

NHS Digital Academy – Evaluation scoping report

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Institute for Employment Studies

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The NHS Leadership Academy

The NHS Leadership Academy was established in mid-2012 as a “national centre of excellence for NHS leaders”, in part in response to system-wide leadership failings identified by the Francis Inquiry into Mid Staffordshire Hospital. The Academy’s mission was **to deliver excellent leadership across the NHS to ultimately have a direct impact on patient care**. The organisation develops leaders from all roles and organisation types through delivering a series of professional development programmes and providing wider, applied, support and other resources to organisations across the sector. Since April 2019, the Academy has been part of the People Directorate within NHS England and NHS Improvement.

Acknowledgements

The authors are grateful to all the individuals across the health and care sectors who gave up their time to talk to us about their experience of the Digital Academy. We would also like to thank John Stringer of NHS England for commissioning the evaluation and actively supporting every stage of the research scoping process.

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IES project code: 10931-5649

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1 Executive Summary

The Long Term Plan¹ has recently highlighted the need for the NHS to be '*radically reshaped by innovation and technology*'. To achieve this, the digital capabilities of the health and care workforce need to be improved, by investing in training and development, as well as attracting those with technical expertise and skills to work in 'newer' digital fields. Responding to the need for improved digital capability, the Digital Academy was set up in 2017 to develop a new generation of excellent digital leaders who can drive the information and technology transformation of the NHS.

The NHS Leadership Academy, in partnership with the Institute for Employment Studies, has undertaken scoping research to investigate how successful the NHS Digital Academy has been to date and to set the groundwork for a system-wide impact evaluation. As a result of the research, we intend to understand:

- The participants' experience of the Digital Academy.
- The impact of the programme on participants' confidence, skill and capability, and the subsequent effect on their job roles and responsibilities.
- The impact (and future impact) that the Digital Academy has on the profession, NHS organisations and the wider system.
- The enablers and barriers to putting digital transformation learning into practice.
- Any unintended consequences of the programme.

A mixed-method approach was adopted to achieve the aims, consisting of a review of background documentation; telephone interviews with stakeholders, tutors and participants; observations and data analysis of applicant data.

The scoping research found that, on the whole, participants had a very positive experience of the Digital Academy. In particular, it was thought to have had a significant impact on their confidence and digital knowledge. Many participants, however, felt it was 'too soon' to establish the wider organisational or system impact of the programme. It was identified that the effectiveness of the programme was hindered by several issues including:

- A lack of diversity among the participants, particularly in terms of gender.
- Ambiguity around the intended audience and overall purpose of the programme.

¹<https://www.longtermplan.nhs.uk/online-version/chapter-5-digitally-enabled-care-will-go-mainstream-across-the-nhs/>

- A lack of engagement and buy-in from participant sponsors, leading to difficulty in embedding knowledge and influencing change.
- A lack of on-going support for participants following completion of the programme.
- Small numbers of CCIO/CIO roles in the system and unclear career pathways.
- The Academy operating in isolation from the NHS system.
- Uncertainty regarding the impact of the Digital Academy.

In response to these issues, it is recommended that:

- A full impact evaluation is conducted to establish the impact of the Digital Academy
- NHS England creates 'ownership' of the programme, positioning it firmly within the NHS context. This can be achieved by:
 - Taking control of the application process.
 - Including the programme as part of a wider scheme, where there are pre and post programme phases also owned by NHS England.
- Collect workforce data about current CCIO/CIO roles in the NHS and further understand the current and possible career paths.
- Maintain engagement with participants who have completed the programme; create an expectation that they should 'give back' to the system once the course has ended.

2 Background and Introduction

The NHS Long Term Plan states *‘Virtually every aspect of modern life has been, and will continue to be, radically reshaped by innovation and technology – and healthcare is no exception’*.² The Plan also states that to make this shift a reality, there is a need to ‘increase training in digital capabilities for the health and care workforce and focus on attracting excellent technical expertise and skills, particularly in ‘newer’ digital fields so that our workforce can continue to deliver our technology strategy.’

This move to a technology enabled future is not an isolated idea, nor is it new. In 2014 the Five Year Forward View outlined the benefits that could be realised through digital solutions. In addition, the report ‘Making IT Work’ by Professor Robert Wachter³ considered how the English health and care system should best approach the implementation of information technology. It observed that there was a lack of professionals, namely Chief Clinical Information Officers (CCIOs) and Clinical Information Officers (CIOs), that could drive forward the transformation agenda needed to deliver a modern healthcare service.

To support this, the Topol Review in 2019⁴ moved beyond the ‘what’ to the ‘how’, exploring how to prepare the healthcare workforce, through education and training, to deliver the digital future outlined in the NHS Long-Term Plan which referred to the further development of the NHS Digital Academy.

The Digital Academy launched in 2017 as a consortium of Imperial College London’s Institute of Global Health Innovation and the University of Edinburgh, with international strategic input from Harvard Medical School. The expressed aim is to develop a new generation of digital leaders who can drive the information and technology transformation of the NHS. By developing strong digital leaders it will then be possible to create change so that patient care, and the way that organisations operate, can benefit from the many improvements and innovations modern technology has to offer.

Sponsored by NHS England and NHS Scotland and supported by a Senior Leadership Team of Professor Lord Ara Darzi, Professor Aziz Sheikh and the CEO Rachel Dunscomb, the Academy welcomed its first participants in April 2018. This was followed by cohort two in April 2019 and the Academy is about to recruit the third and final cohort covered by the funding. It is at this point that NHS England has identified a need to understand the extent to which the Digital Academy has been successful in developing

²<https://www.longtermplan.nhs.uk/online-version/chapter-5-digitally-enabled-care-will-go-mainstream-across-the-nhs/>

³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/550866/Wachter_Review_Accessible.pdf

⁴<https://topol.hee.nhs.uk/wp-content/uploads/HEE-Topol-Review-2019.pdf>

strong digital leaders. Therefore, they have commissioned this scoping research to best understand how success could be measured, early indicators of impact and to build the foundations for a full impact evaluation.

3 Aims and methodology

3.1 Aims

The NHS Digital Academy is a virtual organisation set up in 2017 to develop a new generation of excellent digital leaders who can drive the information and technology transformation of the NHS. The NHS Leadership Academy, in partnership with the Institute for Employment Studies, aims to investigate how this is being achieved as well as to consider how successful the NHS Digital Academy has been to date. This scoping research aims to set the groundwork in place for a system-wide evaluation and to begin to understand the difference the Digital Academy is making, how it is making an impact, and upon whom. As a result of the research, we intend to understand:

- The participants' experience of the Digital Academy.
- The impact of the programme on participant confidence, skill and capability, and the subsequent effect on participant job roles and responsibilities.
- The impact (and future impact) that the Digital Academy has on the profession, NHS organisations and the wider system.
- The enablers and barriers to putting digital transformation learning into practice.
- Any unintended consequences of the programme.

3.2 Methodology

To meet the aims outlined above, a mixed-method approach consisting of four phases was adopted. The approach is described in detail below:

■ **Review and analysis of background documentation**

Firstly, a comprehensive review of background documentation explored the context, purpose and intended outcomes of the Digital Academy. Particular focus was placed upon the problems that it intended to solve and how success will be measured. The background materials included; Invitation to Tender documents, the programme syllabus and module outline, participant demographic details and feedback.

■ **Telephone interviews.**

In total, 25 in-depth telephone interviews were conducted with stakeholders, programme tutors and programme participants. Interviews lasted approximately one hour and were semi-structured, following a discussion guide but allowing space to explore the issues and themes identified by the interviewee.

- Stakeholders and tutors interviews.

Five interviews were conducted with key programme stakeholders and 10 with key stakeholders linked to education provision. The timing allowed for two stakeholders to be interviewed twice with the expressed intention of assessing the extent to which feedback from modules one and two in cohort one had been acted on and the results achieved. The interviews explored: the purpose and intended audience of the Digital Academy; anticipated outcomes and measures of success; the current and future impact of the programme; the learning journey of creating and delivering the programme; the implications for the wider NHS system. One key stakeholder did not engage in the process despite requests from both the evaluators and members of the Digital Academy team.

- Programme participant interviews.

Eleven interviews were conducted with programme participants predominantly from cohort one, with a small number from cohort two. The interviews focused on understanding: the participant's experience of the Digital Academy; what is happening now as a direct result of the programme; anticipated future outcomes; and any barriers and enablers participants have experienced in embedding acquired learning. Interviewees came from a broad range of geographical locations across Scotland and England and are working in varied roles including; clinician positions, Chief Information Officers (CIOs), senior IT and digital roles, and project management and transformation positions. Three interviewees were female and eight were male.

■ Observation

Researchers attended two of the weekend residential workshops to observe the programme delivery and in particular:

- The delivery logistics.
- The engagement of participants with the residential workshop.
- The general atmosphere.
- Participants' approach to networking and informal sharing of learning.

Data analysis and assimilation

The data across the sources were analysed and assimilated in multiple ways:

- Quantitative analysis of participant demographic details – to understand the demographic profile (gender, role, location, organisation type) of applicants to and participants of the Digital Academy.
- Review of background documentation (thematic review to explore the Academy structure, intended purpose and outcomes of the programme) to contribute to the logic model.
- Thematic analysis of interview data to draw out common themes across the interviews relating to; purpose of the programme, experience of the programme, current and future impact and measures of success.

- Development of a logic model; pulling together of all data to visualise the programme's inputs, outputs and impact. This will serve as the foundation for conducting a full evaluation of the Digital Academy.

4 Demographic data analysis

In this section we look at the quantitative data analysis; this includes participant information from cohorts one and two and will enable understanding of the demographic profile e.g. gender, role, location, organisation type of the applicants and participants of the Digital Academy (notably, ethnicity data was not collected by the Digital Academy). In particular, this section presents the in-depth analysis of applicant gender, but all further analysis can be found in Appendix 8.1.

Understanding this data can help inform whether the marketing strategy is targeting the correct audiences and highlight regional areas or identified groups of people who are not represented in the demographic. It can also help identify where more data or standardisation of data is required, for example around protected characteristics.

4.1 Gender of applicants

4.1.1 Cohort one

In cohort one, there was a total of 199 male applicants. Of these 100 were unsuccessful and 99 were successful in securing a place on the Digital Academy. There were a total of 50 female applicants, 28 who were unsuccessful and 22 who were successful. While the percentage of successful applicants as a proportion of total applications was similar for males and females, there was clear underrepresentation of females among applicants (see Figure 1).

4.1.2 Cohort two

In cohort two, there were a total of 155 male applicants. Of these 78 were unsuccessful, 59 were successful and 18 were categorised as 'maybe'⁵. There were a total of 87 female applicants, 40 of whom were unsuccessful, 42 of whom were successful and five were 'maybes'. While the rate of female applicants had increased from cohort one, it was still low at just over half the number of male applicants (see Figure 2).

