

## Associate Psychological Practitioners (APPs) in Primary Care - Modelling the Impact

### KEY HIGHLIGHTS

- One Associate Psychological Practitioner (**if placed across a PCN, or within a number of practices**) could free up at least **1,665** GP appointments **within one year**.
- Up to **48** people could benefit from attending Group Sessions and Wellbeing over the course of a year with one APP working with another primary care role. That is **384** group intervention sessions delivered.
- Having one APP in each of the 41 PCNs in Lancashire & South Cumbria could provide over **50,000** brief intervention appointments of 45 minutes each.

This case study outlines the approach followed and the findings of a project to model the impact of introducing the role of Associate Psychological Practitioner into Primary Care.

## BACKGROUND

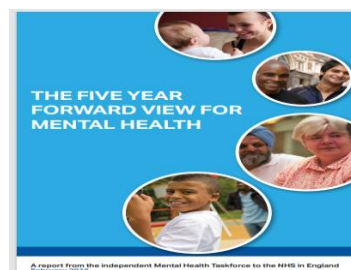
Early in 2019, the National Health Service (NHS) issued the Long-Term Plan (LTP; NHS England, 2019a), followed by the NHS People Plan in 2020 (NHS, 2020). Both plans recognised the need for an increased supply of an appropriately skilled and motivated workforce, to meet predicted demand and improve outcomes for the population.



These included increasing the numbers of mental health services staff by over 27,000 by 2024 (NHS England, 2019b). At least one in six people in England report experiencing mental health symptoms (NHS Digital, 2016), with this number expected to have risen further since then, particularly since the Covid-19 pandemic (Office for National Statistics, 2021).

As a result, the emphasis on the need for increased workforce supply into the mental health sector has been made in many policy documents over the past five years. E.g., Five Year Forward View for Mental Health (Mental Health Taskforce, 2016) and Stepping Forward

to 2020/21 (Health Education England [HEE], 2017).



Yet, there are workforce challenges across disciplines in the NHS, particularly in the field of mental health, with vacancies standing at 9.7% for all staff working in the MH sector and 11.8% for nursing in the MH sector (NHS Digital: Q1 2022/23, England) and in the NW specifically, vacancies in June 2022 for MH stood at 3,530 [Source: NHS Digital: Vacancy Stats, June 2022].

These vacancies, coupled with the rising demand, puts significant pressure on services and has a negative impact upon the care users of services receive. Neither the existing nor traditional approaches to increasing the workforce can meet these ambitions. Innovative new roles and new ways of working are required to expand the psychological workforce.

The LTP identifies Primary Care Networks (PCNs) developed in England in 2019 as providing fertile ground for new flexible ways of working across multiple general practices, and in June 2022, NHS England announced funding for 2,500 'Mental Health Practitioners' to provide mental health care (Baird & Beech, 2020; British Medical Journal,

2021) in primary care settings, to help meet the rising mental health need to increase GP capacity to provide routine care ([NHS England](#)).

In 2021/22, MHPs were included in the 'Additional Roles Reimbursement Scheme' which supports the recruitment of staff into PCNs, paving the way for a new PCN based psychological workforce.

In Lancashire and South Cumbria, there are 41 PCNs, the largest of which has over 90,000 registered patients. Growth of the psychological workforce in these PCNs would improve mental health prevention and promotion, meeting the recommendations set out by the General Practice Forward View (NHS England, 2016), the RCGP (Thomas, et al., 2016) and Mind (2018).

Alongside the rising demand for mental health services is a 'bottle neck' of Psychology University graduates who wish to work in the field of psychological healthcare. Psychology is a School that graduates 29,405 graduates a year nationally in BPS accredited courses (HESA, 2019/20), but in comparison to other degrees which lead to employment in the NHS, Psychology is an outlier (Budd et al., 2022).



Upon completion of the Undergraduate degree, there is no immediate graduate entry route for these individuals into the NHS, despite the demand for the skills they can bring within the NHS. Rather, psychology graduates typically spend several more years 'upskilling' with the hope of securing a place on a HEE three-year funded Doctorate in Clinical Psychology. In 2017, the Psychological Professions Network (PPN) reported 200 applicants for every available graduate mental health role in the UK.

