

Evidence Brief: Estates and facilities

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Produced by the Knowledge Management team Evidence Briefs offer an overview of the published reports, research, and evidence on a workforce-related topic.

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Key publications – the big picture

[NHS Long Term Workforce Plan](#)

NHS England, 2023

updated January 2024

Expanding apprenticeship routes can help address key workforce shortages and particularly benefit those professions that historically lack a consistent route for training and career development, such as non-clinical professionals in corporate services, estates and facilities and general management.

[...]

As well as expanding educator capacity, we need to address the challenge of expanding the physical estates capacity for supervision to take place in parallel. This is particularly critical in primary care where insufficient physical space across an ageing estate limits GPs' ability to increase training placements. Various initiatives are planned or underway to explore models of supervision and estates that increase access and capacity, but as this is a broader challenge than training and equipping the workforce to deliver for patients, it is outside the scope of this Plan and will require continued, sustained investment in the primary care estate.

[NHS estates sustainability career pathways](#)

NHS England, June 2023

The career pathways presented in this report are not intended to prescribe a rigid approach towards successfully developing a sustainability career in NHS estates and facilities. Instead, they demonstrate the variety and types of roles available, experience required, and competencies needed for professional development, plus the resources available to support these careers.

[Estates net zero and sustainability recruitment guidance](#)

NHS England, June 2023

This document provides guidance and recommendations to NHS recruiters intended to improve attraction and retention of candidates in NHS estates sustainability roles, recognising that to meet its ambitions for net zero by 2040, the NHS must maximise the pace and effectiveness of its recruitment and ensure the retention of a skilled, fit for purpose sustainability workforce. Recommendations are supported by the findings of a benchmarking exercise intended to evaluate the NHS's position within the wider UK estates and facilities sustainability and net zero jobs market.

[NHS estates and facilities workforce action plan](#)

NHS England, June 2022

This action plan sets out how we will fulfil the ambitions of the NHS people plan and NHS people promise for our estates and facilities workforce across England over the next ten years, with a focus on the immediate priorities outlined in the 2022/23 operational planning guidance. It highlights four key areas of work: developing our people; building the next generation of estates and facilities management people; embedding equality, diversity and inclusion; and improving the health and wellbeing of our people.

[Brick by brick: The case for urgent investment in safe, modern, and sustainable healthcare estates](#)

British Medical Association, 2022

This report examines the alarming condition of the UK's healthcare estate, shining a new light on its impact on doctors and the patients they care for, and making a powerful argument for urgent investment in the bricks and mortar of our health systems.

[Developing robust estates strategies: Challenges and opportunities](#)

Nuffield Trust, June 2018

Effective estates planning is a pivotal requirement of delivering integrated care and financial sustainability. It needs to be positioned 'centre stage', along with financial and workforce planning, if the goal of integrated care is to be achieved. While the interdependencies between estates and finance are obvious, the relationship between estates and workforce are perhaps less so. Yet the location and design of facilities – especially technology – can help resolve some of the workforce pressure points being experienced by providers, just as shifts in the shape and functionality of the workforce can have a powerful and positive influence on the infrastructure required.

[NHS Estates: Review of the evidence](#)

The King's Fund, October 2016

Corporate/strategic estate management skills include:

- a broad, but not necessarily detailed, knowledge and understanding of property matters, reflecting the strategic, rather than technical focus of this role
- an understanding of core business of an organisation and the environment it operates in
- corporate leadership skills
- change-management skills, including property and organisational change
- customer skills, including negotiating, influencing, motivating, inspiring, competing and selling.

Case Studies

[Inter-Hospital Knowledge Sharing: Insights From Case Studies on Infrastructure Issues During COVID-19](#)

Proceedings of the 24th European Conference on Knowledge Management, ECKM 2023

The study concludes that a centralised coordination function is necessary to facilitate effective KS, with a focus on the organisation of peer collaboration, enhancing the centralised online repository for best practice and academic research, and the use of a national skills register. The study extends the current literature by identifying variations in KS behaviour among managerial levels and providing insights into the barriers to KS in the NHS EFM workforce. The findings have implications for NHS managers and policymakers seeking to improve KS in the EFM workforce, particularly in addressing the barriers faced by operational-level managers and the need for a centralised coordination to facilitate effective KS.

[Collaborative working in hospice estates and facilities teams and the creation of innovation](#)

BMJ Supportive & Palliative Care, 2017

Sharing knowledge and experience of estates and facilities teams at both hospices led to tangible, measurable benefits. The experience required both hospices to have a positive attitude towards change and be open to new ways of doing things. Both hospices have agreed to continue to work collaboratively and on current and future estates and facilities projects.

