NHS

CHaMP

Child Health and Maternity Partnership

Fundamentals of Commissioning Health Services for Children

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1. Executive summary

Too many children are admitted to hospital. Though it may be an easier way to manage risk for those not confident to care for children and young people in the community, it should not be forgotten that admission is traumatic and distressing for the child and his or her family and it is a very expensive option. Investment in more specialist support for, and within primary and community services for children leads to better outcomes and releases hospital services to focus on more complex cases. Some children need very specialist care in hospitals far from home. Paediatricians believe that they could bring some of them closer to home, at an earlier stage, if local hospital beds and staff skills are released by safer management of more children in the community.

This paper uses information that is readily available to look at how some primary care trusts (PCTs) have not only reduced admissions but commissioned services which deliver better outcomes for children and young people.

1.1. Why is the current service unsatisfactory?

The child's experience of hospital. The NHS National Service Framework for Children and Young People (DH 2007) defined some minimum standards of delivery for a hospital service fit for children in the twenty-first century. It aims to make hospital a more child-friendly experience. Nevertheless, it should not be forgotten that any hospital stay for a child risks being distressing for both the child and his or her family, however friendly it may be.

The rise of admissions of children and young people to hospital and attendance at Accident and Emergency (A&E) departments. The evidence shows that there is huge variability in the rate of admission to hospital which cannot be easily explained by levels of disadvantage. Hospital services are expensive, yet paediatric and emergency care consultants complain that they are overwhelmed with cases that could, and should, be managed in the community, preferably allowing the child to remain at home. With doctors working shorter hours, finding enough doctors to cover services out of hours and ensure that those wishing to specialise get enough experience is becoming a real problem both financially and for the potential safety of the service. The Royal College of Paediatrics and Child Health (RCPCH) recommend reducing the number of round the clock paediatric units but without alternative local services this will require children and families to travel much further distances to a smaller number of hospital units.

Primary and community care services for children and young people still need to be able to refer to more specialist support if they are not confident to manage a child themselves. Simply expecting them to develop additional skills and knowledge ignores the many other priorities these services face. Some PCTs have shown that a relatively small investment, in a range of different models to provide necessary specialist advice, convenient for patient, carers and health staff significantly reduces admissions for children.

Emergency admissions for children with long term conditions exceed the levels expected if all services followed nationally agreed guidelines. These admissions often occur because children, young people and their families are not getting the advice and support to manage safely their conditions for themselves. Investing in more specialist

practitioners who can provide support for families and primary care staff in the community, not only keeps children out of hospital but also keeps them in education.

1.2 How PCTs and communities have achieved change in children's services

There are highly committed clinicians and managers who remain determined that services for children will improve. This is demonstrated by the data we have available. There are some consistent themes and processes that support change which leads to improvement, such as the value of community nursing teams with specialist practitioners, easy access to paediatricians for advice and the use of ambulatory care units to take the pressure off acute wards.

2. Introduction

There is no doubt that most children and young people in England and the rest of the UK live longer, healthier lives than they have ever done. Technological and clinical advances mean that more children with serious and complex conditions survive and are supported to make the best of opportunities for a full and productive life.

Despite this there is much more that could be done. Infant mortality has fallen but not as fast in England as in other western countries. Children born into disadvantage live shorter more unhealthy lives than those born into affluence. Much more needs to be done to support children and young people with mental health problems and improve the health of those who are looked after or in contact with the criminal justice system. To do this in the current financial climate requires clinicians to re-evaluate the services which they provide and find new models of care which provide better, more cost-effective outcomes.

The Marmot review (Marmot, 2010) and the Kennedy review of NHS children's services (Kennedy, 2010) both identify the need for much greater support for young children and their families through the most important part of their development, namely, during the period of pregnancy to five years old, if we are to reduce inequalities in health.

This paper brings together research evidence which supports an understanding of why and how services might be improved. It identifies information that is already available on use of current services and demography. Using this information it has been possible to identify PCTs which are already improving outcomes for children.

The commissioners of children's services were not always aware that their activity differed so much from others. It was also noticeable that the latest organisational changes within the NHS are already having an effect in PCTs with loss of staff with key relevant knowledge. Fortunately some PCTs have identified what, they and their providers, have done to achieve improvements, offering some consistent themes and pragmatic solutions.

3. Why is the current service unsatisfactory?

3.1. The child's experience of hospital

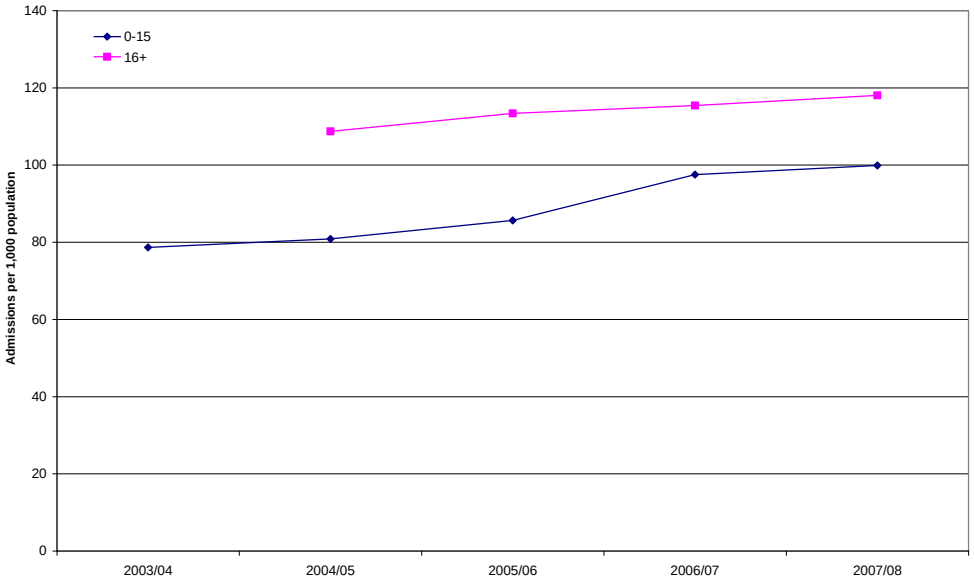
In 1952 a film was made by James and Joyce Robertson called 'A two year old goes to hospital' which followed the experience of a child in hospital. The results were so distressing to the audience that it created an impetus to transform hospital services and reduced the isolation of children from their parents and other family members. Much effort has been invested in improving the experience for children in hospital since then but it is still true that admission to hospital is a traumatic and distressing event for children and their families (Bonn, 1994 and Hall, 1987) and that increasing numbers of children are being subjected to this experience, even though we know that following simple clinical guidelines (Asthma UK, 2010), could prevent admission for many children.

The distress of children and their families in hospital is not purely to do with illness and symptoms. Taylor describes this in terms of "predicaments" which are more about social elements than structures (Taylor, 1985). Children like adults have worries and fears about being in hospital but are even more affected by the separation from friends and family. Like adults they lose a sense of who they are but have less control over what is happening to them and may not have the coping behaviour (Zastowny et al, 2008) that helps to lessen the impact.

There are many research papers giving details of how to reduce the pain of procedures and improve the environment for very sick children (Carpenter, 1991) who undoubtedly need to be in hospital. The National Service Framework for children and maternity services (DH, 2007) has done much to ensure that hospitals and their emergency departments are more child-friendly. However, we also know that many children seen in hospital could have been managed in the community, in their own homes or at least closer to home. In addition, we seem to have forgotten how traumatic an emergency admission can be for a child and his or her family or we would do more to ensure better preventative services. We are getting better at asking children and young people what they want from services but are not necessarily good at acting on their opinions (Curtis et al 2004).

3.2. The rise of admissions of children and young people to hospital

Hospital Episode Statistics (HES) show that admissions into hospital for children are going up year after year.



(Source: HES)

Figure 1: Rate of emergency admissions 2003/04 to 2007/08 in the North West

The number of emergency admissions per 100,000 population between the age of 0 and 19 years varied in 2008/9 from 3,784 to 12,680 with an England average of 7,141. There is a correlation between Indices of Multiple Deprivation (IMD) and ill health, including emergency admissions for children. Even if deprivation is taken into account there is considerable variation in the rates of emergency admissions for children and young people across the country. Figure 2 gives the 2008/09 emergency admission rate for each PCT by the PCT ranking of IMD, with the highest level of deprivation on the left and lowest on the right.

