# Salford Primary Care Workforce Strategy: Contribution to a Safer Salford

Final Report

# Working in collaboration with:

NHS
Salford
**Clinical Commissioning Group**

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# Contents

# 1.  Executive Summary

This report presents an evaluation of the implementation of three new 'skill-mix' changes in Salford general practices, prepared in June 2018 by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care Greater Manchester (CLAHRC GM) on behalf of Salford Clinical Commissioning Group (CCG).

## 1.1.  Background

- In response to increasing workforce pressures in general practice a number of new 'non-medical' roles are being established in general practice to work alongside GPs with the aim of relieving pressure to cope better with demands on the service.
- Regionally, the Greater Manchester Health and Social Care Partnership (GMHSCP) workforce strategy supports such workforce re-design, and in Salford, the Primary Care (General Practice) Workforce Strategy is seeking to establish more multi-disciplinary general practice teams and has supported three new professional roles between 2017 and 2018: an Advanced Practitioner (AP) training pilot; a Physician Associate (PA) training pilot and the Neighbourhood Integrated Pharmacists in General Practice (NIPPS) service.
- This report presents findings from the evaluation of the three schemes in Salford by role.

## 1.2.  Methods

- The study took the form of a qualitative process evaluation to understand the way in which each of the three new roles was being established involving: a rapid scoping review of the literature on new non-medical roles; thematic analysis of semi-structured interviews/focus groups with 38 key individuals (comprising 9 service/training leads; 18 trainees/practitioners in post and 11 host GPs/practice managers from 9 practices across Salford) to identify organisational/operational issues faced in implementing the new roles and how issues were being addressed.
- The study was not an outcome or impact evaluation, and so does not assess the impact of these roles on health outcomes and patient experience, or the cost of implementing these roles.

## 1.3.  Findings: Advanced Practitioner (AP) Training Scheme

- The Salford pilot aimed to train a cohort of 14 multi-disciplinary AP trainees (from experienced nursing, physiotherapy and paramedic backgrounds) to work

'at the same level as a GP'. Jointly funded by HEE and Salford CCG, and co-ordinated, supported and employed at NHS Band 7 by Salford Health Matters (SHM), the trainees took up placements in a single practice for 1-2 years while they followed a 2-year MSc in Advanced Practice at the University of Salford.

- The main aim was perceived to be filling GP gaps with non-GP staff to serve the local population and help meet demand; an associated aim was to free up GP time for clinical/management activity.

- There was some perceived ambiguity about the nature of the AP role leading to a range of different comparators to describe it; APs worked differently in general practice due to variation in professional background and regulatory provisions.

- The main challenges in implementing the AP role identified were: adequate preparation for trainees to work in the general practice setting (in particular learning to manage risk appropriately and getting to grips with practice systems); professional boundaries/tensions with other staff and sometimes with patients; regulation via trainees' base professions which gave rise to differences in prescribing rights.

- Main enablers for implementation of the AP role were: energetic leadership with a locally recognised profile and credibility; time and effort dedicated to communication and engagement with both GPs and practice managers; 'pull' factors that encouraged practices to take part in the training scheme, including; a good prior experience with the AP role, well-organised and externally led professional indemnity paperwork, funding, longer-term 1-2 year placements allowing training in practice systems and conducive practice learning environments with sufficient GP mentoring time available.

- Some trainees had concerns about the sustainability of the scheme and employment opportunities post-qualification; however 12 of the cohort were retained as APs in Salford practices, one in another area of GM and one deferred for a year to finish the course at a later date. Growing interest in the scheme among practices was reported.

- Demonstrating impact of the training scheme/role was difficult; a measure of GP workload or workload change was lacking and practice systems were not set up to map activity over time, making changes challenging to demonstrate; rather than hard outcomes, 'soft' intelligence (such as having a general feel for patient and staff satisfaction) was cited as a way to gauge the impact of new role initiatives.

## 1.4.    Findings: Physician Associate (PA) Training Scheme

- PA trainees attended the University of Manchester for a 2-year postgraduate diploma in Physician Associate Studies. St Helens and Knowsley Teaching Hospitals NHS Trust employed trainees at NHS Band 6. Nine placements for PA trainees were offered in Salford general practices and Salford CCG paid

course fees. Salford Primary Care Together (SPCT) acted in a brokering role between the Trust, HEE and practices to introduce the scheme to potential placement sites. The majority of trainees had a science background though few had clinical experience; they rotated between primary/secondary care settings with 90 hours total in primary care comprising an 8-week placement in Year 1 and a 6-week placement in Year 2; each participating practice hosted a number of different students.

- The aim of the training scheme was perceived to be addressing the workforce crisis in the NHS (including releasing GP time), though some believed PAs may not be a full solution because they were not GPs.

- The PA role was the newest of all the roles and lacking clear definition/differentiation from other practice roles; there was some confusion about the role's purpose and scope leading to a range of comparators to describe it (some pejorative); it was suggested that this lack of clarity led practices to be wary of committing resources; anecdotally, PA trainees reported patient acceptance of the role to be high.

- Main challenges associated with the training pilot were: adequate preparation of PA trainees for the general practice setting, with little prior clinical experience and a relatively short training period; managing professional boundaries/ tensions with other practice staff; regulatory challenges, in particular a lack of prescribing rights and there were communication difficulties between training stakeholders.

- Key enablers for implementation were: adequate planning, co-ordination and supervision time; the involvement of GPs in the development and promotion of the PA role and; funding (for trainees and practices).

- Only one PA from the cohort qualifying in January 2018 was offered employed in one practice (from among nine placements); reluctance was explained by some as being due to ambiguous perceptions of the role and how it could fit into general practice as well as the absence of evidence of the role's impact.

- Showing impact of the PA role was reportedly challenging, because it lacked clear definition and proof-of-concept.

## 1.5.    Findings: Neighbourhood Integrated Practice Pharmacists in Salford (NIPPS)

- The Neighbourhood Integrated Practice Pharmacists in Salford (NIPPS) service was provided by Salford Royal NHS Foundation Trust (SRFT) in collaboration with SPCT; the offer was to provide GP practices with pharmacist cover at one pharmacist per 10,000 patient population (i.e. five sessions per week to practices with a list size ≥5,000 and three per week to those with <5,000); pharmacists were employed by SRFT and organised into neighbourhood teams with one Band 8a pharmacist leading a team of Band 7 pharmacists.

- The main aim of the NIPPS service was to improve medicines safety and prescribing quality across all practices in Salford in a standardised way and to help practices to achieve parts of the Salford Standard (a Locally Commissioned Service involving 32 standards across 10 domains that aims to reduce unwarranted variation in quality of care in general practice and improve health outcomes); 10 KPIs associated with NIPPS included saving practice staff time.
- Ambiguity about the NIPPS pharmacist role arose from uncertainties over key priorities of the provider organisation and practices' prior knowledge and experience of other pharmacist roles.
- Main challenges to implementation of the service were: lower than planned staffing levels; preparation and training for general practice with less experienced pharmacists in post to increase capacity; working at less than full complement across practices which affected continuity and completion of projects; balancing standardisation and individual practice needs; communication and engagement about the role to manage expectations of other staff and patients.
- Key enablers for implementation were: familiarisation with the nature and culture of general practice; work planning/priority-setting between the provider and practices; the spilt primary/secondary care nature of the role which helped to resolve interface issues; use of the SMASH tool to build relationships with practices.
- General practices were generally hopeful that the service would continue although pressure to prioritise cost-savings to make the service self-funding was identified and some were not relying on the continuation of the NIPPS service for clinical pharmacy input.
- The service operated towards a set of KPIs but it was acknowledged that measuring impact on GPs' time and quality were inherently challenging as pharmacists may dedicate more time to carrying out medicines reviews/ consultations than a GP would.

## 1.6. Discussion

- There were **important differences** between the roles in their design and delivery. Two roles (APs and PAs) were set up as pilots, while the Neighbourhood Integrated Practice Pharmacists in Salford (NIPPS) service is a fully commissioned service. The roles are at different stages of development and some are more recognised/embedded than others, therefore it is not possible to make direct comparisons (though there are a number of common issues). Three key headings summarise the learning from the respective experiences of each: *general issues*; *role-specific issues* and issues of *sustainability and measuring impact*.

### 1.6.1. General issues

- ***Ambiguity over role definition*** was encountered relating to all three roles in different ways. The PA role was the newest and least well-understood and met with some scepticism from other general practice staff. APs were more recognised but varied in their expertise and professional backgrounds. For PPs there was uncertainty about the primary focus of the NIPPS service with corresponding mismatches between expectations and service delivery and some inappropriate/ineffective utilisation.

- ***Preparation and training for general practice*** was also an issue for all three roles. APs were challenged to transition from secondary to primary care, with less protocol-driven working and institutional support available. PAs could be clinically inexperienced and it was felt that longer placements in one practice could help to develop more appropriate general practice skills. Some NIPPS pharmacists were less experienced in primary care and (while the role was regulated to allow prescribing rights) many were not yet qualified as independent prescribers, which impacted their ability to demonstrate value in this setting.

- ***Professional boundaries and tensions*** were reported, most acutely for PAs, reflecting in part the newness of this role in general practice. Some practice staff reportedly challenged the role's place in general practice, with trainees taking on tasks traditionally associated with nurses and/or GPs, reinforcing the uncertainty. For APs the professional boundary challenges were fewer, but some resistance from GPs was reported. Some tensions between directly-employed practice pharmacists and NIPPS pharmacists were reported, leading to a competing need to prove value. Reports of patients' views were limited but similar across roles with practitioners sensing some initial apprehension among patients about new roles.

- ***Communication and engagement*** with practices and patients was important for all three roles. PPs identified limited promotion of the NIPPs service among patients, leading to non-attendance and/or confusion over appointments. Discrepancies in practice expectations about the NIPPS service led to disappointment and confusion about staffing and time allocation in places. A gap between practice expectations and the capabilities of PA trainees was also reported and in this case a complex communication process between multiple parties compounded these challenges. There was a view that the PA pilot needed greater engagement with GPs, to ensure that the design of the role was suited to general practice, and that GPs could act as champions for the role. By contrast, effective communication and engagement was cited by several as a key enabler for the AP pilot, with extensive engagement work conducted by the AP leads with practice staff.

- ***Planning and coordination*** meetings with practices in the case of both the PPs and the APs were identified as valuable in embedding the roles, enabling discussion of practice priorities and better matching of practice with practitioner;

a longer lead-in time to align expectations and potential was identified as desirable to establish the PA role.

### 1.6.2. Role-specific issues:

- *Regulatory provisions regarding prescribing* presented challenges for APs and PAs. APs were regulated by their base profession with on-going variation in prescribing rights/qualification and PAs are currently not regulated and lacking rights to become prescribing qualified. This impacted on the autonomy of both roles and their perceived value to general practice.
- *Factors affecting practice involvement* in the AP and PA schemes included the financial offering for host practices (funded differently for each role) and trainees (e.g. for PAs the NW of England offered attractive salaries during training, encouraging students to relocate). Support with paperwork (e.g. indemnity and DBS checks) also enabled practice participation in the AP scheme.
- Three other challenges affected NIPPs only, largely arising from the design of the NIPPS service, where pharmacist cover in general practices is deployed on a neighbourhood basis, managed by the provider organisation. Recruitment challenges and consequent low *staffing levels* led to difficulties embedding work and building a routine. *Working across practices* brought transition costs in moving between practices with different systems and processes. *Balancing standardisation and practice need* was an on-going challenge.

### 1.6.3. Sustainability and measuring impact:

The perceived longer-term *sustainability* of the pilots/service varied. AP trainees had concerns about affordability of the role to general practices however 12 out of 14 had been employed in Salford, one elsewhere in GM and another deferred completion of training. In addition, high demand for future AP trainees was reported. By contrast, only one practice (from nine placements offered) had employed a PA, attributed mainly to uncertainty about their contribution and impact in general practice. Feedback from practice staff on the sustainability of the NIPPS service was largely positive; however practices faced the challenge of relying on service re-commissioning or directly employing their own PP.

*Demonstrating the impact* of all roles was a challenge due to limited reliable data available on GP workload. For PPs this related to the nature of their work and the limitations of routine data collected in general practice. For APs the focus on freeing GP time was hampered by the lack of reliable data on GP workload or workload change with only anecdotal evidence to suggest a sense of the impact of APs. Demonstrating evidence of impact also applied to PAs, however this challenge was further complicated by the particularly strong ambiguity surrounding the role. Measuring impact on patient experience and clinical outcomes would require a focused outcome evaluation.

# 2. Background and Context

## 2.1. Workforce transformation in general practice

In response to increasing workforce pressures in general practice, in particular a shortage of GPs/nurses set against an ageing patient population with increasingly complex needs, national workforce transformation plans are seeking to establish a number of new 'non-medical' roles to work alongside GPs[i.] This entails a greater degree of 'skill-mix' change (changing staff roles or the ways in which staff work) in general practice teams, usually designed to relieve pressure on general practice to cope better with demands on the service[ii.]

## 2.2. The evaluation of new non-medical roles in Salford and insights from the existing literature

Regionally, the Greater Manchester Health and Social Care Partnership (GMHSCP) workforce strategy supports such workforce re-design[iii,] and in Salford, the Primary Care (General Practice) Workforce Strategy[iv] is seeking to establish more multi-disciplinary general practice teams by supporting three new professional roles/ways of working (see Table 1).

*Table 1: New roles pilots/services in Salford*

| Pilot/service | Number of trainees/staff | Early adopter sites |
|---|---|---|
| Advanced Practitioner (AP) training pilot | 14 plus leads | 9 sites |
| Physician Associate (PA) training pilot | 9 plus lead | 7 sites |
| Practice Pharmacist (PP) commissioned service | 30 plus lead | All sites |

Salford CCG recognises that introducing new roles in general practice should be evidence-based with evaluation to help avoid unintended consequences, and has engaged the National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care Greater Manchester (NIHR CLAHRC GM), to conduct an evaluation of the implementation of new roles, running between 2017 and 2018. The aim is to identify and share learning in a timely manner.

As part of the evaluation, NIHR CLAHRC GM has undertaken a scoping review of the existing primary care skill-mix literature [v] , using a previously developed skill-mix classification framework[vi]. The framework classifies skill-mix into four role modifications, which may have different time/cost implications as well as challenges: *enhancement* (e.g. extension of a nurse's role); *substitution* (e.g. expansion of a new role into the medical field

to substitute partially for a GP); *delegation* e.g. transfer of tasks from a GP to another worker under supervision) and; *innovation* (e.g. a professional leading a new specialist clinic in general practice).

This report presents findings from the evaluation of the three schemes in Salford by role, using insights from the literature on each role for context.

## 2.3.    Evaluation Methods

We conducted a qualitative process evaluation to understand the way in which each of the three new roles was being established in Salford. Purposive and 'snowball' sampling enabled semi-structured interviews and focus groups with key individuals to identify organisational/operational issues faced in implementing the new roles and how issues were being addressed. Analysis of planning documents supplemented the analysis of interview/focus group data. A brief interview schedule can be found in Appendix 1. Interviews/focus groups were transcribed and anonymised, before being analysed thematically using NVivo software and applying a combination of pre-determined and emergent codes[vii].