The gender statistics show a profile in year one that is at odds with the gender profile of the NHS as a whole. The NHS has a 77% female workforce whilst the female representation in the first cohort was 22%. In year two this was more balanced as a representative of the whole intake at 41%.

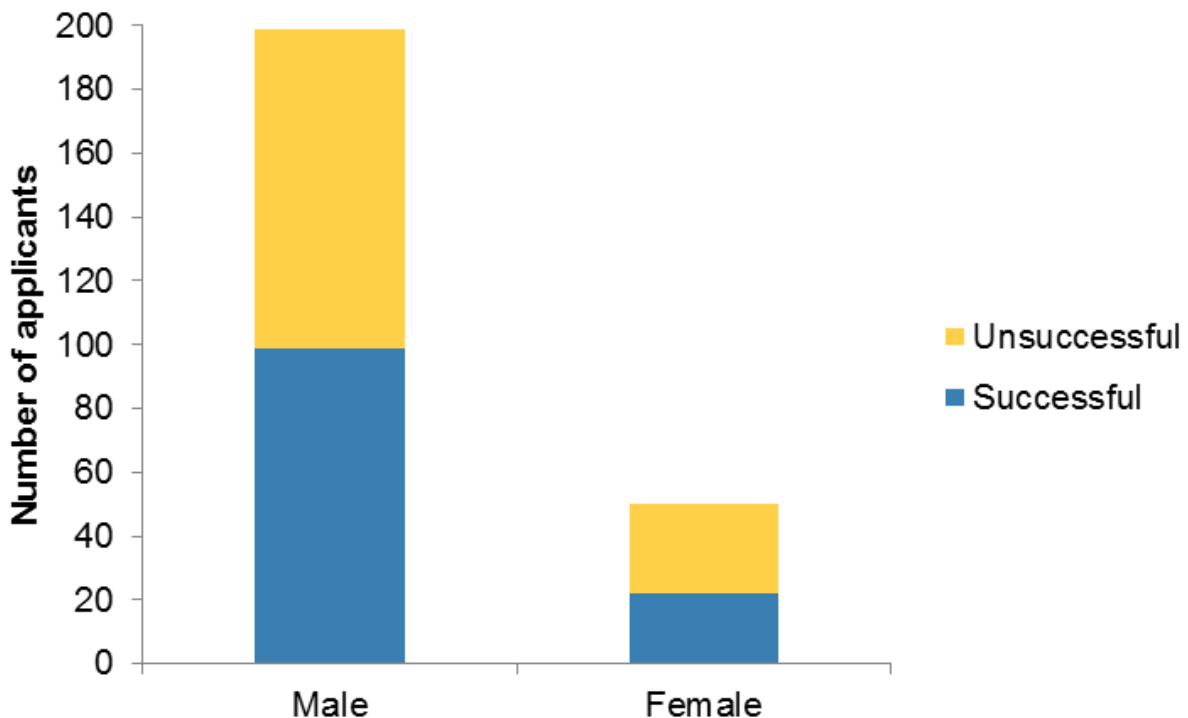
⁵ The information was provided in a shortlisting spreadsheet; it did not contain the final decisions made.

The marketing of the Digital Academy was not specifically explored in this scoping research, however the number of applications exceeded the capacity for the course by approximately 2:1. Academic providers spoke receiving interest nationally and internationally due to their role in the NHS Digital Academy.

The calibre of candidates from cohort one was described as ‘exceptional’ by the academic providers. As these participants were the first of a very high profile programme this may have been expected. The second cohort of participants were not thought to be comparable to the first, however, as the programme targets a small workforce the pool of the most senior applicable candidates is limited.

Anecdotally, observation at the residential workshops highlighted an apparent disparity of representation within clinical roles; there appeared to be a higher proportion of doctors compared to other clinical groups⁶. Participants from the less represented clinical groups spoke of there being ‘almost no one like them’ in the cohort. However, as seen in the data provided in the appendix, specific clinical roles were not specified upon application and therefore firm conclusions cannot be drawn without collecting further demographic data.

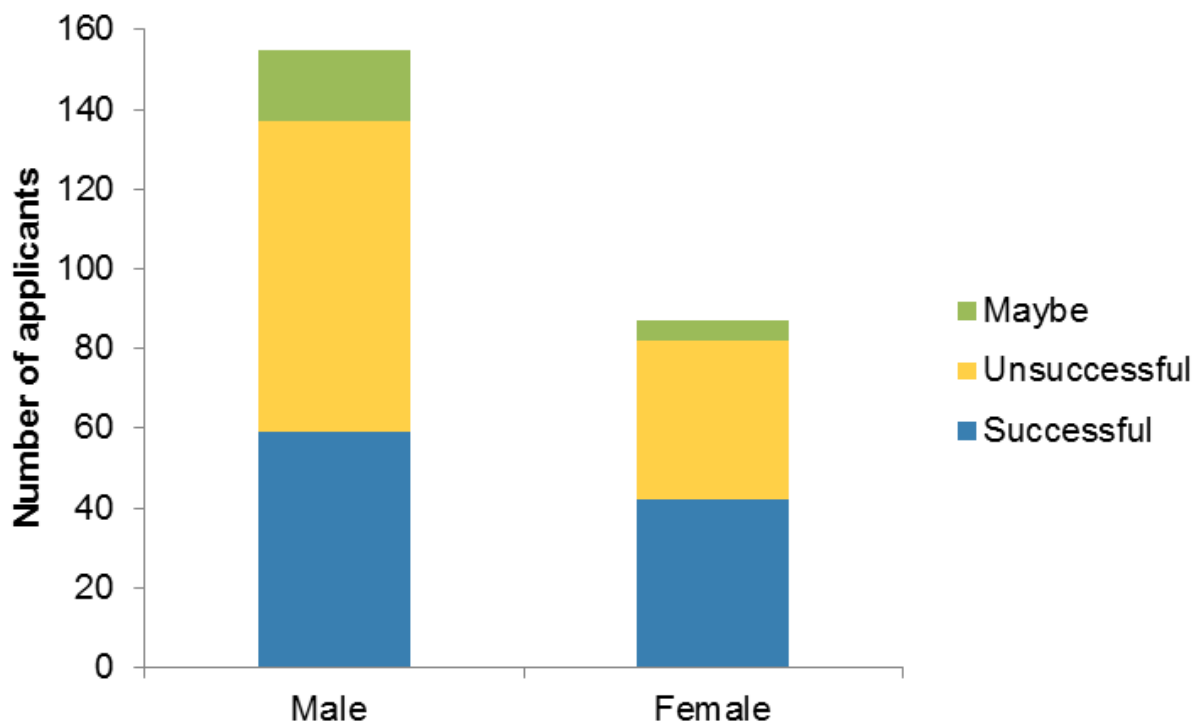
Figure 1: Cohort one successful applications by gender



Source: Digital Academy application data

⁶ This assertion is based on observation and discussion with participants and therefore should be treated with caution.

Figure 2: Cohort two successful applications by gender



Source: Digital Academy application data

5 Thematic interview analysis

The following thematic analysis includes data from 23 interviews of stakeholders, programme tutors and participants.

5.1 Development of the Digital Academy

The consortium appears to have been established through a combination of professional networks and existing relationships. Imperial College London felt they were well placed to deliver the programme as they are subject matter experts with a strong track record in digital innovation and digital health policy education. The University of Edinburgh also thought that they were highly experienced and had the political and global understanding of the market in which this would sit. Together, they felt the combination was the right mix but were also keen to collaborate with an international partner, with Harvard, the School of Medicine being the preferred.

The tender process was reported to have been well managed, very clear and straightforward. However, once the contract was awarded it required some negotiation between the providers and commissioner, as this was not a 'slot in' of a pre-existing programme and required new content and repurposing of existing content. To deliver a high-quality product, the proposed start date was thought to be unrealistic. The tender was released at the end of March 2017 with the submission due the following month and a presentation in mid-May. The contract was awarded at the end of May, with a presumed start of September 2017. As the September deadline was very tight, it was extended to April 2018 after some negotiation. The providers were given a clear brief for the programme content and structure. NHS England was praised for being a 'commissioner that cared'. Once the contract had been awarded, any areas of disagreement between consortium members faded and they showed what was described as 'unity of intent'. Some sub-contracts took time but all were managed.

The Academic providers feel that they have been successful at creating a brand. From the outset, the Digital Academy had to have its own identity and they feel this has been achieved. The co-badging was felt to add credibility and applicability to the qualification. The initial set-up of the academy was described as 'chaotic'; however, with a small lead-time and the three institutions coming together they believed that overall it was managed well. While some of the partners had to adapt to the non-traditional approach to the programme, they found a way that worked for all and was in the interest of developing the best programme possible. There were no concerns from the providers with regard to on-going governance.

5.2 Intended purpose and outcomes of the Digital Academy

When asked about the purpose and intention of the Digital Academy, stakeholders were keen to highlight that they believe digital transformation is a tool and a means to an end, not an end in itself. The overall goal of the Academy is for improved quality of care and to make the life of the clinician better. Stakeholders conceptualised the '300' participants as icons of change: to lead the change and digital transformation across the system.

Stakeholders believe that the benefits and impact of the Academy should be achieved and be seen through systems and people locally. In particular, outcomes of interest include:

- The perceptions of a CCIO role.
- Building capacity e.g. bigger talent pool, fewer vacancies.
- Building capability e.g. more CCIOs influencing Boards (not just collecting data but using it).
- System change locally.

5.3 Programme delivery – shape and structure

There is a strong consensus among participants interviewed that, although the programme was very demanding and there were some problems with the original format, their overall experience of the Digital Academy was extremely positive and worthwhile. Many believe that they are fortunate to have participated and are strong advocates for the Academy being continued and extended beyond the initial three years and to a wider population.

'It puts you in a room with one hundred really enthusiastic people and gives you a network of people who are thinking in the same ways. It gives you more of the language you need for talking to Boards'.

Participant

'It gave a safe space with peers which many CIO's don't have; this is really helpful and its importance cannot be overestimated'.

Participant

A recurring theme mentioned by participants is that, due to its being the first time that the programme was delivered, the structure was not yet refined and there were teething problems. Participants raised these with the course leaders as they occurred and they believed that their feedback was generally listened to and many issues were addressed quickly and have been approached differently for cohort two.

This view was echoed strongly by academic providers. Some module tutors described working on this as the ‘job of a lifetime’ and the ‘best thing they had ever done’. They felt it was a privilege to be asked to lead a module or contribute to the design.

