

Integrating primary and secondary care for children and young people: sharing practice

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ABSTRACT

Objective To share innovative practice with enough detail to be useful for paediatricians involved in planning services.

Design A review of practice, adopting a realist approach.

Setting We collected detailed information about five initiatives which were presented at two meetings in July and October 2014 and telephone interviews between July and November 2014 with key informants, updating information again in February 2015.

Results The five case studies involved three clinical commissioning groups (CCGs): Islington CCG and Southwark and Lambeth CCG in London and Taunton CCG in the Southwest. All five initiatives involved acute paediatric units. We heard about four distinct types of services designed to bring paediatric expertise into primary care and/or improve joint working between paediatricians and primary care professionals: telephone multidisciplinary team, hospital at home, general practitioner (GP) outreach clinics, and advice and guidance. We defined four common ways that initiatives might work: promoting shared responsibility; upskilling GPs; establishing relationships between paediatricians and primary healthcare professionals; and by taking specialist care to the patient.

Conclusions We derived common aims and mechanisms and generated programme (mid-level) theory for each integrated care initiative about how they might work. These descriptions of what is being done can inform debate about which interventions should be prioritised for wider implementation. There is an urgent need for evaluation of these interventions and more in-depth research into how mechanisms and their effectiveness could be assessed.

INTRODUCTION

Integrated care for the elderly and adults with chronic conditions is informed by a growing body of research into models of care. The Department of Health is supporting continuous practice sharing and learning from innovation sites.¹ In contrast, there is a lack of research into effective models of integrated care for children and young people and a lack of case studies demonstrating how innovators are responding to the challenge of putting integrated care into practice. Services for children and young people still have a long way to go before they can offer the right care in the right place at the right time.²

Integrated care is an umbrella term to describe initiatives which aim to address fragmentation of care between and within public services.^{1 3 4} Integrated care can refer to care at the interface

What is already known on this topic

- Integrated care is an umbrella term used in this paper to describe initiatives which aim to address fragmentation of care between primary and secondary healthcare for children.
- Current NHS policies prioritise implementation of integrated care.
- There is a lack of research describing models of integrated care for children and young people or evaluating effectiveness.

What this study adds

- We identified four models of paediatric integrated care: telephone multidisciplinary team, hospital at home, general practitioner (GP) outreach clinics, and advice and guidance.
- Common mechanisms across initiatives included: promoting shared responsibility; upskilling GPs; establishing relationships between paediatricians and primary healthcare professionals; and taking specialist care to patients.
- These five case studies of what *is being done* inform debate about what *could be done* more widely.

between healthcare and social care services (horizontal integration),⁵ between primary, secondary and tertiary healthcare services (vertical integration), between different parts of a pathway within a single service, or between a child and family and each of the care providers that they rely on (integration around a patient).⁶ We define integrated care as the integration between primary and secondary healthcare for children and young people.

In this article, we review exemplars of integration between primary and secondary healthcare services for children and young people based on five case studies. These descriptions of innovation will improve understanding of what is feasible, for which children and with what possible impact. We use these descriptions of what is being done in order to inform debate about what could be implemented more widely and evaluated.

AIM

Our primary aim was to share innovative practice with enough detail to be useful for paediatricians



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involved in planning services. Paediatricians might consider whether any of the initiatives presented here could work in their own local environment, given their own population needs and the strengths and challenges in their own organisations. Commissioners and policy-makers may also find this article helpful when thinking about their role in helping paediatric units learn from each other and in building a robust evidence base.

METHODS

We collected detailed information about five initiatives using presentations given at two meetings in July and October 2014 and telephone interviews between July and November 2014 with key informants who had leading roles in the initiative: five paediatricians, one community matron and one GP. We contacted key informants by email again in February 2015 to make sure that we had the most up to date and correct information about the initiatives. We described the intended aims, target populations and key practices contained in each initiative as well as the facilitators and barriers to getting the initiatives up and running in each local context. We compared the five initiatives to identify common aims and ways of achieving these aims (mechanisms).

