







Final Interviews – WAST

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Background

One of the final aspects of the Advanced Paramedic Practitioner (APP) Pacesetter project was to undertake semi-structured interviews with a number of stakeholders from BCUHB and WAST, to examine a range of topics spanning the course of the project.

Phase I of the Pacesetter focused more on the Primary Care experience and outcomes (as the additional arm of the rotation), and these interviews were an opportunity to examine the project indepth from a WAST perspective.

Methods

The topic guide was developed and agreed with the project team to ensure it would incorporate the final objectives from the evaluation framework, and was undertaken within the remit of a service evaluation.

The questions and prompts also aligned with the topic guide for Primary Care stakeholder interviews and the process and content were agreed by BCUHB Information Governance department.

As the interview findings were contributing to a Masters by Research, a participant information sheet and consent form were prepared, and approved by Bangor University School of Health Sciences ethics committee.

Informed consent was obtained prior to starting the interview. Interviews took place between September and November 2021 over Microsoft Teams and were recorded and transcribed verbatim.

The participants comprised five senior members of staff from the organisation, two clinical and three non-clinical from across operational, clinical and management roles.

The transcripts were manually coded using NVivo software to manage to the data. Thematic analysis (Braun & Clarke, 2006) was used to guide analysis and reporting. The findings are presented here around some of the project landmarks, and topics which have been relevant to the Pacesetter, and a business as usual model beyond the project.

Results

Early planning and adapting to wider health service challenges

To provide some context, the first part of the interview explored some of the background variables which influenced the decision to develop a rotational model of working. The rationale centred on retention challenges for the ambulance services, who have been losing paramedics to other areas of the health economy, and not able to recruit sufficient numbers of staff to replace them.

"[name] ambulance trust ...had a real problem of losing paramedics... from the ambulance service...
we could only recruit about 40 paramedics a year but we were losing above 100 a year... the
ambulance service wasn't necessarily seeing the benefits of the kind of education and the support
they had been giving to those people over that period of time." Stakeholder 1

The ambulance service were losing some of their most experienced, highly qualified staff following significant investment in roles. This was partially attributed to role evolution in what is a relatively new profession compared with other healthcare roles.

"essentially, it was always the brightest and the best that were moving on... you tended to lose a lot of the people you were wanting to keep... The profession has matured now and has its own ownership... The profession is bigger than the ambulance service." Stakeholder 1

Some of the first paramedics who left to work in Primary Care, subsequently returned to the ambulance service, thought to be due to lack of support and understanding of the role. It was described as "naivety" on the part of both recruiting GPs and paramedics.

The rotational model was identified as an option which would offer benefits to paramedics, and support other parts of the health economy.

"Primary Care were seeing a huge turnover of those paramedics going, 'Whoa! This is not what I signed up to,' and wanting to come back. ... nobody wins in respect to that. ...there is an opportunity here for one of those rare examples where everybody can gain something... the ambulance service can get something from those paramedics... in terms of the level of support, leadership, and clinical improvement ... Primary Care can get a body, a well-educated, well-trained member of staff."

Stakeholder 1

In the development of a rotational model of working, consideration was given to some of the drivers in the wider health service which impact on the ambulance service.

"First, was the ageing population and demand that health and social care just wasn't set up or funded to manage. In future, there is expected to be increased crossover between the presentations in Primary Care and the ambulance service. There was concern that referring from ambulance into Primary Care without sufficient capacity could result in the ambulance service becoming Primary Care overspill". Stakeholder 2

"in recent years, because that baby boomer generation started to come of age and started to put pressure on the NHS, we are further and further stepping into the urgent unscheduled care space....we can't have is this scenario where we can do a bit of looking after these patients but then we have to refer them to Primary Care." Stakeholder 1

Another challenge was around GP recruitment. Utilising APPs appropriately was one potential solution to work differently and increase capacity, meaning patients get the most appropriate care without needing to call 999.

"there were areas of Wales—and North Wales was certainly one of them—where GP recruitment had been very difficult. Filling GP out-of-hours slots was very difficult....all this was contributing, then, to calls being pushed into the ambulance sector...If there was spare capacity and easy access in Primary Care, we'd get calls from people that we'd probably say, well, actually, what you need to do is to go straight to your Primary Care centre." Stakeholder 2

More specific to the role was the recognition that APPs have skills and expertise to treat patients at home where appropriate, which can potentially contribute to reduced conveyances, release pressure on the secondary care system and improve hospital flow.

"I think a lot of it has got to do with the impact of hospital delays, as well. You know, over time, they have worsened....it's not necessarily the best route for the patient, just to turn up on the ramp outside EDs each and every time....the less pressure we're putting on that wider unscheduled care system by turning up outside EDs, then the more time they've got to deal with what's happening in the middle of the system and getting patients out of the back door." Stakeholder 4

The existing collaborative relationship between health services in North Wales was central to developing the rotational model which would support Primary Care staffing difficulties, benefit WAST with the retention of experienced paramedics, and potentially improve the care provided to patients.

"We recognised that we had good local relationships, well-established with the local WAST workforce and Primary Care within that part of the world. ... And very, very quickly, that discussion kind of snowballed. [colleague] was aware of some monies that were available from Welsh government to support new pilots and initiatives...and then kind of blossomed into the Pacesetter bid." Stakeholder

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"we can be a bit more agile in Wales, but also ..we had some very good local leadership and good partnership working with BCU." Stakeholder 2

"if we can work together, ultimately, the patients and the system will benefit from that collaborative work.... we can give that professional leadership. We can also kind of balance the risks between the two organisations, and do the bits that they can't do, and they can do the bits we can't do."

Stakeholder 1

There was also acknowledgement that despite organisational boundaries, health services are caring for the same patient regardless of the setting where they are treated.

"Because BCU patients are our patients, whether it's WAST, whether it's BCU, whether it's Primary Care, secondary care. They are our patients, aren't they? And it's nice to see that collaboration."

Stakeholder 3

Role development and profile of APPs in the profession

Wales was the first Ambulance Service to develop the APP role. The role has since been deployed in other areas of the UK, where the workforce model is designed around local need. In North Wales, APPs have been seen as a key resources to manage patients differently and reduce conveyances to benefit the patient and ambulance service.

