NHSE/Regional GPN Transformation (GPFV GPN Ten Point Plan, Action 6): General Practice Nurse Digital Upskilling – Developing confidence, capability and capacity for delivery of technology enabled care
Report to NHS England – Phase 2 rollout 2018/19 and 2019/20

National context
A successful pilot was undertaken in Staffordshire in 2018 funded by NHS England as part of their delivery of the GPN10 Point Plan, where 40 local general practice nurses (GPNs) participated in a series of action learning sets (ALS) in order to adopt and embed technology enabled care (TEC) / digital tools within their practices and develop as digital GPN champions. The programme ran between March and November 2018. The action learning programme underpinned adoption and dissemination of the use of TEC by GPNs across the Staffordshire Local Health Economy. through a series of action learning sets (ALSs) designed to demonstrate how TEC and digital tools could be adopted and embedded within their general practices. Following the success of the Staffordshire ALS, the programme received further funding to be piloted nationally across the four GPN Regions, for 12 action learning cohorts, split into a two-phase rollout (each ALS comprising two sessions spanning 3 months with individualised remote support between the sessions and for a period of eight weeks after) to increase the uptake of TEC and digital tools and showcase what is possible in frontline healthcare. The programme aimed to encourage healthcare professionals, specifically GPNs to adopt and implement TEC / digital tools with patients for whom they are responsible and to make the most of opportunities for TEC / digital tools in relation to their own role, improving productivity and efficiency.

Following the success of Phase 1 of the national rollout, funding was secured to deliver the programme to a further four cohorts across England. The additional four cohorts (Phase 2) were:

Phase 2
Black Country – 9 GPNs. ALS 1 - February / ALS 2 - May 2019
London Euston – 16 GPNs. ALS 1 April / ALS 2 - June 2019
Merseyside – 10 GPNS. ALS 1 April / ALS 2 - June 2019
Sunderland – 10 GPNs. ALS 1 May / ALS 2 – July 2019

Local delivery programme Phase 2
Each cohort was held locally in the hosting area to ensure accessibility to all. A total of 45 GPNs undertook the GPN ALS programme in the second Phase of the rollout; and all 45 participants successfully completed the course.

We commenced session 1 between February and May 2019 with the final follow up sessions being approximately eight weeks later (between May and July 2019). The final evaluations (one to one phone calls undertaken between the programme manager and participant) were completed between October and early December 2019.
Phase 3 of the national roll-out then commenced from November 2019.

The digital upskilling GPN action learning programme
As part of the ALS programme each individual GPN ALS participant was required to use at least two modes of technology enabled care or digital tools in their practice (this could include but was not limited to apps/social media/video consultation/ interactive texting/Kardia AliveCor).

All participants were asked to complete a digital literacy questionnaire at both sessions – this tool was used to gauge the progress made between the sessions. It was positive to see that all participants had increased their use of TEC as a direct result of the programme and could see this usage increasing further as the TEC / digital tools became more embedded in their daily work life. All participants could see the positive benefit of using digital tools and felt confident in their ability to share this learning with their wider practice team and also to other clinicians in their area, and all felt positive about the benefits of introducing TEC and digital tools in healthcare.

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Technology enabled care / digital tools used as part of the ALS

Apps

All the GPN participants on the course selected trusted apps to support patients with key long-term conditions (LTCs) and create a focus on preventative clinical and self-care interventions. The tablets were used to demonstrate suitable apps in consultation and the app card we provided as part of the course were shared in the waiting rooms and in consultations. Several the participants used the screens in the waiting room to promote the apps – advertising these to the patients as they waited, as they would often then download before coming into consultation. The feedback was that the majority of patients were happy to use these in their healthcare, as many were already using apps in their personal life so will familiar with accessing and downloading these and the healthcare apps educated them about their condition which allowed them to take more control, therefore empowering them. Although some patients were reticent regarding using digital tools in their healthcare many didn't see apps as part of this, as they often downloaded them independently (e.g. couch to 5k). The use of healthcare / lifestyle apps was not seen as a 'medical intervention'. They were happy to use them to encourage their personal goals e.g. weight loss / fitness levels not always realising the wider positive health benefits.

