research reported in this 'first look' scientific summary was funded by the HS&DR programme or one of its predecessor programmes (NIHR Service Delivery and Organisation programme, or Health Services Research programme) as project number 12/5001/59. For more information visit <http://www.nets.nihr.ac.uk/projects/hsdr/12500159>

The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors have tried to ensure the accuracy of the authors' work and would like to thank the reviewers for their constructive comments however; they do not accept liability for damages or losses arising from material published in this scientific summary.

This 'first look' scientific summary presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health.

## Scientific summary

### Background

Over the life of the NHS, hospital services have been subject to continued rationalisation and reconfiguration. Yet research into the running and planning of hospital services has been neglected and it is rare for the reconfiguration of clinical services to be evaluated, leaving a deficit in the evidence available to support service change.

Any proposals for ‘significant service change’, such as the reconfiguration of clinical services, are required by statute to be the subject of public consultation. In 2008, Department of Health guidance said that any proposals to change services should, prior to consultation, be subject to independent clinical and management assessment. A key source of that independent clinical assessment has been the National Clinical Advisory Team (NCAT). The team, drawing on a pool of more than 65 senior clinicians and health professionals, reviewed and advised upon local reconfiguration proposals and the degree to which they were supported by the available clinical evidence.

This research uses the reports produced by NCAT, alongside the supporting literature and professional guidance, to explore the reconfiguration of clinical services in the NHS and the evidence that underpins this.

### Objectives

The aims and objectives of this research are to determine the current pressures for reconfiguration within the NHS in England and the solutions proposed.

We have drawn upon two key sources of evidence. Firstly, the reports produced by NCAT documenting their 123 reviews of reconfiguration proposals for the period 2007 to 2012. Secondly, a search and synthesis of the literature to identify the key evidence available to support reconfiguration decisions at specialty level as well as the evidence to support whole hospital change. The specialty categories reviewed were:

- urgent and emergency care including the configuration of acute medicine and surgery
- elective surgical care

- primary and out-of-hospital care – in so far as it influences hospital activity
- maternity
- paediatrics
- specialist acute services – including vascular, trauma and stroke
- mental health services.

Our aim through this analysis is to deepen our understanding of the reconfiguration process and provide new insight into the clinical evidence base used by the NHS and the gaps that exist. The research also provides insight into the NCAT process itself, and the effectiveness of this as a source of clinical assurance of reconfiguration proposals.

## **Methods**

An in-depth, multi-level qualitative analysis was conducted of 123 NCAT reviews undertaken and published between 2007 and 2012. This data was supplemented by interviews with NCAT reviewers, analysis of the guidance produced by NCAT, a review of documentation provided to NCAT and a search to determine whether proposals were implemented following the reviews. Eight specialty areas were identified from the reviews. A targeted literature search was carried out within these areas to find and review the clinical evidence underpinning reconfiguration. The findings from this search were integrated with the analysis of the reviews to develop a narrative for each specialty detailing the type of reconfiguration, drivers for change within that clinical area, recommendations made by NCAT, the clinical evidence to support or refute change, and the key evidence gaps. Findings from across the specialties were amalgamated to identify the overarching drivers of reconfiguration within the NHS, the evidence underpinning it and the outcomes of service change.

## **Results**

### The pressures for reconfiguration

The evidence from the NCAT reviews shows that there are significant pressures to reconfigure services within the NHS in England.

Some service areas have been more vulnerable to reconfiguration than others. The following list ranks the services according to the number of times they were the subject of a reconfiguration.

1. Emergency services
2. Mental health
3. Maternity
4. Primary and community
5. Paediatric services
6. Whole hospital or system change
7. Elective surgery
8. Elements of specialist services – vascular, stroke and trauma

The primary drivers of reconfiguration have been workforce (in particular, the medical workforce) and finance. Improving outcomes and safety issues have so far been subsidiary drivers, though many make the link between staffing and clinical safety. Policy has also been a notable driver. Access has been notable by its absence as a driver.

Workforce pressures included a desire to move towards a consultant-delivered service; difficulties in recruiting; junior doctor posts providing inadequate training experience; and the insufficient numbers of junior doctors to staff 24/7 rotas (compliant with the European Working Time Directive). The availability of doctors in training was a key issue in the majority of reconfigurations where workforce was a driver.

Financial pressures included the need to achieve specific savings targets; anticipated gaps in resources as demand grows while funding is constrained; and the effect of shifting care out of hospital to deliver ‘care closer to home’.

Safety featured in a number of maternity, paediatrics and accident and emergency (A&E) reconfigurations and was a minor driver of mental health proposals. Safety drivers were not present in primary and community proposals. Although safety drivers were mentioned rarely, we cannot discount the possibility that the dominance of workforce drivers could be viewed

as a proxy for safety concerns. It is possible that proposals may downplay safety issues as this could raise public concerns.