‘It is great, the most proud moment of my career, we had the chance to pull out many times and I was thinking ‘why are we even doing this?’ but now I know’.

Academic provider

Some were already working with the content on other programmes so this was an adaptation, for others it was less so. Some were in other roles within the academic institution – such as teaching fellows - and were offered this as a career-enhancing opportunity.

‘We didn’t want to welcome students on to something that was existing so we created new - we used pre-existing knowledge; some modules were re-developed and repurposed’

Academic provider

The time given to develop the programme was felt to be considerably less than would usually happen in a university for a new programme. The team reported pushing back on the original timescales and were given a little extra time, but it was still a very short lead-in. This affected some aspects of content, which could have been tested and refined more with time. It also limited the ability to create a whole end-to-end narrative and linking of outcomes to content and assessment as slickly as was hoped, although this has since happened for cohort two.

‘The timescales.... they were just the worst, NHS England wanted the students to start in Sept ‘17, the people working on the project at that time, well there are very few left. We negotiated on start date – we won that one. NHS England were very content detail driven, it had to have this and it had to have that’

Academic provider

It was possible to investigate the delivery of modules one and two in both cohorts. Opportunity for quality improvement was identified from cohort one, acted on in cohort two and re-evaluation showed positive improvements.

‘We will be making major modifications...we co-designed the piece and then tested it out on a cohort of participants. It’s 100 people making a community of practice’.

Academic provider

5.3.1 Workload

The workload was heavier than expected and initially, there was no flexibility for participants to determine how and when they got work done. Given that many were also in demanding work roles, there was often conflict in meeting deadlines and excessive pressure as a result. Initially, participants were told the workload would be three to five

hours a week. The reality was it could be much more – up to 15 hours, not every week but occasionally - and managing expectations was difficult for the Academic providers.

'I juggle and balance to do what I have to do 'just in time'; the Digital Academy timelines were too short and didn't fit with work and personal commitments.'

Participant

An excessive workload in module one was highlighted by the module leaders with the requirement for weekly contributions to an online forum. The result was quantity but not always quality.

'The requirements were too much for one module it was like asking them to tap their stomach and dance on the spot. Too, too much, it wasn't a trade-off, we didn't want to dilute so we changed'.

Academic provider

Following feedback, this was altered to be required less frequently. Interestingly, this change resulted in only a small drop in contributions online, and contributions were perceived to be of better quality.

'Quality Improvement loops are used all the time in the module; we are not keeping to a weekly deadline from cohort 2, they can do the submission in any order on any of the content. We have constructed a fantastic dialogue; we want them to talk independently, not being forced, the best dialogue is coming now it's not forced'.

Academic provider

Despite the high level of work required, several interviewees said that the marking of assessments was sometimes carried out by quite junior people. Consequently, the feedback received focused on things like punctuation rather than on suggesting improvements or challenging them to do more. From the tutor perspective, there was an expectation that postgraduate senior learners would have a better grasp of what would be required at this level of study and they commented on the need to correct academic style. The calibre of participants is discussed below.

'Some have a PhD; others, I bet they have not written anything like this for 30 years. It's very different to doing a short work report'.

Academic provider

5.3.2 Programme modules

The programme consists of the following modules to make up the Postgraduate Diploma in Digital Healthcare Leadership:

1. Essentials of health systems

2. Implementing strategy and transformational change
3. Health information systems and technologies
4. User-centred design and citizen-driven informatics
5. Decision support, knowledge management and actionable data analytics
6. Leadership and transformational change

For cohort one there was a 100% pass rate in those who progressed and completed the learning without requiring an extension at all. Participant interviewees liked the modular structure and generally felt that the domains covered were very important. A few interviewees said that they learnt something of relevance from every module and participants expressed a varied range of views about which modules they found most engaging and applicable to their role, which could be indicative of the diverse range of backgrounds of Academy participants.

Module one (Essentials of health systems) was generally well received; several participants mentioned that it was useful to learn about global health economics and how to conceptualise digital and informatics in the healthcare system. Many participants also identified Module four (User-centred design and citizen-driven informatics) as being useful, practical and well taught. Participants' views on modules two (Implementing transformational change), three (Health information systems and technologies), four (User-centred design and citizen-driven informatics), and five (Decision support, knowledge management and actionable analytics) were more diverse. Criticisms included that the module content was not applicable or practical to their working life, it was at too high a level, and the quality of delivery varied.

'I found it very difficult to apply. In my part of the NHS I'm not working at that level of data science'.

Participant

Feedback on Module five, in particular, varied depending on a participant's current role. For example, some participants found the module to be relevant to their role and gave them the confidence to explore more moving forward. On the other hand, one participant who didn't have such a positive experience felt that the module should be delivered at two different levels: one for data scientists and another for people who just need a general understanding about data science.

Module six (Leadership and transformational change) also received some mixed feedback. Some participants felt that it could benefit from exploring more from the large body of evidence, rather than being focused on individuals' internal personal development. One interviewee found that it forced them to change some assumptions and meant that they took advice that turned out to be beneficial and changed the direction of a project, meaning that it had broader scope beyond their immediate organisation.

Module tutors were asked to comment on the calibre of the students; for example, were they as expected bearing in mind the high profile of the programme, the academic level and seniority of roles? The calibre for cohort one was described as very high. Not all had formal academic backgrounds although some had doctorates. All participants that

submitted all coursework, completed the programme and passed in cohort one (excluding those with extenuating circumstances). Cohort two were also considered to be of a very high standard, only marginally less so than cohort one, but with an acknowledgement that the team had the 'pick of the best of the best' for cohort one. At the time of writing there had been one referral only on a module in cohort two which further demonstrates the high level of attainment across the board.

'I'm not surprised they all passed, but the emphasis should be on development, not the academic pass. It's not a pass or fail, or shouldn't be, even acknowledging a problem in an organisation is a win'.

Academic provider

Where some participants struggled was with the maths element within data, which has been addressed with additional support.

'We have introduced a week Zero – to introduce the basic concepts you need to have a better basic grasp before you start and we didn't appreciate that'.

Academic provider

In terms of changes to the modules it was not possible to investigate module one and two for the effect of quality improvement due to the timing of this evaluation. The academic providers acted on feedback from participants, as described in section 5.3.1, and saw positive results and no loss of engagement. They also picked up the lack of on-boarding which led to the development of a 'Module 0' to help participants get into the mind-set for personal change and learning. Other changes to the programme made as a result of feedback from cohort one were:

- Changing the work-based project into a portfolio of activity that shows meeting the learning outcomes.
- Considering the flow of the material online, and better end-to-end curation so that the learning narrative is clear to the participants.
- Better signposting and plans to develop a better on-line platform so that participants can learn on the go more than they could initially.

These were immediate changes identified and which needed to change for cohort two. It would be wise to revisit this after cohort two has concluded.

5.3.3 Residential workshops

The residential workshops were considered by most participants to have been an important part of the programme and it was suggested that they should continue to be part of it, due to the face-to-face contact with others. Many expressed a strong view that these helped to integrate the group, enabling the distance learning to be more effective. Observing the workshop on two occasions, the organisation and delivery were very slick

and professional. Participants genuinely showed delight at seeing each other, whilst participation in activities was enthusiastic.

Individual conversations on tables and ad-hoc over breaks suggested not everyone liked this participatory/experiential learning approach but they still found value in the networking. The use of a decent hotel for the event was valued by participants as it allowed learning and staying over to be done in the same place. This created a sense of a learning environment, removed from the workplace, and indicated the value placed on the Digital Academy and its participants.

Further comments about the programme delivery:

Individual participants expressed several other specific points concerning the delivery of the programme. These include:

- The wider NHS system should be involved in the Academy, to provide a real-world, practical context to what participants are learning. Academic providers also stated this and went one step further to say wider industry, linked to health, could also add value:

'It [involving the NHS system] makes learning tangible and practical for the profession in comparison to their academic qualifications'.

Participant

- The format of the learning platform received criticism from a few interviewees for a number of reasons, including:

'The data was in American format and couldn't be used 'live' in any health setting'.

Participant

'The Blackboard platform was not very intuitive but they're now changing it'.

Participant

Academic providers also acknowledged that the platform had initial problems, but this was largely due to timescales getting the programme running and additional resources had rectified much of this.

- A few participants felt that the organisation of peer groups by location was not optimal. These participants felt like they missed an opportunity to discover the work of their peers across the country, rather than speaking to those with whom they had more local opportunities for contact already.
- Some participants emphasised the need for the materials to be kept current in future.
- Some participants mentioned the lack of diversity among Academy participants.

This was also mentioned when observing the residential; there were piles of pin badges with titles on for people to put on their lanyard. The remaining piles that said 'nurse/midwife' and AHP were remarked upon. Attention was drawn, unsolicited, to the

lack of diversity in the group both in gender, role type (predominance of doctors) and ethnicity in particular.

'They need to understand you don't have to be a doctor or Head of IT to be a digital leader. You need a multidisciplinary team who can look at impacting in different ways'.

Participant

5.4 Impact and future impact of the Academy

5.4.1 Individual and role impact

Participants expressed a range of ways in which the Academy personally impacted them. These included an increase in confidence, establishing a network of peers, broadening of their perspective, and an increase in their visibility at work.

Confidence

The majority of participants report that they have gained confidence as a result of participation in the Academy, with some mentioning that they undervalued themselves in the past. In particular, participants are more confident when commissioning digital projects and talking with suppliers. The creative procurement guide made them think about what questions to ask suppliers and empowered them to find leverage when negotiating a price. One participant is designing a commissioning standard and suppliers are already redesigning their products to meet this standard. Therefore the learning from the Academy is starting to have an impact.

'Half a dozen [staff] now go to the quarterly supplier meetings to steer the supplier, and most of us in that room were in the Digital Academy. So we've got a much stronger voice in directing that supplier, and they cater to 40 or 50 organisations on top of that. So hopefully that will percolate through at some point.'

Participant

'I now see that I am as capable as others that I was previously in awe of'.

Participant

'I'm now bolder about articulating things in different stakeholders' languages'.

Participant

Many reported that having been selected to take part in the Academy and being able to say they are part of cohort one, has contributed positively to how other stakeholders perceive their value. For instance, according to one sponsor of an Academy participant, the person they sponsored now has more authority when influencing CCGs to voluntarily undertake elements of digital transformation.

'Participants are leveraging themselves into positions of influence if not formal power. The Digital Academy has helped to give people credibility to do that'.

Participant

' In our programme we deal with stakeholders who do not have to do what we tell them to do, like CCGs, so we rely on influence and really maximising that 'why wouldn't you do it?' conversation. With 'Ben' in that Digital Academy cohort, he is in that group of people leading change and the strategic drive behind the whole of digital transformation, then he becomes far more persuasive and influential.'