Social media

The use of Facebook and other social media platforms to share population health messages was used to engage with a wider cohort of patients. The majority of the GPNs could see the positive benefit of using social media to reach their patients and share health messaging and improve communication and wanted to create a Facebook page or Instagram account for their practice as part of their action plan, however many found that on return to their practice this was met with resistance due to the practice managements concerns around social media, data and privacy and possible negative feedback. The programme team assisted with concerns, providing information on how to set up and manage a professional public facing practice page (as many other organisations do), how to manage and control the narrative, how to ensure it wasn't used for personal issues / as a way to contact the surgery for appointments etc and following this a number of practices once they felt safe and secure in the purpose and the management of the page were happy to trial this, however some still felt it was too risky and agreed to review again in the future. Despite this setback for some of the GPNs the feedback was that as a result of the ALS they were still planning to implement social media in the future and now felt confident that they could set this up when the time was right and had a plan in place to utilise this to its best advantage for health campaigns, incorporating the wider practice team to embed this as part of usual service. The GPNs keen to set a page up have access to all the materials via the Clinitecs website for the future.

A number of the GPNs on the course set up closed groups on Facebook to allow specific cohorts of patients to access non-clinical peer to peer support. The groups were easy to set up and to manage and they were slowly gathering momentum. The use of clear disclaimers in the groups allowed the focus to remain on peer support and to avoid patients asking medical questions.

Animations

A number of the GPNs focused on animations and health messaging – either creating an animation to target a specific cohort of patients e.g. to share immunisation information or sharing those that are already available for free on clinitecs.uk (produced as part of the programme) within their practice (either via the waiting room screen, on their websites or in consultations using their tablet) or sharing the link in texts sent to specific cohorts of patients (e.g. immunisations to those due to attend their / their child's immunisation appointment).

A number of the GPNs successfully worked with the programme team to produce a script for an animation to share health messages. This was then created in collaboration with Redmoor Health. A GPN from the Black Country produced an animation designed for children relating to asthma, this was in a different style from what we usually create as was created specifically for children to encourage them to use the correct inhalers for their asthma management, this involved characters and being designed to appeal to that age group. Once completed this was

rolled out across the region – it even had its own premiere in Dudley! As a result, further funding had been secured locally to produce more animations in that area.

Interactive texting – clinician to patient texting

Many participants started to use texting as a way to increase engagement and contact with their patient population. This was seen as a more inclusive mode of communication than the traditional methods– it is less intrusive than a telephone call and often more accessible than sending a letter. Feedback was that in general patients responded better to this mode of communication. A variety of modes were used depending on the practice – some signed up to use accuRx, a free EMIS / SystmOne texting service, that automatically populated the patient's record when texts were sent; some used 'Flo' (Simple Telehealth) if this was already commissioned and some used MJOG. It was used to share test results (where appropriate / agreed), to send reminders for appointments and to share health message/ links to self-care and educational resources. Texting was used to great effect when including links to relevant information in advance of a consultation e.g. to share the childhood immunisation information and the animation to parents whose children were due to have their injections, allowing them to have access to the facts in advance to counteract any anti-immunisation 'advice' they had received from non-medical sources, or to ask patients to read the travel information in advance of attending for travel vaccinations. Texting could be used to contact individuals or whole cohorts of patients and this mode can be used by both clinicians and the wider practice teams to save time e.g. patients could be asked to share blood pressure reading in advance of their appointment. Electronic links to leaflets were able to be shared not only reducing the need for paper copies to be produced and posted which saved time and money and resources but also reaching a wider audience. This mode could be tailored to suit as required and many of the participants found it a simple way to improve engagement and communication and also get the support of the wider practice teams.

Video-consultation (GPN/Patient)

A number of participants expressed interest in using video-consultation for follow on appointments to reduce the proportion of missed face to face consultations (DNAs), and although some had successfully started to trial this, many found that their practice teams did not want to introduce this at the current point. Therefore by the end of the course this was still an ongoing discussion within their practices.

Digital wound photography

Some participants used the tablets to take photos of wounds, ensuring all privacy and governance procedures were adequate and being used correctly. The camera on the tablet was used (with patient consent) then emailed these direct to their NHS mail account (with no personal identifiable information) and saved these to patients records. The image could then be deleted from the tablet. This allowed a consistent approach to the patient's continuity of care as any clinician could see and compare the wound to the last time, without having to rely on memory. This was especially useful if another clinician saw the patient on a subsequent visit.

WhatsApp / instant messaging

As a result of the course a number of the GPNs started to use 'WhatsApp' more as part of their personal clinician development in the form of group messaging and to reduce their isolation from colleagues. In the sessions it became apparent that some GPNs felt extremely isolated inn their role – especially if they were the sole nurse in that practice or the practice was over a number of sites. They could often go days without being able to have a face to face chat with their colleagues. Having instant messaging available where they could access peer support via message or a video call allowed them to retain that contact and reduced the feeling of isolation – often just being able to discuss a concern would help reassure them or help them identify a solution to a problem. A number also used 'WhatsApp' to set up clinical supervision / training groups as due to the volume of appointments often could not be released from practice to attend the groups – the session and the travel time conflicted with their surgeries. Being able to remotely dial in and still feel part of the meeting / see others saved time and encouraged them. A number of the lead nurses on the ALS set up WhatsApp groups to communicate with their staff – update at the end

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of each day, share relevant information and key messages etc, was felt it was more inclusive, accessible and proactive than emails as everyone could engage and see what others had contributed.

