Establishing and implementing best practice to reduce unplanned admissions in those aged 85+ through system change (ESCAPE 85+): a mixed method, case study approach

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Abstract

Background: In England, between 2007/08 and 2009/10, the rate of unplanned hospital admissions of people aged 85 and above rose from 48 to 52 per 100. There was substantial variation, with some areas showing a much faster rate of increase and others showing a decline.

Objectives: To identify system characteristics associated with higher and lower increases in unplanned admission rates in those aged 85+; to develop recommendations to inform providers and commissioners, and to investigate the challenges of starting to implement these recommendations.

Design: Mixed method study using routinely collected data, in depth interviews and focus groups. Data were analysed using the framework approach, with themes following McKinsey's 7S model. Recommendations derived from our findings were refined and prioritised through respondent validation and consultation with the project steering group. The process of beginning to implement these recommendations was examined in one 'implementation site'.

Participants: Six study sites were selected based on 85+ admission data from Primary Care Trusts, three where where rates of increase were amongst the most rapid,, and three where they had slowed down or declined. Each 'improving' or 'deteriorating' site comprised an acute hospital Trust, its linked Primary Care Trust/Clinical Commissioning Group, the provider of community health services and adult social care. At each site, representatives from these organisations at strategic and operational levels, as well as representatives of patient groups, were interviewed to understand how policies had been developed and implemented. A total of 142 respondents were interviewed.

Results: Between 2007/08 and 2009/10, average admission rates for people aged 85+ rose by 5.5% annually in deteriorating sites and fell by 1% annually in improving sites. During the period under examination, the population aged 85+ in deteriorating sites rose by 3.4%, compared with 1.3% in improving sites.

In deteriorating sites, there were problems with GP access, pressures on Emergency Departments, and a lack of community based alternatives to admission. However the most striking differences between improving and deteriorating sites were not the presence or absence of specific services, but the extent to which integration within and between types of service had been achieved. There were also overwhelming differences in leadership, culture and strategic development at the system level. The final list of recommendations emphases the importance of issues such as maximising

integration of services, strategic leadership, and adopting a system wide approach to reconfiguration.

Conclusions: Rising admission rates for older people were seen in places where several parts of the system were under strain. Places which had stemmed the rising tide of admissions had done so through strong stable leadership, a shared vision and strategy, and common values across the system.

Future work: Research on individual components of care for older people needs to take account of their impact on the system as a whole. Areas where more evidence is needed include the impact of improving access and continuity in primary care, the optimal capacity for intermediate care and how the frail elderly can best be managed in Emergency Departments.

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List of Abbreviations

ACSC	Ambulatory Care Sensitive Conditions
AHP	Allied health Professional
AMU	Acute Medical Units
BCT	Better Care Together
CCG	Clinical Commissioning Group
COPD	Chronic Obstructive Pulmonary Disease
CRN	Clinical Research Network
ED	Emergency Department
FTN	Foundation Trusts Network
GP	General Practitioner
HES	Hospital Episode Statistics
IC	Intermediate Care
IS	Implementation Site
MDT	Multi-disciplinary Teams
NHS	National Health Service
NIHR	National Institute for Health Research
ONS	Office of National Statistics
PBR	Payment by Results
PCT	Primary Care Trust
PPG	Patient Participation Group
PPI	Patient Public Involvement
RA	Research Assistant
SPA	Single point of Access
STARS	Short Term Assessment and Re-enablement Service
IT	Information Technology
UK	United Kingdom
US	United States (of America)

Scientific summary

Background

The number of people aged 85 and over in the UK is projected to more than double in the next 25 years, (from 1.4M in 2009 to 3.5M in 2034). The proportion of unplanned admissions contributed to by this age group has risen in the last decade, and will continue to increase due to these demographic trends. Once admitted to hospital, older people have longer stays, are more prone to hospital acquired complications, both physical and psychological, and may experience more difficulty returning home or to their usual place of residence due to disruption of previously established care packages. There is also evidence that with appropriate case selection, clinical outcomes in community based alternatives are as good or better, and that older people prefer to be treated at, or closer to, home. There are therefore strong arguments to restrict emergency admission in this age group to cases where it is clinically necessary.

In England, between 2007/08 and 2009/10, the rate of unplanned hospital admissions of people aged 85 and above rose from 48 to 52 per 100. There was substantial variation, with some areas showing a much faster rate of increase and others showing a decline. This suggests that lessons can be learned by comparing the approaches taken in health economies at both ends of distribution. Several policy analysts, including the Kings Fund, have recognised the importance of tackling this issue from a systems perspective, rather than through piecemeal initiatives, but it is less clear how this can be achieved in practice.

Aims

To identify system characteristics associated with higher and lower increases in unplanned admission rates in those aged 85+; to develop recommendations based on best practice to inform providers and commissioners, and to investigate the challenges of starting to implement these recommendations.

Research questions

1.1 What system characteristics are associated with higher and lower than average changes in unplanned admission rates in those aged 85+?

1.2 What are the antecedents, contextual and internal factors that influence these different characteristics for the management of care for those aged 85+?

1.3 What are the lessons for commissioning, system configuration and system change to reduce unplanned hospital admissions for those aged 85+ more widely across the NHS?

1.4 What are the practical challenges faced by providers and commissioners in starting to implement system change to reduce unplanned admissions in those age 85+?

Methods

A mixed method, multiple case study approach was adopted. Six study sites were selected based on 85+ admission data from English Primary Care Trusts, three where rates between 2007/08 and 2009/10 had increased most rapidly, and three where they had slowed down or declined. Each 'improving' or 'deteriorating' site comprised an acute hospital Trust, its linked Primary Care Trust/Clinical Commissioning Group, the provider of community health services and adult social care. We only considered sites where there was a strong linkage between the PCT and an acute Trust, as we wanted to explore areas where more than 80% of acute admissions for people aged 85+ from the selected PCT were admitted to one acute Trust, so that there was at least a potential partnership between these organisations.

For each site, we obtained and examined enhanced Hospital Episode Statistics (HES) data and routinely available data, including the NHS Information Centre Indicator portal, NHS Better Care, Better Value Indicators and the GP patient survey. These data were used to profile each site and to inform interviews with stakeholders. Where possible interviews were conducted with representatives from health and social care organisations (acute Trust, PCT/Clinical Commissioning Group, the provider of community health services, adult social care) at strategic and operational levels as well as with representatives of patient groups. A total of 142 respondents were interviewed, mostly individually but with some use of focus groups. Qualitative data were analysed using the framework approach, with themes taken from McKinsey's 7S model (Strategy, Structure, Systems, Style, Staff, Skills, Shared values).

A case report, summarising quantitative and qualitative findings was produced for each site. Recommendations, categorised by the 7S model were then derived from each site and collated. This model was chosen to capture the complex organisational structures, their elements and their inter-relationships. The initial list, together with a summary of the evidence base to support them, was sent to respondents and members of the steering group, who were asked to state their extent of

agreement of disagreement. This exercise resulted in consolidation of some recommendations and others being dropped because of low levels of agreement.

Towards the beginning of the project we identified an implementation site to address research question 1.4. This included the appointment and part time funding of an implementation fellow from within the organisation to act as a conduit between the research team and the implementation site. Their role was to examine how best our recommendations could be used to support system change within one health economy.

Results

Summary of quantitative findings

Between 2007/08 and 2009/10, average admission rates for people aged 85+ rose by 5.5% annually in deteriorating sites and fell by 1% annually in improving sites. The most important differences were the much lower proportion of zero- day admissions (where admission and discharge were on the same day) in improving sites, and lower overall readmission rates, suggesting that improving sites had been able to provide alternatives for these patients. Another reason for differences in performance were changes in admission rates for acute ambulatory care sensitive conditions (ACSCs) which rose sharply in deteriorating sites and declined in improving sites. This could reflect lower provision of community and GP services in these locations, as supported by evidence from the GP survey that access to GP services, including out of hours services was poorer. Furthermore, problems with GP access are associated with increased usage of emergency departments, which could itself increase admission rates, particularly for less than one day. The suggestion that both primary and secondary care services are under more strain in deteriorating sites is also supported by our finding that the oldest old population increased more rapidly in these locations; during the period under examination, the population aged 85+ in deteriorating sites rose by 3.4%, compared with 1.3% in improving sites.

Qualitative findings: deteriorating sites

Although all six sites provided information about worked well and less well, the three deteriorating sites revealed a picture of uncertain and complex health system change, where service leaders did not always display a shared vision, clear understanding or anticipation of how different system elements should interact with each other. Across these sites a number of common features emerged.

First, all three revealed no evidence of overall 'system strategy'. Although individual system components might have quite developed strategies for aspects of unplanned care, such as the ED, there was little appreciation of how the components of the wider health system should fit and work together.

Second, strategies tended to be dominated by acute care provision and system changes to support the reconfiguration of acute care, to the detriment of policies to expand or improve primary and community care.

Third, strategies were driven by prevailing national targets, which also reinforced the importance of acute care and potentially fragmented community care. This was exemplified by the preoccupation with delayed hospital discharge over and above preventing hospital attendance.

Fourth, where improvement projects were identified, these tended to be highly reactive and short-lived with little follow through, strategic alignment or consideration of the resources implications

Fifth, there was widespread under-investment and planning for primary care. GP practices were generally seen as managing chronic care and experiencing difficulties with demand for emergency care.

Sixth, there was little evidence of integration between acute, primary and community services. Each was characterised by distinct governance and funding arrangements, divergent cultures and values, and different ways of working. Seventh, there was little understanding of or planning for whole pathway care, i.e. understanding the complex journeys that patients travel through the health and social care systems. As above, there was often emphasis on key care stages, such as admission and discharge, but not on the wider constellation of agencies involved.

Eighth, there was excessive demand on limited services, especially community based services. This meant many specialist community teams were routinely over-stretched and struggled to provide comprehensive packages of care.

Qualitative findings: improving sites

The three improving sites provided a picture of health systems, which in contrast with the deteriorating sites, involved greater stability and continuity amongst a range of well-coordinated

health and social care service providers. In comparison to the deteriorating sites, a number of features emerged.

First, all three exhibited a shared and comprehensive strategy for managing unplanned care, including specific policies and procedures for older patient groups. These were linked to a range of interventions to better manage patient care in the community, which included rapid access services, intermediate care services, out-of-hours care and support from voluntary sectors. Significantly, these strategies and policies were shared across the wider health and social care setting suggesting an underlying basis of collaboration and coordination between care providers.

Second, each site was characterised by stable and clear strategic leadership, whether through individual change agents or coordinated agencies that provided continuity of purpose, fostered collaborative working and maintained commitment to improvement. Significantly, there was less evidence of knee-jerk change or projects not being brought to completion.

Third, improvement projects were generally well-resourced, often through co- or matched funding arrangements between local agencies and national bodies. Moreover, change projects were usually given time to develop and embed into practice rather than being subject to changing fashions or emerging policies.

Fourth, these sites typically provided integrated community health (and in some cases social) care provision through a single or main NHS organisation. This could either be a typical community healthcare provider or a unified community and acute provider. Significantly, the integration of community care within one provider not only enabled efficiency savings but more importantly enhanced integration between specialist teams or care providers. It also meant that the introduction of service innovations could be more easily aligned with and integrated into existing services, rather than seen as operating in competition.

Fifth, there was also closer alignment of out-of-hours GP services with either community or acute NHS providers. As above, this facilitated closer integration of primary, acute and community services, especially for information sharing, continuity of care and joined up working more generally.

Sixth, these services also seemed to make more explicit and strategic use of voluntary care agencies. These often provided service in more responsive and dynamic ways that eluded traditional healthcare providers.

Implementation

Engagement with the implementation site is ongoing. Recommendations were presented to several forums, including Clinical Commissioning Group boards and GP forums in 2013 but as yet with no tangible impact. Recommendations are contributing to an urgent care transformation work-stream across the health economy of the implementation site. As part of this process, a survey is underway seeking response to the recommendations from a wide range of stakeholders. This process illustrates the importance of aligning proposals for system change to sites' needs and strategies, and of understanding when how and to whom they should be directed to achieve the greatest impact.

Conclusions and recommendations

Both quantitative and qualitative data supported the conclusion that rising admission rates for older people were seen in places where several parts of the system were under strain. Pressure points in the system that contributed to this outcome included worse access to general practitioners both in and out of hours, excessive demand on emergency departments and lack of provision of intermediate care. Places which had stemmed the rising tide of admissions had done so through strong stable leadership, a shared vision and strategy, and common values across the system. The following is a summary of our main recommendations.

Strategy

1. Aim to maximise integration between care providers: community and acute care Trusts and health and social care
2. Work at relationships with the local authority and acknowledge that this is a political organisation
3. Focus on reconfiguring according to needs of whole system, not isolated pockets (R7)
4. Avoid transient pilots with no follow through and multiple initiatives which are inadequately promoted/ marketed

Structure

5. Consider how palliative care teams are integrated as part of the overall system of care
6. Integrate social work and nursing teams that cross the boundary between community and hospital
7. Integrate clinical information systems for primary care, walk in centres, urgent care centres, ambulatory care and social care

8. Understand and address the impact that early discharge policies can have on admissions unless additional and compensatory changes are made to the system to accommodate these patients

Systems

9. Review skill mix in Emergency Departments and Acute Assessment Units, consider specialist geriatric teams/frailty units (24/7), GPs, community matrons, OTs and social workers
10. Assess the need for geriatrician input to intermediate care
11. Provide a specialist community based 24/7 response service for people with urgent mental health needs
12. Be flexible about community nurses supporting residents of nursing homes and assure quality of care where homes provide intermediate care

Shared values

13. Develop and communicate a shared vision on quality care for older people accommodating medical, functional and managerial perspectives
14. Break down role boundaries wherever they get in the way of effective care
15. Professionals across the system need to better understand each other's roles, priorities and ways of working, including recognising that a key role for managers is to manage uncertainty; consider rotating staff through services to enhance this knowledge transfer
16. Focus on the needs of the patient, building relationships and supporting staff through redesign

Skills, staff and style

17. Ensure all relevant disciplines are given the opportunity to contribute their skills to multi-disciplinary teams and look to role extension as an alternative to increasing their (MDTs) complexity
18. Invest effort in developing skills of key groups e.g. staff in care homes
19. Leadership by committed and charismatic individuals makes a difference especially when working across organisations; take advantage of these people but build in succession planning
20. Recognise the importance of clinical leadership: clinician managers can offer particular perspectives

Recommendations for research

Research on individual components of care for older people needs to take account of their impact on the system as a whole. Areas where more evidence is needed include the impact of improving access and continuity in primary care, the optimal capacity for intermediate care and how the frail elderly can best be managed in Emergency Departments.

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Plan English summary

The number of unplanned hospital admissions has been rising steadily in England over the last decade, especially for people aged 85 and over. However across the country, rates of change in admissions for this age group vary widely, and in some localities have declined. It seems some places have been more successful than others in avoiding the need for admission, either by preventing medical crises developing, or by offering alternative care at home or in the community.

In this study we focused on three sites where admission rates for people aged 85 and over had risen most sharply, and three where they has declined. We examined NHS data and conducted interviews with over 140 participants from health and social care organisations to understand how strategies and services had been developed and implemented.

We found that sites that had been successful in reducing admission had done so by providing alternatives to short stay admissions, including better developed community services which worked closely with each other, the hospital and GP services. These sites had fewer problems with access to GP services and less pressure on emergency departments. They had also been more successful in developing strategies to include a full range of health and social care organisations and, most importantly, had consistent, strong leadership and shared values. The main output of our work is a set of recommendations aimed at commissioners of services for older people, and we have examined their impact in a site not previously involved in the research.

Word count 249

1 Background

This study was based on three premises; firstly that a major challenge for health and social care in reducing unplanned admissions is in those aged 85 and over (henceforth 85+), secondly that reducing unplanned admissions requires interventions at several inter-related points in a complex system, and thirdly that an understanding of the practical challenges in implementing policies to reduce admission is necessary for successful adoption.

1.1 The challenge of unplanned admissions in those aged 85 and over

The number of people aged 85 and over in the UK is projected to more than double in the next 25 years, (from 1.4M in 2009 to 3.5M in 2034) compared to a 12% growth in the overall population.[1] Between 2001 and 2011, the number of people aged 85 or over increased at three and a half times the rate of the rest of the population. [2]The proportion of emergency admissions contributed to by this age group has risen in the last five years from 9.5% to 11%,[3] and will continue to increase due to these demographic trends.

Many, but not all, patients aged 85+ presenting to acute care have multiple comorbidities, polypharmacy, cognitive impairment and disability. Such patients are challenging to assess and manage, as the clinical presentation may be non-specific and difficult to interpret and relevant information may not be readily available. This leads to the high 'conversion rates' (the proportion of people attending acute care who are subsequently admitted to a bed)[4]. Once admitted to hospital, older people have longer stays, are more prone to hospital acquired complications, both physical and psychological (for example, delirium), and may experience more difficulty returning home or to their usual place of residence due to disruption of previously established care packages. [5]

1.2 Explanations for rising admission rates

Reasons for the rise of unplanned admissions in all age groups have been examined in detail in several reports.(2, 3, 6-10). A consistent finding was of unexplained variation in trends of admission

rates, at hospital trust, PCT and local authority levels, suggesting lessons can be learned from these different experiences.

In part, the increase in numbers of admissions is due to an ageing population; it has been estimated that demographic change accounted for 40% of the rise between 2004 and 2009.[3] There is no evidence of increased morbidity in the population, and so the consensus is that the majority of increase is due to service factors, professional behaviour and public expectations.

The patient journey from community to inpatient wards involves several steps, which will involve all or some of the following: management in primary care, community support, emergency/ambulance services, Emergency Department. The contribution of these to rises in admission is summarised below.

