Final report
August 2017

Innovating for Improvement

Developing community pharmacies to support medication monitoring in children and young people (CYP) attending a specialist child and adolescent mental health service (CAMHS) ADHD clinic

Sussex Partnership NHS Foundation Trust

The Health Foundation

About the project

Project title: Developing community pharmacies to support medication monitoring in children and young people attending specialist CAMHS ADHD clinic

Lead organisation: Sussex Partnership NHS Foundation Trust

Partner organisation(s):

- Hampshire & Isle of Wight Local Pharmaceutical Committee
- Children and Maternity Collaborative Hampshire five CCGs (hosted by North East Hampshire & Farnham CCG)
- Wessex Academic Health Science Network
- Strategic Clinical Network for NHS England (Wessex) for Maternity, Children and Young People

Project lead: Dr Subha Muthalagu

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Part 1: Abstract

This project utilizes community pharmacies to support physical monitoring of children and young people (CYP) on ADHD medication attending CAMHS clinic which is an innovative care model. Consenting families select a pharmacy to have their blood pressure, pulse, height and weight measured at convenient time. The results, put onto a secure website, are available to the CAMHS.

Clinic appointments were being driven by the need to meet NICE standards that require regular physical monitoring of CYP on ADHD medication. Some patients were being seen when there was no clinical need, others were unable to get more intensive support and monitoring targets were being missed due to pressures on the service. For many families this was also resulting in their CYP being taken out of school unnecessarily and a parent missing work.

Through this approach, we have seen an increase in the number of patients/families engaging with medication monitoring and receiving improved quality of care closer to their home. Of the 153 CYPs eligible for recruitment, 137 (90%) were actively involved in the project. All audit outcomes relating to medication monitoring and review improved dramatically from baseline when re-audited at the end of the project. Our estimate is that 40% of the ADHD team's resources will be released to provide more input to those with greater needs with less intensive support to stable patients.

The feedback from those involved in the project has been almost universal praise. The key success factors were having a cohesive project team, involving and co-designing with key stakeholders and carrying out a mini-pilot prior to starting the project. Main challenges have been around protecting time to project manage and ensure timely referral and communication.

Funding has been secured to maintain this new service in the New Forest CAMHS. It is the Trust's intention to roll it out across Hampshire and Sussex, pending new funding. There is already a lot of national interest in the project.

Part 2: Progress and outcomes

This is a successful project which has achieved its primary and other aims against a challenging background.

Challenges:

- CAMHS team struggling to meet increasing demands against a shortage of appropriately trained professionals.
- Difficulty in meeting NICE guidelines for ADHD prescribing and monitoring.
- Increasing waiting lists for assessment and treatment and delays in titrating medication doses to the optimum level due to over reliance on clinic appointment.
- CYP taken out of school and parents taking time off work to attend traditional clinic-based 6 monthly medication reviews driven by the need to physically monitor some of them while others who really needed more frequent appointments could not be accommodated.
- CAMHS team running at full capacity with no slack to have team reflections or run therapy groups for CYP

Like many other CAMHS teams across the country, our team has struggled to meet the above challenges.

Innovation: Our project involves transferring medication monitoring to local community pharmacies where staff are trained and supported by the specialist CAMHS team to carry out physical monitoring (height, weight, blood pressure and pulse measurements) at agreed regular intervals in-line with NICE guidelines (CG72) and local shared care agreement or clinical need.

Community pharmacies provide extended hours to suit school, home and work commitments. Their pharmacists are also able to answer questions families have concerning side effects, drug interactions, administration, etc. By moving the physical health monitoring to local community pharmacies we are ensuring timely physical monitoring of CYP on ADHD medications whilst improving efficiency and cost effectiveness of service delivery by specialist CAMHS.

'PharmOutcomes', a well-established commissioning and provider electronic platform was used for referring patients to community pharmacies. The community pharmacy staff record physical measurements of patients on this platform, which is immediately accessible by the CAMHS team to act upon as necessary.

Apart from a reduction in the total number of community pharmacies actively participating in the project (from 24 to 15) no other significant adjustments were made to the project plan. This still ensured sufficient numbers of patients per pharmacy and good geographical spread.