Feedback in general was that Wi-Fi in many of practices was extremely poor – the tablets having data was a necessity as often when in the consultation rooms there was no Wi-Fi. To promote the use of more digital tools access to usable Wi-Fi was something most participants felt could be improved.

As a direct result of the ALS course, all participants were able to successfully signpost patients to modes of accessible and available TECS to increase access to self-care information and encourage shared management of a LTC / adverse lifestyle habits.

Table 2. Digital literacy results at session 1 and session 2 per cohort (Phase 2)
Q1. How often do you use digital technology e.g. apps, Telehealth - in your practice at work?

		All N=45	Black Country	London	Merseyside	Sunderland
How often do you use digital technology e.g. apps, Telehealth - in your practice at work? Session 1	100% of the time	0				
	75% of the time	7	2	5		
	50% of the time	12		5	7	
	25% of the time	23	7	5	3	8
	Never	3		1		2

		All N=45	Black Country	London	Merseyside	Sunderland
How often do you use digital technology e.g. apps, Telehealth - in your practice at work? Session 2	100% of the time	0				
	75% of the time	29	7	9	8	5
	50% of the time	16	2	7	2	5
	25% of the time	0				
	Never	0				

Q2. Which of the following statements most closely describes how you feel in relation to using digital technology as part of your practice?

	All N=45	Black Country	London	Merseyside	Sunderland
Which of the following statements most closely describes how you feel in relation to using digital technology as part of your practice? Session 1					
Leading	4	2	1	1	
Ready	17	2	6	1	8
worried	23	5	9	7	2
Lost	1			1	

	All N=45	Black Country	London	Merseyside	Sunderland
Which of the following statements most closely describes how you feel in relation to using digital technology as part of your practice? Session 2					
Leading	18	6	5	2	5
Ready	26	3	11	7	5
worried	1			1	
Lost	0				

Q3. To what extent does this statement reflect your view: 'I feel confident that I could share my knowledge of the use of technology-enabled health care with colleagues to help them incorporate digital technology in their practice.

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To what extent does this statement reflect your view: 'I feel confident that I could share my knowledge of the use of technology-enabled health care with colleagues to help them incorporate digital technology in their practice.' Session 1		All N=45	Black Country	London	Merseyside	Sunderland
	Strongly agree	4	1	3		
	Somewhat agree	8	5	1	2	
	Neutral	28	2	11	8	7
	Somewhat disagree	5	1	1		3
	Strongly disagree	0				

To what extent does this statement reflect your view: 'I feel confident that I could share my knowledge of the use of technology-enabled health care with colleagues to help them incorporate digital technology in their practice.' Session 2		All N=45	Black Country	London	Merseyside	Sunderland
	Strongly agree	25	6	10	3	6
	Somewhat agree	14	1	2	7	4
	Neutral	5	2	3		
	Somewhat disagree	1		1		
	Strongly disagree	0				

Q4. To what extent do you agree with the following statement: 'I can see the benefit of using technology-enabled health care for my patients and my fellow practice nurses/GPs.

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	Strongly agree	11	4	4		3
	Somewhat agree	19	3	3	6	7
	Neutral	14	1	9	4	
	Somewhat disagree	1	1			
	Strongly disagree	0				

To what extent do you agree with the following statement: 'I can see the benefit of using technology-enabled health care for my patients and my fellow practice nurses/GPs' Session 2		All N=45	Black Country	London	Merseyside	Sunderland
	Strongly agree	38	9	15	7	7
	Somewhat agree	7	1	1	2	3
	Neutral					
	Somewhat disagree					
	Strongly disagree					

The results of the baseline survey show the increase in the use of digital tools/TEC with patients increased during the course, at session 1, 58% of the 45 GPN participants reported using digital technology for patient care 25% or less of the time but in the follow up session **all** of the GPNs used TECS 50% or more of the time.

The number of GPNs who felt ready to use digital technology in their practice increased so that by the end of the two months action learning programme period around 98% (all except one) were 'ready' or 'leading' in relation to deploying digital technology as part of their practice, compared to just 47% at session 1.

By the second session, 87% of GPNs felt confident that they could share the use of digital technology to their colleagues, compared to 26% at session 1, and all could see the benefit of using TECS with their patients. This helps to ensure that the TEC becomes embedded as part of usual service and helps to standardise care across the practice.

