NHS Services, Seven Days a Week Forum

Costing seven day services

The financial implications of seven day services for acute emergency and urgent services and supporting diagnostics

Gateway reference: 00889

Contents

Summary

This report summarises the research carried out by the Healthcare Financial Management Association (HFMA) into the financial implications of introducing seven day services for acute and emergency care and supporting diagnostics in the NHS. It should be considered alongside the other outputs from the NHS Services, Seven Days a Week Forum.

There is a growing body of evidence showing the clinical benefits and service quality improvements from providing NHS services on a seven day a week basis. There are four main drivers for seven day services: reducing mortality; increasing hospital efficiency; providing easier access to NHS services; and ensuring patients receive the same standard of care regardless of the day of the week.

The findings in this report are mainly based on work done at eight volunteer trusts. They represent a fair sample of size and location. However, as they are all successful foundation trusts with an interest in seven day services, they may not be wholly representative of the wider NHS.

Costs

- Costs of implementing seven day services vary. In the two London trusts the standards for those services examined are already largely being met because of past investments. In most of the other trusts in the sample, the costs of implementing seven day services are typically 1.5% to 2% of total income or, expressed another way, a 5% to 6% addition to the cost of emergency admissions.
- Given the small sample and the apparent lower need for investment in London it is hard to calculate a potential cost for the English NHS as a whole. It is also likely that seven day services would progress best by local negotiation and carried out at varying speeds, partly because trusts start from different positions but also considering the wider system change likely to be necessary.
- Investment at the ‘front-end’ of the hospital (accident and emergency departments and admissions units with supporting diagnostics) can pay for itself in some trusts, by reducing unnecessary admissions and shortening lengths of stay. Two trusts in the sample, Salford Royal and Chesterfield, are examples of this. Payment by Results (PBR) rules were often set aside so that both the hospital and its commissioners could benefit from reducing admissions, where planned changes reduced the ‘net cost’ to the local NHS.
- Investment in seven day services after admission is unlikely to be cost-neutral in most trusts under the present configuration of services. However, it is fair to conclude from this small study that the move to seven day services does appear achievable, but it may be too expensive and unsustainable for all existing hospitals to move all their current range of services to a seven day basis. Reconfiguration of services may substantially reduce the cost, but this has not been tested in this research.
- It could make financial sense to ‘sweat the assets’ by using expensive equipment more at weekends, but only where the total workload is growing or it is consolidated across fewer providers.

Geography

- Additional costs in the two London trusts for those services examined are almost nil as a result of work already done to improve services there, although this may not apply across the whole of London. It has not been possible to extract the details of past investments.
- Costs are, understandably, usually highest at the smaller or more rural trusts. Recruitment also tends to be more difficult in these areas.

Workforce

- Our evidence suggests that the main cost driver is the recruitment of additional consultants. These costs are unavoidable if most hospitals providing services need a greater consultant presence at weekends, but they could be greatly reduced if fewer trusts provided emergency services in certain specialties. Other costs vary widely depending on local service models. For example, some trusts would recruit extra specialist nurses to support doctors and speed discharge, while other trusts assume no change to nursing levels.
- A change to weekend pay premiums would make seven day services more affordable, but not cost-neutral under the current configuration of services, as most of the cost comes from employing more, highly paid, medical staff.
- Some trusts, especially non-teaching hospitals far from London, already have significant problems recruiting medical staff. Seven day services would increase the demand for staff groups that are already hard to recruit, for example radiologists and acute physicians. Collaborative working across trusts could help to mitigate this cost.

Commissioning

- This research has not examined commissioning issues in detail, as commissioning was within the remit of another workstream. The points below are the main ones raised by the trusts in our sample.
- If the usual PBR rules are followed, the main financial benefit of seven day services for hospital trusts is in reducing length of stay, but in our sample of trusts the savings generated did not cover the extra costs. Trusts thought that the only significant financial benefit for commissioners would come from reducing unnecessary admissions, and that only requires seven day services in admissions units and not the rest of the hospital.
- Where trusts have implemented seven day services, it has been mainly because the trust wanted to do it, not because commissioners required it. Few commissioners, according to the trusts we worked with, currently have seven day services as a high priority. NHS England will need to consider how to incentivise both providers and commissioners.
- Some trusts had worked with commissioners to develop different contractual arrangements outside of PBR in order to incentivise seven day working and share the risks and benefits.

Implementation

- Seven day services are likely to support the case for consolidation of hospital services and this was already being discussed at many of the trusts visited. The scope for consolidation is greater in the large conurbations, but rural areas will face greater challenges.
- The implementation of seven day services cannot be looked at in isolation from the other challenges facing the NHS and the policy reviews underway. NHS England's review of urgent and emergency care, for example, will have significant implications for national policy, including the implementation of seven day services.
- NHS organisations need a clinically, operationally and financially sustainable strategic plan, which should include how they work towards seven day services without increasing the overall costs of healthcare.
- NHS finance staff have a role in making this happen. This includes modelling the options, managing financial risks, and working with commissioners to resolve funding issues. If the clinical case for seven day services is strong, internal NHS obstacles should not be allowed to prevent it.

Introduction

1. In December 2012 the NHS Commissioning Board (now NHS England) published *Everyone counts: Planning for patients 2013/14*[1], which set out the initial steps towards identifying how there might be better access to services seven days a week. Professor Sir Bruce Keogh, the National Medical Director, set up the NHS Services, Seven Days a Week Forum which is focusing initially on improving diagnostics and urgent and emergency care. The Forum has looked into the consequences of the non-availability of clinical services across the seven day week, explored proposals for improvements and examined the key issues that affect delivery of a seven day service. The Forum is organised into five work streams:

    - Clinical standards
    - Commissioning levers
    - Finance and costing
    - Workforce
    - Provider models.

2. In February 2013 NHS England commissioned the Healthcare Financial Management Association (HFMA) to undertake a costing exercise to support the Forum's finance and costing work stream. This report summarises the results of HFMA's work and should be read alongside the outputs of the other work streams.

3. The HFMA is the representative body for finance staff in healthcare. For the past 60 years, it has provided independent and objective advice to its members and the wider healthcare community. It is a charitable organisation that promotes best practice and innovation in financial management and governance across the UK health economy through our local and national networks. It also analyses and responds to national policy and aims to exert influence in shaping the wider healthcare agenda. HFMA has a particular interest in promoting the highest professional standards in financial management and governance.

The case for change

4. There are four main drivers for seven day services:

    - Reducing mortality: mortality is generally worse at weekends.
    - Increasing efficiency in the system: if the quality of emergency care, and the services provided, were the same every day, there would be no backlog of cases requiring urgent action on Mondays. Staff would be used more effectively, and both emergency and elective work would be managed better.
    - Moving with the times: the NHS has not moved in line with other service industries. In most other areas, such as the retail sector, there is now no difference between a weekend and a weekday: why should the NHS be different?
    - The compassionate argument: patients should be entitled to receive the same standard of care regardless of the day of the week. Furthermore patients should be able to access care over the weekend if they need it regardless of whether it is an

[1] NHS Commissioning Board (2012), *Everyone counts: Planning for patients 2013/14*

emergency. The potential benefits are a reduction in suffering and/or the provision of peace of mind.

5. There are several issues that need to be considered when pursuing seven day services. The NHS no longer has growth funding to pay for the changes it wants to introduce. Seven day services need to be implemented in a way that does not increase the overall cost of healthcare and there is already some evidence that this can be done. An important point made by one trust was that seven day services for all residents of a large city may be affordable, but seven day services at all the existing hospital sites in that city are far less affordable. Affordable seven day services are likely to require a reduction in the number of hospitals providing certain services (assuming that the gain in quality of care outweighs the longer travelling times for patients, which should generally be true in large cities but more difficult in more rural areas). Efficient seven day working in hospitals would also require changes to how primary, community and social care operate.

Aim of our work

6. The aim of our work is to review the financial impact of service redesign in the areas of emergency and urgent care and diagnostics. In particular, we have:

- Explored the scope of models of seven day services provided, or planned, by a sample of providers
- Reviewed the initial and on-going investment likely to be required in a sample of providers
- Considered any potential financial and non-financial benefits attributable to introducing seven day services
- Examined the financial incentives and barriers to introducing seven day services
- Summarised the findings, drawn conclusions and provided recommendations for further work.

