UNIVERSITY^{OF} BIRMINGHAM University of Birmingham Research at Birmingham

The power of Autonomy and resilience in health care delivery

Mannion, Russell; Exworthy, Mark; Wiig, Siri; Braithwaite, Jeffrey

DOI: 10.1136/bmj-2022-073331

License: Creative Commons: Attribution-NonCommercial (CC BY-NC)

Document Version Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Mannion, R, Exworthy, M, Wiig, S & Braithwaite, J 2023, 'The power of Autonomy and resilience in health care delivery', *BMJ*, vol. 382, e073331. https://doi.org/10.1136/bmj-2022-073331

Link to publication on Research at Birmingham portal

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

•Users may freely distribute the URL that is used to identify this publication.

•Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.

•User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?) •Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

The power of autonomy and resilience in healthcare delivery. Russell Mannion and colleagues argue healthcare systems should learn from the good examples witnessed during the pandemic to enhance provider autonomy and resilience units with exord mobilised effective responses by allowing space for local agency and entrusts. WHS organisations of hospitals and mental health and ambulance services), the trend has been towards to response to local staff to lead radical change.¹

the world mobilised effective responses by allowing space for local agency and entrusting frontline staff to lead radical change.¹ But, as the context of the pandemic shifts from national emergency to one of rebuilding for recovery, there is a risk that positive innovations associated with autonomy will be lost as healthcare systems revert to traditional top-down "command and control" ways of working. Here, we focus on the consequences of local autonomy for individual clinicians and the multiple NHS organisations in England that deliver healthcare services, such as primary care organisations and providers of hospital, mental health, and social care services. We argue for system oversight arrangements that allow more space for enhanced local autonomy to facilitate bottom-up resilience in the face of challenging local contexts.

Balancing central control and organisational autonomy

All health systems have to balance local autonomy (decentralisation) with top-down authority (centralisation).² Historically, the English NHS has witnessed repeated pendulum swings between centralisation

KEY MESSAGES

- Health systems can do more to support autonomy and bottom-up resilience and learn from the good examples witnessed during the pandemic
- To allow for more local autonomy, the health workforce will need support to be adaptable and flexible
- Leaders have a crucial role in enhancing workforce resilience by building competencies, balancing workloads, and fostering sound relations
- Slack, the accumulated excess resources that are not immediately deployed to the work at hand, is at the heart of a resilient system

power. Notwithstanding some notable policies, such as conferring local autonomy on foundation trusts (NHS organisations of hospitals and mental health and ambulance services), the trend has been towards top-down strategies since the 1980s. This central "pull" to control is largely structural and financial, given the share of national income devoted to funding the NHS and the need for parliamentary accountability for how resources are used. Any decentralisation implemented has often been conditional, notably in the case of "earned autonomy" in the 2000s whereby high performing organisations were subject to less central control and allowed increased operating freedoms.³ Indeed, some centralisation of decisions is required to enable decentralisation.⁴

Some central decision making occurred during the covid-19 pandemic in programmes such as NHS Test and Trace, the delivery of the covid-19 vaccine, and the procurement of personal protective equipment (PPE). However, the pandemic also stimulated on-the-ground innovation, responding to local patterns of clinical need. The Department of Health and Social Care gave greater decision making autonomy to local organisations when it thought that local decisions would optimise care.⁵ Examples of this include the adoption of virtual wards and video consultations, and the redeployment of clinical staff within hospitals. Centralised approaches are well known to limit the ability to make rapid change,⁴ so it is perhaps unsurprising that a key enabling factor driving responsiveness to covid-19 in the English NHS was a more permissive policy environment involving lighter touch regulation, fewer bureaucratic obstacles, and enhanced autonomy for frontline providers to self-organise and implement change at pace.⁵

There is a logic to this. Decisions about healthcare system inputs (eg, financial allocations) are best centralised because of economies of scale and pooling of financial and epidemiological risk (thereby allowing higher costs of less healthy patients to be offset by lower costs of healthier ones). At the same time, processes (eg, operational decisions) can be decentralised to foster greater responsiveness to local staff and patients. with stipulated (organisational) outcomes (eg, performance targets) being centralised to provide parliamentary accountability and managerial efficiency.⁶Figure 1 shows the complexities of centralising and decentralising strategies in the UK response during the covid-19 pandemic. The figure breaks down the dynamic balance between the centre (Department of Health and Social Care and NHS England) and the locality (NHS organisations) into input, outputs, and outcomes. There are examples of both decentralisation and centralisation across all categories during the covid-19 pandemic, but overall, covid-19 provided opportunities for increased autonomy (arrows pointing down), which stimulated local decision making and innovation.