Sponsor

Network of peers

One of the most commonly cited benefits that participants report from having participated in the Digital Academy is the network of people that they have gained. Many participants maintain this network by utilising Twitter, by both sharing information and checking in on what others are doing. By doing so, participants can continue the Digital Academy peer mind-set in both local and national settings. One participant noted that they catch up with Academy alumni at conferences, having most probably attended ones in the past without knowing each other. Some participants from Cohort One also continue to pursue joint learning together, to have a wider strategic influence.

Academic providers also rated this as being much greater than they anticipated.

'We had a digital space, but the community it has fostered is beyond my wildest dreams'.

Academic provider

'There is an unquantifiable value that exists in the community we have created and that side of things. The Academy has created friendships that go far beyond, they go to the pub now with colleagues and moan about work, they go to the pub with friends and don't want to talk about work, there is no middle ground and we have created this. It's a 3rd space where they push each other, they feel OK to discuss in detail and at length'.

Academic provider

'I made connections with people across the system and gained a wider understanding of the CCIO/CIO experience. I can now contact them if I'm doing a project'.

Participant

Some participants pointed to the learning from the Academy being broader than expected, in that it went beyond the topics of digital and technology. This included being able to better articulate project goals and put them in the context of all the other spend in the health service. Additionally, some participants felt that their participation in the Academy enabled them to see things from different perspectives, including those of e-Health, vendors, and those deemed more technically-minded than themselves.

'It taught me that communication is bigger than anything else. It would be easy to focus on technology, but the Academy made me much more aware of the importance of what you say and how you say it, the need for consensus and bringing people with me'.

Participant

'The Academy has given me a wider perspective. This ties in with my Trust goals and stops me being so insular'.

Participant

Visibility in the system

In terms of career progression and developing a national profile, a few participants expressed the view that they have increased their visibility outside of their Trust. Some participants have been able to take their learning onto the national stage at conferences and through publications. This has helped to spread the word about what they are doing, as well as to increase their exposure to projects. Module leads were asked if any participant stood out and all were able to easily name participants who, for them, either contributed hugely during the programme, were doing great work in their organisation or were developing a national profile.

From the perspective of the tutors and stakeholders, the immediate impact on some students has been seen clearly through their interactions and the content of assignments. Where this has been shared it has been visible and is really encouraging. Participants have spoken of being clearer about their role, seeing the bigger picture as to how digital enhances and enables and been able to put stronger business cases together for roles to become formal and recognised as opposed to an add on to their current role. There was suggestion that some professional groups are more successful at formalising their role than others. Doctors participants reported they were listened to, taken seriously and supported to create new and interesting roles, while some nurses reported their digital role would be in addition to, not part of, their established role, which they reported as frustrating.

Job role

Interviewees' comments concerning the impact of the Academy on their role are more varied. Impact ranged from improvement in communication style and influencing ability to feeling passionately about taking the learning and applying it.

Following the Academy, one participant split their role 50:50 between CIO and their clinical role; in particular the participant mentioned having a desk in both departments, which they felt helped to build a connection between the clinical and digital teams. However, others found that there was not an opportunity to make an impact in their role due to factors such as their Trust's readiness and financial plan, government funding issues, and buy-in from senior leaders. These barriers will be further discussed in section 5.4.1.

'It's changed how I present business cases, how I interact with users, and made me plan in a more agile way'.

Participant

Although participants did notice an impact from the Academy on their role, many said that it would be difficult to determine how these changes contribute to the overall results of wider digital transformation, in a way that can be isolated from other factors.

'It impacts on my job and ability to do it, but much of the job is done through others and is about influence, so it's difficult to say what the impact on the health and care system is. I would be disappointed if it wasn't having impact, but I can't detect it and haven't seen anything measurable'.

Participant

Academic providers were also asked what impact they *expected* participation in the Academy to have on individuals. Most stated that they expected the participants to be able to 'do' something new, better or differently rather than be more confident in themselves etc. Examples included:

- Having more process acumen, making better assumptions on how to understand flow and improve the flow of data, and being better with using data generally.
- Seeing the bigger picture, doing their job in the context of this programme, not their silo.
- Consuming information better on a theoretical basis.
- Greater entrepreneurial skills, innovation, business acumen and business strategy.
- Better project management – from a digital perspective.

5.4.2 Impact on NHS organisations

Participants did struggle to identify direct impact that their participation in the Academy has on their organisation, which could be measured quantitatively. Several participants, however, were able to identify some areas of impact, as well as indirect impact and potential measures of success.

This includes pushing back on suppliers more to get a higher value return and driving longevity and sustainability when implementing systems. Other organisational indicators of the Academy's success could be considered to be soft skills, which might be difficult to capture. These include changes in the way participants:

- Implement and approach certain projects.
- Manage suppliers and engage with end users to make products and services more suitable.
- Involve staff in design sessions.
- Contribute to strategy development.

As a result, participants are working to make the design of digital services more inclusive, not only in terms of functionality but also format.

An example of this includes one participant contributing to strategy development for their organisation, inputting what they learnt from the Academy. This involved delivering the strategy to the main Board, as well as through vendor relations and relationships with major suppliers. Others recognised the need to ‘shake up’ their organisations to be more responsive to change, but felt that their ability to do so relied heavily on good sponsorship and that this could be more challenging for junior people.

Whilst participants may have struggled with articulating this, Academic providers were very clear that participants should be impacting on their organisation. This was not an isolated learning event, they had a responsibility to take the learning back and do something with it to bring about digital transformation. This should start with getting out of their ‘bubble’ and working out who they needed to collaborate with, and then doing it.

‘We are designing a specification for CHC, [participant] had a data variation of that developed. Since attending the Digital Academy, he has reworked that so it has a level of simplicity and, ultimately, a level of usage that I think is far better than previously. The content of user need and the likelihood of the user accepting it and getting on with it have increased, because the product has changed. And I think that’s directly through his learning as part of the Digital Academy’.

Sponsor

‘An indicator would be that, when I go and they’re looking to replace me, they have a choice of excellent candidates. The system is haemorrhaging top people now because of budgets and changes in priority’.

Participant

5.4.3 Impact on the wider system

When asked about impact of the Digital Academy on the wider NHS system, several participants said that there has not been enough time for this to be apparent. Most feel that there is impact but it’s hard to measure and will take time to be more visible. One believes that the question should not be asked until the programme has had three to five years to manifest in the system.

Some participants said that it will be difficult to identify what impacts are specifically attributable to the Academy, due to many co-existing variables having an impact on digital transformation in the field.

‘There are too many variables to evaluate its success in isolation.’

Participant

‘I’m not sure how you would measure its [Digital Academy] success as a whole. I think it would be a longitudinal view of the impact on the NHS long-term from having a growing pool of digital’

people involved in transformation. It would be difficult to quantify what would be a natural trend of digital transformation versus that which is influenced by the Digital Academy.'

Participant

A few participants pointed out that, while there is digital transformation, different trusts are at different stages. Some are so focused on their financial deficit that they can't invest digitally, while some are doing more basic things and others can do more advanced work.

When asked how successful the NHS is being at developing of a cadre of digital leaders, participants mentioned that complicating factors such as funding pressures and people leaving for jobs in the private sector (for various reasons including a lack of CIO/CCIO openings) make this difficult to assess. In addition, participants pointed out that there is no clearly defined pathway for CIO and CCIOs and, in turn, no common knowledge base. It was suggested that the Academy provided a foundation of knowledge for participants on digital transformation, meaning they were now on the same page.

'Everyone's experience is completely different; everyone's path to get here is completely different. What this programme does is, it brings everyone up to a basic level of understanding across digital transformation.'

Participant

Academic providers had quite a clear view of what 'could' be achieved in the wider system. The programme was developing leaders who were equipped to bring about transformation. This would not happen overnight, but by the end of cohort three, 300 'new thinking digital leaders' should be creating change and also being the change they want to see.

'I want to open up a world of opportunity to them, to validate their assumptions and get them to do things they never thought they could do before.'

Academic provider

5.5 Infrastructure, embedding learning and delivering impact

Participants identified a number of barriers and enablers to embedding learning and delivering impact. These included organisation engagement and senior leader buy-in, availability of roles and careers pathways, elitism and power dynamics, sharing content, and finance.

5.5.1 Barriers

Questioned about what are the barriers that might prevent the Digital Academy from achieving its objectives, interviewees' views varied widely, often based on their role, organisation, and level of senior management support.

'There are no barriers to apply the learning. I have a free hand to implement it. My manager wants disruption. The main barrier is time and to curb my enthusiasm.'

Participant

Organisational engagement and senior leader buy-in

By contrast, many other individuals had experienced difficulties particularly in relation to the readiness of their organisation to engage with digital transformation. It is felt that there needs to be someone with technical and digital knowledge at Board level to allow radical change to happen. Despite the requirement to have a senior sponsor within the organisation, many participants didn't think that this has created the 'senior buy-in' that it was intended to.

'Sadly it has not had impact because of the structure of the Trust and its willingness to engage. Local organisations can resist; there will be laggards and issues around prioritising of funding because people don't recognise that health will become a digital science.'

Participant

'I think the Digital Academy movement will become and continue to stay successful, as long as the top doesn't squash it. As long as it's given room to breathe, room to grow, room to develop, then it will flourish and turn into something wonderful. But if it's squashed, then you're going to lose the immense value of potential that this programme has. People will just leave actually.'

Participant

'It's almost like planting a forest, how do we help the Digital Academy forest to grow and grow and grow? That's not necessarily about getting these people into top jobs, but about how you provide opportunities.'

Participant

The role of the sponsor generally seemed unclear. Some Academic stakeholders saw the influence and engagement of the sponsor both in conversations with students and in their submitted work, but others reported back that students appeared to have little support once on the programme.

'It needs more involvement from sponsors; the CEO who agrees the CIO. Some just ticked the box but to really root the change programmes in organisations the CEO has to have some skin in the game.'

Academic provider

Availability of suitable roles and career pathways

Many participants commented that there is a lack of CCIO/COI roles in the system. Therefore participants are learning new skills and knowledge but not being allowed an

opportunity to apply them. This has been frustrating for individuals and is likely to become a bigger issue as more people graduate from the programme.

'Where there are no roles to use skills, people leave the system. I didn't expect to leave my organisation when I started the programme'.

Participant

Many participants talked about a lack of clarity around how *'Digital Academy fellows fit in the picture with other digital skilled people'* and suggested that *'the organisation needs to think about this especially as Cohort 2 come through'*. A few people highlighted that there is a need for clearer career pathways for participants.

'Career pathways are needed to help people understand how to make an impact if they're not in the CCIO role'.

Participant

Similarly, geographical challenges were mentioned by a small number of participants. Their view is that most digital roles are based in London and Leeds, and that this impacts negatively on opportunities available to those who are located a long distance from them.