"advanced practice in Wales was principally around admission avoidance and keeping people safe closer to home...all those elderly, frail, older people with multiple comorbidities, very few of those benefit from a trip to the hospital. The majority will do better if they are managed at home....What we should be doing is going, 'Yep, ring us.our offer should be much broader, that we start to bring in different parts of the health economy, APPs being a big one of those, to say, 'Now, we're going to manage you differently.'" Stakeholder 1

Historically there had been a commitment to develop APPs, but a lack of structure or leadership meant the APPs were able to govern their own workload and performance, which affected job satisfaction and opportunities for development.

"It has changed massively from when I joined WAST. ... there had been very little leadership or governance put in place around it with directions on how to best deploy APPs. There was very little understanding ... around what the APPs were doing. They were very much allowed to self-select the work that they were doing, monitor their own performance.... we've got a much more rigorous governance and performance management around it now." Stakeholder 2

"the APP was going to, essentially, lower acuity calls that needed extra attention, and I guess they were feeling a little bit unfulfilled." Stakeholder 5

A staffing restructure was described as "transforming" the way APPs are used, particularly with a rotational model of working, and deployment into the CCC. Pacesetter was credited with having improved the APP role and identity within the profession.

"Pacesetter has really given it more of a-. I don't want to use the word 'purpose' because it's not more of a purpose. It's more of an... identity. Because, before, I think they had no identity....it's got more gravitas now ... it seems to be more of a privileged and educated role, now, with further opportunities than ever before." Stakeholder 5

This was explored in more detail with regards to the perception of the rotation and APP role from the broader WAST workforce. Covid-19 social distancing restrictions were thought to have limited the opportunities to engage with colleagues, but there has been increased enthusiasm for the role and interest in undertaking the Masters course.

"I haven't got evidence of it but, anecdotally, from the discussions, that is clearly happening... we do seem to be getting enthusiasm from other people to follow in that role..... Particularly, as we know, we've been talking with HEIW about increasing the funding for the paramedics to undertake the Masters course to enable them to reach the APP standard." Stakeholder 2

Elsewhere there was no formal dissemination, and it was considered the responsibility of staff to discuss best practice and share the APP learning from Primary Care.

"it's up to them to share it with crews, and staff, and management. It's, yeah, we've got a problem with this in the east, or in west we've got a real gap there, or we do this really well. We can share it."

Stakeholder 5

A proposed method was to broaden opportunity for learning was for APPs to spend time with regular and newly qualified paramedics.

"wouldn't it be good if we could get all our APPs to every month do at least one shift with another regular paramedic. ...Get the APPs out with some newly qualified paramedics so they haven't become quite as battle-hardened in the first couple of years. So, get them out with those people while they're still sponges and get them to start to absorb that thinking before they go in." Stakeholder 1

An area for focus in future may be around sharing learning, pathways and resources with non-clinical colleagues who would have less awareness of the wider APP role.

"they probably would be sharing some experiences, ...without identifying patients. ...they're such a close team. Very close team. But that element of rotation wouldn't impact [non clinical] team and the way that they would see or think about the APPs....they would just see them, maybe, today operationally, tomorrow they'll be in control. The day they would be in the surgery or in Primary Care, they wouldn't be aware of it." Stakeholder 3

Skills from Primary Care

APPs identified themselves as novice in Primary Care, but acquired additional clinical skills, became embedded in practice and a valued member of the clinical team. As a result, behaviour change, improvements to practice, and personal growth were recognised as some of the qualities that APPs transferred back to their WAST role.

"their ability to lead, and educate, and develop other paramedics at the same time, just simply by being a role model, I think, is,...really difficult to measure. Impossible to measure." Stakeholder 1

"If you just think about how much they are learning from Primary Care, that must be immense...just

enhanced their abilities, their role and provided them with a good platform. ... I also think they learnt a lot of enhanced skills whilst they were out on placements so that they could possibly do more for the patients that they were seeing, like suturing or medication prescribing... I have no doubt that the Pacesetter absolutely supported that." Stakeholder 3

Despite being difficult to capture or quantify, it was recognised that GP trust in APP practice had grown over time. This resulted in GPs being more accepting of paramedic calls and contributed to better relationships in the health economy.

"Particularly with the Pacesetter model, the trust between the APPs and colleagues in Primary Care...I appreciate it is sometimes difficult for a very busy general practice, and you're the on-call doctor, and you get a call saying there's a paramedic who's with somebody and they want to transfer the work back to you...But if you've got that trust in the competence and you know that you're going to get a good clinical handover, that sort of soft relationship improves the system. ...it's difficult to measure.

But it contributes to the overall outcomes, which we are measuring." Stakeholder 2

More broadly, there was thought to be increased trust in APPs from clinicians in the health board and Primary Care as their enhanced skillset was acknowledged by those outside WAST. It resulted in a shift of power, and they worked clinician-to-clinician rather than paramedic-to-clinician.

"I think there's a little bit more confidence in the approach that has been taken. Difficult to quantify that, of course... It's a clinician-to-clinician conversation ... rather than a paramedic to a senior clinician....Whilst they're recognised as healthcare professionals, I think the health board clinicians have kind of recognised that we've upped our game a little bit, and the quality of that clinician-to-clinician conversation has improved. So there's more trust, essentially. And as a result, we're prepared to manage the risks differently." Stakeholder 4

The supervision provided by GPs was praised as having contributed to APP development.

"I have to say that, in that, for the most part, they've been very well mentored by the GPs that they've been working with, as well." Stakeholder 2

APP Prescribing

Prescribing rights have been available to paramedics since 2018 but the data collection for this Pacesetter project indicated that opinions on prescribing are divided.

In favour of prescribing is the argument that a case can be dealt with by an APP in its entirety. It provides the patient with holistic, rounded care without the APP needing to consult colleagues.