Approximately 30% of all psychology undergraduates would consider a profession in the NHS if available to them (PPN Alliance, 2018). Moreover, the rise in mental health difficulties in the wake of the Covid-19 pandemic, adds further pressure on an already over-stretched NHS and calls for more readily accessible psychological interventions for individuals and local communities following the pandemic and its effects.

Lancashire & South Cumbria is a large geographical area with a mix of city, town and rural communities.

The population is around 1.78 million people and is diverse in terms of ethnicity, health and life expectancy, deprivation and wealth, housing and living environment and education and employment. All of these things bring many challenges but also opportunities for the health and care system. Within the area there are four acute hospital providers, one community/mental health and learning disability provider, four local authorities and a large independent sector social care provision.



The workforce across health and social care equates to over 92,000 whole time equivalents, and the 41 PCNs involving some 200 GP practices, makes up approximately 5% of the overall workforce. But there is a significant need for new mental health practitioner roles that can bring benefits to patient care, career development and progression, extending and securing new routes into health careers, freeing up and generating new capacity and maximising opportunities in terms of workforce supply routes.

## THE CHALLENGE

In 2021, the University of Central Lancashire partnered with HEE and the

Innovation Agency (North West Coast Academic Health Science Network) to launch a new NHS role across the North-West Coast system, including in Lancashire and South Cumbria.

The Postgraduate Diploma Associate Psychological Practitioner (PgDip APP) course enables a highly motivated and qualified group of psychology graduates to enter the NHS workforce at increased and higher volumes than they do today, thereby producing a sustainable supply of practitioners into psychological roles to reduce the significant workforce gaps and change NHS workforce structures.

Individuals train for 12 months in the NHS as a Band 4 Trainee Associate Psychological Practitioner (TAPP), progressing to a Band 5 role as Associate Psychological Practitioner (APP) upon qualification. In primary care settings, the role is one of health promotion and prevention, delivered as a brief intervention of four sessions to individuals experiencing stress, reduced well-being and/or common mental health symptoms such as depression or anxiety.

The PgDip APP course is being rigorously evaluated and this includes an academic and clinical service evaluation which attest to the success and value of the role in a range of

services, including PCNs (Budd et al., 2022; Gardner et al., 2022).

The third element is an economic evaluation to determine cost effectiveness of the role, and the project team were particularly keen to understand and model the impact of introducing this new role into primary care in terms of generating additional and freeing up capacity within the sector.



The clinical and project leads worked with the WRaPT Team to develop a project to do that modelling and in turn, provide further evidence to underpin decision making in respect of future cohorts and contribute to wider workforce planning in primary care. We report the approach and findings below.

**“To undertake a clinically led approach to modelling the impact of introducing Associate Psychological Practitioners in Primary Care”**

## THE APPROACH

Taking a clinically led approach was essential to ensure the validity of any

modelling, therefore the appropriate starting point was to draw upon the learning from two psychology graduates, working in primary care in Lancashire and South Cumbria as part of a HEE feasibility study. The feasibility study was being led clinically by Dr Miranda Budd therefore her input into the approach to modelling was essential throughout.

The WRaPT Team met with clinical leads to understand the scope of the work and the kind of output that was needed. This was helpful in identifying the type of modelling product to develop and in formulating the assumptions for use in the modelling and the WRaPT Team determined that for this project, using Excel rather than the WRaPT tool was appropriate. This is because the aim was to build something that could define future state scenarios and calculate the impact of change determined by the experience and data of two psychology graduates working in a PCN rather than actual workforce data from a service to model future state scenarios and the associated change on the baseline workforce.

As a starting point, the WRaPT Team generated a set of questions which, once answered, would help to define the assumptions used in the modelling. These included:

- Identifying the population in scope.
- Determining the workforce in scope.



- Documenting the activity undertaken by the APP role in terms of volume and the amount of time spent doing it.
- Considering the future state scenarios for modelling.