### The solutions proposed

Nearly all the proposals to reconfigure services involved some degree of service rationalisation or centralisation. For specialist and mental health services, proposals frequently involved rationalising inpatient activity onto fewer sites. In mental health services this was often accompanied by the development of community services or teams.

#### *Reconfiguration of A&E and emergency services*

Drivers: Finance, workforce and safety.

Changes proposed: Reconfigure emergency services across hospital sites to achieve more consultant-delivered care; separate emergency services from elective care to create ‘hot’ and ‘cold’ sites; downgrade emergency (A&E) departments to urgent care centres (UCCs) or minor injury units (MIUs); develop new UCCs or MIUs; and close or re-locate walk-in centres.

Evidence: We found good evidence to support consultant-delivered care. Emergency services also require the provision of necessary support services, most notably appropriate diagnostics and critical care. We found evidence to support the separation of emergency from elective care. We found evidence that while centralising emergency departments can improve access to senior consultant opinion and the ability to staff rotas, it can place a greater burden on acute medicine and we could find no evidence that it saved costs. The evidence would also suggest caution over the degree to which primary- and community-based alternatives to A&E will reduce demand. More evidence is needed.

Implementation of proposals: 20 out of 34 so far implemented in full.

#### *Mental Health*

Drivers: Finance, workforce, national policy and estates.

Changes proposed: Proposals to close inpatient wards or beds, re-providing a smaller service on another site or centralising existing services onto fewer sites with more appropriate facilities such as provision of single rooms. Plans to develop new services or redevelop an

existing service, such as dementia services or the increasing access to psychological therapies (IAPT) service.

Evidence: More robust evidence is required to underpin the centralisation and co-location of inpatient services. We found little evidence indicating whether centralised services are cost-effective, improve staffing levels or enhance access to other acute services. Patient access, clinical outcomes and quality of care also require further investigation. More research should be undertaken to help organisations model future demand for inpatient beds and community services.

Implementation of proposals: 16 out of 25 implemented in full.

### *Maternity Care*

Drivers: Workforce, dependency on paediatrics, finance and safety.

Changes proposed: Concentrating consultant-led obstetrics services onto fewer hospital sites; expanding alongside midwife-led birthing units (MLBUs); creating or maintaining stand-alone MLBUs; and closure of stand-alone MLBUs.

Evidence: We found good evidence for the benefits of consultant-delivered maternity care and increasing consultant presence on obstetric units. The minimum number of consultants required to provide 24/7 presence in an obstetric unit is unclear. We found evidence of the benefits of alongside and stand-alone MLBUs. We found evidence to support home births, particularly for low-risk multiparous mothers. First-time mothers may face an elevated risk from a home birth. There is also evidence from the NCAT reviews that stand-alone MLBUs could prove hard to staff and sustain financially – more evidence is needed.

Implementation of proposals: 13 out of 24 so far implemented in full.

### *Primary and out-of-hospital care*

Drivers: Finance, workforce and estate.

Changes proposed: Changes to intermediate care beds; development of primary care services and community-based services – often as part of whole system reconfiguration; and consolidation of primary care services.

Evidence: The evidence regarding the effectiveness of primary, community and intermediate care is mixed. While these types of intervention can reduce demand for hospital care, this is

often limited to a specific disease area or client group. We found evidence for the benefits in terms of patient experience. We found little evidence that investment in community care generates significant cost savings overall. More evidence is needed, particularly on the impact of large-scale change in community care.

Implementation of proposals: 12 out of 22 so far implemented in full.

### *Paediatric Care*

Drivers: Workforce, finance, safety.

Changes proposed: Centralisation of paediatric inpatient units; retention or creation of stand-alone paediatric assessment units (PAUs); closure of stand-alone PAUs; reconfiguration of a neonatal network – downgrading local neonatal units.

Evidence: We could find no evidence to demonstrate the financial or quality benefits from the rationalisation of paediatric services. More evidence is needed. We could also find little evidence to support the safety and cost-effectiveness of stand-alone paediatric assessment units. Again, more evidence is needed. There is evidence to support the need for dedicated neonatal rotas to support neonatal intensive care (Level 3) services.

Implementation of proposals: 8 out of 18 implemented in full.

### *Whole hospital/system change*

Drivers: Finance and workforce.

Changes proposed: Proposals often resulted in services moving towards treating patients with less serious conditions or carrying less clinical risk.

