

# Simulation Strategy 2016

*This document sets out the Simulation Strategy for Health Education East of England 2016.*

### Background

Health Education England East of England provides significant investment to support simulation opportunities across the east of England for both postgraduate medical trainees and non-medical healthcare professionals.

The east of England boasts a number of excellent centres for simulated learning in a high fidelity setting. These include facilities at the University of Hertfordshire, the University of Bedfordshire, Anglia Ruskin University, the University of Essex, Cambridge University Hospitals NHS Trust, the University of East Anglia, University Campus Suffolk, the Icen Centre in Colchester and, more recently, the state of the art Evelyn Cambridge Surgical Training Centre, which provides unique opportunities to develop technical expertise using cadaveric material. In addition, many Local Education Providers (LEPs) engaged in the training of doctors and non-medical professionals have either a simulation suite or a clinical skills laboratory that is appropriately equipped and staffed and is accessible in working hours and, in some cases, out of hours.

Funding for simulation and clinical skills learning is provided through a number of streams, including:

- A centrally-managed simulation budget administered through a bidding process
- School based study leave (for postgraduate medical trainees)
- Continuing Professional Development (CPD) budgets managed by employers
- HEI budgets (for undergraduate trainees)

The widespread and effective use of these financial resources, facilities and equipment is important for the following reasons:

#### 1. Public expectation

Members of the public not only expect professionals in high impact occupations to engage in appropriate skills and simulator training, they believe that clinicians already do. Patient groups are shocked to learn that doctors frequently perform procedures for the first time on a real patient and that professional examinations offer limited assessment of practical ability.

#### 2. Evidence of efficacy

There is now a significant and growing body of evidence that simulator training is educationally effective in developing technical skills. Additionally, evidence is slowly accumulating that patient safety standards and non-technical skills, such as human factors also improve following simulator training. This latter view is at least partially informed by the experience of other high risk professionals in the airline and nuclear industries.

#### 3. Changes in clinical practice

The rate of change in clinical practice is now so rapid that there is an on-going requirement to train both new and existing clinicians in recent technologies and procedures. A prolonged period of learning in an apprenticeship model is no longer practical or cost effective.

#### 4. Changes in working practice

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The development of new professional roles, the growth of large and complex working environments, the widespread adoption of shift systems and the rapid pace of modern healthcare evolution require clinicians to develop high order leadership and communication skills.

### **5. Skills acquisition, maintenance and assessment**

The key element here is the concept of progression: a learner must practice and master relevant skills *and* pass an assessment before embarking on clinical training. Once trained, clinicians can use simulated facilities to rehearse both challenging and routine procedures and to reduce error. This philosophy is based on the combination of deliberate practise with appropriate specific feedback.

### **6. Technological developments and opportunities**

The technology available to support high fidelity and simulator training has progressed rapidly in recent years. Whilst there is every reason to suppose that these developments will continue, equipment available now will effectively serve our purpose for some years to come. Evidence exists that the educational value from low fidelity simulators can outweigh that of high fidelity simulators, as long as they are embedded within an educationally sound training programme.

### **7. Effective preparation for clinical practice**

To make the best possible use of available workplace time, trainees must have prepared effectively away from the workplace.

### **8. Curricular development**

The GMC are looking to incorporate simulation training in national curricula and are seeking assurance from HEE and its Regional Offices as to the feasibility of implementing this.

### **9. Acquisition of Skills**

The acquisition of clinical skills using simulation is appropriate to all trainees within the Region. The range of skills can be summarised as:

- Technical, clinical and operative skills
  - Practical procedures
  - Basic surgical skills
  - Operative ability
  - Other clinical skills, e.g. managing medical emergencies
- Non-technical skills
  - Leadership
  - Communication skills
  - Team working
- Cognitive ability
  - Decision making
  - Data acquisition and risk assessment
  - Managing uncertainty
  - Professional judgement in challenging situations

The various types of simulated experiences include:

- Simulated patients, using either actors or volunteers
- Manikins and models of varying complexity, ranging from part task trainers to 'complete bodies'
- Computer-generated virtual reality simulators
- Wet labs using human or animal tissue
- Bench-top skills trainers
- Simulated clinical facilities.
- Human factors training