Our approach shares characteristics with a 'realist' approach to supporting quality improvement in healthcare.^{7 8} Our assumptions are that innovation and change in healthcare are achieved through dovetailing of change at multiple levels of the system and that local contextual factors determine effectiveness of intended mechanisms of change. In other words, the same intervention cannot get off the ground in every hospital/locality, nor should it be assumed to have the same impact if implemented in very different settings. A realist synthesis of evidence aims to generate theory about the interactions between contexts, mechanisms of change and outcomes so that learning can be meaningfully applied to other settings.^{7 8}

Generating such theory is beyond the scope of the descriptive case studies that we present here. However, articulating aims and presumed mechanisms can be thought of as a first step towards building a programme theory about these types of interventions—a mid-level theory that helps quality improvement by generating hypotheses about what is likely to work and how. This provides a framework for understanding how transferable these interventions might be to other local contexts and how evaluations could be planned.^{7 9}

We did not systematically collect data on impact of the five initiatives or cost/cost-savings, although we summarise informants'

thoughts on the impact of initiatives, where this was shared with us in the interviews. Questions of impact and cost are ones that need to be addressed in further research in order to convince commissioners to invest in these initiatives in the long term. As this study was part of an audit of practice, we did not require approval from an ethics committee. The study was registered as a clinical audit with the Great Ormond Street clinical audit team.

RESULTS

The five case studies involved three clinical commissioning groups (CCGs) in London and the Southwest of England: Islington CCG and Southwark and Lambeth CCG in London and Taunton CCG in the Southwest (see online supplementary table). All five initiatives involved paediatric units. We heard about four distinct types of services designed to bring paediatric expertise into primary care and/or improve joint working between paediatricians and primary care professionals:

1. *Telephone multidisciplinary team (MDT)*: an MDT telephone conference led by GPs for children and young people at risk of further hospital admission or visits to the Emergency Department (row A, see online supplementary table).
2. *Hospital at home*: joint management of acutely unwell children and young people in their own home by an enhanced community nursing team and paediatricians (row B, see online supplementary table).
3. *Two-GP outreach clinics*: two-GP outreach clinics (also called primary care paediatrics) where paediatricians either deliver clinics for children and young people jointly with GPs (row C, see online supplementary table), with GP trainees or health visitors (row E, see online supplementary table) or alone in general practice settings (row E, see online supplementary table).
4. *Advice and guidance*: An advice and guidance service for GPs to access specialist advice from paediatricians when they consider making a referral to a hospital paediatric outpatient clinic (row D, see online supplementary table).

See online supplementary table for a more detailed description of each initiative.

Who are the integrated care initiatives for?

The five initiatives targeted the whole spectrum of children and young people, from those who were acutely unwell, for example, with pneumonia or an exacerbation of asthma

Table 1 Common aims and mechanisms

Mechanisms and related initiatives	Aims			
	For patients			For services Reduce cost
	More convenience less disruption	Improve experience	Provide same or better care in the community as in hospital	
1. <i>Shared responsibility between paediatricians and primary care professionals</i> Telephone MDT, hospital at home			X	X
2. <i>Upskill GPs in paediatrics</i> Telephone MDT, GP outreach clinics, advice and guidance		X	X	X
3. <i>Establish professional relationships between paediatricians and primary healthcare professionals and share norms</i> Telephone MDTs, hospital at home, GP outreach clinics	X	X	X	X
4. <i>Take specialist care to the patient</i> Hospital at home, GP outreach clinics	X	X	X	X

GP, general practitioner; MDT, multidisciplinary team.