"the more of the ability for our clinicians to close a job and not rely on another service to then do a bit to close that job... The better the care for us to manage these patients ourselves. ...at the moment, I think we are starting to skim the surface of that." Stakeholder 1

"it will enable the APPs to do is to close down more of those cases without any clinical referral, and handover, and the time delays about getting prescriptions.... as we get more stories coming back about how patients were able to be managed better, quicker, and in their own setting, then that will start to increase the awareness of the opportunities that prescribing does provide." Stakeholder 2

"There is huge potential because, at the moment, the demand is absolutely through the roof. And with the APPs, with their skillsets, they can leave patients at home safely." Stakeholder 3

From a patient perspective, feedback has indicated that it is a valued service and can support patients to stay at home.

"We've had lots of good feedback from patients with regards to when they have been responded to by a prescribing paramedic, to such an extent where you've got some people dialling 999 these days and going, 'oh, can you send me one of those APPs? Because they're great. They can do everything. I don't want to go to hospital'." Stakeholder 4

Over time, demands on the ambulance service and paramedics have changed. There is increasing similarity between presentations in Primary Care, and WAST, and clinicians should have equal access to prescribing.

"the patient mix of out of hours and ambulance service is increasingly narrowing...we look after the same kind of patients. We'd never think of running a GP out-of-hours service and not allow anybody to prescribe....the similarity between that and what our 999 stack looks like is remarkable."

Stakeholder 1

"We're almost building a virtual ward in our communities, aren't we? And the APPs and the prescribing paramedics just become another resource across the multi-agency to be able to support that virtual ward concept safely." Stakeholder 4

Less in favour of prescribing, was the case that APPs currently have access to a range of PGDs. In addition, as a relatively new skill for WAST, further work is needed to assess governance and operational effectiveness to justify increasing the number of APP prescribers.

"from an ops point of view, to me, does it make that much difference? Not really, because the high standard they've got anyway is their PGD is more than satisfactory to serve what we have got them doing at the minute....I can see how it works in Primary Care. But with WAST, that's where I think a lot of people are split. Because it's like, well, how is it going to work? And how can we regulate it for those who prescribe, and those who don't prescribe, and the PGDs? Is it getting too complicated?"

Stakeholder 5

"to a certain extent, the way that we use patient group directives does enable a considerable number of medications to be available. It's early days and we are collecting data. So, I wouldn't say that the case for prescribing is overwhelming at the moment, but it is starting to accumulate."

Stakeholder 2

Another concern was the cost to the organisation in terms of training, and pay uplift, and the need to evidence the value for money before investing further.

"Prescribing paramedics ... They come at quite a significant cost. So, if we're going to have lots and lots of them, we need to make sure that we're getting the most bang for our buck." Stakeholder 4

"I'm all for skilling people up as much as we can. But ... it always comes down to money... ... So, what "concerns me is the cost implications for not only training but the trust for that. I mean, I do like it. It does-. It is a new concept.... Do I think every person should have it? I don't think we could afford it... That's the gold standard... their PGDs, which are quite-... In comparison to years ago, are quite detailed in what they can do." Stakeholder 5

However, if prescribing was offered to limited numbers of staff, WAST may lose APPs who leave to pursue the training elsewhere.

"Paramedics may go elsewhere because of it. They may go to be employed GP practices, solely. And I

Clinical leadership and mentoring

As one of the pillars of advanced clinical practice, the interviews aimed to understand more about the leadership skills and responsibilities of the APPs. Reflecting on the rotation, the Primary Care aspect was perceived to have improved APP understanding of the wider urgent and primary system, and impact on their confidence to take on a leadership role.

"when you're in general practice, you're not only dealing with the acute front end but you're also going to be experiencing what happens when you need to get social care involved, when you're trying to get people back into their own homes with social care, packages...it then provides them with that sort of perspective that gives them the confidence, then, to take more of a leadership role on the wider discussion, rather than, perhaps, when they went into it, just focusing on the acute 999 perspective." Stakeholder 2

The APP role was seen as being well respected in the ambulance service, in terms of providing mentorship support and clinical advice.

"anecdotally, they've always been held in very high regard by the WAST workforce ... they've always been looked up to in terms of clinical mentorship and being available to the wider workforce to provide clinical advice and so on." Stakeholder 4

"they provide a good clinical leadership, and, ...point of contact... Say [CCC staff] has got two amber calls, both received at the same time, and it's like, so, which one should I do? If they're in doubt, normally the APP would say, 'Well, based on that, I would go to that one first'." Stakeholder 3

The value of both mentoring, and reverse mentoring for "seasoned staff" was also recognised.

Looking to the future, the early Cohorts of Pacesetter APPs will have a role to play in mentoring future Cohorts working on rotation or in Primary Care as the model moves towards business as usual.

"This first tranche that have gone through will be the ones that are confident in the future and mentoring the new ones coming through." Stakeholder 5

Work is also needed to establish boundaries in terms on clinical leadership since the recent introduction of the Specialist Paramedic role. At present there was thought to be crossover in aspects of the roles.

"I think there's a bit of a blurred line at the minute ... we need to define it quite quickly. Because the APP were the clinical leaders....but now you've got the SPs, who 70% of their job is clinical leadership...essentially, they are [both] well-skilled, highly trained, educated clinicians, but with very different purposes." Stakeholder 5

"APPs ... don't have their own teams where they have staff, didn't have any line management responsibility, they are still perceived to be senior clinicians within the organisation.... It has not really been an expectation of the APPs to step into that clinical leadership space, because the SPs [senior paramedic] deliver that. I think we may have missed an opportunity, though, because we're a long way away from having a sufficient number of SP." Stakeholder 4

Rotation practicalities

A key aim of the Pacesetter project had been to provide career development opportunities for staff, and prevent depletion of the ambulance service workforce. Feedback during the interviews indicated

that the rotation had met its intended aims, demonstrated benefits, and there was enthusiasm to roll it out to the wider workforce.