### Principles underpinning the Simulation Strategy for HEE EoE

- The HEE EoE Simulation Strategy addresses the urgent and long term developments identified in the National Simulation Development Project Summary Report<sup>1</sup>
- At the forefront of the strategy is the enhancement of patient care and patient safety through the delivery of simulation training.
- Simulation training will be offered both within and across healthcare professional and organisational boundaries
- Simulation and Clinical Skills Training form part of a wider strategy for enhancing learning across HEE EoE. The use of simulation does not replace supervised clinical practice, but adds to it and, by doing so, makes practice more effective and ultimately safer for the patient.
- The simulation training facilities available within the east of England should be identified and recognised. This will include the creation of a map of simulation training locations within the east of England.
- Using a commissioning framework, HEE EoE will commission the use of simulation training services appropriately.
- Evaluation and feedback will be required from simulation training providers.
- The simulation faculty will be supported with annual networking and development days.
- A hub and spoke model will be adopted, utilising the expertise developed within the Hi-fidelity centres as the hubs and the LEPs as the spokes. A multi-professional approach will be adopted whenever appropriate.
  - **“Hubs”** Simulated clinical environments (e.g. mock operating theatres, wards and outpatient areas) and complex skill training are by their nature expensive. They require more technical support and often involve the development of a specialist expertise in the faculty.

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<sup>1</sup> This National Simulation Development Project (NSDP) written by Higher Education Academy (HEA), Health Education England (HEE) and Association for Simulated Practice in Healthcare (ASPIH).  
<http://www.aspih.org.uk/static/aspihdjango/uploads/documents/general/national-scoping-project-summary-report.pdf>

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- **“Spokes”** All LEPs will act as “spokes”. However it is recognised that some will also be a Hub for a particular areas of expertise, such as the use of cadaveric material in the Evelyn Cambridge Surgical Centre. Each LEP is expected to provide a minimum level of basic clinical skills training facilities which includes, but is not limited to: hand washing, intravenous injections and sampling, suturing, resuscitation training, basic and advanced airway management, urinary catheterisation, arterial puncture, and basic surgical skills.
- A number of LEPs have received investment for manikins and high fidelity simulators in the past which can be used for a wide range of specialities. This equipment includes laparoscopic, endoscopic, and angiographic simulators. The medical trainees benefiting from this training include surgeons, radiologists, cardiologists, gynaecologists, anaesthetists and physicians. LEPs will be encouraged to make these facilities available to trainees from other institutions and from other professions.
- The delivery of the simulation strategy will be led and overseen by an HEE EoE Simulation Steering Group, with representation from Universities, Foundation and Specialty Schools, trainees, HEE EoE’s Professional Advisor for TEL, patient & public voice and medical and non-medical senior educationalist engagement from LEPs and chaired by an HEE EoE Lead for Simulation. The steering group will provide an opportunity for a coordinated approach to commissioning simulation activity within the EOE, where commissioners and providers are able to meet within a forum in order to ensure best value and use of facilities and training resource across EOE.
- Additional support will be provided by a project administrator, whose role will help ensure a collaborative, quality assured and sustainable approach to simulation training. He/she will provide a key role in networking and sharing good practice.
- Within LEPs, educational leads for simulation and clinical skills training will work with the Directors of Medical Education, Non-Medical Tutors and Education Centre Managers to ensure appropriate facilities and equipment for simulation and clinical skills are available to support curriculum delivery.
- Similarly, each Foundation and Speciality School will have a simulation lead, who will be responsible for mapping the various elements of clinical skills and simulation training to their curricula. These individuals will ensure that simulation training is made available at appropriate times within the programme for trainees at varying levels of seniority.
- LEPs and Schools will be required to provide evidence that simulation training meets the agreed quality standards in their annual reports to HEE EoE. These reports will inform the quality management process and will be discussed at LEP visits. The educational quality standards will embrace the range of training provided, faculty involvement in training delivery and an evaluation of the training experience by trainees.
- Links between the various leads, across the professions, simulation hubs and LEPs will be made and encouraged.
- This strategy will be reviewed and updated on an annual basis to reflect progress in the preceding year and changing priorities.