### STEP 1: IDENTIFYING THE POPULATION IN SCOPE

The first stage was to develop an understanding of how many patients the new APP role could potentially see within their scope of practice. The assumption was that the APP role would work with people presenting with mild to moderate mental health need, who would benefit from a brief psychological intervention.

Those working in the feasibility study were already working with patients of any age however, the scope for the modelling was agreed to restrict the age profile to adults only (those aged 16+). The WRaPT Team used data from NHS Digital to determine the number of patients on practice lists within the PCN where the two psychology graduates worked [Source: NHS Digital, General Practice - Practice Level data, Sep-22].

Data was extracted for the patient population aged 15+ due to the way it is available via the source. The next step was to refine this information further by identifying the percentage of mental

health need. Different sources were used to inform and direct the lead clinicians to refine the population in scope.

***“Looking at the prevalence of Mental Health, we found that in November 2020, 19% of adults experienced some form of depression, while 17% of adults experienced some form of anxiety (approx. 40%).”*** (Coronavirus and the social impacts on Great Britain: 11 December 2020. Office of National Statistics.) This also correlates with data around the number of MH cases dealt with by the GP, which equates to 40%. [Source: Mind (2018).]

Therefore, we were able to say that 40% of the total population of patients within a practice were in scope.

The final stage was to define the severity of the cases as we had already agreed an assumption that the APP role would deal with mild cases of mental health need as stated above, though some patients entering the service presented with ‘moderate’ need, according to scores on the Patient Health Questionnaire-9 (PHQ-9) and Generalised Anxiety Disorder-7 (GAD-7).

According to NICE Guidelines: ***“Mild depression accounts for 70% of all cases, moderate depression 20% and severe depression 10% of all cases.”*** [Source: NICE Guidelines on depression in adults (2011).]

Therefore, we would apply a figure of 70% of the 40% of the in scope patient population to determine the number to include in the modelling.

For example (figures below are for demonstration purposes only and do not relate to the data from the PCN used to inform the project):

<b>Total list size</b>	=	<b>10,000</b>
<b>40% MH cases</b>	=	<b>4,000</b>
<b>Proportion of low/moderate</b>	=	<b>70% of 4,000</b>
<b>Population in scope</b>	=	<b>2,800</b>

## STEP 2: DETERMINING THE WORKFORCE IN SCOPE

GP workforce data was collated. During this step we also considered that other roles in a practice might refer to the new role of APP however after consideration, it was concluded that to include them in the modelling more work and data would be required to fully understand how often and when this occurs so it was agreed to exclude them at this time.

The WRaPT Team used data [Source: NHS Digital, General Practice – Practice Level Data, Sep-22] to identify the number of WTE GPs working in the PCN to inform the assumptions. As the APP role did not previously exist in the workforce, it wouldn't therefore be included in the current state (also known as the baseline model).

The modelling would enable future state scenarios to be tested to show the impact of the new APP role on GP appointments and the APP role would be added as a new source of capacity.

## STEP 3: DOCUMENTING THE ACTIVITY

At the time of the project, appointments data were available at CCG level only, rather than at PCN level which would fit best with the scope of the project.

Therefore, to understand the appointments associated with the population of the PCN we were using in the modelling, we had to calculate the PCN population as a proportion of the entire CCG population and then apply that proportion to the total number of appointments in the CCG.

For example (figures used below are from data reflecting the CCG/PCN used for formulating the assumptions and scenarios):

<b>Population:</b>		
<b>CCG Total*</b>	=	<b>397,609</b>
<b>PCN Total*</b>	=	<b>51,198</b>
<b>PCN Aged 15+</b>	=	<b>39,844</b>
<b>PCN population aged 15+ (as a proportion of CCG total)</b>	=	<b>10%</b>

\*[Source: NHS Digital Sep-22]

The next step was to apply this percentage to the number of appointments in general practice to the CCG total.

Appointments data can be broken down to 'GP' and 'Other Staff', and for this purpose we used GP appointments only.