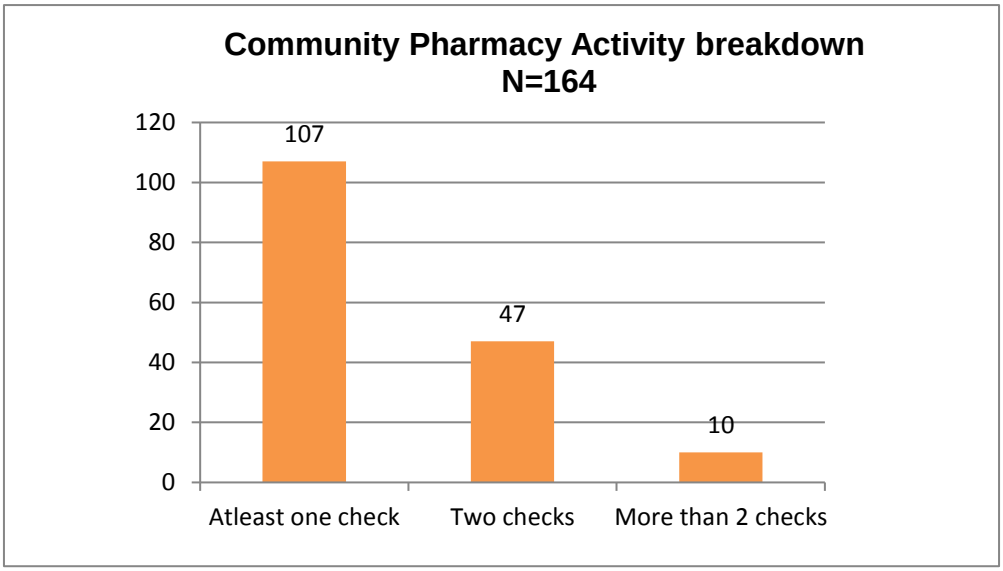
Table1: Benefits for key stakeholders

For service users	For CAMHS clinic	For Community Pharmacy
Timely physical monitoring and improved access to care	Timely physical monitoring and improved access to care	Formally included in the patient care pathway
Receive regular repeat prescriptions	Reduction in missed, delayed or non-attended appointments	Greater job satisfaction
Minimal disruption to school, work and family life	Compliance with NICE standards	New business opportunities
Saving in travel costs, time and inconvenience	Freed up clinical time - reduce waiting lists	
Expert advice on medication	Greater use of technology – PharmOutcomes, emails	
Reduced stigma	Enhanced quality of care	

Key deliverables and our achievements:

1. To carry out physical measurements for children and young people on ADHD medication within a community pharmacy.
   - A total of 164 completed visits to community pharmacies have taken place involving 107 patients (see chart 1 below). Results were shared with GPs and families to support on-going medication prescription and monitoring.

Chart 1: Community Pharmacy Activity



2. To free up capacity in the specialist CAMHS clinic:
    - 55 (32%) patients are now being seen for annual reviews, thus releasing 55 clinical hours and also saving unnecessary trips to the clinic for patients and their families.
    - With majority of the patients having their physical checks done at the pharmacy prior to the clinic review, more productive discussions take place during clinic appointments.
    - Clinic attendance has improved and patient cancellations and non-attendance has reduced.
    - We have successfully developed and run a group therapy session for CYP to improve their ADHD symptoms using non-pharmacological techniques and plan to run further groups in the future.
3. Exploring amount of additional support offered to the 30 patients audited (see below) against modified NICE guidelines showed that 43% (13 of the audited patients) of families received additional support from the clinic as per their need compared to no recorded additional supports previously. Also, the waiting list for clinical reviews have significant reduced.

Audit: We audited 30 randomly selected files of those patients in the project to check compliance against modified NICE guidelines for ADHD medication monitoring. The modification was in relation to 6 monthly blood pressure and pulse monitoring as per agreed Trust guidelines instead of 3 monthly monitoring as per NICE guidelines (CG72).

Results showed significant improvements in the number of patients having 6 monthly physical checks on time (53%), their readings recorded (100%) and plotted on centile charts (100%) since starting the project when compared to the past (6%, 86% and 20% respectively). The numbers of patients having at least an annual review has also increased since project start (26% compared to 5%).

The above figures are expected to improve further due to increasing number of patients having mutually agreed annual clinic reviews.

The Trust had participated in the national POMH-UK (Prescribing Observatory for Mental Health) audit in 2015. This was a national audit for ADHD prescribing and the results showed that in the Hampshire CAMHS teams, only 9.2% had their WHBP recorded, none (0%) had their WHBP centiles recorded and there was no evidence (0%) of use of standardised questionnaires for ADHD progress monitoring. These figures have significantly increased to 100% for WHBP recording as well as recording WHBP centiles. 73% patients had their ADHD progress monitored using standardised questionnaires.