The concept of organisational autonomy embodies two aspects: freedom to make decisions or act and freedom from external control.⁷ Freedom from external control (or vertical decentralisation) implies the release of bureaucratic constraints to empower decisions (in, say, how an organisation spends money received from the government), whereas freedom to act (horizontal decentralisation) refers to the opportunity to innovate and take risks locally.⁶ The vertical centralised chain of decision making was seen to be too slow to respond in the rapidly changing environment of the covid-19 pandemic. Regulations were relaxed and local decision making was accelerated. NHS organisations were able to experiment with and implement new care models (such as virtual wards or online consultations). Horizontal decentralisation refers to the wider ability to transform services, usually as part of local networks and partnerships such as clinical networks in England's newly formed integrated care systems, which comprise partnerships between NHS organisations, local councils, and third sector agencies.

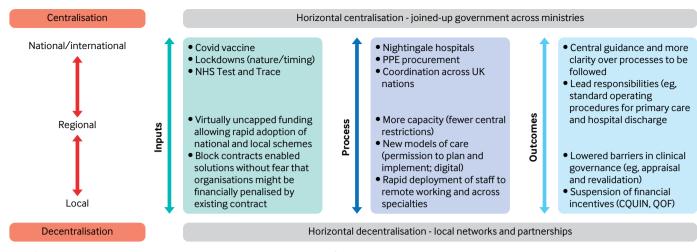


Fig 1 | The arrows framework applied to the UK response to covid-19 (PPE=personal protective equipment, CQUIN=Commissioning for Quality and Innovation framework, QOF=general practice Quality Outcomes Framework)⁶

Are local staff willing and able to exercise autonomy?

Complicating the understanding of local autonomy and central control is how autonomy is actually exercised by managers and clinicians in local organisations. Local staff need to be willing and able to exercise autonomy in order to realise the benefits of decentralisation.⁸ Staff may be less willing to act autonomously if they fear punitive consequences for failure.³ Also, staff need to be sufficiently skilled to implement change. Current vacancies, poor morale, and burnout reduce the capacity of frontline staff to exercise autonomy.⁹

Individual autonomy also depends on a local organisation's ability to collaborate with other agencies over which they have no direct authority. Patient flow through hospitals, for example, is heavily reliant on primary care and ambulance services for admitting patients and on social care for their discharge. Yet hospitals must also compete with these agencies for resources, in terms of recruiting and retaining staff as well as stewardship of limited financial resources. Thus, the

"decision space" available to local staff is a function of vertically granted autonomy and the horizontal realities of acting across local organisational contexts. Enjoying freedom from the centre might mean little in practice if there is limited scope to work effectively locally. Likewise, strong local partnerships might be ineffective if bureaucratic controls remain in place because each organisation will respond to central imperatives. For example, if local organisations have different performance indicators or financial targets set by their respective government departments, staff will not have time or space to nurture local partnerships.

The challenge for the NHS now is to maintain the increased local decision space generated in response to the pandemic in the face of exceptional operational pressures within the NHS. Autonomy and innovation become lower priorities if everyone is tackling the elective care backlog and long waiting lists. The natural reaction of politicians and policy makers is often to tighten central control, but greater local autonomy is preferable in many areas of health service delivery—providing that the resources to do the work are available.

Local autonomy helps build resilience

To allow for more local autonomy, the health workforce will need support to be adaptable and flexible—in short, resilient. Resilience is about adaptive capacity-the ability to handle challenges ranging from the everyday to the next major disruptive pandemic. Health workers essentially need the freedom to flex and react to unforeseen challenges while continuing to provide quality care. Giving people the authority to work flexibly is important for building a resilient health workforce.¹⁰ Organisational managers have a crucial role in enhancing the adaptive capacity of patient care teams by building competencies to work flexibly, balancing workloads, and fostering supportive relations between team members.¹¹ Clinical teams that become adept at adjusting in response to prevailing circumstances are more likely to learn to generate innovative solutions to emerging problems.¹⁰

Qualitative studies of resilience across health settings find that every day clinical

Table 1 Ways to promote more autonomy and resilience in NHS		
Group	What is required	How
Clinical teams	Scope to innovate	Encouragement from organisational leaders to co-produce care systems with patients as partners, and to adapt and flex to changing circumstances
Organisational leaders and managers	Capacity to support innovation	Provide training and support to frontline team to think in terms of building connections across systems and nurturing collaborative relationships rather than merely responding to central government orders
Policy makers	Learn to let go and trust frontline providers	Create more flexible policies and procedures that allow local teams to innovate and respond rapidly to change. Apply the subsidiary principle—that the centre should take responsibility only for tasks that cannot be performed more locally
Politicians	Stop mandating standardised practice and avoid top-down reorganisations	Encourage a culture of coproduction and cooperation between stakeholders. Allow slack to exist in the system in preparation for any crisis that might strike in the future. Avoid needless restructuring
Patients, the public, and carers	Co-design of services	Policy makers and health service managers need to make sure there are clear responsibilities for staff across the system to involve the public, patients, and carers in co-designing services. All healthcare staff need to encourage patients, family members, carers, and user groups to be involved in co-designing services.