The Star for workforce redesign

More resources and tools are available in [the Star](#)

Statistics

[Estates and facilities data hub](#)

NHS England, formerly NHS Digital
NHS Digital collects a large variety of data on the NHS estate including costs, incidents, land surplus to requirements, and the quality of the healthcare environment from the patient perspective.

[Estates and Facilities Management Information System](#)

NHS England, formerly NHS Digital
Data are collected and stored using the Estates and Facilities Management (EFM) System. This is a secure data warehouse that enables efficient data collection and analysis and produces benchmarking results in real time.

National Data Programme

Workforce, Training and Education staff can look at the [National Data Warehouse \(NDL\)](#) SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Staff experience

[Existing hospitals' journey into a sustainable and climate-resilient future: barriers and opportunities for estates and facilities management](#)

Facilities, June 2025

This paper identifies barriers and opportunities hospital EFM professionals encounter in the journey towards creating a future sustainable and climate-resilient hospital estate, organised into three main themes: estate management, financial aspects and organisational development. The barriers identified in this research may create biases that hinder the EFM's ability to set long-term estate goals and anticipate the effects of change drivers like sustainability and climate resilience.

[The application of the mobile application for the assessment of cleaning workers' exposure to cleaning products: a pilot study](#)

Annals of Work Exposures and Health, December 2023

The CHaPEL app is a user-friendly immediate way to successfully collect exposure information using the barcodes of cleaning products. This tool could be useful for future epidemiological studies focused on exposure assessment with less interruption to the workers.

[Digital technologies and healthcare architects' wellbeing in the National Health Service Estate of England during the pandemic](#)

Frontiers in Medical Technology, August 2023

In the niche area of healthcare architecture, architects were in their busiest year. Yet, the DTs available to them then could only support limited tasks and did not link well to operational data.

The NHS's forgotten workforce—a historical essay by Jennifer Crane

The BMJ, December 2022

Porters, cleaners, receptionists, chefs, laundry workers, and other ancillary staff have represented a huge proportion of the NHS workforce since the service was founded. In 1949, domestic and maintenance staff represented 44% of the NHS workforce, administrative staff 7.1%, and professional and technical staff 3.5%. [...] While successive governments recruited ancillary workers, these staff often faced very poor working conditions and dismissive treatment in the hierarchies of medical spaces. Nonetheless, many ancillary workers have taken great pride and pleasure in their work, recognising themselves as critical to the patient experience.

Recruitment and retention of estates and facilities staff in the NHS

Facilities, July 2005

Although our findings suggest that the main recruitment and retention issues fall into four main themes: social, financial, environmental and political; recruitment and retention of estates and facilities management staff is a complex problem involving a wide range of issues and these can vary from location to location. Furthermore this should also be seen as a series of issues that varies across employment groups including: domestic/housekeeping, trades, managers/officers and facilities directors, which need to be distinguished.

Upskilling

[Conference abstract] Mapping Knowledge Needs of Hospital Estates and Facilities Management Teams: Insights from a Delphi Study

Proceedings of the 19th European Conference on Management Leadership and Governance, November 2023

We identify four key categories of knowledge areas, illustrating evolving needs as professionals progress in their careers. Findings underscore the need for targeted training programmes addressing disparities and emphasise the importance of aligning organisational structures with evolving knowledge needs for effective healthcare EFM management.

Developing a people capability framework to promote sustainability in facility management practices

Facilities, May 2016

Twenty-three people capability factors are identified as significant to the promotion of sustainability measures in FM practices. Dealing with these factors effectively can provide a sound basis for equipping FM professionals with the necessary knowledge, information on training and educational needs and the right mindset to enhance the implementation of sustainability in FM practices.

New ways of working

Providing a catering liaison service between inpatient families and the hospital kitchen

British Journal of Healthcare Management, September 2023

Jo Wray and colleagues use a case study to outline an innovative approach to hospital catering, proposing the introduction of a catering liaison role to improve patient nutrition, reduce length of stay and save resources.

Trust and knowledge sharing among hospitals during COVID-19: the compound effect of four barriers to organisational trust for knowledge sharing

VINE Journal of Information and Knowledge Management Systems, August 2022

COVID-19 highlighted the potential value of improving knowledge sharing (KS) processes among hospital estates and facilities management (HEFM) departments.

[...]

This study identifies four organisational features with a compound barrier-effect on impersonal-based OT, interpersonal-based OT and personal trust for KS interactions: lack of professional development, inappropriate reward and incentive systems, reorganisations/organisational change and benchmarking.

