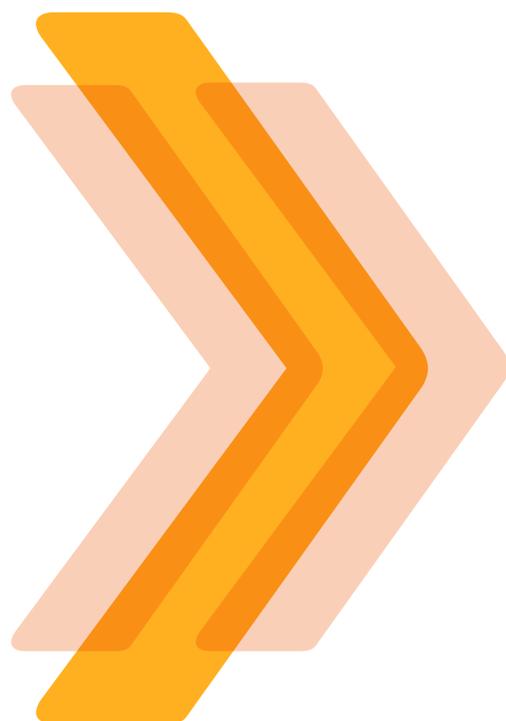


# Imperial child health general practice hubs



October 2014

# Specialists in out-of-hospital settings

As part of the drive to keep patients out of hospital and better integrate services across settings, consultants are starting to develop new models of care that link secondary, primary, community and social care professionals.

This case study is one of six, which form part of a project undertaken by The King's Fund to investigate the different ways in which consultants are working beyond their traditional boundaries. The King's Fund's staff reviewed relevant documentation and interviewed staff to help identify the key characteristics of this new way of working, explore the challenges in establishing services of this type and understand what benefit they could bring for patients and the NHS.

The other five case studies are:

- Portsmouth and South East Hampshire diabetes service
- Leeds interface geriatrician service
- Whittington respiratory service
- Sunderland dermatology and minor surgery service
- Haywood rheumatology centre.

Further details on the other study sites can be found at: [www.kingsfund.org.uk/specialistcasesstudies](http://www.kingsfund.org.uk/specialistcasesstudies)

For an overview of the project, including key strategies for out-of-hospital working, the challenges to developing these services and the benefits for patients and the NHS please go to: [www.kingsfund.org.uk/specialists](http://www.kingsfund.org.uk/specialists)

