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Digital Transformation in the Health and Care Professions (BMHP6026)

Component 1: Written Report

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Introduction

Digital transformation is changing the way health and social care services are delivered through the use of digital technologies that improve communication, support clinical decision-making and enhance the efficiency of healthcare services (NHS England, n.d.). One example of this innovation is the implementation of Virtual Wards, a digitally enabled model of care that allows patients to receive hospital-level treatment within their own homes using remote monitoring, telehealth and multidisciplinary team support (NHS England, 2024). Virtual Wards have been introduced to reduce unnecessary hospital admissions, support earlier discharge and deliver person-centred care while helping address pressures on NHS services. This report critically examines the impact of Virtual Wards on the healthcare workforce, service delivery, patients and the wider community, considering both the opportunities and challenges associated with this innovative model of care.

Impact on work force

Virtual Wards have transformed the way healthcare professionals deliver acute care by enabling patients to receive hospital-level treatment within their own homes through digital technologies and remote monitoring (NHS England, 2024). This shift has required changes to traditional healthcare roles, with multidisciplinary teams adapting to new ways of working, developing new digital competencies and collaborating across organisational boundaries (Litchfield *et al.*, 2025). As Virtual Wards expand across the NHS, healthcare professionals must balance technological innovation with safe, person-centred care. This section critically evaluates the impact of Virtual Wards on the workforce, considering changes in job roles, role competencies, benefits and implementation challenges.

The implementation of Virtual Wards has expanded the responsibilities of healthcare professionals, requiring multidisciplinary teams (MDTs) to work more closely across primary, community and secondary care services. Community nurses play a central role in coordinating patient care and monitoring patients remotely, while consultants, physiotherapists, occupational therapists and pharmacists contribute to assessment, treatment planning and rehabilitation within the home setting (Litchfield *et al.*, 2025). This multidisciplinary approach represents a significant shift from traditional hospital-based care, as healthcare professionals are now required to make clinical decisions using remote monitoring technologies, share patient information across services and coordinate care through digital communication systems (Litchfield *et al.*, 2025). However, Litchfield *et al.* (2025) also identified that adapting to these expanded roles required significant

organisational support and staff engagement, suggesting that changes to job roles alone are insufficient without appropriate training and leadership.

Virtual Wards require healthcare professionals to adapt existing knowledge and skills to deliver hospital-level care in patients' homes. Wells and Gatfield (2024) identify key competencies including communication, digital literacy, autonomous decision-making and multidisciplinary working. Although these competencies support effective Virtual Ward care, nurses new to the service may require additional training and support, highlighting the importance of ongoing workforce development.

Effective communication, digital literacy and technical competence are essential for Virtual Ward staff, who must confidently use remote monitoring technologies, interpret patient observations and communicate effectively with patients, families and multidisciplinary teams (Wells and Gatfield, 2024). Ongoing training is therefore essential as digital technologies continue to evolve.

Delivering hospital-level care within a patient's home also requires healthcare professionals to possess strong safeguarding and holistic assessment skills. Unlike hospital settings, Virtual Wards provide nurses with greater insight into patients' living environments, family dynamics and potential social concerns. This enables healthcare professionals to identify safeguarding issues, assess whether additional support is required and make appropriate referrals when necessary (Wells and Gatfield, 2024). This broader understanding enables healthcare professionals to deliver holistic, person-centred care while protecting vulnerable individuals.

Healthcare professionals working within Virtual Wards must also demonstrate a high level of autonomy and clinical judgement. As patients are monitored remotely rather than within a hospital environment, nurses are often required to make independent clinical decisions, recognise signs of deterioration and initiate appropriate escalation procedures to ensure patient safety (Wells and Gatfield, 2024). These competencies are fundamental to ensuring that patients continue to receive safe, responsive and high-quality care outside the traditional hospital setting. However, the increased autonomy required within Virtual Wards also places greater clinical responsibility on healthcare professionals, meaning that effective governance, ongoing training and clear escalation procedures are essential to maintain patient safety.