Table 2 Hypothesised relationship between activities, mechanisms and aims*

	Telephone MDT	Hospital at home
If....	GPs, paediatricians and a wider MDT discuss specific children and young people at high risk of ED attendances by phone each month	Specialist community nurses make daily visits to acutely unwell children and young people at home, followed by a telephone call between the community nurse and duty paediatric consultant
Then....	GPs will feel motivated and confident to manage these patients and will gain skills/have access to specialist support to do so (shared responsibility and upskilling GPs) MDT members will better understand their colleagues and their service thresholds (establish professional relationships and share norms)	Community nurses will have access to specialist paediatric support to manage these patients (shared responsibility) Community nursing and paediatric team will build relationships, trust and understanding (establish professional relationships and share norms)
So that....	Patients receive high quality care from their GP Families perceive a 'joined up' healthcare service and have a better patient experience GPs refer patients appropriately to ED	Paediatricians and community nurses jointly plan care (take specialist care to the patient) Community nurses can give parents extra skills and confidence to look after their unwell child
So that....	Patients trust the care they receive from the GP, feel motivated to seek help from primary care and become confident in managing their own chronic conditions Patients experience fewer exacerbations of chronic illness	Parents can look after their child overnight without professional support and can recognise when to seek urgent help Families experience a 'joined-up' healthcare service and a better patient experience
So that....	The need and motivation for ED visits is reduced Hospital costs are reduced and burden on overstretched ED services is eased Quality of healthcare is maintained There is less inconvenience and disruption for the patient and family	These children and young people can avoid emergency hospital admissions (along with hospital acquired infections) and if admitted, can be discharged earlier Hospital admission costs are reduced and beds are freed up Quality of healthcare is maintained There is less inconvenience and disruption for the patient and family
	GP outreach clinics (London)/paediatric primary care (Taunton)	Advice and guidance service
If....	If a consultant paediatrician runs a regular outpatient clinic in primary care, either jointly with a GP (London), GP trainee or health visitor (Taunton), or alone (Taunton)	If GPs have access to email advice and guidance from a consultant paediatrician when they are considering referring a child or young person to a hospital outpatient clinic
Then....	GPs will gain paediatric confidence and expertise, which they can disseminate to their colleagues (joint clinics; upskilling GPs) GPs, health visitors and paediatricians will better understand each other and the different service thresholds (joint clinics, establish professional relationships and share norms)	GPs will develop paediatric expertise (upskilling GPs)
So that....	Patients have access to paediatric examination and expertise closer to their home (Taking specialist care to the patient) Families perceive a 'joined up' healthcare service and have a better patient experience Families trust the care they receive in the community and are motivated to seek care outside of hospital	GPs can manage more children and young people without referring to hospital services Families have increased trust and confidence in primary care
So that....	These patients do not need to attend a hospital-located outpatient clinic These patients are less likely to go to ED for healthcare needs Healthcare costs are reduced and burden on overstretched outpatient and ED services are eased Quality of healthcare is maintained There is less inconvenience and disruption for the patient and family	Referrals from GP to hospital outpatient clinics are reduced These patients are less likely to go to ED for healthcare needs Healthcare costs are reduced and burden on overstretched outpatient and ED services are eased Quality of healthcare is maintained There is less inconvenience and disruption for the patient and family

*Formulated as a series of 'if-then' statements, following examples of articulating programme theory by Pawson *et al*⁷ Common mechanisms (see table 1) are in bold. ED, emergency department; GP, general practitioner; MDT, multidisciplinary team.

(hospital at home), to those with high levels of unplanned hospital use, including children with long-term conditions (telephone MDT, GP outreach clinics). Some initiatives included children and young people who could be managed entirely in primary care (advice and guidance and GP outreach clinics).

What were the aims?

The informants told us that the initiatives aimed to improved care for children, young people and their families and improve patient experience and quality of life (see online supplementary table). It was hoped that this could be achieved through avoiding the need for children and young people to go to hospital, either by avoiding the need for specialist care at all or by taking specialist care into the community. This is consistent with descriptions of approaches to integrated care for adults.¹

Informants reported that delivering care in patients' homes or in GP practices was more convenient and less disruptive for patients and their families, compared with expecting patients

and families to travel to and/or stay in the hospital. Informants argued that, for targeted groups of patients and with appropriate specialist support, care out of hospital could be of equal quality while offering a better experience for patients and saving money for services. Savings were anticipated through replacing expensive hospital activity for lower cost activity in the community. For example, in Taunton the tariff for a consultation in a GP outreach clinic was approximately 40% less than the tariff for a consultation in a paediatric outpatient department, because of increased administrative costs in hospital (GP outreach clinic in Taunton, see online supplementary table). Intended benefits to the service included reduction in costs and/or freeing up hospital capacity.

How were initiatives planning to achieve their aims (mechanisms of change)?

Based on reports from informants, we defined four ways that initiatives might work:

1. By promoting shared responsibility between paediatricians and primary healthcare professionals.
2. Upskilling GPs: increasing paediatric confidence and competence at the front end of care pathways
3. Establishing relationships between paediatricians and primary healthcare professionals: to promote shared norms, cultural understanding including of service thresholds and willingness to work together.
4. Taking specialist care to the patient: bringing paediatric expertise, treatment, specialist opinion and examination to the patient- 'care closer to home'.