### Progress during 2015/16

- A Simulation Steering Group (with representation from Universities, Foundation and Specialty Schools, Trainees, Public and Patient Voice and LEPs) has been formed to oversee the development and implementation of our strategy and to evaluate the outcomes of simulation activity in order to ensure that resources are being allocated equitably and appropriately utilised
- Simulation leads have been identified in Postgraduate Schools, LEPs and HEIs. The simulation leads will help HEE EoE to establish a network of training faculty
- A scoping exercise to identify the facilities available in the EoE has been undertaken
- A Regional Multi-Professional Simulation Learning Event was held early in 2016 in order to promote networking and to identify future priorities (see below)
- A simulation area of the HEE EoE website has been created and is being developed
- A quality assurance visit to one provider has been carried out and the learning from this has been used to develop a framework for future visits as part of our quality assurance processes
- Two providers have been allocated funds to appoint simulation fellows in order to establish how the appointees can best provide sustainable benefits to the Region

### Outcomes from EoE Regional Multi-Professional Simulation Learning Event 2016: Priorities and Challenges

- Patient benefit should be at the centre of our simulation strategy
- Multi-professional simulation should be promoted, utilising a variety of strategies (e.g. in situ or off-site sessions, learning from serious incidents) to facilitate attendance; all learner groups should have their own learning objectives and be given equal opportunities to be involved
- Securing the release of participants (and faculty etc) to attend simulation training is challenging. The importance of simulation training in promoting patient experience and safety should be stressed. Being able to measure and demonstrate this added value is difficult but should be a priority in order to develop a culture within organisations that sees simulation as a good use of resources that will ultimately save money e.g. by concentrating on high risk or otherwise high impact areas
- Effective facilitation and leadership of sessions by experienced, trained faculty is paramount
- Faculty should be evaluated by both self-reflection and peer review in order to identify any developmental needs
- Training in simulated environments is of greater value if trainees then have the opportunity to put their learning in to practice in “real life” in a timely manner (e.g. practising a procedure on a manikin and then performing it on a patient as a workplace based assessment
- Resources should be shared whenever possible
- Simulation Fellows must have clear objectives and be properly supported to achieve these in order to justify their high cost
- The possibility of closer working between simulation, life support and resuscitation trainers (e.g. sharing faculty, equipment and buildings) should be explored

### Next Steps for 2016/17

- The Steering Group will be expanded to include a simulation fellow and representation from the foundation schools and the HEE EoE quality team
- The postgraduate specialty schools will have a central role in determining what training should be delivered in their specialties – ideally for the whole multi-professional workforce in their specialties rather than just postgraduate medical trainees
- The website will be developed to improve the user interface and ensure that the information likely to be needed by users is readily accessible. This will include publishing the results of the scoping exercise in order to promote networking and sharing of resources
- Clear guidance will be given for the bidding process for funding. Bids will be evaluated by a panel against defined criteria in order to ensure that funding is allocated in a fair and transparent way; this will recognise that employers have responsibility for the CPD of trained staff and HEIs have responsibility for funding undergraduate training. Priority will be given where simulation training is a curriculum requirement
- Because the funding available is limited, high cost areas will be encouraged to cut their costs and to seek alternative sources of funding
- Our quality assurance processes will be developed in conjunction with the HEE EoE quality team
- Research and service evaluation will be encouraged with the aim of presenting findings at national fora
- Horizon scanning will be carried out at a national level by HEE. The steering group will actively promote all new national guidance and standards for simulation.

### Conclusion

HEE EoE recognises the need to upgrade and develop a co-ordinated approach to clinical skills and simulator training across the east of England. Access to simulation training should be both on a “uni” and “multi” – professional basis, taking in to account the need to ensure the most effective training opportunities to enhance patient care. Along with the increase in quality and quantity of provision, it will be essential to evaluate programmes and ensure access to training opportunities is both fair and appropriate.

This region-wide approach will reduce costs through resource sharing between speciality schools and across professions, avoiding unnecessary duplication of resources and making best use of the training faculty across the east of England.

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