[Conference abstract] [Towards sustainable and resilient healthcare: Exploring knowledge sharing barriers and channels among NHS hospital estates and facilities departments](#)

Apollo - University of Cambridge Repository, August 2022

The findings uncover a multitude of barriers throughout the KS process. Continuous structural reorganisations of the NHS, silo-thinking, inter-hospital competition, a lack of investment in professional development and additional complexities due to different ownership and service outsourcing models create a challenging environment for effective inter-organisational KS. Regarding KS channels, the NHS is still lacking a holistic strategy through which different types of documented and undocumented knowledge can be shared.

[Placing modular facilities in a resource-limited healthcare system](#)

British Journal of Healthcare Management, December 2021

The previous two articles in this series have focused on the potential benefits of modular facilities to healthcare staff, services and patients, drawing on case studies of NHS trusts that have implemented modular facilities on their sites. This article, the third and final instalment of this series, discusses the health economic impact of current NHS infrastructure, and explores the ways in which modular facilities could provide a

flexible and cost-effective means of expanding capacity and improving services in a resource-limited environment.

[Practical considerations for the commissioning and delivery of modular facilities](#)

British Journal of Healthcare Management, November 2021

This article, the second in a series of three, will discuss the process of commissioning a modular facility, drawing on two in-depth case studies to provide insight from healthcare managers who have successfully completed such a project. This includes exploration of the circumstances that led the trusts to consider a modular solution, the challenges they faced, how they overcame those challenges and the benefits they have observed in their services so far.

[The case for more modular facilities in the NHS](#)

British Journal of Healthcare Management, September 2021

The first of three instalments, this paper will outline the problems facing the NHS estate, many of which have been exacerbated to critical levels by the COVID-19 pandemic, and what this means for service delivery. It will then make the case for modular infrastructure, outlining the potential benefits for healthcare services, staff and patients alike.

[Facilities management in the NHS: overlapping authority and demarcation disputes](#)

Facilities, February 2019

This research aims to investigate the implementation of the new ward housekeeper role in a hospital setting. The purpose is to propose a model to demonstrate how facilities management (FM) departments and clinical ward teams work together effectively to deliver catering and cleaning services.

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[The history of healthcare facilities management services: a UK perspective on infection control](#)

Facilities, May 2018

Among many other things, this research raises the profile of HFM staff in relation to the issue of IC in hospitals. It presents convincing evidence to show that the relationship between the clinical and non-clinical domains in controlling infections in hospitals has a long history. The findings of this research give HFM staff invaluable information about the significant role of their profession in the control of infections in hospitals.

Impact on patient care

[The relationship between facilities management service quality and patients' health-care experience: the mediating effect of adequacy of health-care resource](#)

Facilities, January 2023

The result should inspire health-care managers to prioritize attention on health-care FM to create and sustain a decent health-care environment. Facilities managers should ensure standards are not compromised by keeping health-care resources in good condition through the organisation and management of resources.

["More than just cleaning": A qualitative descriptive study of hospital cleaning staff as patient caregivers](#)

International Journal of Nursing Studies Advances, December 2022

Three themes emerged: 1) "Here to take care of you" 2) Difficulties & Coping: and 3) Perceptions of their role. These three themes provide insight into participants' perceptions of patient interactions and the kind of connections they formed with patients as they went about their duties. Study findings suggest that there exists among housekeeping staff a respect for the humanity of patients, a duty to protect people from disease, and a longstanding practice of engaging in therapeutic connections with patients. As noted elsewhere, there remains a disparity between the importance of this role and the recognition and dignity afforded it.

[Falling through the cracks: the invisible hospital cleaning workforce](#)

Journal of Health Organization and Management, November 2022

Cleaners are generally perceived by the literature as performing repetitive – albeit important – tasks in isolation from patients. Cleaners are not considered part of the "healthcare team" and are excluded from decision-making and interprofessional communication. Yet, cleaners can contribute to patient care; ubiquity and proximity of cleaners to patients offer insights and untapped potential for involvement in hospital safety.

[The Views of Domestic Staff and Porters when Supporting Patients with Dementia in the Acute Hospital: An Exploratory Qualitative Study](#)

Dementia, May 2017

The study suggests the need for improving the dementia-related knowledge and skills of all non-clinical staff especially those new to the NHS. The impact of witnessing dementia symptoms and

distress on emotional well-being requires further research so that ancillary staff can improve the hospital stay of patients with dementia.

Tidying rooms and tending hearts: An explorative, mixed-methods study of hospital cleaning staff's experiences with seriously ill and dying patients

Palliative Medicine, January 2017

Cleaning staff described interactions with patients as an important and fulfilling aspect of their work. About half of participants indicated that patients talk with them every day, on average for 1-3 min. Conversations often revolved around casual topics such as weather and family, but patients also discussed their illness and, occasionally, thoughts regarding death with cleaning staff. When patients addressed illness and death, cleaning staff often felt uncomfortable and helpless.

