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| East Midlands Simulation Strategy  |
| 2010 - 2015 |



**SIMULATION STRATEGY 2010 - 2015**

INTRODUCTION

In his 2008 Annual Report, the Chief Medical Officer stated that “Simulation offers an important route to safer care for patients and needs to be more fully integrated into the health service” (Department of Health, 2008). Following this report, in the latter part of 2009, the Department of Health commissioned a survey of simulation facilities, resources, equipment and strategic approaches across England. This proposal builds on that initiative and sets out a strategic direction for the development of simulation within the East Midlands over the next four years.

Key Points for the East Midlands

Improved access to simulation facilities, equipment, skilled personnel and learning opportunities

Development of a distributed network

Training and development of the faculty of simulation educators

Growing the evidence base for the effectiveness of simulation

More effective use of existing resources

BACKGROUND

Simulation is a technique for practice and learning that can be applied in healthcare to many different professions, disciplines and levels of training. It facilitates learning through immersion, reflection, feedback and practice, but minus the risks inherent in a similar real life situation. Its use in a wide variety of industries for many years has demonstrated its value (aviation, nuclear industry, aeronautics, military, business) and evidence is slowly but surely accumulating of the value of simulation in healthcare.

There is an important distinction between high, medium and low fidelity simulation. “High fidelity patient simulators combine sophisticated life-like manikins with computer programmes driven by scientifically derived complex mathematical models of respiratory and cardiovascular physiology and extensive pharmacological modelling of drugs to produce a dynamic system…..Intermediate [medium] fidelity simulators combine part or full body manikins with less complex computer programs. Low fidelity simulators and simulated patients [are] the basis of many objective structured clinical examinations.” (Maran & Glavin, 2003)

The practice and learning opportunities provided by simulation include a range of both technical and non-technical skills, knowledge and attitudes. Simulation addresses practice and learning for teams, individuals working in teams and individuals working alone. Simulation therefore covers clinical practice and learning in a wide range of simulated environments where patient care is delivered, including those where practice occurs outside the ward, the clinic or the operating theatre; it is thus not confined to practice and learning through the use of inanimate mannequins.

Educational research emphasises that simulation in all its various manifestations is an important adjunct to other educational inputs and can speed up learning and educational trajectories. Further, simulation offers a robust and reliable assessment environment for both formative and summative assessment for individuals and multi-professional teams.

The main benefit of developing simulation arrangements is to improve the quality of care to patients and the public in the East Midlands. Improved patient safety will be a key outcome. Moreover, the quality element of the QIPP agenda is clearly supported by improved provision.

CURRENT SITUATION

In the early part of 2010, East Midlands Healthcare Workforce Deanery commissioned a high-level strategic review into simulation across the region. The resulting *Review of Simulation-based Education in the East Midlands* (Frontline, 2010) identified:

* variable access to simulation facilities and equipment
* a requirement for increased local resources and/or increased sharing of existing resources based around a coherent distributed model of provision
* the need for a network of experts to be established
* a requirement for simulation to be included in job plans, in order to ensure the availability of a skilled faculty of educators across the patch
* the necessity of establishing a baseline level of consistency for faculty, facilities and processes vis-a-vis simulation
* the need for further research to demonstrate evidence of impact
* a role for the Deanery in leading the creation of a strategic approach to simulation across the East Midlands

These findings are consistent with the recommendations contained within the Department of Health *NHS Simulation Provision and Use Study* (DoH 2010).

In addition, it is also apparent from the national report that within some SHA areas, clear models for the development of simulation have already been developed. The report notes that “*Many SHAs have proactively funded and pursued simulation strategies*” (P.37). East Midlands is clearly now lagging behind in this important area of educational activity.

To make up this lost ground a new approach is therefore urgently required. This approach will focus on:

* ensuring there is access to simulation facilities, equipment, skilled personnel and learning opportunities, so that all staff can benefit
* developing a distributed network, so that common systems are in place
* training and development of the faculty of simulation educators, so that high standards of delivery are provided
* growing the evidence base for the effectiveness of simulation, so that there is continuing improvement in the East Midlands

The emphasis will be on using existing resources (people, equipment, facilities) more effectively to contribute to improved patient outcomes.