## 2.4.    Participants

In total, 22 interviews and 2 focus groups were carried out with 38 individuals including service/training leads, trainees/practitioners in post and host GPs/practice managers from nine practices across the three schemes (see Table 2 for final study sample). Some individuals were interviewed about their experiences of more than one scheme.

*Table 2: Final study sample across all schemes*

| Participant Role | Number of participants |
| --- | --- |
| Service/training leads | 9 |
| Trainees/practitioners in post | 18 |
| Host GP practice staff | 11 |
| **Total** | **38** |

# 3. Evaluation of the Advanced Practitioner Training Scheme

## 3.1. Background and context

Advanced Practitioners (APs) are non-medical, registered professionals with advanced theoretical and clinical skills. In response to the lack of a national definition of the role and variation in training programmes, the combined Professional Bodies and Royal Colleges representing the Health workforce have recently published a multi-professional framework for advanced clinical practice in England to be implemented by 2020[viii]. However to date these professionals have largely been nurses with a Master's degree in advanced practice who continue to be registered with their base profession in the absence of a nationally regulated competence framework. Indeed the NIHR CLAHRC GM literature review[ix] could only identify existing studies on Advanced *Nurse* Practitioners (ANPs), who in primary care, have traditionally worked in enhanced roles, as substitutes for doctors, or a mixture of both. The literature on ANPs suggests broadly that appropriately qualified ANPs can deliver similar levels of care as doctors, as well as being acceptable to patients. However, use of ANPs may not relieve GP workload or reduce service utilisation/costs, at least in the short-term. Their impact depends on a range of organisational/operational issues such as: the scope and context of the role; matching the role with population needs and; actively managing the change to avoid unintended consequences (such as creating or increasing demand, or losing the cost-savings associated with a cheaper role as a result of reduced productivity). No peer-reviewed research could be found on the multi-professional AP role, which incorporates professionals from non-nursing backgrounds.

In Salford, the AP pilot specification[x] states that a quarter of the general practice workforce in the area is likely to retire in the next 10 years, and that recruiting new GPs has been challenging, with the risk that future GP numbers will be insufficient for population needs. One solution was to employ APs to provide frontline care in general practice to broaden the skill-mix. Through Salford Health Matters, HEE North West piloted the training of multi-professional APs (from nursing, physiotherapy and paramedic backgrounds), between June 2015 and June 2017. The Salford pilot aimed to train a cohort of APs 'ready to work in general practice in Salford at the same level as a GP'[xi].

Jointly funded by HEE and Salford CCG, and co-ordinated, supported and employed by Salford Health Matters (SHM) a community interest company, the aim of the pilot was to appoint (at NHS Band 7), 14 experienced, registered, multi-professional practitioners to follow a 2-year MSc in Advanced Practice. Competition for places was reportedly strong with approximately 140 applications for 14 posts. Successful candidates were extremely experienced clinicians who had previously worked in a range of NHS settings, the majority in acute sectors. It was anticipated that GP

practices in Salford would employ the qualified trainees at the end of the programme, though practices were not asked to give firm undertakings. Trainees were expected to develop in the role to:

- cover the same number/length of appointments and administrative tasks as GPs;
- make their own referrals to secondary care and other agencies;
- develop a specialist area of expertise in the same way as GPs;
- run baby clinics;
- follow patients through the full cycle of care;
- support GP registrars and medical students;
- take an active part in practice meetings;
- work beyond their paid hours in the same way as GPs.[xii]

Thus, APs in Salford were required to recognise and manage a range of clinical presentations, make differential diagnoses, understand and analyse the results of laboratory/diagnostic tests and take appropriate action, including referral. In line with national regulation, they were not permitted to sign sickness or death certificates.

Each AP trainee was expected to complete[xiii]:

- 1-2 days teaching at Salford University each week;
- four 6-month placements on rotation, at least one hosted by Salford Royal Foundation Trust in an appropriate secondary care setting (e.g. Accident and Emergency), and the remainder in general practice *'embracing federated working through the neighbourhoods'*;
- one 'in practice' training session per week (including a weekly mentoring session with a named GP) and;
- attendance at 1-2 seminars per month hosted by SHM.

## 3.2.   Findings

In total 17 individuals took part in interviews/focus groups about the AP training scheme (see Table 3 for breakdown).

*Table 3: Study sample for AP scheme[1]*

| Participant role | Number of participants |
| --- | --- |
| Training Leads | 3 |
| Trainees | 8 |
| Practice Managers | 4 |
| GPs | 2 |
| **Total** | **17** |

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[1] Note, some interviews covered a range of roles: specifically, the HEE Lead, Practice Managers and GP interviews

Interviews/focus groups highlighted a number of issues arising including key challenges and enablers affecting the implementation and operation of the AP role.

### 3.2.1. General issues

General issues raised included views about the aims of the pilot and ambiguous perceptions of the AP role from different stakeholders.

#### 3.2.1.1. Aims of the AP training scheme

Training Leads, trainees and practice staff were in broad agreement about the aim of the AP pilot in Salford – to fill GP gaps with non-GP staff to serve the local population and help meet demand:

> *"It's to replace, well, the non-existent GP workforce with experienced practitioners that are safe to be able to practice at that level." (AP Trainee 2)*

As well as filling GP vacancies however, bringing in APs to operate in patient-facing roles was seen by some to be a way of releasing existing GPs to focus on the business elements of general practice or enable them to 'let go' of front-line working to inhabit a more efficient 'GP consultant' role:

> *"I've actually taken a full time role five days and already I see my rota and it's quite full intense. So the GPs are already planning doing other things that they need to do as a business, because there's so much that goes on in the business, you know, they need time to be able to do that… they have consultant and APs running the A&E now and I think that is very much the model of primary care. The GPs are going to become the consultants with teams of APs underneath them, because it's a much cheaper and more efficient model." (AP Trainee 5)*

For some, then, these new roles were seen to be part of a more fundamental transformation of the organisation of general practice.

#### 3.2.1.2. AP role definition

There was some ambiguity about the nature of the AP role in general practice. Participants perceived that the role, at least in Salford, did not fit neatly into one form of skill-mix (i.e. enhancement, substitution, delegation or innovation) but involved a blend of categories. APs saw themselves as largely substituting for GPs, stating that they had developed the knowledge and skills to 'gate-keep' and make independent decisions:

> *"I think there was a very clear line where I was basically stopping what I was doing previously in my previous job and said, right, I need to seek the advice of the GP or I need to go get a prescription. And basically, all those barriers have been taken down – really quite, at times, terrifying." (AP Trainee 2)*

The pilot in Salford trained candidates with the aspiration to work 'like a GP'. However, regulatory provisions which prohibited the signing of sick notes/death certificates or the discharge of pregnant women and allowed for different levels of prescribing rights dependent on professional background challenged the ambition for trainees to be working in standardised ways. Trainees' depth of knowledge and training clearly differed significantly from those of qualified GPs but APs

(dependent on background and experience) were perceived by many to have the potential to work at the level of a GP with safety-netting in place:

> *"You can pretty much say [APs work like GPs] in the sense that they would see the majority of what a GP would see and what's most important as well is somebody being there when they have questions… but, yes you could argue that they would see the majority of what a GP would see." (GP1)*

The variation in AP trainees' professional backgrounds could mean that they worked differently from each other in general practice and differently from GPs with a more standard professional skillset:

> *"A physio will walk a different path through their career and a nurse will walk a very different path. So when we come to do a GP's job in advanced practice, now I've found that we've got big gaps. But also, like for me, for musculoskeletal, I know far more than the vast majority of doctors that I've come across but that's because of the path I've walked. So [GPs] have the advantage in they're good at everything, whereas we wouldn't miss things on our professional path." (AP Trainee 8)*

Trainees made reference to a sense of their own 'intuitive', 'compassionate' nature, explaining that in performing their AP role they felt they often took into account the wider context of a patient's circumstances while medical colleagues had a narrower clinical focus. While GPs were perceived to prioritise 'curing' alone, AP trainees reported that they applied a mix of 'caring' and 'curing' in carrying out their role, reflecting differences more generally between medical and nursing roles.

There was therefore some ambiguity in how the AP role was perceived among GPs, other practice staff and reportedly also by patients, leading to a range of different comparators used by participants to describe APs (e.g. 'like an F2/reg'; 'more than a nurse practitioner'; 'between a nurse and a GP').

### 3.2.2. Challenges

The main challenges in implementing the AP role identified were:

- trainees' preparation for the general practice setting;
- managing professional boundaries/tensions;
- regulatory provisions.

#### 3.2.2.1. Preparation and training of APs for general practice

A key challenge was preparing the trainees to work appropriately in general practice where the clinical setting was characterised by a higher level of uncertainty, pace and responsibility than many had previously faced:

> *"So the biggest change for me has been the scope of the patients that I'm seeing, the complexity of the patients… and the biggest change is actually going from a secondary care environment for the whole of my nursing career to primary care." (AP Trainee 1)*

Indeed, one practice had withdrawn from the AP scheme entirely, having been unable to dedicate the requisite time to support a trainee with no prior general practice experience in working to a safe standard:

> *"I can't help but feel that we have to take some responsibility in that. Because [Trainee AP] had come from a hospital background, there were these knowledge gaps and whilst we did our level best to accommodate that and underpin that knowledge, I don't know whether that was enough for somebody coming from a hospital environment". (Practice Manager 3)*

One of the greatest challenges here (for trainers and trainees alike), was to provide and assimilate adequate training in risk management. General practice was characterised by the constant need to make differential diagnoses, a distinctly different undertaking from how trainees operated in previous posts (particularly in hospital-based or acute settings) and one that required them to develop a more sophisticated level of judgement and autonomy:

> *"…what I found most difficult at the start was… I was used to, this is how we do things, we have set ways that we do things, there are set illnesses and we've seen it all before, we know what's coming through the door and this is how we treat it. And when I got to general practice, it was just, well, 'what do you think? Make your own decision'." (AP Trainee 1)*

While the Salford scheme emphasised a unique focus on risk management, some respondents were unconvinced that APs would be able handle the level of daily risk/uncertainty that general practice entailed:

> *"I think that across the NHS, there is a million ways of doing the AP role… and this is our version of primary care advanced practice. And I think that here, our APs are at the top of the tree… because we developed risk management." (AP Training Lead 1)*
>
> *"…generally as a rule, [APs] kind of come from a professional background which… it's much more protocol driven kind of working. So, for them to step out of that to… the risk taking that [GPs] have to live with and take, they are very risk averse… so they would have a much lower tendency to prescribe antibiotics or things like this, where you [as a GP] are thinking, I probably would have just said well, let's hang on." (GP3)*

In addition to managing risk, getting to grips with general practice systems without structured support was another challenge for trainees, as they could be tasked with negotiating practice systems on their own rather than through the planned/structured learning they were accustomed to in other settings. This was compounded if trainees moved between practices. Trainees agreed that they would have benefitted from having a better understanding of a GP's workload and their own role within the general practice setting before commencing on the programme:

> *"…[a potential trainee] needs like a lead-up before they start the course, to get used to the systems and the people, and the way of working. Because the course is intense on its own and having to learn a completely new job alongside doing advanced practice is too much." (AP Trainee 1)*

More broadly, there was also a view among trainees that the current university course modules were not sufficiently designed around primary care and that mentoring time with GPs should be more formally agreed in advance of taking up placements because experiences could be variable:

*"[GP mentors] are asked that they have designated an hour and a half or two hours whatever it is a week. That two hours should be negotiated straightaway and completely blocked out of the timetable, the system on the computer every week, not just ad hoc." (AP Trainee 7)*

### 3.2.2.2.  Professional boundaries and tensions for APs

While professional boundary issues are common in relation to skill-mix changes, some participants viewed the AP role as relatively well-known in the wider NHS and unlikely to involve such tensions:

*"[APs] have been around for a long time and they've become business as usual I think in a lot of respects for the majority of the system. So totally recognise that for primary care it's a new role which is being established within primary care and particularly when we're starting to see advanced practitioners that aren't of a nursing profession… whilst some people are a bit 'oh I'm not sure how that would work in practice' they recognise the profession and they understand what they can contribute, so there's a confidence there." (AP Training Lead 3)*

However, some trainees had encountered resistance from GP and nurse colleagues, particularly in practices previously unfamiliar with APs, who perceived at least initially that APs were encroaching upon their professional territory. APs often had to work hard to manage these tensions:

*"… maybe a little bit of human resistance to it, thinking 'you're taking our jobs' type thing. And that's what they said to me, you know, we're taking GP jobs." (AP Trainee 5)*

Interestingly AP trainees themselves were strongly ambivalent about another new role – the Physician Associate – which was running in parallel as a pilot in Salford. On one hand, the PA was seen to be lacking the autonomy of APs and best placed in secondary care, supporting the work of doctors:

*"PAs… haven't got the same level of autonomy as an AP. They cannot discharge someone without speaking to a senior clinician first, whereas the APs can… and that's the responsibility to take and that's what they're going to pay you for is taking that level of responsibility, whereas a physician associate cannot." (AP Trainee 2)*

On the other hand, some caution was expressed about dismissing the PA role in general practice without a trial, when the workforce in this setting was so depleted.

While AP Leads reported anecdotally that patient acceptance of trainees in practices had been smooth and satisfaction high, some trainees experienced a degree of resistance from patients, particularly in practices where the AP role was completely new:

*"I've had a few negative experiences where people have complained that they're seeing an AP instead of a GP because it's just something new to them. So when they come in, 'I am expecting to see a GP, why am I seeing an AP?', particularly a trainee as well. But it's not until they get to see you that they think, ah, this is not too bad. But before they get to see you, there's that resistance. (AP Trainee 5)*

### 3.2.2.3. Regulatory provisions affecting APs

APs are not yet regulated as a separate professional group and continue to be regulated via their base profession. This gives rise to (already known) differences in prescribing rights between nurses (traditionally able to become independent prescribers), paramedics (at the time of the pilot not permitted to prescribe at all)[2] and physiotherapists (whose prescribing rights were limited):

> *"The problem with paramedics or a big barrier is that we're unable to prescribe and unless legislation changes, it's the end game really." (AP Trainee 5)*

AP trainees and Training Leads felt that regulatory provisions in relation to prescribing needed to be standardised for all APs regardless of background, to ensure the success of the role in general practice.

Linked to the issue of regulation not being common across all APs, the training scheme was not recognised as a formal competence-based qualification despite having been mapped to the competences of both the advanced nurse practitioner and GP curricula. Trainees felt that a 'finish certificate' alone did not reflect their expertise or help with professional standing/credibility.

### 3.2.3. Enablers

Main enablers for implementation of the AP role were:
- leadership;
- communication and engagement
- other 'pull' factors that encouraged practices to take part in the training scheme.

### 3.2.3.1. Leadership

The Salford AP scheme had arisen as a proposal from innovative AP clinicians who prepared the bid to the CCG for pilot funds. They had long worked as APs in general practice and believed the role to be advantageous to the setting. Thus, the pilot benefited significantly from energetic leaders who understood the general practice environment, particularly the need to win the backing of practices on the ground.

