

## 30 AI ENABLED AUTOMATION AND THE FUTURE OF THE HEALTHCARE WORKFORCE: FORGING THE PATH FOR SUSTAINABLE, HIGH QUALITY CARE DELIVERY

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**Introduction** Advances in artificial intelligence (AI) have sparked renewed debates on automation's impact on the future workforce, which is particularly pertinent in healthcare. The impending transformation of healthcare roles is inevitable due to current unsustainable recruitment rates, projecting a global deficit of 15 million healthcare workers by 2030. Despite expectations of relatively lower job displacement in healthcare from AI compared to other sectors, integrating AI technologies presents challenges, particularly in reshaping work practices through automation. It remains paramount to ensure this does not become a passive or top-down process and that staff remain at the centre of the changes to their roles, as this will impact their ability to deliver high quality patient care. This study explores staff experiences pre- and post-implementation of care pathway automation using Dora (Ufonia Ltd), an autonomous clinical voice assistant that is able to automate routine clinical conversations.

**Aims and objectives of the research project or activity** This study aims to explore how AI-enabled automation affects different healthcare professionals (e.g., doctors, nurses, allied health professionals, administrators) engaged in high-volume, low-complexity care pathways. In the process of transforming care pathways through automation of routine tasks, it is important to understand the impact on work practices, potentially necessitating new skills or requiring staff to work at the top of their licence. The impact of this change on professional identity, well-being and workflows is poorly understood at present. Anticipating and addressing these issues is crucial for effectively integrating new technologies that will lead to a workforce who can deliver the best possible care to patients and improve health outcomes.

**Method or approach** Dora, an AI-enabled clinical voice assistant, is introduced across NHS sites in England. Dora is able to telephone an unlimited number of patients and have a clinical-grade consultation with them just as a nurse or doctor would. By replacing human calls, Dora frees up clinicians for more critical tasks and higher value activity. A mixed methods, multicentre study will be conducted over 2 distinct phases: (a) pre-implementation and, (b) post-implementation. Data will be collected qualitatively via semi structured interviews as well as quantitatively via a validated questionnaire. Longitudinal data collection will assist in forming a richer understanding of the context, drawing further insights into how the change (i.e., the intervention) impacts the workforce over time.

**Findings** Interim results suggest that different members of the healthcare workforce team are impacted differently. Those in senior or managerial roles are more likely to have a positive outlook on the changes that it will bring and view this as a 'change management' challenge rather than attributing it to the technology itself. So far, this is somewhat contrasted with the views of those who are on the frontline of delivering care, as they are more likely to perceive the implementation

of AI enabled technologies as challenging on an individual level. There was agreement across the range of healthcare staff that this technology will ultimately benefit patients.

Full results will be available by March 2024 and are expected to reveal the inter-relationship between Dora, the AI-enabled clinical voice assistant, and healthcare workers. We will seek to investigate changes in work practices and well-being, whilst measuring this against the overall impact Dora has on quality of care delivered to patients.

Understanding the concerns, changes and success factors of early adoption of AI enabled automation technology is essential to securing the sustainability of a skilled workforce to meet the increasing demands of the patient population.

### Key messages

1. The transformation of roles secondary to the implementation of AI-enabled automation technologies, such as Dora, demands an active and strategic approach.
2. Collaborative leadership between the healthcare workforce, industry and academia remains at the core to ensuring effective adoption that embraces these changes whilst understanding and mitigating risks.
3. This multidisciplinary approach facilitates the deployment and optimisation of AI-enabled automation solutions tailored to the specific needs of healthcare settings.
4. Maintaining flexibility in AI implementation strategies is crucial to success and continuous evaluation ensures that organisational requirements and patient needs are addressed effectively and efficiently.
5. This will lead to a workforce best equipped to sustainably provide the best possible patient care.

## Leading together

### 31 NORTH WEST LEADERSHIP SCHOOLS: INSPIRING AND DEVELOPING THE HEALTHCARE LEADERS OF THE FUTURE

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**Introduction** The North West Leadership Schools (NWLS) are an initiative of NHS England North West (NHS England NW). Each year we run a series of free, virtual evening events to inspire and develop leadership skills in medical and dental trainees of all specialties and grades across the North West region. Current medical and dental trainees are the healthcare leaders of now and the future- playing a vitally important role in improving patient care. Three regional sub-committees comprise the NWLS: Cheshire and Merseyside, Cumbria and Lancashire, and Greater Manchester. Each sub-committee is responsible for organising two virtual evening events throughout the year, in addition to all three collaborating on the annual NWLS conference. The work of the NWLS is facilitated by NHS England NW Faculty Development and is supported by an Associate Dean.

**Aims and objectives of the research project or activity** The NWLS deliver a programme of leadership-themed events throughout the year which aims to develop skills and inspire interest in leadership amongst medical and dental trainees of

all grades and specialties throughout the North West region. At a minimum this helps to meet curriculum leadership requirements, however, has the potential to foster greater outcomes secondary to inspiring talks from current leaders and the dissemination of invaluable information regarding current leadership opportunities and skills development. Committee members assume a leadership role, where they develop their leadership skills and team-working ability through collaboration with each other- and with non-clinical professionals in NHS England NW- in event curation and delivery.