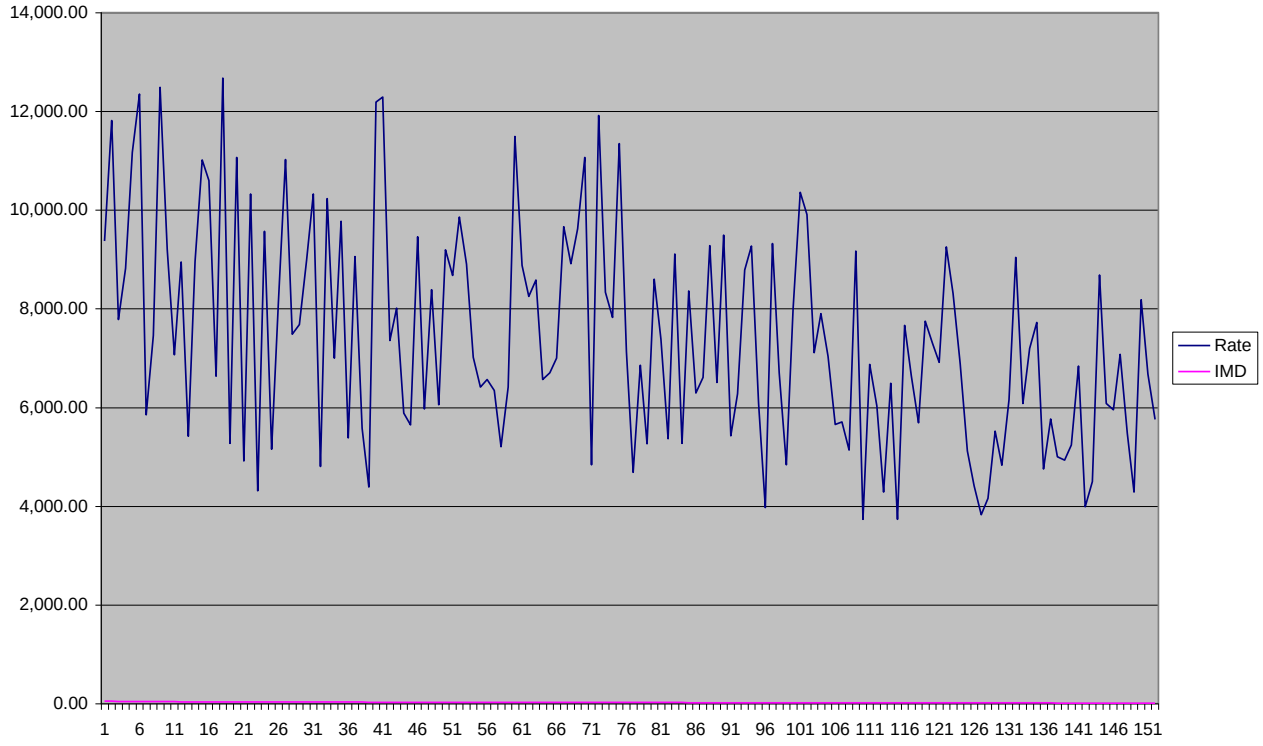


Figure 2. Emergency admission rates for children and young people by PCT IMD ranking (HES data)

Utilization research shows that a number of descriptive factors such as child's age, birth order, parental education, financial resources and perceived symptoms are related to service use but these do not adequately explain the variation (Horwitz et al, 1985).

Some of the PCTs with the highest rate of emergency admissions are in cities like Birmingham, Liverpool, Manchester, Sheffield and Brighton and Hove. These are areas with high levels of deprivation but they also have standalone children's hospitals. Do these rates of admission indicate higher levels of need, poor access to other services such as primary care or a parent or carers confidence that the children's hospital provides the best care for their child?

Examining admission trends over time has identified PCTs where levels have changed significantly between 2006/7 and 2008/9.

Figure 3 shows the difference in admission rates, again plotted against deprivation ranking with high levels of deprivation on the left and low on the right. A positive level shows reduction in admissions over the period, a negative level shows an increase in admission rate. The change in rate of admissions varied from 4,274 more admissions to 2,720 fewer per 100,000 children and young people. The all England levels show an increase in admissions by a rate of 383 per 100,000.

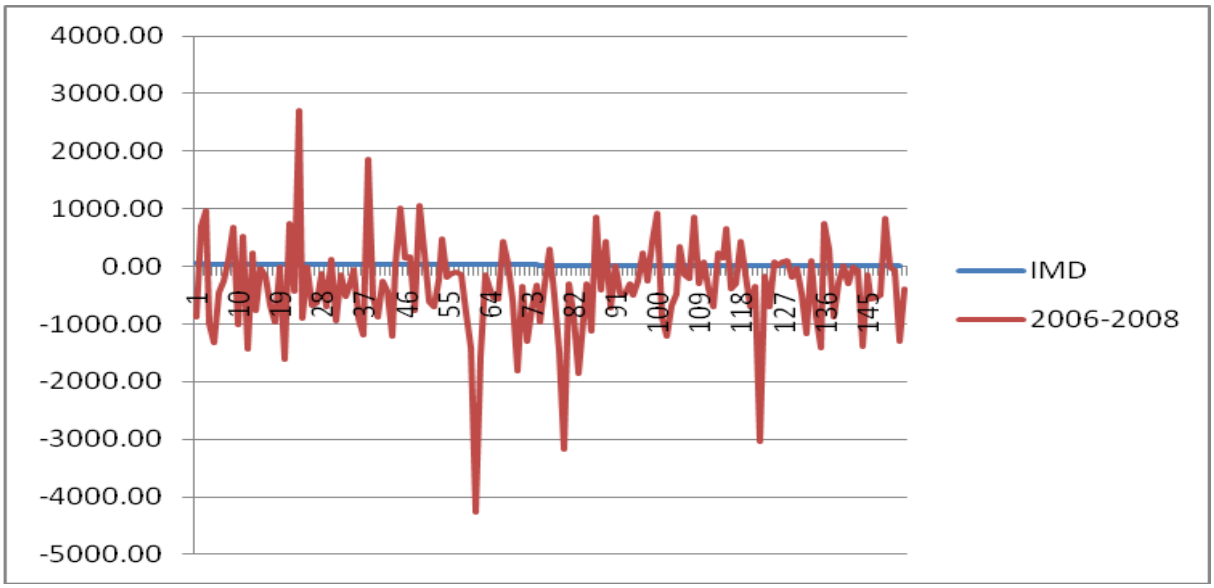


Figure 3. The change in rate of emergency admissions for children and young people between 2006 - 8 ranked by deprivation within the PCT

This does reduce the variation but highlights some PCTs with exceptional figures. The premise of this report is that reducing admissions is a good idea. In looking at emergency admissions, I have sought to find out if there are consistent themes from these exceptionally performing PCTs which provide us with lessons on how to achieve significant reductions in admissions in other areas. We also know that many admissions could be avoided by better clinical care and prevention of ill health by an experienced and well trained workforce outside the hospital sector. Hospital care is not only distressing but very expensive and it has been suggested that some services in the community not only lead to

better outcomes for children, but can also be more cost effective (Kennedy, 2010). As with adults recent policy has pushed organisations to deliver more care closer to home and reduce the dependence on hospital services.

3.3. The financial cost of admissions

Costs - Tariffs for emergency admissions

In carrying out this research I have made some positive findings in that not all admissions that are recorded by HES data are really admissions. There are a limited number of tariffs that apply to emergency admission of children which means that many PCTs are paying the tariff for an admission of around £1,000 even if a child is seen on the ward and discharged home within a very short time frame. Most admissions for children are for less that 24 hours or zero length of stay. Compare this to the price for A&E of £59, outpatients of £236 or primary care of £53 (NHS West Sussex, 2010).

3.4. Sustainability of current secondary care paediatric units

It is easy to see how it is possible to save costs by reducing admissions, but reducing the financial contract between a PCT and a secondary care provider of acute services for children and young people may have serious implications. Paediatric services are very specialist and require members of staff who have skills and knowledge which are very different to those needed to provide care for adults. It is not therefore possible to cover out of hours services for children with non paediatric trained staff. The RCPCH has calculated that to provide safe and effective emergency care will require ten whole time equivalent senior paediatric staff if a rota is to comply with the European Working Time Directive. There are a number of paediatric units with small or very small numbers of emergency admissions, which means that 24hour/ 7days a week cover is likely to be so expensive that it is unsustainable if admission rates fall. Some units are already under threat of losing their training status with low volume of suitable cases providing inadequate experience for doctors on training grades. Without specialist registrars the rotas can only be filled by substantive consultants. This means consultants have to be resident on call to provide safe cover. As a result some units are finding it increasingly difficult to recruit the staff necessary to sustain the service. The RCPCH is unusual amongst the colleges in suggesting that there should be a reduction in the number of 24/7 units and a need to develop other alternative types of service. It places a greater emphasis on improving skills in the community and use of ambulatory care units which do not have overnight beds.