A related enabling factor was that the leads already had sufficient profile and credibility locally to attract the attention of general practices for the new scheme:

> *"…they knew the level that we worked at… they were used to seeing us doing that GP representation… so we've got credibility in the area." (AP Training Lead 1)*

Reflecting on the pilot in its final months, the Leads emphasised that they had greatly underestimated the time and energy needed for its successful implementation. In addition to the effort involved in getting the pilot off the ground

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[2] From 1st April 2018 an amendment to the Human Medicines Regulations allows paramedics eligibility for independent prescriber training

and the financial resources required to employ and train the AP cohort, AP trainees had also needed a high level of on-going support from leads throughout their training to develop in a new and demanding role.

### 3.2.3.2. Communication and engagement

Being known and respected in the locality was not on its own sufficient to ensure that the AP initiative got off the ground and the leads carried out a high degree of engagement work with both GPs (to maximize the chances of the message being spread among GP colleagues) and practice managers (to help ensure that organisational arrangements for AP placements were well-planned). Moreover, time and effort were dedicated to careful matching of practice (even to the level of GP mentor 'style') with trainee, an endeavour that was made possible through the leads' in-depth knowledge of the locality and its workforce:

> *"So we've got practices that are in very challenging areas and we tried to put students into those areas who had already worked in challenging areas. It was quite difficult for our students at first because lots of them were not from primary care, so we had to immerse them and they had to learn a whole new sort of life skill. So we did try and put people with…we looked at their backgrounds, we looked at where they came from and we looked at what they had done before... and we also looked at the mentors' personalities." (AP Training Lead 1)*

Once AP trainees were in post, leads also incurred time engaging with front-line reception staff to enable AP time to be used efficiently. This included challenging staff attitudes and language around allocation of patients to APs as a 'fall back':

> *AP Training Lead 1: "We have to make sure [receptionists] don't say things like 'oh, I've not got a doctor'.*
> *AP Training Lead 2: 'A doctor's not available'.*
> *AP Training Lead 1: 'But you can see this one'. Yeah, we've had to stop that!"*

Trainees also reported that spending time and energy promoting their role to patients themselves had increased awareness and paid off:

> *"We made a poster… of ourselves and put leaflets around the waiting room for people to be able to read up about us, so that they knew what we could do. We had to explain we can do blood tests, we can send for referrals, we can do x-rays. We kept it really simple but it appeared to work." (AP Trainee 5)*

### 3.2.3.3. Factors affecting practice involvement in the AP training scheme

The decision to take an AP trainee was often based on practices having a previously positive experience of APs (or more usually ANPs):

> *"…because we had an ANP, the opportunity of having a trainee ANP as well, we had that insight, we had that advantage. We knew how they worked. We knew the benefits. We knew what they could, what they couldn't do in practice. So yes, we found that it would be a benefit to have a trainee ANP." (Practice Manager 1)*

Being funded to host a trainee for the duration of the scheme was an incentive as was the fact that the scheme (and associated paperwork such as DBS checks and indemnity for trainees) was well organised and led externally:

*"…you're getting paid for mentoring them… it's an asset to the surgery, plus looking at budgets and costings and things like that, yes, it's an income. It's a way of getting that extra income for the surgery as well… because… Practice 1… led on everything so they organised all the training, the prescribing courses, they organised all that… if we had to do that ourselves, I think it would have been… quite a strain, to be quite honest… whereas because it was done for us, it made it a lot easier." (Practice Manager 1)*

A further enabling factor was that practices were allocated an individual trainee for 1 or 2 years rather than on the basis of short rotational visits, so that they could be trained in practice systems over the long-term with the aspiration that they could bring added value to practices during their placement:

*"…the attractive part was that there would be an opportunity for them to work in general practice. You know, it wouldn't just be for a couple of months, but two years was a good enough attraction to make me feel that if I engage well I might have some benefit of them doing some useful work." (GP 1)*

The importance of a conducive learning environment with sufficient GP mentoring time made available and openness to integrating trainees was highlighted:

*"I already had an enabling environment in the sense that I already had medical students… I had books… and I was already comfortable with the idea of having to train people who don't know a lot of medicine, and my staff were already familiar with having to deal with trainees, especially seeking consent and letting people know that, because there are crucial issues. I feel that we were actually already used to that… but I also needed to make sure that I could physically afford the time… because, you know, I can only do it if I can do it well... I felt, you know, I had things already in place." (GP 1)*

### 3.2.4. Sustainability

The sustainability of APs in Salford primary care was questioned by some trainees as they approached the end of their course, being concerned that practices may host a trainee temporarily while supported by funding, but may not be prepared to offer jobs post-qualification:

*"I get on well with all the patients and all the staff and [the practice] really want me to stay but they can't afford me. Simple as that… and I've loved it and they've been brilliant, but I kind of get the feeling that I was a revenue stream." (AP Trainee 8)*

In the absence of a firm commitment from host practices as the end of the training course approached, the future employment for some trainees was at the time uncertain, but despite this, Leads anecdotally reported that interest among non-host practices in employing APs or participating in a future training scheme was spreading:

*AP Lead 1:* *"… practices who didn't have students have tried to poach.*
*AP lead 2:* *And we've been asked for students for next year, you know, practices are saying 'can we have a student next year?'"*

By the end of the course, trainees' concerns about lack of employment were not borne out. Leads reported that of the 14 in the cohort who started the course, 12 had been retained as APs in Salford practices and one had been employed in

another area of GM post-training. One had deferred for a year to finish the course at a later date.

### 3.2.5. Measuring impact

HEE viewed that the impact of AP roles (and of all new non-medical roles coming into general practice) should be felt and measured in three domains: cost, patient experience and health outcomes with a fourth area of staff experience/wellbeing recognised as important:

*"HEE are working to that triple aims framework and I think that the staff experience doesn't really fall within HEE's remit but doesn't really seem to fall anywhere. But I do think it's very important to actually achieve…and obviously improving patient outcomes is a big one. I think that people need to know the economic impact at a practice level as well as at a system level..." (AP Training Lead 3)*

How to operationalize such measurement and show impact was for training schemes or practices to determine however. AP Leads tasked with evaluating their training scheme were finding it challenging to know how to show concrete evidence of these types of effects. They were not evaluation specialists and had not set out with these particular outcomes in mind, but to help fill gaps in the GP workforce, with suitably trained APs. Their efforts to measure success of the training scheme had focused on 'Friends and Family' surveys and asking both trainees and mentors for feedback on experiences of training. Difficulties around showing any effect on meeting patient demand were also identified, since demand was seen as a moving target:

*"I think although there have been major changes [to the workforce] I think it will be hard for people to quantify, because the demand is always there. So you're never without the demand, it's never not busy. You don't know what it would have been like if you hadn't had those extra people." (AP Training Lead 1)*

Although some practices felt that APs had released GP time, there was no widely accepted measure of GP workload or workload change by which to measure such impact and practice systems were not set up to map activity over time, making changes challenging to demonstrate:

*"… the APs, take on two visits each in the morning, so it's relieved [GPs] of home visits… so instead of GPs getting two to three extra on top of the normal clinic, they may only get one. So our ANPs don't do any of the paperwork, so they see more of the patients and our GPs have more time now to do their paperwork. We could… do an appointment audit to see how many appointments we had prior to the ANPs starting… see how many extras the GPs were seeing then to how many they're seeing now… It would literally mean doing an appointment audit which could be actually counting the appointments by hand… so it would be a big job." (Practice Manager 2)*

Participants appealed more to a 'soft sense' of gauging the impact of new role initiatives rather than hard outcomes:

*"Initially, I think you go with your gut. You know when something is working. You know whether you're getting backlash from patients 'cause that is probably the hardest bit." (Practice Manager 3)*

## 3.3.    Summary

The main findings from the evaluation of the AP training scheme can be summarised as follows:

- the aim of the training scheme was to fill GP gaps with APs to serve the local population and help meet demand;
- there was some ambiguity about the nature of the AP role in general practice, leading to different interpretations of its scope and purpose within and across GP practices;
- main challenges in implementation were adequately preparing trainees for the general practice setting, management of professional boundaries/tensions and regulatory provisions;
- key enablers for implementation were: leadership, communication and engagement and aspects that encouraged practices to take part in the training scheme;
- most AP trainees had found employment in the area and anecdotally, interest in sustaining the scheme was reported to be high;
- operationalising/demonstrating hard impacts of the AP initiative, particularly releasing GP time was challenging due to limited data on general practice workload.

## 3.4.    Recommendations

Learning from the implementation of the AP training scheme has identified a number of recommendations as follows:

- *Address AP role ambiguity and role boundary issues*: Although it is recognised that a degree of role ambiguity and boundary issues will always exist in implementing a new role, addressing these issues can inform the wider re-design of services. Greater time and investment could help to clarify and communicate the scope and purpose of the AP role, particularly across the general practice workforce but also to patients. This has been done through the training leads and by the APs themselves, but support from a more systematic and centralised communication programme would help to reduce ambiguity. This would also help to reduce boundary issues when working alongside other professions, including GPs but also practice nurses and other specialised roles in general practice, and ensure APs are appropriately deployed within general practice.
- (Nb. A particular tension here is that the variation in foundational professional backgrounds makes it hard to standardise the role completely, and ignoring this previous professional background would obscure some particularly valuable professional expertise).
- *Training to enable AP practitioners' adaptation to general practice*: Adapting to the general practice/primary care context requires greater training for APs on the structure and function of this setting. In particular, this should pay attention

to clarifying the approach to risk and risk management and how this differs from secondary care.

- *Ensure appropriate leadership and administrative support for training schemes:* The success of the AP initiative relied on good leadership accompanied by effective relational work to communicate with general practice (by leads and by APs themselves) as well as robust administrative support for practices hosting trainees.

- *Work towards demonstrating impact of the AP role:* The initiative appears to show promise of sustainability, reflected in the positive experiences among practices and the perceived affordability of posts post-qualification. However, improved data on GP workload is necessary in order to effectively capture reliable evidence of impact on releasing GP time. A clinical audit of impact focusing on health outcomes may be more effective, alongside a survey of patient experience/satisfaction.

# 4. Evaluation of the Physician Associate Training Scheme

## 4.1. Background and context

The Physician Associate (PA) role is well established in the USA but relatively new to the UK with numbers growing[xiv]. The role is defined as *'a new healthcare professional who, while not a doctor, works to the medical model, with the attitudes, skills and knowledge base to deliver holistic care and treatment within the general medical and/or general practice team under defined levels of supervision'*[xv]. Most have a basic science degree before undergoing a two-year training programme based on the 'medical model'[xvi]. In the UK, PAs cannot independently prescribe/order x-rays and must carry out defined duties under supervision to support but not replace doctors[xvii]. These professionals may work in a variety of ways to provide care in general practice, but the general aim is to see patients with acute minor illness for same-day/urgent appointments[xviii]. The NIHR CLAHRC GM literature review found that from the limited UK evidence available, it seems PAs may provide safe and effective care that is acceptable to patients but compared to GP care, may not reduce service utilisation e.g. may generate activity in terms of return visits, tests/prescriptions ordered, and referrals[xix]. The PA role generally appears to be a form of role delegation, rather than substitution or enhancement because they cannot yet practice autonomously. In the UK, PAs have no statutory (only voluntary) registration[xx] and this, combined with a lack of prescribing rights, may impact on successful implementation in general practice. The 2012 National Competence and Curriculum Framework for the Physician Assistant states that the role is designed to 'supplement' the medical workforce to improve patient access[xxi] and while recognising that the role will play out differently in different settings, lists the core PA expected competencies as follows[xxii]:

- make differential diagnoses based on history-taking and physical examination;
- tailor management plans to individual patients and their carers;
- maintain a patient's management plan under supervision of a physician;
- perform diagnostic/therapeutic procedures and prescribe medication subject to necessary legislation[3]
- request/interpret diagnostics tests and provide patient education, counselling and health promotion.

This competency framework is used by the Faculty of Physician Associates which oversees and administers the running of the Physician Associate Managed Voluntary Register (PAMVR)[xxiii]. Addendums to the framework are expected to be produced in conjunction with the relevant Royal Colleges to guide the operation of the PA role in different settings, including primary care.

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[3] The framework is hopeful that PAs will be regulated and given prescribing rights in the near future

In January 2016, 160 PA students were recruited to a two-year training programme across three medical schools in North West England. Salford CCG made provision to pay the course fees of 10 such trainees, although ultimately nine were funded. St Helens and Knowsley Teaching Hospitals NHS Trust employed the nine trainees for their 2-year training at NHS Band 6[4]. Practices who agreed to host a PA received a flat fee of £3K over two years and trainees' indemnity costs were covered by HEE. Post-training, should an organisation wish to take on a PA from this cohort, HEE agreed to pay the first 6 months of salary. General practices in Salford offered nine PA placements across 5-7 sites. From October 2016, the GP federation in Salford – Salford Primary Care Together (SPCT) – inherited the PA pilot from the previously disbanded Salix Health and acted in a brokering role between the Trust, HEE and Salford general practices to introduce the scheme to potential placement sites.

The majority of PA trainees in Salford had a science background though few had clinical experience. They attended the University of Manchester to follow a postgraduate diploma in Physician Associate studies modelled on a 'condensed' MBChB (Bachelor of Medicine) programme. Trainees were expected to work a 40-hour week. In accordance with the Faculty of Physician Associates guidance trainees rotated between primary/secondary care settings with 90 hours total in primary care comprising an 8-week placement in Year 1 and a 6-week placement in Year 2. Students worked part-time at different practices during their placements, such that each participating practice hosted a number of different students.

## 4.2.    Findings

In total 12 individuals took part in interviews/focus groups about the PA training scheme (see Table 4 for breakdown).

*Table 4: Study sample for PA scheme[5]*

| Participant role | Number of participants |
|---|---|
| Training Leads | 4 |
| Trainees | 4 |
| Practice Managers | 2 |
| GPs | 2 |
| **Total** | **12** |

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[4] The 'employed while training' model was expensive and has been discontinued for cohorts starting 2017 onwards

[5] Note, some interviews covered a range of roles: specifically, the Training Leads, Practice Managers and GP interviews.

Interviews/focus groups highlighted a number of issues arising including key challenges and enablers affecting the implementation and operation of the PA role. The analysis below considers; general issues, challenges, enablers, issues affecting sustainability and potential measurable impacts of the role.

### 4.2.1. General issues

General issues included views about the aims of the PA pilot and ambiguous perceptions of the PA role from different stakeholders and patients.