"let's build and expand upon that rotational model, because it really, really works. I think it works for the workforce because I don't think many of the APPs would want to work solely in Primary Care. The power of the green uniform is not to be underestimated." Stakeholder 4

"paramedics don't like leaving the ambulance service and it causes problems with the governance, the training, the CPD... the rotational model, with us retaining the contract but giving the paramedics the opportunity to work in different settings, I think, has enabled us to provide paramedics with more of a career opportunity while retaining our workforce numbers." Stakeholder 2

"I'd sooner have them all doing rotations in every single part, and I'm pushing for that as much as I can." Stakeholder 1

"I really like the rotational model because it splits up and grows their practice, and also educates them in the wider healthcare.I mean, as long as we still get our bite of the cherry, essentially, and we have been." Stakeholder 5

In terms of the optimum share of time spent between Primary Care and WAST, there was consensus that the split shouldn't be too prescriptive and instead guided by advice and APP preference.

"in terms of the mix of whether it's 50-50, or 60-40, or 70-30, whatever, I don't necessarily have a position at the moment. I'd probably have to bow to the advice of others in terms of that..., the one thing I have kind of come to is that small, frequent rotations is better than long, extended rotations."

Stakeholder 1

"if we're looking at this from a pan-Wales perspective, we could take a tailored approach to that based on how much APP capacity we've got within each locality.... I don't think we should be too prescriptive ...But probably no more than 50-50, probably." Stakeholder 4

"I think the ideal, optimum model for me would be that rotation. ... What does that look like? I don't know." Stakeholder 3

In addition, the frequency of shifts in each area was highlighted as being important to prevent skill decay.

"the level of skills they gain by having that rotation, eventually they'd lose that and then potentially revert back just to being how they were before, just good paramedics, as opposed to being paramedics that were different." Stakeholder 1

"I think the frequency is good because they have to be competent everywhere, haven't they? ... our life in the control room changes just like that ...it's important that they rotate through at a nice, steady pace, without too much of a gap, because that gap would cause skill erosion and we'd be back to square one, having to retrain them and remind them about the telephony, the card, and the systems." Stakeholder 3

"you have to be doing it to stay current....they need to keep that to keep their skills in what their main role is. And yeah, maybe if they came to work in Primary Care and they were just in Primary Care, then we might de-skill them a little bit." Stakeholder 2

The local success of the model has led to the development of rotational models in other parts of Wales, where it has been adapted to support local need.

"we have used the evidence from Pacesetter to establish APP rotational work in other health boards.

And so, we've got them supporting managed practices, ... They're supporting the GP out-of-hours

... would probably have collapsed entirely without it. We've got them in specific clinical areas in

Swansea. Cardiff are talking about putting them in, as well. So, the news has got out, and we are

seeing a more and more receptive base for this." Stakeholder 2

Thinking differently and behaviour change

The rotation into Primary Care and spending time immersed in the surgery environment was thought to have been the most significant influence on the change in the way APPs think and practice as clinicians. It has resulted in a new mind-set, and changes to the way they manage patients for example 'watch and wait' and improved risk perception.

"I think general practice, ... is an area where you do have to think differently...But the whole of the practice works as a team with you as part of it." Stakeholder 2

"you talk to the guys and girls that have worked in rotation on Primary Care, the mind-set is, 'Well, it's probably. Let's see how you go on.'...And they get that from working in Primary Care because that's how Primary Care thinks....Completely different mind-set that you simply don't get with your traditional paramedics. So, the bit they get in there... You couldn't say, ... They've passed this exam.' It's just from being in that environment ...The education is a foundation. The mind-set, and the thinking, and the way they conduct their business is the real benefit that they get there." Stakeholder

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The Primary Care rotation was perceived to set the Pacesetter APPs apart from other APPs in the WAST workforce.

"we have APPs in other parts of WAST. And whilst they are better than your average paramedic at keeping people out of hospital, their mind set compared to the ones in rotational models is different again. The APPs that don't do rotation are just better paramedics, whereas the more rounded clinician works in that rotation model." Stakeholder 1

As individuals, the APPs were thought to have grown professionally. Working outside of their comfort zone had resulted in improved confidence and working as better clinicians.

"it's like they've grown up. Yeah, they've grown up and out. They've literally grown up because they'd been exposed. And the reason why they feel uncomfortable is because they're not doing what they've always done and questioning themselves. That's good because then that makes them more confident when they do achieve it. So for me, that's great." Stakeholder 5

Furthermore, the change in thinking and practice is expected to be seen as the APPs progress in their careers, giving them unique skills and knowledge not seen in other senior staff and clinicians.

"in an ambulance service, I will never be able to get that mind set from the leadership structure.

Because essentially, our clinical leadership structure is more paramedics. So, unless those paramedics have spent time in Primary Care and got that mind set, then they won't have that leadership to say, 'Have you thought about this?' It's a completely different thing that they'll only get in that setting."

Stakeholder 1

The APP presence in Primary Care was thought to impact on the wider Primary Care workforce and

resulted in staff questioning some of their longstanding thoughts and practices.

"I think it has been really good for the GPs... it has shaken them up a little bit and made them think a little bit wider in relation to, okay, we don't just have appointments with GPs. And oh, God, we've let nurses in this as well, now. And oh, God, paramedics are in further... because I think not everyone needs a doctor, or even a nurse." Stakeholder 5

The changes to behaviour and practice were already seen as having been embedded into the culture of the organisation.

"For me, it's our normal working life, now. It has been embedded in there. The culture is embedded. The model is embedded. For me, it is part of our day-to-day business, now. So, selfishly, I would want to keep it." Stakeholder 3

However, some the challenges of learning to think differently and manage patients in new ways were recognised. Increased exposure to new presentations and Primary Care will increase confidence and expand knowledge further in future.

"it's a totally different way to operate as a clinician. ...that's really hard. ...So, I do see their trepidation there. However, the more and more this happens, the more and more they'll feel, 'oh, yeah, Bobby had that last year. Oh, has it come back again?'" Stakeholder 5

Organisational behaviour change

New ways of thinking and behaviour change in individual APPs has had a positive impact on WAST and organisational measures. For example encouraging APPs and paramedics not to convey to ED by default and making best use of community resources.

"We're looking to make sure that we got the right patient going to the right place the first time and not multiple handovers along that patient's journey, which is no mean feat, is it?" Stakeholder 4

Despite the same APPs working across one health board area, there were considerable differences in conveyance when comparing east to west, attributed to inconsistent access to services across the health board, local relationships and access to ED.