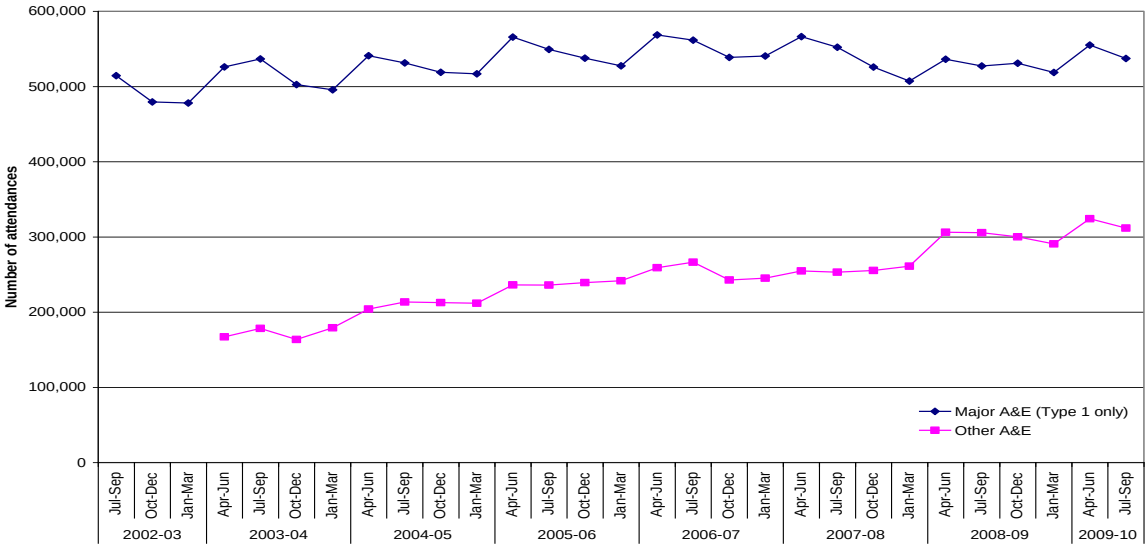
Access to specialist advice
A number of acute provider trusts such as Imperial College London, South London Healthcare, Newcastle and Homerton hospitals have recognised the need to support competencies in the community to reduce admissions. As a result they have improved telephone access to paediatricians or specialist practitioners for GPs and other staff working in primary care. However there is no national tariff for this activity so there is a risk that these units could be disadvantaged by providing this service and hence reducing admissions.

3.5 How children get admitted

There are two main routes for admission to a paediatric unit: through A&E departments or referral by primary care. These referrals from primary care may come from general practice or other alternatives such as walk in centres, urgent treatment centres or minor injury units.

3.6 Attendance at A&E

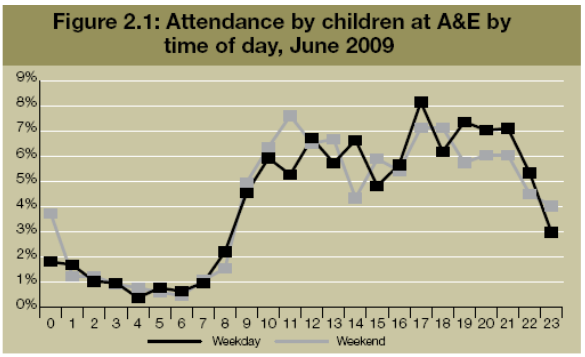
There is a similar increase in attendances at A&E departments as the rise in admissions which has been seen. It is suggested that too many children attend A&E, putting pressure on resources, and are admitted for a short time.



(Source: DH)

Figure 3: Number of A&E attendances for the North West, 2002/03 to 2009/10 Quarter 2

Attendances at A&E at Imperial College Healthcare Trust, London show that most children attend between 10 am and 10pm. Evidence from other hospitals shows this to be the common experience, with particular emphasis on the attendance in the late afternoon and evening. West Sussex identified a similar picture with 50% of attendances occurring between 2pm and 8pm.



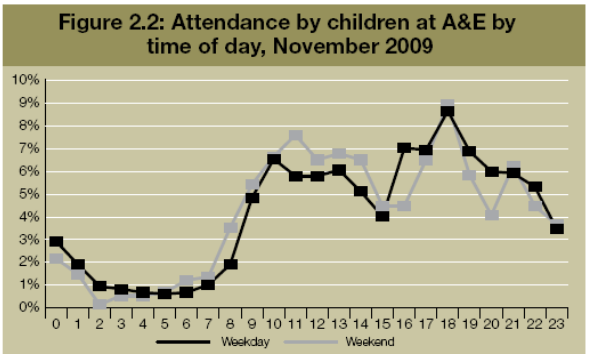


Figure 4. Times of A&E Attendance (Kennedy Review, 2010)

Despite the National Service Framework for Children's services (DH, 2007), A&E departments are not always child-friendly environments. An audit of NSF delivery in trusts in the NHS South Central area showed considerable variation in facilities from state of the art new buildings, giving a high quality environment, to others struggling to provide a child-friendly environment in buildings from the last century. (Coles et al, 2010)

The NHS Institute for Innovation and Improvement has been supporting reviews of urgent care pathway for children across the England. It has found that not all A&E departments, minor injury units or urgent care centres have appropriate child friendly facilities or members of staff with experience or specific training in managing children and their problems.

There have been successive organisational changes which have had an impact on the number of attendances, including changes to GP out of hours services or opening a range of alternative primary care sites such as walk-in centres, children's centres, assessment units, urgent treatment centres and NHS Direct. The RCPCH produced a report on the care pathway of parents' experience of urgent care services for children with a fever (RCPCH, 2010). This study showed that parents preferred to be seen by their GP and that doing so resulted in few referrals to further services. Anecdotal evidence from A&E staff showed that parents often attended because they thought the GP was unavailable. The RCPCH report showed nearly half of A&E attendances were referred from GP alternatives in primary care and some patients were referred through as many as four different services.

The complexity of interventions makes it difficult to ensure we have outcome measures that allow us to determine what service models are cost effective. However, we can learn

from some sites where new urgent care pathways seem to have lead to a reduction in attendance and subsequent admissions.

Improving A&E attendance for children and young people
Examination of the HES data on emergency admissions for children, over the three year period from 2006-2009, identified that City and Hackney, Hammersmith and Fulham and Greenwich PCTs have substantially reduced their emergency admission rate during this time. Homerton University Hospital NHS Foundation Trust, in Hackney has made major changes to the urgent care pathway for children over the last ten years, including the development of a children's accident and emergency unit. Newham has had consistently low admissions and has had a dedicated A&E for children for some time. In both, when appropriate, children are referred through to the adjacent GP run urgent treatment centre.

Greenwich found waits for children in A&E unacceptable and now divert children to an assessment and observation unit, staffed by qualified and experienced paediatric and consultant staff between 11am and11pm.

In Newcastle upon Tyne, a new dedicated children's A&E department has opened and all children and young people are assessed in A&E by a trained paediatric nurse or senior paediatrician.

In some hospitals the key to success in reducing admissions has been to have a senior paediatrician or practitioner right at the start of the pathway, who can make confident and appropriate decisions about management, discharging children to the community whenever possible (Wyatt et al 1999).

In Homerton it is estimated that about 25-30% of children presenting at A&E are referred through to the on-site GP service and more than 80% of children seen in the assessment and observation unit are discharged home after a short stay of less than 36 hours.

Newcastle has developed a Children's Acute Nursing Initiative. This nursing team provides hospital level care in the child's home. Paediatricians can refer children seen in the acute assessment unit to the team for clinical monitoring and treatment, thus avoiding an admission to a hospital bed.