Research methods

7. We employed a mix of methods to inform our research:

- We carried out a literature review of business plans and other evidence available about existing experience of seven day services.
- We identified a sample of eight acute providers of emergency and urgent care to undertake detailed costings
- The trusts were provided with a costing template to collect data on the costs and savings arising from the introduction of seven day services
- We visited each of the trusts in our sample to collect qualitative information. We spoke to a range of individuals at each trust including finance staff, general managers and clinicians
- We held two workshops with our sample trusts and key stakeholders. The first workshop focused on developing understanding of current business models, discussing trusts' interpretation of what constitutes a seven day service and developing the costing approaches to use. The second workshop focused on challenging and validating the results of the data analysis and the fieldwork findings

- We have worked closely with the other seven day service work streams and ensured that, where possible, the work is aligned.

8. We then drew together information and views from all the above sources to produce this report.

Our sample of providers

9. The trusts in our sample were selected so that there would be a reasonable spread and mix of different size hospitals in different locations (London, large conurbations and more rural). They are all foundation trusts (FTs). Trusts were keen to explore the costs of seven day services, but were at different stages of implementation. We are grateful for their contribution to this work (Appendix 1). The trusts are:

- Aintree University Hospital NHS Foundation Trust
- Chelsea and Westminster Hospital NHS Foundation Trust
- Chesterfield Royal Hospital NHS Foundation Trust
- County Durham and Darlington NHS Foundation Trust
- Dorset County Hospital NHS Foundation Trust
- Guy's and St Thomas' NHS Foundation Trust
- Salford Royal NHS Foundation Trust
- Wrightington, Wigan and Leigh NHS Foundation Trust.

Context

10. There is a body of evidence showing the clinical benefits and service quality improvements from providing NHS services on a seven day a week basis. There is also growing acceptance by the boards of providers, their commissioners and bodies including the Academy of Medical Royal Colleges and regulators that some form of seven day service should be the norm. However there is little evidence on the cost and financial impact of moving to seven day services.

11. There are several reasons why the financial impact of seven day services has been unclear. Although there is anecdotal evidence that it can lead to savings, change is primarily clinically-led and the assumption has been that the service should be provided if any additional costs can be met. But to make a thorough assessment of the costs would require a more precise definition of what constitutes a seven day service. There is already variation between what trusts provide so the investment required from each trust to reach a consistent standard would inevitably be different. The clinical standards work stream has produced a set of clinical standards for the care of emergency admissions[2]. The standards are based on best clinical practice and set out expected standards of factors such as patient experience, time to first consultant review, assessment of mental health needs, diagnostics and discharge. The standards allow trusts reasonable scope for how they achieve them, which could explain why costs may vary. Most of the eight trusts in this research meet all or nearly all of these standards on weekdays, although not all do.

[2] The clinical standards are included in NHS England' s *Summary of Initial Findings* on Seven Day Services (2013)

12. The scale of the financial and quality challenge in the NHS is unprecedented and moving towards the provision of services seven days a week is only one of a number of financial pressures facing the NHS. NHS England's *A call to action*[3] states that:

    'In England, continuing with the current model of care will result in the NHS facing a funding gap between projected spending requirements and resources available of around £30 billion between 2013/14 and 2020/21 (approximately 22% of projected costs in 2020/21).'

13. In this context NHS providers and their commissioners face difficult choices when deciding where to invest their resources in order to maximise the outcomes for patients and value for taxpayers. The move to deliver services seven days a week should not be looked at in isolation of the other changes taking place in the NHS. Our research will provide a helpful indication of the likely costs providers and commissioners face when considering how to redesign their emergency and urgent care services to provide comprehensive services over seven days.

Scope and assumptions

14. The focus of our work was on the impact on acute providers of moving to seven day services for their emergency and urgent care and the supporting diagnostics required. While the activities of GPs, primary care and social services will have a significant impact on a provider's ability to move to seven day services, these were considered by NHS England to be outside the scope of the current phase of the research.

15. In undertaking this work several assumptions have been made:

    - Costs are based on current NHS structures. Where working with other providers is the only sensible and affordable way of moving to seven day services (for instance to provide interventional radiology at weekends), only the trust's estimated proportion of costs have been included. The trusts have not produced detailed costings of collaborative services and the foundation trust model arguably makes collaboration more difficult.
    - The remit of the overall project was emergency and urgent services in acute hospitals and the supporting diagnostics. Mental health services have only been considered insofar as they affect acute hospitals. No change is assumed in the service provided by social care or primary care at weekends; but all the hospitals in the research felt that the acute sector could provide a more efficient seven day service if primary care and social care also moved to providing services every day of the week.
    - Costs are based on the current workforce terms and conditions.
    - We have interpreted seven day services to mean that, as a minimum, the level of service required by the clinical standards is available on weekends and weekdays. It does not mean a 24 hour service if that would not be available during weekdays and is not required by the clinical standards.
    - In line with the overall remit for this project, we have not included accident and emergency department services within the scope of urgent and emergency care,

[3] NHS England (2013), *A call to action*

except where the two are provided together (for example as in Salford Royal's 'emergency village').

- Delivery of seven day services means full compliance with the new clinical standards for the care of emergency admissions (as referred to above). The standards allow hospitals some flexibility in how they meet them, so services and costs would not be identical at all hospitals.

The potential cost of seven day services

16. This section summarises the potential costs at the eight trusts listed in the introduction to this report. The costs were collected on a standard template and that information was supplemented by visits to each trust. The trusts are grouped into three broad categories: London trusts; trusts in large cities; and trusts in smaller towns or rural areas. Two of the trusts (County Durham and Salford) also provide community services: they felt that this helped in reducing delays, and therefore costs, in the acute care pathway. The evidence from individual trusts mainly covers costs and financial benefits from reducing length of stay. Other potential benefits and general issues affecting most trusts are discussed later in this report. A summary of estimated costs of seven day services is shown in Table 1 below and in Figure 1. Detailed analyses of each of the trusts are included in Appendix 2.

Table 1: Summary of the potential costs of introducing seven day services

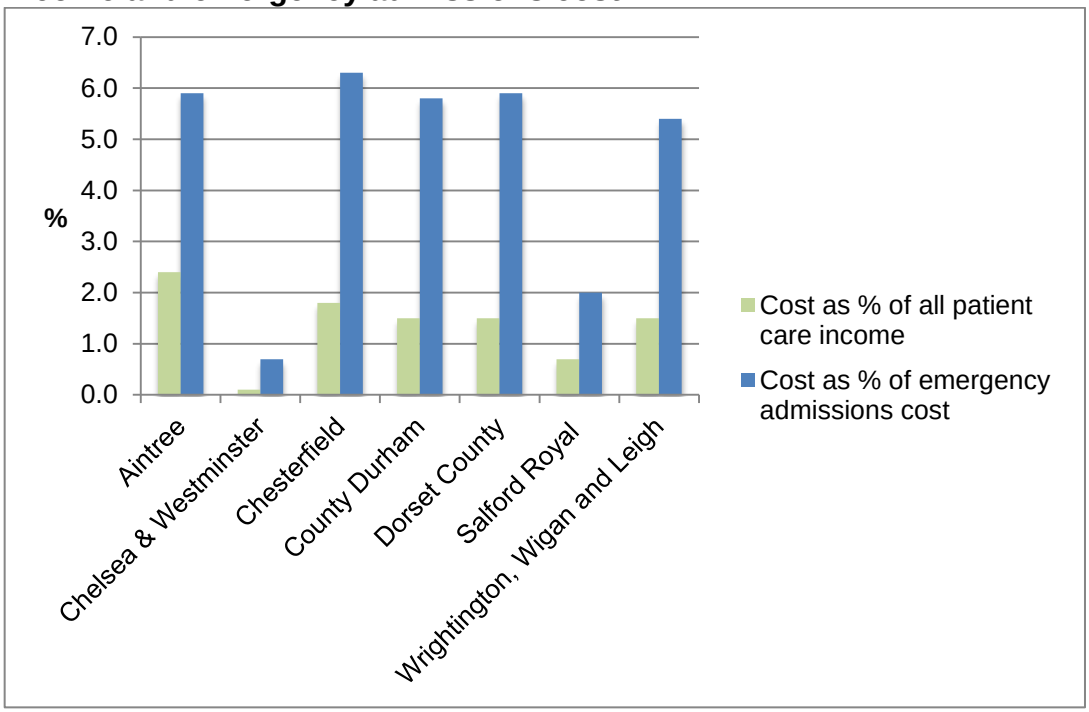
Trust	Potential net costs of seven day services			Savings already netted off against the net costs	Additional consultant staff required	Total net cost as % of all patient care income	Total net cost as % of emergency admissions cost
	Medical Staff	Other staff costs	Total cost				
	£m	£m	£m	£m	WTE	%	%
London trusts							
Chelsea & Westminster	0.4	0	0.4	0	3	0.1	0.7
Large city trusts							
Aintree	2.7	3.1	5.8	0	23	2.4	5.9
Salford Royal (DGH services)	2.0	-0.2	1.8	0.9	16	0.7	2.0
Salford Royal (Specialist)	1.4	0	1.4	0	9	1.3	5.8
Smaller or rural trusts							
Chesterfield (current SDS)	0.5	-0.8	-0.3	1.1	6	-0.2	-0.6
Chesterfield (potential)	2.4	1.3	3.7	0	24	2.0	6.9