As [table 1](#) shows, every one of these strategies was being used to try and maintain quality of healthcare provision while keeping children and families away from hospital, with a hoped for reduction in costs to services and increased capacity in hospitals. It was also hoped that some of the strategies would improve patients' experience of services and offer a more convenient way for child, young people and families to access high-quality healthcare ([table 1](#)).

Relationship between activities, mechanisms of change and aims

Unsurprisingly, the initiatives that involved MDT working had the most complex set of presumed mechanisms of change (telephone MDT, hospital at home and joint paediatric-GP outreach clinics; [table 2](#)). From the brief interviews, we could not explore in depth how hierarchies and leadership operated in practice in these MDTs. Organisations wishing to set up these kinds of initiatives will need to see if the presumed mechanisms of change set out in [table 2](#) are feasible and practical in their setting and use their programme theory (see Methods) to determine which outcomes to measure. For example, as well as measuring hospital use, it might be advisable to measure patient trust and confidence in primary care services which is a step on the presumed mechanisms of change in all of the initiatives (see [table 2](#)).

Barriers and levers

The most important context, acting as both level and barrier, across the five initiatives was related to funding (see online supplementary table). In many cases, the potential financial benefit to the CCG was clear: providing review in the community was cheaper than in hospital, especially where paediatric expertise was given electronically. In contrast, hospitals which were paid per patient (rather than paid a flat fee for a block of services) stood to lose income if the initiatives were successful in reducing hospital visits (see online supplementary table). Even where hospitals had negotiated a tariff from commissioners for each patient 'treated' away from hospital, there was a fall in hospital income (advice and guidance service, see online supplementary table).

Potential to free up both staff time and beds appeared to encourage hospital participation in the initiatives. For example, the advice and guidance initiative was reported to have created additional capacity in outpatient hospital clinics, which could help hospitals reach performance targets as well as generate additional income by hosting tertiary care clinics (detailed in see online supplementary table). In another example, clinicians spent less time transferring patients to other hospitals after hospital at home reduced admission and length of stay for other patients.

An additional lever was the existence of established and functional services. The hospital at home service extended a pre-existing expert community nursing service and good relations

between this team and acute paediatric services in the area. The GP outreach clinic in Taunton built on the success of the advice and guidance service and the telephone MDT (London) extended an existing scheme for adults (see online supplementary table). These services can be thought of as extended or enhanced services rather than completely new services.

Unsurprisingly, strong and committed leadership and organisational and stakeholder enthusiasm was a prerequisite to set up and sustain initiatives. Engagement and support was achieved through establishing a shared vision and agenda, which could be a difficult and lengthy process. In one case this involved external facilitators (hospital at home), codesigning services with organisational and front-line stakeholders and having committed and properly resourced leadership. This initiative required buy-in from wider team members, such as pharmacy and information technology services who needed to be responsive and flexible as services evolved quickly over time.

What was the perceived impact of these initiatives?

Key informants reported demonstrable benefits from initiatives, including meeting their aims of reduced hospital activity and in some cases reducing cost (advice and guidance and GP outreach clinic in Taunton). Unforeseen benefits were also reported. The hospital at home team noticed improved child safeguarding from the nurses making home visits and heightened awareness and paediatric referral to all community nursing services. In two cases, informants reported that commissioners and providers had raised potential harms and said that these would be explored in evaluations of the initiatives. Commissioners of the Taunton GP outreach clinics feared that thresholds for the joint clinic in primary care would be lower than for outpatient clinics and there would simply be an increase in service activity rather than a transfer of activity into primary care from hospitals (see online supplementary table). The informant for hospital at home raised the possibility that transferring hospital care into the community might threaten the existence of hospitals which were geographically near (see online supplementary table). No potential harms were mentioned for children, young people or their families.

DISCUSSION

Our primary aim was to share innovative practice at the interface of paediatric and primary care with enough detail to be useful for paediatricians involved in planning services. Informants cogently described their initiatives, each of which was reportedly feasible in their setting. We perceived common aims and mechanisms and generated programme (mid-level) theory for each about how they might work. These descriptions of what *is being done* can inform debate about what *could be implemented* more widely and evaluated.