3.7. Emergency admission by referral from primary care

There is considerable variation in the number and quality of referrals by primary care practitioners to secondary services for urgent and non urgent care leading some PCTs to develop referral guidelines for practitioners. A review of referrals made by GPs to hospital services at a number of sites has identified that a third or more could have been managed within the community were appropriate community facilities in place. This is a similar finding to the numbers referred by the paediatric assessment nurse at Homerton Hospital to the GP urgent care service. If national guidelines were followed for the management of children with asthma, diabetes, epilepsy, fever or gastroenteritis it is estimated that far more children would not require admission.

Not all GPs and other primary care services have the confidence and capability to deal with uncertainty and risk management of children and young people to its fullest extent. Only half of all GP associates in training have the opportunity to work within secondary care paediatric services to gain experience of identifying and managing the sick child.

Few members of staff working in walk-in centres, minor injury units or other primary care alternatives have the required training to manage paediatric conditions. Without the confidence to assess and manage sick children in the community it is to be expected that GPs and other primary care members of staff will refer to more experienced paediatric services.

NHS Direct

A recent review of advice given by NHS Direct shows that following their protocols and algorithms delivers a high degree of accuracy in determining whether a child needs to be assessed in a primary or secondary care setting (NHS Direct, 2010).

The role of assessment and observation units

Many of the sites identified key times when there was a greater call on services either from A&E or referral by GPs. Newcastle found after school between 3-4pm, and at the end of GP surgeries at 11-12am or 6-7pm to be their busiest periods. Homerton University Hospital NHS Foundation Trust employ extra staff in the children's A&E in the early evening to keep waiting times down in busy periods. A number of new units have developed which vary from a purpose built Children's Ambulatory Care Unit to an assessment and observation unit sitting within acute hospital wards. These allow children to be seen and assessed by paediatric nurses and medical staff and retained in a more relaxed environment whilst waiting for tests or short observation before discharge.

Homerton University Hospital NHS Foundation Trust uses its assessment centre for a hospital at home arrangement allowing children to go home but returning to continue to be reviewed or receive treatment.

Newcastle has an open door policy for children with long term or complex conditions allowing parents to access the centre for advice or support.

3.8 Emergency admissions for children with long term conditions

The National Institute for Health and Clinical Excellence(NICE) and other specialist bodies have produced national guidelines to support delivery of healthcare in a range of long term and acute illnesses such as asthma (British Thoracic Society, 2010), diabetes (NICE, 2010), epilepsy (NICE, 2010) and fever (NICE, 2007). The ChiMat Disease Management Information Toolkit (DMIT) can help PCTs benchmark their services looking at admissions and length of stay for asthma, diabetes and epilepsy. Figure 5 shows the variability of rates of admission, but also that asthma and epilepsy correlate with deprivation.

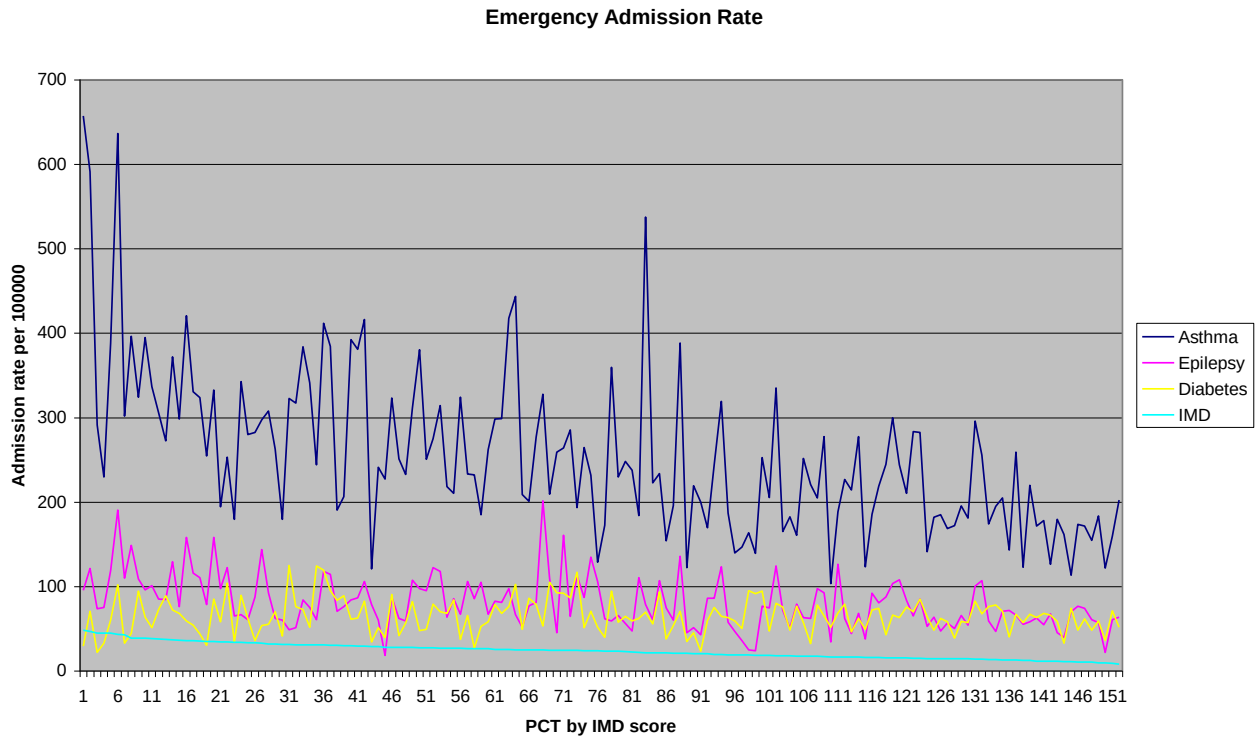


Figure 5. Emergency admissions rates for asthma, diabetes and epilepsy ranked by deprivation with highest deprivation on the left, lowest on the right

Using DMIT can help identify PCTs with unexpectedly high admissions, which might need to develop care pathways in line with guidelines and reduce admissions to attain better outcomes for children. Following the guidelines not only improve outcomes but can also deliver safer care within smaller resources (Grant et al, 2010).

It has been possible to use DMIT to identify pockets of good practice where there are lower than expected emergency admissions for children with long term conditions or evidence of improvement. For example the Isle of Wight has more than halved the emergency admission rate for asthma over a five year period as shown in figure 6. They have a similar picture for diabetes, epilepsy and overall admissions.

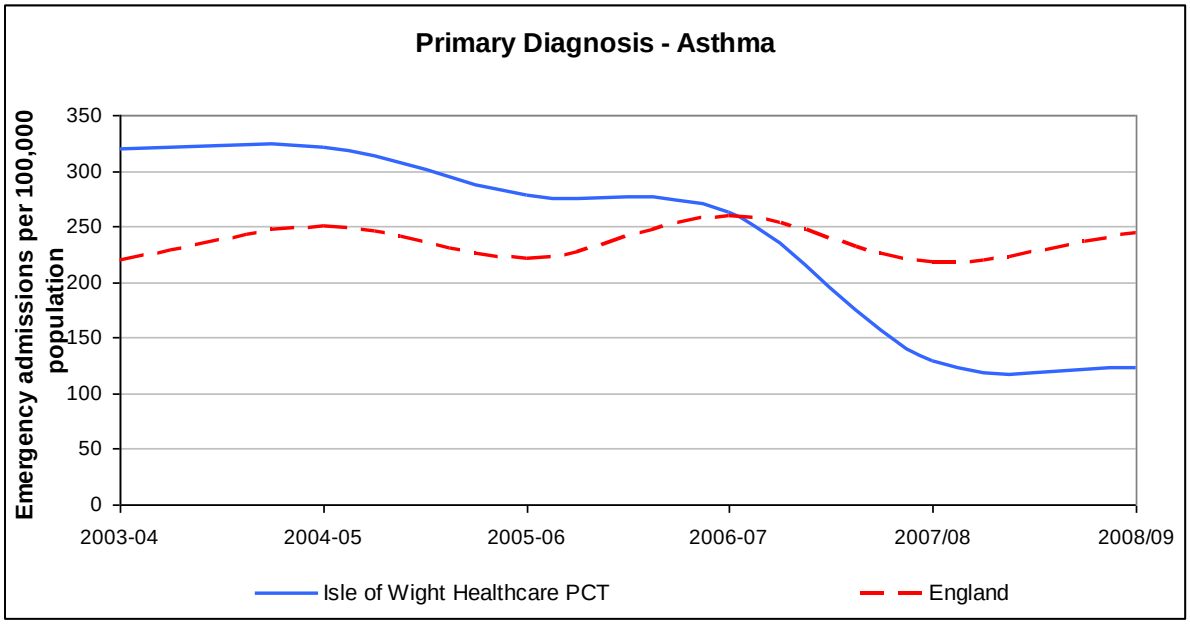


Figure 6. Emergency admission rates for children with asthma on the Isle of Wight with the England average

Children's services on the Isle of Wight and in Newcastle upon Tyne

The Isle of Wight is unusual, though not unique, in that it has a combined acute and community trust. The GPs meet regularly as a forum, now a consortium, divided into three localities. They have reviewed their referrals and focussed particularly on services for children and young adults, to identify what they could manage themselves. The commissioners meet with GPs in the consortium but also in their practices on a regular basis, so GPs know and understand how much services cost. They identified the need for a new asthma and allergy service and now have an asthma and allergy centre which has had a clear impact on emergency admissions for asthma, including some innovative work with a pharmacist.