#### 4.2.1.1. Aims of the PA training scheme

The perceived aim of the PA role was broadly to help address the workforce crisis in the NHS. While in primary care an associated aim was to release GP time, the wider goal was seen to be about bolstering the lack of doctors in the workforce with non-medical staff across settings:

> "[PAs] can see acute patients so it's going to take some of the workload off GPs… while we can see more of the long-term or new diagnoses… if you can't get doctors, you have to find something else." (GP 5)

> "…[PAs can] free up time for doctors to have the acutely ill and chronically ill… responsibly we have to provide some type of solution for something that we know is coming towards us like a steam train and we haven't got enough people training to be GPs to fill that, we equally haven't got enough people going into A&E… so our role is to provide a potential solution to something." (PA Training Lead 1)

Some respondents urged caution about the speed at which these expectations could be met, emphasising that PAs needed to learn on-the-job in general practice over time to be able to function optimally in this setting:

> "…some GPs in particular are looking for a solution that's pre-made, you know… it's not an instant solution, and I think some of them do want… a solution that's very immediate and we can't magic these doctors." (PA Training Lead 2)

For others however, PAs could never be a solution to filling gaps in the general practice workforce because they were not GPs and neither did they fall into the category of other established primary care roles:

> "…which niche are we trying to fill? I think the niche that…well, there's a few to be filling, was… the lack of numbers of GPs, and… you are not going to fill that with PAs. So that's wrong and not even a good starting point to go in… so each time I try and consider which niche they sit in, we've already got that group. The problem is we've just got a shortage of each of these groups, and… we are just trying to replicate something… trying to find people to slip into become that thing that they are." (GP 3)

The concern for some participants was that the creation of this previously unknown role would not address the current existing shortages that affected the whole general practice workforce.

#### 4.2.1.2. PA role definition

The PA role was the least well-defined of the new roles being introduced in Salford and the most ambiguous. Training leads viewed the role as an *'assistant*

*to the doctor'*, trained to the *'medical model'* (e.g. with a focus on anatomy, physiology and biochemistry common to the study of medicine). Training leads felt that GPs often did not understand the role and sought to promote trainees as medical students:

> *"We've encouraged the practices to treat them as medical students, because they are medical students… they're just studying a sub-set of medicine… they're not other professionals with a bit of medicine bolted on, they have a real core understanding of medicine, but across a limited number of sort of domains. So they don't have all the knowledge and skills of a doctor, but in the areas that they are competent, they have the same level of knowledge as a newly qualified medical graduate." (PA Training Lead 2)*

Trainees reported that some practices viewed the PA role as fitting better in a hospital setting and were unsure how to 'place' PAs in general practice:

> *"…number one, you're on placement, and number two, this is a new role, and they don't necessarily know much about the role, and you're trying to kind of promote it. And so, there were some initial challenges in terms of, you know, what do you actually do, what can you not do, and where do they mix?" (PA Trainee 2)*

PAs were described as a *'hard sell'* in primary care where *'confidence'* in the role had yet to be established *(Training Lead 3)* and this was borne out by some practice staff who identified a lack of clarity about the role's purpose and scope:

> *"I don't think there's a defined role as yet. No one really knows what a PA student is going to do when they qualify. (Practice Manager 5)*
> *"Even when you started it was – 'uhm what exactly do they do?' – 'cause nobody really knew, and to some extent some of it seemed like [organisers] were making it up as they went along – particularly – we were told [PAs] would be doing a prescribing course, but of course they can't prescribe because there's no body." (GP 5)*

There were also reports that obtaining professional indemnity was particularly challenging for PAs because the Medical Defence Union was unfamiliar with the role.

In the absence of a clearly defined PA role, some judged it more harshly, seeing PAs as making an unsubstantiated claim to the status of the GP:

> *"I think the expectation of what they are capable of achieving is unrealistic... and then you're suddenly going to ask somebody to be a diagnostician, and… doctors underestimate what it takes to be a diagnostician… what is the nub of a GP, and it is to take undifferentiated symptoms – with no protocol or templates to work from – to then put things together, which if you speak to junior GPs, it is a frightening experience... no way that someone at PA level… I just can't imagine how they could sit where I am, and do what I do – even start doing that." (GP3)*

There was also a more fundamental concern that the introduction of new non-medical roles such as PAs (who may not have the requisite diagnostic skills) risked blurring the definition of the GP role:

> *"I think that that is one of the deep skills of general practice that would be lost in kind of looking at widening the workforce. I do think that's a significant danger. It's something that you learn with years of experience." (PA Training Lead 4)*

The strong ambiguity with which the role was perceived was reflected in the wide range of comparators used by different stakeholders to describe PAs, some also revealing a hint of antipathy (e.g. 'like Sherlock and Watson'; 'like a Year 4/5 medical student'; 'like an F1 doctor'; 'much below an AP'; 'much below an F1/2'; 'like a nurse practitioner'; 'plastic medics'; 'mini doctors'; 'at the level of an HCA').

There were anecdotal reports that after some initial uncertainty about the role, patients were generally receptive to PAs. This was attributed mainly to the longer consultation time allocated which enabled patients more time to talk with PAs. Isolated incidents of patient resistance were reported:

> *"The PA currently has half hour appointments to see patients… she can go into all the aspects other than the actual diagnosis. That can be quite helpful particularly in older patients… for some reason [patients] feel they can open up to [PA] more." (GP 5)*
> *"We explain that [the PA] is new for primary care and it's something that's been through the university. We try and explain it's a little bit more like a medical student, so once they know that they're okay to see them. Some of them aren't. Some refuse to see them... just want to see the doctor." (Practice Manager 5)*

### 4.2.2. Challenges

The main challenges in implementing the PA role identified were:
- Insufficient trainee preparation for the general practice setting;
- Difficulties managing professional boundaries/tensions;
- Constraints owing to regulatory provisions;
- Communication difficulties.

#### 4.2.2.1. Preparation and training of PAs for general practice

A key challenge was preparing the trainees to work appropriately in general practice. Some were perceived to lack confidence, attributed in part to the relatively short diploma training period, which in turn could make practices themselves wary about hosting placements:

> *"One of the negative things that came out was that [practices] felt that it was a superficial level of training, so you scratched the surface and unfortunately, there wasn't that depth of kind of knowledge or experience. So I think they identified that as a reason for the lack of confidence in one individual, but a couple of the other practices said that, in effect, it was a lack of confidence on their side because they weren't sure how far that person would reasonably go." (PA Training Lead 4)*

> *"We've [had] some resistance [from GPs] and it's been on sort of a 'well in two years how can you possibly train them to do everything in primary care?' and that's a valid argument actually." (PA Training Lead 2)*

Practice staff reported a wide variation in the readiness of trainees for primary care, both in clinical knowledge and skills and in their basic awareness of how to talk to patients and deal with patient confidentiality:

> *"… the worst [trainee] – I was appalled… you don't forget how to take a blood pressure and how [trainee] had been signed off on it I don't know. I reported it… we had a mix of really good ones that we'd take on like a shot and some 'all right' ones." (GP 5)*

*"One of the PA students had mentioned to me… who's come from a nursing background, said that the PA students aren't taught about dignity and respect and about patient confidentiality. I kind of noticed that's a difference between medical students and PA students. It's a lack of knowledge." (Practice Manager 5)*

Some attributed the low levels of both knowledge and confidence among many of the cohort to a lack of general life experience and emphasised that the current training model needed to change, because short rotational placements could be disruptive and didn't serve either the practice or the trainee:

*"…they were sweeties, they were all little babies almost… we were very happy to look after them and do our best to train them, but we did feel that you can put too much strain on them… and maybe they came into the practice too soon. Maybe they shouldn't have come in for the first year… I think [the PA role] definitely has a place in general practice, but I think the training style was wrong, in that maybe had it been that we had them for the two years, or even for a year and we… could teach them and train them, and then they could do things… so it's such a short time and then you get the new person, it's a bit of a strain on the staff as well." (Practice Manager 6)*

Some trainees supported this view, reporting that they felt less prepared (even by the end of their course), to operate in the primary care setting, than to work in hospitals where they felt more supported by systems and colleagues:

PA Trainee 4: *That would be my main... at this stage, like, I wanted to be working in secondary care because, I don't feel comfortable enough being quite so independent [in general practice], straight out of medical school.*

PA Trainee 2: *Straight after, yeah. I echo the same sentiment about that.*

### 4.2.2.2. Professional boundaries and tensions for PAs

Boundary issues were identified between PAs and a range of staff both within and outside of primary care settings. In primary care, antagonism towards PAs from both GPs and practice nurses was reported:

*"I've stood in front of a practice nurses' forum where they were vehemently opposed to PAs; absolutely vehemently opposed. And I've stood in front of GP forums who are vehemently opposed to PAs. Because everybody seems to see them as a rival and I don't know where this is coming from." PA Training Lead 4)*

*"One particular GP is very against PAs because she feels their role is trying to pretend to be a doctor, where doctors are doctors, nurses are nurses and pharmacists are pharmacists, we each have our own particular skill set. A PA is trying to be something that they are not." (GP3)*

Trainees had experienced a range of reactions among practice staff during their placements (some welcoming and others resistant), although tensions were perceived by some to be less of an issue in primary care compared to hospital settings:

*"My practice nurses were a bit – 'why's [PA] coming in getting more than us… and she's not even a nurse?' So that was a bit tricky… they thought for some reason that just because we had [PA] we wouldn't continue their education – and it's not an either or." (GP 5)*

*"Not in primary care. You get [professional tensions] all the time in secondary care. I think there's a lot more egos, certainly with junior doctors, [than] in primary care." (PA Trainee 4)*

There were unclear boundaries between the operation of the PA role in general practice in comparison to other professional roles in that setting. Trainers construed PAs as having a broader scope of practice (than, for example, nurse practitioners), being confident to handle a broader range of pathologies and support nurses, whose knowledge was perceived to be more limited. The aspiration was that PAs would undertake a discrete range of clinical tasks in general practice (e.g. telephone triage, walk-ins, minor ailments, smears), however these overlapped with and were often undifferentiated from tasks carried out by other practice staff (nurses, nurse practitioners and APs). Indeed trainees presented themselves as similar to APs:

*"…the rest of the week was… a lot of sitting in with advanced nurse practitioners, which was by far the most useful thing I did, because they have a very similar role to us, in terms of knowing their limitations, reporting to the GP when necessary." (PA Trainee 3)*

One practice differentiated the 'acute' patient work done by PAs from the more 'routine' work of practice nurses:

*"[PAs] are doing more than the nurses because they're examining patients and making diagnoses and suggesting treatments, they can't prescribe at the moment… which is a bit tricky… but basically [nurses] do long-term conditions and new patient checks and ECGs – they're not doing what the PA does, they're doing routine stuff… practice nurses were never there to see acute patients." (GP 5)*

However PAs in this practice were still expected to be able to do all the routine tasks expected of a nurse as well (e.g. spirometry, peak flows, ECGs) 'where necessary' making the professional boundary indistinct.

While on placement in general practice, trainees were often allocated basic administrative or clinical tasks such as: filing/reception duties, patient clerking/data input, phlebotomy, blood pressure and asthma checks. Where trainees were already qualified clinicians, some practices allocated tasks commensurate with an individual's prior training and experience that facilitated service delivery:

*"The PA students we've got at the moment have a nursing background, so… they can do everything and anything, so it's really good for us because…they're doing a lot of nursing duties like taking blood, blood pressures, doing new patient checks, so that's taking the pressure off appointments for nurses, so that's very helpful." (Practice Manager 5)*

This was seen by trainers as the antithesis of what was needed during placements, where students were tasked with learning in a new professional role:

*"There are a couple of practices where the PAs were almost being used as nurse practitioners in their training, and we had to… kind of stamp that one out quite quickly… because… it was an employment model… a few people were perhaps trying to use them to deliver services, and particularly where they were nurses or pharmacists in a previous sort of education. (PA Training Lead 2)*

The blurred boundaries between the role of PA and the roles of other non-GP practice staff meant that it was challenging to specify their unique contribution to general practice. Patients, however, were anecdotally reported to be more receptive, or else less curious about the specific professional status of staff encountered:

> "…patients were really, really receptive… the second you go into the waiting room with a stethoscope on looking like you vaguely know what you're doing, they didn't really care. (PA Trainee 3)

### 4.2.2.3. Regulatory provisions affecting PAs

The current non-regulation of PAs together with a lack of prescribing rights were seen as keeping PAs 'capped' in general practice and were major barriers to their integration. This was seen to be less of an issue in settings where support systems were more robust:

> "Within the acute sector… that's manageable within what will be much bigger teams, but within primary care, doctors are saying 'well how does that work? I can't give them a cohort of patients they can't treat from end to end.' So the non-regulation is the huge stumbling block at the moment… they can't prescribe and until we get that regulation, we're always going to have that mountain to climb." (PA Training Lead 1)

Nonetheless, PA trainees were being taught pharmacology as part of their diploma, because trainers believed that regulation/prescribing rights would eventually be obtained.

### 4.2.2.4. Communication and engagement

PA trainees perceived that practices were sometimes not expecting them for placements and were unsure how to deploy them for the period of their stay. This was borne out by the accounts of practice staff who were often unclear about the number and timing of trainee placements expected, and some had been disappointed when expectations of what trainees could offer were also not met. There was a general feeling that communication about the scheme had been somewhat unclear:

> "I think a lot of people from this area… we were just really cross and just confused… 'well we don't understand this, we're expecting that. We're just trying to find out what is actually going to happen'… we were told they'll do flu clinics, they'll… be able to take a history and they would help the practice. Not at all – that didn't happen." (Practice Manager 6)

> "I think there was some misunderstanding earlier on of what we would be providing… some of the GPs were under the impression that they were getting fully qualified people rather than students." (PA Training Lead 2)

Practices also noted that no feedback about trainees had been requested and that contact with the agencies involved in the training scheme had been sporadic. It was recognised that the training model, which required three-way communication between the employing hospital Trust, HEE and the GP placement provider had been unwieldy:

*"There were tensions… in the model… normally the medical school will talk directly with the Trust… so it complicated the lines of reporting and things… which is again kind of a breakdown in communication with this sort of three-partner model." (PA Training Lead 2)*

Communication between the GP provider and practices as well as other agencies had also been challenging, partly due to the transition from one provider to another in the early phase of the scheme but also due to their 'introducer' role, meaning that co-ordinated oversight of the PAs in training had been minimal:

*"The oversight that we've had of [PAs] was actually initially quite difficult in the transition from the old organisation to the new…so as far as our involvement has been, it's been a very sort of hands-off approach… because it's very much a third party relationship… I think bottoming out… not just the financial modelling but the mentoring… to my knowledge [lead employer] don't have any direct contact with [PA trainees] in terms of their terms and conditions. So I don't know who does their performance reviews." (PA Training Lead 4)*

Feedback on trainees' intentions with regard to staying in general practice was also not communicated to the GP federation. Co-ordination of the scheme, communication between agencies and lines of reporting were therefore identified by different stakeholders as areas for improvement for further PA cohorts. Additionally, front line staff could forget the PA was available, resulting in under-use of PA time even when short-staffed. Practice managers/GPs thus identified the effort involved in changing staff attitudes and behaviours around deployment of the new role.

### 4.2.3. Enablers

Main enablers for implementation of the PA role were:
- Sufficient planning, co-ordination and supervision time;
- Appropriate funding;
- Engagement with GPs in development and promotion of the PA role; engaging front line staff in deployment of the role.