Overwhelmingly, the initiatives aimed to reduce the need for children and their families to visit hospital for specialist paediatric care. It was thought this would improve or maintain quality of care for patients, improve their experience of healthcare services and/or quality of life and reduce costs for the health system. Hospital at home and the Telephone MDT were the most intensive and complex of the initiatives, working through a number of mechanisms and involving joint working within large MDTs. All of the initiatives, to varying degrees, intended to promote shared responsibility for patients between paediatricians and primary care professionals (specifically GPs or community nurses) and to establish relationships between these two groups as a mechanism for improving care and outcomes for children, young people and families.

What are the gaps in knowledge?

An obvious gap in this report is our restriction to five case studies in two areas in the South of England and only a handful of initiatives within these localities. We were also limited by the focus on paediatric informants. Widening the scope of enquiry geographically and in terms of informants would reveal additional types of interventions. For example, we know of education initiatives directed at children, young people and their parents to help them avoid unplanned hospital visits and to navigate the healthcare system. A survey of practice in paediatric units would provide breadth of coverage about initiatives currently in place in England. We found it difficult to collect information about exact costs of a service and throughput of patients and staff hours needed. This information might not have been available to informants although they were leaders/champions of the services. Alternatively, there may have been a reluctance to share this information and/or a lack of comprehensive costing where initiatives relied on 'slack resources' (availability of staff time) within organisations.

There is a lack of robust research evidence to tell us whether the initiatives we described achieved their stated aims for children, families or health services or mechanisms worked in the ways we imagined. Most of the initiatives are very new and some have planned evaluations. No results are available yet. As none of these evaluations involve comparisons with similar services without integrated care, the planned evaluations will provide learning on the design and implementation process rather than robust evidence about effectiveness.

The descriptions of the key practices, aims and mechanisms of the five initiatives presented here allows us to look for indirect evidence about their effectiveness, based on studies of similar interventions, including in different patient groups. Based on the common aims of the initiatives (table 2), we sought indirect evidence from literature reviews relevant to 'care closer to home', 'demand-management' (reducing burden on hospitals and increasing efficiency of services) and MDT working by telephone.

For example, Roland *et al* reviewed the evidence on specialist-led outpatient clinics located in primary care as part of a larger review on efficiency of outpatient services.^{10 11} Parab *et al* conducted a systematic review (2013) of specialist home-based nursing services for children evaluating a hospital at home alternative to admissions for acutely ill children.^{12–16} Blank and colleagues published a systematic review of 'gatekeeping services' for referral from primary to planned secondary care, relevant to the advice and guidance service in Taunton.¹⁷ Ke and colleagues conducted a systematic review on the cost-effectiveness of teleconferencing for MDTs in adult secondary care.¹⁸

Generally, the evidence included in the reviews is weak, with a high likelihood of bias even for the handful of randomised controlled trials evaluating hospital at home and gatekeeping services into secondary care.^{17 18} Most relevant evidence comes from before and after studies, not always with a control group.^{10 11 17 19}

There is some evidence that families prefer services, which bring specialist care out of hospital and into their home or the community,^{10 11 19} that health outcomes *might* be maintained when care is provided closer to home,^{10 11 13 19} but that they are not necessarily efficient for the NHS.^{10 11 17–19} Other reviews of integrated care initiatives in adults have also highlighted the potential for these initiatives to increase demand and/or cost despite ambitions to the contrary.¹ The lack of good quality evidence makes it difficult to draw firm conclusions about effectiveness.

High-quality comparative studies of the interventions that we have described will be challenging, but feasible—previous randomised controlled trials in this area have already been

undertaken. High-quality comparative studies are necessary to start untangling the effects of the intervention from other complex factors within and beyond the healthcare system.

Using a bottom-up approach to describe innovative services in terms of activities, aims, presumed mechanisms and the relationship between them is the first step to improving the evidence base in this area. However, more in-depth studies are needed in order to build theory around mechanisms when evaluating integrated care interventions.²⁰

Research also needs to evaluate how new commissioning reforms impact on the ability for local providers to innovate and push forward models promoting integrated care for children and young people.

Implications for services and policy

Paediatricians and other child health professionals can use the description of these five initiatives to consider whether any of them could work in their own local environment, given their own population needs and the strengths and challenges in their own organisations. Those running or planning similar services should also consider potential harms of the service and measure these as well as potential benefits in studies to evaluate the effectiveness of integrated care initiatives.

Services planners and leaders should share their innovative practice, including clear descriptions of the activities, aims, proposed mechanisms for achieving these aims and the service and population context.