10 years ago Newcastle community paediatricians and specialist nurses moved under the management of the acute trust. They have looked at whole system analysis of a number of care pathways, working closely with GPs. They have a range of specialist nurses who are able to offer specialist advice to GPs and others but also provide further training in practices or in local colleges. See figure 7 for the impact on diabetes admissions. In addition the trust uses its innovative children's community nursing team to provide hospital level services in the patient's home, helping to get children back home more quickly. They do a daily ward round on the children's assessment unit and the other children's wards to make sure that all children that could be managed by them at home, have the opportunity to use the service.

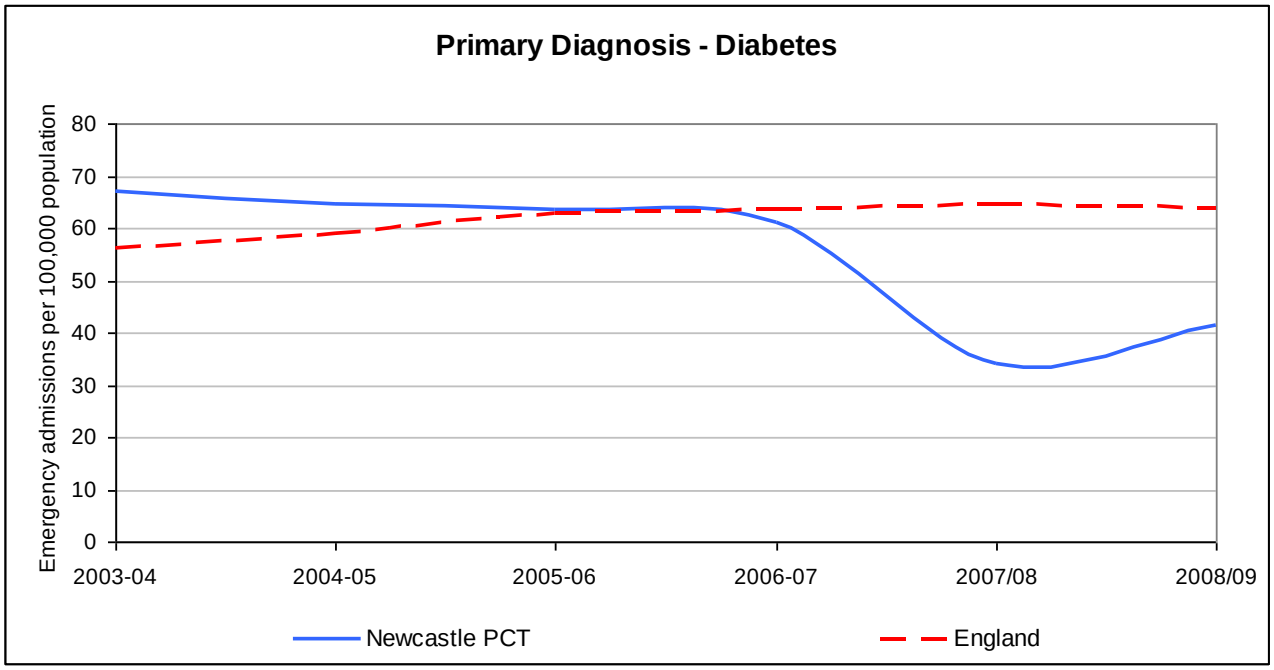


Figure 7. Reduction in diabetes admissions through introduction of children's diabetes specialist nurses in Newcastle

Eastern and Coastal Kent PCT board identified childhood asthma as a priority area requiring improvement. They recruited a GP to work with them and champion the pathway. They have employed an asthma nurse specialist to bridges the gap between hospital, community and primary care in one very challenged area. As a result there has been an overall reduction of admissions. Figure 8 shows how they compare nationally. They are hoping to roll this out across Kent.

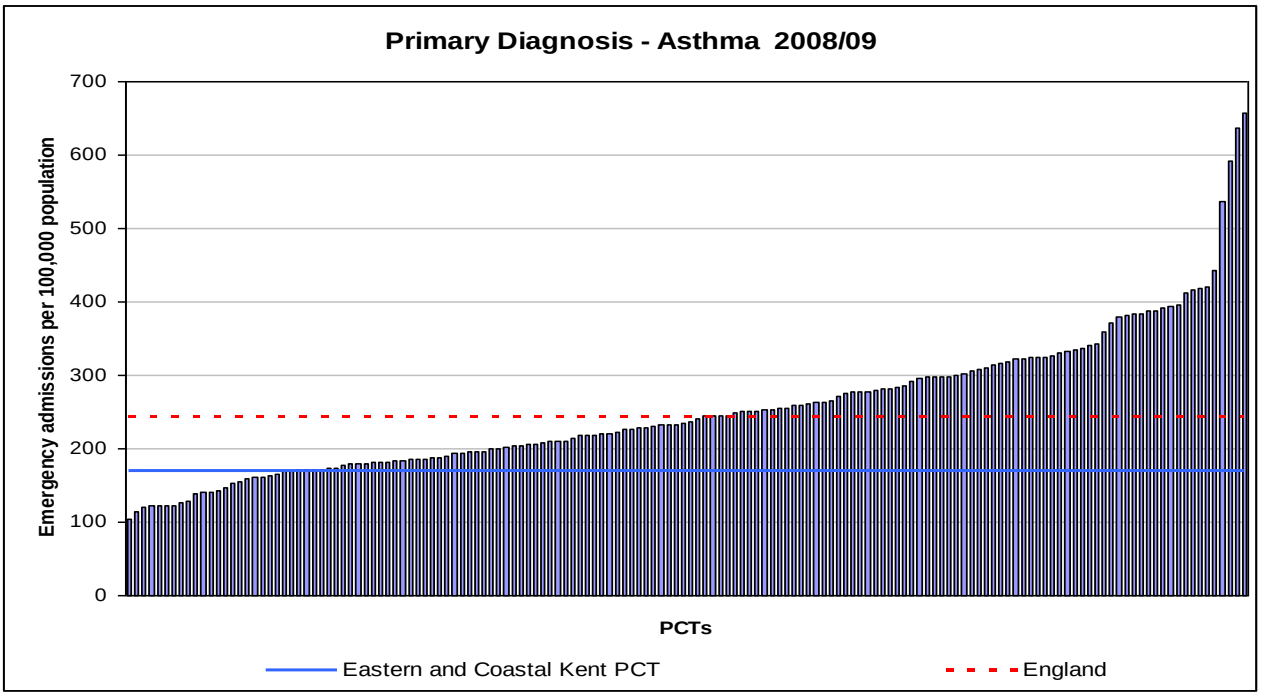


Figure 8. The rate of emergency admission for asthma in Eastern and Coastal Kent relative to the national picture

3.9 Primary and community care services for children and young people

Primary care physicians have been seen nationally and internationally as being an important part of health care resource management by using their ability to manage uncertainty and risk and act as gatekeeper to more expensive secondary care services. Management of the care of children and young people is a core element in the MRCGP curriculum.

Despite the fact that children and young people constitute as much as 40% of the primary care workload, especially the very young, less than half of GP associates in training spend time in an acute paediatric service. This may result in lower confidence in their ability to identify serious illness, an anxiety which may be enhanced by studying The Centre for Maternal And Child Enquiries report “Why children die” or examples in medical protection agency case studies showing that some deaths occur in children without life limiting disease when the seriousness of their condition is missed at the point of presentation.