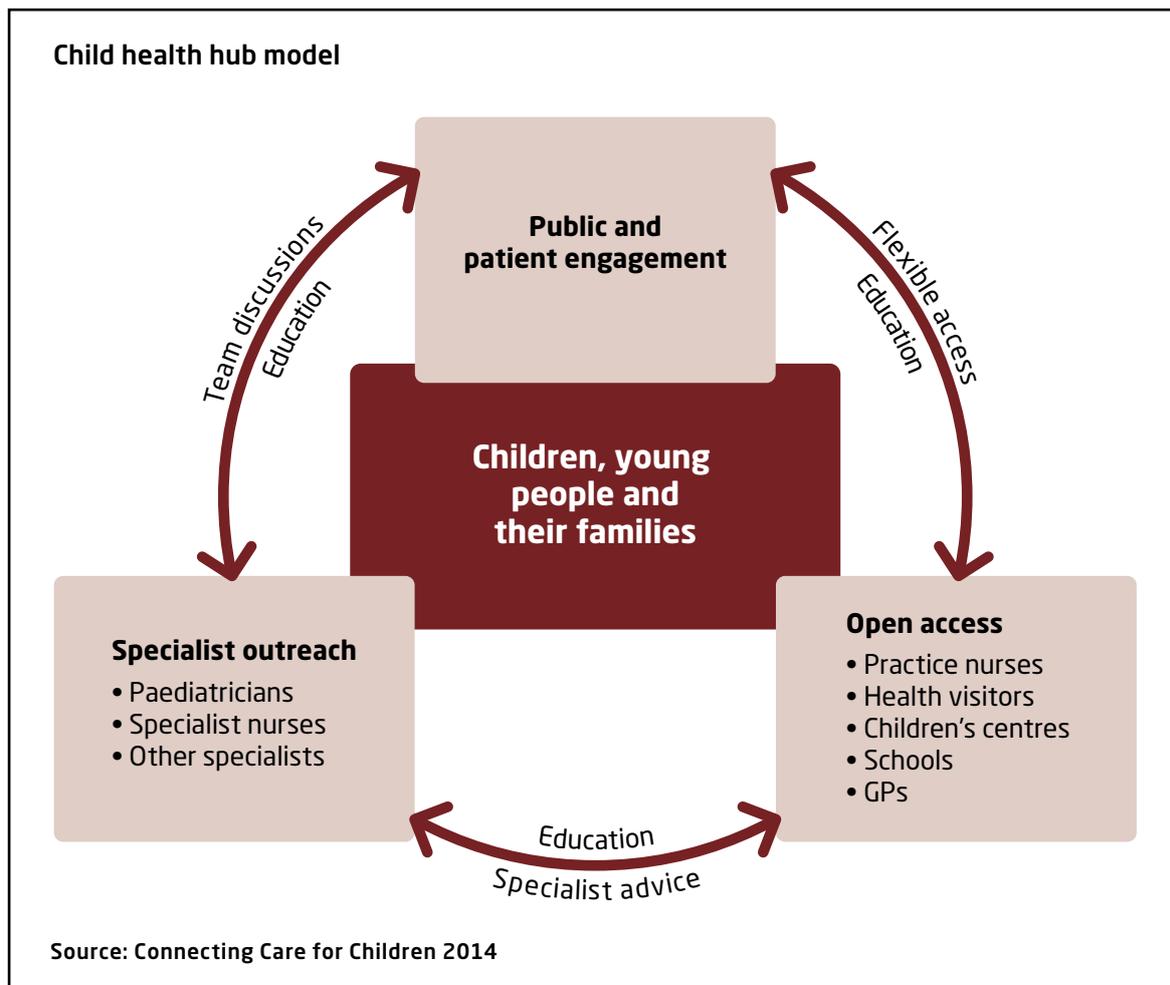
# Background

For most children, the GP is their main point of contact with the health service. While children make up nearly one-fifth of the population in England, they are estimated to account for two-fifths of a typical GP's workload (**Department of Health 2010**). Despite this, the Royal College of Paediatrics and Child Health estimate that in many parts of the country, between 40 and 50 per cent of GPs have had little or no formal paediatric training (**Department of Health 2010**). This leaves many GPs without the skills and confidence to assess and treat children in their surgery, leading many to refer children to hospital for conditions such as fever, asthma or constipation that could be managed in primary care (**Department of Health 2010**). The number of children admitted to hospital and presenting at A&E is rising. Evidence suggests that many of these cases could be managed outside an acute setting (**Department of Health 2010**; Hockey *et al* 2013). Around a quarter of those presenting at A&E in 2012/13 were children (The King's Fund analysis of 2012/13 HES data).

There are many local agencies that interact with children for their health, education and social care needs. These include health visitors who care for children up to 5 years of age; specialist community nursing services for those with long-term conditions; community paediatricians who support children with long-term special needs such as disabilities or developmental difficulties; community-based child and adolescent mental health service teams (CAMHS); and other professionals such as speech and language therapists, physiotherapists, occupational therapists, dentists, teachers, school nurses, social workers and criminal justice staff (**Healthcare Financial Management Association 2012**). Co-ordination of the care and advice provided by this wide range of professionals is key to meeting children's needs and ensuring safeguarding issues are identified and managed.

# Overview

The Imperial child health general practice hubs comprise groups of two or three general practices within Inner North West London, which work with paediatric consultants from St Mary's Hospital to provide care to practice populations of approximately 4,000 children. The hubs have three core components.



- **Specialist outreach.** Paediatric consultants from St Mary's Hospital attend multidisciplinary team meetings with hub practices every four to six weeks to discuss paediatric cases. GPs, practice nurses and other professionals attend the meetings, facilitated by the CCG. Education is key; each multidisciplinary team meeting includes a short learning session run by the visiting consultant. Following the meeting, a joint outreach clinic is held by a consultant with a hub GP. Patients are referred into both the MDT and the outreach clinic from across the hub practices. These sessions have been valuable forums for GPs, medical students and other health care professionals to learn.
- **Open access.** To be part of the hub, all practices must agree to provide their patients with same-day access to paediatric advice from a GP or senior nurse, and a same-day appointment for under-16s if needed. GPs also have access to specialist advice via a 24-hour email hotline and a telephone hotline (12pm–2pm weekdays), both run by consultants at St Mary's.
- **Patient and public engagement.** The CCG and acute trust have worked together on a number of information-giving campaigns to educate parents about appropriate use of A&E, including travel card-holder inserts and a puppet show. In addition, a range of condition-specific education and self-management initiatives, such as the 'Itchy, Sneezzy, Wheezy' allergy service ([www.itchysneezywheezy.co.uk](http://www.itchysneezywheezy.co.uk)), operate in the CCG, into which practices can refer patients for support. At the time of research, a new practice champions initiative was underway and 13 champions had been recruited and trained in the first hub practice. These are young people, parents and carers who will co-design and lead patient engagement activities, such as peer-to-peer support, which are based on similar initiatives such as Altogether Better ([www.altogetherbetter.org.uk](http://www.altogetherbetter.org.uk)). A whole practice meeting is held in each practice so that the champions and practice staff can plan activities together. The team is also developing a 'sequential simulation', using theatre to demonstrate the benefits of co-ordinated care and the practice champions. A project manager at St Mary's manages the initiative, which aims to be a bridge between general practice and the community.