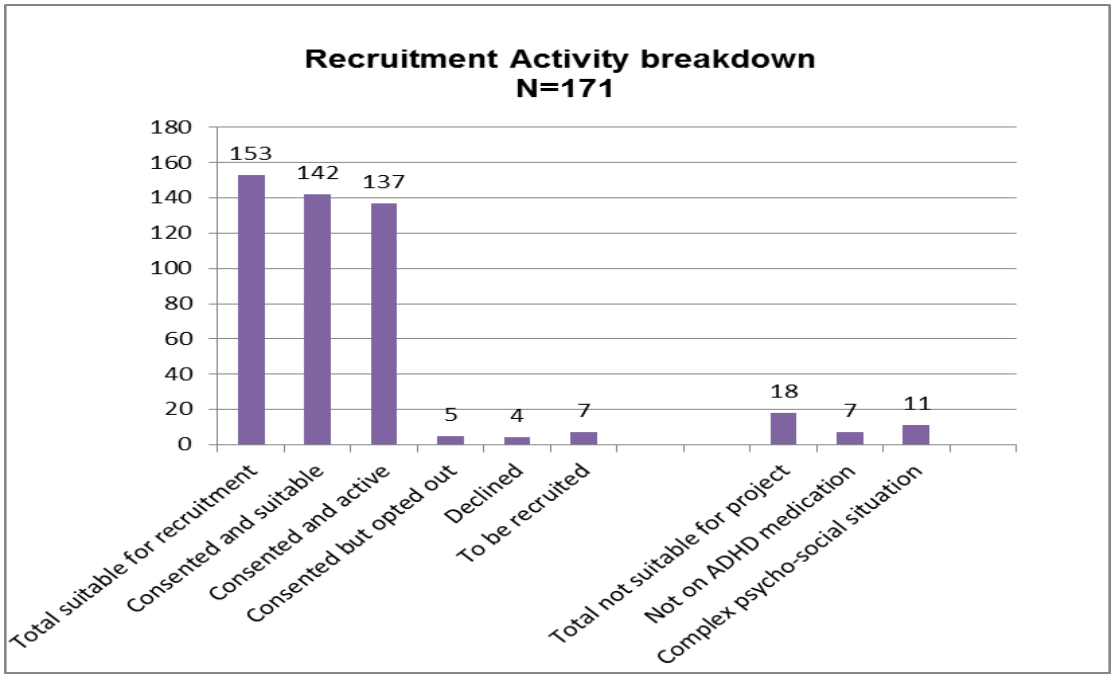
The audit findings are illustrated in appendix 1a.

Project evaluation:

We obtained primary data for the project and service evaluation from the team clinical database, patient electronic files and PharmOutcomes. At August 2017, there were 171 patients in the ADHD long term follow up clinic. 153 patients (90% of clinic population) were deemed suitable for recruitment to the project; of these 142 patients (93% eligible) consented to participate and to-date 137 patients are active in the project. 4 patients

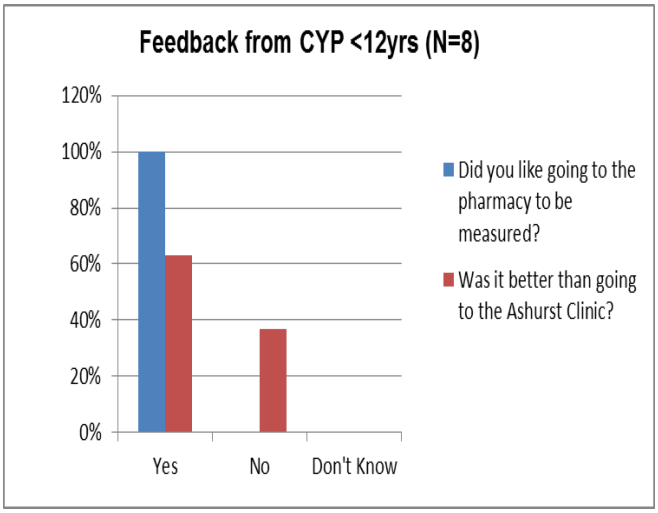
declined to participate and 7 are yet to be recruited (see Chart 1 below).