1.2.1 Primary Care

Primary care can influence admission rates in two ways. Firstly by optimal control of long term conditions, for example blood pressure management to reduce risk of stroke, and secondly by early intervention in an acute condition to avoid the need for admission, for example appropriate management of heart failure and exacerbations of COPD can prevent admissions. These have been referred to as 'preventable' and 'avoidable' admissions respectively, [11] although the literature does not always use these terms consistently. Ambulatory care sensitive conditions (ACSCs) have been defined as those for which effective management in primary care should prevent admission to hospital, and include chronic and acute conditions as well as those that are vaccine preventable (e.g. influenza). Which conditions are included as ACSCs varies between reports. In 2009/10 in England, 19 ACSCs accounted for 16% of acute admissions overall, and 30% in those aged 75 years and older. [10] Using a broader definition of 27 ACSC, Blunt reported that in England, between 2010 and 2013, rates of admission for these conditions rose by 26% after adjusting for an ageing population. Within the older population, the biggest increases were for COPD, pneumonia and pyelonephritis, whereas in all age groups the rate of admission for chronic conditions declined.[8] This suggests that primary care (as well as public health measures, such as tobacco control) has been more effective in managing chronic conditions, but less effective in dealing with some acute conditions that could, in principle, be managed in the community.

There is some empirical evidence that lack of investment in primary care may contribute to rising admissions. In a study of 16 acute Trusts, it was found that, after adjusting for other factors such as

age and deprivation, those serving communities with higher investment in primary had lower ED attendance rates in those aged 65 year and above (admission data were not presented). [12] There is increasing evidence that access to and continuity in primary care affect ED attendance and admissions. [13] Evidence from the US suggests that lower continuity of primary care (which includes family physicians, paediatricians and geriatricians) increases admission rates, [14]a finding supported by recent work conducted by some of the authors.[15] Using the same data set from one English county, and adjusting for all known confounders, there was also a relationship between ED attendance rates and perceived access to general practice[15]. A similar study found the same relationship with emergency admissions.[16] National data, adjusting for age, also show that where overall satisfaction with general practice and satisfaction with telephone access are lower, ED attendance rates are higher.[2] It has recently been estimated that in England, over 5 million ED attendances (26.5%) were preceded by patients being unable to obtain an appointment with their GP.[17]

The contribution of out of hours general practice, especially the changes in 2004 which led to GPs being able to relinquish responsibility for this task, has been contested. Some authors have linked rising rates of ED attendance to these [18], although the impact of this change on an already rising trend is not clear.[19]More certain is the fact that out of hours services vary in quality, including the proportion of patients they refer to hospital.[20] Although the introduction of the Quality and Outcomes Framework in 2004 has improved management of individual long term conditions, it has been suggested that this is at the expense of a more holistic approach, especially with older people. [21, 22]

1.2.2 Community Support

One reason cited for rising admission rates for older people is the lack of community based alternatives to respond to the demographic changes outlined earlier. As far back as 2000, it was recognised that 50% of older people in hospital needed rehabilitation rather than acute care and that inappropriate use of in-patient bed days by older people was greater than 20%. [23, 24] This led to a commitment in the NHS plan[25] to expand intermediate care provision, but evaluations have suggested that this has not been introduced at sufficient scale, and that it many cases these services have offered additional rather than substitute care. [26] Lack of community support has also been identified as a factor in the rising rates of readmission in the elderly.[27]

1.2.3 Emergency Departments and Acute Assessment Units

By far the largest contributor to rises in emergency admission rates are those that come through ED (accounting for 71% of admissions in 2012). Between 2003 and 2012, the number of attendances at major emergency departments increased by only 12.5%, but the percentage of attenders admitted (the conversion rate) increased by from 19% to 26%. The Audit Commission estimated that this increase in the conversion rate accounted for 75% of the rise in emergency admissions through major emergency departments.[2] In 2010-11, people aged 80+ accounted for 6.5% and those aged over 90 for 1.8% of first attenders to English Emergency Departments (EDs), and of those aged 85+, 62% were admitted to hospital. Other factors identified in the report to explain the rise in admissions include the four-hour target (in which ED attenders must be seen, treated, admitted or discharged) and the introduction of acute assessment units, in which patients can be further assessed before a decision on management is made. Typically these units admit for a maximum of 72 hours.[28] Unfortunately, routine data does not distinguish between admission to such units and admission to an in-patient ward. It has recently been estimated that the increasing number of older people attending EDs between 2011/12 and 2012/13 accounted for 11% of the decline in reaching the four hour target.[29]

In summary, the increase in the number of admissions from ED has largely been short stay admissions of less than two days (which increased by 124% in the last 15 years[2]) and has been driven more by a rise conversion rates than numbers attending. Clinical practice and government directives are likely to have contributed.

1.3 Initiatives to stem the rise of acute admissions

Several initiatives have been introduced to stem the increase in acute admissions, with many focused on the oldest old. The evidence base for these was summarised by Purdy in 2010.[6] These can be conceived as attempts to achieve as left to right shift in Figure 1, as proposed in the 'Silver Book'[30]

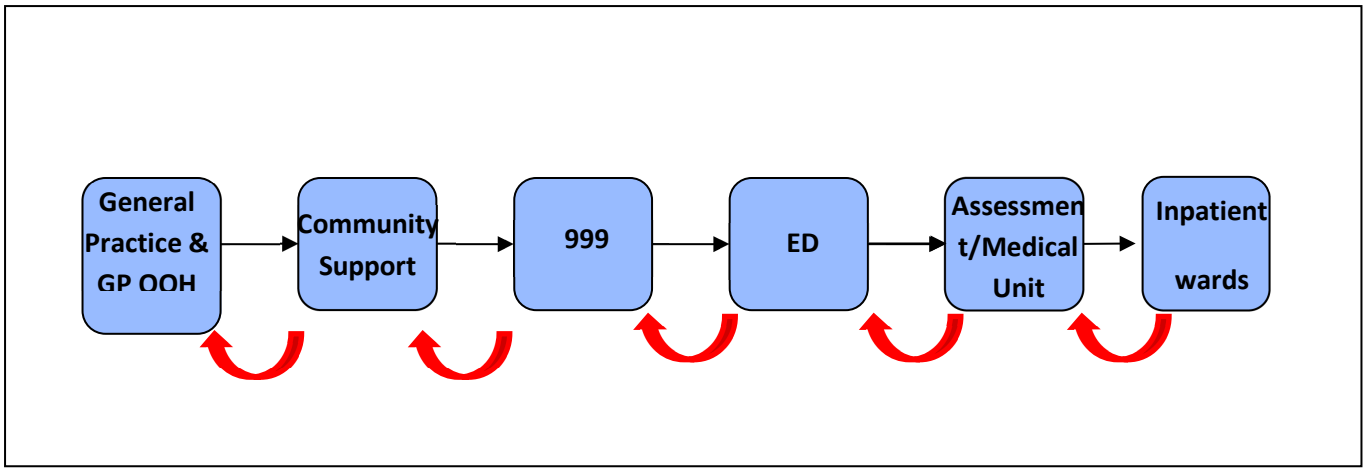


Figure 1 - Urgent care axis. Source: Silver Book

1.3.1 Primary Care

As outlined earlier, there is some evidence that improved access and continuity in general practice may reduce ED attendance. There have been several initiatives to improve access, particularly targets for appointments to be offered within a defined timeframe, but the effect of these on admission rates has not been evaluated. Risk profiling, to identify and support those at high risk of admission has also been introduced in the last decade[31], but there is no firm evidence of effectiveness; for example an evaluation of case management of those at high risk of admission showed no impact on admission rates,[32] a finding supported by more recent evidence. [33]

Additional services to improve access have been introduced in the last decade, including Walk in Centres, minor injuries units and telephone and web-based services such as NHS direct. The first two of these are classified as A&E services in departments in some datasets, and increased use of these services was reported by the Audit Commission as explaining the majority of the 32% increase in overall A&E attendances between 2003-04 and 2012-13. In principle, these services could reduce emergency admissions by providing prompt management of acute conditions and by diverting people away from major EDs. Alternatively, they could increase admissions if their staff are less prepared to manage risk than standard primary care services. There is no empirical data to support either of these assertions and a recent systematic review found no evidence of effect, noting the lack of good quality studies. [19]

1.3.2 Community Support

Community support to reduce acute admissions has focussed on intermediate care, a term first used in the NHS Plan.[25]Intermediate care comprises services, primarily catering for older people, which seek to prevent unnecessary hospital admissions, facilitate earlier discharges and avoid premature admissions to long-term care.[34] Admissions avoidance schemes describe services which are designed to provide an alternative to hospital admissions. Examples of such schemes include 'rapid response' (rapid assessment and access to short-term nursing/therapy support and personal care in the service user's own home) 'hospital at home' (intensive support in the patient's own home) and 'residential rehabilitation' (a short term programme of therapy and enablement in a residential setting). There is good evidence from systematic reviews that for selected patients, hospital at home can deliver similar or better outcomes than in-patient care, potentially at lower cost, (35, 36) however these schemes have not been implemented at sufficient scale to show an effect on reducing admissions. The evidence base for early discharge hospital at home schemes is less clear, although for some patients groups they may reduce long term admissions to residential care. [37]

A key driver of improving care for older people in the last decade has been the encouragement of 'integrated care'. Although this concept includes 'vertical' integration (e.g. between primary and secondary care), in practice most activity has been to improve 'horizontal' integration between general practice, community nursing and social services. Several such initiatives included the aim of reducing acute admissions. Surprisingly, a national evaluation of 16 schemes found that they resulted in a significant 2% increase in emergency admissions, but reductions in planned admissions and outpatients attendances of 4% and 20% respectively. The authors suggest that increased availability of planned care in the community could explain these findings. [38]

A specific area of activity aimed at reducing admissions has been work with care homes (nursing and residential). A number of different schemes have been introduced, including enhanced payments and different models for GP provision, [39], specialist nursing and pharmacy teams, input and from geriatricians. A recent review included anecdotal reports that such initiatives could be effective in reducing admissions, but no one model of care was pre-eminent. [40]

1.3.3 Ambulance and Paramedic services

A recent trial of providing an emergency response by paramedics with enhanced skills found that this new service reduced ED attendances by 28% and admission rates by 13%. The mean age of participants was 82, and the most common conditions were falls, accounting for over 85% of cases.[41] A later systematic review supported this approach to falls[41], and there is evidence for the effectiveness of community management of these cases.[42] However there is lack of evidence for other conditions.[2]

1.3.4 Emergency Departments and Acute Assessment Units

Several interventions have been introduced to reduce the proportion of ED attendances that result in admission. In 2007, the NHS published a list of conditions which could be managed in ED without admission, for example pulmonary embolus. [43]Review by a senior clinician has been found to reduce admission rates to wards by 12% and to medical assessment units by 21%, compared with actions taken by a more junior clinician.[44] Similarly, the introduction of comprehensive geriatric assessment in an ED setting was found to reduce the ED conversion rate for people aged 85+ from 69.6% to 61.2%,[45] a finding in line with other studies.(46-48)

Although, as discussed earlier, admissions to acute admissions units are counted in the same way as those to traditional in-patient wards, there is good evidence that their introduction can increase the proportion of patients discharged within 72 hours, thereby reducing pressures on in -patient wards.[28]

1.4 The need for a systems level approach

The above sections demonstrate that individual initiatives, in experimental settings, can be shown to affect admission rates of older people. It is clear, however that all elements of the system are inter-related; for example, the impact of senior medical assessment in ED cannot be fully realised unless there is access to range of services offering alternatives to acute admission. As the Kings Fund report notes, 'in the real world, interventions will rarely be implemented in isolation. A combination of interventions intended to reduce admissions may be expected to have a 'cumulative' effect and,

although each may have little effect individually, there may be greater benefit overall than the combined effects of single interventions'.[6] The need to understand how interventions interrelate and contribute to the total system of care is particularly important in providing care for older people. [49] More recently, the National Audit Office concluded that 'The effective management of the flow of patients through the health system is at the heart of reducing unnecessary emergency admissions and managing those patients who are admitted' [2]

Such a systems approach is attentive to the interconnections and configurations between various elements, transitions of care and handover, entities and processes that contribute to the performance, sustainability and capacity of an organisation or service. It suggests that complex social and organisational processes cannot easily be explained, or indeed changed, by focussing on single interventions, but rather it is the relationships between these that contributes to both success and failure.

Systems theory therefore provides a holistic approach to understand complex social and organisational processes, as exemplified by contemporary healthcare services that involve the coordination of multiple agencies, care process and organisations. It is based upon four underlying ideas. First, that 'the whole is greater than the sum of the parts' or that when different entities and processes interact there are emergent properties, including both intended and unintended consequences. Second, that systems comprise entities or components with specialised functions and processes that often evolve in isolation and can be poorly aligned. Third, that specialised elements are often grouped and over time brought together into sub-units or organisations. Fourth, the challenge for systems thinking is the appropriate alignment and coordination of these elements and processes. This is because the components of the system have the tendency to self-organise themselves based on simple external rules. This self-organisation may not be aligned to the needs of the system as a whole. A systems approach offers a middle-range perspective to understanding complex organisations and processes, such as initiatives to reduce admissions in older people.

1.5 Implementing system change

The literature offers a range of models and approaches for understanding and implementing organisational change within organisations, including the health service. [50]This often centres on modifying the goals or mission of a unit, the culture and values of staff, the structures and operations within which people work, or looking for innovation or new technology. Much of this

research, however, is focussed at the organisational or unit level, with little attention to the introduction of change at the system level, as outlined above. In other words, understanding the processes of change requires attention and energy to change within the individual units or components that comprise the system together with the interconnections between them. This also means recognising that change management strategies that work within one unit, such as hospitals, might be very different from those needed in other units, such as commissioning groups. Taking this 'systems perspective' therefore requires greater attention to the wider institutional conditions within which care services are organised and delivered. This includes the institutional pillars, such as regulatory systems, normative conditions and cognitive-cultural influences, that have been shown to shape healthcare services and hinder strategic change.[51] Analysis of strategic change includes attention to several 'receptive conditions' for change:

1. Coherence of policy
2. Leaders of change
3. Environmental conditions and pressures
4. Organisational cultures
5. Managerial-clinical relations
6. Cooperative inter-organisational networks
7. Clarity of goals and strategy
8. Fit between the change 'agenda' and the local conditions

System change, by its nature, is highly related to both the structure of an organisation and also its strategy. Strategy and structure are themselves tightly enfolded. Implementation therefore will always require a number of essential components that we can identify as being a strategy. Of strategy, Chandler [52]identified 3 generic parts: it is the determination of long-term goals, followed by the adoption of courses of action, and finally allocation of resources to meet the goals. Dealing with systems and more accurately, 'complex systems' is difficult. In order to understand what a system is, we need to understand some of its key characteristics:

- The interdependence of individual elements (objects, people, tools),
- Holistic view (insight obtained by observing the system as a whole such that observance of small elements would not provide),
- Entropy (accept there is a level of disorder is the system),
- Regulation (the complexity of feedback and controls within systems),

- Recursion (the manner in which the larger system is comprised of smaller, similar systems, embedded within it, at lower hierarchical levels and aggregation)
- Differentiation (how smaller elements fulfil specific system tasks)

In summary, for a complex system to operate in an optimum manner, all sub-systems must do so as well and in coordination with each other. Therefore, when systems elements are not working well, the 'whole' is therefore compromised.

In the case of this change project, an effective way to identify that which we want to change was required. There are a number of different approaches or model structures that can help us to understand and analyse complex organisations. Amongst these is Porter's Value Chain [53], McKinsey's 7S framework [54], Beer's Viable System Model [22], Gabraith's, Star Model [55] and Mintzberg's Conceptual description of the organisation [56].

Of these models, the McKinsey 7S framework was seen as the most appropriate tool to capture and analyse the complex organisational structures we were to encounter. The 7S framework was originally designed to diagnose how the existing organisation operates and then to find ways to implement change. Moreover, the 7S framework has been proven in organisational study and design since its inception in the early 1980s. It has been widely adopted by researchers and managers in the NHS[57].. Its particular strength, relevant to this project, is to focus on a systems based approach, emphasising that for change to be effective, changes in any one component must be accompanied by complementary changes in others.[50]. It is often used in conjunction with the PESTELI, a tool for analysing the environment in which an organisation operates (comprising Political factors, Economic influences, Sociological trends, Technological innovations, Ecological factors, Legislative requirements and Industry requirements). In this project our focus was more on the internal than external environment, and so PESTELI was not used. Although it may have contributed to contextual understanding, we considered this would be adequately covered by the 7S model.

The 7S framework segments different parts of the organisation (elements of the systems) so that they can be observed, studied, measured and understood at a meaningful level of aggregation. Also, this tool would crucially allow different organisational systems to be analysed by a common, simple yet effective framework (see Figure 2).

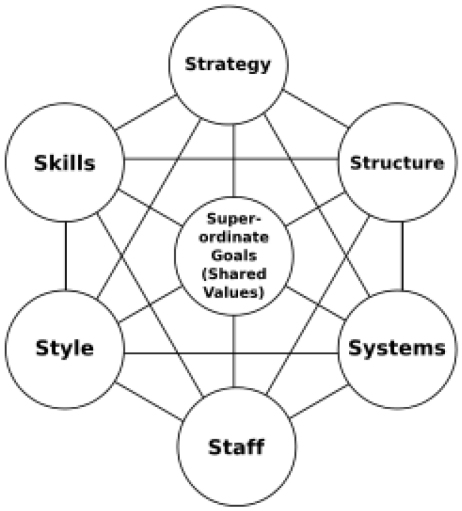


Figure 2 - McKinsey 7S Framework. The McKinsey 7S Model (Pkor43 [GFDL, CC-BY-SA-3.0, via Wikimedia Commons])

The framework enables consideration of the key elements of the organisation/system as follows:

1. Structure – this is the way the organisation is structured, specifically includes the reporting structure

2. Strategy – this is the plan of activity for the system, importantly it is also about how aligned the whole system is towards its objectives

3. Systems – these are the processes and procedures of the system – the daily activities and routines

4. Shared Values – these are the norms and standards that guide the behaviour of the human elements within the system

5. Style – this essentially is about the style of management used by the system leadership

6. Staff – this element is concerned with the staff training, motivation and rewards of the staff

7. Skills – this element is about the specific skills existing and required by staff in order to best execute their duties – also important during change management

2 Aims and objectives

2.1 Aims

To identify system characteristics associated with higher and lower increases in unplanned admission rates in those aged 85+; to develop recommendations based on best practice to inform providers and commissioners, and to investigate the challenges of starting to implement these recommendations.