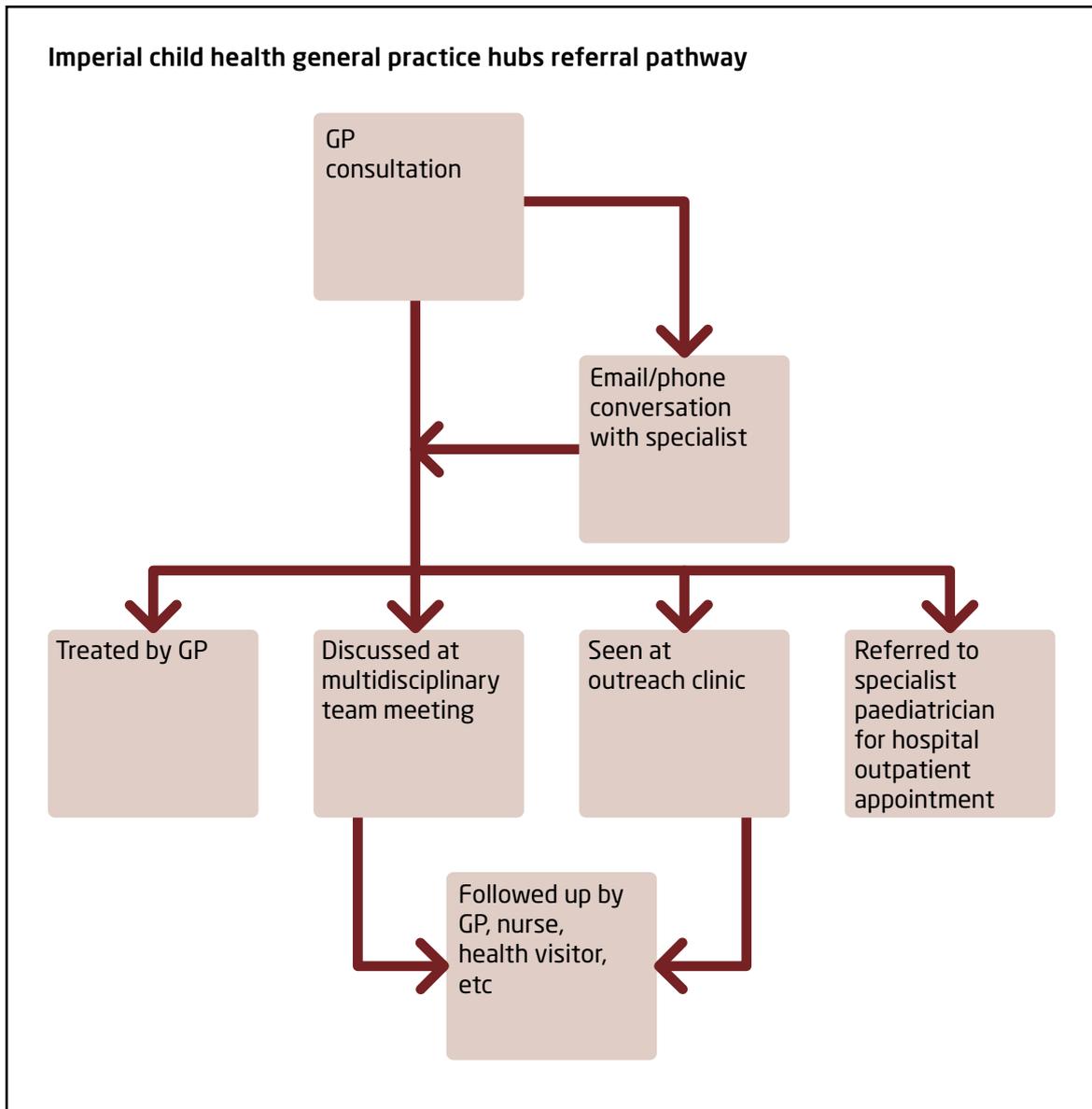
The general practice child health hubs are part of the broader Connecting Care for Children programme that runs across West London, Central London and Hammersmith and Fulham CCGs. Two pilot hubs have been operating in West London CCG since early 2014, and two additional hubs began operating in Central London and Hammersmith and Fulham CCG in September 2014. Although new in their current form, they bring together services that have been developing in the North West London area over the past decade. An outreach clinic was first established in the area nearly a decade ago; more recently, a local practice ‘pre-piloted’ the outreach clinic and multidisciplinary team approach. A number of the services that feed into the hubs are CCG-wide, such as the email and telephone hotline, which now covers 14 specialties, and self-management programmes for diabetes and allergies.

