Digital readiness within General Practice

Executive summary and Recommendations

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The findings of this independent service evaluation are those of the authors and do not necessarily represent the views of the AHSN or HEE.

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About the Author

Matt Hammerton is a GP Partner at St Clements Partnership, Winchester and Digital Primary Care Clinical Lead for Wessex AHSN. Prior to this Wessex HEE Digital Fellowship, he spent 6 months helping to research, write and edit the 2019 Topol Review: *Preparing the healthcare workforce to deliver the digital future*. This was an independent report on behalf of the Secretary of State for Health and Social Care. This current fellowship developed through his desire to apply learning from the Topol Review within the local healthcare environment in order to develop pragmatic and empathetic recommendations for supporting effective digital transformation.

Executive summary

There is a strong Government and policy push for digital transformation within the NHS. Despite this push, the digitalisation of healthcare has been slow to develop with evidence of variation in progression, causing a 'digital gap' and inevitable healthcare inequalities. Digital readiness, defined here as a **motivation and competence to effectively adopt, use and spread digital healthcare technologies**, has grown in recognition of its importance for digital transformation. This has been greatly accelerated by necessity during the Covid-19 pandemic.

Digital readiness has a greater impact on digital transformation than technology itself. However, research into factors impacting on general practice digital readiness is limited. As such, this service evaluation study set out to gain a better understanding of digital readiness by asking:

1.   How does digital readiness vary between technologies and individual aspects?
2.   How do micro (human) factors impact on digital readiness?
3.   How do meso (practice situation) factors impact on digital readiness?
4.   How do macro (external) factors impact on digital readiness?
5.   Do practice digital readiness competency measures correspond to related digital healthcare technology use?

This was done via a sequential mixed methods design using both quantitative and qualitative evidence between December 2019 and September 2020. Staff at 33 practices within the North and Mid Hampshire Integrated Care Partnership and digital companies linked to innovations operating at these practices provided the study boundaries. The digital healthcare technologies considered were: electronic patient records, telehealth, patient online access, patient apps and wearables and social media.

Reliably measuring digital readiness in a complex and varied health environment is challenging. As such, a review of the literature was conducted before developing a 90-second digital readiness survey tool provided to all practices within the study. This comprised short user-reported experience measures for digital competency, contextualised digital competencies and innovation readiness. The digital competency measures looked at confidence, motivation and self-efficacy (an individual's belief in their capacity to execute behaviours necessary to produce specific performance attainments). Responses were collected pre and post-lockdown commencing on the 23rd March 2020. The results guided the qualitative semi-structured interviews with clinical and non-clinical general practice staff and digital technology company representatives. These were analysed for emerging themes before being triangulated with the quantitative findings.

52 and 287 survey responses were received pre- and post-lockdown respectively representing a post-lockdown response rate of 22.3%. The demographics of the survey sample were similar pre- and post-lockdown and when compared to current staff demographics. Nine interviews were conducted and thematically analysed; six with general practice and three with digital technology companies. The following uses the triangulated results to answer the study questions:

1. How does digital readiness vary between technologies and individual aspects?
The results demonstrated a moderate level of digital readiness in long-term (electronic patient records) technologies but low level in evolving technologies (patient apps and wearables and social media). Patient access and telehealth technologies were between the two. Given this variation, the use of a simple and contextualised digital readiness assessment tool may help practices to understand and target relevant support where needed when adopting different technologies.

When considering the individual elements of digital readiness: confidence, motivation and self-efficacy, the latter is consistently lower. While previous research highlights the importance of motivation,

perceived self-efficacy may have a greater limiting role. As such, concentrating on improving self-efficacy may result in improved digital transformation.

2. How do micro (human) factors impact on digital readiness?

Younger general practice staff (<50), those in post for five or less years and non-clinical staff were significantly more competent in several measures of digital readiness. This contrasts with the mixed interview opinions suggesting a possible problematic perception of digital readiness. While important not to stereotype and appreciating that this is more about digital skills than refined cognitive skills (both necessary), it suggests a need for targeting digital support appropriately. Furthermore, the differing digital readiness with differing general practice roles highlights the need for a supportive team approach with effective communication between staff groups. The simple heuristic 'Tool+Team+Routine' may help practices to consider digital transformation in a more service design orientated approach.

However, time and resources for supporting digital transformation is lacking. The study found a clear need for a structured, well-resourced and supported gradual iterative change process to promote improved digital readiness and subsequent successful digital transformation.