There have been many changes in the NHS and in the way services are provided, and who provides them. In the move from providing a service to manage sickness to one increasingly focussing on health promotion, disease prevention and early identification of children with extra needs, there may be confusion, for both users and other health professionals, about who provides what advice. Traditional roles and sources of advice have changed, with less reliance on informal advice from family and friends and changes in the role of family doctors and health visitors to a more targeted approach. New services such as children’s centres and extended schools have developed to provide support, particularly to those with greatest need, but there is not consistency about engagement with health service staff or roles and qualifications within the facilities.

Despite substantial investment, areas of socio economic deprivation, where children are known to suffer greater ill health, have greater challenges in recruiting GPs. Many of the alternatives available, such as out of hours centres, NHS Direct, walk-in centres, minor injury units, and urgent treatment centres, try to provide access to services when GP practices are not able to meet the needs. Few members of staff working in these other primary care alternatives have the required training to manage paediatric conditions. Since the requirement to provide out of hours cover for patients was removed from the GP contract there has been a steady decline in the number of experienced GPs working with service out of hours and a greater reliance on locum doctors with less local knowledge of local services. Without the confidence to assess and manage sick children in the community it is to be expected that GPs and other members of the primary care staff will refer to more experienced paediatric services.

Not all parents understand the differing roles of these new primary care organisations. Professor Sir Ian Kennedy reiterates the findings of the RCPCH report of parental experience that the NHS is bewilderingly complex and that children, young people and their carers can get passed from one organisation or centre to another. In both reports parents indicated that their preferred system would allow them to be seen by their GP with a safety net of other services in the event of complications.

What is not clear is whether there is a resource gap in primary care that leads parents and carers to present at hospital because they cannot access general practice or that there is a shortfall in skills of practitioners within those practices. The Canadian experience shows a clear link between a lack of primary care resources and increased admissions in areas of poverty (Guttman et al, 2010).

Spotting the sick child

Children can become very sick, very quickly. If a health care professional does not have the confidence in their own abilities to spot the children who are very sick, it is tempting to refer them to hospital services, just in case they miss something serious. The Spotting the Sick Child website provides an evidence-based, interactive, on-line resource to support frontline health professionals develop and maintain their confidence and competencies in spotting sick children that need extra care. (www.spottingthesickchild.com)

General practice clinical computer systems can provide a powerful tool for audit and improved management of the care of patients. (Sturdy and Livingstone,1997) This information could support the Kennedy review recommendation that practices act as navigators of the system, improving co-ordination and information sharing, but it is not a role held or resourced in all practices. This can work where there is effective working between general practice and community teams, with nurses, nurse practitioners or other practitioners able to take on the navigator role for children and young people with long term conditions such as asthma, or complex cases (Corkin and Chambers, 2007; Bravata et al, 2009; Rideout, 2007).

The role of Community Children's Teams

A consistent finding amongst PCTs who have successfully reduced admissions for children was the presence of a community children's nursing team, often incorporating specialist nurse practitioners in long term conditions, complex care of children on ventilators at home or in palliative care. Some of these teams, such as the Diana Team in Newham, have other professionals available such as psychologists and utilise well trained support workers competent to manage children on ventilators, suction and enteric feeding in the home or school environment, including overnight.

Most teams were limited to nine to five pm availability, five days a week but some offered on call arrangements especially for end of life care. The Children's Acute Nursing Initiative in Newcastle and the Diana team in Newham were both able to demonstrate a reduction in admissions for many of their complex care cases, such as children on ventilators at home. The Newcastle nursing team also do ward rounds to identify children that they could support at home and facilitate earlier discharge. They are unusual in offering hospital level support within the home environment.

Some hospitals offer an open access ward approach to management of long term conditions. Many paediatricians admit that they provide direct access to advice to parents, by passing the primary care physician. Though this might be seen to improve access to advice and care for patients and carers, it may have the effect of de-skilling and reducing the confidence of the primary care workforce.

3.10 Improving the health of children and the Healthy Child Programme

We all know that there are many factors that influence the health and life chances of children borne into disadvantage and poverty. The Marmot review and the Kennedy report on NHS services for children are explicit about the way services need to change to reduce the health inequalities these children and families face. There is cross government consensus that services should be targeted to those in need.

Many current sources of concern for the health of adults such as smoking, substance misuse and excessive alcohol consumption can have a serious impact on the health of the children in families involved. Smoking is linked to increased risk of infant mortality and health problems in later childhood. Children of parents who misuse alcohol or other substances are more likely to suffer the effects of violence or neglect. The Healthy Child Programme (DH, 2009) is based on evidence of effectiveness in improving outcomes through preventing many of the causes of ill health and ensuring early intervention for children and families with problems. Health professionals, through the Healthy Child Programme and alongside organisations like children's centres or schools, can work with children and their families to ensure they have access to advice and support to make children healthy and safe or to get extra support when needed. Such as:-

- Supporting parents to tackle their problems with alcohol and substance misuse will reduce the number of children who are victims of violence or neglect.
- Encouraging mothers to breastfeed their babies reduces infant mortality and provides other health benefits later in life.
- There has been improvement in the reduction of levels of alcohol consumption in young people, though it remains a source of concern and is a significant factor in hospital attendances in this age group.
- Obesity and low levels of physical activity are important issues for all ages and there is a wealth of research that shows how community campaigns, especially those that engage with the wider community not just in health, can improve outcomes (Hoelscher et al 2010).

Some of the most vulnerable children with greatest health risks are the children of young teenage mothers. The Family Nurse Partnership (DH 2010) is already delivering better outcomes for some of these babies in the pilot sites, this is another example of how new, evidence-based working practices can deliver improvements.

Commissioning services to improve the health of communities will help improve the health of children, and vice versa but cost effective provision needs to reduce duplication of effort and make the most of existing opportunities through partnership working and information sharing between primary, community and secondary healthcare care, local authorities and schools and the independent or voluntary sector. It is still unclear how the different commissioning bodies: public health sitting within local authorities; GP commissioning consortia and the National Commissioning Board, will work together or how they will be accountable to the health and well being boards but what is clear is that there will be opportunities for local communities to work together with commissioners to deliver better health for their children and young people.

In summary- what is wrong with the current services?

1. Attendance at A&E and admitting children to hospital seems to have become the default option for many children who could have been managed in a community setting. Hospital care is seen to be “safe”.
2. Admitting children to hospital is not a benign act, but more children are being admitted year on year
3. Current 24hour/7 day a week models of paediatric secondary care risk becoming unsafe and financially unsustainable because of inadequate number of paediatric staff and reducing numbers of training grades
4. Many units are only financially sustainable if excessive numbers of children, who could have been managed in the community, are admitted
5. Excessive attendances at A&E between 2 and 8 pm suggest that children and families may have, or perceive they have, difficulty in accessing appropriate services in primary or community settings especially general practice.
6. The range of service available such as NHS Direct, walk-in centres, urgent treatment centres, minor illness or injury units are confusing for parents, carers and children and young people
7. GPs and other primary care staff may not have the competencies, confidence or capacity required to manage the needs of children and young people effectively.
8. Despite well researched evidence of good and effective practice, guidelines for the management of some of the commonest conditions for children and young people are not being followed across the whole pathway.
9. There is not enough investment in alternative models of care especially round the clock alternatives to hospital care.
10. Many commissioners of children’s services do not know how to benchmark their services against others, and do not share financial and contract performance information with GPs and other clinical staff.
11. Experienced and effective commissioners, managers and clinicians, as determined by available data, risk being lost through organisational change. There is some evidence that this has already started.

4. How to look at the local picture – information to support commissioning

- Local Public Health Departments hold information on local health needs and use of services including Hospital Episode Statistics (HES).

- Length of stay. There has been a national drive to reduce length of stay with suggestion that short length of stay if an indication of good practice. Caution is needed in this assumption for children. Most admissions for children are for less than 24-48 hours. Many of the hospitals with lower emergency admissions have longer length of stay which might indicate that admitted children are sicker. Newham is an example of this.

- The Association of Public Health Observatories provides practice profiles which includes some data on children

- ChiMat, the national Public Health Observatory for Child Health and Maternity, provides a knowledge hub, information toolkits and a network of local specialists who provide advice on population needs and use of services by children and young people. ChiMat is also engaged in the production of specific practice and consortia profiles covering the demography and use of services for children and young people at a GP practice or GP commissioning consortia population level. www.chimat.org.uk

- C4EO provide support including a database of resources to support the commissioning evidence based practice www.c4eo.org.uk

- GP clinical computer systems hold remarkable levels of information, but be careful of variance in coding practice. Hammersmith and Fulham have an innovative approach where they have collected information on children with high attendance at A&E, OPD and GP surgeries. It is hoped that this information will help develop appropriate packages of care reducing reliance on health services.