The hubs were established in response to high outpatient and A&E attendances by children and young people – the local area is in the highest 20 per cent nationally; and evidence that many of these attendances could be managed outside of hospital (Hockey *et al* 2013). Data from the trust showed that more than half of outpatient attendances at St Mary’s could be treated in primary care (Connecting Care for Children 2014).

# Referral pathway

Before making a referral, GPs in the hub practices often have a telephone or email conversation with a consultant at St Mary's to discuss the most appropriate approach. If consultant input (or reassurance) is needed, the patient will be referred to the outreach clinic; where patients do not require face-to-face consultant input, but discussion by the broader team would be beneficial, the patient's case is brought to the multidisciplinary team; and patients who require treatment in a paediatric sub-specialty can be identified and referred directly to the appropriate clinic, rather than having an initial general paediatric appointment as before. The majority of patients seen at outreach clinics are new patients. Typical cases might include chronic constipation, headaches, eczema, exacerbations of asthma and treatment of patients with mental health and behavioural issues. However, the team take a flexible approach to both the outreach clinic and multidisciplinary team meetings. Patients might be referred to the clinic by a consultant for follow-up after a hospital appointment, or a frequent A&E attender may go to the clinic to discuss how to avoid future attendances. Practices may use clinic slots to review a set of patients on their practice register with the consultant, such as discussing all patients with asthma. In some cases GPs send patients directly to the multidisciplinary team or outreach clinic without prior consultation with a specialist.

Clinical governance responsibility for patients referred to the outreach clinic rests with the consultants at St Mary's. Responsibility for patients discussed at a multidisciplinary team meeting or over the email/telephone hotline is retained by the GP.



# Innovative features

- **Developing the paediatric capabilities of GPs and other health care professionals** is at the core of this model. This educational element ensures the hubs do more than simply ‘drag and drop’ the hospital outpatient clinic into a community setting. During multidisciplinary team meetings, shared learning builds the confidence of GPs and other health care professionals to better manage patients in primary care. Jointly run outreach clinics also facilitate learning, and GPs rotate their attendance to ensure benefits accrue across each practice. The email and telephone hotline allows GPs to get advice on the best approach to treatment or onward referral and helps build their confidence to manage patients in primary care. This learning is particularly important given the lack of paediatric training for many GPs. Interviewees reported that as the service develops and GPs increase their confidence to treat patients in primary care, use of the hotline and outreach clinics is likely to decline. They also reported that, importantly, the learning runs two ways; consultants learn a lot about their patients from discussing cases with GPs and other primary care staff.
- The Imperial team has taken a **creative and comprehensive whole-population approach** to the design of this service. They have segmented the child population into six groups and identified the issues and care needs that apply to each (Klaber and Watson 2014). This whole-population approach means their focus is not restricted to the boundary between primary and secondary care. It addresses difficulties patients have in getting a GP appointment (by guaranteeing hub practice patients same-day access to GP advice). They have also developed a number of schemes to build parent and child capability and confidence to self-care, and to promote appropriate use of health services.
- **Additional funding via an NHS Innovation Fund grant** allowed pre-pilots of the hub model to be evaluated, and cost-modelling to be completed. This has been used in the CCG business case for the service. The grant paid for project management resources to develop the hubs and extensive stakeholder consultation with professionals, children, young people and their carers.