2.2 Research questions

1.1 What system characteristics (including commissioning arrangements and pathways of care) are associated with higher and lower than average changes in unplanned admission rates in those aged 85+?

1.2 What are the antecedents, contextual and internal factors that influence these different characteristics for the management of care for those aged 85+?

1.3 What are the lessons for commissioning, system configuration and system change to reduce unplanned hospital admissions for those aged 85+ more widely across the NHS?

1.4 What are the practical challenges faced by providers and commissioners in starting to implement system change to reduce unplanned admissions in those age 85+?

3 Methods

3.1 Overview

Our conceptual framework is that emergency admissions are one outcome in a complex system which includes a range of inter-related services. Additionally, improvements will emerge not just from reconfiguration of services, but also from effective leadership and implementation. We define the system of interest as a healthy economy serving a defined population and comprising an acute hospital trust, commissioning groups, GPs, intermediate care services, care homes, ambulance service and social care. The principal method is a qualitative multiple explanatory case study.[58] This approach is designed not to be generalisable to a population but to develop and test theory. Multiple cases strengthen the results by replicating pattern-matching, thus increasing confidence in the robustness of the theory. We examined three cases at each extreme of changes in admission rates, a sample large enough to develop and test theory, while being small enough to be feasible. Other multiple case studies, including the national evaluation of intermediate care, to which several applicants contributed, included a similar number of sites. [59]

3.2 Selection of study sites

A key consideration in multiple case study designs is the basis of case selection. This can be representative, purposive or guided by theoretical concerns, with the aim of providing a relevant basis for comparison.[60] For example, selection might include outliers or deviant cases with the express purpose of identifying and analysing factors potential unique to the case and capable of generating novel conceptual insight.[58] For this study, the definition of case was the local health economy serving a defined population and comprising an acute hospital trust, commissioning groups, GPs, intermediate care services, care homes, ambulance service and social care. The basis of case selection further illustrating the mixed methods approach, case selection was purposive and guided by prior statistical analysis, i.e. cases were selected according to their distribution in relation to unplanned admission for over 85s, where case selection aimed to compare between high and low performing cases as a means of understanding the factors (common and unique) that might account for unplanned admission.

We used PCTs as the basis of site selection as these have a population base that can be used to derive admission rates. We chose changes in rates of admission for older people as the main criterion for selecting sites. This was chosen rather than absolute rates, as the latter are highly dependent on demographic factors such as age and deprivation. [6] By identifying and examining sites where rates had risen fastest and slowest we hoped to be able to understand how changes (or lack of changes) in systems of care influenced changes in admission rates.

A second criterion was a strong linkage between the PCT and an acute Trust. This was applied as we wanted to explore areas in which there was at least a potential partnership between these organisations so that system change could occur. We defined this criterion as more than 80% of acute admissions for people aged 85+ from the index trust being to one acute Trust. We excluded London PCTs as their acute Trusts have partnerships with several PCTs, even if the index PCT used one acute Trust for a high proportion of its patients. Finally we excluded any site that was known to be experiencing significant reconfiguration as reflected in national publicity.

A third criterion in sample selection was to achieve a mix of urban and rural sites, and a range of deprivation. Finally, we excluded sites that were potential participants in the implementation phase of the project.

Admission rates for people aged 85+ were calculated for the latest 3 years for which HES data were available (provided by Nuffield Trust). These data are based on admissions, not individuals, and also provided information about the Trust to which admissions were made. Data were not available for some PCTs due to mergers etc. For the 143 PCTs for which we did have data, a regression co-efficient was calculated for the change in admission rates over the three year period, adjusting for population size and age. The value of the slope indicates the annual change in admission rates, with a positive slope value indicating an increased admission rate.

PCT were ranked according to this statistic. The change in rates of admission of older people ranged from +10% per annum at the bottom of the ranking to -6% per annum at the top. Of the 143 PCTs, 120 (84%) had increased admission rates. Sites at the top and the bottom of the ranking were considered as potential participants.

Table 1 shows selection of sites at the top of our ranking. After applying our criteria, sites ranked 4, 5 and 9 were selected. Selection at the bottom of the ranking is shown in *Table 2*. After applying our criteria, we selected sites ranked 132, 133 and 135.

Table 1 - Improving site selection

PCT Rank for slope	85+ admission rate (number of admissions/population)			Slope (per annum change)	% admissions to linked hospital trust	% aged 85+	Reference in report
	2007	2008	2009				
1	0.61	0.53	0.49	-0.06	66	1.5	
2	0.56	0.52	0.50	-0.03	52	1.5	
3	0.71	0.69	0.67	-0.02	43	1.5	
4	0.55	0.51	0.51	-0.02	89	2.6	I1
5	0.61	0.60	0.57	-0.02	87	2.6	I3
6	0.66	0.70	0.63	-0.02	40	1.0	
7	0.53	0.54	0.50	-0.02	40	2.5	
8	0.57	0.55	0.55	-0.01	78	2.3	
9	0.41	0.41	0.39	-0.01	83	2.2	I2
10	0.40	0.41	0.38	-0.01	66	2.2	

Table 2 - Deteriorating site selection

PCT Rank for slope	85+ admission rate (number of admissions/population)			Slope (per annum change)	% admissions to linked hospital trust	% aged 85+	
	2007	2008	2009				
132	0.48	0.54	0.59	0.06	92	2.2	D1
133	0.41	0.45	0.52	0.06	87	1.7	D3
134	0.41	0.44	0.52	0.06	76	2.3	
135	0.49	0.59	0.61	0.06	83	1.8	D2
136	0.51	0.58	0.64	0.06	90	2.1	
137	0.47	0.51	0.60	0.06	89	2.0	
138	0.46	0.54	0.60	0.07	75	1.6	
139	0.50	0.63	0.64	0.07	83	1.8	
140	0.41	0.56	0.56	0.07	80	2.2	
141	0.56	0.68	0.71	0.08	73	1.4	
142	0.33	0.51	0.50	0.09	50	1.8	
143	0.39	0.58	0.59	0.10	46	2.1	

3.3 Recruitment at sites

In the selected sites, invitations to participate were sent to the chief executives of the PCT and acute Trust. In all cases, there was initial agreement from both parties. We then invited participation from the organisation responsible for community health services and social services. *Table 3* shows final agreement of organisations by site. At site I1 there was change of chief executive who withdrew the site from the study due to competing priorities. In site D3 the contract for delivering community health and adult social care was awarded to a social enterprise organisation. We were unable to obtain the confidentiality agreement from the university that this organisation required, and so it did not participate.

Table 3 - Site participation by organisation

Site	Acute Trust	PCT	Community Health	Social Services
I1	No (withdrew support)	Yes	Yes	No
I2	Yes	Yes	Yes (Care Trust Plus for both services)	
I3	Yes	Yes	Yes	Yes
D1	Yes	Yes	Yes	Yes
D2	Yes	Yes	Yes	Yes
D3	Yes	Yes	No (community enterprise)	Yes

3.4 Quantitative methods

Improving and deteriorating sites were compared with national data using publicly available data and enhanced Hospital Episode Statistics (HES) data. Publicly available data comprised the following:

- HES online (http://www.hesonline.nhs.uk/): admissions by PCT and hospital provider, aged 75 + (data on 85+ were not available)

- NHS Information Centre Indicator portal (https://indicators.ic.nhs.uk/webview/): Emergency admissions rates (aged 85+) , changes in age structure of population, admissions for acute and chronic ambulatory care sensitive conditions, readmissions within 28 days of discharge (aged 75+), deprivation

- NHS Better Care, Better Value Indicators: (http://www.productivity.nhs.uk/Dashboard/For/National/And/25th/Percentile): Standardised Emergency admissions rates for 19 ambulatory care sensitive conditions, financial and volume opportunities (i.e. potential financial and bed occupancy savings) rank

- GP Patient survey: http://www.gp-patient.co.uk/results/: GP access, including out of hours services)

The enhanced HES dataset enabled us to examine admissions in those aged 85+ up to the year 2011/12. These were used to calculate the following: admission rates, length of stay, seasonal variations and rank of admission rates, readmissions within 28 days, deprivation, ethnicity, health and disability index, breakdown of admissions by acute and chronic ambulatory care sensitive conditions, admission from, and discharges to, care homes. Data are presented descriptively; given the small number of sites in each grouping and the purposive method of selection, it was not felt appropriate to apply statistical testing

3.5 Qualitative methods

Following agreement to participate, two rounds of data collection were conducted at each site. In preparation for these interviews a profile was prepared for each site, using the quantitative data described earlier, and these were used to stimulate discussion during the interview. An example site profile is shown in Appendix B.

In the first round, an understanding of the system's history and drivers was sought in interviews with high level key informants, including commissioners and managers of health and social care with responsibility for those aged 85+, and clinicians and care providers with leadership roles in primary care, ED, social care, and intermediate and secondary care services. These interviews explored

known system-level issues such as commissioning, inter-agency working, communication and knowledge sharing, culture, power relationships, incentives, boundaries, and successes and failures in implementation. We sought to understand what changes have been attempted to reduce admissions in the 85+, the extent of adoption, their outcome, and reasons for success of failure. Respondents were also asked to allow the team access to any internal documents, audits etc.

In the second round of data collection, we examined specific components of the system, using in depth interviews and focus groups with those involved in delivering care, to explore issues involved in translating policy directives to changes in the actual provision of care. These included clinicians in ED and acute medical units (AMUs), managers of intermediate and integrated care provision and clinicians in primary care. We had planned to conduct focus groups comprised of individuals with similar roles, but in practice these were logistically difficult to arrange due to potential participants' other commitments, and so took place in only some sites.

In each site we aimed to convene a focus group including representatives of carers and service users to capture their perspectives of the impact of initiatives to reduce admissions in those aged 85+. Participants were selected who are able to present a user perspective on service changes focused on admissions in those aged 85+ and were drawn from local PPI groups in primary and secondary care and charities such as Age UK.

3.6 Development of topic guide

The topic guide for interviews and focus groups with professionals was developed using the McKinsey 7S model as a starting point. The major themes were based around:

- Strategy
- Structure
- Systems
- Style
- Staff
- Skills
- Shared values

These areas for exploration were refined based on the topic of emergency admissions of older people. The project team discussed the areas which they believed would impact on emergency admissions in each of the seven major themes. The topic guide was further developed based on these discussions and was piloted on members of the project group. The topic guide was designed to be used in sections where questions on the strategy and organisational structure were asked of senior staff and questions on service delivery and staff skills were given to front line staff. The final topic guide can be found in Appendix B.

3.7 Qualitative analysis

Interviews and focus groups were recorded and transcribed verbatim. Qualitative data analysis was undertaken in a stepwise approach following completion of data collection from the six case study sites. In the preliminary phases, all data from each case site was assigned to individual members of the project team for an initial phase of inductive, open coding. The aim of this initial stage was to develop a general descriptive account of each health system with particular attention to the management of care for over 85s and to determine the relevance and usefulness of systematically applying the 7S framework for subsequent data analysis. The initial case descriptions were shared and discussed amongst the wider project team with the aim of developing a common coding framework for the 7S model. Selection bias at the individual level was therefore minimised by group discussion and conferring.

The second and main stage of data analysis involved two independent researchers developing detailed case reports for each health system. This was informed by the 7S model and the preliminary phase of data analysis. Following a framework approach,[61] all data items were systematically scrutinised with extracts of data coded and sorted according to the 7S categories. This involved the close reading of all electronic data items, and coding of data extracts according to the 7S categories, and where these extract of data was simultaneously copied into a framework with a column heading for each 7S category. Guidance for coding was agreed by team members, including how items would be categorised according to the 7S framework (for example it was agreed that 'Structure' would be used to capture information about inter-relationships of services and 'Systems' for items related to individual component services. Where items of data did not easily fit within the 7S heading a new open heading was produced. Throughout this phase, and in line with the principle of constant comparison, each category was systematically checked for its internal consistency and inter-

relationships.[62 63] After this initial phase, data items within each category were further re-analysed to identify sub- and grouped themes. Through this process an initial narrative was produced to describe and characterise the findings within each category. The aggregated coding framework and initial descriptions were finally brought together to produce an initial case report for each site.

These case reports were then shared with the wider research teams for clarifying and conceptual development, paying particular attention to the recommendations and learning points. At this time, one member of the study team used the data from each case report to produce a summary table for each case study site. For each of the 7S categories the table aimed to present the headline positive or negative features, for example, those aspects of 'strategy' that either contributed positively or negatively to the management of care for over 85s. For each of the identified features the table also sought to draw out from the case reports the possible reasons, source or influences that might explain these aspects, for example, how local strategy was influenced by national policies, resource limitations or leadership structures. In this way, the table also starts to identify linkages between 7S categories such as how strategy and skills are linked.

The final stage of data analysis involved members of the wider study team reviewing individual case reports and looking for over-arching themes and accounts that might explain similar systems features and processes. Comparison between case study sites provided the basis of conceptual and theoretical elaboration whereby tentative explanatory models were identified, developed and discussed amongst the study team with the aim of explaining similarities and differences amongst the study sites, especially between the improving and declining sites. These tentative propositions were then tested against the empirical data with the aim of producing recommendations for service improvement, before being validated through consultation with wider stakeholders and project advisors.

3.8 Ethics and governance

The project team applied for NHS Ethics approval but was advised in September 2011 that the committee did not consider the project research. We therefore applied to the University of Leicester Ethics committee which granted approval in January 2012. Approval was also sought from the Research Group of the Association of Directors of Adult Social Services, who in October 2012 agreed to recommend the project to social services departments. This study was included on the National

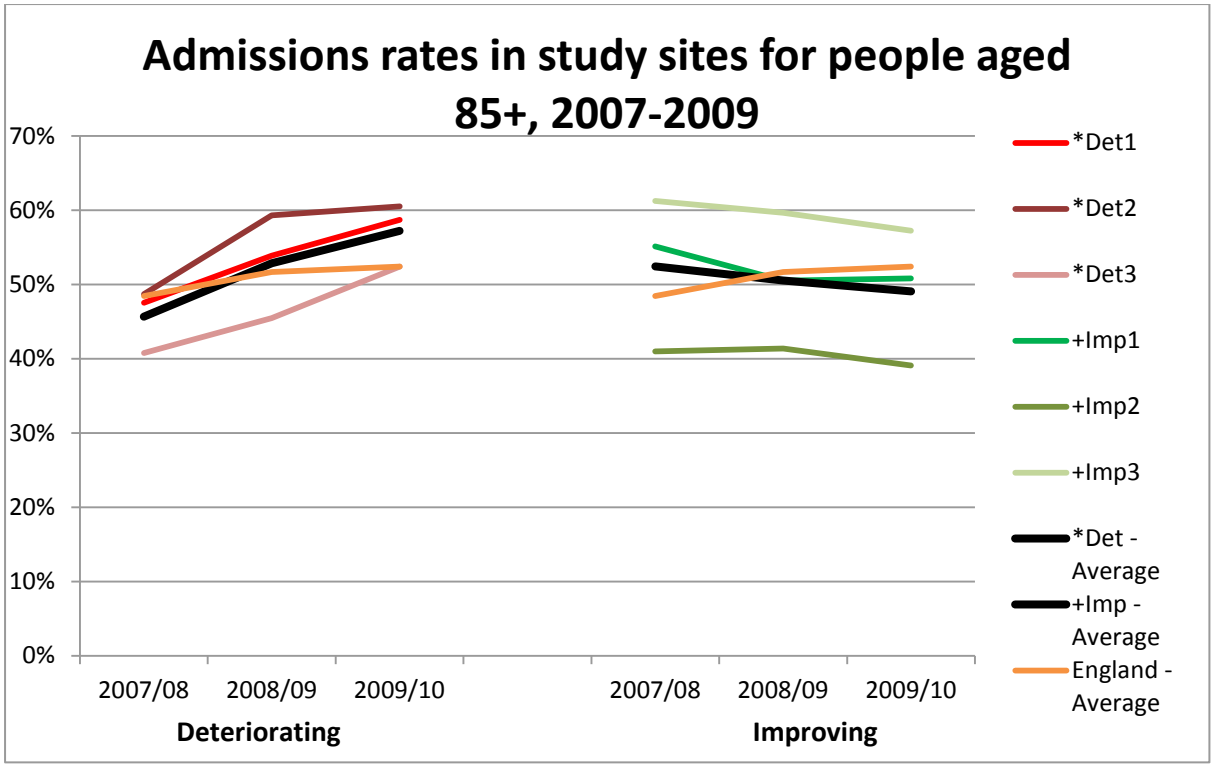
Institute for Health Research Clinical Research Network (NIHR CRN) Portfolio in August 2012, and sponsorship agreed by University of Leicester.