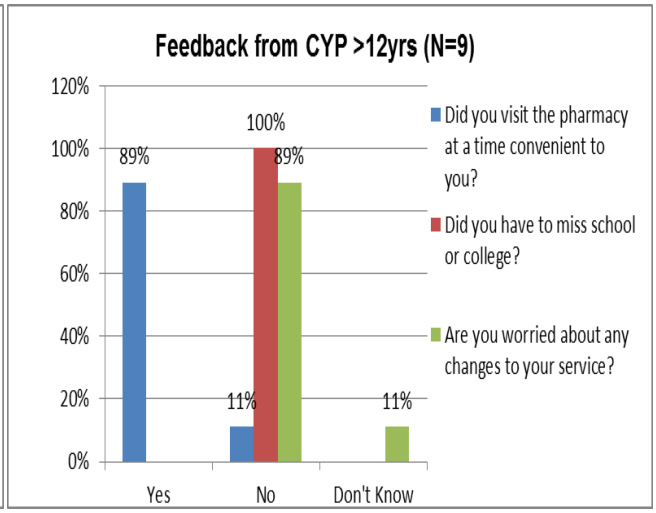
Chart 2: Project recruitment activity breakdown



We have sent feedback questionnaires to key stakeholders and collected both quantitative and qualitative information for project evaluation. 17 CYP completed experience of service questionnaires. The majority were happy with their visit to their local community pharmacy to have their physical monitoring done.

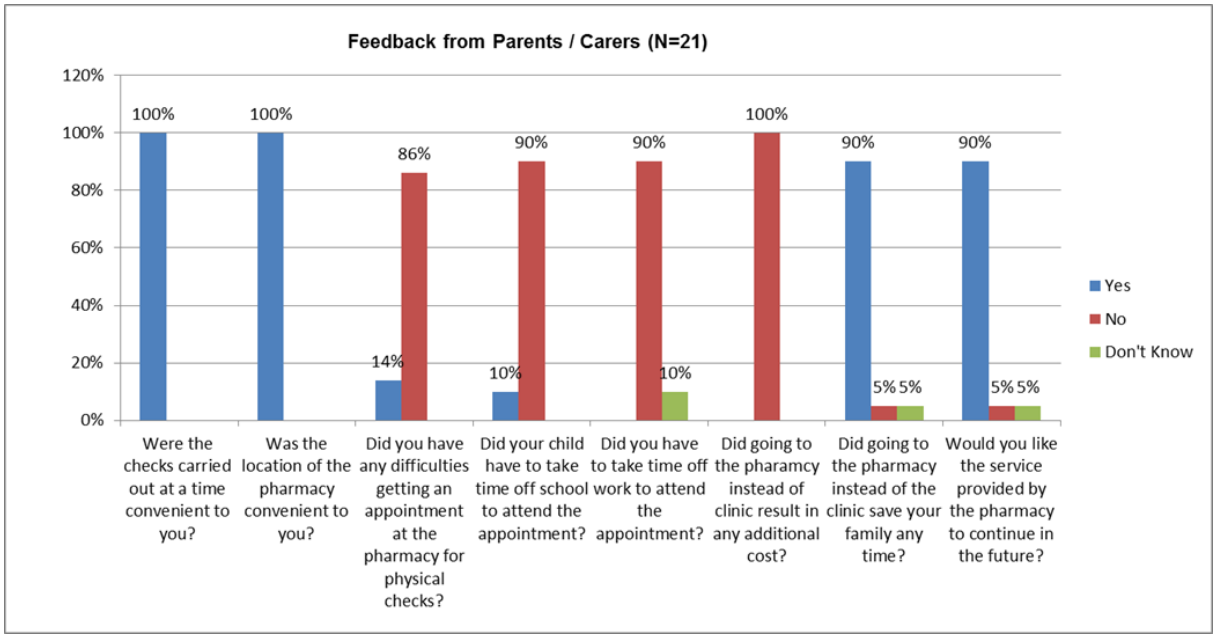
Chart 3: Feedback from Children and Young People





Feedback from 21 parents showed that 100% had the checks carried out at a time and location convenient to them and 90% would like the service to continue in the future.