Elitism and power dynamics

Several participants pointed to challenges experienced by those who were not doctors, particularly in relation to power dynamics, perceived status and ability to influence. There were also similar issues experienced by those who were in more junior roles. The power imbalance between the programme participant and those they are trying to influence can be particularly problematic when trying to drive change.

It was pointed out by one non-doctor participant during a residential observation that if you were a doctor with a special interest, you would be taken seriously in exploring a digital role, even if you had no experience or qualification in this area. Other professions would not usually have this and the ability to gain experience was not easily accessed.

'As a manager I don't have the same kudos as clinicians. I have to stake my claim and this will always be so for non-clinicians'.

Participant

From the perspective of increasing impact, a participant highlighted a need to train the next people in the chain (i.e. nurses, doctors and managers) who are the key enablers. This person said that their programme's success is *'blunted by their gap in capability and knowledge'*. They suggested paired learning, with digital leaders and operational or clinical leaders perhaps doing a module together.

Sharing content

A few interviewees talked about difficulties they experienced around sharing the content from the Academy, which they consider to be good. They said that it is treated as one of

the intellectual property of one of the providers and that they met with resistance when they asked to share it with their teams.

Finance

A number of people highlighted challenges related to funding and ‘political wrangling’.

‘A problem is that, as you upskill and build confidence, the system has to respond, and I see very little movement in the system in that respect. There is a long way to go and a big gap.’

Participant

The cost of the programme was also highlighted as a barrier by one interviewee but, for the academic providers, the total project cost of £6m divided by 300 participants resulting in a price of £20,000 per participant (which included all of the development time, the residential workshops and material) was not thought to be excessive.

‘The financial envelope was £20k per student which for a business school is about right. Usually a university makes a profit but not on this one, we have maximised keeping money away from overheads and in the programme.’

Academic provider

‘The biggest downside is that it’s extremely expensive. For one hundred people per year the cost is £2m. It’s the gold standard in an austerity driven world.’

Participant

5.5.2 Enablers

Participants were asked about what they perceived to be potential enablers of success for the Digital Academy. Responses included status and profile of the Academy, a system-wide approach, organisational strategy, and cultural change.

Status and profile of the Digital Academy

There were mixed views among participants about the profile of the Digital Academy.

‘It’s created a massive buzz, a figure head initiative that says we take digital and informatics seriously. It’s no longer back office but will fundamentally help us think about how we deliver health and care.’

Participant

However, another participant pointed to a need for more of a national profile for the Academy and recognition of it in NHS policy, with clarity about what an individual needs to do to maintain the Digital Academy badge.

Alumni groups and networks

A number of participants highlighted the importance of the Alumni group, and its potential to help maintain momentum. Others spoke of a desire to create a voice for the group that is recognised, and to express views on strategic topics. Interestingly, the participants were creating their own groups in the absence of anything formal.

A few believe that more value needs to be extracted from the group:

'For me, staying connected to others could make the difference.'

Participant

System-wide approach

In relation to helping to influence perspective change in the wider NHS, one interviewee spoke about academy participants being interested in “*flipping the paradigm*” from being Trust focused to being patient focused and making people more accountable for their health. For example, one participant suggested that:

'They could be internal consultants moving between organisations and teams within the NHS to consult on digital transformation.'

Participant

'With three hundred people having been through the Academy who want to go on to become senior executives, there will be a group of people thinking in this way and this could shift the paradigm.'

Participant

One person suggested that there is a need for a centralised, national framework to drive change across the system.

'Having national frameworks that help people implement things to make it less risky and more effective, so they can start to see it elsewhere and see benefits.'

Participant

This would be particularly useful as it is felt that many organisations aren't seeing the importance of digital and therefore it isn't consistently a top priority:

'Organisational priorities keep changing and this is compounded by a gap in belief about the importance in digital.'

Participant

Organisational strategy and cultural change

Some participants pointed to a need for greater integration of digital leaders and digital strategy across the broader organisation. One suggested moving to a partnership model

between technologists and other staff, as well as harmonisation between digital and organisational development strategy, and a cohesive business strategy with a future focus. To enhance the impact of a strategy, some participants suggested that an interdisciplinary approach should be utilised:

‘There should be many interdisciplinary CCIO’s; if this was the case then digital transformation of the organisation would happen on autopilot because there are so many different champions.’

Participant

Others spoke about a need for systematic cultural change within organisations, led from the top, and more buy-in from the board and top leaders.

Sustainability of the Digital Academy

Stakeholders were asked whether they thought the Digital Academy was sustainable and what would make it such. All stakeholders felt The Digital Academy was sustainable, but there were very different opinions on how to bring this about. Firstly it was felt that one cohort in and one in progress was nowhere near enough time to judge properly. Three-year investment may seem a lot, but it is no time at all when the change needed in the NHS is so far reaching.

‘There should be three-five year investment, another £6m’.

Academic provider

‘Needs one more renewal of equivalent length’.

Stakeholder

This was the minority opinion with money being just one aspect. There was also difference of opinion as to whether this should be a centrally funded programme, with a suggestion that organisational buy-in may be greater if there is monetary investment in their participant. Another suggestion was to make this part of a trading arm and go global; diversified intakes could widen the programme applications out beyond the NHS – including international – with an opportunity to charge a premium for the programme.

An opposing view was also expressed:

‘We shouldn’t be looking outside the NHS not with the current model; it is designed for the NHS.’

Academic provider

The pool this programme is fishing in for participants is not large; they are already senior so will be self-limiting, so sustainability needs attention. Ideas put forward to support sustainability included:

- Ensure the modules are written in such a way that they can be rapidly adapted to reflect the rapid changes in the digital world. This will not sustain if it seems out of date.
- Create networks and keep in touch with Alumni.

A feeling was expressed that the academic providers have 'done their bit' and what happens after the student finishes the programme is not their concern. However, they are the potential CIOs and CCIOs of the future and ambassadors for the current programme. The fact that 38 from cohort one had chosen to continue to the Masters stage was seen as a commitment to the future.

'We need to get sustainability through peer support. The first alumni are coming back to get the MSc; we need connection events, creating networks needs to happen but they are difficult.'

Stakeholder

Capacity within the delivery team for sustaining the levels of activity was also questioned. The programme is not 'neat' whereby 100 start and 100 finish at the same time; this adds burden.

'You get roll over so the ones that didn't finish are added to the numbers for cohort 2; that's extra assignments to mark etc. Doing 120 with the same number of staff is not sustainable, the quality.... not just the marking'.

Academic provider

There is a risk that the Digital Academy becomes 'just another course' and it loses the passion and fails to attract the highest calibre of staff. A pipeline, discussed below, may mitigate this but the beauty of the programme is in the wrap around, in sustaining the academic programme, there is a risk of losing the added value of the residential workshops and the 'intangible magic' that currently makes this a programme that stands apart.

Creating a Pipeline of talent

Related to sustainability, stakeholders and academic providers alike spoke of the programme in isolation not being enough.

'You can't just train some people'.

Academic provider

Some spoke of needing a 'scheme' where the academic component was one part of a development journey, like a graduate or apprentice scheme. Others felt there needed to be 'feeder programmes' for less senior staff (for example a PG Cert or credit carrying course for say Band 7 - 8a staff). This would contribute to creating a pipeline of talent and help digital become a recognised profession across the NHS. This is in contrast to the role being a haphazard one, as it is perceived now, which varies between organisations in both seniority and scope. It was felt there is enough content that could be repurposed for a less senior audience and that this would create a steady supply for the future.

'In informatics we are 10 years behind the US; we need groups that continue and don't finish with the end of the programme.'

Academic provider

6 Developing a logic model

Developing a logic model is an essential first step before embarking on a full impact evaluation of the Digital Academy. Integrating all the evidence collected in this scoping research, it is a straightforward, visual and intuitive way of describing how an intervention or process is expected to work in theory, so that this can then be tested in practice (i.e. through the evaluation). At its simplest, it maps out the connections between the activities that are delivered in a programme and the outcomes that will be achieved – so that you can then explore and try to explain not just *whether* something works, but also *how* and *why* it does.

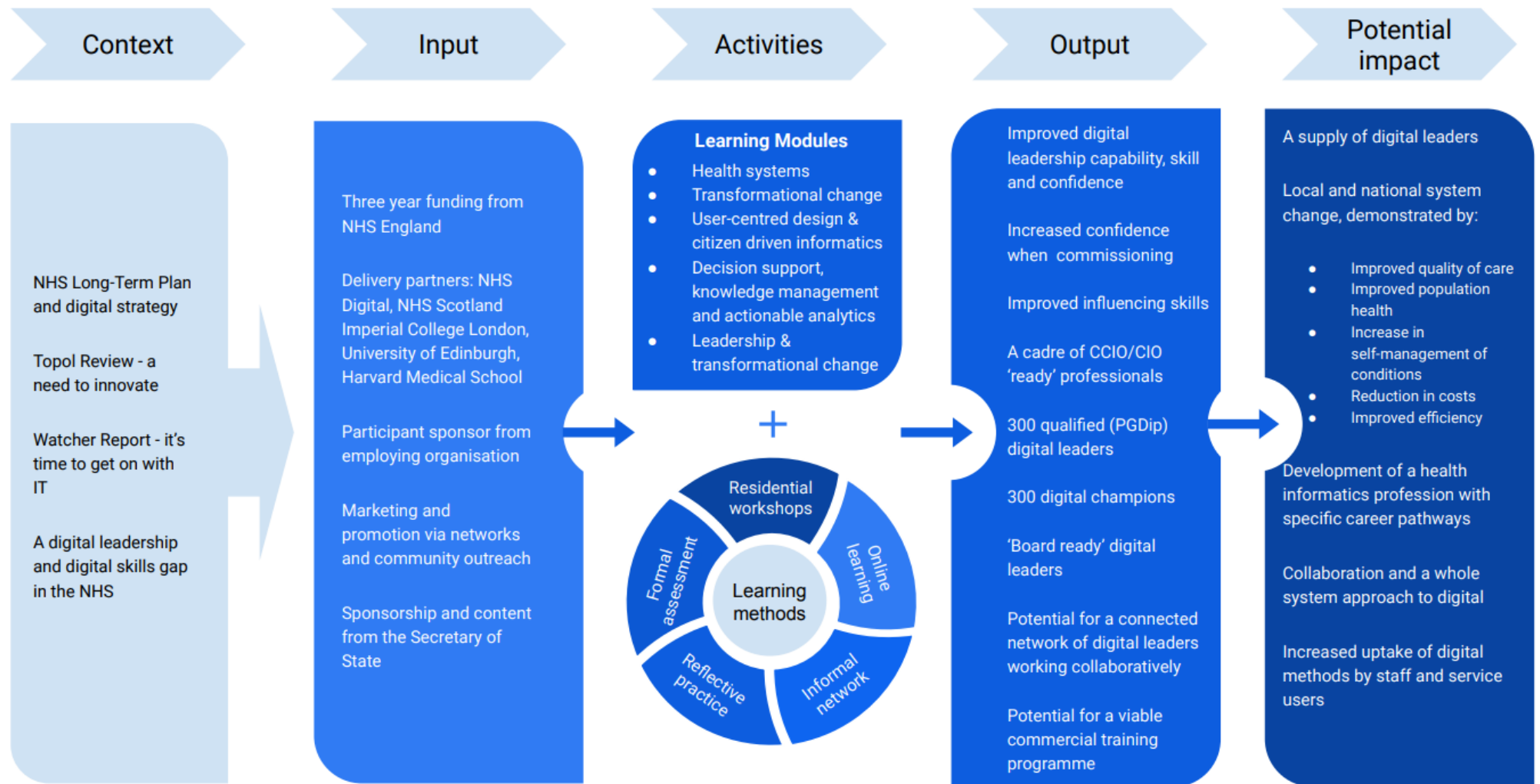
As well as being a foundation for an evaluation, a good logic model should also be helpful for those involved in the design and the delivery of the intervention helping them to understand more clearly the overall delivery model, identify any potential gaps or opportunities, identify changes that may need to be made in the future, and understand how specific activities should lead to or support the achievement of specific positive outcomes.