County Durham	2.0	4.5	6.5	0.9	15	1.5	5.8
Dorset County	1.1	1.0	2.1	0	8	1.5	5.9
Wrightington, Wigan & Leigh	1.4	2.1	3.5	(a)	10	1.5	5.4

Note: Costs above are net of savings (mainly from reducing length of stay or admissions), as shown above, but do not net off any additional income that trusts might earn.

(a) Wrightington, Wigan and Leigh have identified potential savings of £1.2 million from reducing readmissions. These savings are not yet firm enough to be netted off against costs.

Figure 1: Net costs of seven day services as a proportion of total patient care income and emergency admissions cost



London trusts

17. The London trusts differ from others because of geography and population, and also because of recent NHS history. NHS London (the former strategic health authority) developed a detailed set of clinical standards against which trusts were audited. They also employed external consultants to study the potential cost of meeting the standards. Consequently some of the trusts in London, especially the larger and more successful ones, are already more advanced in meeting the standards required for seven day services than most trusts outside London and have already made many of the investments required.

18. One trust, **Guy's and St Thomas' NHS FT**, a very large trust (with total income of over £1 billion) with multiple specialties, looked at two large specialties in detail: general medicine and vascular surgery. They found that both specialties already fully complied

with the required standards on all seven days of the week, as a result of investments already made, and therefore did not identify any additional costs of moving to seven day services in these specialties.

19. The other London trust in this project, **Chelsea and Westminster Hospital NHS FT**, found that they could achieve the required clinical standards in all specialties over seven days without any significant additional investment. Chelsea and Westminster is an unusual trust in terms of case mix, with a low volume of emergency admissions as a proportion of total activity and this partly explains their low costs. Also, investments made in the past to deliver seven day services are now fully embedded within the trust's operations and are therefore not easily identifiable and so not included.

20. With those caveats, the potential costs at Chelsea and Westminster are:

Table 2: Seven day services costs at Chelsea and Westminster Hospital NHS FT	
Total potential additional cost	£0.4m
Consisting of	Nearly all the cost would be for additional consultants
Impact on activity and income	Nil
Impact on length of stay	Negligible (experience to date suggests little impact)
Cost as %age of relevant emergency costs	0.7% increase
Costs as %age of total patient care income	0.1% increase

Trusts in large cities

21. The two trusts in large cities are Salford and Aintree. Both are major trauma centres: this is an advantage to trusts financially when implementing seven day services, as the investment in infrastructure needed to deliver major trauma can support other services on a seven day basis.

22. **Salford Royal NHS FT** is one of the first English hospitals to undertake a major restructure of the whole hospital front-end. An 'emergency village' has been created and the consultant presence in the accident and emergency department and emergency admissions area has been increased, along with supporting diagnostics. The trust was in a good position to do this for several reasons:
    - Local commissioners engaged in discussing the appropriate sharing of benefits and risks arising from the new arrangements
    - Its new PFI scheme offered a suitable space to redesign the traditional admissions units
    - The expansion of infrastructure required to deliver major trauma centre status enabled diagnostic and clinical support services to be expanded in line with supporting the emergency village.

23. Salford Royal found that the introduction of the emergency village saved significant acute ward bed days by preventing admissions beyond the front door into acute ward beds. These savings largely paid for the additional investment in clinical and other staff in the emergency village. Its overall costs, excluding specialist services are:

Table 3: Seven day services costs at Salford Royal NHS FT	
Total potential additional cost	£1.8m
Consisting of	Most of the cost was for additional consultants, and was partly offset by savings in nursing costs as a result of reducing the number of beds.
Impact on activity and income	There is scope to satisfy demand for elective endoscopies, by utilising some unused clinical time while staff cover potential emergencies. This would generate about £0.4m of extra income.
Impact on length of stay	Estimated to save about 5,000 bed days a year, enabling a ward to be closed.
Cost as %age of relevant emergency costs	2.0% increase
Costs as %age of total patient care income	0.7% increase

24. A further £1.4m of investment (1.3% of total specialist income) would be needed to meet the same standards across all the trust's specialist services.

25. **Aintree University Hospital NHS FT** is also a major trauma centre. A funded investment of over £5m has already been made to achieve this, which also provides much of the radiology support needed for seven day services. Like Salford it has invested in its front-end in the past to reduce admissions (but the costs of this are not included below). Its costs are based on a detailed specialty-by-specialty review of what might be needed to meet the standards, but they have not been through the detailed scrutiny of a full business case. With those caveats, its costs for delivering seven day services are as follows:

Table 4: Seven day services costs at Aintree University Hospital NHS FT	
Total potential additional cost	£5.8m
Consisting of	Less than half of the cost would be for additional consultants: there would also be investment in diagnostics, therapies, pharmacy and nursing.
Impact on activity and income	Assumed negligible
Impact on length of stay	The trust believes there would be a reduction in length of stay. However, as many services already have an element of seven day working (via the major trauma investment and other internal developments) the numbers would not be sufficient to close a ward. It would, however, enable the trust to cope with some increased demand without the need to open further beds, and/or reduce bed occupancy to a more optimum level.
Cost as %age of relevant emergency costs	5.9% increase
Costs as %age of total patient care income	2.4% increase

Trusts in smaller towns or rural areas

26. Four of the trusts in this research are outside the major conurbations. They vary in size: three have patient care income of £150m to £250m; while one is much larger (although that also includes community services).

27. **Chesterfield Royal Hospital NHS FT** is a typical fairly small district general hospital with about £170m of patient care income. For the last year it has run a successful pilot project to provide seven day services at the front-end of the hospital, with additional consultants in A&E and general medicine plus improved diagnostics. This has paid for itself through reducing unnecessary admissions and lengths of stay. For this project it has also estimated the costs of a full seven day service across the hospital: these costs are more speculative. With those caveats, its costs are as follows:

Table 5: Seven day services costs at Chesterfield Royal Hospital NHS FT	
Total potential additional cost	£3.4m
Consisting of	Most of the cost would be for additional consultants, with some smaller investment in therapies, nursing and support services.
Impact on activity and income	Assumed negligible
Impact on length of stay	The pilot project has reduced length of stay and unnecessary admissions, enabling savings of over 9,000 bed days or about £1m. In practice, however, these savings have been more cost avoidance, as activity has risen for other reasons and no beds have actually been closed.
Cost as %age of relevant emergency costs	6.3% increase
Costs as %age of total patient care income	1.8% increase

28. **County Durham and Darlington NHS FT** is a large trust (total patient care income of about £480m), operating on more than one site and covering community as well as acute services. It has a well-developed business case for the expansion of seven day services. Its potential costs are as follows:

Table 6: Seven day services costs at County Durham and Darlington NHS FT	
Total potential additional cost	£6.5m
Consisting of	About £2m of the cost would be for additional consultants, with about £1m each for nursing, diagnostics and therapies. The nursing figure is a combination of investments (to support doctors and speed discharge) and savings (through bed efficiencies).
Impact on activity and income	This is a difficult issue. Patients would be cared for differently (and better), and under current NHS rules the recorded inpatient activity would increase. Under PBR tariff that might generate nearly £5m of extra income, although in reality any change to income would be negotiated with local commissioners.