- **Training and workforce development** is a key part of the programme. Foundation-year doctors, paediatric trainees and GP trainees complete two-week blocks on integrated care, including visits to the hubs and a service development project. In this way, the hubs are training the future workforce to work beyond traditional care boundaries. GP and paediatric trainees, medical students and student health visitors also sometimes attend and learn from the MDT meetings.

Elements of this model are being developed in other parts of England including multidisciplinary team meetings, outreach clinics and specialist hotlines.

# Impact

The hubs have only been running for a few months in their current form, meaning data is not yet available to demonstrate their impact on referrals, cost and patient satisfaction. However, evaluation of pre-pilots shows there is potential for benefits across all of these areas.

- The hubs are expected to break even after two years and in the long term could generate **cost savings**. The CCG has a small Quality, Innovation, Productivity and Prevention (QIPP) target related to the service, which they are on track to achieve. Cost-modelling based on the experience of the pre-pilots shows that each hub, covering a patient population of between 16,000 and 20,000 (approximately 4,000 children), will cost £58,527 per year to run. This includes the cost of the consultant outreach, community capacity-building work and open access to GPs and consultants. Seeing patients at the outreach clinic is estimated to save £16,020 per year over the cost of equivalent hospital outpatient clinic appointments (the cost of GP and consultant time for the outreach clinic is less than the PbR tariff for the equivalent number of first outpatient appointments in general paediatrics). To break even over a two-year period, the hub would need to reduce paediatric outpatient referrals by 20 per cent, A&E attendances by 10 per cent and admissions by 2 per cent – figures that interviewees say are eminently achievable. Unpublished analysis of general paediatrics outpatient referrals to St Mary's by a panel of GPs, paediatricians and service users found that 50 per cent of referrals could have been seen in primary care.
- Evaluation of the pre-pilots shows that the hubs have the potential to **decrease the overall number of referrals** to either hospital or outreach clinics. Over the 18 months of the outreach pre-pilot, the pilot GP practice made 112 fewer outpatient referrals than in the previous 18 months. During that time, 65 patients were seen at the outreach clinic based in the surgery, leaving a net reduction of 47 referrals compared to the previous period. Evaluators have attributed this reduction to better communication between GPs and consultants and the enhancement of GP paediatric skills and confidence (Connecting Care for Children 2014).

- During the pre-pilot of the outreach clinics, it was also notable that only one patient **did not attend** their appointment (<2 per cent), which compares favourably with the DNA rate for patients referred by GPs for general paediatrics outpatient appointments at Imperial, which lies between 14 and 25 per cent (Connecting Care for Children 2014; The King's Fund analysis of HES 2012/13 data).
- **Waiting times** are shorter for outreach clinics than the hospital-based service. Outreach clinics are run every four to six weeks and no patient waits longer than this to be seen, while the average wait for a first outpatient appointment in general paediatrics at St Mary's is nine weeks (The King's Fund analysis of HES 2012/13 data). Interviewees also reported that the hub model reduces the number of appointments that a patient has to attend, as initial discussion with the consultant before the referral enables tests to be ordered in advance, or patients are referred directly to a specialist paediatrician rather than going through general paediatrics first. Interviewees reported that this approach also had an impact on reducing hospital follow-up appointments. In the majority of cases, GPs are capable of managing follow-up with back-up and support from paediatricians through hotlines and multidisciplinary team meetings.
- There are indications that the self-management programmes that feed into the hubs have had some impact on hospital use. Since the introduction of the 'Itchy, Sneezzy, Wheezy' programme, asthma **emergency admissions** in inner North West London have declined at a faster rate than admissions in an outer North West London control area (Connecting Care for Children 2014).
- Before the hubs were introduced, the paediatric hotline was evaluated and 23 calls, from 13 surgeries, were analysed. Almost half resulted in either GP review, advice on medication or reassurance of parents; around a quarter resulted in referral to specialist clinics; and a quarter to an outpatient clinic (Watson *et al* 2013). Interviewees reported that since the MDT meeting started, the hotlines have become busier. They believe that GPs are more willing and motivated to use the hotline once they have had the chance to work with and learn from the consultants within the context of a multidisciplinary team meeting.

- **Patient survey data** from the pre-pilots of the outreach approach show that 94 per cent of parents preferred to be seen in their GP surgery due to convenience, familiarity, hospital hygiene and reductions in waiting time. Interviewees reported that parents feel the consultant has authority and their presence at an appointment helps to calm anxieties (Connecting Care for Children 2014).