GP Appointments:		
CCG Total*	=	882,000
PCN Total*	=	88,200

Source: NHS Digital Oct-21–Sep-22

These figures gave us an assumption of the total appointments provided for the population in scope for the PCN.

The next step was to understand the number of MH appointments as a proportion of the total.

***“Around one in three GP appointments involves a mental health component.”*** (London Strategic Clinical Network for Mental Health, 2014. A commissioner's guide to primary care mental health.)

Therefore, an assumption was applied to the modelling that **33%** of time is spent on Mental Health and **67%** of time is spent on 'Other' activity and applying this to the total PCN appointments gives us the number of appointments for Mental Health.

Appointments – MH	=	29,106
Appointments – Other	=	59,904
Appointments – Total	=	88,200

#### STEP 4: CONSIDERING THE FUTURE STATE SCENARIOS – INTRODUCING THE NEW APP ROLE INTO PRIMARY CARE

When looking at the different tasks the new role of APP could carry out, we used the example of the psychology graduates working in the PCN feasibility study as the starting point, which based them in a single practice within the PCN. Using this information and data, we determined that between 3-4 days were spent working on 'cases', up to 1 day was spent on 'Community Engagement' type activities and 2-3 hours was spent on 'Other' activity which included supervision. [Source: Data received from clinical lead based on primary data collection by the APPs.]

As assigning the activity of MH appointments (of appropriate patients) to the new APP role was expected to result in a reduction in the time spent by GPs on MH appointments, we wanted to model this to quantify the impact of that shift.

A report by the BMA, Social Prescribing: Making it work for GPs and Patients, stated that in “2017 a group of researchers from the University of Westminster published a review of the evidence assessing the impact of social prescribing on health demand and cost implications.



This review showed an average 28% reduction in demand for GP services...“.

Source:

<https://www.bma.org.uk/media/1496/bma-social-prescribing-guidance-2019.pdf>

Taking the above into consideration, we applied an assumption that we could reduce the take up of GP appointments (by the population in scope) by between a quarter and one third.



## STEP 5: BUILD THE MODELS

First, we had to define what the week of an APP might look like and how their time might be spent. Through discussion with the clinical leads and data from the psychology graduates working as part of the feasibility study, we determined that there were a number of different combinations of activity that could build up to make a week of work.

For the modelling, we assumed 45-weeks per year of availability to allow for holidays and other time off and 37.5 hours per week of available hours to work. The types of activity that the APP could do were then categorised as follows:

### Community Engagement

- Wellbeing Promotion (via Community Engagement) would account for half a day per week. The patients that the APP would engage with under this activity would be all mild cases that are not on the caseload.

### Other/Supervision/Mentoring

- Other (including supervision and mentoring) would be for around a quarter of a day per week.

### Group work

- Group work would offer a weekly half day session for 8 weeks. Following this the APP would do community wellbeing sessions for four weeks.
- These sessions would be for half a day a week and for up to 12 participants.
- Assuming 45 weeks of activity there could be three full cycles (both group work and wellbeing) and one cycle of group work.
- The APP delivers the group sessions jointly with another general practice colleague (e.g. a social prescriber) however the modelling reflects only the APP time as other primary care staff are out of scope for this project.

### Brief Interventions

- Brief intervention appointments with patients in scope – the APP would do these for 3-4 days a week (depending on other activity undertaken) and they would take 45 minutes per appointment.

## Triage sessions

- By introducing the APP role, a possible scenario is that APPs would be a first contact clinician and see the patient if they requested an appointment relating to mental health need. These appointments would be 30 minutes long.

Some of the activities are based on a fixed amount of time or volume and others could be more or less volume depending on how the week is structured.

Using the activities, whether they were fixed or variable and the time taken, we were able to identify three different types of week:

### Standard Week

- Community Engagement
- Supervision & mentoring
- Brief Interventions

### Alternative week #1

- Community Engagement
- Supervision & mentoring
- Brief Interventions
- Group Work & Wellbeing

### Alternative week #2

- Community Engagement
- Supervision & mentoring
- Brief Interventions
- Group Work & Wellbeing
- Triage Sessions

We built the APP standard week and alternative weeks so we could model different scenarios by:

1. Introducing the new APP role at 1.0 WTE.
2. Adding combinations of activities that the APP could carry out to create a number of different scenarios.
3. Applying the findings from the above to understand the potential impact on GP appointments by having the APP role in primary care working with patients identified as in scope.