At the first session concerns were raised in regard to: information and clinical governance; data protection; sharing of information between patient and clinician; and the use of social media. The programme team worked with each

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ALS group to dispel myths and highlight the need for protocols, disclaimers and standard operating procedures required to successfully implement TEC in practice, with underpinning information and clinical governance in place.

Themes shared at the final reflective session of each cohort

Practice engagement

Several the GPNs on the ALS advised that they had an internal communications officer / communications manager employed at their practice (particularly the larger merged practices / multi-sited practices) who controlled the social media channels and did not want clinical input. It had been key for them to take their learning back and share this, promoting the need and benefit of having a clinical aspect. Creating a calendar of events – e.g. campaigns was useful so that others could share the process including other clinicians and the wider support staff.

Engagement and accessibility for patients

Many of the participants were employed in practices with a large and diverse culture so wanted to engage with previously hard to reach cohorts of patients and be more inclusive. Technology allowed them to this, texting was often easier to read than a letter and could contain links where appropriate, animations were easily understandable and could be shared to raise awareness of health messages, translations could be added by practice teams where appropriate or voce overs in specific languages could be done by the practice team if appropriate. Sharing health messaging on social media was often a way to engage with patients who did not respond via the traditional modes of contact.

A number of the participants advised that were going to have an introductory section on their practice Facebook page – where the clinicians in the practice would be introduced and could record a short video clip (if they wished) to explain their role. This would help patients know who they were seeing in consultations and hopefully encourage them to be more engaged.

Using social media such as closed Facebook groups for peer support, empowered the patient and allowed them to access non-medical support and information from others with the same condition.

Staff training and support

A number of the participants were planning to use video consultation for nurse meetings through the use of the tablet (using WhatsApp or Skype) as a way to increase participation, being more accessible and encouraging peer support. However due to the infrastructure not yet being available in the practice via the desktop (e.g. no access to a web cam or a microphone), the use of video consultation with patients was often met with resistance from the wider practice management team. Before establishing patient video consultations GPNs were discussing with the GP partners and practice managers to ensure they had the correct protocol and policies in place and the right medical indemnity cover. It was noted that video-consultation was great way to engage with specific cohorts of patients and could help to reduce DNAs. This would be easier to implement as the infrastructure was improved as part of the NHS long-term plan.

Using technology for the training of the workforce and ways that digital tools could be used to develop workplace opportunities was discussed in the second session. Examples included using video consultation for coaching and mentoring of new and existing staff, such as using for regular updates (it was noted that time to travel for a face to face meeting was often a barrier). Using digital tools to provide peer support via instant messaging, workplace groups, closed Facebook groups etc, alongside the education opportunities available through apps (which are updated and follow the most up to date guidelines.

An unexpected benefit of the introduction of digital tools was how it was helping to reduce the professional isolation of the nursing workforce – many nurses felt that they worked in SILO, not having time between patients to speak to other nurses, using TECS helped to connect them to other nurses and colleagues for peer support.

Themes shared by GPN participants nationally

All participants undertook an evaluation telephone call from the national programme manager and returned a completed Leading Change Adding Value (LCAV) report at the end of the course. The main themes emerging as outcomes of the course learning were the same as identified from Phase 1 participants: (1) improved patient engagement/ relationships; (2) improved communications; (3) patient and clinician empowerment; (4) improving clinical outcomes / increasing learning.

Patient empowerment

- Increased knowledge and control of their LTC(s) / adverse lifestyle habits resulting in patients taking increased responsibility as implementing digital tools provides them with more control. Improved self-awareness and self-management of condition(s) via self-education increases personal knowledge and control of their condition. Trusted apps allow patients to take a more central role in managing their condition, encouraging them to take more ownership and responsibility for their health condition and wellbeing.
- GPNs noted that patients feel they have improved support and accessibility to information – having a safe place to access the information that they require, when they require it. They can access advice at a time convenient to them – up to them to use as and when. Access to the TEC is easy and often presents information in an interesting and engaging format that is easy for the patient (or their family carer) to absorb.
- Improved engagement and communication between the patient and clinician – communication becomes two way.
- Patients often keen to be educated about their LTC – they respect and trust a referral to suitable TEC / digital tools.
- The majority of patients are often very receptive of using digital tools as they already use such modes in their daily lives.

