

# Building better care

Members of our Healthcare Sector Group reveal how they've been working with the NHS and Health Education England to bring a human factors perspective to the design of new community diagnostic centres

**A**s Covid-19 cases are on the rise again in the UK, we're starting to see the negative impact on elective care. This is on top of the backlog that has built up during earlier peaks of the pandemic. Add to this an underlying continuous increase in the demand for diagnostic services coupled with a relatively low diagnostic asset base, and it becomes clear that the NHS and the patients it serves are set for more hardship.

Part of the solution proposed in an independent review of diagnostic services for the NHS in England (the Richards review) is the establishment of community diagnostic centres (CDC) to relieve pressure on acute sites and bring services closer to patients.

Elective diagnostic pathways have traditionally been provided by acute sites with patients referred by a GP to a hospital consultant. This creates additional pressures on acute care providers and involves potentially unnecessary travel and delay for patients. Studies have also found that

for diagnostic services in cardiology, most patients are discharged without further intervention, as the service is used to rule out (rather than confirm) a diagnosis. The introduction of CDCs provides an opportunity to move routine diagnostic services closer to patients and reduce unnecessary hospital visits. They could be housed in a range of settings and staffed using new models.

However, the country is currently experiencing a workforce crisis. Not surprisingly, despite the requirement to increase activity and establish CDCs, workforce shortages are having an impact on the sector's ability to meet local demand and provide high-quality care, creating widespread concern.

Recognising the complexity of the workforce challenge, we knew that we could not continue to break down 'solutions' into simple constituent parts, such as recruiting more non-registered staff or ensuring staff worked to the top of their scope. We needed a different approach that utilised a systems perspective focused on improving overall system performance and staff wellbeing,

not just focusing on individual roles.

Health Education England and NHS England worked with the CIEHF to investigate diagnostic workforce design opportunities from a human factors perspective at the cardiology department at a community case study site and to identify, from this human factors analysis, design lessons that could be transferred to the wider CDC programme.

Despite the desire to take a scientific approach, there remained pressure to articulate quick solutions but the process required involvement from key clinical stakeholders who had competing demands. This led to delays requiring negotiation and the sharing of findings, which helped to allay anxiety regarding progress. A number of clinical colleagues were also encouraged by "such a refreshing approach" and felt it provided a more holistic view to the work they did and challenges they faced every day.

In gathering data from clinical practice, we were able to uncover the interactions and interdependencies that exist in the work system and challenge assumptions that recruiting or training more staff and optimising individuals' performance was the only intervention to meet the workforce challenge and improve productivity. While undertaking this work, it became clear that focusing on the wider socio-technical system will allow workforce investment to be focused in those places that can have the most impact and will, in turn, improve job satisfaction and retention.

It also allowed us to demonstrate that the organisational processes and systems, tools, tasks and other environmental characteristics are impacting workforce productivity and wellbeing and, unless these factors improved, benefits from training and recruitment will not be realised. The priority now is to share the case study findings through ten human factors principles that have been developed and are explained on the right. ■

## About the authors

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## IDENTIFY

### 1: Understand people's needs and capabilities

CDCs tie together different work systems and people, such as patients, their family, carers, clinical and administrative staff, hospital-based specialists, managers and many more. All these people and roles have diverse needs and capabilities, which need to be understood.

### 2: Describe the tasks people do

Task analysis provides a thorough understanding of work-as-done, which can inform us about other elements of the work system, such as other tasks that must be carried out, other people

involved, tools and the equipment used, physical spaces where the tasks are carried out, and procedures, protocols and organisational structures.

### 3: Consider tools and equipment

It's important to consider tools and equipment within the wider context of the system and to understand the influence they have on how people work and deliver care.

### 4: Assess the physical environment

The layout of CDCs, the design of

physical spaces and the positioning of equipment influence the way work is done. Well-designed physical environments can contribute to efficient and safe services.

### 5: Analyse organisational structures and processes

Improvement interventions that don't consider the organisational contribution to context are much less likely to be successful and limit the potential for wider learning.



## IMPROVE

### 6: Promote autonomy and professional growth

CDCs offer the opportunity to create an environment that promotes autonomy, contributes to professional growth and provides effective training in collaboration with an acute site. Creating opportunities for career progression could help with recruitment and staff retention.

### 7: Focus on the needs of patients in the community

Patients should be able to access

diagnostic services more quickly and closer to their home,

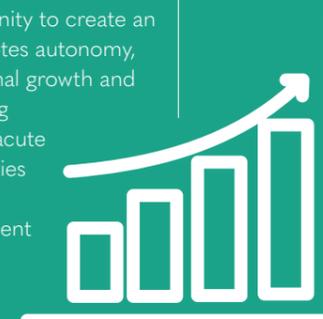
with some services potentially being delivered in patients' homes using remote technology. The design of diagnostic services in the community needs to be mindful that the patient journey is usually initiated in primary care. Part of the design should

focus on enhancing diagnostic capacity in primary care and tailoring the

relationship between CDCs and GP practices to local contexts.

### 8: Facilitate communication across organisations

Ineffective digital communication processes, e.g. email communication between CDCs and GP practices, can lead to delays, duplication and loss of trust. Conversely, digital communication technologies embedded in well-designed processes that consider the diverse needs of the different stakeholders can save time, deliver a more joined-up service and improve patient experience.



## ADAPT

### 9: Monitor work-as-done and adapt to achieve sustainable change

The design of CDCs is best regarded as a continuous process based on an agile and adaptive approach capable of learning and implementing changes when required to deliver safe, efficient and patient-centred diagnostic services,

which enhance patient experience and staff wellbeing.

### 10: Record and learn from feedback and events

Organisations should



adopt a systems approach and avoid searching for blame. Systems thinking means recommendations for improvement should focus on system change and design, not individual performance.

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