Policy makers have a role in helping services learn from each other in order to innovate safely and efficiently. The NHS should consider commissioning a nationwide survey of integrated care projects with follow up to assess sustainability and unexpected effects. Commissioners could also be responsible for describing new initiatives in detail and making this information publically available. These are the first steps in working towards urgently needed comparative studies to determine which interventions work best and for whom.

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ARCHIVIST

Apple juice for rehydration

Oral rehydration therapy (ORT) has been the preferred treatment for mild gastroenteritis (GE) globally for decades. Solutions containing glucose and electrolytes are undoubtedly effective, but there's a problem: they taste awful (ever tried one?). Young children who are feeling unwell are even less likely to drink something unpleasant than they would when well, so many carers abandon attempts to force it down: the result, sometimes, is the eventual need for intravenous fluids. Could this be prevented by giving something more palatable?

Researchers from Toronto, Canada set out to see whether dilute apple juice was as good as standard electrolyte maintenance solution (EMS), here sweetened with sucralose (Freedman S, et al. *JAMA*. 2016; doi:10.1001/jama.2016.5352). In a non-inferiority trial, they randomised over 640 children aged 6 months to 5 years presenting to a single large children's emergency department (ED). To qualify they needed to have mild GE, ie, no or only minimal dehydration clinically, and no other complicating conditions. The study was single-blind, so the caregivers knew what they were giving after discharge from the ED, and they were given specific instructions: the apple juice group could drink what they wanted, while the EMS group were asked to stick with a rehydration schedule. They were followed up by telephone contact after 48–72 hours. No lab tests were done. Treatment failure was defined as the need for admission or IV fluids, re-attendance, or symptoms persisting >7 days.

They found that the apple juice group did better (17% were treatment failures vs 25% in the EMS group: $p < 0.001$ for inferiority, $p = 0.006$ for superiority). IV fluids were given to 2.5% of the apple juice group and 9% of the EMS group. The difference was greatest for older children, perhaps because they are more fussy about what they drink. The higher sugar content of apple juice, which in theory could cause a pro-diarrhoeal osmotic effect, did not seem to be a problem.

It is important not to extrapolate these findings to low-income countries, and where the nature and severity of GE is very different. But here in the West, we can now feel more reassured about what many of us are saying to parents already: if the child won't drink electrolyte solution, ask them to drink dilute juice instead.

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Supplementary Table: Description of five integrated care initiatives in London and the south west of England

	Initiative	Description: information provided by key informants	Levers and barriers
A London	<p>Children's Multidisciplinary (MDT) teleconference</p> <p>Commissioned by Islington Clinical Commissioning Group and developed collaboration with local providers Whittington Health, UCLH and Islington Local Authority children's services.</p>	<p>Stated aim: To improve quality of health care through better coordination of care across primary care, community services and secondary care for children in Islington with increased health needs.</p> <p>Service: A multidisciplinary teleconference led by GPs, to support agreed personalised outcomes identified through a care and support planning consultation. Attended by consultant paediatricians, Health Visitor, families first (support service run by Islington Local Authority), Children's Community Nurse, CAMHS, school nurse, pharmacist and GP. Twelve slots of fifteen minutes on a monthly basis and discussions are chaired, in rotation by one of the four locality GP leads. Actions are agreed by the team and followed up.</p> <p>Started: January 2014</p> <p>Target population: Children with ≥ 4 ED attendances within 12 months, aged 2y+ AND ≥ 2 asthma-related ED attendances within 12 months or ≥ 1 emergency admissions for diabetes. A list of children who meet criteria is disseminated to GP practices and GP selects children for discussion.</p> <p>Funding: Drew on existing funds allocated by the Clinical Commissioning Group to adult telephone MDT meetings. Exact costs not known to us.</p> <p>The initiative is being formally evaluated.</p>	<p>Levers:</p> <p>The Joint Vice Chair (Clinical) of Islington Clinical Commissioning Group leads on children's services for the Clinical Commissioning Group and works locally as a GP.</p> <p>There was already a service in place for MDTs for adults onto which the children's MDT piggy-backed.</p> <p>The GPs' time was paid for by the Clinical Commissioning Group from existing funds but there were no extra funds for other health professionals' time.</p> <p>Barriers:</p> <p>Convincing stakeholders of the importance of this initiative for this specific group of children.</p>