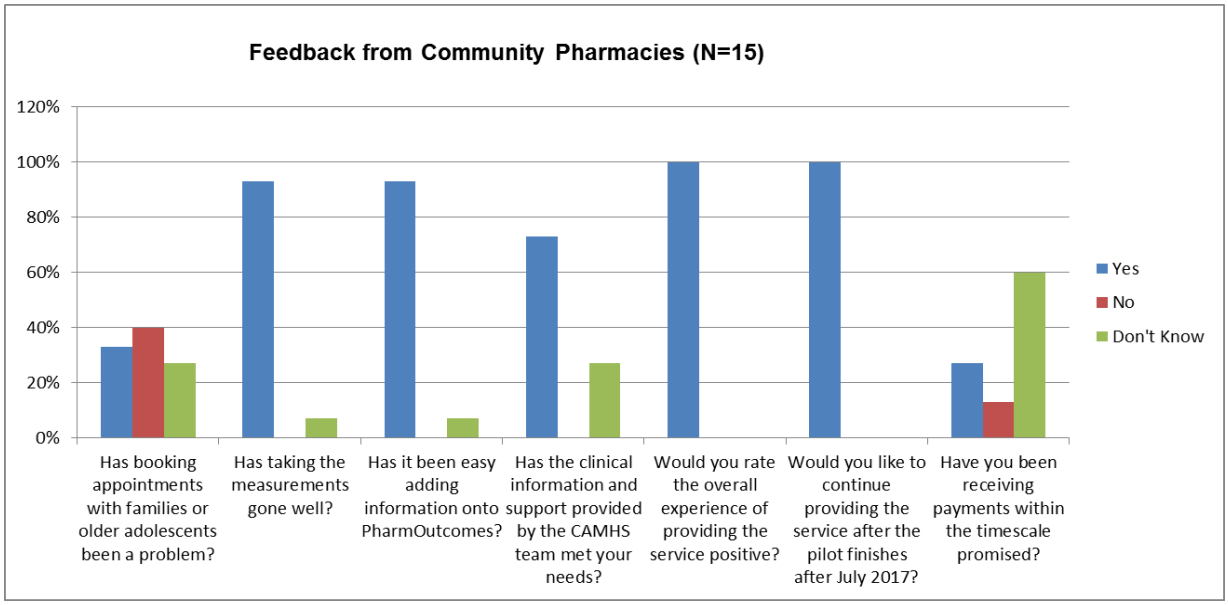
Chart 4: Feedback from Parents and Carers



Of the 9 GP responses, 7 were happy with the project to continue in the future. 2 GPs did not seem to have received project information and so could not comment on the usefulness of the project.

Feedback from all 15 participating community pharmacies suggested that this service was easy and convenient to run. Some had difficulties in contacting certain patients, but overall, they were happy to continue participating in the project.

Feedback from Community Pharmacies



We have also collected qualitative feedback from various stakeholders. See appendix 1b for details.

Part 3: Cost impact

Due to cost implications and time constraints, we have carried out an in-house project cost comparison between the previous model and current service. We have also calculated a cost impact analysis that addresses future set up costs as well as sustainability. As far as we are aware, our project will not adversely impact on any other service within the teams that decide to implement it. **Estimation of cost benefit analysis in the New Forest CAMHS clinic:**

Cost benefit analysis (in a typical stable patient with mutually agreed annual reviews)

Before project (6 monthly clinic reviews)	**Time (mins)**	**Cost**	**Since starting the Project – annual clinic reviews**	**Time (mins)**	**Cost**
Consultant	150	£ 190	Consultant	45	£ 63
Nurse	150	£ 70	Nurse	90	£ 42
Admin	90	£ 21	Admin	30	£ 7
CAMHS Clinic Room	120	?	CAMHS clinic room	60	?
			Assistant Psychologist	30	£ 7
			Pharmacy check	30	£46 (36 + 10)
Parent	360	Travel and Lost wages	Parent	210	Less travel costs and loss in wages
CYP	360	Time lost in education; stigma	CYP	210	Less time off from school and reduced stigma
Environment			Environment – friendly, less carbon foot print		
Inconsistency in clinic compliance to NICE standards			Better compliance with NICE standards for ADHD medication prescribing		
Difficulty in responding to clinical/patient need in a timely way			Timely response to patient/clinical need and enhanced quality of service; improved safety, efficiency and effectiveness of service		
£ 281			**£165** (41% saving/ resource releasing for clinic)		

Note: The above costs have not taken into consideration the costs to the parent and the child – lost work hours, school hours, travel costs etc., environmental impact and CAMHS clinic room rent costs.