Impact on service delivery

Virtual Wards have transformed healthcare service delivery by enabling patients to receive hospital-level care within their own homes rather than remaining in hospital. Based on the principles of Hospital at Home, this approach allows appropriate patients to avoid hospital admission or receive continued monitoring following discharge. During the COVID-19 pandemic, remote home-monitoring models used telephone calls, online platforms and digital technologies to support patients outside hospital and escalate care when deterioration was suspected (NHS England, 2024; Vindrola-Padros *et al.*, 2021). This shift represents a significant change from the traditional hospital-centred model of care by delivering treatment within the patient's home while maintaining clinical oversight. As a result, healthcare services are able to provide more flexible, person-centred care without compromising patient safety.

The introduction of Virtual Wards has improved the efficiency of healthcare service delivery by reducing the demand for inpatient hospital beds and supporting better patient flow across the NHS. By enabling suitable patients to be discharged earlier or avoid hospital admission altogether, Virtual Wards increase bed availability for patients requiring acute hospital treatment while helping to reduce pressure on overstretched healthcare services (NHS England, 2024). Cheng *et al.* (2025) reported that the implementation of the UK's first surgical Virtual Ward resulted in significant financial benefits, with approximately £91,295 saved through reduced hospital bed occupancy alone. These findings suggest that Virtual Wards have the potential to support NHS sustainability and improve the use of limited healthcare resources. However, Cheng *et al.* (2025) evaluated a single surgical Virtual Ward, meaning these findings may not be generalisable across all NHS services.

Remote monitoring is a fundamental component of Virtual Ward service delivery, allowing healthcare professionals to oversee patients while they remain at home. Monitoring approaches may include telephone contact, online platforms, digital applications and, less commonly, wearable sensors (Vindrola-Padros *et al.*, 2021). In the surgical Virtual Ward evaluated by Cheng *et al.* (2025), advanced wearable devices continuously recorded patients' vital signs, while video consultations enabled clinicians to assess wounds for infection or poor healing and intervene when required. The range of monitoring methods demonstrates how Virtual Wards can maintain clinical oversight outside hospital, although their effectiveness depends on reliable reporting systems and appropriate escalation arrangements.

Despite the benefits of Virtual Wards, several challenges continue to affect service delivery. The successful implementation of Virtual Wards relies on reliable digital infrastructure, effective communication and strong collaboration across healthcare organisations. Cucurachi *et al.* (2025) highlight that barriers such as limited digital confidence, difficulties integrating services, organisational challenges and concerns regarding the suitability of some patients for remote care may reduce the effectiveness of Virtual Wards. Furthermore, not all patients are appropriate for home-based monitoring, meaning careful patient selection and robust clinical governance remain essential to ensure patient safety. Addressing these challenges will be critical to ensuring that Virtual Wards continue to develop as a safe, equitable and sustainable model of healthcare delivery.

Impact on patients

Virtual Wards have changed the way patients experience healthcare by enabling them to receive hospital-level treatment within their own homes while remaining under the supervision of healthcare professionals. This model aims to provide care in a familiar environment, allowing patients to maintain their independence while reducing the disruption often associated with prolonged hospital stays. Norman *et al.* (2023) found that Virtual Wards may improve patient experience by supporting care closer to home while delivering outcomes comparable to inpatient care for appropriate patient groups. However, the authors also highlight that the evidence relating to patient experience remains limited in some areas, indicating that further high-quality research is needed to fully understand patients' perspectives. Although Virtual Wards have the potential to enhance patient-centred care, continued evaluation is required to ensure positive patient experiences.

Virtual Wards allow patients to receive hospital-level care at home while remaining under clinical supervision. Kirupanthavel *et al.* (2026) found that a surgical Virtual Ward supported by remote monitoring was feasible and safe for patients awaiting urgent coronary artery bypass graft surgery, enabling early identification of deterioration without prolonged hospital admission. However, these benefits depend on appropriate patient selection.