<p>B London</p>	<p>Hospital at Home (H@H)</p> <p>Run by Whittington Health (lead provider), University College London Hospital (UCLH) and Islington Clinical Commissioning Group.</p> <p>Started in August 2014.</p>	<p>Stated aim: To improve child or young person and family experience during episodes of acute illness or exacerbations of chronic illness by avoiding hospital admission where possible, shorten length of stay when children are admitted and preventing presentations to ED.</p> <p>Service: Daily visits to acutely unwell children and young people at home 7 days a week between 8am and 10pm from specifically trained paediatric community nurses. The nurses provide healthcare and help families navigate services. The visit is followed up with a telephone call between the duty paediatric consultant and the community nurse to agree management of the child or young person and anticipate referrals to secondary care services. The child or young person is jointly managed by the community nurse and paediatrician and accountability lies with the paediatrician. The service is jointly led by a consultant paediatrician and a designated H@H matron (part-time, one day a week). Children and young people are referred to Hospital at Home from: ED, hospital outpatients, rapid access clinics, the paediatric ward or neonatal unit and from community paediatricians. Currently GPs cannot refer directly to H@H due to clinical governance issues.</p> <p>Started: August 2014</p> <p>Target population: Children or young people who would typically be managed in hospital but might remain safely at home with enhanced support, including: those on intravenous antibiotics, babies using energy blankets for jaundice, those requiring treatment for dehydration and those whose parents need extra support to manage the child or young person at home. Patients must be ≤ 18 years and registered with an Islington GP.</p> <p>Funding: Funded by Islington Clinical Commissioning Group. Funds managed by Whittington Health. £470,000 provides the extra needed for <i>enhanced</i> community nursing required for H@H, one day a week of a Hospital at Home Matron and consultant paediatrician time but not admin, communications & IT support.</p> <p>The initiative is being formally evaluated over the first year.</p>	<p>Levers</p> <p>Existing data on local admissions was used to determine the scope of the initiative.</p> <p>Drew an already expert and highly functional community nursing team who had credibility with the paediatricians.</p> <p>The team of front line stakeholders (e.g. pharmacy, Information Technology (IT)) have been flexible and responsive, allowing iterative development.</p> <p>Consultant paediatrician and lead matron posts funded – both necessary for success</p> <p>An external facilitator helped multiple stakeholders to co-design the service and achieved buy-in at organisational level from stakeholders with competing priorities.</p> <p>Buy-in from front-line clinicians was facilitated by working groups.</p> <p>The community nursing team was supported by organisational development through the changes to routine working.</p> <p>Barriers:</p> <p>Perceived threat to hospitals: with a successful H@H service, will two acute hospitals three miles apart <i>both</i> be needed?</p> <p>Time and drive needed to reach agreement between stakeholders and keep momentum.</p>
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<p>C London</p>	<p>GP outreach clinics Run as part of the very large Children and Young People's Health Partnership. The clinics represents a partnership between Guy's and St. Thomas' charity and Southwark and Lambeth Clinical Commissioning Groups, GPs and acute providers.</p>	<p>Stated aim: To improve quality and convenience of everyday care for children by bringing paediatric expertise into the community.</p> <p>Service: A consultant paediatrician runs a clinic in partnership with GP surgeries to see patients who GPs are considering referring to secondary care, or who are more complex and require the specialist knowledge of a paediatrician but do not need to be seen in a hospital. The patients attending are chosen by their GP. Frequent attenders at ED departments and children and young people discharged from wards and needing follow up will also be seen. There are currently no inclusion or exclusion criteria for the clinic but patients must be registered with the GP surgery. The GPs who attend usually have some training in paediatrics. There are currently 2 consultant paediatricians doing outreach clinics and approximately one clinic a month, with a team meeting before or after clinic. Practice managers maintain ownership and organise the room bookings and patient letters. The paediatricians receive a list of patients and reason for referral to clinic in advance, but there is no formal referral required.</p> <p>Started: August 2014</p> <p>Target population: All children aged ≤16 years who are registered with a GP in Lambeth or Southwark GP, especially children and young people who are frequent users of ED.</p> <p>Funding: Costs of running service not known to us. Consultant paediatrician time paid for by Guy's and St Thomas' Charity (in the short-term) and no additional funding for GP time at clinic.</p> <p>The initiative is being formally evaluated.</p>	<p>Levers Funded by Guy's and St Thomas' charity for 30 months. Commissioners from both localities had a shared agenda.</p> <p>Barriers Potential loss of income for hospital mitigated by charity funding until new funding organised.</p>