Impact on length of stay	The project is expected to reduce length of stay and unnecessary admissions, enabling savings of over 8,000 bed days or nearly £1m (already netted off against the costs above).
Cost as %age of relevant emergency costs	5.8% increase
Costs as %age of total patient care income	1.5% increase

29. **Dorset County NHS FT** is a rural trust and the smallest trust in our sample, with patient care income of £150m. Seven day services would require more collaboration across local hospitals (there is already some), for example for interventional radiology. The trust does not yet have a fully developed business case, although its costs should be broadly realistic. They are as follows:

Table 7: Seven day services costs at Dorset County NHS FT	
Total potential additional cost	£2.1m
Consisting of	Half of the cost would be for additional consultants, with some smaller investment in nursing, therapies and pharmacy.
Impact on activity and income	Assumed negligible
Impact on length of stay	This is hard to assess: the trust expects a small saving in bed days, which would not be sufficient to close part of a ward or make any financial saving. It would however provide some capacity for future activity growth at minimal cost.
Cost as %age of relevant emergency costs	5.9% increase
Costs as %age of total patient care income	1.5% increase

30. **Wrightington, Wigan and Leigh NHS FT** is a medium sized district general hospital, operating on three sites. £2.1m of its costs are from a detailed draft business case to provide seven day services at the front-end of the hospital. The main driver for this business case would be to improve quality and no significant savings are assumed. The other costs, totalling £1.4m, are other service improvements already actioned, chiefly in nursing levels. The trust's total costs are as follows:

Table 8: Seven day services costs at Wrightington, Wigan and Leigh NHS FT	
Total potential additional cost	£3.5m
Consisting of	£1.3m of the cost would be for additional consultants. £1m is for nursing increases already made. The balance of cost is small investments in diagnostics, therapies and pharmacy.
Impact on activity and income	Assumed negligible
Impact on length of stay	No change is assumed
Cost as %age of relevant emergency costs	5.4% increase
Costs as %age of total patient care income	1.5% increase

Summary of findings from our research

31. The key issues arising from the detailed costing work and discussions with each trust are considered below.

Costs

32. Costs are essentially the costs of additional staff (mainly consultants) offset by savings (mainly nurses) created by reducing length of stay or admissions. These net costs vary across trusts partly because they start from different positions with regard to the care provided. The London trusts in the sample already meet most of the standards at weekends. Some other trusts do not currently meet some of the proposed clinical standards on weekdays (for example daily consultant ward rounds), so part of their cost relates to improving weekday not weekend services. Trusts providing major trauma were in a strong position for providing seven day services, as they already had 24/7 emergency radiology.

33. Hospitals developed different models for how they would move to seven day services. Some expected to invest mainly in consultants. Others also planned significant investments in specialist nursing, therapies, diagnostics and pharmacy. This partly reflects each trust's starting position. But it also suggests that, before implementation, providers should collaborate to share practical and cost-effective ways of providing seven day services.

34. In at least some trusts with actual experience, the costs of seven day services at the front-end of the hospital can pay for themselves by reducing bed usage: partly reducing unnecessary admissions through better initial assessment and partly reducing length of stay by putting patients onto the right clinical pathway as soon as possible. However, hospitals had to agree ways to protect their income when they did this, as PBR gives little incentive to reduce admissions. It is less clear that seven day services in the days after the admission period could pay for themselves financially. This is because the additional staff costs appear, in our sample of trusts, to outweigh any further saving in length of stay. Case study 1 shows how non-PBR arrangements can work.

Case study 1: Contractual arrangements for the 'emergency village' at Salford

Salford Royal had an opportunity as part of a new PFI build to re-design the emergency village (incorporating traditional A&E and Assessment Unit services). As part of the re-design work, discussions and negotiations were undertaken with local commissioners. This was partly to understand the likely impact on GP services, but mainly to agree how the existing standard PBR contract would have to change. All parties agreed that any re-design had to fundamentally benefit patients and the services they received, within an over-arching objective of delivering costs and benefits for all parties.

Consequently, a new risk share contract was drawn up and agreed. It has an infrastructure payment for the fixed costs associated with the availability of the entire emergency village. This payment does not vary for normal small changes in activity levels. There are then 'stripes' of agreed activity steps. If activity increases or decreases significantly above or below an existing step, the value of the contract increases or decreases by an agreed infrastructure payment, which is based on the step change in the hospital's costs.

The stripes of activity are based on attendances at A&E and change at an average of 10,000 patients per year. For example, if activity changes between 50,000 and 59,000 patients per year, only a marginal effect is incurred; but once 60,000 attendances are reached, the contract would trigger an additional payment.

35. Optimal lengths of stay can only be achieved if all health and social care services are provided seven days a week. More than one trust referred to patient audits which found that a third or more of patients in hospital at weekends could actually be cared for outside hospital; but this is hard to achieve when there is only a limited service from primary and social care at weekends.

Geography

36. As might have been predicted, potential costs are generally higher in smaller hospitals outside the major conurbations. Geography also sometimes limits the scope for collaboration between such hospitals (unlike in London, where different hospital trusts are sometimes within walking distance of each other). Case study 2 illustrates the issues in rural areas.

Case study 2: Networking in rural areas

Dorset County hospital is situated in a mainly rural area, where relatively small hospitals are situated in the major towns. This is particularly difficult for seven day services. There are diseconomies of small scale and hospitals are far apart, on rural roads, making collaboration on emergency services difficult. The cost of providing a 24/7 interventional radiology service would be prohibitive for a small trust. The trust has formed a network with two neighbouring trusts in order to provide this service, but the model has not yet been implemented.

37. London seems to be different, partly because of size and geography and partly because of work already done to improve services (the costs of which are not included). The additional investment still needed for seven day working appears small compared to non-London trusts.

38. The cost of introducing seven day services across a conurbation could be much lower than the cost of introducing it at every hospital within the conurbation. The drive for seven day services could become part of a wider drive for hospital consolidation. This would have to be planned, as no trust expected patient flows to change. Case study 3 shows the range of services offered by three providers in Liverpool and the current levels of collaboration between them.

Case study 3: Collaboration on services in Liverpool

The wider Liverpool conurbation provides a good example of the scope for collaboration or consolidation. There are currently three hospital sites with A&E departments each between 5 and 8 miles apart; Aintree University Hospital NHS Foundation Trust, Royal Liverpool & Broadgreen University Hospital NHS Trust and St Helens & Knowsley NHS Trust. Two of the sites are trauma centres and all three provide emergency surgery and medical care.

If all of these hospitals were to expand their staffing to give a full consultant presence at weekends, the cost would be significant.

Examples of existing collaboration between Aintree University Hospital NHS Foundation Trust and the Royal Liverpool & Broadgreen University Hospital NHS Trust include discussions about a major trauma collaborative, ear, nose and throat surgical on call rota, vascular services and pathology services. Collaboration between Aintree and St Helens & Knowsley includes on call cover for ophthalmology.

Additionally, a Merseyside and Cheshire maxillo-facial collaboration has been in place for some time; minor procedures take place in all of eight collaborating organisations with major procedures being

undertaken at Aintree. The on call rota covers all collaborating organisations.

Workforce and service issues

39. Most trusts commented on the cost of pay premiums for working unsocial hours and clearly any changes to NHS pay terms could reduce the costs of seven day services. However, the bulk of the cost is for extra staff, especially extra consultants (the most expensive staff group in the NHS). These costings assume that staff can be recruited at current pay costs, but any national move to seven day services would increase the demand for staff who are already in short supply. If many trusts try to recruit similar and scarce staff at once (for example acute physicians and radiologists) the pay rates will be higher than assumed. There are different models of nursing. Some trusts included additional specialist nurses to support doctors, others did not.

40. The willingness of staff to change their working patterns varied. One trust had recruited several new acute physicians to work regular long shifts at weekends. Another trust had moved to a similar pilot by local agreement but was finding it hard to move consultants to this way of working permanently. It is clear that widespread seven day services will require a change in the attitudes and expectations of NHS staff.