"We're not making best use of MIUs and we're not making best use of the other hospitals within the system ...Because the WAST workforce will try something a couple of times and, if it doesn't work twice, then they won't try it again." Stakeholder 4

The APPs were targeted as a group who could potentially play a significant role in changing traditional working practices, to reduce conveyances, signpost, or provide appropriate care at home or by phone.

"It's modernising healthcare, isn't it? So, we did what we do now 30 years ago, turn up with a truck...take them to hospital. We don't have to do that, now. There are so many things that we can do. Health boards, working in partnership like we have done." Stakeholder 5

"It's a very different service to what it was, isn't it? There is still a perception amongst many people that you phone 999, and a big yellow thing turns up, and off you go to hospital. To the point where you've got patients at the front door with a little suitcase packed and ready...the service has moved on an awful lot since then, hasn't it? ... we may not even get to a see-and-treat element ...We might deal with via hear and treat. They might get passed to a GP out of hours or GP surgery." Stakeholder

"it's about us really challenging the fundamentals of, what are the calls that the ambulance service deals with...., if we sent an APP, the majority of them don't get conveyed and they get managed perfectly well, perfectly safely. And the patients love it when they're managed at home and don't have to be carted off." Stakeholder 1

In particular, the additional training, responsibilities, and clinical expertise held by the APPs made them best placed to make these decisions and influence changes to practice.

"you need sufficient clinical expertise to be able to say, no, your chest pain isn't cardiac. You don't need to go to ED, and this is what you need instead. Or your shortness of breath is due to an exacerbation of your existing COPD. So, that's the sort of thing where the extra training and responsibility that the APPs take on makes a huge difference in the way that the patients are managed." Stakeholder 2

From a Primary Care perspective, utilising APPs as part of the team could also be a new normal in future and help address some of the clinical and recruitment challenges.

"when it becomes BAU, it will be very different, moving into the new world. ...It just needs to be part of the basic ask. Because why should the GP have to see every single patient? No wonder they're knackered!" Stakeholder 5

APP presence in the CCC was seen as playing a key role in addressing these changes, so that emergency ambulances would only be dispatched to the most appropriate cases.

"the vision that we have strategically is that we would like to have a system where we reduce the number of calls that come in, that receive codes, that result in automatic dispatch of an ambulance. Now, in order to do that, what we have to do is strengthen the clinical presence within the control centre. So, this comes back to some of the experience coming up on the rotational model. So, the patients can ... be advised. They can be told 'contact 111.' They can be referred directly to other alternatives like community teams, like mental health crisis teams. ... for those that do require an ambulance response, depending on the codes...we can despatch an APP. Or...an ambulance will be sent. ... to the appropriate cases." Stakeholder 2

As the second WAST arm of the rotation (alongside solo responding), the CCC has played a role in the APPs professional leadership and contributed to improvements such as delivery of 'hear and treat' services.

"when they're in the control ... they allocate what they deem to be suitable calls to their colleagues operationally. And they also provide some clinical leadership within the room about decision-making because..., none of [CCC] staff are clinicians.... They're an absolutely invaluable resource. they can do the hear-and-treat, ...stopping the call at point of entry." Stakeholder 3

For some, the CCC arm of the rotation was contentious. However, having seen the outcomes, it has been recognised as one of the key factors in increasing APP visibility, understanding potential for the role and providing alternative disposition for optimal patient outcomes.

"I think the questionable one was always going to be the time in the control centre. But I think that that has actually been proven to be invaluable because it helped to build up that relationship around what an APP can do, what calls they should be going to, and how we could then initiate safe clinical handovers, particularly for those cases that they were keeping at home, bearing in mind that the APPs have shown, in many cases, a 50% reduction in conveyance. ...putting the APPs in control and

initially picking up those cases where we know we can make a difference has been fairly critical."

Stakeholder 2

For the APPs themselves, the CCC rotation was said to be "an eye opener" to some of the challenges and pressures which they may have been oblivious to, before working in the CCC.

"people are saying it has been a bit of an eye-opener, didn't realise how the system was working, what pressure the system was under." Stakeholder 2

In future, the APP role in CCC may move away from allocation and shift to act as a 'source of reference' for colleagues.

"the amount of calls from other paramedics consulting with them to say, 'I've got this, what do you think?' grew exponentially. That grew faster than anything, to the point where it's actually really informing, that the principal reason we should have advanced practice within the control room is not as they do now, which is to task other APPs. It should be as a source of reference for our regular paramedics to go, 'I've got this. What do you think?'" Stakeholder 1

The input from CCC aspect of the rotation, and working with SICAT clinicians was said to result in them being more "equal clinicians" instead of an emergency response role.

"the SICATs been good for that, to have them in the control-. You know, building the skills on the support desk, essentially. So, yeah, I think we've evolved to be more of an equal clinician, now, rather than just emergency care." Stakeholder 5

The importance of the solo responding arm of the rotation was acknowledged to maintain clinical skills and clinical credibility.

"The APPs then need to rotate into our response system so that they keep up their clinical skills and their clinical credibility." Stakeholder 2

"I think when they're out operationally, practising paramedicine, I think that's when you would see the difference, there." Stakeholder 3

Benefits and challenges of a Pacesetter rotation

There were numerous benefits identified as a result of the Pacesetter project and rotation into Primary Care. The greatest being how exposure and immersion in Primary Care has placed Pacesetter APPs on a different level, with their clinical skills, navigation of the system and perception and management of risk. Overall these have the potential to benefit APPs, Primary Care, WAST, and the patients they care for.

"I've been in the ambulance service for [number] years. These guys are on a different level. They're in a different place completely to the paramedics that I grew up with and their understanding of patient care, their understanding of the system, and how to manage risk is different to any way I've ever come across." Stakeholder 1

"For me, if we end up being in a position where the health board has commissioned that service through us, Pacesetter has truly delivered what we wanted it to deliver in the first instance. There are benefits to the workforce, there are benefits to the patient. And, ultimately, there are benefits to the clinicians themselves because they're accessing different support mechanisms and different support

services that they wouldn't get within WAST. They're getting that Primary Care experience, so we're getting the best of both worlds, don't we?" Stakeholder 4

Some of the overall aims of the project were recognised as having been met such as APP retention and improved clinical knowledge and skills.