A logic model is organised into five areas:

- The wider **context** in which the programme is operating, in this case the NHS system including key drivers, political agendas and seminal reports.
- The various **inputs** required to establish and deliver the programme.
- The **activities** that will be delivered i.e. the different elements of the programme that will be delivered to achieve all of its aims.
- The **outputs** that will be achieved i.e. the specific measures that projects will achieve and which will contribute to the overall programme outcomes.
- The longer-term and potential **impact** of the programme in terms of its intended impacts on the wider NHS, population health and the digital profession.

Figure 3 shows the logic model developed from the evidence collected in this scoping research.

Figure 3: The logic model for the Digital Academy Programme



7 Conclusions and recommendations

7.1 Conclusions

This scoping report has drawn together evidence from multiple sources and provides a comprehensive view on the: current success and impact of the Digital Academy; anticipated future impact; and enablers and barriers encountered when trying to embed the learning. Overall, while participants were able to identify personal impact as a result of the Academy, the majority felt it was too soon to see sustained organisation or system level change. The findings are summarised below, along with some **key questions** that were raised in the course of data collection.

Programme content and format

On the whole, the participants' experience of the Digital Academy has been overwhelmingly positive. The residential workshops, in particular, were well received as participants valued the time to come together and network. In relation to content, several interviewees expressed disappointment at not being permitted to share programme content with colleagues because of a proprietary approach by providers. They were keen to see greater freedom to do so in future.

Some questioned whether the content might usefully be more **tailored to the NHS context**; they suggested that making it more applied could help participants to apply and embed their learning and so connect the theoretical learning with day to day practice. Initially, the Academy was going to require participants to have a 'live project' that they were working on in their organisation. This component, however, was dropped from the syllabus. The removal of the project raises two questions; to what extent has this contributed to the sense there is a lack of applied NHS content? Has this had a negative impact on the system as there is no requirement to actively use their learning to drive change?

The level and depth of the content was questioned in some cases; participants identified that the modules covered a very broad range of topics, not all of which were relevant for everyone. It was suggested that **different audiences** (in terms of seniority and job role) would require **different types of content and delivery**. Related to this, some feel that the cost per head of the programme in its current form is very high and this will need to be reviewed for a wider audience. This is discussed further below.

Diversity and inclusion

Questions are raised about the diversity of the participants selected for the programme, particularly in terms of gender. Participants noted, especially in cohort one, that they were

overwhelmingly male. This is supported by the analysis of applicant data, where in cohort one, under a quarter of participants were female and in cohort two, around a half were female. While the proportion of males and females who were shortlisted was similar, there were considerable fewer females applicants. The Academy should consider how they make the programme more attractive to women. In addition, it is advisable to review the shortlisting process to understand if any criteria are unfairly disadvantaging women. For example, if there are fewer women in CCIO/CIO roles⁷ and there is a requirement to be a CCIO/CIO to get on the programme, this is going to impact the proportion of women who can apply.

Surprisingly, ethnicity data was not collected, so we cannot draw any firm conclusions about the diversity of the participants in terms of their ethnic background. The academy should consider how it ensures its programmes are at least representative of the diversity found within the NHS workforce

Target audience and purpose

At present, the audience for the Academy is considered to be CCIOs and CIOs. This presents an issue, as these roles look very different across the system - there is not a standardised job description that all trusts have adopted. For some, these roles are an 'add-on' to the day job rather than a professional focus, for others it is a well-established board level position. The variation of the role in reality means participants come from a diverse range of backgrounds and aren't all at the same professional level, as may have been expected. The Academy should consider how it begins to understand the reality of the CCIO and CIO roles to inform the target audience of the programme.

In relation to future participation in the Digital Academy, the NHS needs to consider who will be the target audience in future years. Deciding on the target audience requires consideration of the **future purpose** of the programme; is the purpose to develop the digital leadership skills of current leaders and CCIOs/CIOs? Is it to create a pipeline of digital leaders of the future? Or is it both? Each purpose must be considered separately and will require a different approach, both in terms of programme development, duration, delivery and content, and of course, a different target audience.

Some participants suggested approaches for tailoring the programme to different audience. For example, take the future leaders through at least some of the programme and make content more 'bite-sized' for more junior participants. Others mentioned that Board members would benefit from exposure to at least some of the content of the programme. One, who was grappling with the challenge of getting messages to a Board that they are not on, asked: *'how do you do something similar in a condensed form for Board members?'*

⁷ <https://www.england.nhs.uk/blog/the-role-of-ccios-in-digital-transformation-of-the-nhs/>

Engagement with sponsors and organisations

The ‘buy-in’ and support of participant organisations has been identified as a vital success factor. There was a huge variation in the levels of engagement and involvement of the participant sponsor. Those who reported having the support of the organisation behind them were typically more able to embed their learning and drive change. Therefore, this raises a question about how the Digital Academy can engage with the senior sponsor and organisations to create a high level of engagement and support. Vitally, this work should be done *before* the programme commences for maximum impact.

On-going support for participants

Participants often felt like they were left to their own devices once the programme came to an end, which resulted in them creating informal networks with one another. There appears to be a distinct lack of on-going support for individuals once they finish, which can be exacerbated when organisational support is low. What role does the Academy play in providing on-going support and what is the impact on the system when this support is absent?

Career pathways and development of a profession

At present, it appears there are few digital, CCIO or CIO roles available to participants within their organisations – this has resulted in several people leaving the NHS to use their new skills in the private sector. This issue is often interlinked with lack of organisational support, as participants at organisations where senior leaders were bought in to the digital agenda were more likely to be positive about gaining experience in a digital role.

These challenges raise two questions:

- How does the Academy continue to support participants after the programme has finished?
- How can the Academy support the system to develop the digital profession?

Isolation in the system

Looking in from the outside, the Digital Academy appears to operate in isolation of the NHS system it is expected to serve. This is evidenced by the programme being entirely managed by external providers, from application to graduation. The result is variously identified in a lack of NHS relevant content, the disengagement of sponsors, participants being left to their own devices as soon as the course is over and no expectation for participants to make sustainable impact in the system or to share their learning more widely. This is concerning, considering the considerable investment made by the NHS.

7.2 Recommendations

Based on the conclusions and questions outlined above, several recommendations are made to NHS England. Each recommendation is considered short-term (ST), medium-term (MT) or long-term (LT).

Shape and structure

- Communicate the reality of being a Digital Academy participant; set the expectations about the level of work and commitment required. (ST)
- Tailor learning content to the NHS context to support with application and embedded of knowledge; however there is a question about whether this goes far enough to help with the contextual and embedding issue highlighted by participants. (ST)
- Create content that can be shared more widely with the NHS beyond programme participants and their immediate colleagues. (MT)
- Explore the impact of removing the requirement for participants to be working on a live project. (MT)
- Review the decision to drop the requirement for a workplace project. Explore the option of identifying, setting up and reflecting on learning and next steps with no expectation of completing within the timeframe of the programme. (MT)

Audience and reach

- Review the application and shortlisting criteria to ensure all demographic groups have an equal chance of applying and being successful. (ST)
- Collect ethnicity data. (ST)
- Engage with organisational sponsors to generate buy-in and support. (ST)
 - Clarify sponsor's role in the programme; increase the requirement for their engagement.
- Consider moving the application process internally to NHS England. The NHS can monitor the diversity of applications and ensure the right mix of people is coming through before they are passed to the universities. (MT)
- Define the future purpose and audience of the Digital Academy. (MT)
 - Tailor future content and delivery to meet the needs of the audience.
- Consider a **pre-programme** phase to educate, engage and inspire the system: (LT)
 - Hold an on-boarding event that participants *and* sponsors are required to attend.
 - Provide a walk-through of the programme to clarify expectation; to make everyone aware of their obligations, the structure of the course and what to expect.

Impact

- Due to the level of investment and uncertainty around impact, a full impact evaluation study should be conducted. (ST)
 - A mixed method approach to identifying impact is indicated and should include:
 - Indicators of the supply of digital leaders and development of a wider health informatics profession.
 - Uptake of digital methods by staff and service users.
 - Career tracking of programme participants and their effectiveness in introducing and embedding digital change across the system.
 - Deep dive illustrations of local impact and system change from multiple stakeholder perspectives including quantifiable outcomes.
- Consider a **post-programme** phase where the Academy can continue to support participants after completion, in terms of both knowledge and skills but also by providing career coaching: (LT)
 - Engage previous participants as mentors for those finishing the programme.
 - Facilitate formal networks between participants across all cohorts.
 - Ensure participants are supported and ‘checked-in with’ by someone at NHS England.
 - Provide ‘refresher’ content or Continuing Professional Development (CPD).

Infrastructure requirements

- Investigate and further understand the digital profession within the NHS. (LT)
 - Analyse current CCIO and CIO roles; how many are there? What are the job descriptions? At what level of seniority are they?
- Collect workforce data about the current CCIO/CIO roles and career paths. (MT)
- Investigate the **perceptions** of the CCIO/CIO roles; are they perceived to be attractive? Do some groups or individuals find them more attractive? How can the roles be best positioned? (MT)
- Consider creating a standardised recommended job description and career pathway. (LT)
- Position the Digital Academy firmly within the context of the NHS as an internal programme run by external providers, rather than an external programme run by external providers: (MT)
 - Consider a **pre programme phase** where the programme is positioned in terms of the wider NHS Long Term Plan and the expectations of participants and sponsors are set.

