Introduction and background

In late July 2014 I met with Simon Stevens, Chief Executive of NHS England. The meeting was joined by Prof Sir Bruce Keogh, Medical Director of NHS England and Helen Hughes, on secondment to NHS England reviewing human factors adoption in the NHS.

During the meeting both Simon and Bruce presented me with a challenge: “How do we encourage human factors and safety best practice through commissioning, using levers that are reasonably simple?”

This Briefing paper is my response. Ideas and thoughts from myself and the CHFG membership have been drawn together by two human factors/systems experts who both have current experience of working with and advising NHS Boards.

NHS England’s “Five Year Forward View” challenged society, politicians and the healthcare community to find new ways of doing things. To do this successfully we must understand the human in the system. Human factors understanding will allow us to deliver reliability, develop resilience and ultimately make it easier to do the right things, and harder to get it wrong. The following ideas are not presented in any order, but we hope will inform thinking to make sure we harness the value of human factors understanding to bridge the challenging gap between intention and reality over the next five years.

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Footnote: Paper authored jointly by Martin Bromiley, Dr Jane Carthey & Professor Jane Reid for the Clinical Human Factors Group (www.chfg.org). This paper may be reproduced or quoted without our permission.
1. **Raising awareness of what the science of human factors is.**


Specifically there is an urgent need for the aforementioned organisations to understand their productivity/safety trade-offs and to recognise the extent to which ‘work-arounds’ are tolerated as the norm, and how they impact on safe patient care.

2. **Incentivising human factors-based approaches to service re-design and service improvement**

There are a range of human factors tools & approaches which should inform commissioning decisions & enhance decision making for safety. In a climate of financial pressure, with disinvestment in services and increased spread of integrated care models, systems safety assessments, safety cases, workload assessments, user-needs analysis and task analysis tools can support the design and development of safer patient pathways. These human factors tools have been widely adopted in other industries but are rarely used in healthcare to inform system-level design and reconfiguration. There is a need to acknowledge the gains to be made by embracing standardisation as an organising and cost containment principle at many levels of the NHS.

3. **Being aware of their own fallibility when making commissioning decisions and reviewing performance data**

CCG’s would also benefit from increasing their own awareness of how group dynamics, decision making and cognitive biases impact on commissioning decisions. For example, there may be a bias towards commissioning services for patient groups where there has been high profile, media-focused incident investigations. Where salience and availability bias is introduced to the commissioning process, risks may be introduced for other patient groups; CAMHS services in both the community and acute sector are examples where evidence suggests patients are at increasing risk.
4. Developing safety metrics and measurement approaches that support human factors

CCG’s must enhance the current approach to measuring quality and safety by developing human-factors based metrics that do not introduce ‘work-arounds’ into the system. For example, the A&E metric, ‘Ensuring every patient admitted to A&E receives an appropriate consultant level clinical review within 30 minutes’ reinforces clinical supervision & leadership in A&E.

CCG’s could incentivise teamwork across healthcare boundaries by developing CQUINs where achievement is rewarded for delivering, high quality care across partners in acute and community care settings. That is to say, introduce a ‘forcing function’ where CQUIN payments depend on both partners working collaboratively to achieve CQUIN targets which specify harm free care across the entire patient journey.

5. Incident review group meetings

CCG’s play a role in the quality assurance of serious incident investigations by checking that investigation reports contain essential elements of a root cause analysis (using a checklist developed by the former NPSA). There is an opportunity for CCGs to improve the quality of serious incident investigations by adapting the checklist to incorporate human-factors. For example, do the solutions and recommendations put forward reflect human factors design principles? Have errors and teamwork breakdowns been understood through an expert human factors perspective or attributed to 'non-compliance’?

6. Integrating human factors into transactional commissioning decision making

Unlike other industries, healthcare equipment manufacturers have not embraced human factors design principles. Few human factors design standards for healthcare equipment exist. CCG’s can play a role in improving patient safety through better integration of human factors in design.

Development of patient used equipment and “apps” requires thoughtful usability testing. Any NHS kitemark should be an explicit mark of user testing to ensure it’s been made easy to use correctly, and very hard to use incorrectly, with a default position of “safety”.

*Look-a-like, sound-a-like* medications are often packaged and labelled in ways that makes healthcare staff susceptible to inattentional blindness errors (i.e. where you see what you expect to see). Commissioners must use the leverage of the NHS’s purchasing power in dialogues with pharmaceutical manufacturers to tackle the known avoidable harms associated with such medications. Improvement in this area probably represents the single greatest potential to reduce the avoidable harm. This is ‘*a must do, can do ambition’ that is acknowledged by academics and clinicians at every level of service across the NHS.*