



BMHP6026 – Digital Transformation in the Health and Care Professions

Component 1 Written Report

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Digital Innovation in Health and Social Care – Virtual Wards

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Introduction

This report examines virtual wards as a digital innovation within NHS health and social care. A virtual ward, also known as Hospital at Home, allows suitable patients to receive hospital-level care in their own homes instead of staying in hospital. It can be used to support patients with conditions such as frailty, COPD, pneumonia, heart failure, while they are monitored and cared for by healthcare professionals at home (NHS England, 2024, Cathers and Lally, 2025). Care can include visits from healthcare professionals, supported by digital technologies such as remote monitoring devices, smartphones, apps, and video or telephone consultations (NHS England, 2024a). Therefore, virtual wards provide an alternative way of delivering healthcare while allowing patients to remain at home.

Although virtual wards had been developing for some time, their use increased during the COVID-19 pandemic through remote monitoring. In April 2022, NHS England launched its national virtual ward programme, aiming to provide 40 to 50 virtual ward beds per 100,000 people in England. The programme aims to improve patient experience, reduce hospital stays, and free up hospital beds (The Health Foundation, 2023a).

Virtual wards are becoming increasingly important because the UK has an ageing population with more people living with frailty and complex health needs. People with frailty may experience sudden changes in their health, which can lead to hospital admission. Virtual wards can provide proactive care to help prevent health crises and acute care for patients already experiencing a crisis (Westby et al., 2024).

Furthermore, virtual wards can support patients with conditions such as frailty and respiratory problems. However, successful delivery requires appropriately trained staff and effective support from health and social care services (NHS Support Federation, 2025).

Overall, this report will examine the impact of virtual wards on the workforce, service delivery, patients and service users, and the wider community. It will consider both benefits and disadvantages and critically assess the available evidence.

Workforce:

Virtual wards have changed the way healthcare professionals deliver care by allowing patients to receive hospital level treatment in their own homes. Rather than receiving all their care in hospital, professionals can monitor patient's condition remotely using devices such as pulse oximeters, blood pressure monitors and providing face to face support when required.

One significant impact of virtual wards on workforce is the need for additional training and digital skills (The Royal College of Nursing, 2024a). A plan for Digital Health and Social Care highlights the importance of developing digital skills within the health and social care workforce (Department of Health and Social Care, 2022). Similarly, the What Good Looks like farmwork emphasises the importance of staff being able to use digital technology and information effectively to support patient care (GOV.UK, 2023, England, 2023). Staff working in virtual wards therefore need to operate monitoring equipment, interpret patient data, communicate remotely and recognise when patient require further treatment. Although this can support workforce development, training requires time, resources and appropriate support (NHS England, 2021, England, 2023).

Virtual wards can support NHS efficiency by reducing hospital stays and freeing up hospital beds. However, YHEC found that patients using virtual wards may require greater input from community services and remote monitoring. This suggests that virtual wards may transfer workload from hospital teams to community teams, rather than reducing overall demand (York Health Economics Consortium, 2025a). This is an important consideration when evaluating their impact on the workforce.

Virtual wards can have a positive impact on workforce development by giving nurses opportunities to develop new clinical and technological skills (Emily Wells and Theresa Gatfield, 2024). Evidence from Northern Ireland found that staff gained knowledge and clinical skills when supporting patients with complex conditions and reported higher levels of satisfaction (Sheasby, 2023). However, the Royal College of Nursing highlights concern about whether staff receive sufficient education and training to work effectively with new technologies (The Royal College of Nursing, 2024b).

There are also legal responsibilities associated with using digital patient information. Health information collected through virtual wards is classed as special category data under the UK GDPR, meaning healthcare organisations must have appropriate safeguards when processing and sharing it (lco.org.uk, 2025).

Overall, virtual wards can create opportunities for workforce development and career progression, but they also introduce additional training, workload and data-protection requirements. Their effectiveness therefore depends on appropriate education, staffing, technology and compliance with relevant legislation.

Service Delivery:

Virtual wards have changed service delivery by allowing patients to receive care at home instead of staying in hospital. Healthcare workers use remote monitoring and home visits to provide treatment. This requires healthcare staff to communicate effectively, organise home visits and work with different healthcare teams. NHS England's Virtual Wards Operational Framework supports closer working between hospitals, community services and primary care (NHS England, 2024b).

Virtual wards can improve the speed, communication and coordination of healthcare delivery. For example, the Leeds Frailty Virtual Ward allows patients to be assessed at home within two hours, with different healthcare professionals working together to provide treatments such as medication reviews and IV antibiotics. This model encourages information sharing and joint decision-making between hospital and community teams. Staff in Leeds reported improved relationships and collaboration between services, demonstrating how virtual wards can support better integration and patient flow by enabling patients to receive appropriate treatment at home rather than attending or remaining in hospital (England, 2023).

However, virtual wards also have limitations that can affect service delivery. NHS England's South East evaluation found that their effectiveness depends on skilled staff, adequate funding, strong leadership and effective teamwork, while poor digital systems and limited resources can make communication and coordination more difficult (NHS England, 2024, a). In addition, York Health Economics Consortium. (YHEC) found that although virtual wards can reduce pressure on hospital beds, they may increase demand for community visits and remote monitoring. This suggests that virtual wards may shift workload and resources from hospital services to community services rather than reducing overall resource use (York Health Economics Consortium, 2025 b).