Our innovative pilot project has demonstrated that the new model is estimated to release over 40% of resources in those CYP who are stable on their medications from the second year of its introduction. The resources saved can be used to reduce clinic waiting lists, set up therapy groups, liaise with schools and other partner agencies to support CYP and their families; better compliance with ADHD

care pathway; full compliance with Trust ADHD monitoring guidelines and better compliance with NICE standards - thereby improving efficiency, effectiveness and quality of care delivery. The service users are also estimated to save about 40% of their resources – money, time and inconvenience.

We have also carried out a cost modelling of developing and sustaining a service in a new team/site. See appendix 1c for further details.

Part 4: Learning from your project

It has been a tremendous journey for me and my project team developing and implementing the innovative project. We are delighted with the amount of enthusiasm and support that this project has generated. We are proud to have managed to achieve all key deliverables that we proposed.

As a project lead, I have been pleasantly surprised by my ability to bring together various stakeholders over a large geographic spread over which neither I nor my organisation has any authority. These stakeholders have also engaged in co-designing the project. I have received extremely positive feedback about my collaborative and inclusive leadership style of bringing people together and engaging with leads, and training a large number of pharmacy staff.

Key enablers that helped us achieve our project aims:

i. Engaging, communicating and co-designing with key stakeholders – both service users and partner agencies (community pharmacy leads, CCG commissioners, GPs, Local Medical Committee lead, Wessex Clinical Network, senior managers etc.) right from the early stages and involving them in shaping the project has been a major success factor.

ii. Consulting patients and their families during the design and implementation stages, ensuring they have choice and flexibility in their clinical monitoring has promoted better engagement from them

iii. Providing patients and families an opportunity to choose their local community pharmacy and taking time to offer explanation on the benefits of the project.

iv. Designing and implementing a mini-pilot involving a small area (Lymington) with 4 community pharmacies first and testing the design of the pilot and learning from the feedback led to changes to the implementation plan.

v. Having a cohesive project team with complimentary skills and influence with the wider stakeholders has been a strength, which has also supported spread at local, regional and national levels.

vi. Fully involving the clinical team in the development of the project and training community pharmacy staff; establishing weekly team meetings to reflect on the operational as well as clinical quality of the service and promoting open discussions ensured staff buy-in.

vii. Using national guidelines (NICE guidelines CG72) and local ADHD care pathway to help focus the team on standardising clinical processes.

viii. Proactive feedback gathering from various stakeholders.

ix. My own commitment and leadership through constancy and presence to ensure quality control and improvement despite work pressures and tough times.

Challenges along the way:

As with setting up any new service, our project has also encountered a number of challenges. However, due to proactive monitoring and project team commitment in addressing the issues quickly, it has been possible to overcome many of the challenges.

- Ensuring adequate clinical and administration time and support for project implementation and project management whilst balancing a busy clinical role.
- Ensuring timely referral, measurement and communication. We have addressed this through robust updating of clinical database, starting weekly ADHD team meetings to reflect on clinical and operational matters.
- Variable motivation and enthusiasm amongst community pharmacy staff depending on their competing priorities and interest.
- Improving the design of PharmOutcomes by working with the developers and making it even more user-friendly.

Feedback from both formal and informal channels suggests that children and young people and their families are benefitting from the new service and GPs are receiving the measurements on time so that they can be confident in issuing repeat prescription. When stakeholders have expressed concerns, we have been addressing them appropriately so as to improve the experience of the service, thus learning and improving continuously from feedback.

A number of learning points have emerged as we progressed with implementation of the project:

Learning for the Project team:

- Better coordination is needed between physical checks in the pharmacy and clinic appointments
- Fewer community pharmacies would help in better management of training, referral process and communication.
- Producing a training video to support community pharmacy staff training as well as introducing families to the process will be helpful.
- A dedicated data assistant is needed to ensure timely referral and communication between various stakeholders and coordinate clinical and operational process including maintenance of clinic database and regular evaluation of the service.
- Importance of engaging with key partners and stakeholders – service users, internal and external partners to ensure learning from the difficulties and addressing them promptly.
- Involving all key stakeholders in the design and implementation of the project

- Timely communication between CAMHS team, pharmacy staff and GPs
- Collecting regular experience of service feedback from all the key stakeholders and team reflection on the findings to make continuous improvements to the quality of the service.
- Planning sustainability of the service early on in relation to funding and staffing resources through discussions with senior managers and commissioning colleagues.

Learning for the Organization:

- Avoid delay in finalising service level agreement (SLA) for each of the community pharmacies and ensure timely payments to community pharmacies.