- Consider a **post programme phase** to provide on-going support to participants and encourage them to 'give-back' to the Academy, as discussed previously.
- Integrate the cohorts of participants and encourage them to continue to support system change (these could be included as expectations at application stage): (MT)
 - Invite the next generation of participants to previous cohort's celebration event.
 - Develop a mentoring scheme.
 - Participants host visits or open days at their organisation.
 - Create networks to join up organisations across the country and share learning and practice.

8 Appendix

8.1 Demographic analysis – cohort one

Figure 4: Male applications by location – cohort one

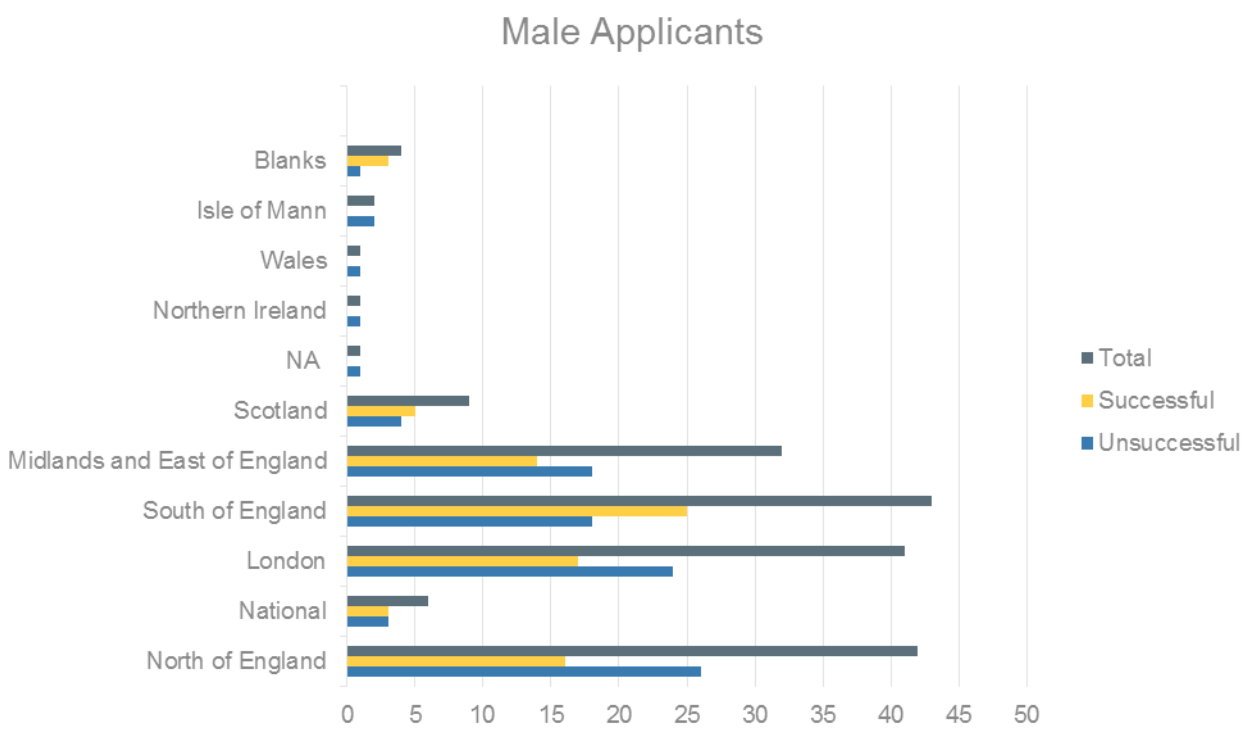


Figure 5: Female applications by location – cohort one

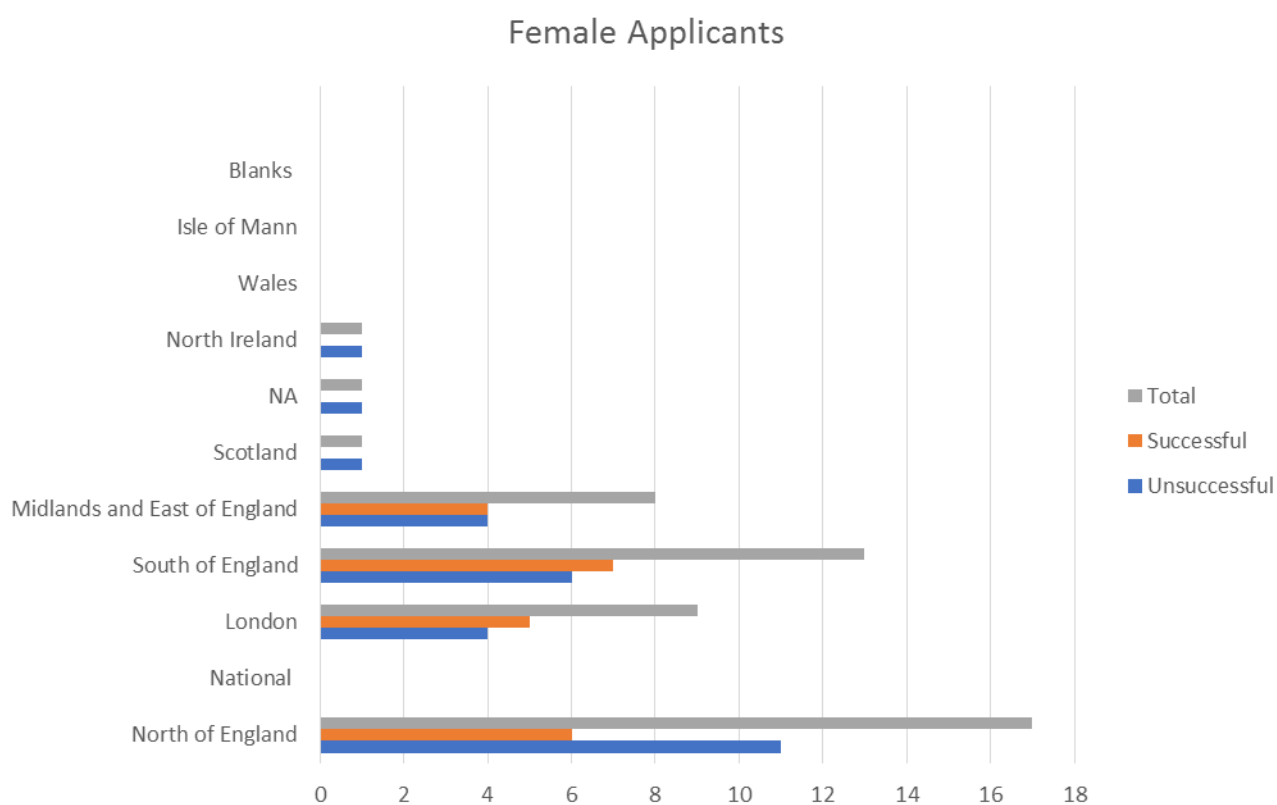


Table 8.1: Applications by gender and location – cohort one

Region	Successful Male	Successful female	Total
South	25	7	32
London	17	5	22
North	16	6	22
Midlands & East	14	4	18
Other	11	0	11