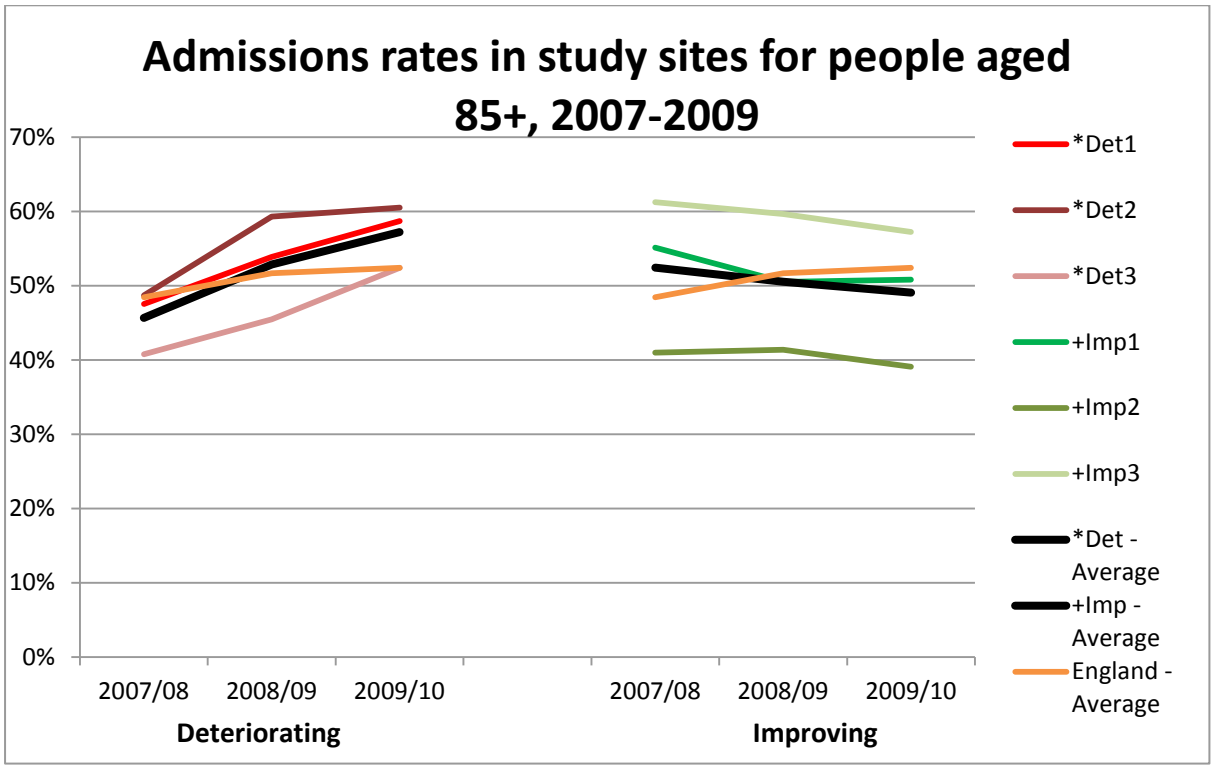
4 Results

4.1 Overview of quantitative data for improving and deteriorating sites

4.1.1 Emergency admission rates of people aged 85+

Our selection of deteriorating and improving sites was based on their admission rates expressed as number of hospital admissions in the age group of 85+ divided by the population of 85+ for each PCT between 2007/8 and 2009/10. On average, the deteriorating sites experienced a rise in the admission rates by about 5.5% annually during this period 2007/08 – 2009/10, higher than the average for England of 2%. In contrast, the improving sites experienced a fall in the admission rates by 1% annually for the same period. At the start of the period, the deteriorating sites had on average, rates below the English average but at the end of the period these were higher than average. In contrast, improving sites started above the English average but were below at the end of the period. There was greater variation in absolute rates in improving sites compared with deteriorating sites. As no sampling was used, error bars are not included.


Admissions rates in study sites for people aged 85+, 2007-2009
70%
60%
50%
40%
30%
20%
10%
0%
2007/08
2008/09
2009/10
Deteriorating
2007/08
2008/09
2009/10
Improving
*Det1
*Det2
*Det3
+Imp1
+Imp2
+Imp3
*Det - Average
+Imp - Average
England - Average


Admissions rates in study sites for people aged 85+, 2007-2009
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60%
50%
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20%
10%
0%
2007/08
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Deteriorating
2007/08
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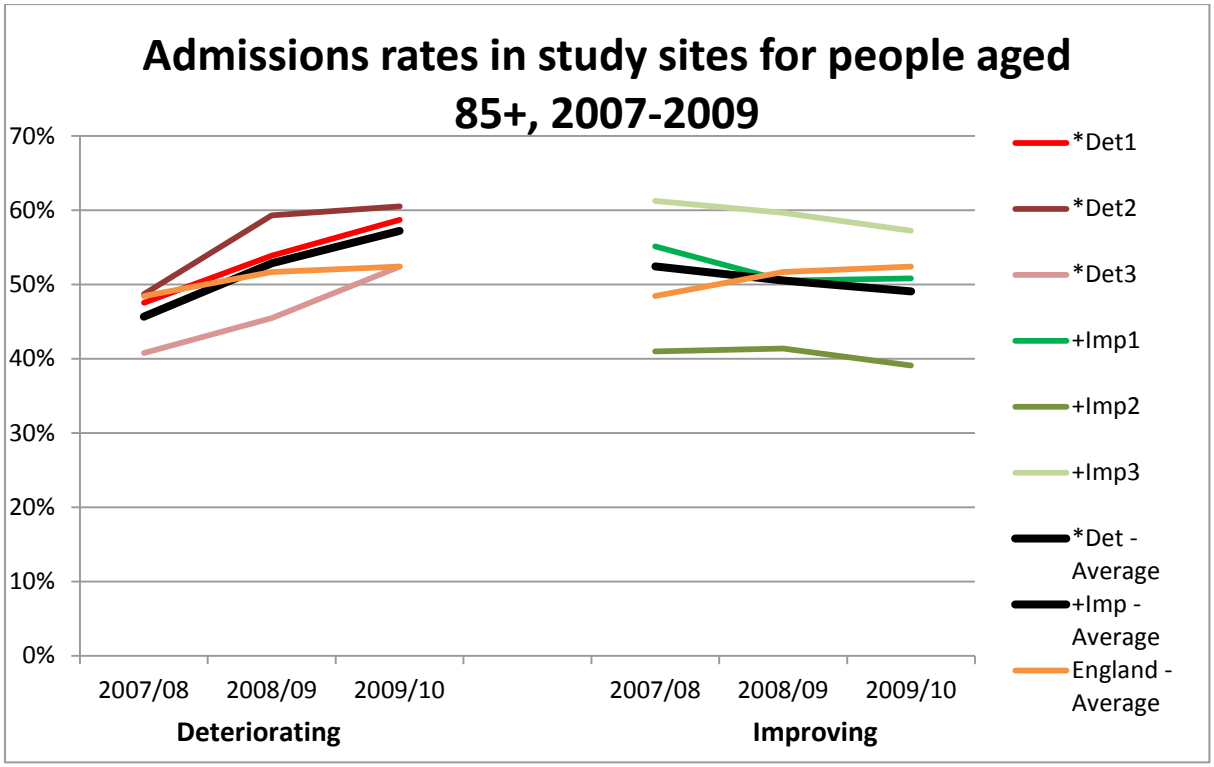
+Imp1
+Imp2
+Imp3
*Det - Average
+Imp - Average
England - Average



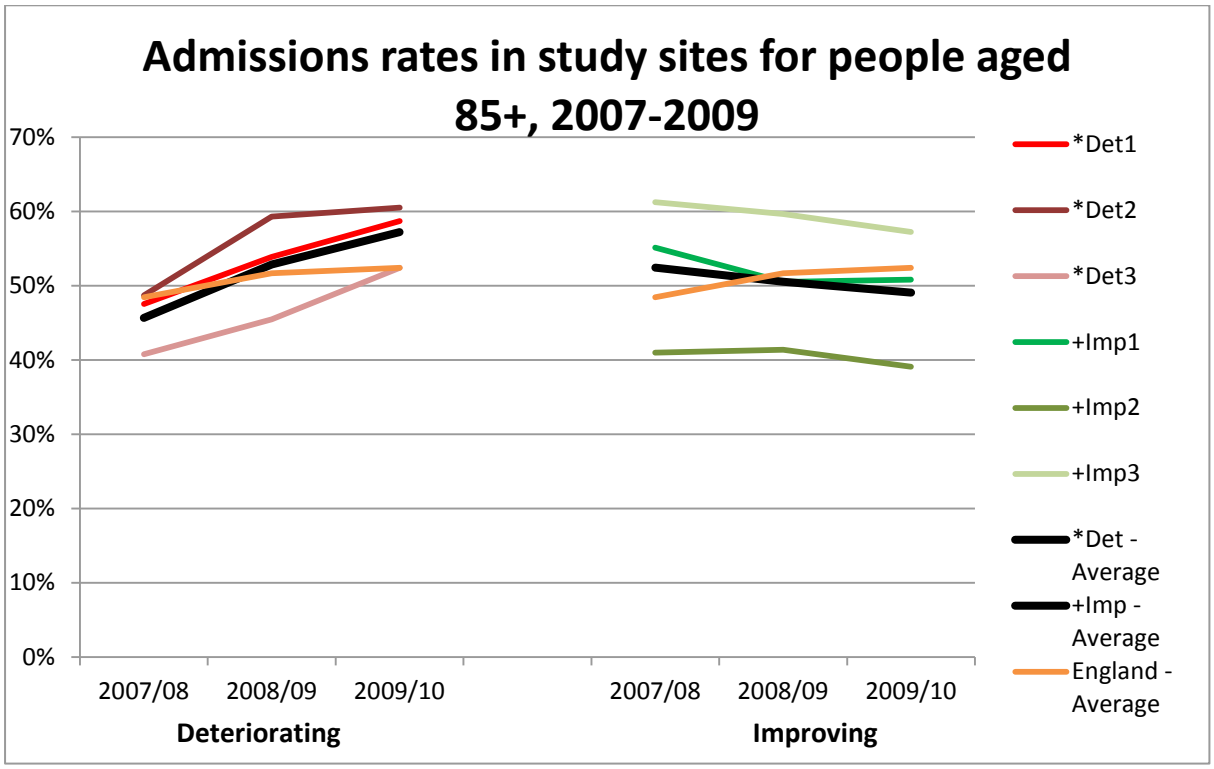
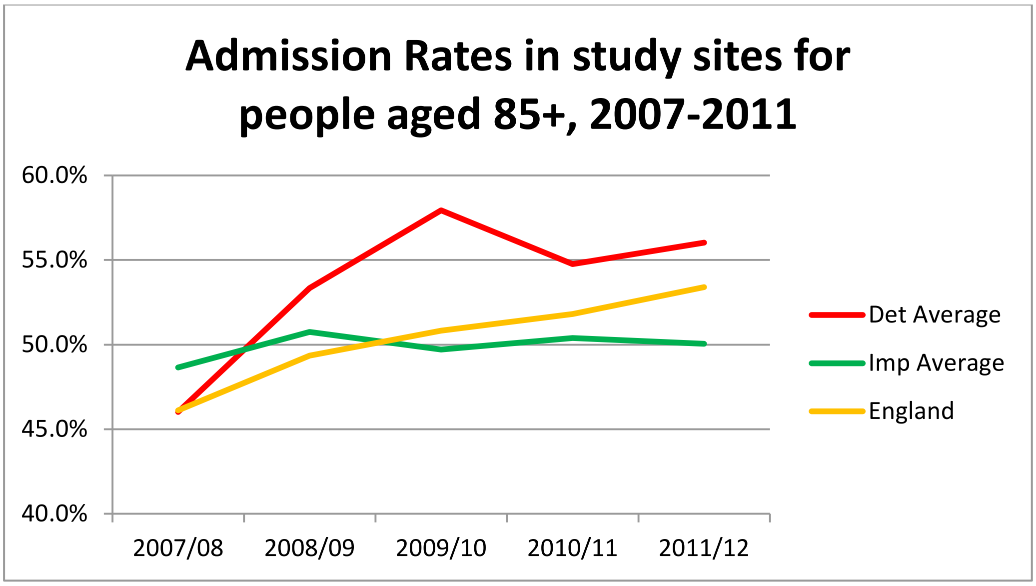
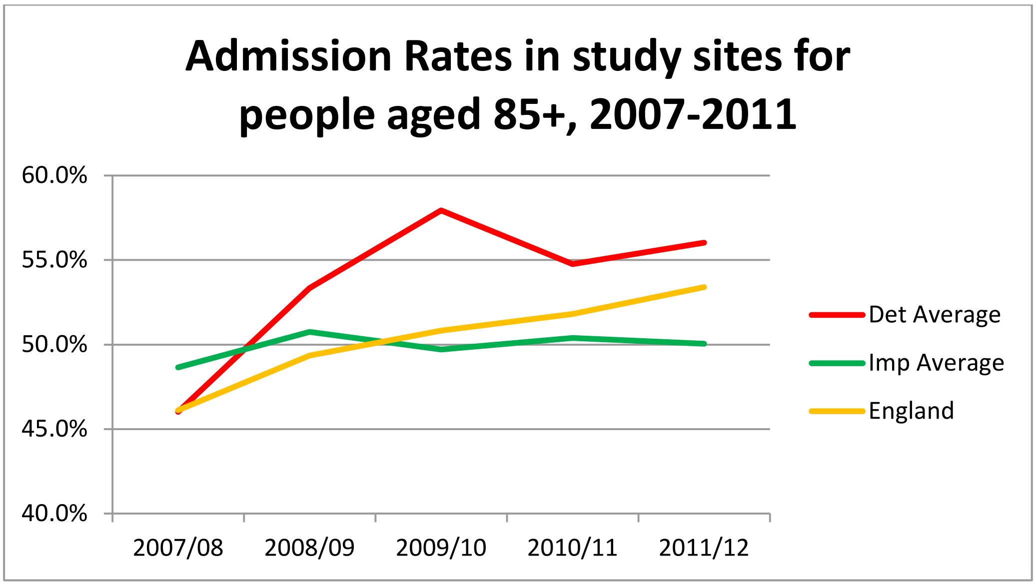


Figure 3 - 85+ Admission rates for the period 2007/08 – 2009/10 for study sites. (Source: Nuffield Trust)

Data for later years shows that in improving sites admission rates remained stable, whereas there was a small reduction in rates in deteriorating sites. Between using HES data for selection and this analysis, some corrections had been made to 2007/8 data, meaning the overall trends in reduced rates for improving sites were less pronounced.


Admission Rates in study sites for people aged 85+, 2007-2011
60.0%
55.0%
50.0%
45.0%
40.0%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England


Admission Rates in study sites for people aged 85+, 2007-2011
60.0%
55.0%
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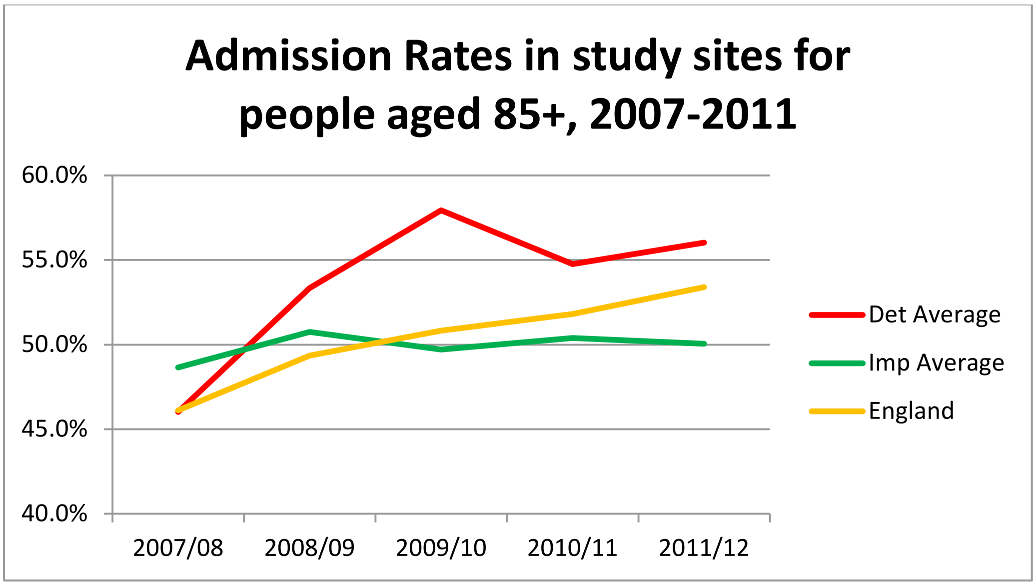
Admission Rates in study sites for people aged 85+, 2007-2011
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England

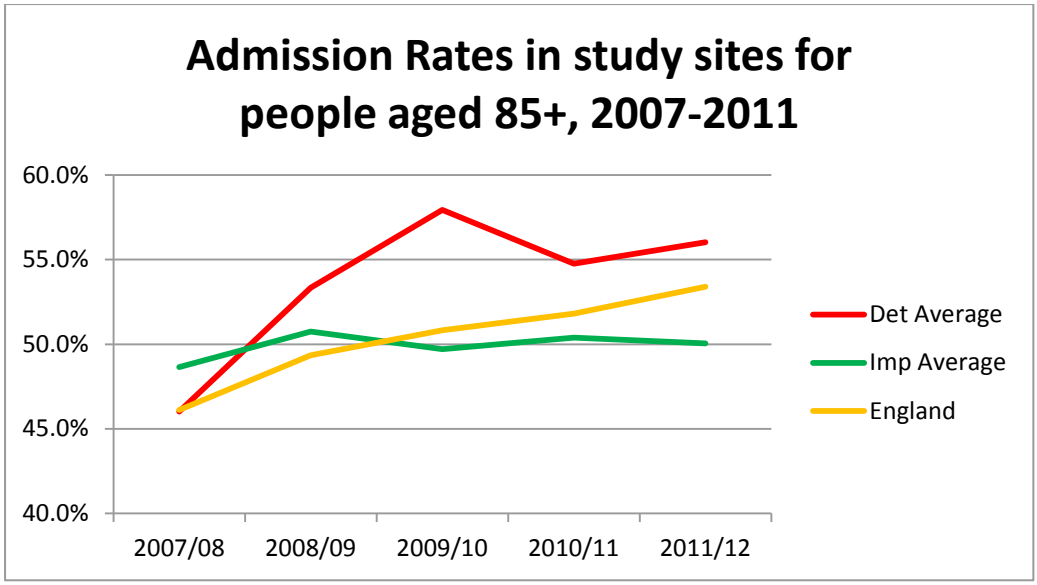
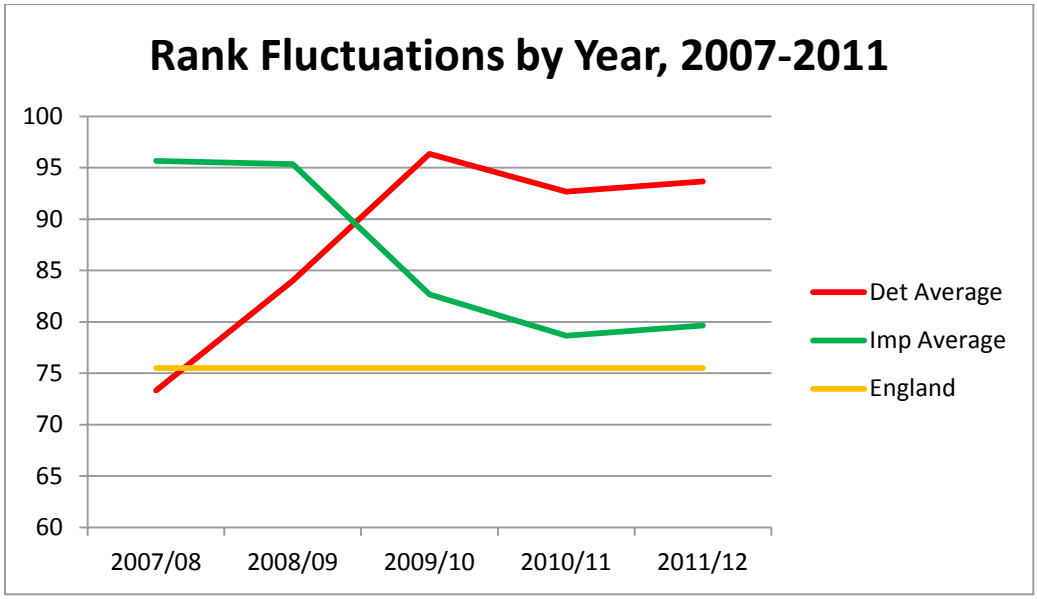


Figure 4 - 85+ Admission rates for the period 2007/08 – 2011/12 for study sites. (Source: HES dataset)

Differences in performance between improving and deteriorating sites were also explored by calculating their ranking in total admission rates compared to all 151 PCTs. In the first three years, the improving sites climbed the rankings and deteriorating sites fell back. Over the subsequent two years the performance of both groups was stable.