# Barriers and enablers to service development

## Local context

- **Highly motivated consultants** at St Mary's drove forward the development of the hubs after years of relationship-building with enthusiastic GPs in the local area. Consequently, the hub pilots were set up in a receptive environment with GPs who were keen to develop closer links with the hospital and work in new ways. To take part, GPs must provide same-day access to paediatric advice in their surgeries. For the educational benefits to be realised, GPs must attend multidisciplinary team meetings and sit in on outreach clinics. Interviewees acknowledged that fostering this close engagement in a broader group of GPs is likely to be a challenge when rolling out the model.
- A **children's commissioner** who held a joint post in the PCT and local authority played an important role in the initial development of this service. She gathered all of the paediatric out-of-hospital work taking place within the then PCT into the co-ordinated strategy known as Connecting Care for Children, and co-ordinated bids for funding, stakeholder engagement and economic evaluation of pilots of the model. This included playing an important role in bringing GPs into discussions about service development.
- **Staff at the CCG** now take the lead in spreading the model across their locality. This includes agreeing templates, processes and payment approaches that can be spread more widely. CCG staff play an active role in project-managing the hubs, including organising multidisciplinary team meetings and education sessions, chairing those sessions and circulating learning points afterwards. The commissioners recognise the need to take a flexible approach to roll-out, and plan to ensure that certain core elements are included in all hubs (multidisciplinary team, open access for patients), while allowing other aspects to be adapted locally.

## Service design

- Also key to the hubs' success is that **consultants work across secondary and primary care**. Hospital-based consultants give GPs insight into the workings of the hospital and they play an important in-reach role, connecting GPs to sub-specialties in the hospital.
- Interviewees reported that there were advantages to having both **email and telephone advice lines**. GPs often do not have time to use the telephone hotline when the consultants are available, so email can be more convenient. However, discussing patients over the phone allows advice to be provided more freely and questions to be asked and followed up immediately.
- **Evaluation** has been embedded into the design and ongoing development of this model, due to an NHS Innovation Fund grant. Imperial is working with the North West London CLAHRC to develop an approach to evaluating all parts of the model.

## Funding arrangements

- The hubs are currently paid for via a **patchwork of funding arrangements**, with different parts of the hubs funded by multiple grants and funding approaches. The lack of a single service specification makes agreeing a consolidated payment approach and transferring the model elsewhere difficult. Consultant input into multidisciplinary team meetings is part of the acute trust's block contract with the CCG. The CCG pays GP locum costs for a GP to attend each clinic and multidisciplinary team meeting. If other GPs or health care professionals choose to attend the multidisciplinary team meetings, their time is not reimbursed. Initial development of the model, the practice champions initiative and management of the MDT meetings were funded through a Community Education Provider Network grant from Health Education North West London (see <http://nwl.hee.nhs.uk/our-work/community-education-provider-networks/>), pilot funding from the CCG, and a large amount of unfunded time from the consultants. An NHS London Innovation grant paid for initial project management, stakeholder consultation and evaluation costs. Some elements of the service remain unfunded, such as the email/telephone hotline and CCG staff time spent on development and management of MDT meeting. Unfunded elements of the model are a barrier to broader

roll-out. The commissioners are working on plans to develop a new payment approach. These include commissioning based on outcomes and potentially a lead provider model where GPs receive a capitated budget for the care of their population.

- Some important parts of the model have benefits that interviewees noted can be difficult to demonstrate to commissioners. Despite this, interviewees highlighted the importance of retaining the education and self-management initiatives as part of the model if transferred elsewhere.

### System-wide

- National issues with **information-sharing** have hindered the development of the service. Although the hospital is now able to share information with GP practices on the number of frequent A&E attenders each month, this data has to be anonymised. The multidisciplinary team meeting cannot therefore have a full discussion of possible causes in individual cases and GPs cannot follow up frequent attenders to see what additional support they might require. Consultants cannot access hospital records from the outreach clinics: information is currently noted on the GP's system and then emailed to the hospital to be put on the patient's file. There has been work taking place in North West London, which the consultants are heavily involved in, to improve information-sharing.
- A more specific structural issue occurs when a patient seen at the outreach clinic needs to be referred to the hospital for diagnostic tests. These patients are not yet present in the hospital system and so in one or two cases have had to be referred for a hospital outpatient appointment that must be paid for, but never happens, in order to access the diagnostic tests.
- The **PbR tariff** creates an incentive for the hospital to see patients in outpatient clinics. Interviewees saw it as a barrier to establishing the service and agreeing a funding approach.

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