**Method or approach** Six free, virtual evening events are hosted throughout the year. Each event addresses medical leadership from a different perspective. Each sub-committee takes the lead on two events, with a coordinated timetable devised at the beginning of the academic year to ensure a well-balanced programme. Speakers have included healthcare and non-healthcare professionals.

The sub-committees collaborate to deliver an in-person regional conference. In 2023, the conference was entitled 'Leading Sustainable Change' and was held in central Manchester. It was attended by medical and dental trainees from across the region and addressed both leadership and sustainability.

A course certificate is awarded to those who attend a minimum of four events throughout the year.

Feedback is collected for each event, which informs future planning.

Administrative improvements from 2022–2023 included re-branding of the NWLS and a formal in-person induction for committee members to facilitate working relationship building and collective planning for the year ahead.

**Findings** The virtual evening events addressed medical leadership from different vantage points. Themes included leadership journeys, well-being, leadership opportunities in training, workplace culture, and leadership skills development. Feedback surveys were sent to all delegates following each event. Across all six events, 100% of respondents stated that they would recommend NWLS events to a colleague. A range of 97–100% of respondents per event stated that the event fulfilled their leadership requirements.

The 2023 NWLS conference was entitled 'Leading Sustainable Change' and focused on both leadership and sustainability within the NHS. In total, there were 227 delegates. Feedback forms were completed by 146 delegates, with 98% stating that the conference met their expectations. Abstracts were submitted by trainees from across the region, with 20 posters displayed and 3 oral presentations delivered. This allowed trainees to showcase their work at a regional level- inspiring peers and sharing best practice. Plenary sessions addressed leadership and sustainability at the policy level, in addition to green surgery. Additionally, well-received workshops took place, including a workshop by CHIMP Management which centred around emotional intelligence.

**Key messages** Leadership is an increasingly important feature across specialty curricula within medical and dental training. It is vital to invest in leadership skills development for medical and dental trainees- they are the healthcare leaders of the future who will be of vital importance in improving patient care. The NWLS allow committee members to collaborate with other healthcare professionals in the region, in addition to NHS England NW. Feedback from our events across 2022–2023 was overwhelmingly positive and demonstrates a real appetite for leadership skills development amongst trainees of all grades and specialties.

We have provided leadership development in a variety of ways both virtually and in-person, led by trainees, for trainees. The collaboration of medics and dentists of multiple training grades across multiple specialties within the region is exciting. We are developing and inspiring the healthcare leaders of the future, ultimately for the benefit of our healthcare system and patient care.

32

### FROM INCEPTION TO EXPANSION: EXAMINING CLINICAL FELLOWS' CONTRIBUTIONS OVER 5 YEARS IN A SAME-DAY EMERGENCY CARE UNIT

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**Introduction** Recruitment and retention of medical staffing within the NHS workforce are both complex problems, with staff satisfaction falling, and increasing vacancy rates. Conversely, growing evidence shows that effective medical leadership and management have a positive influence on patient outcomes, quality of care and innovation, staff morale, and organisational performance.

**Aims and objectives of the research project or activity** Locally, our same-day emergency care unit (SDEC) has rapidly expanded and doubled in capacity, therefore requiring a new medical workforce to deliver this service. We predicted the workload to be intense, whilst also recognising the aforementioned benefits of early career medical leadership. It is acknowledged that increasingly service-driven jobs provide less opportunity for learning, teaching, innovation and quality improvement. As a result, our aim was to create a role which provided necessary clinical provision, whilst also fostering this culture of leadership, quality improvement, research and education.

Furthermore, this abstract aims to contribute to the literature on novel and hybrid leadership roles amongst the junior doctor workforce.

**Method or approach** We implemented a clinical fellow role, modelling the Royal College of Physicians (RCP) Chief Registrar (CR) role. Since 2016, this scheme has provided a leadership role for trainee doctors, following on from the recommendations within the RCP Future Hospital Commission Report. The CR position provides a combination of clinical, and non-clinical, leadership and service development roles. CR's were already employed locally, however in light of the workforce issues and benefits outlined, the concept was replicated and several clinical fellow roles were implemented in 2018.

The clinical fellow role purposefully addressed domains set out in GMC guidance, such as quality improvement, leadership, research and education. The role comprised of 60% clinical work within an SDEC, with the remaining 40% as protected, self-directed non-clinical time. The overarching aim of this job plan was to allow clinicians to develop an embedded culture of learning and improvement.

**Findings** Five years later, we have contributed to the professional development of 45 doctors (8 Chief Registrars, 22 registrars, and 15 senior house officers (SHO)), with case examples of two doctors retaining and progressing from SHO up to the eminent CR role. Examples of impactful work can be summarised;