VISION

To realise this new approach, a vision for the future provision of simulation has been identified. In 2015 there will be:

* A single, virtual body of multi-professional simulation experts across the East Midlands, with access to an active development programme
* Integration of simulation into all aspects of healthcare delivery
* Advice about simulation available to all healthcare and associated staff (including voluntary sector and charity staff), and patients and carers within the East Midlands
* Routine utilisation of simulation and the network of experts to support the development of an adaptable and flexible workforce that is fit for purpose
* Use of the expert network as a resource to contribute to improved performance
* A programme of research, focused on demonstrating outcomes from simulation training

PLAN OF ACTION

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| Year 1 | Year 2 | Year 3 | Year 4 |
| Identify the champions and develop the distributed network | Share programmes | Integrate undergraduate teaching  | Develop research agenda |
| Agree ways of working across the network | Audit current use of simulation and identify gaps | Roll out new programmes across the network | Establish high-level strategic alliances (HR, other sectors e.g. Police, local authorities) |
| Establish what is currently being done | Define new programmes | Broaden range of simulation topics |  |
| Set educational principles | Set simulation standards | Self-assess against simulation standards | Revise simulation standards as appropriate |
| Develop stakeholder engagement plan | Establish and commission programme of CPD for Faculty | Roll out of three programmes of CPD for Faculty | Further three CPD programmes for Faculty made available |
| Establish national links | Develop principles for Faculty release |  |  |
| Develop quality metrics and benchmarking | Build awareness of the network |  |  |
| Explore links to the VLE | Identify needs to HEIs, Medical Schools, Education commissioners | Share learning with other bodies (Trusts, other healthcare providers) |  |
| Develop communications systems and processes | Develop principles of accessibility | Self-assess against accessibility principles | Survey clinical staff to determine whether there are continuing accessibility issues |
| Identify benefits to monitor |  |  |  |
| Engagement event for champions | Engagement event for champions | Engagement event for champions | Engagement event for champions |
| Review progress | Review progress | Review progress | Review progress |
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COSTS

Much of the action plan can be delivered by giving the staff involved permission and authority to adopt and follow the plan. However there will be some costs in implementing this action plan.

The initial direct costs of the proposed approach outlined above are for a series of stakeholder events. These are likely to be in the region of £5,000 p.a. In addition, there will be similar costs associated with developing a CPD programme for the simulation Faculty. Administrative support will also be required.

Indirect costs will arise from the involvement of experienced staff in much of the activity outlined above. This will mainly be in the form of release from other duties and potential backfill. This may require some pump priming money to be made available to participating organisations in order to facilitate the availability of these staff and develop the educational programme. The estimated cost for this activity is £10,000. Additionally, from year 3, there will be a cost associated with rolling out the educational programmes. Assuming that there are three new programmes per year, the cost of this is likely to be in the region of £15,000 p.a.

Costs per Year

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| --- | --- | --- | --- |
| Year 1 | Year 2 | Year 3 | Year 4 |
| £20,000 | £25,000 | £40,000 | £55,000 |

For a reasonable initial investment, work can commence immediately on enabling the East Midlands to reduce the gap with other SHAs in simulation provision. However, further investment may be required if step changes are identified as necessary to enhance overall provision in the medium term.

MONITORING

The success of this strategy will be apparent if, in five years time, there is clear evidence of:

* less variable access to simulation facilities, equipment, skilled personnel and learning opportunities, monitored via surveys
* a well established distributed network of simulation experts, working effectively to support each other
* increased demand for simulation as a preferred method of learning, monitored via data on simulation facility bookings and training programme requirements
* a training and development programme for the faculty of educators
* inclusion of time to deliver simulation training within the job plans of relevant clinical staff
* demonstrable improvements in patient care, evidenced by reduced morbidity rates, hospital stay and serious untoward incidents, & improved patient satisfaction which can clearly be attributed to the availability of improved simulation provision
* in-hospital cardiac arrest survival rates are better than the national average, attributable to simulation training
* evidence of simulation being embedded in the clinical governance reporting policy of health care providers
* an emerging, locally generated, evidence base proving which simulation techniques and training are most effective