41. There is some scope to use staff more effectively at weekends by providing some elective services as well as improved emergency services. A wider expansion of weekend elective work would only be economic for trusts if work could transfer from other providers.

42. All trusts commented on the anomaly of expanding hospital services at weekend while leaving primary and social care unchanged. Their view was that if primary and social care provided a greater weekend service, hospital admissions could be reduced and hospital discharge speeded up.

43. Most acute trusts felt that mental health services needed to offer fuller seven day working. Patients were sometimes (expensively and inappropriately) admitted to acute hospitals for a day or two when they should really be able to access appropriate mental health services from the outset. This is an issue for local resolution.

44. Most trusts included extra costs for radiology, and several (especially those furthest from London) commented on the difficulty in recruiting radiologists even now, before any increase in demand for them. Case study 4 illustrates the problems. Specialised radiology services such as interventional radiology could often only be delivered practically by collaboration across hospitals. Several trusts would need to invest in pharmacy, but costs are less material. Pathology was not generally an issue.

Case study 4: Managing radiology services in Durham

County Durham and Darlington NHS Foundation Trust, like many hospitals outside London, currently has difficulty filling all its consultant posts. Radiology is a particular problem. Of the 15.6 budgeted consultant posts only 11.2 are filled by permanent employees. Despite extensive recruitment exercises over the last two years no substantive radiologist appointments have been made.

The trust manages this position, with difficulty, by using locum staff (for which it pays a premium price)

and by contracting out work to a commercial provider. Subcontracted reporting now accounts for 25% of total radiology activity (with CT at 29%). The engagement of a subcontractor was initially on a temporary basis, but due to the trust being unable to resolve its vacant posts the contract has been extended. The trust is exploring alternative workforce solutions including advanced nurse practitioners.

45. Additional therapy services at weekends ought to speed recovery and reduce length of stay. Several trusts thought that this could be achieved at little extra cost, by re-scheduling when therapists worked rather than employing more of them, as shown in case study 5.

Case study 5: Re-scheduling therapy services in Chelsea

In order to meet the London Acute Emergency Standards the therapy service at Chelsea and Westminster was required to extend the operational hours of the acute assessment team. The team consists of occupational therapists and physiotherapists providing assessment and discharge planning in the Emergency Department and the Acute Assessment Unit. The team aims to prevent unnecessary hospital admissions and facilitate safe discharge. The team originally worked from 8.30am to 4.30pm seven days a week and this was extended to 8.00am to 8.00pm, seven days a week. A consultation process was carried out with the staff to agree how the shifts would be organised, for example 12 hour shifts or 8 hour early or late shifts. The extension of hours was achieved with no additional costs.

Non-pay costs

46. No trusts expected any material change in non-pay costs (except where services such as radiology or pathology were outsourced) or any significant one-off costs to introduce seven day services.

47. Where PFI deals include a large amount of hotel services, more weekend working might lead to an expensive renegotiation of the PFI contract sum. The trusts in this research project did not see PFI as a major issue for them, as their contracts were mainly for buildings and maintenance.

Using assets effectively

48. It can be argued that more weekend working would use expensive assets (buildings and equipment) more effectively. Currently the pay premium rates at weekends often make this unattractive for providers. Also there is no financial advantage for trusts in spreading the same activity over more days of the week. It only makes financial sense for trusts if they do more activity overall. But as the NHS cannot afford large increases in activity, doing more activity at weekends at some providers can only mean doing less activity at other providers. It is another reason why seven day services might lead to consolidation of hospital services.

Commissioning issues

49. Very few of the trusts in this study followed the PBR guidance on emergencies to the letter. All of them, unsurprisingly, were unhappy with the marginal rates for admissions above an old baseline. Some said that emergency admissions were provided at a loss under current PBR rules and were subsidised by elective work. As a result, many trusts had negotiated a higher emergency baseline or moved to block contracts.

50. Those trusts that had made significant changes to the front-end of the hospital had agreed payment arrangements outside of PBR. These arrangements had usually taken months to negotiate. Typically there was a risk-sharing arrangement for emergency activity, with additional payments for step changes in activity and cost. Leading on from this, several trusts felt that payment for emergency services should be seen as a payment for capacity rather than for activity. This suggests a largely block payment with some marginal rates for actual activity. This is similar to the arrangements before the introduction of PBR.

51. There was little evidence of any financial benefit for commissioners other than through the avoidance of unnecessary admissions and it does not require full seven day services across the whole hospital to achieve it.

52. This research has not looked in detail at commissioning levers, as another workstream has looked at that. However, there is a growing consensus within the NHS that some change is needed to how emergency services are paid for. Local flexibility seems essential in implementing seven day services, as providers start from different positions. Those trusts that have made most progress with seven day services have agreed local variations from PBR. Any standard percentage uplift to tariff, to cover the costs of seven day services, would over-reward some providers (those already meeting most of the standards) and under-incentivise others (those with high costs of implementation).

53. Few of the trusts in our sample felt that their local commissioners were actively promoting seven day services as a high priority or willing to pay more for it. Commissioners were happy for trusts to develop seven day services so long as they could be assured it would not cost more or increase the workload for GPs.

Making change happen

54. The key points have been largely covered above:

- Changes to employment contracts would make seven day services more affordable but not generally cost-neutral.
- Flexibility with PBR is required. Most trusts that had implemented seven day services had agreed local variations from PBR. It appears, from the recent Monitor and NHS England consultation on PBR, that such flexibility will be encouraged in future.
- There are major issues with shortages of medical staff in areas where they would be most required.
- Providers need to collaborate on practical, cost-effective ways to implement seven day services in their trusts.
- In the trusts sampled, commissioners were not generally leading seven day services. NHS England will need to make special arrangements to incentivise commissioners if it wants seven day services to become a high priority for them.

Benefits of seven day services

55. This section considers the financial and non-financial benefits of introducing seven day services at trusts in our sample. The trusts agreed that there were benefits, but it was difficult to put a financial value on all of them. Case study 6 shows the benefits expected at one trust and is based on their recent business case for seven day services.

Case study 6: The case for seven day services in Wigan

Wrightington, Wigan and Leigh is a major acute trust and is dedicated to providing the best possible healthcare for the local population of over 300,000. While emergency admissions occur 24 hours 7 days a week, outside of core hours not all services are provided to the same level. The trust set up a seven day project working group which first identified those services not available outside core hours and then undertook a benefits realisation exercise on potential improvements in quality of patient care and options for increased efficiency.

The following objectives were identified as improvements to the current level of performance:

- To achieve the standards issued by NHS England
- Reduced mortality rate at weekends
- Improved patient satisfaction survey
- Increased weekend discharges
- Improved timeliness of senior review
- Reduced readmissions
- Reduced unnecessary diagnostic requests.

Financial benefits for hospital trusts

56. The main financial benefit for trusts is in reducing length of stay. Three of the trusts thought this was financially significant. The others did not, or were being cautious in the absence of local evidence. This saving, plus a share of the benefit from reducing admissions, made the expansion of front-end services affordable at two of the trusts. Case study 7 from Chesterfield is shown below. However, all trusts thought that ideally short lengths of stay were unachievable given current (and sometimes worsening) delays with social services at weekends.

Case study 7: The case for seven day services to improve efficiency

The main driver for seven day services at Chesterfield was a need to improve efficiency and patient flows. Like all trusts, Chesterfield needs to deliver 4% efficiency gains each year. In the past this was partly done by providing extra activity at less than full cost, but commissioners in today's NHS cannot afford continual increases in activity. Salami-slicing of budgets does not deliver 4% savings any longer; the low hanging fruit has often already been taken.

So the trust worked to re-design the patient pathway to make it more efficient by providing additional:

- consultant presence in both the Emergency Department and Emergency Management Unit
- diagnostic input to the admission process
- therapy input to the discharge process
- discharge facilitator roles.

This enabled the trust to significantly reduce lengths of stay. The average length of stay for medical admissions fell from 7.2 days to 6.5 days, a saving of over half a day per patient.

57. Several trusts thought that having more consultants available at weekends would reduce the number of unnecessary diagnostic tests requested by junior doctors. This is hard to quantify, and no saving is included in the costings.