Rank Fluctuations by Year, 2007-2011
100
95
90
85
80
75
70
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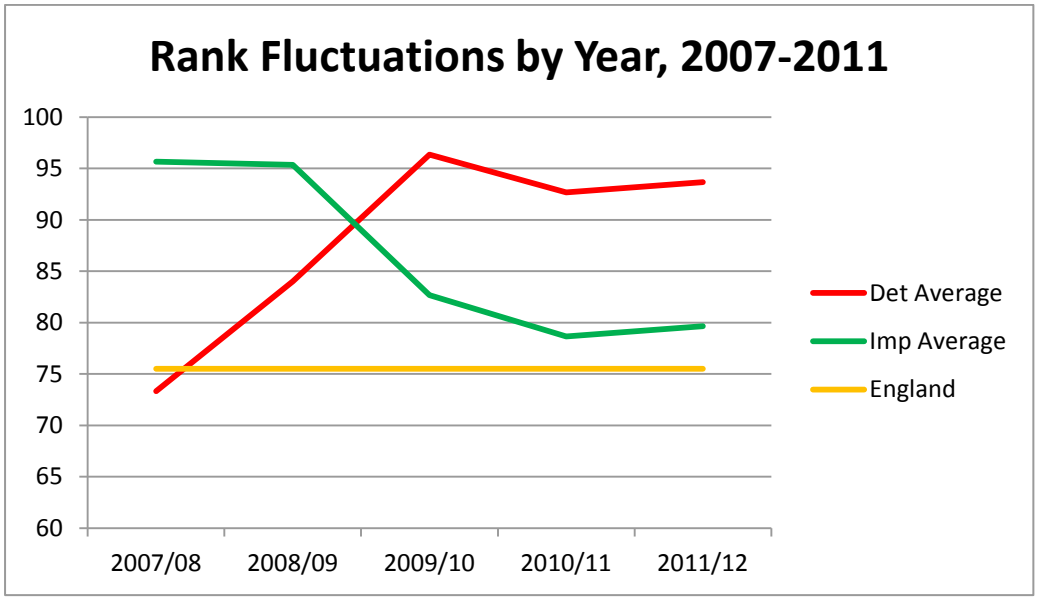
60
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England


Rank Fluctuations by Year, 2007-2011
100
95
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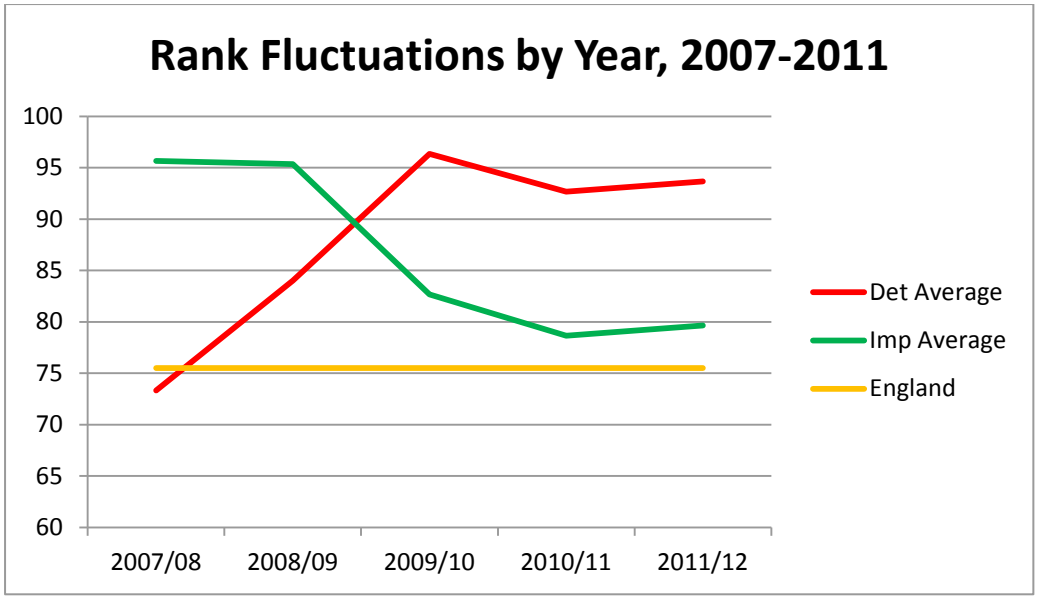
England



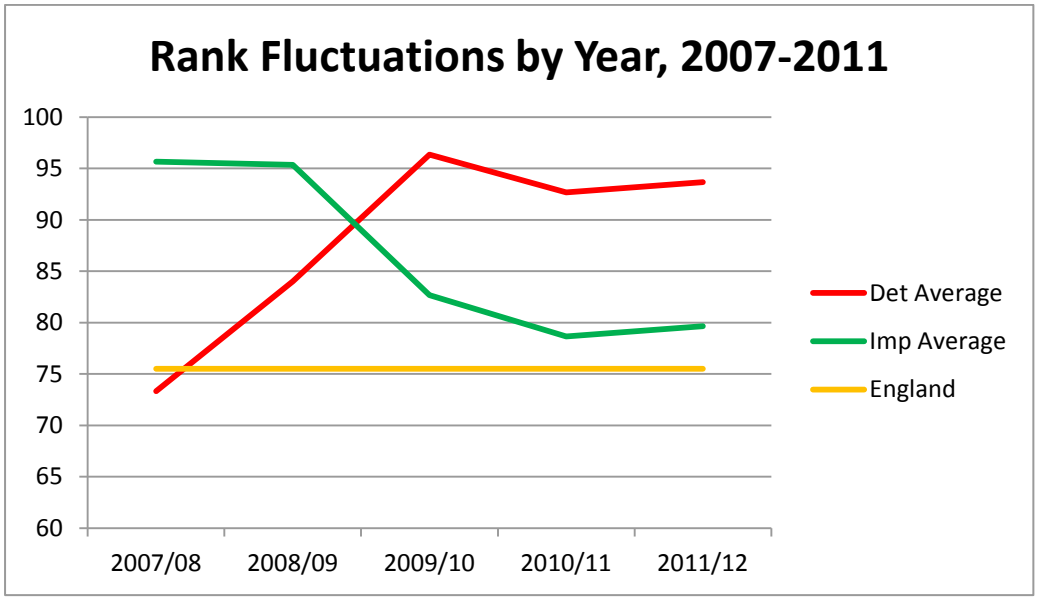


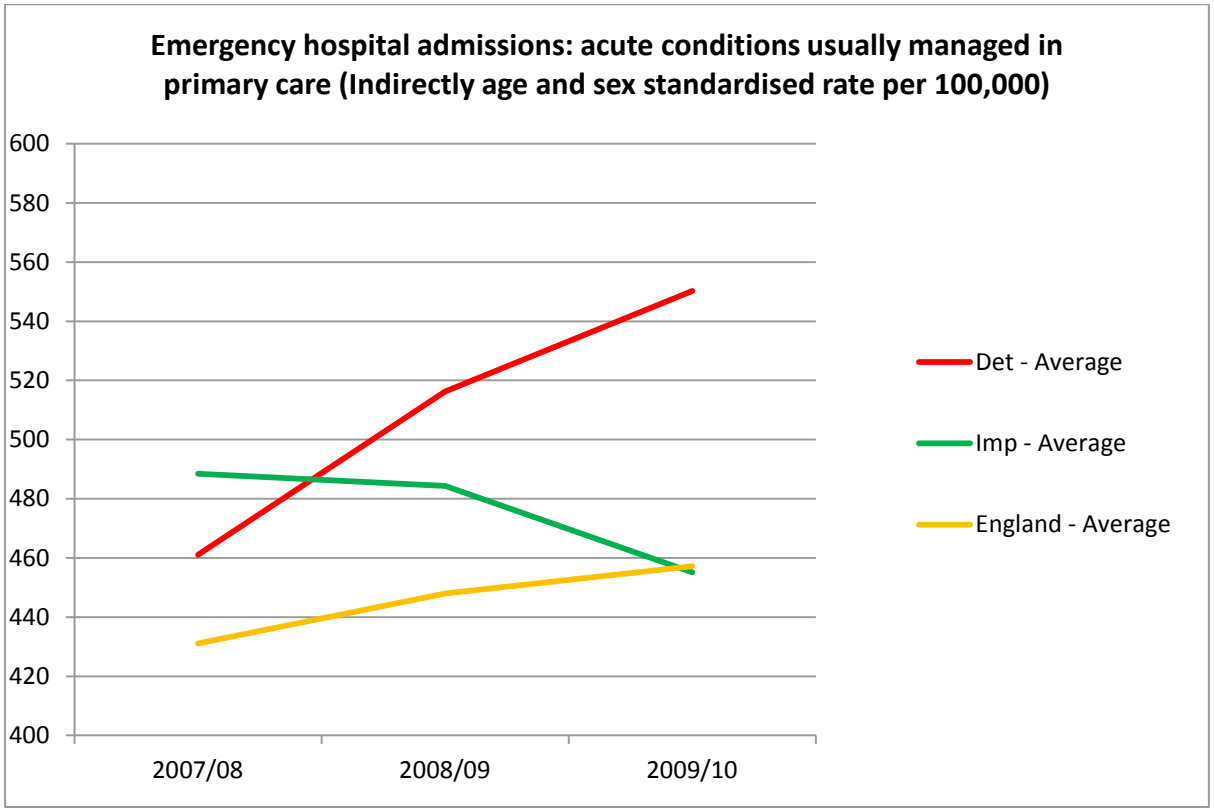
Figure 5 - Rank fluctuations in total admission rates. (Source: HES dataset)

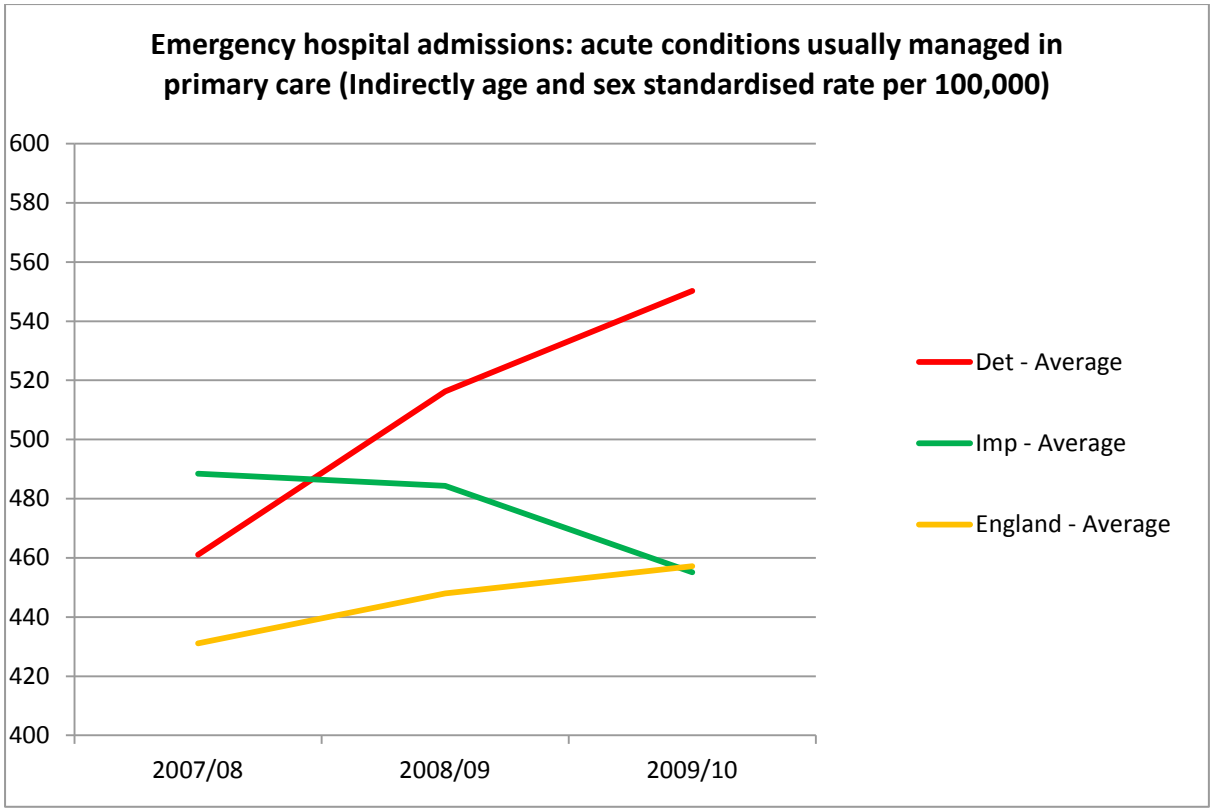
We examined demographic changes as a possible explanation for differences between improving and deteriorating sites. During the period 2007 – 2010 the population of 85+ residents in the deteriorating sites rose by 3.4% which is above the England average of 2.8% for all 151 PCT's, while the population in the improving sites rose by only 1.3%. This pressure on services for older people may have increased more in deteriorating compared to improving sites.

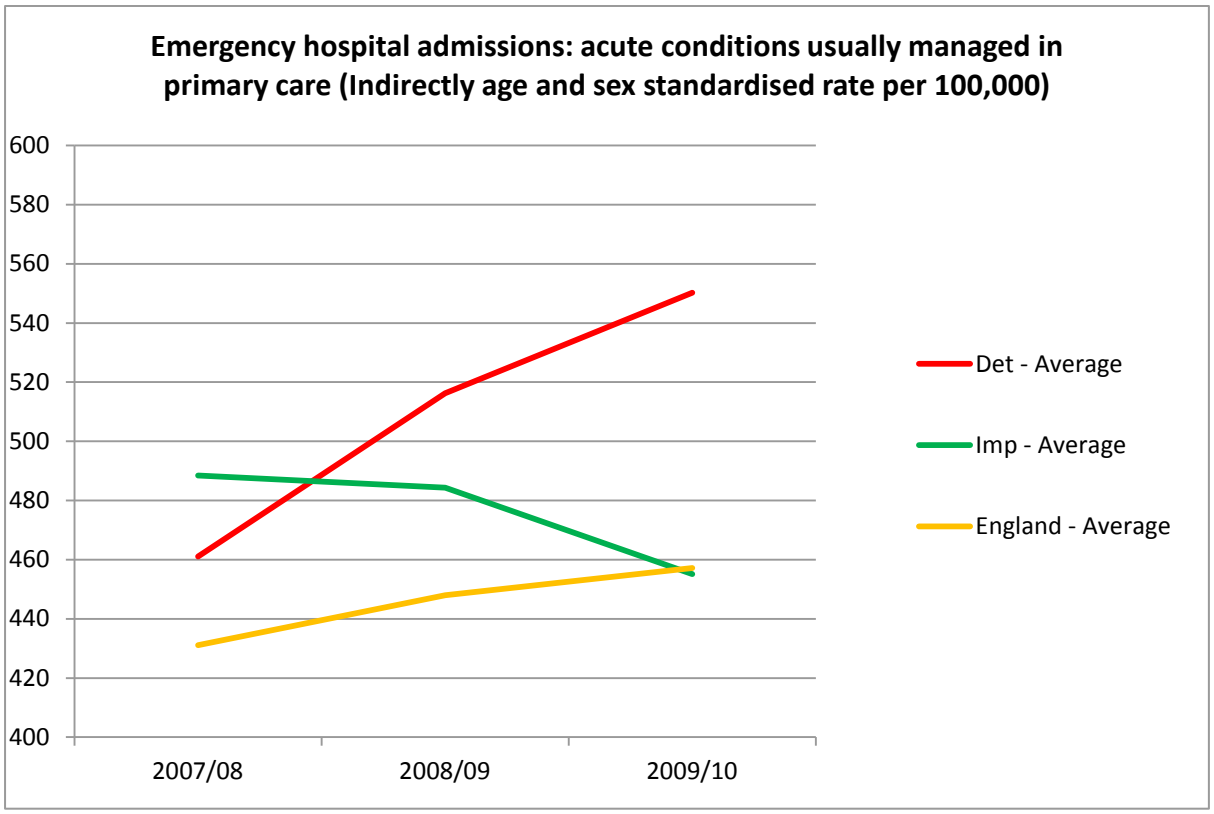
4.1.2 Admission rates for ambulatory care sensitive conditions

As discussed in the introduction, the rising tide of admission for ambulatory care sensitive (ACS) conditions is largely due to acute conditions, with an average annual increase of 2.7% from 2002/03 to 2009/10. Rates for chronic ACS conditions remained fairly stable during this period. Acute conditions included in this group are H660-H664: Suppurative Otitis, I500: Heart Failure, J02-J06: Acute upper respiratory infections, N159: Renal tubulo-interstitial disease, N300: Acute cystitis, N39: Urinary tract infection, I11: Hypertensive heart disease, J31: Chronic rhinitis, nasopharyngitis and pharyngitis). Chronic conditions included are J45-J46: Asthma and E10-E14: Diabetes

We examined admissions for ACSC s in study sites using the NHS information portal. The latest year for which data were available was 2009/10, and no data were available specifically for those aged 85+. Emergency admissions for acute ACS conditions exhibited a similar pattern as the overall admission rates for the age group of 85+, which suggests that acute ACS conditions may be a significant factor in explaining differences between improving and deteriorating sites. More specifically, the numbers of admissions in the deteriorating sites rose, while the numbers of admissions in the improving sites fell.