#### 4.2.3.1. Planning, co-ordination and supervision time

The PA training pilot had been set up rapidly in response to the policy drive for new non-medical roles and in particular to meet the HEE mandate of 1000 PAs in primary care by 2020. This had not been an ideal timescale and it was recognised that the integration of the role in general practice would have benefitted from adequate development time:

*"…in an ideal world, [the PA training pilot] would not have been set up in the ridiculously short timescales it was… so we almost had to come up with the product and then sell the product, where really we should have been maybe doing it the other way around or doing it at least… side by side, but… we had to do something and we had to do it quickly." (PA Training Lead 1)*

Practice staff reflected that in order to provide placements that were useful for PA trainees (and for practices themselves), adequate time was needed for planning and co-ordination of visits, alongside the day-to-day running of the practice. This

involved not only GPs having sufficient time to assess trainees' skillsets, set up clinics to match their capabilities and supervise their work, but it also required practice manager time to co-ordinate and timetable training activity:

> *"Different [staff] are responsible for [PA] every day… there is an impact in terms of supervision… because I'm seeing my patients and reviewing what she's doing and dishing out prescriptions [on behalf of PA] so there is a time impact." (GP 5)*

> *"So when [PA trainees] first come to us they spend quite a lot of time with the GP and go through their skill sets where she finds out what they can do and what they can offer us… so it was a matter of… getting to know what actually they could do for us, and then setting a few clinics up… there's a lot of time taken up planning. I tend to do all that… there is a lot of time taken out admin-wise to plan that in practice, because obviously we've got patients to see as well, and we've still got to run the practice. (Practice Manager 5)*

### 4.2.3.2.  Funding

Receiving a fee of £3K over two years to host trainees was an incentive for some practices to take part in the scheme. Likewise trainees, who had often given up other jobs to start the PA course, were particularly attracted by being salaried during training. Additionally, the funding model and level of salary offered in the North West's scheme was seen to be more attractive than schemes in other parts of the country and had encouraged students to relocate to study, often quite long distances:

> *"…most of us have left really good jobs to actually go down a level to be in training, whilst we're getting paid to do this… and I think, if it wasn't paid, we probably wouldn't do it, because we probably wouldn't be able to cope, because we were earning before this." (PA Trainee 1)*

> *"…the North West was by far the most attractive… there are different funding models across the country, but at the time, when we came in a few years ago, it was very attractive. (PA Trainee 3)*

### 4.2.3.3.  Engagement with GPs in development and promotion of the PA role

It had been challenging to recruit GP practices to host PA placements and there was recognition that GPs had not been sufficiently involved in the development of the role. A key enabler identified for the future was thus to engage GPs in shaping the PA role specifically for the general practice setting:

> *"I think the only way… is by bringing GPs on board and… asking them to help us develop the result... they do need to be involved in the development, because it's only them who truly knows what their role entails, where they can feel comfortable handing off patients, et cetera, and they are always responsible and that's a huge responsibility, so they've got to be comfy with the product they're getting." (PA Training Lead 1)*

Additionally it was felt that having GP champions to spread the word about PAs among other GP colleagues would assist in building confidence in and furthering acceptance of the role:

*"…what I think I needed as a project lead for this was some… champion GPs, consultants, whatever, because understandably, doctors believe doctors, don't they? So if one GP says to another 'actually these are really good and you want to try one' that's going to work a lot quicker than me going in saying 'do you want one of these?'" (PA Training Lead 1)*

### 4.2.4. Sustainability

The sustainability of PAs in Salford practices was questioned by some GPs who judged the role to be significantly over-priced for the perceived level of skill involved. The relatively high level of remuneration would deter some from investing in PAs unless pay could be substantially reduced. While not ruling out the continuation of PAs, there was recognition from others that not enough was known about PAs and their contribution to primary care to enable practices to make investment decisions:

*"What we're asking practices to do is to make a decision about a 33K a year member of staff… there really isn't enough information I don't think, for anyone to sort of say this is a really useful member of staff… there isn't enough information. They could be brilliant or they could be absolutely non-essential, and we don't know." (PA Training Lead 4)*

Of nine PA placements in Salford, only one general practice had employed a PA from the cohort qualifying in January 2018; the post-holder had not been on placement previously in the practice. The ambiguity surrounding PAs was a factor in practices not being confident to commit resources, however the low uptake of trainees was attributed to practices' lack of understanding of the role:

*"I think it goes back to that lack of understanding of how the role will fit in, this not being able to prescribe, us needing to do more work with them, but we almost needed to get to this point where we found out they weren't recruiting to know that, you know, it's a tipping point really isn't it? They've not come forward to recruit, there's obviously a lot more work to be done to get PAs into primary care." (PA Training Lead 1)*

A solution to encouraging the sustainability of PAs in general practice in Salford was to persuade practices to share the cost of a PA. However it was recognised that it would take time and effort to engage with GPs on this issue:

*"…three practices [could] employ a PA between them and they have a rotational basis, but these are the discussions we need to move forward with the doctors… that type of rotational shared PA would overcome some of the funding issues, because they'd be sharing… so no one person would have to find £40,000 worth of salary." (PA Training Lead 1)*

### 4.2.5. Measuring impact

HEE viewed the PA role as currently needing 'proof of concept' in general practice in order to encourage GPs to invest. Although there was no widely accepted measure of GP workload or workload change, the aspiration was that the impact of PAs would be felt in the domains of releasing GP time and increasing patient satisfaction and that these outcomes needed to be 'proven':

*"…at the end of the day, a GP practice is a small independent business, isn't it? So they're going to… look for a return on investment there, aren't they? So if we can prove the concept that having a PA will not only save you time, but enhance the experience for your patient, then, you know, that's for them to decide who they employ and how they run their business." (PA Training Lead 1)*

Some practices perceived that the PA was saving GP time by 'taking some of the acute patients off', however extra time was incurred in supervising the PA (GP 5) making net savings hard to gauge. It was generally not known how to operationalize the measurement of such outcomes in order to demonstrate impacts for PAs:

*"It's really difficult… that is exactly the kind of question that you're asked… where is this going to impact in the system because, basically, who's going to put their hands in their pockets once… whichever short-term stream of funding runs out? And those kinds of questions are almost impossible… I mean, you hope that… kind of the really quick impact type thing and people go, 'do you know what… we don't even need to finish the pilot here, this is fantastic!' It doesn't happen very often. But yeah, I don't think that applies for the PAs, I don't. You know, I think people are still going 'huh?'"* *(PA Training Lead 4)*

*"It's anecdotal – I am saying we're finding [PA] useful; but to actually quantify how many appointments she's… taking off [GPs] involves an awful lot of time that we haven't got. You could do some statistics like that but – who's going to do them?"* *(GP 5)*

Difficulties around showing impacts in relation to new roles in general were highlighted, but these were compounded for PAs because the role was at such an early stage in general practice and lacking evidence to indicate its benefit for practices.

# 4.3. Summary

The main findings from the evaluation of the PA training scheme can be summarised as follows:

- the aim of the training scheme was perceived broadly as helping to address the workforce crisis in the NHS (including releasing GP time), though some believed PAs were not the answer;
- the PA role in general practice was new and not yet clearly defined, leading to confusion about its purpose and scope, some antipathy towards the role and a corresponding reluctance to commit resources;
- anecdotally, PA trainees reported patient acceptance of the role to be high, though evidence is lacking;
- main challenges associated with the training pilot were: adequate preparation of PA trainees for the general practice setting, managing professional boundaries/tensions, regulatory provisions and communication difficulties (including an unwieldy training model);
- key enablers for implementation were: planning, co-ordination and supervision time, involvement of GPs in development and promotion of the PA role and funding;

- only one PA from the cohort qualifying in January 2018 was offered employed in one practice (from among nine placements). The low uptake was related to ambiguity about the role, a lack of understanding about how the role fitted into general practice and the absence of information about the role's impact;
- operationalizing/demonstrating impacts of the PA initiative was a challenge, because the role was at such an early stage in general practice, lacking clear definition and proof-of-concept.

## 4.4. Recommendations

Learning from the implementation of the PA scheme has identified several recommendations as follows:

- *Address PA role ambiguity and role boundary issues*: It is recognised that a degree of role ambiguity and boundary issues will always exist when implementing a new role, however addressing these issues can inform the wider re-design of services. This relies on clarifying the professional boundaries of the PA role and improving communication about the scope and purpose of the role, especially to practices with no previous experience of PAs. Foundational role definition work is on-going at a national level, and these promotional initiatives could be supplemented at a regional/local level (however it is worth noting that the challenges are greater here than for APs due to stronger scepticism in general practice about the PA role). More effective communication about the PA role (and its differentiation from other more familiar general practice roles) may help to prevent inappropriate deployment of trainees on placement and support their effective learning.
- *Enable effective training of PAs for general practice:* A number of suggestions were made about how training could be made more effective. These included specific suggestions about aspects the training should cover (e.g. consultation skills, respect when dealing with patients and patient confidentiality).
- *Ensure effective communication and engagement about the scheme*: Dialogue between the stakeholder organisations leading the PA training and practices could be improved, with clearer information about how the scheme would be organised, clearer channels of communication and more responsiveness from the multiple stakeholders during the placements. In addition, more realistic information about the abilities of PAs during training and the level of support needed from general practice was requested.
- *Improve planning and coordination of the scheme:* The effectiveness of the initiative was seen by many to rely on good (or better) planning and coordination, the attractiveness of the funding model, and buy-in from GPs in particular. Extending this programme would rely on retaining and building on these strengths and in particular, responding to preference for trainees to stay longer in one practice rather than being rotated on a short-term basis between practices.

- *Consider questions of sustainability and impact of the PA role*: There are question marks over the sustainability of the initiative as it stands, particularly given the financial cost of employing PAs compared to the evidence of their contribution, with suggestions that this risk would need to be shared over the initial years of PA employment in order for this to be attractive to practices. Issues over lack of data/measures on GP workload made evidence of the role's impact on releasing GP time hard to identify, however, greater clarity on the expected benefits for patients might enable a clinical audit of impact and an assessment of patient satisfaction/experience.

# 5. Evaluation of the Neighbourhood Integrated Practice Pharmacists in Salford (NIPPS) service

## 5.1. Background and context

Pharmacists have been working in general practices for over a decade providing a variety of medicines management related functions[xxiv]. Initially, roles tended to be non-patient-facing, for example conducting audits to improve safe prescribing and providing medicines information to clinicians. More recently, the role has expanded in scope, with a greater focus on medicines optimisation and patient-centred care. The role has also increased in scale as a result of initiatives to address GP workforce shortages, such as NHS England's Clinical Pharmacists in General Practice (CPGP) programme, which has committed £100 million to fund 1,500 clinical pharmacists by 2020/21[xxv]. In contrast to GPs, it is estimated that England will have an oversupply of 11,000-19,000 pharmacists by 2040[xxvi]. Training to become a pharmacist takes a minimum of five years, encompassing a four-year Master of Pharmacy degree and one year pre-registration experience in employment. No further training or qualification is required to work as a general practice pharmacist, although those in the role have or are encouraged to complete a postgraduate diploma related to clinical pharmacy and the independent prescriber (IP) qualification. Pharmacists employed through the NHS England CPGP programme are required to undertake an 18 month training pathway and IP qualification.

In England, the majority of practice pharmacists are either employed directly by practices, CCGs or through provider organisations. Practice pharmacists may be situated in back-office type roles undertaking non-patient-facing work (e.g. medicines reconciliation following discharge from hospital or transfer of care, management of the repeat prescribing process and desktop medication reviews without the patient present) or they may undertake patient-facing work (e.g. face-to-face medication reviews, running long-term condition clinic and domiciliary and care home visits)[xxvii]. The role may therefore aim to substitute for GPs or nurses on some tasks, and/or supplement the work of these professionals[xxviii][xxix]. The available evidence suggests that pharmacists working in general practices can improve chronic disease management for conditions such as cardiovascular disease and diabetes and improve the quality of prescribing and medication appropriateness[xxx]. Prescribing pharmacists have been shown to be an acceptable alternative to a GP for patients[xxxi] and some studies report high levels of patient satisfaction with practice pharmacist services[xxxii], although evidence is sparse. Cost-effectiveness has been demonstrated for cardiovascular disease management [xxxiii] and avoidance of medication error

(PINCER)[xxxiv], but other studies have demonstrated an increase in costs compared with usual care[xxxv].

In 2016, Salford CCG commissioned the Neighbourhood Integrated Practice Pharmacists in Salford (NIPPS) service, provided by Salford Royal NHS Foundation Trust (SRFT) in collaboration with the GP federation SPCT. NIPPS aims to provide GP practices with pharmacist cover at one pharmacist per 10,000 patient population (i.e. five sessions per week to practices with a list size ≥5,000 and three per week to those with <5,000). Salford comprises five neighbourhoods and the service is organised into neighbourhood teams. NIPPS pharmacists are employed by SRFT and each team is led by one Band 8a pharmacist, overseeing a group of Band 7 pharmacists who work with practices in that neighbourhood on a sessional basis; the overall service is led by one senior team lead. The NIPPS service aims to contribute to the achievement of the 'Salford Standard' for general practice[xxxvi], which was launched in April 2016 by Salford CCG. General practices are contracted by the CCG to provide the Standard as a Locally Commissioned Service, with payment incentives based on achievement of a series of Key Performance Indicators (KPIs). There are 32 standards, across 10 domains, aiming to reduce unwarranted variation in quality of care and improve health outcomes[xxxvii]. The NIPPS service focuses specifically on helping practices achieve the 'medicines optimisation' domain which contains standards on 1) medicines safety and 2) drug monitoring. The service also has specified KPIs which, along with the delivery of the medicines optimisation domain, include measures such as an increase in number of medicines reconciliations and medication reviews undertaken (see Table 5).

At the same time as NIPPS implementation, a number of practices in Salford also decided to employ practice pharmacists directly. This was achieved through Salford Standard funding, which practices receive incrementally over three years. Several practices in Salford utilised their up-front first year payment to invest in workforce in order to achieve the Standard.

*Table 5: NIPPS Service Key Performance Indicators (KPIs)*

| |
|---|
| Delivery of the medicines optimisation (medicines safety and drug monitoring) domains of the Salford Standard |
| Increase in no. of NIPPS medicines reconciliation undertaken over time |
| Increase in no. of NIPPS medication reviews undertaken over time |
| NIPPS review and evaluation of current repeat reauthorisation process within the practice against approved policy |
| Movement towards the Greater Manchester mean in prescribing area(s) where the practice is an outlier |
| Improvement on the medication safety measures included in the University of Manchester dashboard (SMASH) |
| Demonstrate drug cost savings/item reduction over time by NIPPS team |
| Demonstrate time saved for practice staff by NIPPS pharmacist |
| Capture of potential Significant Adverse Events avoided by NIPPS actions |
| Capture patient feedback on their experience of NIPPS pharmacists |

# 5.2. Findings

In total 16 individuals took part in interviews about the NIPPS service (see Table 6 for breakdown).

*Table 6: Study sample for NIPPS service[6]*

| Participant role | Number of participants |
|---|---|
| Service Leads | 3 |
| NIPPs Practice Pharmacists | 4 |
| Directly-Employed (DE) Practice Pharmacists | 2 |
| Practice Managers | 4 |
| GPs | 3 |
| **Total** | **16** |

Interviews highlighted a number of issues arising including key challenges and enablers affecting the implementation and operation of the NIPPS role.