58. Some trusts reported that there would be scope for generating some elective income from providing services such as endoscopy at weekends on the back of emergency provision. This would increase choice for patients. Case study 8 shows what can be done to improve access to endoscopy services.

Case study 8: Providing weekend endoscopy in Salford

Like many organisations, Salford Royal experiences significant demand for both diagnostic and therapeutic endoscopy (both as part of emergency inpatient treatment and relating to planned care). In order to meet this demand and hit activity targets, weekend sessions are often provided at premium rates. A planned seven day emergency service means that consultants would be on site to deliver planned endoscopy at the weekend. Although there are frequent emergency endoscopies at the weekend, there would not be enough demand to fill the endoscopy unit at full capacity (3 rooms with 2 lists per day). This means that the trust can offer planned daycase endoscopies in the spare slots on Saturday and Sunday routinely. It can generate additional income of over £300,000 and develop a more economic way of managing the endoscopy waiting list.

59. Trusts were not generally very confident of any other financial benefits for the hospital. Some thought that numbers of readmissions might fall (advantageous for trusts when current PBR rules mean that readmissions within 30 days of discharge are not paid for). Others thought that patients were no less likely to be re-admitted under seven day services.

Savings across the wider health economy

60. The main saving arises if hospital admissions can be avoided by more expert assessment when patients present at hospital at weekends. At two trusts this had helped to make the expansion of front-end services affordable, with local agreements on how this saving would be shared across commissioners and hospitals. This saving does not require seven day services across the whole hospital, only in the areas where patients are admitted.

61. Although length of stay might reduce, this will usually apply below the trim point for excess bed days, so the hospital gets the benefit, not its commissioners.

62. Trusts had little evidence that patients would be any healthier after discharge than they are now. But, if they were, the costs of their primary care, and the risk of readmissions, might reduce.

Non-financial benefits for hospital trusts

63. The main non-financial benefit for trusts would be smoother patient flows, in particular avoiding some of the current pressures on Mondays. Several trusts raised this as a significant issue. Part of the benefit is already being counted under length of stay, but there should be other savings from using staff more effectively and reducing duplication of effort. Smoothing out emergency activity should also make it easier to plan and manage elective activity and reduce the incidence of operations being cancelled

because of shortages of capacity. Case study 9 shows what can be done to improve the availability of imaging services.

Case study 9: Improving access to imaging services

Prior to the patient flow project Chesterfield Royal had significant problems maintaining turnaround times across all areas of imaging throughout the week. The main focus was on CT; the additional funding allowed extended service hours each weekday evening and a 9 to 5 service over the weekend. Consultant radiologists were also on site for one session each weekend day to report all urgent imaging examinations and so improve treatment/discharge times. The outcome of the pilot was a significant improvement in turnaround times despite the increased demand brought about by winter pressures. During the initial stages of the pilot it became apparent that a significant factor was getting the patients to the imaging department. The trust then implemented a 'Grab Team', consisting of a porter and an escort, to facilitate efficient patient flow. This also helped nursing staff on the wards, as they were not required to provide nurse escorts in the evenings and over the weekend.

64. Some trusts thought that their reputation would be enhanced if they were seen as leading the way in seven day services, and that this might help them in recruiting the sort of staff who are keen to improve services in this way. But others thought that recruitment might be harder if they required staff to work at weekends when other hospitals (and primary care) did not.

65. There is evidence in some trusts of patient safety incidents, complaints and litigation linked to sub-optimal care at weekends. Improved services for patients could also mean less administrative work for trusts and possibly some financial saving but at present this is hard to assess.

Benefits for patients

66. Benefits are covered in NHS Sevices, Seven days a Week Forum Summary report.The comments here only reflect discussions with the trusts providing costings. Most trusts expected some clinical benefit, from reduced mortality for a few patients to better care for many. This was the main reason why most of the trusts were pursuing seven day services. It was hard to produce local evidence for these benefits, as the numbers tend to make more sense on a bigger scale than at a single provider.

67. It is reasonable to expect that patient satisfaction would improve as a result of better care at weekends and shorter stays, but there is little evidence for this yet. There is some wider economic benefit when patients can be discharged sooner.

Conclusions

68. This research is based on only eight providers. They represent a fair mix of size and locations, but are untypical insofar as they are all successful foundation trusts with an interest in seven day services. What applies at these trusts may not apply at all trusts, as the costs of moving to seven day services might be higher at struggling non-foundation trusts. With that caveat the main conclusions are set out below.

- Costs of implementing seven day services, and current service levels, vary within these eight providers and may vary even more across the whole English NHS. Current services are at different levels. That suggests a local rather than a standard national approach to implementation is required.
- The range of costs for implementing seven day services at most providers, excluding London, is broadly 5% to 6% of relevant expenditure (i.e. the cost of emergency admissions excluding maternity) or up to 2% of total patient care income. In our view, caution should be used when attempting to use this information to construct a potential cost for the whole of the English NHS because of the relatively small sample size, the differences in London and the potential differences in non-foundation trusts.
- It appears that the additional costs would be lower in London trusts than elsewhere, because of investments already made. Costs would tend to be higher in smaller district general hospitals. The practical problems of implementation, and recruitment, also tend to be worse at smaller trusts.
- There is evidence that seven day services at the front-end of the hospital can pay for themselves at some trusts, by reducing admissions and length of stay. But usual PBR rules have to be flexed locally to enable providers to share the financial benefit from reducing admissions.
- Seven day services for a hospital as a whole are unlikely to be cost-neutral (except at some London trusts) under the present configuration of services. It is fair to conclude from this small study that the move to seven day services does appear achievable, but it may be too expensive and unsustainable for all existing hospitals to move all their current range of services to a seven day basis.
- Costs could be reduced if current payments for working unsocial hours were reduced.
- In general PBR has not helped with creating seven day services and a set national tariff would not be a good tool to incentivise them. Emergency seven day services may be better paid for as a fixed ‘payment for capacity’, with adjustments for activity levels. The hard task is to find a fair and defensible way to set that payment level in a semi-commercial environment.
- In the trusts examined, any move to seven day services was led by the trusts not their commissioners. NHS England would need to take action to incentivise commissioners if it wants to implement seven day services quickly.

Implementation: a possible way forward

69. A rapid expansion of full seven day services across the whole NHS would be expensive and probably impractical given the number of additional consultants required. Some degree of seven day services, negotiated locally, would be more clearly cost-effective in the short term.

70. In the slightly longer term, seven day services are likely to support the case for consolidation of hospital services on fewer sites. The scope for consolidation is greater in the large conurbations, but rural areas will face greater challenges. This report has not attempted to cost the changes in the numbers of hospitals providing services.

71. The implementation of seven day services cannot be looked at in isolation from the other challenges facing the NHS and the policy reviews underway. NHS England's review of urgent and emergency care, for example, will have significant implications and it is important that the provision of seven day services is integrated within wider changes.

72. NHS organisations need to have a clinically, operationally and financially sustainable strategic plan. Trusts will need to explore with commissioners new ways of working that result in seven day services that are clinically appropriate and affordable for their local populations. Commissioners and providers will need to work with primary, community and social care to optimise the value to be gained from local resources. The creation of the Health and Social Care Transformation Integration Fund provides a valuable opportunity for NHS organisations and local authorities to work together to develop new ways of working to support seven day services.

73. NHS finance staff have a role in making seven day services happen. They should understand the case for change and support clinicians and managers to make it work. This includes modelling the options and managing the financial risks. It also means working with commissioners to resolve funding issues that do not support service change. If the clinical case for seven day services is strong, internal NHS obstacles should not be allowed to prevent it.

Suggestions for further research

74. This report has concentrated on its agreed remit: acute urgent care and emergency services and the required supporting diagnostics.

75. We understand NHS England will look to use as much information from this research as possible, and align their work on this review with other NHS England programmes of work such as the Urgent and Emergency Care review and the recent *A Call to Action* publication.

76. There are several areas where further research would be helpful:

- The work carried out to date focused on emergency and urgent care because it is considered to be the area that would make the biggest difference to patient outcomes. There would be further benefits if seven day working could be

implemented across the range of NHS services provided. Assessing the financial impact of this would be a positive move forward and enable informed decisions to be made.