Emergency hospital admissions: acute conditions usually managed in primary care (Indirectly age and sex standardised rate per 100,000)
600
580
560
540
520
500
480
460
440
420
400
2007/08
2008/09
2009/10
Det - Average
Imp - Average
England - Average


Emergency hospital admissions: acute conditions usually managed in primary care (Indirectly age and sex standardised rate per 100,000)
600
580
560
540
520
500
480
460
440
420
400
2007/08
2008/09
2009/10
Det - Average
Imp - Average
England - Average

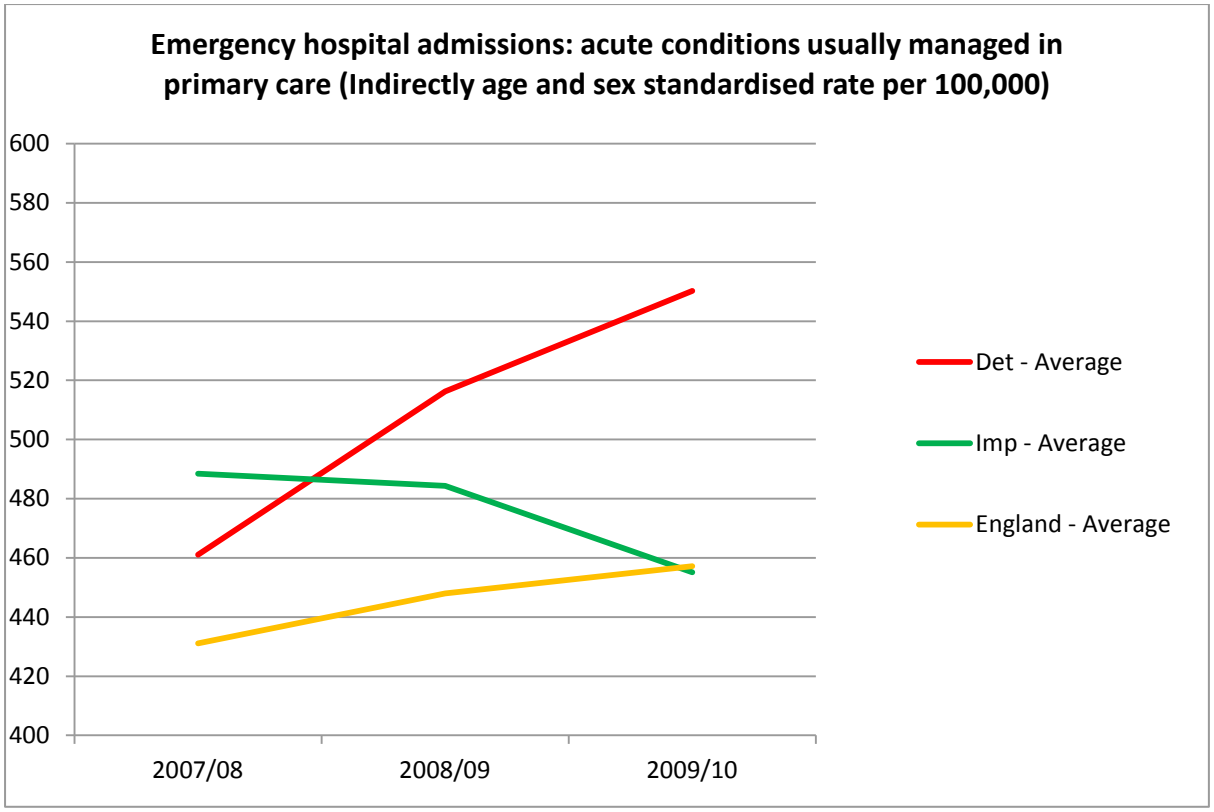
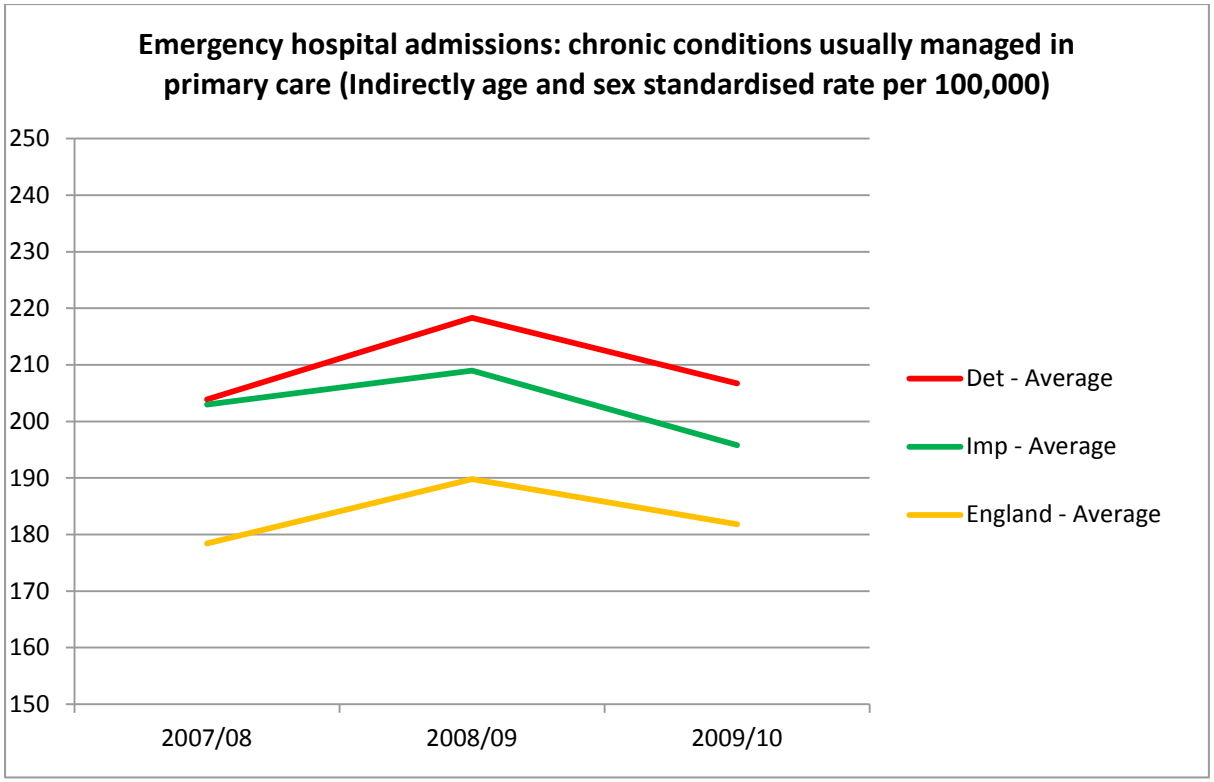
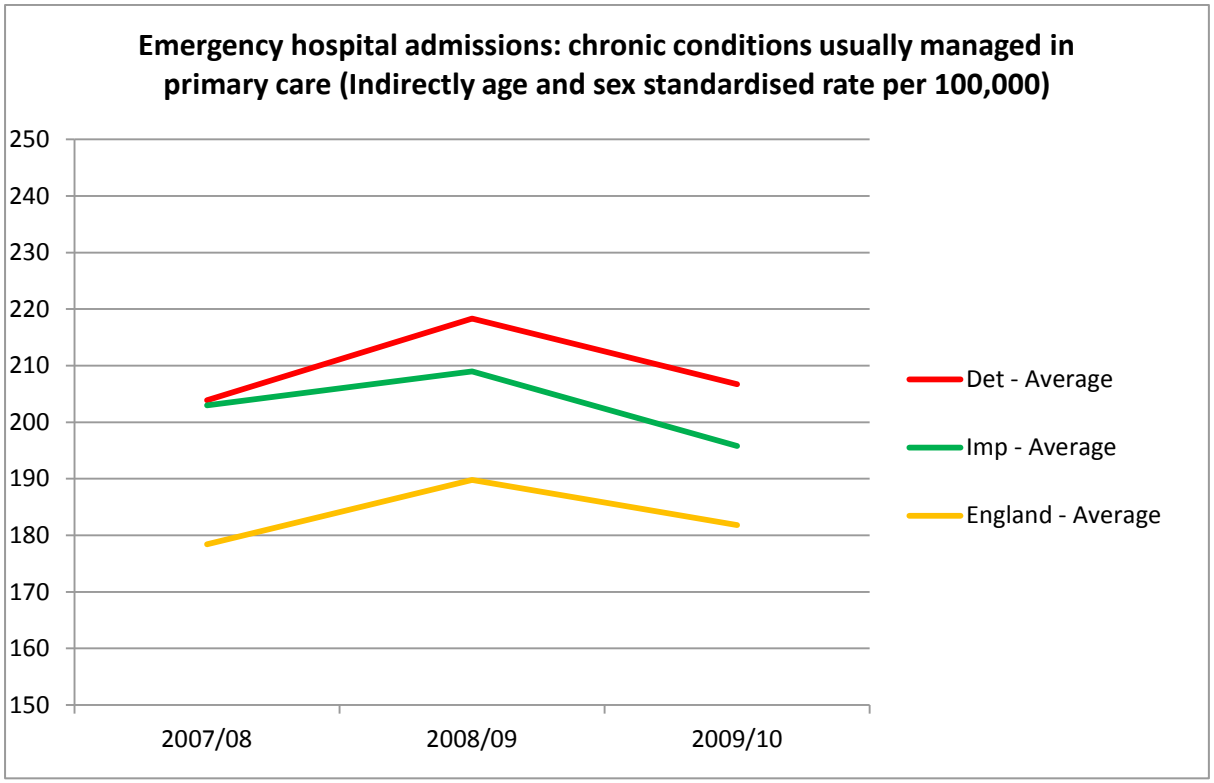
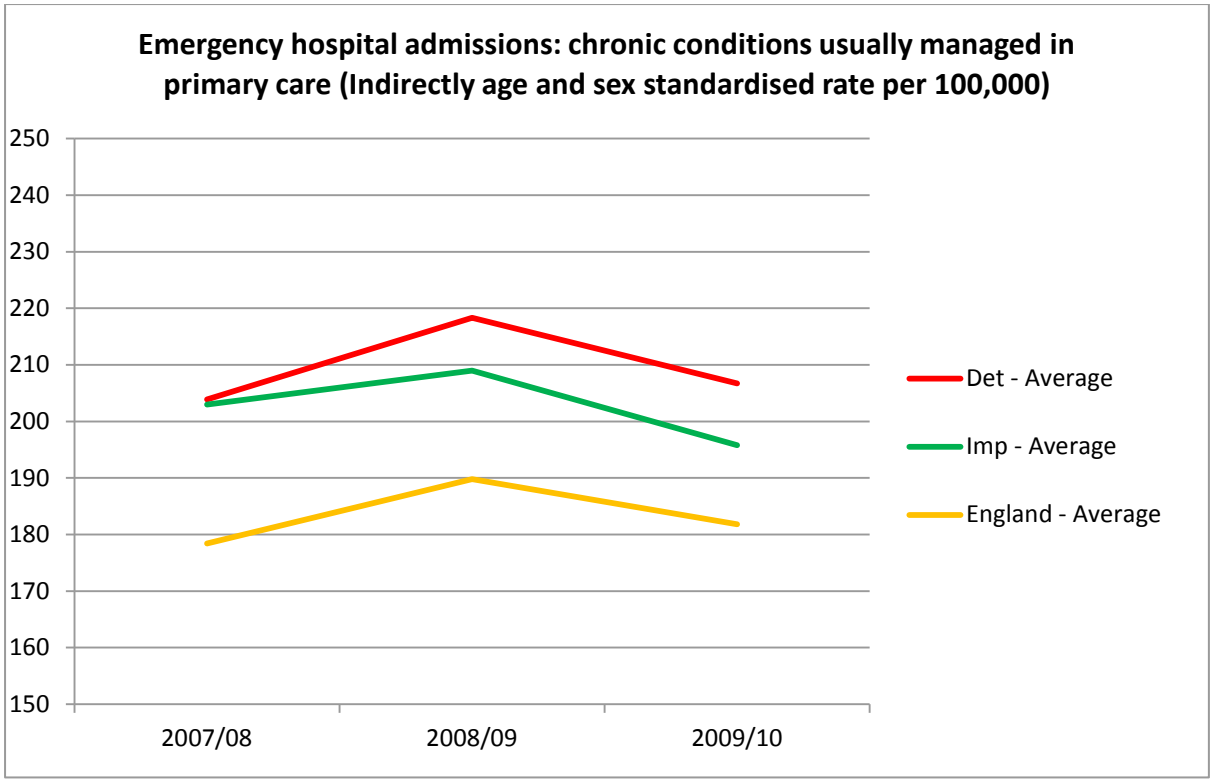


Figure 6 - Emergency hospital admissions: acute conditions usually managed in primary care: Indirectly age and sex standardised rate per 100,000, all ages. (Source: https://indicators.ic.nhs.uk/)

Admissions for chronic ACS conditions in the study sites were fairly stable during the period examined, although some variation is probably due to the low numbers of this type of admissions (between 200 and 250 per 100,000 people).


Emergency hospital admissions: chronic conditions usually managed in primary care (Indirectly age and sex standardised rate per 100,000)
250
240
230
220
210
200
190
180
170
160
150
2007/08
2008/09
2009/10
Det - Average
Imp - Average
England - Average


Emergency hospital admissions: chronic conditions usually managed in primary care (Indirectly age and sex standardised rate per 100,000)
250
240
230
220
210
200
190
180
170
160
150
2007/08
2008/09
2009/10
Det - Average
Imp - Average
England - Average



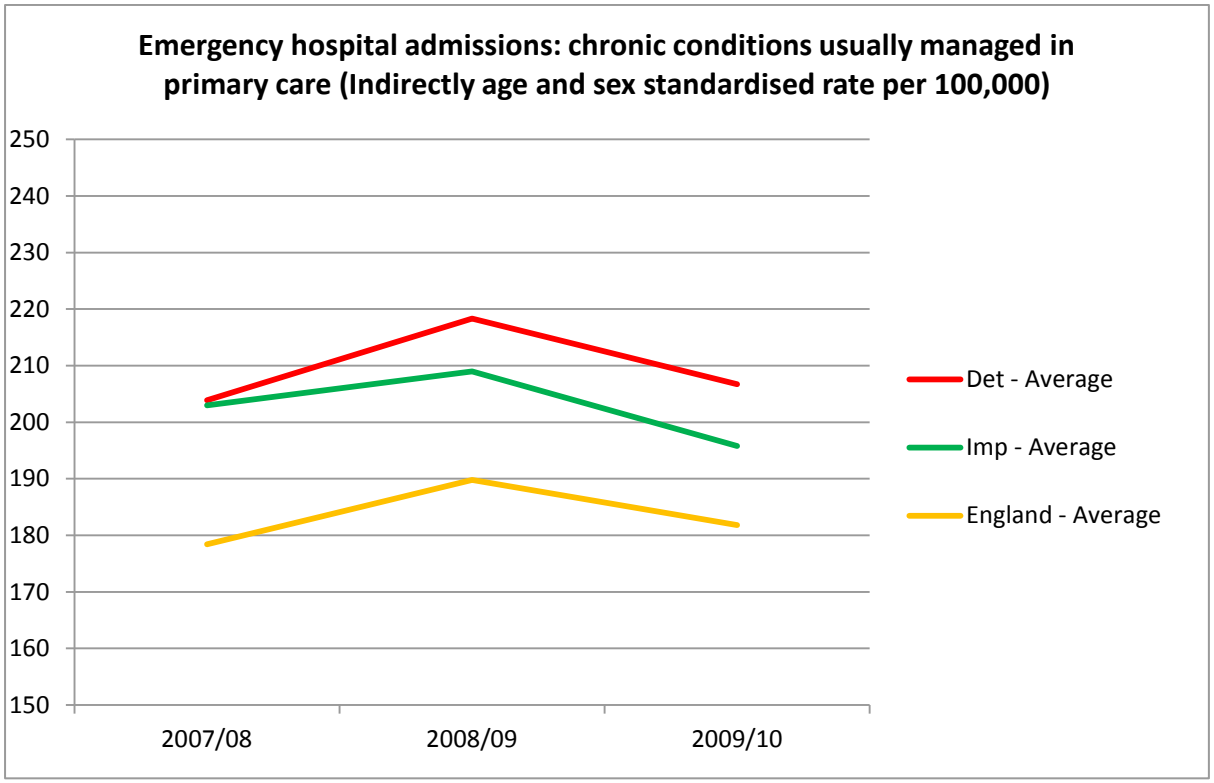


Figure 7 - Emergency hospital admissions: chronic conditions usually managed in primary care: Indirectly age and sex standardised rate per 100,000, all ages. (Source: https://indicators.ic.nhs.uk/)

Further information on ambulatory care sensitive conditions was obtained from The NHS Better Care, Better Value Indicators website [64]. It provides information on the Emergency Admissions for 19 Ambulatory Care Sensitive Conditions (ACSCs) aggregated for patients from all ages. When accessed, this dataset included admissions in 2010/11 and 2011/12 for the following conditions, standardised for age, sex and social deprivation : COPD, angina (without major procedure), ENT infections, convulsions and epilepsy, congestive heart failure, asthma, flu and pneumonia (>2 months old), dehydration and gastroenteritis, cellulitis (without major procedure), diabetes with complications, pyelonephritis, iron-deficiency anaemia, perforated/bleeding ulcer, dental conditions, hypertension, gangrene, pelvic inflammatory disease, vaccine-preventable conditions, nutritional deficiencies.