### 5.2.1. General issues

General issues included views about the aims of the service and ambiguous perceptions of the NIPPS role from different stakeholders.

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[6] Note, some interviews covered a range of roles: specifically, the Practice Managers and GP interviews.

### 5.2.1.1. Aims of the NIPPS service

The overarching aim of the NIPPS service was to improve medicines safety and prescribing quality across all practices in Salford, in a standardised way. There was overall agreement that the primary aim was to contribute towards delivering the Salford Standard on medicines optimisation:

> *"It was linked to the Salford Standard which is our primary care quality contract... this commissioned service was to deliver the medicines optimisation areas of the Salford Standard… so instead of just incentivising practices we actually gave them a workforce to deliver the outcomes." (Service Lead 2)*

To address this, a programme of core work-streams had started to be developed, though several were yet to be decided and still in development at the time of interviews. Pro formas (standard operating procedures) for each work-stream were being developed to standardise work across the service:

> *"...[pro formas are] pretty much a fool proof way of making sure that somebody who then wants to go and do that work [stream] can do it in a reproducible manner." (NIPPS 1)*

Alongside delivery of these standardised work-streams, the NIPPS service also aimed to offer a degree of flexibility to individual practices to meet their needs. Practices were asked to pick from a list or *'menu'* of core roles (e.g. medication review, medicines reconciliation, drug information queries):

> *"There's a whole list of things there that a pharmacist could do fairly easily from day one... a list of things that are almost like a menu of options that practices can choose or prioritise from." (Service Lead 1)*

KPIs established for the NIPPS service (see Table 5) also suggest associated aims related to cost savings and item reduction as well as saving practice staff time. Whilst the latter KPI does not explicitly state that a reduction in practice staff time should be achieved, interviewees did consider saving time, particularly GPs' time, an aim:

> *"R:      So we do have activity KPIs for activity that has deflected activity from GPs…the service has been tasked to give evidence of what [time] it's actually saving because that's the key outcome as part of the business case was around...*
> *I1:      ...releasing GP time?*
> *R:      ...releasing GP time and reshaping the primary care team." (Service Lead 2)*

Some NIPPS pharmacists felt that there were too many concurrent work streams and on-going tasks for the service and expressed uncertainty about key priorities for the service as defined by the provider organisation:

> *"We often end up feeling like we've got loads of things running alongside each other and it hasn't really been agreed what the absolute priority is." (NIPPS 1)*

> *"I think it would have been better if when we started we had one or two work priorities and that is what everyone would be working on." (NIPPS 2)*

### 5.2.1.2. NIPPS role definition

While the practice pharmacist as a professional role was generally familiar to participants, issues around role ambiguity for the NIPPS pharmacists related to 1) GP and practice manager perceptions and expectations of the NIPPS pharmacist role shaped by experiences working with other non-NIPPS pharmacists, and 2) uncertainty over the key priorities of the provider organisation (as described in the section above).

As well as the NIPPS service, practices were receiving additional pharmacy input from CCG medicines management/prescribing support pharmacists [7] and a number of practices in the area had recently directly employed their own practice pharmacist; of the seven general practices participating in interviews about the NIPPS service, five had employed their own pharmacist(s). NIPPS pharmacists reported that some practices mistakenly aligned their role with that of a CCG pharmacist, initially:

> *"When we came into post a lot of the GPs were giving us CCG pharmacist tasks, they would be like 'can you look at this prescribing data?' Because historically they've only really had contact with pharmacists who've been employed by the CCG as medicines management pharmacists.... I'd be like 'that's not my role', and they'd be like 'well, what is your role because that's what pharmacists do?'" (NIPPS 1)*

The perceived lack of clear priorities and objectives set for the NIPPS service (as noted above) was said to be compounding the issue of role ambiguity, with some NIPPS pharmacists feeling uncertain and uncomfortable about refusing to conduct such work.

The NIPPS role was also felt to overlap with that of the directly-employed practice pharmacist, with the 'menu' of core roles provided to practices encompassing many of the same tasks. One practice manager expressed some frustration regarding anecdotal accounts that in practices without directly-employed pharmacists, NIPPS pharmacists were essentially performing this role, without cost to the practice:

> *"I do hear that [NIPPS] do [directly-employed pharmacist's] job elsewhere which is a bit frustrating for us because we're obviously paying a lot of money to have that done. But, yeah, we got in there quickly so we didn't know [NIPPS] was coming when we started it. Had we known we'd have waited probably. But I gather [NIPPS] do that job for other practices but not here." (Practice Manager 6)*

NIPPS pharmacists highlighted perceived advantages of the directly-employed pharmacist model over NIPPS, including greater integration into the practice team, greater permanency and work priorities driven by only one party – the practice. The disadvantage however, was perceived to be less support and authority, meaning that directly-employed pharmacists could end up being

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[7] CCG medicines management/prescribing support pharmacists are employed by CCGs and often work across practices. Roles tend to involve more back-office work such as conducting prescribing audits and offering prescribing advice to GPs

directed into administrative rather than clinical tasks by the practice. By the same token, NIPPS pharmacists reported feeling *"quite protected"* by the provider organisation who were *"directing our role to make sure [it is] clinical".* Thus, although it was felt that role ambiguity arose through a lack of clear direction for the service, there were also benefits for role protection through this set-up. The NIPPS GP Lead also explained that the provider organisation had worked with NIPPS pharmacists to support them with defining the role with practices:

> *"We did have stories of some practices saying, 'great, you're here, fantastic, there's today's re-auth[orisation]s, there's today's letters, off you go'. And that wasn't what we were wanting and we had to empower some pharmacists to say, 'no, that's not why I'm here'. And 'I'm very happy to help, but…'" (Service Lead 3)*

### 5.2.2. Challenges

The main challenges in implementing the NIPPS role identified were:
Staffing levels;

- Preparation for working in general practice;
- Working across practices;
- Balancing standardisation and practice needs;
- Communication and engagement about the role.

#### 5.2.2.1. Staffing levels

At the time of interviews, the NIPPS service was not operating at full staff capacity. Despite two waves of recruitment, staffing levels were still lower than planned and two of the five neighbourhoods were reported to be operating with only half the desired number of staff.

In the affected neighbourhoods, pharmacists reported trying to cover as many practices as possible in order to meet demand and expectations from practices. This had affected the level and type of work provided and its potential to address the NIPPS work-streams:

> *"If we're being seen at one GP practice they talk and they are saying 'where's our NIPPS pharmacists?' So we've tried to spread ourselves as wide as we can. So…I haven't really done a huge amount of the very specific work-stream work, but what we have done is started to do some medication review work." (NIPPS 1)*

> *"…that does have a knock on to what we can actually offer in terms of the type of roles and services that we do, because if you're not in a practice regularly throughout the week there's only certain types of functions that you can realistically do." (Service Lead 1)*

Services which required continuity and follow-up were seen as unfeasible, *"you can't leave a whole week before you follow something up, it's not that helpful to the practice" (Service Lead 1).* These effects had also being felt by practices. Initial plans to provide a regular medication review clinic for patients had been hindered at one GP practice in an affected neighbourhood, due to their NIPPS allocation being only a sporadic one afternoon a week. With additional

recruitment to NIPPS, there was hope that their allocation would increase, leading to more stable service provision:

> *"So because of the infrequency, it's been very hard to really embed a work programme and get into a good routine and stuff like that. We've just started giving medication reviews, but there's been a bit hit-and-miss about attendance and cancelling clinics which has not really gone down very well to be honest. But hopefully we have got a new NIPPS pharmacist starting off with five sessions a week, and so we are really thinking well, there's an opportunity of really to kind of get some nice routine regular activity going, predictable activity." (GP 3)*

### 5.2.2.2. Preparation and training for general practice

An additional impact of these recruitment issues included the necessity to recruit lesser experienced pharmacists to increase capacity. The first wave of NIPPS recruitment had included pharmacists with prior experience in clinical pharmacy and GP work. Those in the subsequent waves required additional training and mentorship and could not "*hit the ground running*" *(Service Lead 1)* in the same way. General practices had reportedly not been anticipating these additional support requirements:

> *"[this] can be a frustration to the GP practice because I know they have very high expectations of what [the NIPPS pharmacists would] be able to do from day one." (Service Lead 1)*

Furthermore, all Band 8a pharmacists (Neighbourhood Leads) were qualified independent prescribers, whereas the majority of Band 7 pharmacists recruited were not. Not being an independent prescriber was viewed as a challenge to releasing GP time and demonstrating value:

> *"I think to… kind of support GPs fully we need to be able to prescribe… at the moment I'm not a prescriber… so… if I'm doing any changes to the patient medication I need to discuss them with the doctors… because if the patient needs a prescription I won't be able to give a prescription… So, that is… for me, it's a big barrier." (NIPPS 4)*

Whilst the majority of Band 7 pharmacists recruited did possess a post-graduate diploma in clinical pharmacy, some interviewees felt that, for future recruitment waves, candidates without a diploma would need to be considered in order to achieve the required staffing levels.

The organisational culture of pharmacy was also considered to be an influence on the NIPPS pharmacists' readiness for general practice. Pharmacy was generally perceived to be more protocol driven then general practice, which was considered much more autonomous:

> *"…it's probably fair to say that the pharmacists and most working environments, pharmacists work in, are extremely structured, protocol driven, rules driven…I suspect it was a significant eye-opener…whether you'd say that was a good one or a bad one, about the relative chaos of general practice." (Service Lead 3)*

Working outside of the standardisation approach and the security this provided was reported to be challenging by some NIPPS pharmacists:

*"…me from a community background, - we're very much standard operating procedure base, so everything needs to be standardised. So when a GP would ask us to do a certain project on AF [Atrial Fibrillation]…and we don't have a structure, then it's really difficult…" (NIPPS 2)*

### 5.2.2.3.   Working across practices

Another challenge identified was difficulties working across several practices. The NIPPS service was designed to enable neighbourhood teams to cover several practices but, as described above, staffing levels had resulted in limited time being spent in each practice. This piecemeal style of working was said to affect continuity and make completion of projects challenging:

*"For me the big challenge is just delivering the work because… I'll do one morning with one team, an afternoon with other team…So, I will leave like the work I'm doing with one practice in the morning, I will leave it for the next time, and I'll start the other one." (NIPPS 4)*

A preference to work at just one practice was expressed by some NIPPS pharmacists. This was considered beneficial in terms of making long-term improvements, building a network of contacts and gaining credibility from practices. Additionally, working across practices was described as challenging due to the variation in systems and processes across practices, which pharmacists needed to familiarise themselves with, as well as differences in service need:

*"…the other thing that's a massive challenge for us, we've got 45 practices and that's 45 different systems and processes. And 45 different sets of teams. So some practices have a very large infrastructure of all different healthcare professionals and types and support staff. Others it's just a single GP and they can't even recruit a nurse. So what services or gaps they have are very different. So how they would like us to work are very different." (Service Lead 1)*

### 5.2.2.4.   Balancing standardisation and practice need

Balancing the standardisation approach of the service whilst also trying to contribute towards individual practice need was identified as a challenge by pharmacists, practices and providers:

*"…getting this balance between, you know, practices are independent, and also they make decisions for their patients on behalf of their patients and so on. And also, business decisions about how they're going to keep this and make this workable. While at the same time, of course the steer is, how do we raise the standard across the board? How do we get a common offering to patients? And balancing that out is actually quite – and that's mainly most of the work I think." (Service Lead 2)*

Some NIPPS pharmacists described a feeling of being pulled in different directions, as a result of three different agendas - from the CCGs, the provider organisation and general practice. Balancing these agendas needed to be handled *'sensitively'* (NIPPS 1), showing willingness to the practice in order to embed themselves whilst also still working to the aims of the service:

*"…in one particular practice that I work at there's been quite a bit of discord amongst the GPs, because they very much had a feel of what they thought they wanted us to*

*do and we've come with direction from the provider organisation. And when you're trying to embed somewhere you do not want to come in and be like 'we're coming in to do this and that's it'. But equally you've got to be very careful that you don't say yes to too many things because you've only got a certain amount of time to do the work. So that's been quite hard." (NIPPS 1)*

GP and practice manager hosts reported that they lacked influence over the direction of the NIPPS pharmacists' work, citing this as the main difference between the NIPPS model and directly-employed practice pharmacists:

*"…we haven't been able to influence their workload, I'll be honest with you, whereas the person working for us, we tell her exactly what we want to do, and she'll go and do it. So, that's a difference." (GP 2)*

Practice level differences were evident in relation to acceptance of and alignment with the NIPPS standardisation approach. Some NIPPS pharmacists had not experienced any tensions over work planning and attributed this to their practice's understanding of the NIPPS priorities and close links with the CCG, as well as good communication between all parties. Others reported resistance from practices to the standardisation agenda, which were, in some cases, attributed to different organisational cultures.

### 5.2.2.5.    Communication and engagement about the role

Another common challenge was the nature and/or lack of communication and engagement about the role of NIPPS. The initial management of practice expectations was considered to have generated problems. Expectations had reportedly been raised, without sufficient workforce and/or skill mix to deliver on promises:

*"What we'll be able to offer is not going to meet the expectations of many practices….I think maybe how it was articulated to practices wasn't done very well. It wasn't realistic. I think they were told they could do X, Y and Z from day one. Probably not realistic." (Service Lead 1)*

*"I think that the GPs might have overestimated what the pharmacists can do…they think that the pharmacists can just come in, fix it, do everything, do it as fast as they do." (Service Lead 3)*

The need for greater communication early-on to both patients and practice staff about the role was identified. There were some reports from NIPPS pharmacists about patients presenting themselves to the community pharmacy rather than the practice for NIPPS appointments or not attending due to a lack of understanding about the purpose of consultations. The importance of training reception staff to more effectively explain the purpose and importance of review appointments to patients was highlighted:

*"I very quickly realised the patient didn't understand why they were coming for a medication review because they never had one before...Had a few patients turning up at the local pharmacy instead of coming over to the GP practice. So really spending a lot of time, even training the reception staff to say look these are the key things that you need to say to the patients that I think will mean something to them." (NIPPS 1)*

It was also reported that some patients held the misconception that the purpose of the review was to stop their medication which caused them some initially concern and apprehension. Anecdotally however, the majority of patients were reported to appreciate the additional consultation time with the pharmacist:

> *"I think most of them, they like it and they kind of finally sit with someone that stays half an hour with them going through all the issues … they have the opportunity kind of to discuss issues that they have." (NIPPS 4)*

Some NIPPS pharmacists were critical of what they perceived to be a lack of promotion locally. They compared themselves to the NHS England 'clinical pharmacists in general practice' programme which they felt had received good PR:

> *"…if you asked someone about [the NHSE programme] they'd probably know about them, but with the NIPPS team, they'll be like 'NIPPS who?'" (NIPPS 2)*

As well as managing expectations and communication about the role, issues with communication between the provider organisation and general practices on a day-to-day basis were also identified. Practices reported facing difficulties planning work for the pharmacist when they were not made aware of the days they would be working at the practice. Similarly communication about new-starters on the programme was also said to be lacking:

> *"…neither of us have got a start date [for the second NIPPS pharmacist]. This is where we have problems, is communication, 'is somebody coming?'... 'Am I getting more hours?'...'What's happening?'" (Practice Manager 4)*

### 5.2.3. Enablers

The main enablers for implementation of the NIPPS role were reported to be:

- Familiarisation and planning;
- Working between primary and secondary care;
- The Salford Medication Safety Dashboard (SMASH) tool.