- So far mental health has only been considered in terms of meeting the mental health needs of patients admitted to acute providers. We suggest that a further piece of work be carried out focusing on mental health providers.
- All the trusts taking part in this work referred to the impact that primary, community and social care services have on their admissions and discharges. Most trusts said that there were steps that they could take to move towards the provision of seven day services, but for it to work properly improvements will also need to take place outside the hospital setting. We therefore recommend that further work should be undertaken to identify and cost the changes required in primary and social care.
- If it is concluded that service consolidation is required to make seven day services affordable in many health economies, then the practicality, benefits and costs of such a consolidation need to be tested robustly.

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The research was carried out by Emma Knowles (Head of Policy and Research), Richard Edwards (Research Manager) and Steven Bliss (Independent Consultant).

Appendix 2: Details of costs and issues by trust

Trusts are listed in alphabetical order (excluding Guy's and St Thomas' which did not provide any costs).

Appendix 2a: Aintree University Hospital NHS Foundation Trust	
Type of trust	Aintree is a large city teaching hospital with some specialised services.
Size	£280m of patient care income and about 700 beds. Annual activity In 2012/13 includes 33,000 non-elective admissions and 86,000 A&E attendances.
Services	All normal acute services and some specialised services including major trauma, provided on a single site.
Approach to PBR	Several key features of PBR guidance are not currently followed. The expected volume of emergency activity, based on 2012/13 actual, is valued at PBR tariffs but paid for as a block contract.
Services already provided on a seven day basis	Some of the front-end services have already been enhanced to bring them closer to weekday services – the costs of this are hard to disentangle now and are not included below.
Cost details	
Background	The trust has done a very detailed analysis, by service, of what is required to meet each of the standards. In some services this requires an enhancement to weekday, as well as weekend, services. The costs are not a fully worked up business case, but they seem broadly as expected when compared to the actual costs incurred to introduce major trauma services. Like Salford, Aintree has the advantage that major trauma already provides, and pays for, 24/7 radiology, so that no additional investment is required there.
Total potential additional cost	£5.8m
Consisting of	Less than half of the cost would be for additional consultants: there would also be investment in diagnostics, therapies, pharmacy and nursing.
Number of additional consultants required	23
Impact on activity and income	Assumed negligible
Impact on length of stay	The trust believes there would be a reduction in length of stay. However, as many services already have an element of seven day working (via the major trauma investment and other internal developments) the numbers would not be sufficient to close a ward. It would, however, enable the trust to cope with some increased demand without the need to open further beds, and/or enable bed occupancy to be reduced to a more optimum level.
Cost as %age of relevant emergency costs	5.9% increase
Costs as %age of total patient care income	2.4% increase

Appendix 2b: Chelsea and Westminster NHS Foundation Trust	
Type of trust	Chelsea and Westminster is a large trust in central London.
Size	£305m of patient care income, including specialist services and about 470 beds. Annual activity in 2012/13 includes 38,000 non-elective admissions and 112,000 A&E attendances.
Services	The trust provides acute and several specialist services on a single site. Emergency admissions are a relatively small share of its income compared to other trusts in this research project. It collaborates with other nearby London trusts on more specialised services such as interventional radiology, which has helped to provide a seven day service
Approach to PBR	PBR guidance is generally followed. Savings on the 30% emergency marginal rate have been reinvested in integrated care pilots.
Services already provided on a seven day basis	NHS London (the former strategic health authority) set standards for clinical services and arranged audits of trust performance against them. Hence, unlike most trusts in the sample, Chelsea and Westminster had already been assessed against the clinical standards and knew that it already met most of them.
Cost details	
Background	The trust already meets most of the clinical standards on all seven days. There had been investment in the past, over several years, to achieve this. Unfortunately it has not proved easy to unpick these past investments. Consequently the trust has only identified the additional costs it would incur, and these costs are very small. The trust also made the point that it was only costing against the minimum standards. Weekend services would not always be as full as the weekday services currently provided, but they would be good enough to meet the standards.
Total potential additional cost	£0.4m
Consisting of	Nearly all the cost would be for additional consultants
Number of additional consultants required	3
Impact on activity and income	Nil
Impact on length of stay	Negligible (experience to date suggests little impact)
Cost as %age of relevant emergency costs	0.7% increase
Costs as %age of total patient care income	0.1% increase

Appendix 2c: Chesterfield Royal Hospital NHS Foundation Trust	
Type of trust	Chesterfield is a typical small DGH in a medium-sized town
Size	£170m of patient care income and about 650 beds. Annual activity in 2012/13 includes 39,000 non-elective admissions and 68,000 A&E visits.
Services	Normal acute services, with little specialist activity, provided on a single site.
Approach to PBR	Some of the saving on the 30% marginal rate is reinvested to pay for volume growth. Special local rules are applied for services where admissions are deliberately reduced.
Services already provided on a seven day basis	The pilot project described below
Cost details – pilot project	
Background	For the last year the trust has run a successful pilot project to provide seven day services at the front-end of the hospital. The main driver for this project was a need to improve efficiency and patient flows: it was driven by financial requirements alongside quality needs. Like all providers the trust has to find a 4% efficiency saving each year. In the past some of that came from continually increasing patient volumes, but that is no longer affordable. The easier savings have been made already. The trust had no choice but to re-model the way it provided emergency services. The trust invested in additional consultants in A&E and medicine plus improved diagnostics, therapies and pharmacy. Many staff had to change their patterns of working, and they were involved in the project from the outset. The project has, so far, paid for itself through reducing unnecessary admissions and lengths of stay (by about half a day on average for all medical admissions). If activity had remained static, the trust would have been able to close a ward with about £1m of savings. However, as in many hospitals, emergency activity has been growing. The project did not actually lead to any beds being closed. Instead greater efficiency enabled the trust to cope with growing activity at little extra cost.
Total potential additional cost	£0.3m net saving (assuming constant activity levels)
Consisting of	A net £0.5m investment in medical staff, and some smaller investment in diagnostics etc, offset by £0.8m of nursing savings and some small savings elsewhere.
Number of additional consultants required	6
Impact on activity and income	The savings are evaluated as if activity was constant. In reality the action taken reduced activity (by reducing unnecessary admissions), with no loss of income because of local agreements; however, this was swamped by an underlying rise in emergency activity, especially over the long winter.
Impact on length of stay	The pilot project has reduced length of stay and unnecessary admissions, which would have enabled savings of over 9,000 bed days if activity had not increased for other reasons.

Cost as %age of relevant emergency costs	0.6% saving
Costs as %age of total patient care income	0.2% saving
Caveats	There are two important caveats to what has generally been a successful project:

	a) PBR gives providers no incentive to reduce admissions, but one of the aims of the project was to reduce unnecessary admissions by having consultants available to assess all patients. The project was only made possible by negotiating deviations from PBR with local commissioners. In 2012/13 commissioners invested outside of tariff in the additional posts to support the pilots. Both provider and commissioner benefit from an overall saving. b) After the initial enthusiasm of the pilot project, it is proving hard to persuade some staff (especially long-established consultants) to adopt regular weekend working.
Cost details – potential full seven day service	
Background	For this SDS project the trust has also estimated the costs of a full seven day service across the hospital. These costs are more speculative, not a fully worked-through business case, and involve substantial increases in consultant numbers. It would be hard for the trust (or its commissioners) to afford this level of investment. It would also be hard to recruit the staff needed: like many smaller non-teaching trusts outside London, Chesterfield finds it hard to recruit new consultants. The costs also include some costs for meeting standards not currently met fully on weekdays. With those caveats, its costs are set out below.
Total potential additional cost	£3.7m
Consisting of	Most of the cost (£2.4m) would be for additional consultants, with other investment mainly in therapies and nursing.
Number of additional consultants required	24
Impact on activity and income	Assumed negligible
Impact on length of stay	The trust feels that much of the potential saving in length of stay has already been achieved in its pilot project; further savings are hard to assess and are not included.
Cost as %age of relevant emergency costs	6.9% increase
Costs as %age of total patient care income	2.0% increase