Although many patients value receiving hospital-level care at home, some experience difficulties when using the digital technology required for Virtual Ward monitoring. Lyndon, Viney and Slade (2025) found that some patients struggled to understand the equipment or experienced connection problems, highlighting the risk of digital exclusion. However, patients generally reported high levels of trust in Virtual Ward staff, which increased their confidence to remain at home and helped them feel safe and supported. This suggests that patient concerns are not only linked to the technology itself, but also to the quality of

communication, reassurance and professional support provided throughout the Virtual Ward pathway.

Although Virtual Wards offer many advantages, they are not appropriate for every patient and require careful assessment before admission. Howells et al. (2026) found that delivering acute care within the home redistributes responsibility for patient safety between healthcare professionals, patients and their carers. Clinicians were required to balance clinical guidelines with professional judgement when determining patient suitability, while patients and carers became more actively involved in monitoring symptoms and recognising signs of deterioration. The study also identified that multidisciplinary teamwork, clear communication and effective governance were essential in managing clinical risk, particularly during periods when direct clinical oversight was reduced. These findings demonstrate that the success of Virtual Wards depends not only on digital technology but also on collaborative working, appropriate patient selection and shared responsibility for maintaining patient safety.

Impact on community

Virtual Wards strengthen integration between hospital, community and primary care services through improved multidisciplinary collaboration. Lewis et al. (2013) found that this approach enhanced communication and continuity of care for patients at high risk of hospital admission, supporting coordinated care closer to home.

The delivery of hospital-level care within the home has increased the involvement of families and informal carers throughout the patient's care journey. Wong *et al.* (2025) found that carers often play an important role in supporting daily care, monitoring symptoms and communicating changes in a patient's condition to healthcare professionals. While many carers valued being actively involved in care and appreciated the opportunity for patients to remain at home, the review also highlighted that increased caring responsibilities could create additional emotional and practical demands. These findings demonstrate the importance of providing carers with appropriate information, support and access to healthcare professionals to ensure they feel confident in their role.

Virtual Wards promote person-centred care by encouraging patients and carers to become active partners in decision-making rather than passive recipients of treatment. The Healthwatch Suffolk (2025) evaluation found that patients valued the compassion, communication and reassurance provided by Virtual Ward staff, which increased their confidence in receiving care at home. Similarly, Wong *et al.* (2025) identified that effective communication and shared decision-making strengthened patients' confidence and engagement throughout their care. This collaborative approach reflects co-production by

recognising patients and carers as essential members of the multidisciplinary team and tailoring care to individual needs.

As demand for healthcare continues to increase, particularly among an ageing population, Virtual Wards have the potential to support wider public health objectives by reducing avoidable hospital admissions and enabling more people to receive care within the community. Wong *et al.* (2025) concluded that Hospital at Home models can provide safe and effective care for appropriate patients while supporting independence and reducing reliance on inpatient services. These benefits align with NHS England's ambition to deliver more care closer to home and improve the sustainability of health services through digitally enabled models of care (NHS England, 2024). However, continued investment in community services, workforce development and digital infrastructure will be essential to ensure these benefits are realised across all populations.

Conclusion

In conclusion, Virtual Wards represent an important development in the digital transformation of healthcare by enabling hospital-level care to be delivered safely within patients' homes. This report has shown that Virtual Wards can improve workforce flexibility, service delivery, patient experience and community-based care. However, their long-term success depends on appropriate patient selection, reliable digital infrastructure, workforce development and effective multidisciplinary collaboration. While current evidence suggests that Virtual Wards can improve patient outcomes and support the sustainability of NHS services, many studies are based on specific patient groups or individual NHS organisations, limiting the extent to which findings can be generalised across all healthcare settings. Therefore, continued evaluation, investment and robust governance will be essential if Virtual Wards are to remain an effective, equitable and sustainable model of care within the NHS.

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