performance succeeds much more often than it fails.¹² This is largely because clinical teams are constantly adjusting what they do to match the conditions and circumstances they encounter-taking initiative, making adaptions, or doing workarounds to circumvent a block in the health system such as shortage of essential supplies.¹³ Often workarounds are temporary "fixes" that emerge as improvised repairs of poorly designed, incomplete, impracticable, over-restrictive, or otherwise dysfunctional work processes that make complex tasks more difficult.¹³ A survey of 120 US nurses over six weeks in 2020 showed that workarounds are a prominent coping mechanism when under pressure or understaffed, but it also highlighted that using shortcuts alongside the excessive cognitive strain encountered during the pandemic was associated with a greater risk of errors.14

Allowing slack in the system

Slack in the system-that is, the accumulated excess resources that are not immediately deployed to the work at hand-can help with the burden of coping with short term challenges.¹⁵ Slack in the system allows for a buffer of staff, equipment, or thinking time that gives people sufficient scope to adapt to incoming pressures.¹⁶ The benefits of slack during the covid-19 pandemic were shown in a qualitative study of Norwegian nursing homes and homecare in 2020.¹⁷ Nursing home managers had leeway and available capacity to change practices and rapidly adapted procedures to fit the context. They reorganised the physical space, such as establishing outdoor sessions for staff on covid-19 guidelines and procedures and creating areas for putting on protective equipment, and quickly transferred staff from other departments or used social media to hire staff from other sectors to help when their own staff were sick or in quarantine. Because they could draw on existing resources the solutions could be rapidly integrated so staff could continue to care for residents with and without covid.^{17 18}

However, once slack is used up services can become too lean to respond to the next challenge. For example, a decade of underinvestment in the NHS and preexisting capacity constraints meant there was little slack in the system when the pandemic hit. The result was that many elective procedures and outpatient services were suspended to allow staff, resources, and beds to be used for patients with covid-19.¹⁹ Without slack in the system, the ability of clinicians and organisational leaders to manoeuvre, make rapid decisions, and add additional capacity when needed is impaired. This makes organisations too brittle in times of crisis and prone to shattering under stress. Pressure on the NHS to improve efficiency, for example, has increased bed occupancy rates (and reduced bed numbers), which in turn has reduced the slack in the system, leading to system-wide sclerosis.²⁰

Locking in the positive responses to the pandemic

Centralised direction and support will always be important in any national healthcare system. However, there is considerable potential to support autonomy and bottomup resilience in the NHS, as witnessed during the pandemic (table 1). The implication is that the core of healthcare reform should not be the top-down admonition to the frontline, "this is what you need to do" but rather, "where are you trying to go and how can we help you get there?" Thus, instead of assuming that things will improve by tightening the grip of the centre, we must recognise and accept that healthcare staff have the capability-and, for the most part, the willingness-to self-organise and respond rapidly to new challenges.

We thank David J Hunter, Lucy Gilson, Onil Bhattacharyya, and Gerry McGivern for their comments.

Contributors and sources: RM has been researching healthcare quality, safety, and performance for 35 years. ME's research interests include decentralisation in healthcare systems, policy implementation regarding the social determinants of health and professional-managerial relations, with a focus on medical performance. SW is professor of quality and safety in health care systems with research interests in resilient healthcare, patient safety, leadership, and learning in sociotechnical systems. JB is professor of health systems research investigating systems improvement with a focus on culture and structure of acute settings, leadership, management and change in health sector organisations, quality, and safety in healthcare, and international health reform. All authors contributed to this article fully in inception, design, analysis, and write up. RM is the guarantor.

Competing interests: We have read and understood BMJ policy on declaration of interests and have no relevant interests to declare.

Provenance and peer review: Commissioned; externally peer reviewed.

This article is part of a collection proposed by the Health Foundation, which also provided funding for the collection, including open access fees. *The BMJ* commissioned, peer reviewed, edited, and made the decision to publish these articles. Rachael Hinton and Paul Simpson were the lead editors for *The BMJ*.

Russell Mannion, professor of health systems¹

Mark Exworthy, professor of health policy and management¹ Siri Wiig, director² Jeffrey Braithwaite, founding director³

¹Health Services Management Centre, University of Birmingham, UK

²Centre for Resilience in Healthcare, Faculty of Health Sciences, University of Stavanger, Norway

³Australian Institute of Health Innovation, Macquarie University, Sydney, Australia

Correspondence to: R Mannion r.mannion@bham.ac.uk



This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.