Figure 6: Male applicants - variation in job role descriptions – cohort one

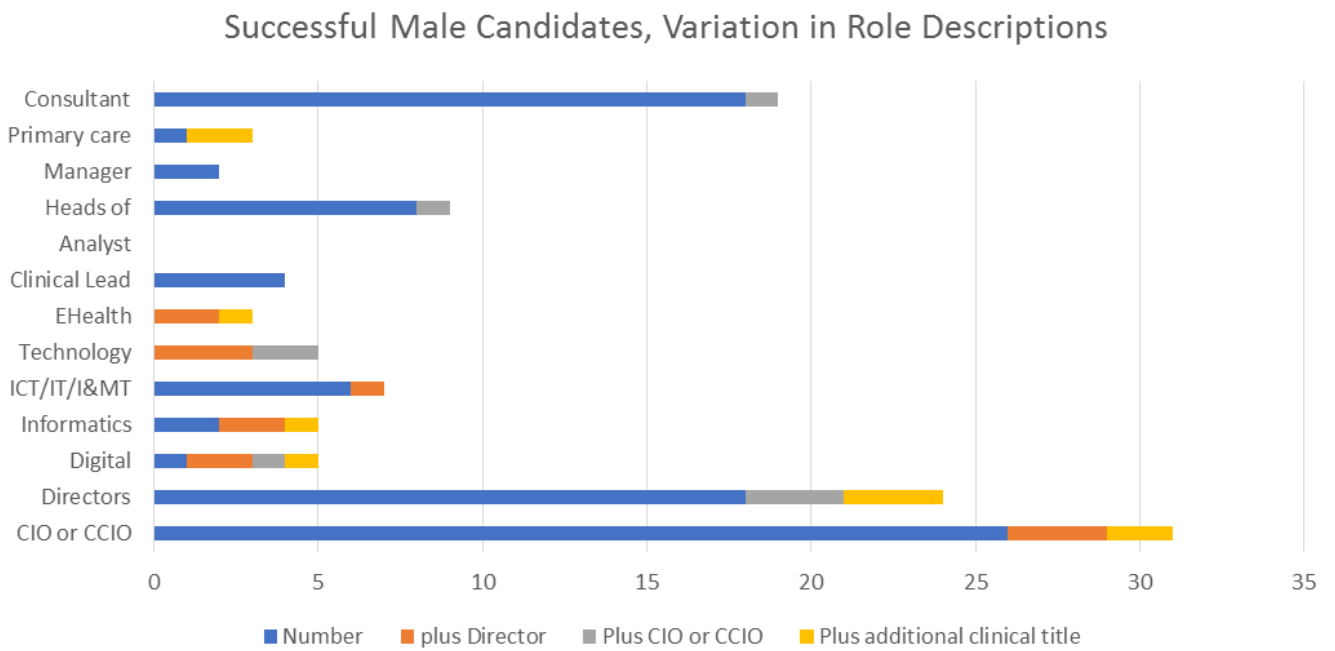
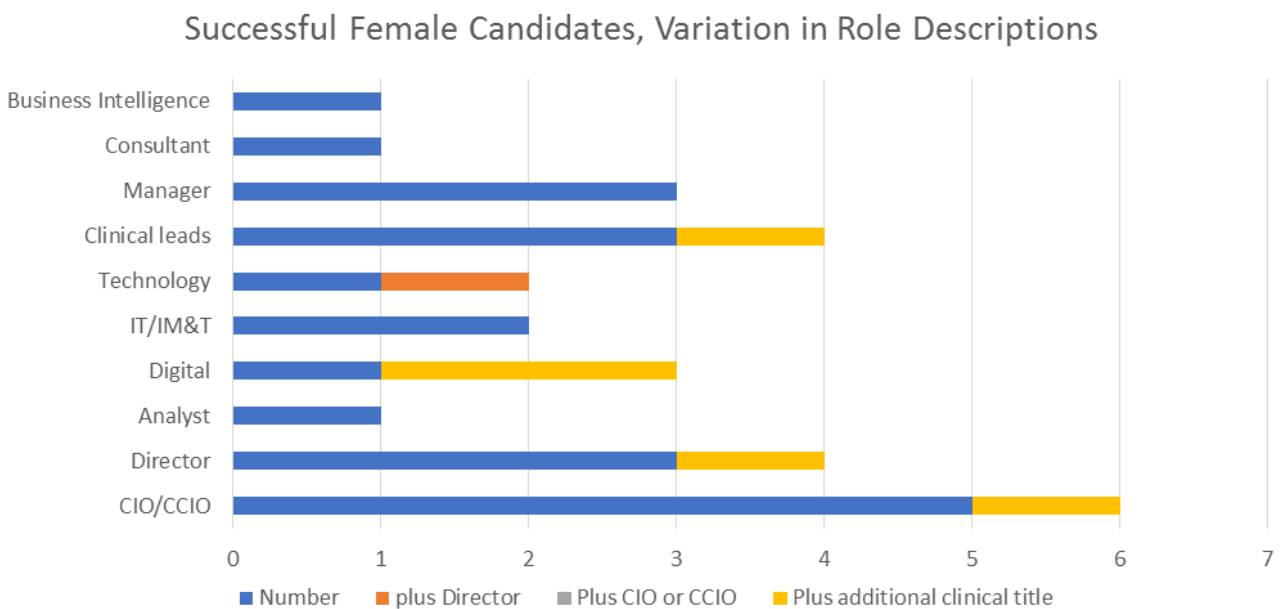
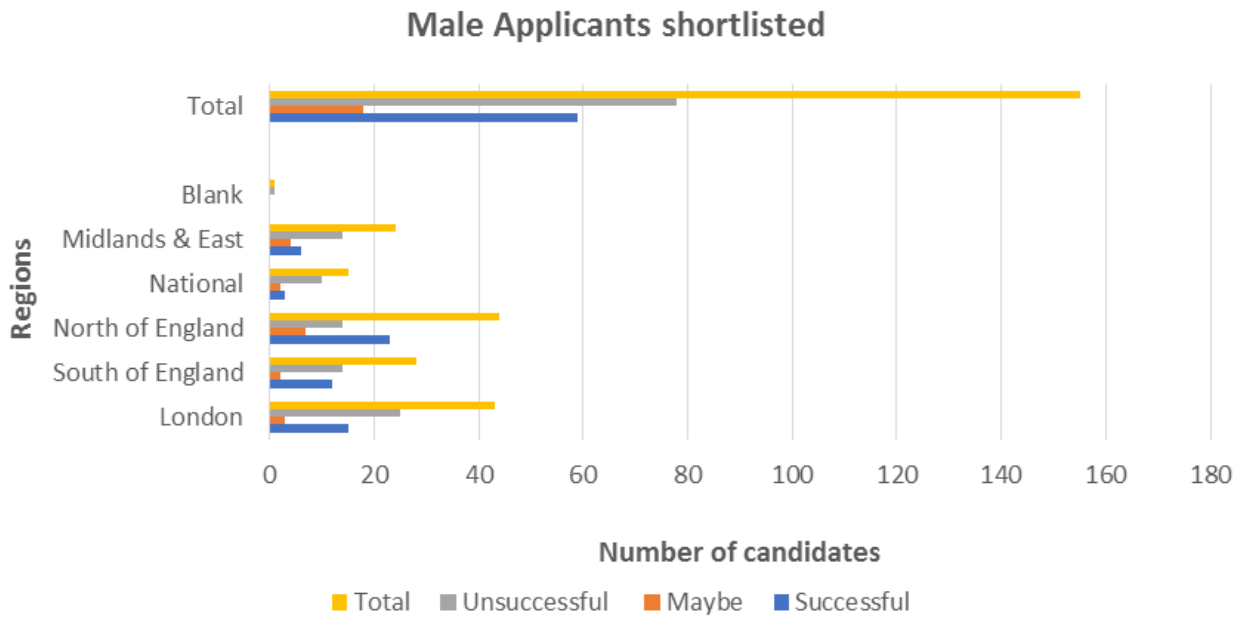


Figure 7: Female applicants - variation in job role descriptions – cohort one



8.2 Demographic analysis – cohort two⁸

Figure 8: Male applications by location – cohort two



⁸ The data provided for cohort two was shortlisting data; it did not contain the final demographic details of the successful participants. Also, it did not give the same data as provided for cohort one, therefore comparisons cannot be made.

Figure 9: Female applications by location – cohort two

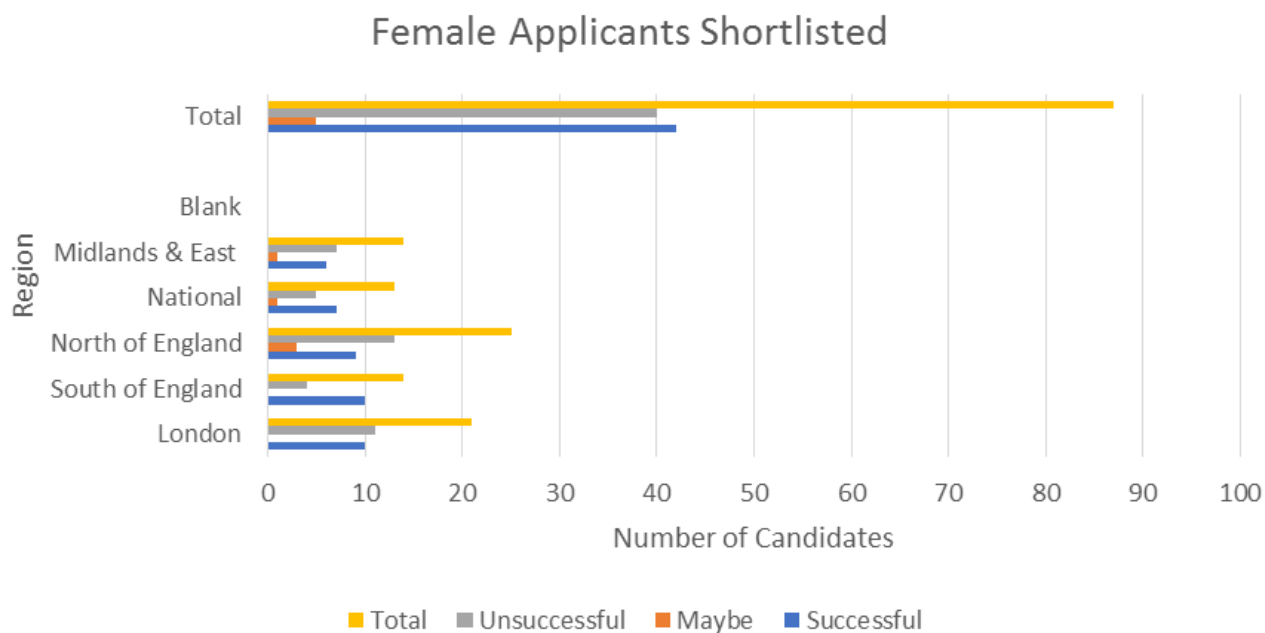


Table 8.2: Applications by gender and location – cohort two

Region	Successful Male	Successful Female	Total
London	15	10	25
South of England	12	10	22
North of England	23	9	32
Midlands & East	6	6	12
National	3	7	10

Figure 10: Male applicants - variation in job role descriptions – cohort two

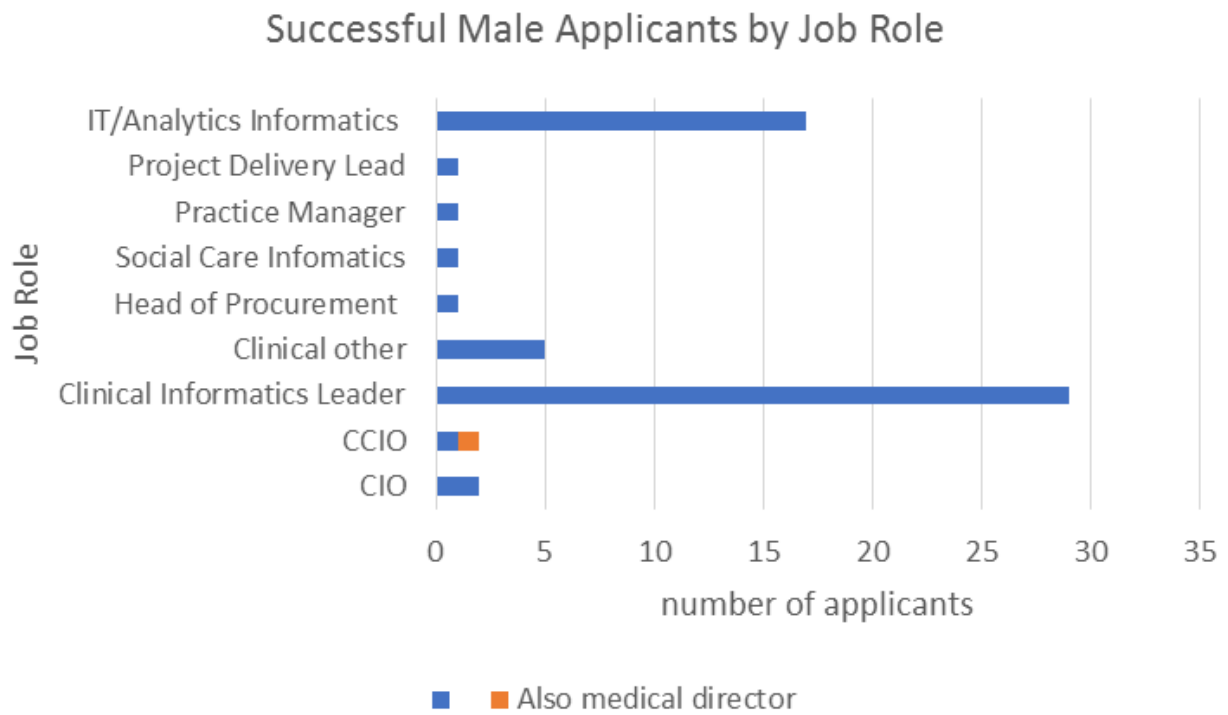


Figure 11: Female applicants - variation in job role descriptions – cohort two

