

Towards doing healthcare better/Designed 2 Care.

Clinical Human Factors Group Strategy Document

www.chfg.org
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Introduction

The CHFG held a review of its purpose and activities in December 2009, attended by a range of volunteers (with a strong clinical presence). The following paper sets out:

- What human factors is and the role it plays in making healthcare better for all
- Who we are, what we will do and not do
- Our vision
- Our activities to support the above (inc internal activities)

Human factors is a developing science in healthcare, and is intrinsic to a myriad of different processes. Change will inevitably move at a different pace within different processes and healthcare organisations. We are all part of this learning process and it is thus inappropriate to be definitive about end results; goals and plans. However there is no doubt of the sincerity, passion and belief of those who have come to recognised the significant contribution that it will make to all in healthcare, whether user or provider.

The CHFG has one significant advantage over other organisations – we are not held back by inflexibility. Indeed, being flexible and adaptable is essential to the operation of the CHFG. Thus it is intended that this document will **guide** the CHFG through the coming period.

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What human factors is and the role it plays in making healthcare better for all

Human factors is a term that covers:

- The science of understanding the properties of human capability (Human Factors Science).
- The application of this understanding to the design, development and deployment of systems and services (Human Factors Engineering).
- The art of ensuring successful application of Human Factors Engineering to a program (sometimes called Human Factors Integration). It can also be called ergonomics.

Human factors involves the study of all aspects of the way humans relate to the world around them, with the aim of improving operational performance, safety, through life costs and/or adoption through improvement in the experience of the end user.

(http://en.wikipedia.org/wiki/Human_factors accessed 9 Dec 09)

In simple terms we may use human factors to design equipment and tools; to shape the working environment and systems; all this allowing the human to function more effectively. By understanding the different types of human error, better solutions can be developed to manage them. We may also develop ways of working using procedures and personal skills (e.g. SOP's and NoTechs).

Thus an understanding of human factors allows us to enhance effectiveness and efficiency; whilst reducing actual and potential problems. There is clear evidence of the significant benefits of understanding human factors in safety critical industries. Ultimately human factors will be embedded in healthcare. This will improve:

- Clinical effectiveness and efficiency;
- Safety;
- The lives of patients, clinicians, leaders and other allied health professionals.

Who we are, what we will do and not do

The CHFG is an independent campaign group whose goal is to accelerate the impact of human factors adoption in healthcare. The NHS must “do” the embedding; we will influence, stimulate, motivate, help, guide, coach, coordinate and keep the dialogue going across organisations so that we get there quicker.

The CHFG has people with real world experience and expertise in a wide variety of industries where these methods have proved effective. Many of our people have experience of the effective implementation of human factors in the uniquely challenging world of healthcare. As such the CHFG acts as a “junction box” for different experiences to be shared through benchmarking within the wider system.

Our vision – is for healthcare UK to make an accelerated significant step forward in patient safety and quality (effectiveness and efficiency) such that:

Future culture and beliefs...will change over the next 5 years to develop a culture that believes in productivity and safety as being complimentary – but has the ability to prioritise safety first when it is improbable that both can be achieved.

Knowledge and skills will be used as a lever for change...so that within the next 5 years all healthcare professionals (clinical and non-clinical) will be able to apply human factors knowledge in their work as well as starting to develop their own non-technical skills. Thus safe local systems will be developed by staff to enhance safety; safe behaviours will be developed from undergraduate to revalidation (and reinforced through simulation); good non-technical skills will be assessed and valued equally with clinical skills.

The overall process

Cultural change in the NHS around safety requires people’s awareness of the need and their own ability to influence better outcomes through design, development or individual skills. To achieve this requires multiple levers in the same way that the NHS has started to successfully tackle other “cultural problems” in society such as lung cancer, heart disease etc. This time though the cultural problem is in-house.

We will promote an understanding of the need through such tools as sharing information on research, stories, and campaign for a trial of independent investigation to provide “quality” data on the role of human factors in avoidable harm. We believe that independent investigation will highlight the need in the same way as it has done in other safety critical industry whilst allowing the development of a just, transparent culture.

We will raise people’s awareness of their ability to influence better outcomes through sharing research, stories, promoting and campaigning for education, in its broadest sense for all healthcare professionals. This will allow people to understand how applying best practice in human factors offers significant improvements in productivity and safety.

In simple terms; we will start to achieve change when the NHS understands that safe behaviour is more productive; safe systems are more productive; and that human factors is the major factor in healthcare failing; whether at macro or micro level.