Appendix 2d: County Durham and Darlington NHS Foundation Trust	
Type of trust	County Durham and Darlington is a large trust providing acute and community services. Its catchment area is partly urban and partly rural.
Size	£480m of patient care income, including community services, and about 1,050 beds. Annual activity in 2012/13 includes 95,000 non-elective admissions and 114,000 A&E visits.
Services	The trust provides acute services on three sites and community services on several other sites.
Approach to PBR	In 2013/14 the trust is on a block contract for emergency services, based on expected volumes priced at normal PBR tariffs.
Services already provided on a seven day basis	Relatively little has been provided until recently.
Cost details	
Background	It is one of the trust's objectives to introduce true seven day services across both acute and community sectors. The trust's costs are partly based on detailed business cases, for seven day services already implemented or planned, and partly estimates of additional staffing needs for other services. Its costs appear comparable to the other similar trusts in this study. Recruitment is already a problem for the trust, especially in radiology where there are locums and outsourced services. Consultant and middle grade recruitment is generally difficult, with a lot of agency locums, and there are problems with junior doctors too. These issues would make a rapid move to seven day services difficult. The trust's costings assume that currently high agency staff costs would also apply for any additional recruitment. The way in which the trust would re-model services would increase the numbers of recorded admissions (realistically, not just a quirk of coding, as these patients would receive more thorough assessment and treatment than at present). At full PBR tariffs this could generate nearly £5m of additional income, but realistically this would be negotiated locally with commissioners. No income has been netted off against the costs below.
Total potential additional cost	£6.5m
Consisting of	About £2m of the cost is medical staff with about £1m each for nursing, therapies and diagnostics.
Number of additional consultants required	15
Impact on activity and income	As above, the change in the model of service could generate up to £5m of additional chargeable income under PBR. This has not been netted off against costs.
Impact on length of stay	The trust expects to save about 8,000 bed days, generating £1m of nursing savings. These savings have been netted off against the costs above.
Cost as %age of relevant emergency costs	5.8% increase
Costs as %age of total patient care income	1.5% increase

Appendix 2e: Dorset County NHS Foundation Trust	
Type of trust	Dorset is a small rural DGH.
Size	£150m of patient care income and about 400 beds. Annual activity in 2012/13 includes 21,000 non-elective admissions and 42,000 A&E attendances.
Services	Normal acute services, with little specialist activity other than a renal service, provided on a single site.
Approach to PBR	The expected volume of emergency activity is valued at PBR tariffs. All volume changes in-year are valued at locally agreed marginal rates.
Services already provided on a seven day basis	Only paediatrics
Cost details	
Background	Dorset has done little so far with seven day services, although it is one of the trust's objectives to explore it further. Collaboration has commenced with other providers to review how seven day services can be provided in some specialties. The trust's costs are a broadly realistic estimate of additional staffing needs, but they have not been through the rigour of a full business case. Its costs appear comparable to the other similar trusts in this study. Recruitment is already a problem for the trust, which would make a rapid move to seven day services difficult.
Total potential additional cost	£2.1m
Consisting of	Half of the cost would be for additional consultants, with some smaller investment in nursing, therapies and pharmacy.
Number of additional consultants required	8
Impact on activity and income	Assumed negligible
Impact on length of stay	This has proved difficult to assess. Weekend admissions at this trust are not the longest stays, but the failure to provide therapies and other services at weekends does lengthen the stays for patients admitted on other days. The trust has taken a cautious view that only about 1,000 bed days might be saved. This would not produce any financial saving, as it is not enough to close part of a ward.
Cost as %age of relevant emergency costs	5.9% increase
Costs as %age of total patient care income	1.5% increase

Appendix 2f: Salford Royal NHS Foundation Trust	
Type of trust	Salford Royal is a large city teaching hospital providing all normal acute services, many specialist services and some community services.
Size	£340m of patient care income, including specialist and community services, and about 630 beds. Annual activity in 2012/13 includes 23,000 non-elective admissions (of which 4,000 is specialist activity) and 86,000 A&E attendances.
Services	The trust provides acute and specialist services on a single site. It also provides community services from a number of locations across the city. Specialist services include major trauma and neuro-surgery.
Approach to PBR	Income associated with emergency admissions through the 'emergency village' (described below) is subject to a risk-share contractual arrangement with the CCG. The contract is based on bands of activity which reflect step changes in cost incurred by the trust.
Services already provided on a seven day basis	The trust created a large "emergency village", using space available in its new PFI build. It consists mainly of: • A 55 bed dedicated emergency assessment unit, plus ambulatory care, for medical and surgical admissions • Consultant-led A&E and acute physician service until 8pm, seven days a week • 24/7 radiology (already provided as part of the infrastructure payment for the major trauma service) and 24/7 pathology • Most therapies available at least until 5pm at weekends, as is pharmacy This required an initial investment of £1.9m in additional staffing and involved a major recruitment exercise for acute physicians. It was paid for mainly by nursing savings (through reducing admissions and length of stay) plus some one-off investment by local commissioners. The emergency village is a success, which could be replicated elsewhere, but it was aided by the following factors which would not all apply elsewhere: • Suitable buildings were available • Major trauma effectively paid for the main diagnostic support • As a major teaching hospital the trust was able to recruit the consultants it needed – it can be harder at other trusts • Local commissioners agreed (eventually) deviations from PBR.

Cost details – for DGH services	
Background	The costs which follow are the existing costs of the emergency village plus the additional costs required for seven day services in the rest of the hospital. They exclude specialist services, covered separately below.
Total potential additional cost	£1.8m (which is net of savings)
Consisting of	£2m of the cost is for medical staff. There is a further £0.7m investment in diagnostics, and an offsetting £0.9m saving in overall nursing costs.
Number of additional consultants required	16
Impact on activity and income	The trust has included an extra £0.4m of endoscopy income through using the additional capacity created at weekends.
Impact on length of stay	The trust has identified savings of about 5,000 bed days, generating £0.9m of nursing savings. These savings have been netted off against the costs above.
Cost as %age of relevant emergency costs	2.0% increase
Costs as %age of total patient care income	0.7% increase
Cost details – for specialist services	
Background	These costs are rather more speculative than the costs above, as they are not based on actual experience or a detailed business case.
Total potential additional cost	£1.4m
Consisting of	All of the cost is for additional medical staff. Diagnostics etc are already provided as part of DGH services.
Number of additional consultants required	9
Impact on activity and income	None
Impact on length of stay	Not expected to be material
Cost as %age of relevant emergency costs	5.8% increase
Costs as %age of total patient care income	1.3% increase

Appendix 2h: Wigan, Wrightington and Leigh NHS Foundation Trustand Leigh NHS FT	
Type of trust	The trust is a medium sized acute DGH in a fairly large town.
Size	£250m of patient care income and about 470 beds. Annual activity in 2012/13 includes 39,000 non-elective admissions and 92,000 A&E attendances.
Services	The trust provides a normal range of acute services, with some specialist activity, on three sites.
Approach to PBR	PBR rules are generally followed, but there is broad agreement with commissioners that costs or savings from service changes should be shared.
Services already provided on a seven day basis	There were some existing seven day services, but the costings are mainly based on the trust's business case for front-end services in medicine.
Cost details	
Background	£2.4m of the trust's costs are based on a recently developed business case (not yet approved at the time of writing this report). The case has been clinically driven, with the prime aim being to improve and standardise the quality of care. Any financial benefit would be incidental, and the trust has been cautious in assessing the potential benefits from reduced length of stay. The trust does, however, expect some financial benefits from reduced readmissions, reduced infections, etc. The remaining £1.1m of costs cover some large investments, mainly in nursing, in recent years. These investments were made to improve the quality and consistency of services, with commissioner financial support for some of them
Total potential additional cost	£3.5m, before allowing for potential savings. The trust has identified a potential £1.2m of savings on readmissions, but this is not yet firm enough to be netted off against costs.
Consisting of	£1.4m of the cost is for medical staff. £1.2m is nursing investments including £1m (the weekend element) made in recent years. The rest is mainly comparatively small investments in diagnostics, therapies and pharmacy.
Number of additional consultants required	10
Impact on activity and income	Assumed negligible
Impact on length of stay	No savings are assumed on length of stay (but savings are expected on readmissions). This may be cautious, but the trust was not sure enough of the scope for local savings to assume any in its business case.
Cost as %age of relevant emergency costs	5.4% increase
Costs as %age of total patient care income	1.5% increase