These data show that the changes in standardised average quarterly ACSC admission rate between (per 100,000) 2010/11 and 2011/12 were from 498 to 541 in deteriorating sites and from 458 to 427 in improving sites. Expressed as rankings of 151 PCTs, deteriorating sites moved from 90th to 96th, and improving sites from 87th to 85th

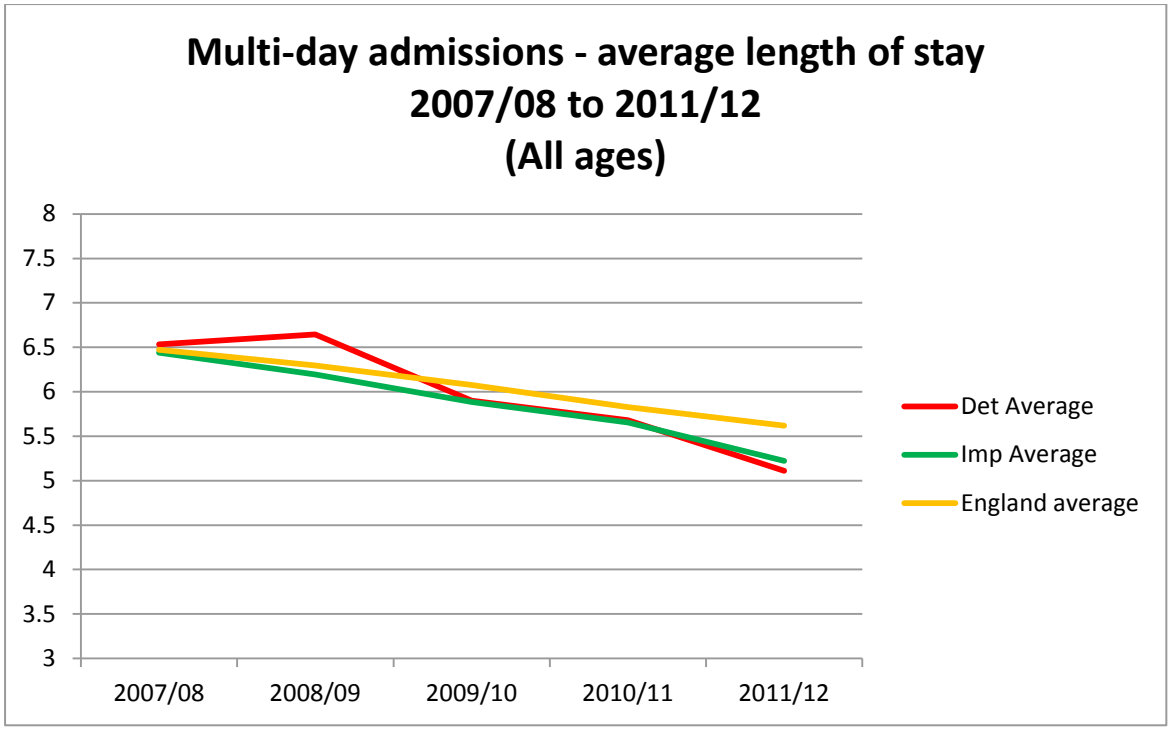
This indicator also shows the financial opportunity per quarter of reducing the rate of emergency admissions per population head to those of the PCT at the 10th percentile. The estimate for national savings in quarter 4, 20111/12 was £323M. From 2010/11 to 2011/12, this changed from £1.51M to £1.65M in deteriorating sites and from £1.30M to 1.38M in improving sites.

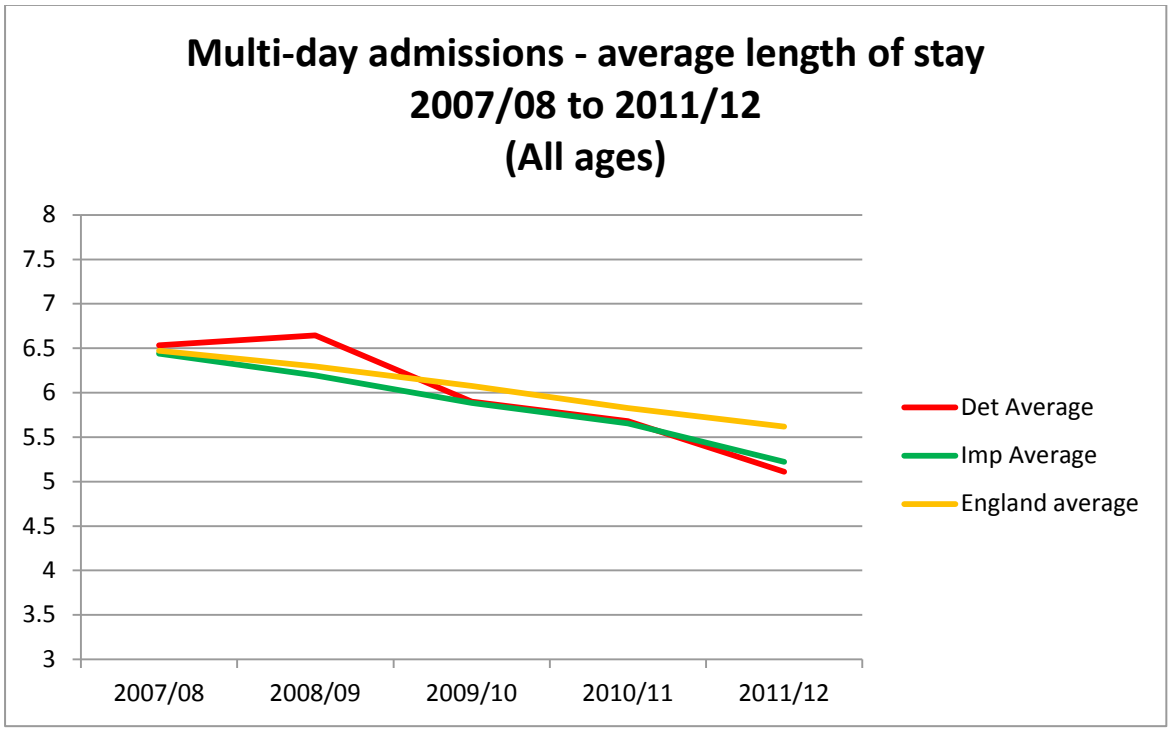
4.1.3 Length of Stay

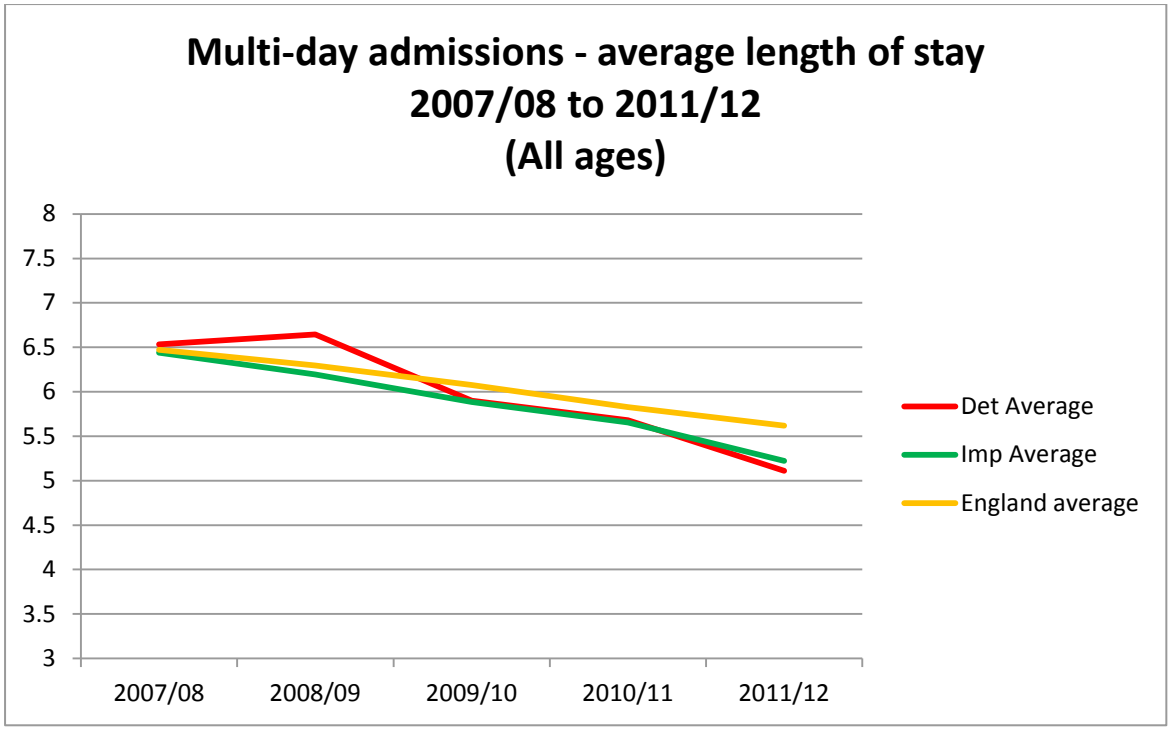
We examined whether differences in admission rates could be explained by differences in the length of stay of acute admissions. Emergency admissions (all ages and 85+) were divided into two categories: zero- day admissions (i.e., discharge on the same date as the admission), and those with discharge on a later date (multi-day admissions). For the latter admissions, average length of stay was calculated by dividing the sum of the bed days by the number of admissions. Rates for zero-day admissions were calculated as a proportion of the population and as a proportion of the total number of admissions.

a) Multi-day admissions

Across England and in both improving and deteriorating sites, there was a steady decrease in the length of stay. The average length of stay fell from 6.5 days in 2007/08 to 5.2 days in 2011/12, with no differences between types of site.


Multi-day admissions - average length of stay
2007/08 to 2011/12
(All ages)
8
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Multi-day admissions - average length of stay
2007/08 to 2011/12
(All ages)
8
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



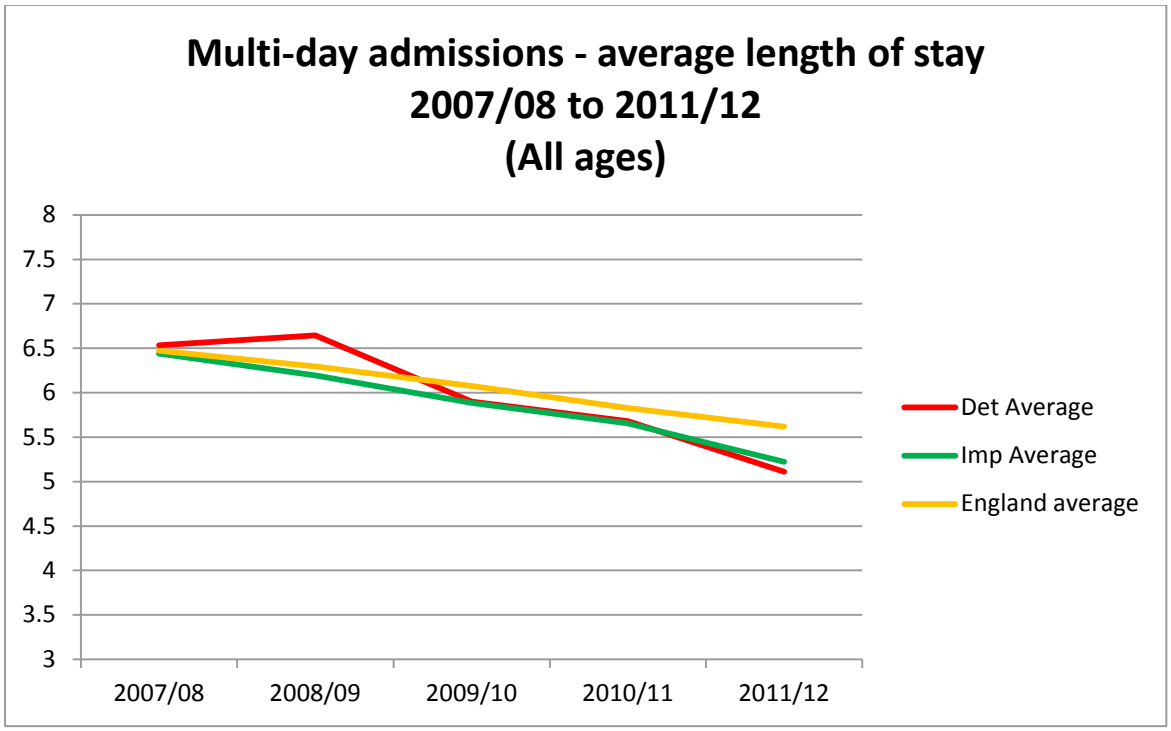
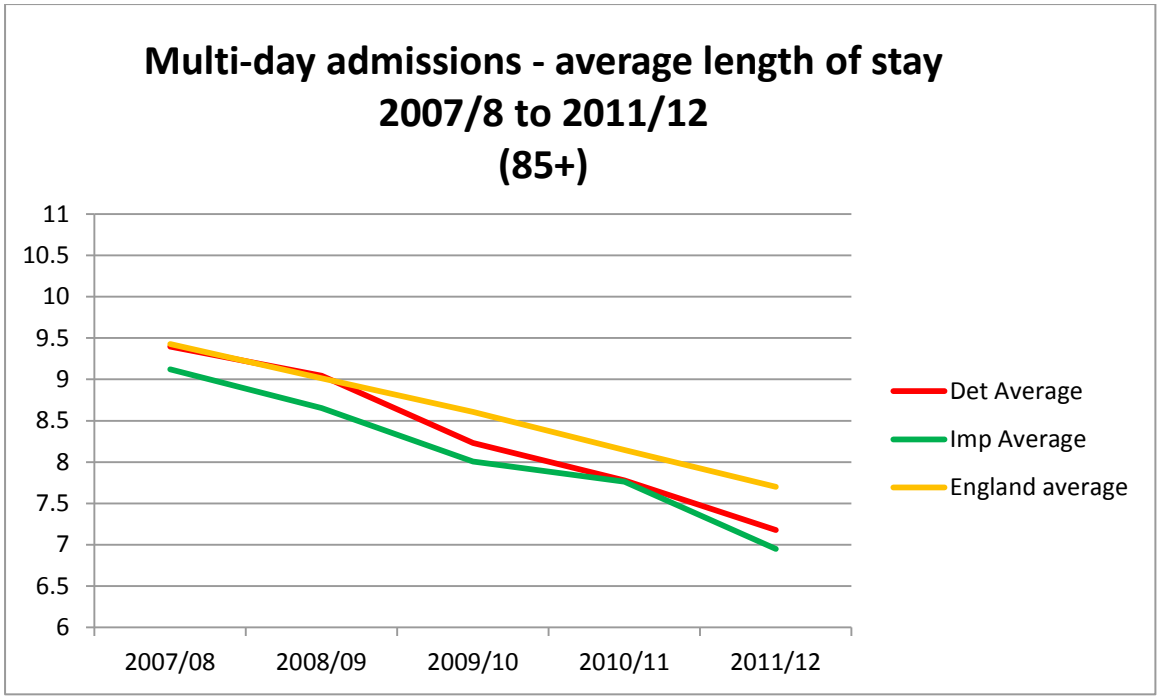
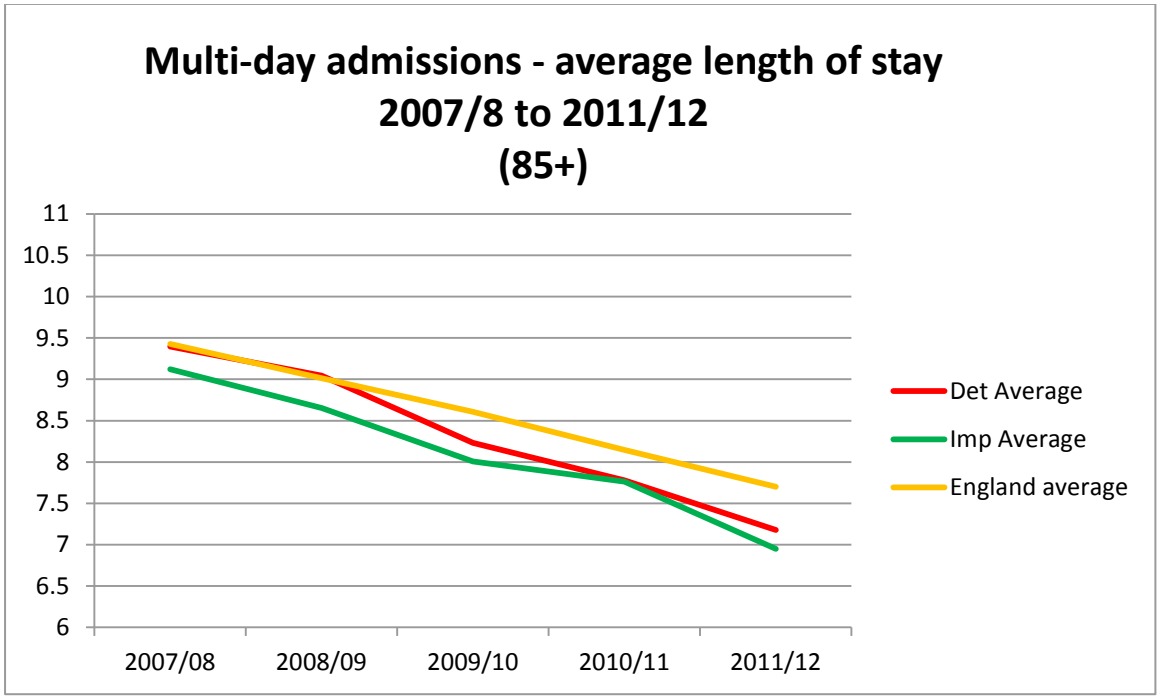
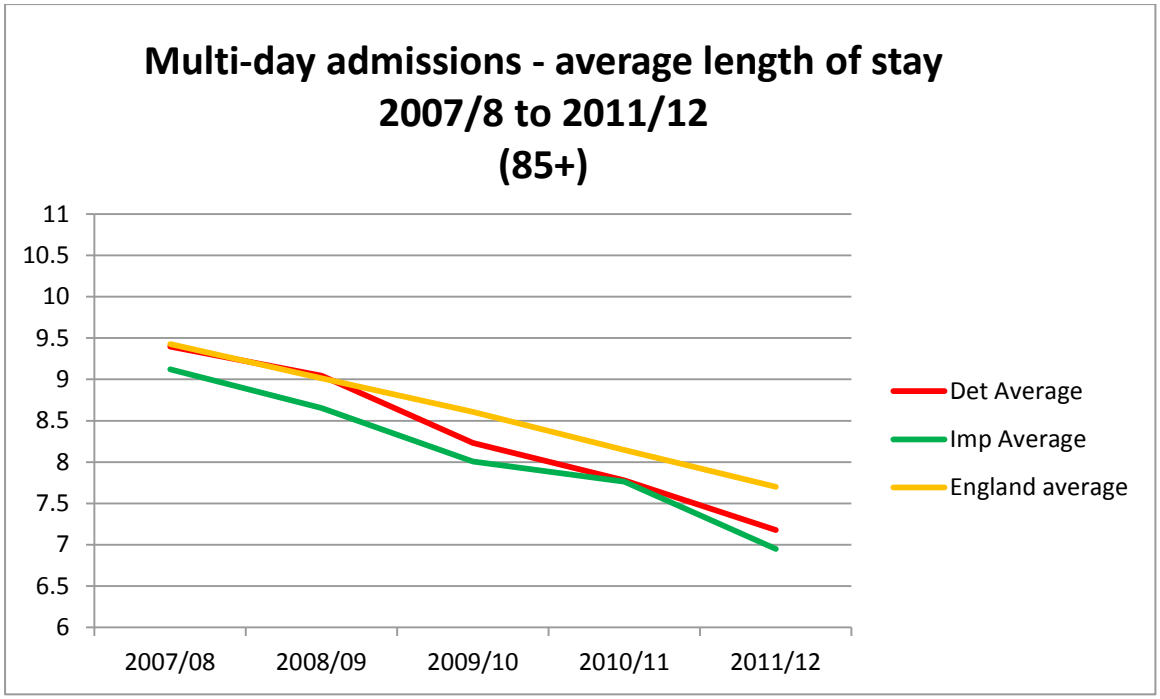