- Sagan A, Webb E, Azzopardi-Muscat N, et al, European Observatory on Health Systems and Policies. *Health* systems resilience during COVID-19: lessons for building back better. World Health Organization. 2021.
- 2 Bossert T. Decentralization of health systems: challenges and global issues of the twenty-first century. In: Regmi K, ed. *Decentralizing health services*. Springer, 2014:199-207.
- 3 Mannion R, Goddard M, Bate A. Aligning incentives and motivations in health care: the case of earned autonomy. *Financ Account Manag* 2007;23:401-20. doi:10.1111/j.1468-0408.2007.00435.x.
- 4 Exworthy M, Frosini F, Jones L, et al. Decentralization and performance: autonomy and incentives in local health economies. NCCSDO, 2010. https:// researchonline.lshtm.ac.uk/id/eprint/18627.
- 5 Mannion R, Konteh FH, Jacobs R. Impact of COVID-19 in mental health trusts. J Health Serv Res Policy 2023;28:119-27. doi:10.1177/13558196221116298
- 6 Peckham S, Exworthy M, Powell M, Greener I. Decentralisation, centralisation and devolution in publicly funded health services: decentralisation as an organisational model for health care in England 2005. https://researchonline.lshtm.ac.uk/id/ eprint/3582134.
- 7 Verhoest K, Peters BG, Bouckaert G, Verschuere B. The study of organisational autonomy: a conceptual review. *Public Adm Dev* 2004;24:101-18. doi:10.1002/pad.316
- Exworthy M, Frosini F, Jones L. Are NHS foundation trusts able and willing to exercise autonomy? 'You can take a horse to water...'J Health Serv Res Policy 2011;16:232-7. doi:10.1258/ jhsrp.2011.010077
- 9 Palmer W, Rolewicz R. The long goodbye? Exploring rates of staff leaving the NHS and social care. Nuffield Trust, 2022.
- 10 Braithwaite J, Wears RL, Hollnagel E. Resilient health care: turning patient safety on its head. *Int J Qual Health Care* 2015;27:418-20. doi:10.1093/intqhc/ mzv063
- 11 Fagerdal B, Lyng HB, Guise V, Anderson JE, Thornam PL, Wiig S. Exploring the role of leaders in enabling adaptive capacity in hospital teams—a multiple case study. *BMC Health Serv Res* 2022;22:908. doi:10.1186/s12913-022-08296-5
- 12 Braithwaite J, Hollnagel E, Hunte G, eds. *Working* across boundaries: resilient health care. Vol 5. CRC Press, 2019.
- 13 Debono DS, Greenfield D, Travaglia JF, et al. Nurses' workarounds in acute healthcare settings: a scoping review. *BMC Health Serv Res* 2013;13:175. doi:10.1186/1472-6963-13-175

- 14 Andel SA, Tedone AM, Shen W, Arvan ML. Safety implications of different forms of understaffing among nurses during the COVID-19 pandemic. *J Adv Nurs* 2022;78:121-30. doi:10.1111/ jan.14952
- 15 Werle NB, Saurin TA, Soliman M. Collaborative use of slack resource as a support to resilience: study of a maternity ward. Braithwaite J, Hollnagel E, Hunte G, eds. Working across boundaries: resilient health care. Volume 5. CRC Press, 2019:137-53.
- 16 McHugh G, Croass D. The application of organizational slack to hospital system

responsiveness during the COVID-19 pandemic. *J Hosp Manag Health Policy* 2021;5:17. doi:10.21037/jhmhp-21-13

- 17 Lyng HB, Ree E, Wibe T, Wiig S. Healthcare leaders' use of innovative solutions to ensure resilience in healthcare during the covid-19 pandemic: a qualitative study in Norwegian nursing homes and home care services. *BMC Health Serv Res* 2021;21:878. doi:10.1186/s12913-021-06923-1
- 18 Ree E, Wiig S, Seljemo C, Wibe T, Lyng HB. Managers' strategies in handling the COVID-19 pandemic in Norwegian nursing homes and homecare

services. *Leadersh Health Serv (Bradf Engl)* 2022. doi:10.1108/LHS-05-2022-00

- 19 BMA. BMA covid review 3. Delivery of healthcare during the pandemic. 2022. https://www.bma. org.uk/media/5816/bma-covid-review-report-3june-2022.pdf.
- 20 O'Dowd A. Hospital bed occupancy rates in England reach dangerously high levels. BMJ 2021;374:n2079. doi:10.1136/bmj.n2079

Cite this as: *BMJ* 2023;382:e073331

http://dx.doi.org/10.1136/bmj-2022-073331