The impact of facilities management on patient outcomes

Facilities, April 2008

In general, there is little or no evidence from pre-existing research to prove the contribution of FM in terms of health outcomes. However, in spite of this, 59 per cent of facilities managers in the NHS believe that the contribution of FM could be measured yet only a relatively small number of Trusts (16 per cent) have attempted to measure the contribution of FM. The analysis of the secondary data does not show any conclusive evidence of a correlation between FM and health outcomes.

The value of the facilities management function in the UK NHS community health-care sector

Journal of Health Organization and Management, December 2000

This paper stresses the importance of the strategic integration of the organisational facilities management function as being an essential prerequisite towards facilities and organisational

effectiveness. The impact of both the strategic and operational facilities management function on community health-care facility users is also documented. The value of the facilities management function in terms of other health-care related organisational core deliverables is also observed. Mechanisms for general organisational facilities management improvement are identified and a number of facilities management performance measuring tools outlined.

Effectiveness

Cheap and Dirty: The Effect of Contracting Out Cleaning on Efficiency and Effectiveness

Public Administration Review, February 2019

- Contracting out of public services, especially auxiliary services, is a key component of New Public Management because of the belief that it will lower costs and possibly increase quality.
- Economic theory predicts that when quality is hard to measure ex-post or hard to define ex-ante, suppliers may reduce quality to maintain their own costs, as they are the residual claimant on any profit.
- We find evidence to support the quality shading hypothesis and the coupling theory. Hospitals contracting out cleaning services had lower levels of cleanliness and worse health-care outcomes as measured by hospital-acquired infections.
- Public service managers must be very careful when outsourcing services— even auxiliary services; some performance indicators should reflect aspects of the quality of the core service.

'Time to clean': A systematic review and observational study on the time required to clean items of reusable communal patient care equipment

Journal of Infection Prevention, July 2017

A limited volume of low-quality evidence indicates that increased cleaning times in hospitals can reduce the incidence of healthcare-associated infections (HCAIs). The mean 'time to clean' for care equipment ranged from 166.3 s (95% confidence interval [CI] = 117.8–214.7) for a bed frame to 29.0 s (95% CI = 13.4–44.6) for a blood pressure cuff.

Sustainability

Transitioning to Environmentally Sustainable Health Systems: The Example of the NHS in England.

Public Health Panorama, June 2017

Lessons learnt: some aspects of the NHS experience may be transferable to other national health systems. These include the importance of manageable entry points and stakeholder engagement, how to promote change, the complementarity of top-down and bottom-up action, and the inextricability of the environmental, social and economic dimensions of sustainability in health systems.

Policy examples

Estate Strategy

Leeds Teaching Hospitals NHS Trust, 2024

In delivering this Estate Strategy we will provide our staff with the skills and capability to deliver meaningful changes in their services, increasing value and reducing waste, in line with the Leeds Improvement Method (see page 5). Our approach to continuous learning and use of data for improvement equips

senior leaders to better understand the current challenges in the local system and determine our key priority areas.

Estate and Facilities Strategy

Manchester University NHS Foundation Trust, 2023

The aim of the strategy is to set the forward view for not only the MFT estate but for the digitisation of the estate and estates functions and future proofing our E&F activity via our Workforce Strategy.

[See 3.9 Supporting a Diverse Workforce through the Estates & Facilities Workforce Strategy]

Competency Frameworks

Healthcare Apprenticeship Standards Online (HASO): Facilities and Estates

Skills for Health, no date

The team is responsible for the safe, secure and comfortable day-to-day working environment, ensuring that properties, assets and services are fully compliant with health and safety and other legislation. They will ensure that levels of performance delivered exceed customer expectations within budget for the properties, assets and services.

See also: [Infographic](#)

Competency-based training for the non-clinical workforce – A feasibility study, using a unique competency framework and career pathway

Education for Primary Care, 2020

Five Community Education Provider Networks (CEPNs) in South London collaborated to deliver training using the competency framework developed by OHSEL. They recruited employees

from community health and social care providers, with predominant interest from primary care. Training included Apprenticeships and CEPN-developed modular training. Results for this largely part-time workforce identified enthusiasm for learning; increased confidence and commitment; a desire for career progression and preference for flexible training with skills directly usable at work. Workplace findings included the need for manager training in coaching and mentoring to support employees implementing new skills, and willingness from clinicians and managers to embrace new roles. Feedback was overwhelmingly positive with outcomes used to develop on-line accredited training.