Learning for me:

- Ensure adequate clinical and administration time and support is agreed with senior management from the start and share the work with colleagues ensuring collective responsibility.
- Ask for help and support early on when faced with challenges and communicate progress of the project with colleagues and managers regularly.

Part 5: Sustainability and spread

Our innovative project supports the government's Five Year Forward View (5YFV) and Future in Mind strategy. This project has acted as a catalyst to a change in the clinic culture resulting in more effective, efficient, safe and quality care for CYP with mental health difficulties, thus, improving the quality of care delivery, which is going beyond the utilization of community pharmacies.

We presented our project evaluation findings to the Hampshire CAMHS Leadership Team who were very impressed with our work and have agreed to support the project to continue within the New Forest CAMHS team, beyond the project period. The senior management team are keen for the model to be taken up by other teams within the county once additional resources are identified. The Trust Executive Board members are also supporting the roll out of the care model in other areas of the Trust e.g. Sussex CAMHS, Adult ADHD clinic in the future.

We continue to take every opportunity to discuss the benefits of the project in various meetings and give regular updates to wider stakeholders. Each member of the project team has been discussing the progress of the project with their peers and wider stakeholders, which is helping to spread interest in the innovation and develop interest in the wider system. Project team members have presented the project findings at a number of meetings and conferences and we have received wide spread interest and enthusiasm locally, regionally and nationally. Feedback from various colleagues suggests that the innovative care model is well-placed to be transferable to settings other than CAMHS where patients require physical monitoring (e.g. adult and elderly mental health care settings, palliative care etc.).

Ray Lyon (Trust Chief Pharmacist and Project team member) has discussed the project with Lord Carter's team which is reviewing productivity and efficiency improvements in mental health and community trusts nationally. This team was very interested in our work. The Trust is one of 23 cohort trusts involved in developing the new Carter metrics. He is also in communication with the Royal Pharmaceutical Society about our work to-date.

Paul Bennett (CEO of Royal Pharmaceutical Society) has presented the project at the national Pharmacy Voice meeting as well as ran a workshop at the NHS England's Chief Pharmacist's National Conference for Chief Pharmacists. The NHS England's lead on the Pharmacy Integration Fund attended the workshop and is very interested in the project.

I have presented the project findings at the Wessex CAMHS Psychiatry meeting and also presented a poster at the recent Royal College of Psychiatry International Congress in Edinburgh. See attachment of the poster in Appendix 3.

Paul Bennett and I have presented the project at the Pharmacy Innovation

Theatre (Pharmacy Show, 2016) which was well received by the delegates and drew interest and support from the Head of Pharmacy Strategy at the NHS England.

Ray Lyon and I have presented the project findings at the recent Healthy London Partnership CYP programme and several London commissioners have expressed an interest in adopting the model. Dr Ann York (Clinical Adviser for CYPMH, Healthy London Partnership and National Professional Advisor in CYPMH at the Care Quality Commission) is very supportive of the project and has sent the project information to all 150 CAMHS commissioners on the NHSE national commissioning development programme.

A poster has recently been accepted for the next College of Mental Health Pharmacy International Conference to be held in Manchester in October.

Thus, the project has received wide spread interest and enthusiasm locally, regionally and nationally.

All aspects of our project are replicable in other CAMHS teams. Currently we are in the process of developing an implementation pack to help roll out in other areas. We are also planning to develop training and a promotional video to show case the project and share feedback from various stakeholders with prospective adopters. The first step in our scaling ambition is to scale it up across Hampshire and Sussex CAMHS, which are services managed by the Trust. We are also looking to getting the model adopted in CAMHS in other areas in the Wessex region in collaboration with the Wessex AHSN and also in London and other areas while at the same time exploring the care model in adult ADHD clinics in Sussex.

I have recently applied for the NHS Innovation Accelerator (NIA) fellowship programme that can support project scaling up nationally. We plan to apply for funding opportunities to support sustainability and spread of the project as it has so much potential to improving quality of care and timely and local support for service users.

Appendix 1: Resources and appendices

Appendix 1a Audit against modified NICE

Appendix 1a: Audit against modified NICE guidelines

Appendix 1b Qualitative feedback

Appendix 1b: Qualitative feedback from key stakeholders

Appendix 1c Care Model costing.docx

Appendix 1c: Innovative Care Model cost-impact analysis

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Appendix 1d: Project Poster