"Retention is one of them because it is important. These are some of the brightest and the best that we have. I want to retain them." Stakeholder 1

Primary Care was perceived to have potentially benefitted more from Pacesetter and the rotation, whilst WAST has gained from upskilled clinicians with better oversight of the healthcare system.

But essentially, it has been something that has been a hard slog for some people...In my eyes, it has worked, from an operational point of view. ... I think Primary Care has probably benefited more, just because of the unique skill set of a paramedic in an emergency, urgent way. what we've gained is that broader knowledge of the healthcare system, and, I guess what options we've got available to us." Stakeholder 5

There have been improvements in some of the WAST performance measures, such as reduced conveyances, and less disparity between APPs working in different parts of North Wales.

"the gap between the conveyance rates has reduced across the rural and urban area, so there's not as much variation anymore....A bit more consistent now. there are huge efficiencies, ... I don't think they're necessarily savings because these patients are going to access the system at some point or other ... But ... APPs afford us the opportunity to deal with those issues sooner." Stakeholder 4

for me, it's the see, and treat, and keeping people at home. ... looking outwardly, it has been a huge" success, for me, personally. And I am sure that the skills and the additional knowledge we have provided to our clinicians is fantastic." Stakeholder 3

It was acknowledged that the Pacesetter has coincided with a particularly challenging period for health services. The changes to practice and additional skills as a result of the project meant WAST was placed to manage current demands.

"We've got masses of data now to support the way that the model has been working. It's just unfortunate, I suppose, that, at the same time, for various other reasons, demand has just increased. So, people could still, perhaps, point a finger and say, 'Well, your response times in North Wales aren't very good. How can you say that the model has worked?' Well, what I'd say is if the model hadn't been in place the response times would be absolutely catastrophic, I would say. And some of the Primary Care infrastructure would have fallen apart." Stakeholder 2

"at the moment, we are in really high levels of escalation because of the activity we've got in the system. Having those people in our control room, looking at patients that are waiting, for them to really be able to intervene. ... if they are all in the same category, ... They've all been waiting roughly the same length of time. Who is going next? That's where the APPs really come into the fore of how to make those kinds of educated decisions. So, 'Actually, that one can wait. Go to that one next'."

Stakeholder 1

The value of soft outcomes or non-quantifiable improvements were also recognised, for example discussions with colleagues and informal learning. The number of paramedics far outweighs the

number of APPs, and the guidance or advice from APPs has the potential to influence practice on a large scale in the wider ambulance service workforce.

"You can't underestimate the kind of, what's I'd call, 'mess room discussions.' So, this is them returning back to base, on their breaks, at the start of/end of shifts, having conversations with their other colleagues about how things have been managed, and how they're managing jobs, and what have you. There is a lot of osmosis there in their abilities. It just kind of filters across. Ideally, we want to formalise that a little bit more and try and get that sharing. But in that laid back, relaxed, non-pressurised environment, to put those challenging discussions back into our regular workforce, I think, is quite important." Stakeholder 1

Beyond paramedicine, the perception of the role, and relationships with other professional in the wider health economy were said to have improved and result in easier discussions and appropriate patient management.

"I think we've certainly seen a change in relationships between how paramedics and paramedicine is perceived, in that they're expected to make very risky decisions...determining whether or not it's appropriate to keep patients at home or within a community service? And I think as those relationships have been built, those discussions have become easier. Pacesetter has driven a lot of that in terms of improving the trust and the recognition of the purpose, the scope, and the potential future role in paramedics developing and improving community-based services, and being involved in that, rather than it just being a person that turns up in a big, yellow truck who drives somebody to hospital." Stakeholder 4

The rotation and Pacesetter programme was seen to have provided personal growth for the APPs, such as increased confidence and empowerment having worked outside of their traditional emergency response remit.

"I think it has grown them as clinicians, hasn't it? Massively...I guess some of them were WAST clinicians through and through, and had never worked anywhere differently, and probably were a little bit resistant, hesitant." Stakeholder 5

"I think the Pacesetter ones have that little bit more about them. ...I think, for me, it just enhanced their abilities, their role and provided them with a good platform.... as you grow into a role and you do more good things, your confidence grows with it....they can also see red flags that might not be visible to other people but, because of their skillsets ... they are very much empowered, which is what we would want them to be." Stakeholder 3

APP exposure to more chronic disease presentations improved their holistic care of patients, as they had to consider some of the broader influences on physical health.

"Because the traditional paramedic training would probably focus on that really critical area of work.
...what's happening is that more and more of our work is now, perhaps, falling into the chronic disease area. And certainly, the experience that the APPs have ...and how chronic disease affects people not just in that critical incident but more holistically-. And they're having those discussions. I think that that has been really appreciated." Stakeholder 2

WAST interviewees were also asked about negatives, challenges or disadvantages of the Pacesetter or rotation. On reflection, interviewees identified few compared to the number of benefits.

"To be honest with you, I've not heard anybody say anything other than good. it's absolutely the right thing to do. So, I couldn't see any negatives. I can't even think of any negatives, as doing this

with our people and collaborate with our health board colleagues. I can't even think of a single negative." Stakeholder 3

One centred on the APP perception of their own status in WAST.

"I have said this to the APPs but they are a high maintenance bunch and they often think they're a bit special. ...you're good...and I recognise all the value or output. You're no more special than any other member of the team and you shouldn't get special treatment. You're just delivering things in a different way. ...nobody likes to be a manager of a high-maintenance team." Stakeholder 1

"They do think they're amazing. But they are amazing, ... some that will say, 'oh, they think they're better than everyone else now', and there are some that will say, 'actually, they've brought the knowledge that we haven't got time to even try and find out ourselves, and they've shared that with the team'." Stakeholder 5

Other potential challenges were the perceived "threat" for staff to leave for Primary Care, and practical concerns specific to the rotation such as governance, CPD and welfare arrangements whilst away from WAST. Senior staff were conscious of their responsibility to check-in with APPs.