One scenario could be for the GP to assess the patient in one appointment and then refer on to the APP for a series of brief psychological interventions to meet their mental health need.

As the APP would be seeing mild-moderate cases, for the purpose of this scenario we estimate that these patients might have seen the GP three or four times depending on whether they experience physical health complaints, mental health complaints or, both. Those presenting with both are at an increased likelihood of presenting to the GP more frequently (Saini et al).

For this scenario, the future state accounts for the change in flow and we have modelled the impact of such by

reducing the number of appointments with the GP for the group of patients in scope by both three and four appointments to account for the possible number of presentations as outlined above. This shows that 1,665 GP appointments for appropriate patients could be freed up by one WTE APP.

Between 13,650 and 15,280 GP appointments could be freed up by introducing this change in flow to all the patients in scope in the PCN and employing the appropriate number of APPs (8.2 and 9.2 WTE respectively).

**However, given that most PCNs will have 1 APP, this would be enable at least 1,665 GP appointments to be freed up over the course of a year.**

The detailed example below is based on a current state of three appointments with the GP, moving to a future state of one appointment with the GP who refers the patient to the APP for follow-up session.

GP appointments MH total	=	29,106
70% appointments in scope for APP	=	20,374
1/3 remain with GP	=	6,723
2/3 move to APP	=	13,650
GP appointments diverted - based on APP activity in Alternative Week #2 and 1 x APP in each PCN (41)	=	>53,000

Another scenario is that of patients having an alternative referral route to the APP including self-referral or via another practitioner or other service.

This would mean they don't see the GP at all and the APP undertakes a first contact triage appointment.

Whilst we could apply any percentage here for alternative referral, we felt that as the patient would be bypassing the GP entirely it was appropriate to model this in the first instance as being around 10% of patients fitting within the scope for this new route.

GP appointments MH total	=	29,106
70% appointments in scope for APP	=	20,374
9/10 remain with GP	=	18,336
1/10 direct to APP	=	2,038

## NEXT STEPS:

Further cohorts of the APP role have been commissioned and as they move through their training and into posts we plan to review the assumptions to ensure they remain realistic – using further data to build up strong assumptions is key to the ongoing validation of the modelling assumptions.

The modelling tool could be adapted to use for other roles in other clinical pathways and settings and with the appropriate input from clinical leads and access to data the impact of the introducing the APP role more widely could be modelled.

Going forwards, the outputs from the APP modelling tool could be used to undertake modelling in the WRaPT tool for primary care teams and if other roles (e.g. ARRS roles) were worked up to identify scenarios we could undertake modelling within the WRaPT tool to model the impact in primary care networks of the ARRS roles.

**Dr Miranda Budd said of the modelling tool project:**

*“Working with the WRaPT team has enabled us to think about how the APP workforce can help increase capacity of their General Practice colleagues and meet mental health need.*

*Given the pressures on the workforce in this setting and the rising need, the work the WRaPT team have done feels both important and very timely.”*

**Dr Kathryn Gardner, Joint Course Director of the PgDip APP also added:**

*“The modelling tool that the WRaPT Team has built has allowed us to quantify the potential economic impact of TAPPs in Primary Care by producing immediate realistic estimates of NHS cost savings.*

*This is an invaluable tool and we are immensely grateful to Fiona and the team for their continued support.”*

**Fiona Lord, WRaPT Lead, said of the project:**

*“It has been great to work with the clinical leads from the APP feasibility study and we have valued their input and expertise. It has broadened our knowledge and built our understanding and expertise of the considerations needed in terms of introducing new roles and modelling the impact of such.*

*Working with those closely involved in the feasibility study and the clinical expertise has reinforced the importance of having strong clinical input and engagement, plus access to relevant data when working on such projects.”*



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