- NHS Institute for Innovation and Improvement provide a range of tools and specific support on services for children and young people

- Detailed financial costs will vary. For most clinicians, savings costs is not as important as the quality of care and prevention of serious outcomes, but without information on current costs it is impossible to see what is cost effective or not and how changing investment in alternative services might deliver savings and better quality

5. How some PCTs and communities achieved change in children's services

Greenwich Teaching PCT

Greenwich has seen the greatest change in its rate of emergency admissions for children and young people living in Greenwich compared with any other PCT in the country from 7,034 to 4,314 between 2006 and 2009.

The A&E department at Queen Elizabeth Hospital in Greenwich is very busy, with long waits. Children are now triaged by a nurse in A&E and referred through to a children's ambulatory care unit (CAU) which is open from 11am to 11pm. There is a dedicated paediatric registrar who works in the CAU and is available to provide advice for professionals working in the community.

They have also made significant reductions in their admissions for children with long term conditions such as diabetes and epilepsy. This has been achieved in a number of ways:-

- There is strong clinical leadership with a drive to improve care and a commitment to ensure local protocols fit within nationally developed guidelines.
- There has been investment in specialist nurse practitioners in diabetes and epilepsy and a lead paediatric for neurology, managing epilepsy and leading the service. Specialist nurses work very closely with the community including schools with regular visits and contact with schools. The specialist nurses carry a mobile phone and can be accessed for advice by GPs, carers or young people. Working with schools has had a dramatic impact on the numbers of children admitted with hypoglycaemia.
- Every child who is admitted has a care plan and a discharge checklist which ensures that everyone is clear about medication, follow up and how to get advice when necessary.
- The diabetes specialist nurses are in daily contact with each other and the whole team meets monthly to review admissions.

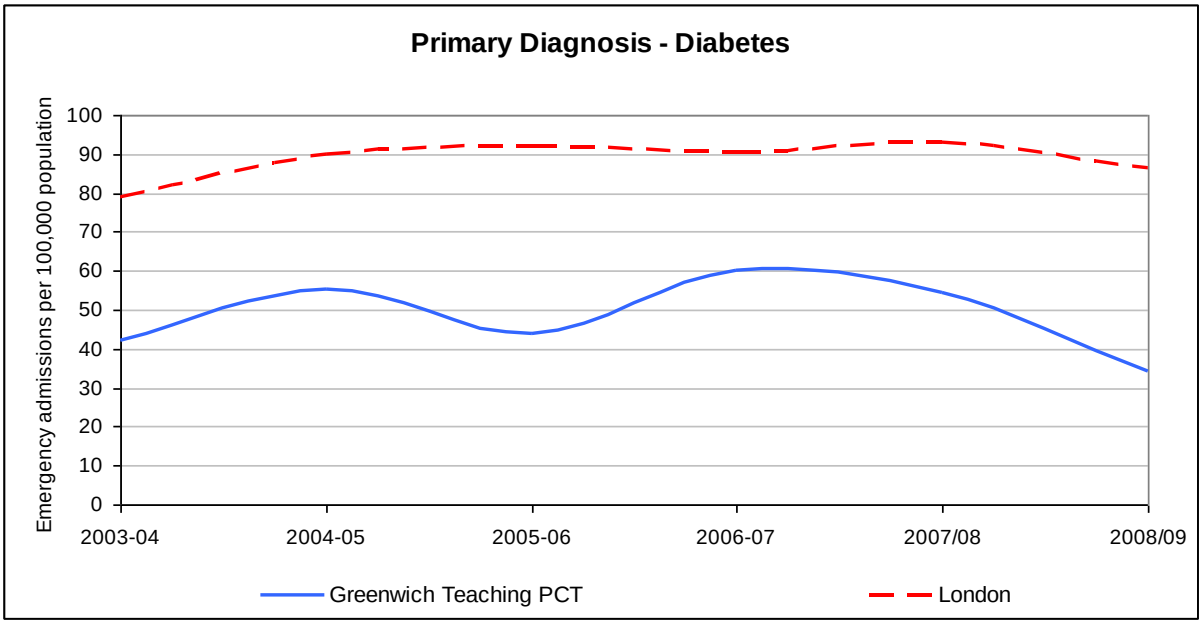


Figure 9. The rate of emergency admissions for diabetes in Greenwich compared to other London PCTs

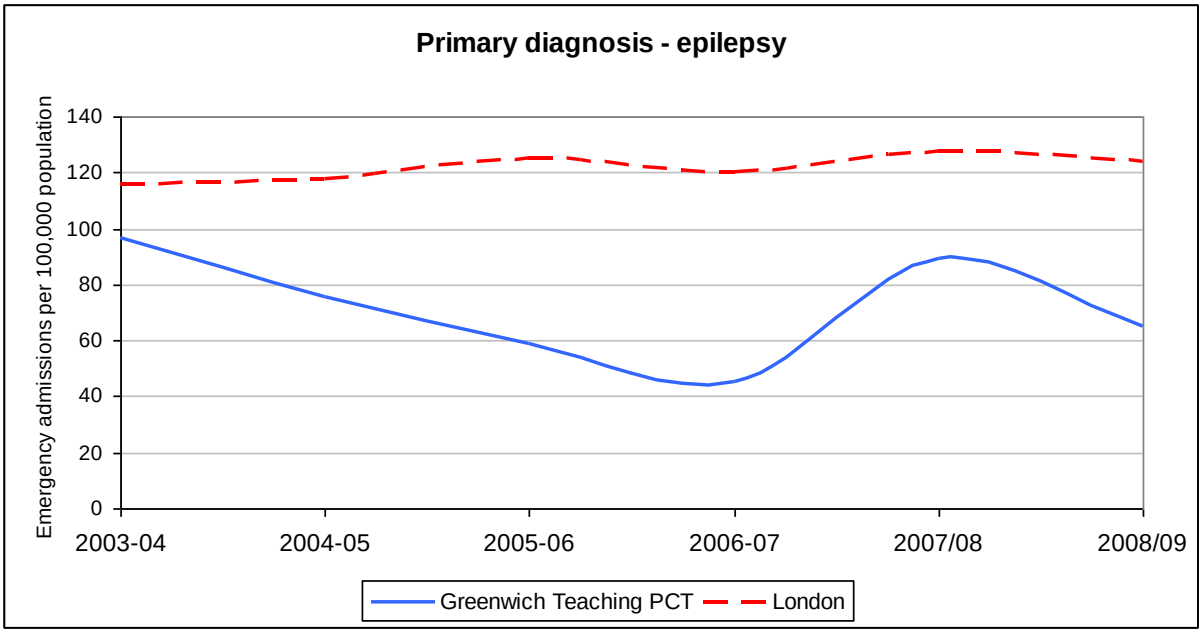


Figure 10. The reduction in rate of emergency admissions for epilepsy in Greenwich compared to other London PCTs

Admission for children with asthma in Greenwich

The picture for asthma care is different. GPs in Greenwich have developed their skills within the practices, including more specialist training for practice nurses. They follow national guidelines and are recognised by the hospital consultants to have excellent prescribing and referral practices. Most practices have access to oxygen saturation monitoring and present results when referring for hospital care.

The following figure shows that, despite high levels of deprivation, admission rates in Greenwich have been consistently lower than in the rest of London.