"I think the barriers of the rotational, it's just the governance of it....But it's that risk for me, to not miss anything from their mandatory training with us, or development, and just making sure they're okay. So, essentially, I don't want it to be out of sight, out of mind. ... there are some APPs, no doubt, have been bored in Primary Care, or the GP surgeries haven't utilised them how they should."

Stakeholder 5

At a national level, despite widespread utilisation of the APP role, the CPD requirements were described as being "woolly".

"It's basically about, how do you contribute to patient care? In a nutshell. ...it's not you must do so many of these or so much of that." Stakeholder 1

Only one interviewee mentioned potential cost implications in investing and upscaling the APP programme.

"it should be a win-win situation. The problem, I suppose, is that it does require some investment."

Stakeholder 2

Exit Planning

From a WAST perspective, the Pacesetter rotation has been viewed as a success, and the exit planning process has been looking how the model can be up-scaled and implemented on a business as usual (BAU) basis.

"It has opened some doors already. I would like to see it being pushed a bit more forcibly, really, from high up within NHS Wales. I think that the model has demonstrated that this is a significant way to meet urgent and unscheduled care demand, and I'm not seeing too many of the other health boards coming up with other ideas on how they're going to do it. ... if you're not adopting this model... justify why you're not doing so.' And too often, it just comes down, then, to prioritisation of resources."

Stakeholder 2

"There aren't many things that we can do differently, really, when it comes to delivering care from a WAST point of view. But putting more APPs and more skilled clinicians out there is one of those things that will definitely have a positive impact....I'm a big advocate of the model of that Primary

Care rotation." Stakeholder 4

"But I think sometimes it's about being innovative and doing things differently. So to me, it feels completely the right thing to do. And if there was any ability for us to continue it, I'm sure that the evaluation of it will inform the next steps, really, for both organisations." Stakeholder 3

"I like the rotational model and I like the way that we're going through the BAU because it has given the APP more of a broader purpose. And I think that's where they belong, essentially." Stakeholder 5

The non-Pacesetter APPs will be targeted as one of the first groups to potentially step onto a rotational model of working.

"it's gone from a concept, obviously worked, and obviously has been added value, particularly in the Primary Care space. And now, obviously, it's the next stage of making this a model that is an option for all our paramedics who wish to rotate into it, if they want to. ... the APPs that haven't been a part of the rotation, I think, will be in a kind of a rotation going forward." Stakeholder 5

In terms of employing APPs in BCUHB and Primary Care, the collaborative approach was seen as essential to ensure Primary Care does not 'poach' resources, and continues the positive working relationship.

"the exit strategy from Pacesetter is going to be crucial in informing what happens next in terms of the relationships between the health boards and WAST, not just in North Wales but across Wales, in ensuring that we're all working together....if we start trying to poach the same resource then nobody is going to win. ...if they want APPs within their service area, then commission it through WAST. ...rather than us come trying to compete and recruit from the same very limited pool of APPs that we've got available." Stakeholder 4

"it's important for us as a group to determine those next steps together and carefully plan them."

Stakeholder 5

Despite the positive feedback, outside of Pacesetter, the CCC aspect of the rotation may be reviewed.

"Going forward, I think, maybe that's the area that we might look to reduce as we start to get more clinicians in our control, anyway. So, I think that that might be the area where we would change some of the rotation." Stakeholder 2

"Some of them absolutely hate going to control, as well, for the other bits that we do in the rotation for us. So, I guess it's something that we need to consider going forward, about the team makeup, and dynamics, and how we utilise people." Stakeholder 5

There has been interest in the model and success of the Pacesetter beyond North Wales, however, there is still some reluctance with regards to funding an up-scaled model.

"I have presented this in a variety of forums, everybody has gone, 'Oh, my God.' And then, when it then comes to, 'Okay, let's put some money behind this,' then it's, 'Oh, yeah, we'll have a look at that. We'll have a look at that,' and then the can gets kicked down the road." Stakeholder 1

Beyond Pacesetter, the aspirations for the APPs and WAST going forwards will be a transformational "inverted triangle" structure to the workforce. It will make fundamental changes to the way the ambulance service delivers care, and is a priority for WAST in the coming years.

"advanced practice firmly sits within urgent and scheduled care, managing people close to home. We take far too many people to hospital... if we were to manage to get an advanced paramedic practitioner, especially one that has been involved in the rotational model that has spent some time

in Primary Care-. ... to all the patients we want to get them to, we could reduce conveyance to about 80,000 patients a year....Especially when you see some of the challenges we have now, ...Hospital and ambulance handover delay. ...That's my frustration. Why aren't we saying, actually, how can we make it so-....[WAST is] fundamentally challenging is the way ambulance services have delivered care for the last four decades." Stakeholder 1

"if you think about what we do now, 62% conveyance rate to hospital, flip that on its head to only 20%, and the rest of it we've dealt with clinicians in the community or over the phone with appointments at different things if it's not urgent. ... that's the aspiration of the Trust. And obviously, they're all indicative values.... But that's the three-year plan.... It's the way we're going as a Trust. So Pacesetter, essentially, was kind of in front of the curve on that one." Stakeholder 5

The model would essentially restructure the workforce, utilising advanced roles more appropriately with the aim of reducing conveyances ensuring emergency ambulances are reserved for the sickest patients.

"I mean the question is, would we have fewer emergency ambulances? ...the reality is, no, we probably wouldn't reduce it. We'd just deliver a better quality of service to the patients that really, really need an ambulance. And at the moment, now, we will have serious incidents every single day because of delays in response. If we could take those 80,000 responses out of the equation because we were managing close to home, that means we'd then have that capacity for ambulances."

Stakeholder 1

"ideally, we'd like to have more of these people going through, back-filling at lower grades. ...we don't need everybody to be an APP because we do need that standard workforce. And what we're trying to do is have that clinical leadership at a level which I don't think we've absolutely defined yet where there is a ratio of APP to paramedic to EMT that enables all of our standard work to be done but, at the top end, gives us the opportunity to deploy APPs as much as possible, particularly to those codes where we know that their conveyance rates are lower than when we send standard paramedics." Stakeholder 2

It will take several years to achieve sufficient numbers of staff (particularly for advanced roles) and for the model to operate at maximum efficiency, given the availability and training needs of current workforce.

