

# Health Systems Design

Special Interest Group Workshop at DESIGN 2020

John Clarkson



#### **HEALTH SYSTEMS DESIGN**

The Health Systems Design Special Interest Group has been formed with the goal of creating a space and building a community for researchers who are interested in the study of health systems design



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#### **DESIGN FOR PATIENT SAFETY**

A system wide design-led approach to tackle patient safety in the NHS





#### **DESIGN FOR PATIENT SAFETY**

#### A SYSTEM WIDE DESIGN-LED APPROACH TO TACKLE PATIENT SAFETY IN THE NHS

This report sets out a perspective from the world of design – based on a scoping study carried out by a research team from the Universities of Cambridge and Surrey and the Royal College of Art – to identify previously unrecognised opportunities for improved patient safety in the NHS.



84 pages 5 chapters 12 images 1 diagram





Human beings make mistakes because the SYSTEMS, TASKS and PROCESSES they work in are poorly designed

Prof Lucian Leape, Harvard School of Public Health





Because designers have not taken on-board the way in which medical staff actually use the equipment ...

... the potential for inadvertent dosage errors is significant





Emergency physicians reported ten interruptions to their primary task-of-work each hour

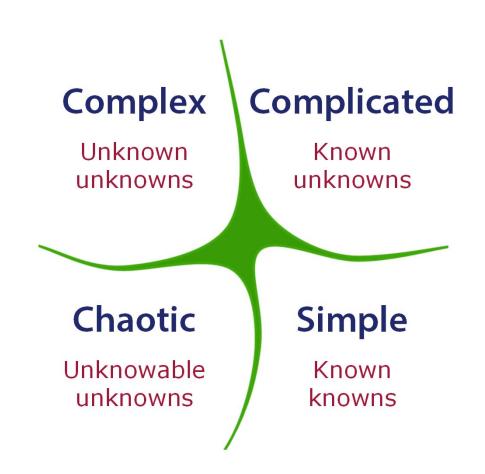
If these pressures are not anticipated through design errors become much more likely





## **Complexity**

Individual elements of health and care may be simple or complicated, while the whole is typically complex



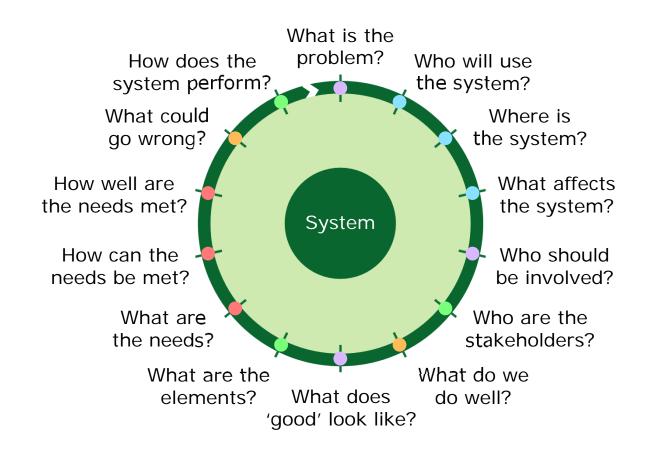


A systems approach to health and care design and continuous improvement



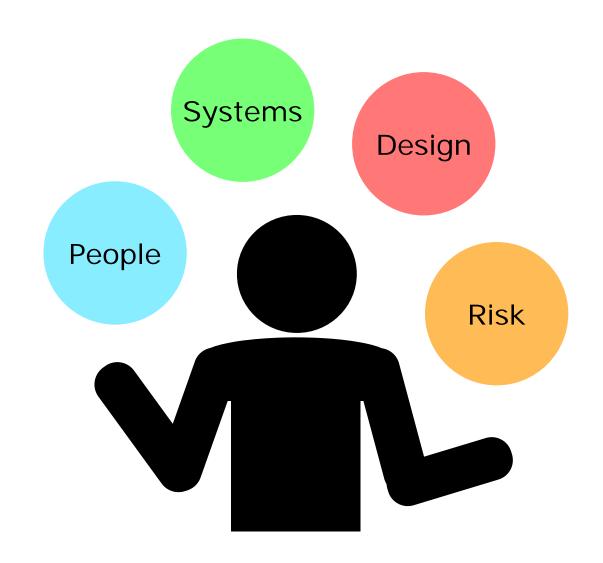


A systems approach can be thought of as a set of activities targeted to answer questions relating to people, systems, design and risk





As with a juggler, dropping any particular ball would compromise the integrity of their performance



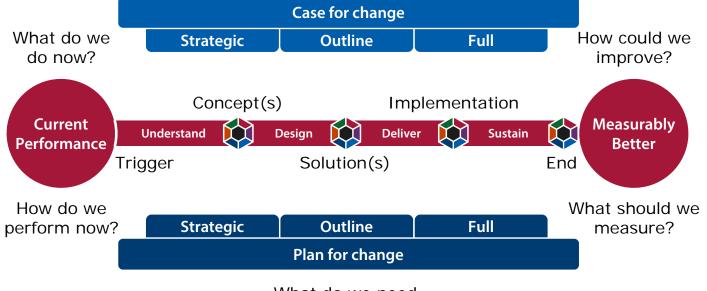


- Engineers think about people
- Iteration before implementation
- Design is an exploratory process
- Risk management is a proactive process
- Thinking changes practice, process helps
- Common sense is not common





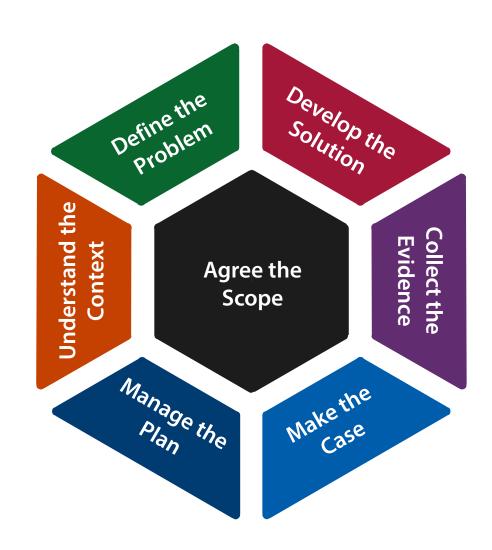
A process to transform the current performance into something measurably better What is the case for change?



What do we need to do next?

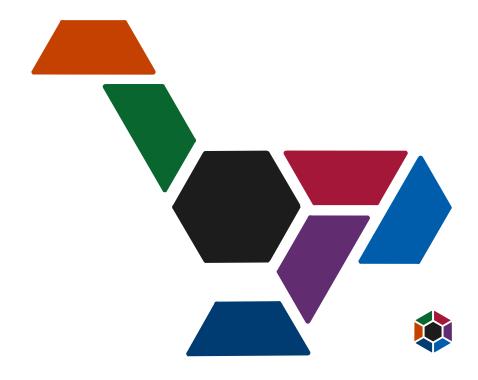


A systems approach can be thought of as an iterative process targeted to answer questions relating to people, systems, design and risk





A systems approach to health and care design and continuous improvement





- What do people actually do?
- What does a systems approach add?
- How can we design a better toolkit?
- What are the risks in this approach?
- Does thinking change practice?
- How can we encourage common sense?



























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