What our vision might look like, Table 1 shows some potential outcomes of the CHFG's longer term goal:

HF Issue	Examples of what will this might look like?
Constructively challenging colleagues is viewed positively and rewarded	<i>A junior nurse speaks up to a consultant during a ward round to offer information that has been overlooked. The consultant takes the new information on board and thanks the nurse.</i>
Policies and procedures are developed, implemented and monitored using HF lessons from other industries	<i>In a PCT policies and procedures are developed based on lessons learnt about how to reduce procedural non-compliance in other high technology industries. This leads to raised awareness of the patient and staff safety risks caused by workarounds and increased levels of compliance'</i>
Policies and procedures are updated based on safety lessons learnt by clinical teams	<i>A planned surgical procedure is changed after it's realised that the experience of the team present along with other recent stressors makes the different strategy safer.</i>
Medical equipment is designed on the basis of HF principles	<i>Electronic prescribing and dispensing systems are designed on the basis of human factors principles, taking into account cognitive limitations and biases.</i>
Medical equipment is piloted to ensure it enhances human performance	<i>A designer of medical equipment trials different combinations of warning lights on a piece of equipment to see which allows the most rapid and accurate clinical response from carers.</i>
Team communication is improved by embedding briefing and debriefing techniques	<i>Briefings and shared communication are embedded as part of everyday practice at an Ambulance Trust allowing staff to develop local practices which create efficiency and allow more appointments during an afternoon.</i>
Improved 'error wisdom'/foresight/anticipation of potential patient safety risks	<i>Concerns raised by junior colleagues and/or carers about a mental health service users non-compliance with taking his/her anti-psychotic drugs are listened to and acted upon</i>
Enhanced learning through independent incident investigation	<i>After the unexpected death of a patient an independent investigation is carried out and the completed anonymous report becomes part of a monthly "safety" round-up document sent to every hospital Trust Medical Director in England. This document is then forwarded to every clinician and senior manager in the Trust.</i>
Labelling and design of medication packaging is based on human factors principles	<i>A drug manufacturer labels medicine to deliberately avoid the possibility of confusion with other drugs that may harm.</i>
Senior management commitment to and understanding of human factors on every Board	<i>At your local PCT, like all Trusts there is one non-executive director who is a human factors champion and who keeps human factors on the Boards' consciousness.</i>

Our activities to support the above/Key Activity Clusters (in no particular order)

- Lobbying/influencing Politicians, Leaders, Patient Groups & Media Engagement. This might include using providing evidence to organisations such as Royal Colleges as well as using the media to explain the need to understand the “human element” and what “human factors” is all about. We could also engage the media to assist with a “Speaking Up” campaign.
- Conversations with Boards and Senior Managers/Story-telling “it couldn’t happen here”.
- Lobbying for “quality” HF and incident investigation.
- Influencing student, under-graduate level and the curriculum.
- Lobbying for curriculum and simulation development.
- Lobbying/sharing best practice in Multi-professional training.
- Liaison with other HF groups (both UK and internationally). Two key roles, to “attract” other HF professionals to healthcare and to learn and share internationally to see what lessons can be used usefully in the UK.
- Website work on resources & signposting the evidence. This should include the further development of an advanced “How to guide”, DVD’s and other literature. This requires a clinician to “run” the website and manage our “techie” webmaster.

Commissioning Research and Advice & consultancy to industry and Trusts were considered as Key Activity Clusters. These are things we do/will do from time to time but at this stage represent more of an outcome of our work than a specific area to “lead” on.

Internal organisation and activities

Standing Group. The CHFG will maintain its Standing Group. This will be composed of three key groups of people. The purpose of the meetings will allow sharing of progress so that the Standing Group can offer advice and ensure coordination.

Leads for activity clusters. E.g. Political Lobbying etc.

Leads for specific projects/target groups. E.g. Buddy programme, Lead on the Speaking Up project, Mental Health, Pharmaceuticals etc

Significant individuals who are passionate about supporting the campaign.

The Standing Group will meet approx 3 times per year or as needed.

Open Learning Meetings. To ensure the CHFG is able to continue sharing best practice across healthcare as widely as possible and to provide an opportunity for wider engagement we will hold larger group “conferences/learning workshops” twice a year open to anyone interested. These will give an opportunity for individuals to share what research, best practice or whatever is considered appropriate with others, or simply to come and listening, debate and learn.

“Membership” of the CHFG. It is proposed that the website offers a facility for people to take up free membership of the CHFG. In return they’ll receive regular updates and have access to the Forum. They’ll also receive a lapel pin (yet to be designed). A business card will be printed (on request) for those more directly involved in the work of the Group, the front will have contact details for the Group and the individuals name, the reverse will have a brief list of what you can do today to make a difference. The CHFG should offer “members” the chance to meet, share experiences and data as well as a source of expertise. The CHFG can usefully legitimise an individual’s position.

The role of Chair/Martin Bromiley. My role is to offer leadership for the group, to carry the flag and act as a figurehead; as well as a political role in opening doors. However the group’s work must become more transparent and succession planning must be considered for the long term. The charitable status will remain and the role of the Trustees (currently Martin Bromiley, Julie Cresswell, and Mandy Putman) will be to provide financing for the CHFG. The actual “work” of the charity will be delegated to the Standing Group and others as appropriate. Details of the finances and charity status as well as minutes will be found at <http://chfg.org/charitablestatus.htm> None of the Trustees accept payment in cash or in kind.

Other “employees”. It is proposed that the CHFG provides volunteers administrative support. At this stage we already have a small funding award to cover admin support and we are considering a mid level administrator who would be able to both administer but also seize opportunities.