

Guidance Notes for Developing Bespoke Human Factors & Ergonomics Solutions for the NHS – Project Submission 2018

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Overview

Every day, Healthcare Professionals within the NHS help to safely treat tens of thousands of patients. These professionals all share the same motivational goals; to provide care that is of the highest and safest quality. For most patients, this care leads to improved or alleviated symptoms, resulting in a positive experience. There are, however, an unacceptable number of patients who are harmed as a direct result of the treatment received, or as a consequence of being admitted into hospital.

What is Human Factors & Ergonomics in Healthcare and why is it important?

“Enhancing clinical performance through an understanding of the effects of teamwork, tasks, equipment, workspace, culture and organisation on human behaviour and abilities and application of that knowledge in clinical settings”¹

Human Factors & Ergonomics has been highlighted as a key area for development in the NHS in order to improve patient safety. In response to the findings from the Mid Staffordshire NHS Foundation Trust Public Inquiry 2013, outlined in the Francis report², and the recommendations that were drawn from the Berwick³, Winterbourne⁴ and Keogh⁵ reports, the National Quality Board (NQB) developed a Concordat⁶ which emphasises the importance of applying Human Factors & Ergonomics (HFE) in healthcare to significantly improve the quality of care for patients.

Awareness of HFE in healthcare can help you to:

- Understand why healthcare staff make errors, and which ‘systems factors’ threaten patient safety
- Improve safety culture of teams and organisations
- Enhance teamwork and improve communication between healthcare staff
- Improve the design of healthcare and equipment
- Identify ‘what went wrong’ and predict ‘what could go wrong’
- Deliver sustainable quality improvement

¹ Catchpole (2010), cited in Department of Health Human Factors Reference Group Interim Report, 1 March 2012, National Quality Board, March 2012. Available at: <http://www.england.nhs.uk/ourwork/part-rel/nqb/ag-min/>

² The Mid Staffordshire NHS Foundation Trust Public Inquiry (2013) Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry: executive summary. London: Stationery Office (Chair: R Francis). Available at: <http://www.midstaffspublicinquiry.com/sites/default/files/report/Executive%20summary.pdf>

³ Review into the Quality of Care and Treatment Provided by 14 Hospital Trusts in England: Overview report. NHS England, available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/226703/Berwick_Report.pdf

⁴ Winterbourne View hospital interim report: improving care of vulnerable people with learning disabilities, available at <https://www.gov.uk/government/publications/winterbourne-view-hospital-interim-report-improving-care-of-vulnerable-people-with-learning-disabilities>

⁵ Review into the quality of care and treatment provided by 14 hospital trusts in England: overview report, available at <http://www.nhs.uk/nhsengland/bruce-keogh-review/documents/outcomes/keogh-review-final-report.pdf>

⁶ Human Factors in Healthcare: A Concordat from the National Quality Board, available at <http://www.england.nhs.uk/wp-content/uploads/2013/11/nqb-hum-fact-concord.pdf>

<http://www.patientsafetyfirst.nhs.uk/ashx/Asset.ashx?path=/Intervention-support/Human+Factors+How-to+Guide+v1.2.pdf>

What is the Human Factors Steering Group?

The focus of Health Education England is to develop HFE practice and principles through education and training, as well as deliver on its Mandate⁷ around quality and safety, specifically in developing the right people, with the right skills and the right values. The NHSI Patient Safety Collaborative programme delivered through the AHSNs are committed to assist this ambition and improve the adoption of human factors in healthcare.

Our response to the Concordat has been to set up a Human Factors Steering Group (formerly East Midlands HF Exchange group) that focuses on developing and utilising the rich and diverse expertise available in HFE to amplify its impact for the NHS.

Developing Bespoke Human Factors & Ergonomics Solutions for the NHS

There is an increase in the recognition of the need to identify patient safety related issues that can benefit from a Human Factors intervention, potentially improving outcomes at both the system and individual level. With this in mind, we seek to work in collaboration with NHS staff and Human Factors experts in order formulate pilot projects in three areas:

- Physical deterioration
- Maternity and Neonatal safety
- Culture & Leadership
- Mental Health

Opportunities for Project Submission

- Have you or your team identified a safety concern that would benefit from a HFE intervention?
- Have you had multiple incidents in medicine management or identified system unreliability?
- Could a HFE expert help you solve the problem?

We welcome the submission of safety concerns that could potentially lead to patient harm. HFE involves an analysis of the particular issue and developing solutions, whether it's a simple change or highlighting a broader system issue. For example;

Systems

- A need to understand how people interact with different parts of a system or a patient pathway.

Workforce

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Delivering high quality, effective, compassionate care: Developing the right people with the right skills and the right values: *A mandate from the Government to Health Education England: April 2016 to March 2017*, available at: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/559940/HEE_mandate_2016-17_acc.pdf>

- Changes in the way of working which require detailed analysis of the impact on workforce roles, responsibilities, tasks and workload.

