



# Briefing Paper: Advancing Healthcare Education through Simulation-Based Education

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The Council of Deans of Health Simulation Reference Group was established in September 2024, in response to research recommendations from the [Simulation in Nursing Education](#) report and the Nursing and Midwifery Council's (NMC) [evaluation of simulated practice learning](#). Recognising the need for a community of practice to ensure that learning can be shared across the sector, this group brings together simulation education leaders from across the UK. This briefing, compiled by the reference group, aims to showcase the transformative potential of simulation in healthcare education and highlight the challenges and recommendations for advancing its implementation.

## Introduction to simulation-based education

Simulation-based education offers an alternative means of delivering practice learning to traditional clinical placement settings. Simulation in healthcare aims to replicate care events utilising tools such as life-like mannequins, patient actors, augmented and virtual reality and immersive learning environments which are risk-managed to prioritise student learning and discovery.

The COVID-19 pandemic accelerated the adoption of simulation by universities to address placement capacity constraints. These innovative approaches proved highly successful, bringing a variety of benefits and opportunities in education provision. The NMC now allows up to 600 hours of simulation to count towards traditional placement requirements, enabling much-needed flexibility and innovation.

## Benefits

Simulation-based education offers a transformative opportunity for nursing, midwifery and allied health profession education in the UK. The [Simulation in Nursing Education](#) report highlights several key benefits of this approach:

- **Fostering new skills and future-proofing the workforce:** Simulation offers an innovative training solution that cultivates a new generation of highly skilled and adaptable healthcare professionals.
- **Expanding placement capacity:** By increasing clinical placement capacity, simulation-based education alleviates pressure on healthcare settings and staff, creating more training opportunities for students and optimising the use of available capacity.
- **Improve student experience:** Students report high levels of satisfaction with simulation-based education, particularly valuing the opportunity to practice a diverse range of clinical skills and decision-making in a safe, controlled environment where mistakes can be corrected without risk to

patients. Simulated environments offer a rich learning experience that incorporate an authentic inclusion of the patient voice and those with lived experience of conditions.

The use of simulation-based education aligns with Lord Darzi's review recommendations to embrace technological advancements to boost productivity, invest in educational infrastructure, and support the long-term recovery of the NHS by preparing healthcare professionals to meet evolving challenges.

## Key challenges

- **Infrastructure and resources:** Higher education institutions need increased investment in simulation facilities, technology, infrastructure that supports the advanced technologies, and trained staff, learning technologists, and technicians to ensure the sustainable delivery of simulation-based education. While many institutions already use simulation, there are variations in capacity and readiness, highlighting a need for standardised support across the sector.
- **Faculty training:** Simulation teaching requires specialised training for educators to ensure effective implementation. Academic staff need ongoing professional development to manage the complexity of simulated learning environments and the advances in digital technology. Faculty members emphasise the need for continuous improvements in training materials and the development of more immersive simulation environments, including advanced technologies such as virtual and augmented reality.
- **Clarity on terminology and standard evaluation:** There is a lack of clear terminology for simulation-based education with notable differences between UK and international usage. Despite support from the NMC, higher education institutions remain uncertain about regulatory expectations and which activities meet the criteria for simulation to replace clinical placement hours. Additionally, there were limited standardised, evidence-based tools to evaluate simulation-based education. Education providers express a strong need for clarity and a benchmarking tool to ensure a consistent approach.

## Recommendations

The Council of Deans of Health Simulation Reference Group makes the following recommendations:

- **Increase support for simulation-based education:** Allocate specific funding to expand simulation infrastructure in higher education institutions to enable them to deliver simulation-based education effectively. Create financial incentives or tariffs for institutions that adopt and expand simulation-based education to reduce clinical placement burden and enhance training flexibility.
- **Standardise simulation practices across the UK:** Develop a national benchmarking tool to ensure consistency in how simulation-based education is delivered and evaluated across institutions. This will support uniform standards of proficiency and equal access to high-quality simulation training for all students. Utilise accreditation frameworks for simulation-based teaching skills to ensure educators are properly equipped to manage these environments.
- **Support further research and evaluation:** Conduct longitudinal studies to measure the long-term impact of simulation-based education on nursing competency and patient outcomes. Fund research into the cost-effectiveness of simulation-based education compared to traditional placements, focusing on student outcomes, faculty time, time equivalence between simulation and traditional placements, and resource allocation. Collate case studies of exemplar practices and outcomes that can be used to illustrate its applicability and benefit.