Improved patient engagement / relationships

- Engagement and communication improved between clinicians and patients. Using TEC/digital tools to communicate information allowed clinicians to engage with cohorts of patients who were previously hard to reach and previously unable / unwilling to attend face to face appointments.
- There had been a positive improvement in patient relationships – the use of TEC aids consultations as it provided another tool for the patient to use in their self-care. It quickly becomes routine to discuss and use digital tools in consultations as they are easy to demonstrate and easy for the patient to take away and utilise.
- GPNs see the potential for a reduction in missed appointments by patients (some were already able to demonstrate this) as TEC could offer an alternative solutions to the traditional face to face appointment.
- Patients were often willing to involve their wider support network including family / carers which helped to improve their self-care and cascade the message wider.
- Demonstrations in consultations with the GPN or other clinician allowed patients to feel comfortable with various modes of digital tools available (particularly apps) and sharing animations gave patients something to focus on and learn from whilst the clinician was typing up their notes in the patient's medical records. Animations, sharing campaigns on practice public Facebook pages and introducing texting to patients have been successful by improving engagement with previously unreceptive cohorts of patients and/or their carers– often encouraging those who are usual DNAs to attend for appointments.

Improved communication
- Using TEC/digital tools to share and cascade information was reported as being more efficient than traditional mail drop / sharing information via leaflets in practice, as the promotion of best practice can reach a wider audience more quickly. In general, clinicians felt that the use of TEC for sharing health messages was less intrusive and more engaging and allowed them to target specific cohorts of patients when required. Public practice Facebook pages and texts allowed them to reach the wider population including hard to engage cohorts of patients and/or carers.
- TEC/digital tools are accessible for all and allows for effective and efficient information sharing in an interesting way – it is engaging, allows for two-way interactions in consultations, opens conversations and allows signposting to safe, up to date and reliable health information. All GPN participants noted that there was a need to 'move with the times' – technology is part of most people's daily life and the majority were happy to embrace that in their healthcare.

Improving clinical outcomes
- Safety - having protocols in place makes both the patient and the clinical team feel more comfortable.
- Clinicians were often nervous when commencing implementation of digital tools but surprisingly at ease once started.
- Wider practice team support is a necessity to keep the momentum going and to ensure succession planning for the future of primary care delivery.
- Missed appointments can be reduced - patients happy to communicate via text / online where appropriate and avoid unnecessary healthcare usage. Clinician and patient texting particularly useful to help reduce missed appointments. Sharing posts on Facebook about the number of missed appointments can be very informative – really pushing the issue home to patients.
- Improved health messaging via Facebook – closed groups and public practice pages.

All participants were asked to identify what they felt were the main benefits to clinicians and patients in introducing digital healthcare. The responses fell into five main themes, which were again the same as the participants in Phase one of the programme (1) improved communication and engagement with patients – often patients are confident to share the information with family and friends; (2) increased education and knowledge for patients (and clinicians) which enables patients to look after themselves / control their condition better and the reinforcement of the messages given in the consultation; (3) patient empowerment by giving the ownership / responsibility back to the patients, resulting in improved compliance; (4) increased accessibility resulting in improved relationships; and (5) safety -signposting the patients to accurate and secure trusted information, ensuring the patient can access this and is not obtaining incorrect information from unreliable sources.

As part of the final evaluation call, participants were asked if adopting digital tools had saved time for their GP practice and although it was noted that initially it had not saved any significant time (it actually took time to implement the new ways of working) all thought that it would save time in the future as it moved from the implementation phase and became more embedded in the practice for all team members.

GPN participants were asked what was the most important thing they had learnt from the ALS course, with the majority answering that awareness of what digital tools were readily and easily available for use in healthcare, and how they could be implemented to support patients to better self-care and manage their LTC(s) / adverse lifestyle habit(s) more efficiently. This was a key factor in changing perceptions of the adoption of TEC. All GPN participants highlighted the ease of implementing modes of digital technology in primary healthcare by using easily accessible

modes of technology that is already available and being used successfully, but just in a different way. Changing perceptions of not only patients but also other clinicians and practice team members.

All of the successful GPN participants were asked as the final question of the evaluation call 'knowing what you do now would you do it all again' and all answered with a resounding **YES!!**, with the majority saying that they would happily recommend any of their colleagues to undertake the ALS course if it was available in the future as they had gained such a lot of knowledge and confidence following their participation.

Following the completion of the course all GPN participants were confident that they could provide a consistent professional approach to TEC and digital tools by general practice (and other) nurses and clinicians across their local health economy.

Conclusions

The successful completion of GPN participants in the ALS encouraged the adoption and embedding of TEC/digital tools in general practice nursing and to deliver substantive cost, clinical and quality benefits. The ALS successfully demonstrated how the application of TEC/digital tools could promote health and wellbeing and prevent avoidable illness and support patients to adopt and access preventative interventions.

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