Training

- Having the opportunity to practice procedures or train for uncommon situations.

Processes, Procedures and Tasks

- Further insight into all the steps involved in processes, procedures or tasks, to look at how the way of doing things can be improved.

Safety: Human Error

- Areas where there is potential for human error in clinical care such as decision-making, medication, prescribing, diagnosis, investigation or agreed safe procedures.

Communication

- Supporting communication to improve safety, whether it is between clinical staff in high pressure situations, patient handovers, or in a community setting.

Teams

- Working more effectively as a team to deliver care, through developing non-technical and team skills, particularly in high pressure situations.

Workspaces

- Workspaces or physical layouts which do not support the staff in undertaking tasks, for example, difficulty to access information, see a monitor, use equipment, or the movement of staff or patients within a space.

Project submissions will be reviewed by the Human Factors Steering Group and funding made available for development of successful HFE solution bids. NHS staff will work with HFE professionals to develop, implement and evaluate solutions. All projects will have an expected length of 12 months however, projects with a timeline of less than 12 months will be considered equally to those of the full 12 months. Projects of more than 12 months will not be considered.

Funding Available

Funding is available to deliver pilot projects across the Midlands and East. We are unable to fund:

- Projects without any Educational stance
- Research and Development proposals
- Proposals which require long term planning (over one year) or set-up process such as procurement
- Projects that do not include clear measures for the intervention
- Hardware costs
- Project management

Funding will be staggered over the project life cycle:

- 50% of the funding will be released upon signing of the agreed SLA
- 40% of the funding will be released upon a satisfactory outcome of the interim report
- 10% of the funding will be released after the submission of the final report

Your Patient Safety Concern & Submission

If you or your team have identified a particular safety concern that warrants additional attention and that fits within one or more of the factors listed above, then we would require you to take the following steps:

- 1) Complete the attached Expression of Interest document and submit to **your local PSC lead:** Peter.jefferies@wmahsn.org , Cheryl.crocker@nottingham.ac.uk, caroline.angel@eahsn.org
- 2) Once the Expression of Interest has been submitted, the Human Factors Exchange will be able to provide feedback from Human Factors experts from **Jan 15th 2018**
- 3) In collaboration with Human Factors experts, it is anticipated that applicants will present to a panel on **9th February 2018**. The formal submission and presentation will be via MS PowerPoint format, the template of which will be provided by HEEM/PSC.

Successful applicants will be informed by the end of within 3 days of the panel presentation. Applications are welcome from all NHS staff. Please note, director sponsorship/ sign-off will be required should your application progress to the next stage following the expression of interest. Joint applications across organisations are encouraged, and will be viewed more favourably during the final proposal presentations.

Examples of safety concerns that could potentially lead to human error

Failings were identified into the management, delivery and outcomes of care provided by maternity and neonatal services at the University Hospitals of Morecambe Bay NHS Foundation Trust from January 2004 to June 2013. Outlined in the Kirkup report (2015)⁸, these included:

- Adopting a rudimentary and flawed approach to investigating
- Failing to examine the root cause of incident, and to learn lessons from them
- Poor communication between multidisciplinary teams, later being described as ‘fractured’
- Deficient clinical skills, dysfunctional relationships and a poor risk assessment

Successful project reporting procedure

Successful project will be expected to adhere to the reporting structure and timeline set out by the HF Strategic Group. All project funding will commence from the 1st of April 2018. If project leads wish to start their projects before the 1st of April. We will endeavour to make funding available.

There will be 4, quarterly reporting procedures across the 12 months:

Quarter	Date	Description
1	3 rd of July 2018	A quarterly review meeting will take place between the local PSC and the project lead. Questions will be asked to give an overall update on the projects progress. An up to date project timeline is required for this review. Once the review has been completed

⁸ The Report of the Morecombe Bay Investigation, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408480/47487_MBI_Accessible_v0.1.pdf

		it will be written up and sent to the project lead who must approve it and send it back to the local PSC. Following this meeting an Interim Report template will be sent to the project leads.
2	2 nd of October 2018	The interim Report must be submitted. This Interim Report will be RAG rated and its progress will be reported to the HF Steering group at the next meeting. An official letter will be sent to the project lead with conditions or invoicing instructions for 40% of the funding, depending on the outcome of the project following this meeting.
3	5 th of January 2019	A further quarterly review meeting will take place between the local PSC lead and the project lead. Questions will be asked to give an overall update on the projects progress since the interim report as well as any actions from the outcome letter. An up to date project timeline is required for this review. Once the review has been completed it will be written up and sent to the project lead who must approve it and send it back to the local PSC lead. Following this meeting a Final Report template will be sent to the project leads.
4	15 th March 2019	A Final Report must be submitted. Following this submission invoicing instructions for the final 10% of funding will be sent to the project leads