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<p>D south west England</p>	<p>Advice and Guidance email service</p> <p>Run as a partnership between Taunton Clinical Commissioning Group and Taunton and Somerset NHS Foundation Trust</p>	<p>Stated aim: To improve care for children by adding value at the point of GP referral to secondary care.</p> <p>Service: Taunton and Somerset NHS Foundation Trust provides a consultant led advice and guidance service for GPs considering referring a child to hospital outpatients, which guarantees an electronic response within 2 working days through the Choose and Book online system. GPs will be advised to refer the child to outpatients or given advice on managing the child in primary care and/or signposted to appropriate services from the voluntary sector. The service is provided for all five federations of GPs in Taunton (approximately 100 GP practices). Consultants can check and respond to incoming emails at any-time in their shift. The service has moved from a Monday-Friday to a 24/7 service. The Advice and Guidance email service format is now being rolled out to six other specialties in Taunton, e.g. haematology, neurology.</p> <p>Started: February 2009</p> <p>Target population: Any child that the GP is considering referring to hospital outpatients. Children who need a clinical examination for diagnosis, where NICE recommends a clinical examination or who need investigation or observation only available in secondary care will always be brought into outpatients clinic (or to paediatric primary care clinic when up and running, see below).</p> <p>Funding: Patients are referred through the Choose and Book system to ensure that a tariff is received by the hospital for each patient referred to the Advice and Guidance email service. Tariff's range from £30-60 per patient (variable contract models). Tariffs represent 60% of a new patient's outpatient visit. Exact costs of running service not known to us.</p> <p>Audit data are collected.</p>	<p>Levers</p> <p>Obvious benefits to the then Primary Care Trust: there were potentially quick and large cost savings.</p> <p>Agreeing a per-patient tariff for hospitals for each patient referred.</p> <p>The service grew organically which helped with take-up: it was initially rolled out to one federation but the other federations heard about it and requested it.</p> <p>Barriers</p> <p>Potential benefits for acute Trusts were less obvious to the hospital executive. But the executive became more supportive as they saw the service a) help increase capacity at outpatients, leading to reduced waiting times and improved hospital performance against targets and b) allow tertiary care colleagues to do clinics at the hospital, bringing tariffs for local services.</p> <p>Loss of income for hospital despite agreed tariff (perverse contractual incentives).</p> <p>No incentive for individual GPs to reduce referrals to outpatients.</p> <p>Patient wish to be seen by a paediatrician (in some cases).</p>
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<p>E South West England</p>	<p>Paediatric primary Care Run as a partnership between Taunton Clinical Commissioning Group and Taunton Hospital Executive.</p>	<p>Aim: To improve quality and convenience of everyday care for children by bringing paediatric expertise into the community (to reduce the need for patients to come to the hospital outpatients department to receive a clinical examination and reassurance).</p> <p>Service: Paediatric consultants will conduct clinics in general practice with GPs for children who need a clinical examination by a paediatrician but no further tests. The pilots clinics have been conducted either by a paediatrician alone or with a health visitor or GP trainee present. Including health visitors and GP trainees helps paediatricians to use the practice's electronic patient record systems whilst also acting as a form of training for these primary care staff. There will be a core group of approximately three consultant paediatricians delivering joint clinics approximately once a month in each of the five federations of GPs in Taunton. Frequency of the clinics will be reviewed based on need/use.</p> <p>Started: At proof of concept stage.</p> <p>Target population: Children who are judged to need a clinical examination or reassurance by a paediatrician but no tests that are available only in secondary care. Patients will be selected from those referred to the Advice and Guidance email service (see D above).</p> <p>Funding: Costs of running service not known to us.</p> <p>Audit data will be collected, including to monitor potential unintended effects (see barriers).</p>	<p>Levers Existing Advice and Guidance email service (see D above).</p> <p>Barriers The paediatric primary care clinics have been much harder to set up than the Advice and Guidance email service. The hospital executive worries that the service will simply reduce GP thresholds for referral and therefore not impact on hospital use. GPs are concerned that they will be left with lots of extra follow-up work from the clinic.</p>
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