#### 5.2.3.1. Familiarisation and planning

As described above, adapting to the systems, processes and culture of general practice was described as challenging by some NIPPS pharmacists. It was felt that it was important to dedicate time to familiarisation with the nature of general practice, for those without this experience, before embarking fully on the work programme:

> *"…there's been a lot of time spent working out the systems within the surgery, working out relationships, working out who does what, who can help us with what." (NIPPS 1)*

An initial work planning meeting between the NIPPS pharmacist and the practice was also cited as an important enabler. One GP, from a practice without a directly-employed pharmacist, reported that this initial meeting had enabled both the practice and NIPPS pharmacist to come to a shared understanding about priorities and need. In contrast to the prioritisation of standardisation above practice need, discussed in the previous sections, this GP indicates that the

interaction was primarily focused on how the pharmacist could alleviate their workload and thus appears more akin to the directly-employed pharmacist model:

*"…initially she sat down with…a few of the partners…. asking us what she could do to help make our day better. I should probably put the patients first, but also improve patient care and patient safety when it comes to medication….it was well worth having that initial sit down meeting and then so all four of us are quite happy and we honestly wouldn't even think of what else could she do to improve things, it's just taken the pressure off." (GP 4)*

### 5.2.3.2.  Working between primary and secondary care

Several of the NIPPS pharmacists had split roles working half the week in hospital and the other half in general practice. Pharmacist, GP and provider interviewees felt that this split-sector working was advantageous for resolving interface issues effectively and efficiently. Pharmacists in these positions were said to bridge the gap between primary and secondary care, possessing a valuable understanding of both systems and a useful set of contacts from both sides, which was mutually beneficial for both sectors:

*"…It clearly helps the hospital and us work on interface issues. Means you've got somebody who fully understands how the system works in general practice and fully understands the hospital system and can see the problems that each other cause, or the benefits of doing things in a particular way...and they can test change as a result of that." (Service Lead 1)*

*"I think the pharmacists that do the joint posts have really benefitted from seeing both sides and take that knowledge back when they work in the hospital." (Service Lead 2)*

Utilising the NIPPS pharmacists' links and contacts at the hospital was also said to be saving GPs' time resolving queries:

*"[The NIPPS pharmacist]…has also been liaising with the hospital pharmacists when a patient's been discharged from hospital and that generally takes us a lot of time because we never have their bleep numbers… it takes forever to find the pharmacist who dispensed the patient from whatever ward, but she's already got the contacts. It takes her much less time." (GP 4)*

### 5.2.3.3.  SMASH

SMASH is a web application developed at The University of Manchester, based on the PINCER standard, which enables identification of patients potentially at risk from the medications they are prescribed. NIPPS pharmacists have been trained to use SMASH and some stated that use of the tool had helped to build relationships with practices. It was felt that SMASH provided an opportunity to demonstrate results and value to general practices relatively quickly and helped to contribute towards attainment of the Salford Standard:

*"…being new into practice we've been able to use that dashboard as a way of saying, 'this is a validated tool'…we've been able to go in and look at those patients and identify leads, how we can make potential interventions. …it's been a really good way of building relationships with the GPs." (NIPPS 1)*

### 5.2.4. Sustainability

The NIPPS service is recurrently funded by the CCG, which was viewed as an advantage by some, although there were suggestions that this could lead to pressure on the service to primarily focus on cost-saving in order to sustain the role:

> *"I think sometimes it's quite easy for [pharmacists] to make the financial savings in terms of drug costs to self-fund…The ideal and the goal for this team isn't really just about cost, it was very much about quality and reducing harm…we were told we weren't going to have to [record cost-savings] at the start, but coming from a CCG background myself I knew that was only a matter of time. And it was, it was about a week. Which is a shame really, because the time we spend recording and calculating cost is time we could be using with the patient." (Service Lead 1)*

Some participants were positive about the benefits of the service and were hopeful that it would continue, although they also acknowledged there was little evidence yet to validate this:

> *"I think it is sustainable. I think that they're a fantastic resource. I think they make a huge difference to our prescribing, the safety of our prescribing. I think that they are absolutely worth the investment. I think, certainly as a practice we would feel a huge loss." (Service Lead 4)*

> *"It's something you've got to be able to measure, what is the benefit and I'm not sure if they've got any hard and fast data yet, it might be too early…I think they're all valuable and you might get different viewpoints from other GPs, but it depends how closely they work with them and stuff really. But I think they're good and I hope they stay." (GP 2)*

> *"I think if we would be asked whether…it was a service we would like to keep I am sort of 99% sure all of us would say 'yes definitely…please can we keep her?' It's just honestly been so helpful…I can't see a slightly negative element in having her here, it's just been helpful. I haven't heard my partners sort of express dissatisfaction with the service at all." (GP 4)*

Other GPs were not convinced about the longevity of the NIPPS service and stated that practices could not solely rely on the service for clinical pharmacy input. A key difference between the NIPPs and the directly-employed pharmacist model was this sense of longevity. The NIPPS service was viewed as fairly transitory whereas the directly-employed model had a sense of permanency and was seen as a longer term workforce solution:

> *"So what we felt was that obviously the NIPPS pharmacists…we don't get a sense of longevity, this is not for life, these people are going to come and perhaps go." (GP 3)*

The GP lead for NIPPS suggested that the utilisation of pharmacy technicians, to take on some of the more administrative tasks, might make the service more sustainable in the future. She also explained that the service could be viewed as one that leaves a legacy change to systems and processes in practices, potentially not requiring the same degree of pharmacist input in the future.

### 5.2.5. Measuring impact

There was agreement across participants that measuring the impact of the activities linked to the NIPPs service KPIs was inherently difficult. For example, measuring

GP time saved was highlighted as a particularly difficult because pharmacists may (at least initially) dedicate more time to the activity than a GP would, however it was reported that associated time savings may accrue in the longer term:

> *"…one of our KPIs is to try and articulate what time we've saved, and that's really hard to do, because we know the GP will have spent ten minutes doing something [NIPPs] will spend half an hour doing. But we see that then as time saved further down the line because we're preventing potential problems. But how you articulate that is another thing." (Service Lead 1)*

> *"I am potentially sorting out five medication problems that will stop the patient coming in 20 times to see the GP, but how do you quantify that?" (NIPPS 1)*

> *"I think the other thing that we can't capture so much, is the quality. So I will do it in three minutes… because I'm so busy...But we're not doing the proactive work that we know we should be doing and we also know that actually, that generates more work for us further down the line… it might take the pharmacist ten or 15 minutes …doing it properly, which we know will save us time down the line." (Service Lead 3)*

Despite these difficulties measuring impact, the NIPPS pharmacists reported being acutely aware of the imperative to record their work to demonstrate value to the CCG. They also noted that despite recording their work they had not received any feedback regarding the value of their work. NIPPS pharmacists were not however alone in this, with the directly-employed pharmacists interviewed also reporting pressure to constantly record and measure their work in order to demonstrate value to their practice. There were suggestions that this pressure may have led to competition between directly-employed and NIPPS pharmacists to demonstrate the most value to the practice:

> *"…where [the NIPPS pharmacists are] going in, and they're having to prove their value, prove their worth, and it's almost become a bit of a clinical competing ground, as opposed to it being 'I can help you'" (PP DE 1)*

## 5.3.  Summary

The main findings from the evaluation of the NIPPS service can be summarised as follows:

- the main aim of the NIPPS service is to improve medicines safety and prescribing quality across all practices in Salford in a standardised way and to help practices to achieve parts of the Salford Standard; associated KPIs included saving practice staff time;
- there was some ambiguity about the NIPPS pharmacist role which reportedly stemmed from a lack of clear direction, poor management of practice expectations, and practices' familiarity with other pharmacist non-NIPPS roles;
- main challenges to implementation were: low staffing levels, preparation and training for general practice, working across practices, balancing standardisation and practice needs, and communication and engagement about the role with other staff and patients;
- key enablers for implementation were: familiarisation and planning, having a spilt role between primary and secondary care and the SMASH tool;

- general practices were hopeful that the service would continue although pressure to prioritise cost-savings to make the service self-funding was identified;
- The service operated towards a set of KPIs but it was acknowledged that measuring impact on GPs' time and quality were inherently challenging.

## 5.4. Recommendations

Learning from the implementation of the NIPPs service has identified several recommendations as follows:

- *Address PP role ambiguity and role boundary issues:* Role ambiguity for the neighbourhood PPs generally related to misunderstandings about the different aspects of pharmacist work, and indeed the different roles pharmacists play in general practice in the area. As for the other roles, role ambiguity could be addressed through careful communication aimed at differentiating the different pharmacist contributions and the specific contribution of the NIPPS PPs. Furthermore, clarity on these issues could help reception staff to communicate the PP role more effectively to patients and direct patients more appropriately
- *Support to enable PPs' adaptation to general practice*: Support is needed to help PPs adapt to the general practice setting, in particular the development of flexibility and independent risk-assessment which is demanded in this setting.
- *Clarity about accountability:* There was some ambiguity about the degree to which PPs were accountable directly to practices versus how far they should be governed by the standard goals of the NIPPS programme. Differences in roles between NIPPS PPs and directly-employed PPs explain some of the lack of clarity here. This requires clear communication and engagement with practices to clarify and differentiate PP responsibilities and to set expectations.
- *Appropriate staffing levels:* Achieving the right level of staffing has been a challenge, with implications for how work is organised and the confidence of the practices in the service provided. Strategic attention needs to be paid to the recruitment policy in light of competing offers for pharmacists elsewhere in the region and for directly-employed pharmacists.
- *Prescribing qualification:* A key issue for PPs is being prescribing qualified. While many felt this was essential for PPs to make a valued contribution to general practice, recruitment challenges meant this was difficult to deliver. A decision should be made about the importance of prescribing PPs in conjunction with a consideration of a realistic recruitment policy.
- *Formalise valued tacit knowledge:* The strong link the NIPPS programme forged between primary and secondary care was greatly valued and this tacit knowledge could be captured more formally in both general practice and the Trust.
- *Consider questions of sustainability and impact of the PP role:* The service was perceived as potentially sustainable, with clear appreciation of the value and contribution of NIPPS PPs among general practice staff, however clarity about whether the service continues to be CCG- or self-funded by practices needs to be

reached. Evidence of impact in terms of GP time saved faced the standard problem of poor data on GP workload, although a wider study of impact considering patient satisfaction and clinical outcomes should be feasible.

# 6. Discussion

Before comparing the findings on each of the roles, it is important to underline that the roles are at different stages of development and institutionalisation, both nationally and locally. Hence APs and PPs are more widely recognised and established in general practice than are PAs. Moreover, in Salford, two roles (APs and PAs) were set up as pilots, while the Neighbourhood Integrated Practice Pharmacists in Salford (NIPPS) service is a fully commissioned service.

These differences make it somewhat inappropriate to evaluate the roles comparatively. Nonetheless, bearing in mind the different stages of development, it is possible to learn from the respective experiences of each role. The next section of the report seeks to do this by reading across the roles under the three key headings: general issues, role-specific issues and sustainability and measuring impact (see Table 7).

*Table 7: Comparison of findings across roles*

| ADVANCED PRACTITIONERS | PHYSICIAN ASSOCIATES | PRACTICE PHARMACISTS |
|---|---|---|
| *General issues* | | |
| • Aims and role definition<br>• Preparation and training for general practice<br>• Professional boundaries and tensions<br>• Communication and engagement<br>• Planning and coordination | | |
| *Role-specific issues* | | |
| • Regulatory provisions | • Regulatory provisions | |
| • Factors affecting practice involvement | • Factors affecting practice involvement | |
| | | • Staffing levels |
| | | • Working across practices |
| | | • Balancing standardisation and practice need |

## 6.1. General Issues

*Aims and role definition*: Both the AP and PA schemes were described as initiatives primarily aimed at filling GP gaps and meeting patient demand with the broader aspiration of releasing GP time for other commitments, both clinical and managerial. The NIPPS service is specified somewhat more broadly, targeting improvements in

medicines safety and prescribing quality, alongside cost savings, but with a widely recognised associated aim of also saving GP time.

Precisely how the roles would deliver on these aims was less certain where there was ambiguity over role definition, and all three roles faced this problem to a greater or lesser degree. The PA role was least well understood generally, resulting in difficulty 'placing' it within general practice, and faced greatest scepticism from other general practice staff. APs occupied a more recognised position but still generated some ambiguous perceptions, due in part to internal variation of expertise among APs, leading to a variety of comparisons to describe them. While the PPs enjoyed wider recognition of their professional standing as pharmacists, misunderstandings about the primary focus of the NIPPS role arose due to practice staff experiences of working with other non-NIPPS practice pharmacists. While some initial adjustment and on-going flexibility could be seen as inevitable and perhaps necessary, role ambiguity here led to mismatches between expectations and service delivery. This in some cases, resulted in inappropriate or ineffective utilisation and frustration on the part of the practitioner and the host practice.

*Preparation and training for general practice:* All three roles faced challenges adapting to the general practice context. For the APs, this was often a question of transitioning from secondary care to primary care, where the level of immediate institutional support was lower than in a large hospital, and the system less protocol-driven, requiring more active risk management on the part of practitioners. For PAs, usually without experience of working in secondary care (and several without prior clinical experience at all), both of these issues were present, and more acute, but were accompanied by other new challenges such as being competent to deal confidently with patients with respect and consideration for confidentiality. It was felt by some practices hosting PAs that longer placements in one practice would enable trainees to develop these skills more effectively (as was the case for the APs where practices valued the prospect of being allocated a single trainee for 1-2 years). For NIPPS pharmacists, it was reported that the first wave of recruits had greater experience in primary care than later waves and many of the team were not yet qualified as independent prescribers, reducing their ability to release GP time. Adapting to a less standardised and protocol-driven organisational culture was also described as difficult for some pharmacists and the time required from practices to support pharmacists to increase their competencies and adapt to this context was reportedly unanticipated, generating frustration for some (as discussed below under *Communication and Engagement)*.

*Professional boundaries and tensions:* Some tensions were reported related to professional boundaries within general practice, and these reflected the degree of ambiguity over role definition described above. Hence this was felt most acutely by the PAs, with scepticism reported from both GPs and nurses – and expressed in the focus group conducted as part of this study. This reflected some uncertainty about where to 'place' PAs in a context typically occupied (broadly) by three roles – GP, nurse and

administrator – and could result in trainees being asked variously to take on tasks associated with each of these roles, reinforcing the uncertainty. The APs appeared to encounter fewer professional boundary challenges, beyond some initial resistance in places where it was felt that the AP was a threat to GP jobs. There was little discussion of inter-professional tensions relating to the NIPPS pharmacists beyond some initial misunderstandings of their role; however, the potential for intra-professional tensions between directly employed practice pharmacists and NIPPS pharmacists was cited in relation to a competing need to prove value and demonstrate impact.