- A&E → UCC/ MIU
- Acute/emergency medicine → non-acute or rehabilitation
- Acute/emergency surgery → elective inpatient surgery → day surgery
- Consultant-led obstetrics → MLBU
- Inpatient paediatrics → PAU
- Community beds → community teams

Evidence: We found little evidence to support whole hospital or system reconfiguration, and the evidence that exists is equivocal. For example, England already has much larger hospitals than international comparators which calls into question the ambition for hospitals to become

larger still. We found no evidence that whole hospital reconfiguration delivers significant financial savings. More evidence is needed.

Implementation of proposals: 10 out of 17 implemented in full.

### *Elective surgery*

Drivers: Finance and workforce.

Changes proposed: The separation of elective surgery from acute and emergency services, both as a way to support sustaining services on the ‘cold’ site, which was often losing an A&E department, as well as to support the ‘hot’ site with a critical mass of senior staff, and the services required to support them.

Evidence: We found evidence to support the separation of elective care providing the units are appropriately staffed, have the necessary support services and patients are risk-assessed for appropriateness. More evidence is needed on the relative cost and clinical benefits from stand-alone elective surgical units of different sizes.

Implementation of proposals: 4 out of 11 so far implemented in full (thought to be driven by the interlinked proposals for emergency care).

### *Specialist Care*

#### *Vascular services*

Drivers: National policy and quality – ie improved outcomes.

Changes proposed: The centralisation of vascular surgical services alongside the creation of vascular clinical networks and the designation of vascular surgery and screening centres.

Evidence: We found strong evidence to support the link between hospital and surgeon volumes and outcomes for vascular surgery. We found evidence in favour of the supporting services necessary for a vascular centre. We also found emerging evidence that the recent centralisation of vascular services is producing better outcomes.

Implementation of proposals: 7 out of 9 reconfigurations implemented in full.

### *Stroke*

Drivers: Quality – ie improved outcomes.

Changes proposed: Concentration of stroke services, creation of stroke networks and designation of hospitals either as hyper-acute stroke units or stroke units.

Evidence: We found strong evidence for the benefit of stroke units and some emerging evidence to support a two-tier stroke service.

Implementation of proposals: 6 out of 7 reconfigurations implemented in full.

### *Major trauma*

Drivers: National policy and quality – improved outcomes.

Changes proposed: The centralisation of major trauma services into designated major trauma centres and the creation of major trauma networks.

Evidence: We found strong evidence for the benefits of delivering trauma services as part of a formalised system of trauma care with care concentrated in trauma centres.

Implementation of proposals: 5 out of 5 reconfigurations implemented in full.

### **Conclusions**

This research provides novel insight to clinical service and hospital reconfiguration in England, what is driving it, the evidence behind it, and to a limited extent, its outcomes (in terms of success of implementation). While our key source documents, the NCAT reviews, present a partial view of the reconfiguration process we believe that they provide reliable insight into the core drivers of reconfiguration and the solutions proposed.

We found that the majority of reconfiguration proposals are driving an increasing concentration of hospital services, with some accompanying decentralisation and development of supporting clinical networks. The primary drivers of this have been pressures on the medical workforce and finance. A significant number of proposals do not get implemented as planned, largely due to local public and/or clinical opposition.

We could find little evidence that the concentration of acute general hospital services and the accompanying investment in community services will deliver the scale of savings envisaged.

There is a significant gap in the evidence about safe staffing models and the appropriate

balance of junior and senior medical as well as other clinical staff. There is an urgent need for research that will help fill the current evidence gap and ensure the future reconfiguration proposals are based on a sound economic and clinical case for change.

Our analysis also suggests that there is merit in there being a national source of expertise and advice for clinical senates, and others leading change locally, to call upon. It would be particularly valuable if it could not only provide clinical insight and advice but also advice about the process of public and clinical engagement.

**Word count: 2,321 words**

## **Plain English summary**

Clinical services in the NHS are frequently subject to reconfiguration. This means changes to the location and the type of service being offered. Yet it is rare for reconfiguration to hospital services to be evaluated. This means there is a lack of evidence to help guide service change.

This research set out to discover which services are being reconfigured and why, and what evidence is being used to guide this. We have drawn upon two main sources of information. Firstly, the reports produced by the National Clinical Advisory Team (NCAT). This is a team of clinical experts who, until March 2014, advised the NHS when making changes to hospital services. Secondly, we have looked for research evidence that would support the changes to services that NCAT advised upon.

We found that many places are reconfiguring clinical services by centralising them onto fewer hospital sites. This is mainly because they want to save money or are having difficulties staffing services. However the planned changes are frequently not implemented because of local public and/or clinical opposition. There are also examples of changes to services provided in the community. We could not find evidence that service reconfiguration would save significant amounts of money. There is also little evidence to help hospitals find ways of overcoming their staffing difficulties. More research is needed. We believe that the NHS would also benefit from retaining a national source of clinical advice to help guide service change.

**Word count: 240 words**