3. How do meso (practice situation) factors impact on digital readiness?

The results showed significant variation in digital readiness between practices and PCNs. This was in contrast to the interview findings suggesting a potential complacency in driving forward digital innovation.

The most significant factor reducing practice digital readiness was increasing percentage of older patients within a practice population. If practices are to lead digital transformation, they need to enhance learning about and actively supporting their older patient population digital readiness. This could be via active patient participation groups, patient co-design and use of real-time digital usage data as well as digital nurse champions, practice/PCN based digital hubs and use of expert patient digital health ambassadors.

Smaller more rural practices also demonstrate lower digital readiness scores. The qualitative data emphasised the stark difference in digital readiness between urban and rural practice due to reduced innovation readiness and rural internet connectivity barriers. Interventions to minimise the barriers and support innovation in rural small practices is likely to reduce the digital divide between large urban and small rural practices.

4. How do macro (external) factors impact on digital readiness?

Considering macro factors, previously suggested enablers, public and professional willingness and clinical endorsement, have been enhanced greatly due to the unique situation of the pandemic. In parallel, IT infrastructure, software usability and interoperability and governance issues were outlined as the main barriers, suggesting these areas, highlighted by previous research, remain unaddressed. While NHS Digital's GP IT Futures may have come at an opportune time for helping to tackle these barriers, going forward, a critical factor is the collaboration and support gap between technology companies, CCGs and practices. AccuRx's manifesto on 'Software That Works' delivers a set of principles that would be well worth pursuing to help to reduce these barriers. Reducing these barriers is critical if we want to tackle the meso and micro factors impacting on digital readiness.

5. Do practice digital readiness competency measures correspond to related digital healthcare technology use?

Practice digital readiness based on staff perceived digital readiness does not correspond to digital healthcare technology use. This highlights the complexity of the healthcare environment and the limitations of using a simple self-assessment tool for this purpose. While the tool has its uses, there is a need to consider the situation holistically, taking into account the multiple micro, meso and macro influential factors.

Based on these findings, the study has provided seven pragmatic 'DR7' recommendations for tackling the most pertinent issues. In summary, the *DR7 recommendations* highlight a need to:

1. Understand, acknowledge and support differences in staff digital readiness.
2. Undertake digital transformation in a well-resourced and supported gradual iterative change process that is team-based and works to understand and actively engage patients.
3. Undertake essential improvements in IT infrastructure, software usability and interoperability while improving collaboration and effective mutual digital support between technology companies, CCGs and general practice.

Digital readiness is a multifactorial concept requiring reflection and action from patients, general practice staff, technology companies, CCGs and governing bodies. As such, recommendations one to five and aimed at GPs and Practice Managers while recommendations six and seven relate more to technology companies and CCGs. All require support from governing bodies.

A collaborative, formative and realistic digital readiness checklist, that encompasses the above recommendations and provides all stakeholders with clear direction of progression while acknowledging the role each has to play, may prove useful. Redmoor Health's current development of a Digital Journey Planner is trying to achieve this at the practice level. The AHSN is appropriately positioned to act as the vital link between the different stakeholders and could host a network that focuses on improving collaboration between general practice and industry.

While the pandemic has been hugely damaging to society, it has provided general practice with a unique opportunity to fast forward an empathetic and relevant digital transformation process. General practice staff are motivated in this common goal as long as it is done for the right reasons and appropriately resourced and supported. By providing this support for increasing motivation and competence to effectively adopt, use and spread digital healthcare technologies, we will minimise the digital gap and **all** achieve the key digitalisation milestones set out by the NHS Long Term Plan.

Recommendations

1 Understand staff digital readiness – developing a simple, brief digital readiness assessment tool may help practices and staff to target digital support where most needed.

2 Acknowledging that colleagues in a particular demographic (>50 years old, in practice for >five years, clinical roles) may experience less digital readiness for emerging technologies. This will be necessary when considering targeted support.

3 A supportive team-based approach combining both non-clinical and clinical staff skills is required in the adoption of new digital healthcare technologies. Undertaking a contextual assessment prior to adoption may help to emphasise this approach.

4 Increased emphasis needs to be placed on understanding and actively engaging patient populations in digital upskilling. This is especially so in the digitally excluded patient groups.

5 A structured, well-resourced and supported gradual iterative change process is necessary for successful digital transformation.

6 Essential improvements in IT infrastructure, software usability and interoperability and governance issues are required if general practice digital readiness is to be maximised.

7 Improved collaboration and effective mutual support between technology company staff, CCGs and practice staff is required for the benefit of improving digital readiness.