Reported experiences with patients seemed to follow a similar pattern, with some limited reports from practitioners of patients initially apprehensive about seeing an AP, PA or PP in place of a GP; this was generally attributed to a lack of adequate promotion of the new roles among patient populations.

*Communications and engagement:* The issue of communicating and engaging with practices and patients was a critical one for all three roles. PPs identified limited promotion of the NIPPs service among patients, leading to non-attendance and/or confusion over appointments and a need to train reception staff to more effectively explain the purpose of the service to patients. Practice expectations about what the NIPPS service could deliver had also not been managed effectively from the outset, leading to initial disappointment and practice managers reported on-going communication issues with the provider regarding staffing and time allocations. Similar concerns were raised regarding the PA initiative; a gap between practice expectations and the capabilities of PA trainees on placement, as well as on-going communication difficulties affecting coordination and reporting procedures. In both cases, the complex communication process between multiple parties was mentioned: CCG/provider/ practices in the case of PPs and hospital trust/HEE/placement provider/practices in the case of the PAs.

By contrast, effective communication and engagement was cited by several as a key enabler for the AP pilot, with extensive engagement work conducted by the AP leads with both GPs and practice managers, drawing on their knowledge of the locality and individuals working in general practice there. Although the time required for this initial and on-going engagement and support was underestimated, this seemed to avoid major discrepancies in expectations in the case of APs. Similarly, it was felt by some that the PA pilot needed greater engagement, in particular with GPs, both to ensure that the design of the PA role was suited to general practice and, later, so that GPs could act as champions for the PA role over time.

*Planning and coordination:* In the case of both the PPs and the APs, initial planning and familiarisation meetings with practices were identified as particularly valuable in embedding the role, allowing a dialogue around practice needs and priorities and the specific experience and skillset of the new role practitioner. A longer lead-in time to

align expectations and potential was also identified as desirable to establish the PA role, a point which echoes the challenge about initial communications above.

## 6.2. Role-specific issues

In addition to these general issues, two other issues emerged relating to two roles only; the AP and PA role.

*Regulatory provisions:* The situation regarding regulation generated challenges for both the APs and the PAs, particularly regarding prescribing. As APs were regulated by their base profession and not as APs, there was on-going variation in prescribing rights/qualification which posed problems for planning and deployment. As the PAs are currently not regulated, they faced more significant challenges here, with the inability to prescribe at all being a particular impediment to their autonomy and value in a general practice context.

*Factors affecting practice involvement***:** The precise way in which each role was funded varied significantly, but the financial offering for both practices and practitioners was a key determinant of the effectiveness of implementation in the case of the PAs in particular. The offer in the NW of England of attractive salaries during PA training proved effective in encouraging students to relocate and the payment to practices for hosting both AP and PA trainees enticed several to make the substantial commitment to mentor a trainee. Support with paperwork, such as indemnity and DBS checks, was also cited as encouraging practice participation in the AP scheme.

Three other challenges were raised which related only to the PP role: *staffing levels*, *working across practices* and *balancing standardisation and practice need*. Each relates in part to the specific design of the NIPPS service, where pharmacist cover is deployed on a neighbourhood basis, with PPs employed by SRFT not by the practices directly and providing sessions in each practice. Difficulties staffing the service meant that PPs had encountered difficulty building a routine, following up issues promptly and thereby embedding a programme of work to fully deliver on the opportunity to improve prescribing and medicines management in their neighbourhoods. Even fully staffed, there were transition costs identified in moving continually between practices with different systems, processes and needs. Underpinning all of this was a common challenge in striking a balance between delivering consistently on the service agreement between CCG and provider organisation (in line with the Salford Standard) while at the same time being responsive to the specific needs of each practice, some of which expected greater flexibility and were less comfortable with standardised protocols. This broader challenge relates to the next issue, the question of communications and engagement.

## 6.3.    Sustainability and impact

The question of the longer-term sustainability of the pilots or service was addressed in the interviews, covering questions of affordability, willingness and also ability to retain practitioners. In the case of the APs, despite trainee concerns about affordability, it was reported that 12 out of 14 had been employed in Salford, one employed elsewhere in GM and another deferred completion of training. Furthermore, there were reports of demand for future trainees from other practices. By contrast, it was reported that only one practice (from nine placements offered) had employed a PA. The relatively high level of remuneration for PAs and the uncertainty about their contribution and impact in general practice were cited as reasons for low uptake. Suggestions were made about joint appointments of PA across practices to move beyond this limitation.

The question of sustainability for the NIPPS service was rather different as this is funded by the CCG, although feedback from GPs interviewed was largely positive about their contribution to general practice. More challenging for some was the choice between relying on a PP provided through the NIPPS service dependent on service re-commissioning or directly employing their own PP. That said, the challenge of proving impact was considerable, due to the nature of PP work and the limitations of routine data collected in general practice. Similarly, hard evidence of the impact of APs was not easy to establish, given the focus on freeing GP time and the lack of reliable data on GP workload or workload change. Anecdotal evidence was used instead to get a sense of the impact of APs, although the strongest evidence available appears to be the willingness of practices to recruit APs following training. While generating evidence of impact also applied to PAs, here this challenge was further complicated by particularly marked issues of role ambiguity and integration for this relatively unfamiliar role.

## 6.4.    Recommendations

Learning from the implementation of each skill-mix scheme in Salford captured and presented in the report sections relating to each of the three roles (AP, PA and PP) as a number of recommendations. While the roles were at different stages of recognition and 'embeddedness' in general practice, it is possible to identify some common points of learning across each scheme:

*Address role ambiguity and role boundary issues*: Although it is recognised that a degree of role ambiguity and boundary issues will always exist in implementing a new role, addressing these issues can inform the wider re-design of services. Defining and differentiating roles more clearly (by linking with national initiatives and investing greater time and focus in a more systematic and centralised communication programme) could help to communicate the scope and purpose of roles across the general practice workforce and patients. This could reduce ambiguity and boundary issues and may help to set more realistic expectations, prevent inappropriate

deployment of new roles trainees/practitioners and support their effective learning. There should also be clarity about accountability to avoid ambiguity about the degree to which new roles are accountable directly to practices versus how far they should be governed by the standard goals of any provider organisation.

*Improve training and preparation for general practice*: Adapting to the general practice/primary care context requires greater training for all new role trainees/practitioners on the structure and function of this setting including building flexibility into skillsets and managing risk. Training should cover not only clinical aspects but relational aspects too, particularly consultation skills. A decision should be taken about the importance of independent prescribing for new roles professionals and whether this is a key tenet of their value to general practice. This has consequences for better planning in relation to training (and in the cases of PAs and some AP professionals, also regulation).

*Ensure effective communication and engagement about schemes*: Dialogue between stakeholder organisations leading training and practices could be improved, with clearer information about how schemes are organised, clearer channels of communication and more accurate information about the capabilities of trainees/practitioners and the level of support needed from general practices.

*Improve planning and coordination of schemes:* The success of the AP initiative in particular relied on good leadership accompanied by effective relational work to coordinate training with practices, robust administrative support for host practices and longer placements that helped the role embed. Better planning and coordination, the attractiveness of the funding model, and buy-in from GPs in particular are strengths that could be retained and built on for other schemes.

*Consider questions of sustainability and impact*: The financial cost of employing new roles professionals against evidence of their value and contribution in general practice needs to be considered. Improved data on and measurement of GP workload is necessary in order to effectively capture reliable evidence of impact on releasing GP time. Clinical audits of the impact of new roles on health outcomes may be more effective, alongside a survey of patient experience/satisfaction.

# 7. Appendices

**Appendix 1: Interview/Focus Group Schedule**

Broad framework for interview/focus group schedule (to be adapted in line with the literature review and adjusted by participant type).

1. Describe the primary care service prior to this initiative, and the arrangements in place now through the new workforce service.
2. What is your role in delivering this change?
3. What is/was required to establish this new service in your locality?
4. What steps have been taken so far?
5. How have you communicated the changes to patients?
6. What challenges have been encountered (IT, IG, communications and engagement, workforce, finance, infrastructure)?
7. How have you tackled these challenges?
8. What do you expect will be the impact of this change in access (on patients, staff and other parts of the health and social care system)?
9. How would you measure 'success' in this change?
10. How sustainable are the changes made in your area?

# Endnotes

i NHS England (2016) *General Practice Forward View.* https://www.england.nhs.uk/wp-content/uploads/2016/04/gpfv.pdf.

ii Primary Care Workforce Commission (2015) *The future of general practice: Creating teams for tomorrow.* https://www.hee.nhs.uk/sites/default/files/documents/WES_The-future-of-primary-care.pdf.

iii Greater Manchester Health and Social Care Partnership (2017) *Workforce Strategy & 2017/18: Implementation Plan.* http://www.gmhsc.org.uk/assets/13-Workforce-Strategy-and-Implementation-Plan-SPB-28.07.2017-combined-FINAL-v1.0.pdf.

iv Salford CCG (2016) *The Primary Care (General Practice) Workforce Development Strategy.*

v Nelson PA, Martindale A-M, McBride A, Hodgson D (2017). *Salford Primary Care Workforce Strategy: Contribution to a Safer Salford Rapid Literature Review* NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC GM) https://www.clahrc-gm.nihr.ac.uk/media/File%20Manager/Salford-Workforce-Literature-Review-100517.pdf.

vi Sibbald B, Shen J, McBride A (2004) Changing the skill-mix of the healthcare workforce. *Journal of Health Services Research Policy 9:28-38*

vii King, N (2012) Using templates in the thematic analysis of text. In *Essential Guide to Qualitative Methods in Organizational Research* (Eds. C Cassell & G Symon)

viii Health Education England (2017) *Multi-professional framework for advanced clinical practice in England* https://www.hee.nhs.uk/our-work/advanced-clinical-practice/multi-professional-framework

ix Nelson PA, Martindale A-M, McBride A, Hodgson D (2017). *Salford Primary Care Workforce Strategy: Contribution to a Safer Salford Rapid Literature Review* NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC GM) https://www.clahrc-gm.nihr.ac.uk/media/File%20Manager/Salford-Workforce-Literature-Review-100517.pdf.

x Salford Health Matters (2015) *Fact Sheet: A Centre for Excellence for Advanced Nurse Practitioner Training in Primary Care*

xi Ibid p.1

xii Ibid p.2

xiii Ibid p.2

xiv Imison C, Castle-Clarke S, Watson R (2016). *Reshaping the workforce to deliver the care patients need. Research Report.* Nuffield Trust https://www.nuffieldtrust.org.uk/files/2017-01/reshaping-the-workforce-web-final.pdf.

xv Competence and Curriculum Framework for the Physician Assistant (2012) https://www.plymouth.ac.uk/uploads/production/document/path/10/10736/CCF-27-03-12-for-PAMVR.pdf p.2.

xvi Williams LE, Ritsema TS (2014). Satisfaction of doctors with the role of physician associates. *Clinical Medicine 14: 113-6.*

xvii Primary Care Workforce Commission (2015) *The future of general practice: Creating teams for tomorrow.* https://www.hee.nhs.uk/sites/default/files/documents/WES_The-future-of-primary-care.pdf.

xviii Drennan VM, Chattopadhyay K, Halter M et al. (2012) Physician assistants in English primary care teams: A survey. *Journal of Interprofessional Care 26: 416-8.*

xix Nelson PA, Martindale A-M, McBride A, Hodgson D (2017). *Salford Primary Care Workforce Strategy: Contribution to a Safer Salford Rapid Literature Review* NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC GM) https://www.clahrc-gm.nihr.ac.uk/media/File%20Manager/Salford-Workforce-Literature-Review-100517.pdf.

xx Competence and Curriculum Framework for the Physician Assistant (2012) https://www.plymouth.ac.uk/uploads/production/document/path/10/10736/CCF-27-03-12-for-PAMVR.pdf

xxi Ibid p. 2

xxii Ibid p.6

xxiii Physician Associate Managed Voluntary Register (PAMVR) http://www.fparcp.co.uk/employers/pamvr

xxiv Silcock J, Raynor DK, Petty D. (2004) The organisation and development of primary care pharmacy in the United Kingdom. *Health Policy. 67(2):207-14.*

xxv NHS England 2014). *Five Year Forward View.* https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf

xxvi Centre for Pharmacy Workforce Intelligence (2013). *A strategic review of the future pharmacist workforce.* https://www.gov.uk/government/publications/strategic-review-of-the-future-pharmacist-workforce.

xxvii Bradley F, Seston EM, Mannall C & Cutts C. (2018, in press) Evolution of the general practice pharmacist's role in England: a longitudinal study, *British Journal of General Practice.*

xxviii Laurant M, Harmsen M, Wollersheim H, Grol R, Faber M, Sibbald B (2009). The impact of non-physician clinicians: Do they improve the quality and cost-effectiveness of health care services? *Medical Care Research and Review 66(6):36S-89S.*

xxix Laurant M, Harmsen M, Faber M, Wollersheim H, Sibbald B, Grol R. (2010). *Revision of professional roles and quality improvement: a review of the evidence.* London: The Health Foundation.

xxx Tan EC, Stewart K, Elliott RA, George J. (2014) Pharmacist services provided in general practice clinics: a systematic review and meta-analysis. *Research in Social and Administrative Pharmacy. 10(4):608-22.*

xxxi Gerard K, Tinelli M, Latter S, Blenkinsopp A, Smith A. (2012) Valuing the Extended Role of Prescribing Pharmacist in General Practice: Results from a Discrete Choice Experiment. *Value in Health. 15(5):699-707.*

xxxii Tan EC, Stewart K, Elliott RA, George J. (2013) Stakeholder experiences with general practice pharmacist services: a qualitative study. *BMJ Open 3:e003214. doi:10.1136/bmjopen-2013- 003214*

xxxiii Polgreen LA, Han J, Carter BL, Ardery GP, Coffey CS, Chrischilles EA, James PA. (2015) Cost-Effectiveness of a Physician-Pharmacist Collaboration Intervention to Improve Blood Pressure Control. *Hypertension 66(6):1145-51.*

xxxiv Elliott RA, Putman KD, Franklin M, et al. (2014) Cost Effectiveness of a Pharmacist-Led Information Technology Intervention for Reducing Rates of Clinically Important Errors in Medicines Management in General Practices (PINCER). *Pharmacoeconomics 32(6):573-90.*

xxxv Neilson, AR, Bruhn, H, Bond, CM, Elliott, AM, Smith, BH, Hannaford, PC. (2015) Pharmacist-led management of chronic pain in primary care: costs and benefits in a pilot randomised controlled trial. *BMJ Open 5: e006874. doi: 10.1136/bmjopen-2014-00687.*

xxxvi Salford CCG (2018) *Salford Standard: Quality Standards for Primary Care.* http://www.salfordccg.nhs.uk/download.cfm?doc=docm93jijm4n7499.docx&ver=8415.

xxxvii Ibid.