"this started we had 15 [APPs] across Wales. We've now 75. We need 300, if not 500, ... We need to get massive growth in this. And if we do that, we'll save roughly thousands of patients well at home, which can only be benefit for the patients, benefit for the system...It's value-based healthcare epitomised, really, in one scheme." Stakeholder 1

"It's a difficult one, isn't it? There is nowhere to go where we can get these guys and girls ready to go off the shelf, is there? So, if we invested now, we'd still be quite a significant amount of time before we got the benefit. ... You're looking at what a-. Workforce plan over the next ten, 12, 15 years, probably." Stakeholder 4

The proposals would reach beyond the current scope and model in North Wales and requires collaboration, input and investment from the wider healthcare system.

"What I'd really like to see is a wide, national upscaling to industrialise the whole APP rotational work as a fundamental in the urgent and emergency care program. So, I don't think we're quite there yet, but I think we've made huge progress.... it's all a little bit bespoke, but ... we still use the BCU model as the gold standard for when it has worked most effectively." Stakeholder 2

"there is a huge dependency on the rest of the system buying into WAST becoming the organisation that delivers that kind of inverted pyramid approach to services....I don't think we can do it without APPs, prescribing paramedics, and the wider system buying into WAST stepping into that role. ... I think we're all trying to address the same question but in a number of different ways. So, somebody at some point is going to have to bring everybody together and say, 'Right, okay. Who is going to be responsible for delivering what in this new world?'" Stakeholder 4

There is an enthusiasm to start making changes in the imminent future to secure the long term sustainability of services.

"But the longer we delay, the worse the delays are going to get in terms of the impact on unscheduled care, and hospital delays, and so on. So, I think we need to be brave. And if we don't do it, then the health boards will." Stakeholder 4

"for us, that's not going to be ten years down the line. The current management want that to be developed quite quickly." Stakeholder 5

Freeing capacity for emergency ambulances to respond to emergencies would potentially improve patient satisfaction and clinical outcomes, particularly for the most unwell patients.

"...we'd see other benefits in terms of the patient outcomes with patients with stroke, with heart attacks, with road accidents, cardiac arrest, etc., because we were getting the resource to people more timely." Stakeholder 1

Conclusions

The interviews were able to capture some of the pressures on the ambulance service and wider health economy which resulted in the development of the three-part rotational model of working, and collaborative Pacesetter project between BCUHB and WAST.

Compared to other medical professions, paramedicine is relatively new. In the last ten years, paramedics have increasingly left the ambulance service to work in other areas of health, particularly Primary Care. This presents a challenge as ambulance services potentially lose their most skilled, invested-in clinicians. In addition, there have been difficulties recruiting sufficient numbers of paramedics to replace staff who moved elsewhere. The existing collaborative links between BCUHB and WAST were seen as central to the development of the Pacesetter bid and project as a whole.

Wales has led the way, being the first UK nation to develop the APP role. Historically there were challenges with governance and leadership as the role was developed but recent developments, and projects such as Pacesetter have contributed to developing professional structure and raising the profile of the role. There was also evidence of APPs promoting their role and skills amongst colleagues.

A key aim of Pacesetter had been for each arm of the rotation to add value to the other two, and the interviews provided some examples of how WAST benefitted from the Primary Care rotation. Some were 'soft skills' or non-quantifiable but they were valued as contributing to improved outcomes overall. Examples included enhanced skills, leadership, knowledge and navigation of Primary Care. The observed shift in power saw APPs move from paramedic-to-clinician relationship, to clinician-to-clinician.

As discussed, paramedic prescribing has been a divisive topic – it empowers the APP to deliver rounded care and equality as a healthcare professional. The role of prescribing in Primary Care was well understood, but further clarification was needed to establish the value in WAST, as well as governance and cost benefit to justify increasing the number of APP prescribers.

In WAST, the APP role is held in high regards and their mentoring and clinical advice is particularly valued. Primary Care has increased APP confidence to take on additional leadership responsibility. In future, APPs have a potential role to play developing the paramedics in future cohorts of Pacesetter or similar projects.

There was enthusiasm to continue using a rotational model of working, and build it into wider workforce planning. It demonstrated the project had met an aim to prevent depletion of the ambulance service workforce, and Pacesetter was the gold standard for other areas in Wales adopting the rotational model. There were no strong opinions on the share of time between Primary Care and WAST in future, as long as APPs didn't spend too long in one individual setting.

Working in Primary Care provided a different mind-set and new ways of thinking and managing patients, and has repeatedly been cited as one of the most significant changes resulting from Pacesetter and the Primary Care rotation. It was thought to have set them apart from non-Pacesetter APPs and equipped them with different skills, knowledge and practices which could not be achieved through formal learning, and will stand them in good stead throughout their career. The behaviour change also impacted positively on WAST. As highly skilled clinicians, APPs were seen as key to tackling some of the historical practices which needed updating in the modern healthcare system, such as conveying to ED by default. APPs and their WAST colleagues are encouraged to better utilise community services, or watch and wait.

The CCC arm of the rotation was seen as being contentious initially, but was considered to have proved it worth. It was key to supporting colleagues in decision making, understanding some of the wider systems pressures and providing APPs with skills beyond their traditional emergency care remit.

There were numerous benefits identified to the APP, WAST, Primary Care, the wider health economy, and the patient population. These include additional clinical skills, navigation of primary and community care, and more efficient practice resulting in holistic care, reduced conveyance and improved patient experience. The APPs were better placed to deal with the current, unprecedented demand. APPs had experienced personal growth and their APP role and profession is now more trusted and perceived positively by colleagues. The drawbacks were around the APPs self-perceived high status in WAST and difficulties maintaining welfare, governance and CPD arrangements, appropriate Primary Care utilisation and the need for wide-scale investment.

Looking to the future and life beyond Pacesetter, WAST are planning to implement a workforce restructure currently described as an inverted triangle. It will require significant investment, collaboration and buy-in, and will aim to grow the APP workforce considerably over the coming years. The WAST workforce will be utilised more efficiently at all levels, to provide care at home where possible, reduce conveyances and reserve ambulances for emergencies only.

References

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