Overall, virtual wards can make service delivery more integrated and responsive by connecting hospital, community, primary care and social-care services. However, these

benefits depend on effective communication, compatible technology, adequate staffing and sufficient resources. The evidence also suggests that virtual wards may shift workload and costs to community services rather than eliminating them. The Health Foundation therefore argues that more high-quality evaluation is needed to understand which virtual-ward models work best and for which patients (The Health Foundation, 2023 b).²

Patient /service user;

Virtual wards can have a positive impact on service users by allowing them to receive hospital-level care in their own homes. This can provide greater convenience and comfort, as patients can remain close to their families and familiar surroundings while avoiding unnecessary hospital admissions. The NHS England evaluation of 29 virtual ward pathways in the South-east found that patients generally viewed home-based care positively because it allowed them to receive treatment in a more comfortable environment and remain close to their families. However, receiving care at home could also place additional demands on carers by increasing their workload and responsibilities. Furthermore, not all service users may have equal access to virtual wards, as requirements such as having a fixed address and being able to communicate verbally can create barriers for some patients. The evaluation also found that some ethnic minority groups were underrepresented among people receiving virtual ward care (England, 2024b).

One important benefit of virtual wards is that they can provide patients with greater convenience and independence by allowing them to receive care in their own homes. A UK study found that patients receiving hospital-at-home care valued staying in familiar surroundings, maintaining their independence and spending more time with family (esht.nhs.uk,no date).

Some patients also reported better sleep and felt that they recovered more quickly. Virtual wards can also support quicker assessment and treatment by allowing healthcare professionals to monitor patients and access diagnostic tests without requiring them to travel to hospital. However, the effectiveness of this approach depends on suitable staff, diagnostic services and technology being available. Some patients may also have concerns about being cared for at home if their condition becomes worse or if they do not have enough social support. Therefore, although virtual wards can improve convenience and provide quicker access to care, appropriate support and resources are needed to ensure that patients can receive safe and effective treatment. (Norman et al., 2023a).

The Health Foundation similarly identified concerns about digital exclusion, with some people reporting that they may not have reliable internet or may prefer face-to-face contact with healthcare professionals (Thornton et al., 2023a).

Overall, virtual wards can improve patient choice, comfort and access to healthcare. However, they should be designed to meet the individual needs of service users. The Health Foundation highlights the need for further research to determine whether virtual wards provide equal benefits for different groups (The Health Foundation, 2023c). Healthcare providers should therefore consider factors such as digital skills, communication needs, home circumstances and carer support to reduce inequalities in access to care.

Community:

Virtual wards can have several positive impacts on communities by allowing patients to receive care at home rather than in hospital. This may be particularly beneficial for rural and underserved communities because it can reduce the need to travel to hospital. However, access to virtual ward services may not be equal for everyone. A UK systematic review identified socioeconomic circumstances, ethnicity, language, age, housing, social support and digital access can affect people's ability to benefit from virtual wards. This suggests that although virtual wards may reduce geographical barriers, they may also create difficulties for people who do not have suitable technology, housing or support (Pahirden et al., 2025.)

Virtual wards can also affect families and carers. Norman et al. (2023) found that patient satisfaction may be improved through hospital-at-home care, although evidence about carers remains limited and carer strain is an important concern (Norman et al., 2023b). The Health Foundation also found that carers were generally positive about virtual wards, but some families may not have the resources or support needed to provide care at home. Therefore, virtual wards may reduce pressure on hospitals while potentially increasing responsibilities for families (Thornton et al., 2023b).

There may also be wider public health benefits because virtual wards can support people within their communities and may reduce some hospital admissions. Lewis et al. (2017) found that a community virtual wards model was associated with reductions in emergency department presentations and unplanned hospital admissions (Lewis et al., 2017). However, the Health Foundation suggests that the effect of virtual wards on reducing hospital pressure should be considered carefully. It is not always possible to know whether patients would have needed hospital admission without the service. Differences between virtual wards, such as staffing, technology and referral processes, also make it difficult to measure and compare their impact (The Health Foundation, 2023d).

Co-production is important when developing virtual wards. Involving patients, carers and healthcare professionals can help ensure services meet patients' needs and concerns. The Health Foundation found that people valued communication with healthcare professionals and quick access to hospital if their condition worsened. This suggests that care at home should be supported by professional help and hospital access when needed (Thornton et al., 2023b).

Overall, virtual wards show potential to improve community-based healthcare; however, the evidence supporting their effectiveness remains limited. Norman et al. (2023) identified a stronger evidence base for hospital-at-home services than for virtual wards themselves. Therefore, further evaluation is necessary to determine whether virtual wards can provide consistent and equitable benefits to different patient groups (Norman et al., 2023c).

Conclusion:

Overall, virtual wards are a significant healthcare innovation that has developed within the last ten years and has become increasingly important within the NHS, particularly since the COVID-19 pandemic. The report shows that virtual wards can provide hospital-level care in patients' homes, improve patient comfort and choice, and support better communication between hospital, community and primary care services. However, there are also challenges that need to be considered. These include increased workloads for community teams, greater responsibilities for carers, digital exclusion and unequal access for some patient groups.

The findings also show that virtual wards may reduce some hospital admissions and support community-based healthcare. However, the evidence is still developing, and there is stronger evidence for hospital-at-home services than for virtual wards themselves. Therefore, choosing a recent innovation such as virtual wards is important because it allows current changes in healthcare delivery to be examined and evaluated using recent evidence.

Recommendations include providing staff with appropriate training and digital skills, ensuring that virtual wards have enough staff and resources, and improving communication between healthcare services. Services should also consider patients' individual needs, including digital access, housing, communication and carer support. Finally, NHS organisations should continue to evaluate virtual wards to identify effective models and reduce inequalities. This will help ensure that virtual wards provide safe, effective and sustainable care for patients, families and communities.

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