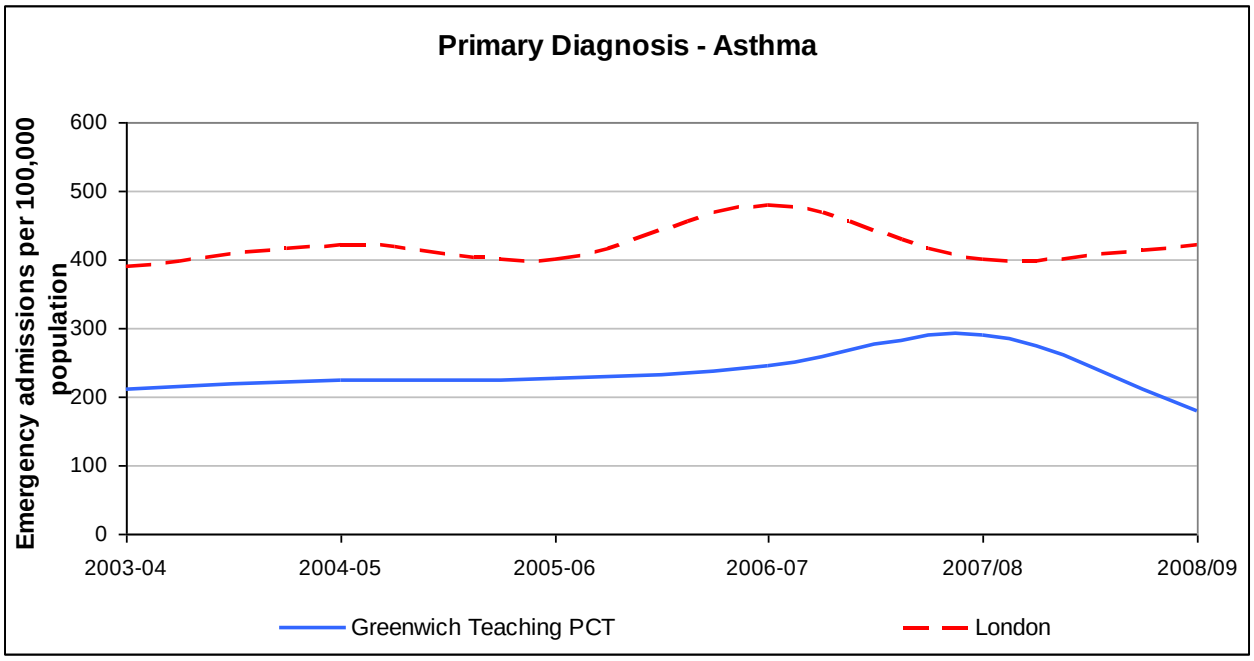


Figure 11. Rate of emergency admission for Asthma in Greenwich against other London PCTs

Newham

The emergency admission rates in Newham have been consistently lower than in other similar parts of London for some years. The paediatricians have been operating in an environment with a small number of acute beds whilst the population of children and young people continues to rise steadily. This constant downward pressure on admissions has meant that Newham has had to develop strategies to cope with demand:-

- The community children's nursing team, including the palliative care Diana team, was developed 10 years ago, though its structure has changed over that period.
- A number of specialist nurses in the management of epilepsy and sickle cell have worked in the community including schools and with GPs to support families and improve care. The team includes a practice development nurse to support professional development within and outside the team.

Hammersmith and Fulham
Without a borough based inpatient paediatric unit, children who live in Hammersmith and Fulham who need admission to hospital have to travel to St Mary's Hospital, Paddington. An assessment and observation unit, open 8am to 8pm was developed to provide support for families nearer to home and has reduced the number of admissions necessary. It is staffed by senior paediatricians who provide supervision to GPs in training on the unit and a direct line for telephone advice to local health care professionals.

How PCTS and communities have achieved change - a summary

Clinical leadership

Most of the PCTs which have succeeded in reducing emergency admissions for children and young people can identify one individual who has driven the process forward. In most cases this individual has been a paediatrician, in others a nurse manager or an individual or group of GPs.

Another consistent theme was good support from the trust senior management team. Some were explicit about the support and commitment from their chief executive.

Senior clinicians at the front end of the hospital

Many of the trusts have developed new urgent care pathways to try and cope with the inexorable rise in children presenting either in A&E or referred from a range of primary care settings. In some, every child is assessed at the front door and then sent to the appropriate service, including out of hours primary care.

In others, primary care practitioners can access urgent telephone advice from a senior paediatricians or practitioners, to support continued management in primary care.

Many children seen in A&E can end up being admitted if not seen by a competent practitioner skilled in management of paediatric conditions. Increasingly trusts are ensuring that children are seen by qualified A&E staff in a dedicated children's A&E environment or by a paediatrician to ensure most children who could be managed at home are discharged to the community.

Children's Assessment Units

A number of hospital trusts have developed assessment and observation units where children can be managed for limited periods of time, keeping the acute ward free for sicker children. Some commissioners have negotiated local contracts where children on the CAU attract an observation and assessment tariff, which is lower than the cost of an admission to the ward. In many other areas children seen in CAUs are still coded as a zero day admission and may not therefore reduce costs.

Engagement of GPs

Most PCTs that have successfully reduced admissions for children have the support and engagement of local GPs. There are some good examples of individual GPs or groups of GPs, through fora or consortia, driving the agenda and able to demonstrate improved outcomes as a result, as has been shown by the evidence from the Isle of Wight.

When GPs understand that local services are not meeting the needs of their young patients they can be very active in supporting change. Though there is information and data available to benchmark local services regionally and nationally, it is not yet in an easily accessible form but the development of practice and consortium profiles should help in the future, and should be a useful tool in identifying priorities in commissioning children's services.

Fortunately, compared to older patients, few children die unavoidable deaths. The Centre for Maternal and Child Enquiries report "Why children die" showed that some deaths occur in children without life limiting disease when the seriousness of their condition is missed at the point of presentation.

Committed and informed commissioners

It would be fair to say that all PCTs who have reduced admissions have done so recognising the need to reduce admissions if they were to successfully reduce costs. Some have met considerable resistance from their provider trusts worried about financial sustainability of their paediatric services. There are some excellent examples of places that have successfully renegotiated coding for admissions to an observation or other short term tariff.

A competent and well resourced community paediatric team

Another very consistent theme has been the success of community children's nursing teams; especially those that include specialist practitioners able to support primary care deliver better clinical care of long term or complex conditions in the community. The gold standard would seem to be set in Newcastle with a team that can provide the type of care not usually available outside the acute sector, within children's home environment. However, most teams still only operate a conventional five day working week.

Partnership working

There is still an emphasis in the urgent care pathway for children on delivering a single process from A&E to observation units to the wards, which is still focussed around the hospital building.

There are some examples of innovation in delivering care closer to home such as the Smithdown Children's walk in centre in Liverpool and clinics run by a children's nurse practitioner in sure start centres in central Manchester. Not enough is known about the reasons for increasing attendance at A&E but accessibility and confidence in the hospital are likely causes. However there may be advantages in working with wider children's service providers to reduce the need for parents and children to have to travel to a hospital to get a service.

Individual examples of innovation

Working with schools

Greenwich has successfully reduced the number of children requiring admission with hypoglycaemia by working closely with school staff and supporting them to manage such incidents confidently within the school environment.

In Dudley, the headmaster of Leasowes Community College concerned about the number of children not attending school, worked with the local CAMHS team to train school pastoral staff to use the Strengths and Difficulties Questionnaire to identify children needing extra support. Not only has this helped to reduce days lost in school but it has also ensured that children needing more support can be rapidly referred into the CAMHS service. http://www.partnersinpaediatrics.org.uk/conf_study_days.htm

The NHS Institute for Innovation and Improvement have developed an interactive lesson plan tool which can be used to help young people learn about the role of different parts of the NHS, such as a GP, A&E, NHS Direct, and the appropriate way to use them.

Whole system working

West Sussex asked the NHS Institute for Innovation and Improvement to support stakeholder events with representatives from primary care, minor injury units, A&E and hospital paediatric units working together to develop simple guidelines and protocols for the management of common conditions such as fever, gastroenteritis and bronchiolitis.

6. Conclusion

New commissioning bodies have a real opportunity to re-evaluate current use of NHS services especially the number of children and young people who need to use expensive hospital facilities.

It has been demonstrated that investing in different models of care, especially the provision of more specialist support to those in the community can improve outcomes for children and reduce the number of admissions. It is also true that providing primary care practitioners with easy access to specialist advice, such as telephone access to consultant paediatricians, can also reduce the need for children to attend hospital.

It has been recommended that to ensure paediatricians have sufficient experience of working with more seriously ill children, there should be fewer 24/7 units. These units will see smaller numbers of sicker children for whom the current financial tariff may need adjustment. There will also need to be greater recognition of new roles in provision of telephone or remote advice for GPs and families. Care should be taken in ensuring the safety of children in the transition to a more community orientated model.

There has been an assumption that primary care, particularly general practice, will manage more children by increasing their skills and competencies. Some GPs may be concerned that improving their skills may be difficult and more demanding than they can manage, given current capacity. This paper has shown that there are simple, accessible sources to support GPs and it is possible to commission a different type of service, which offers the protection of specialist support whilst providing children and families with a more cost effective delivery of improved outcomes.

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