Figure 8 - Multi-day admissions - average length of stay 2007/08 to 2011/12, all ages. (Source: HES dataset)

For those aged 85+, stays were longer, but showed the same trend in reduction, from 9.3 days on average in 2007/08 to 7.2 days in 2011/12. In the final year, both types of site had lengths of stay below the English average.


Multi-day admissions - average length of stay
2007/8 to 2011/12
(85+)
11
10.5
10
9.5
9
8.5
8
7.5
7
6.5
6
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Multi-day admissions - average length of stay
2007/8 to 2011/12
(85+)
11
10.5
10
9.5
9
8.5
8
7.5
7
6.5
6
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



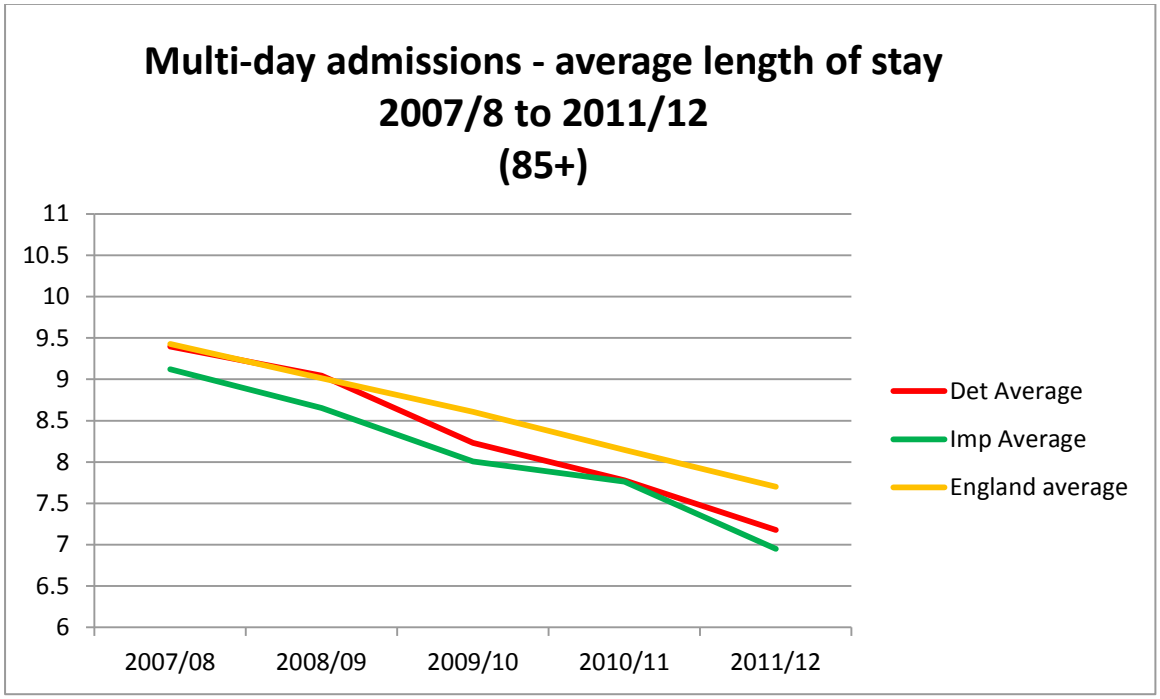
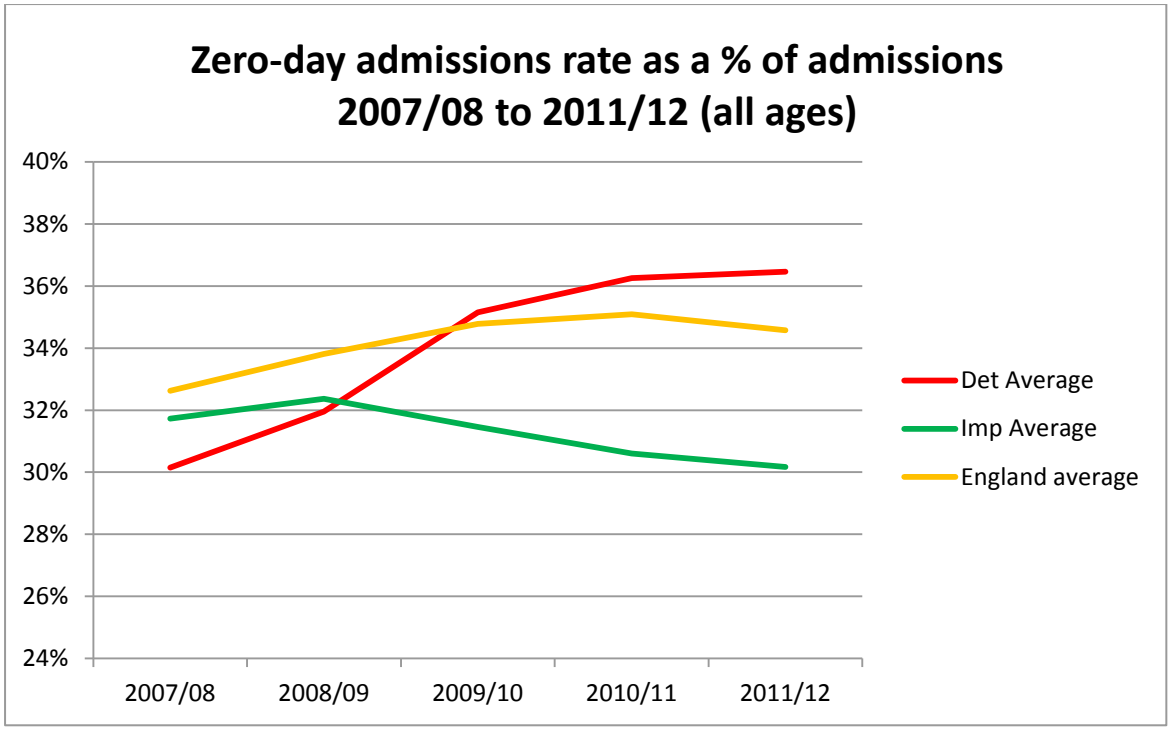


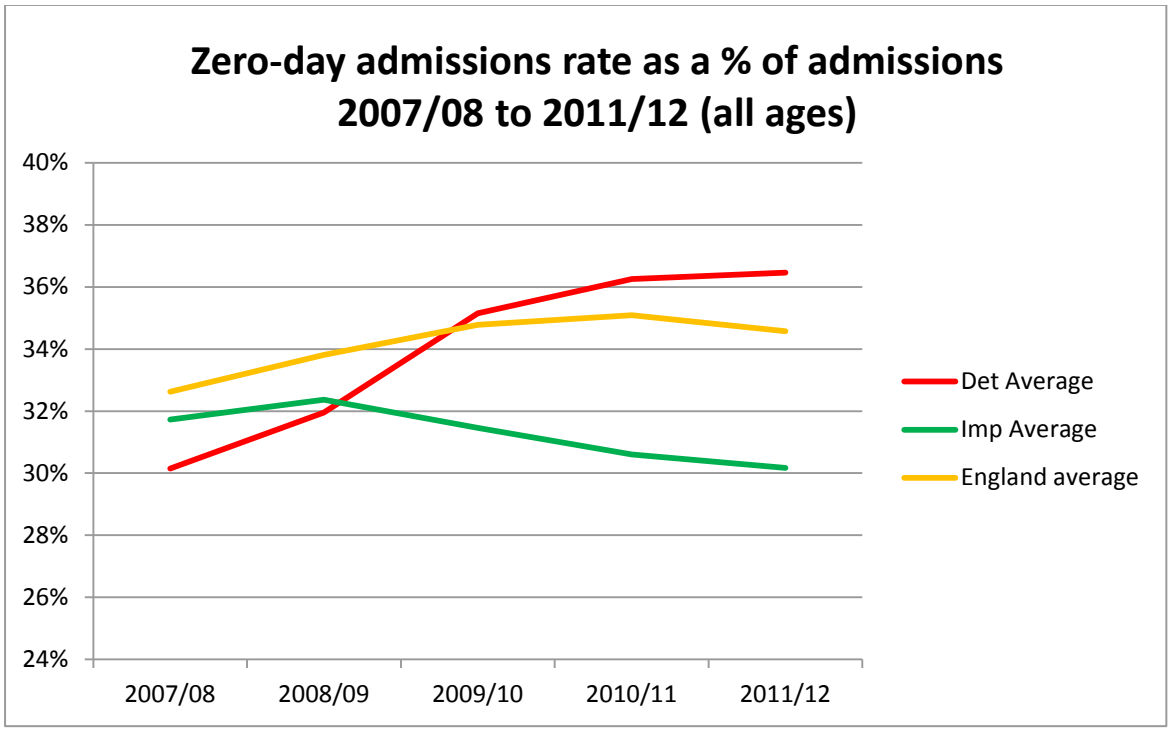
Figure 9 - Multi-day admissions - average length of stay 2007/08 to 2011/12, 85+ age group. (Source: HES dataset)

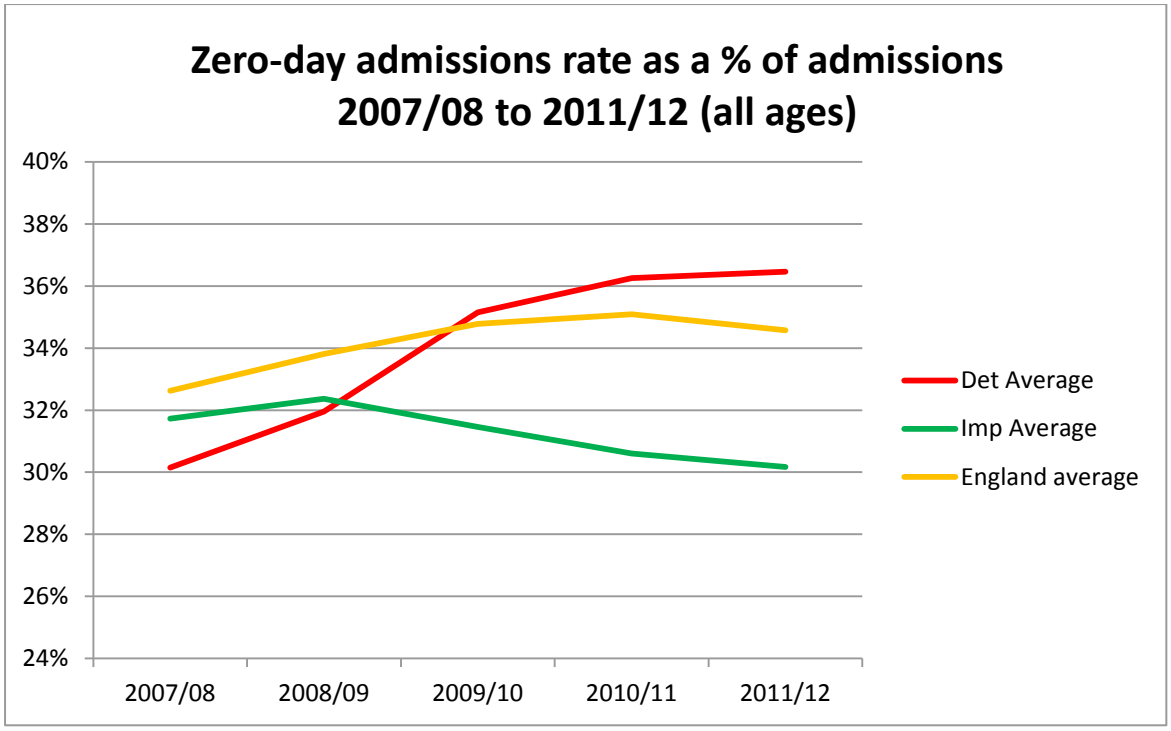
b) Zero-day admissions

Across England, same-day admissions constitute about one-third (28% to 30%) of all admissions. Their share was slightly rising from 2007/08 to 2010/11, when it seemed to peak. The two groups of sites differed markedly in trends for the proportion of one-day admissions. The improving sites

started out close to the England average in 2007/08 but the share declined until 2010/11. In contrast, the deteriorating sites started out well below the England average but increased the share of one-day admissions to that level by 2010/11. During the last year (2010/12) trends remained stable.


Zero-day admissions rate as a % of admissions 2007/08 to 2011/12 (all ages)
40%
38%
36%
34%
32%
30%
28%
26%
24%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Zero-day admissions rate as a % of admissions 2007/08 to 2011/12 (all ages)
40%
38%
36%
34%
32%
30%
28%
26%
24%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



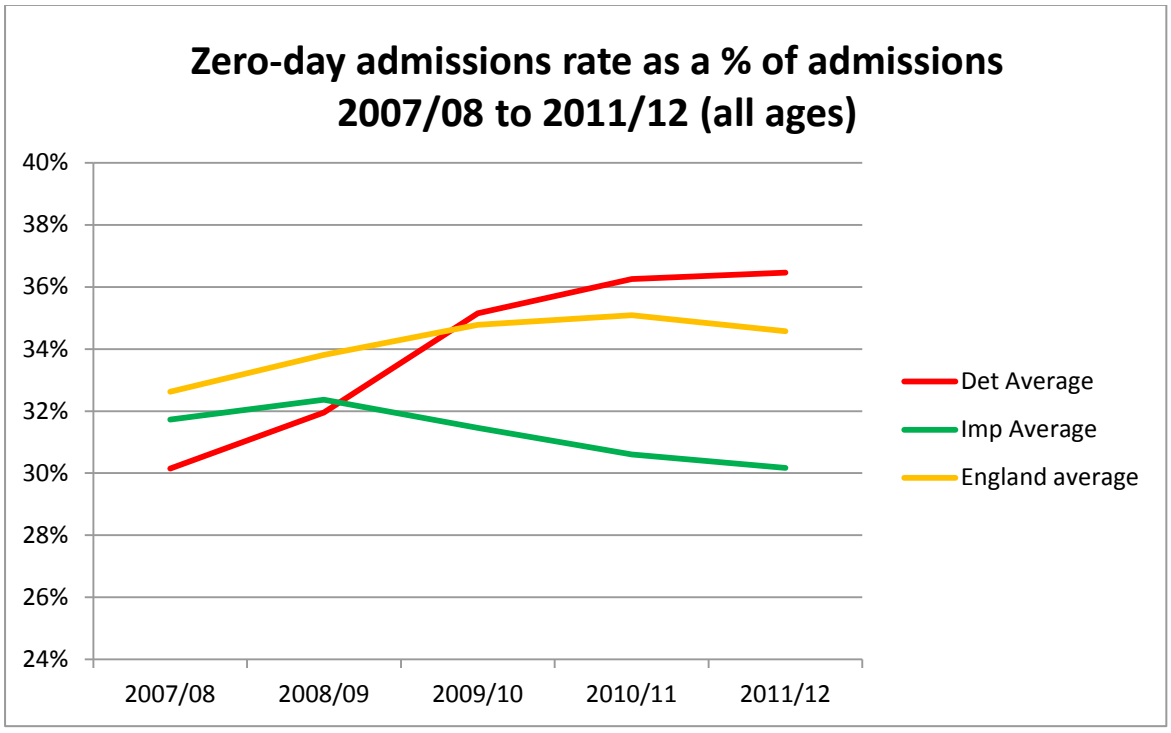
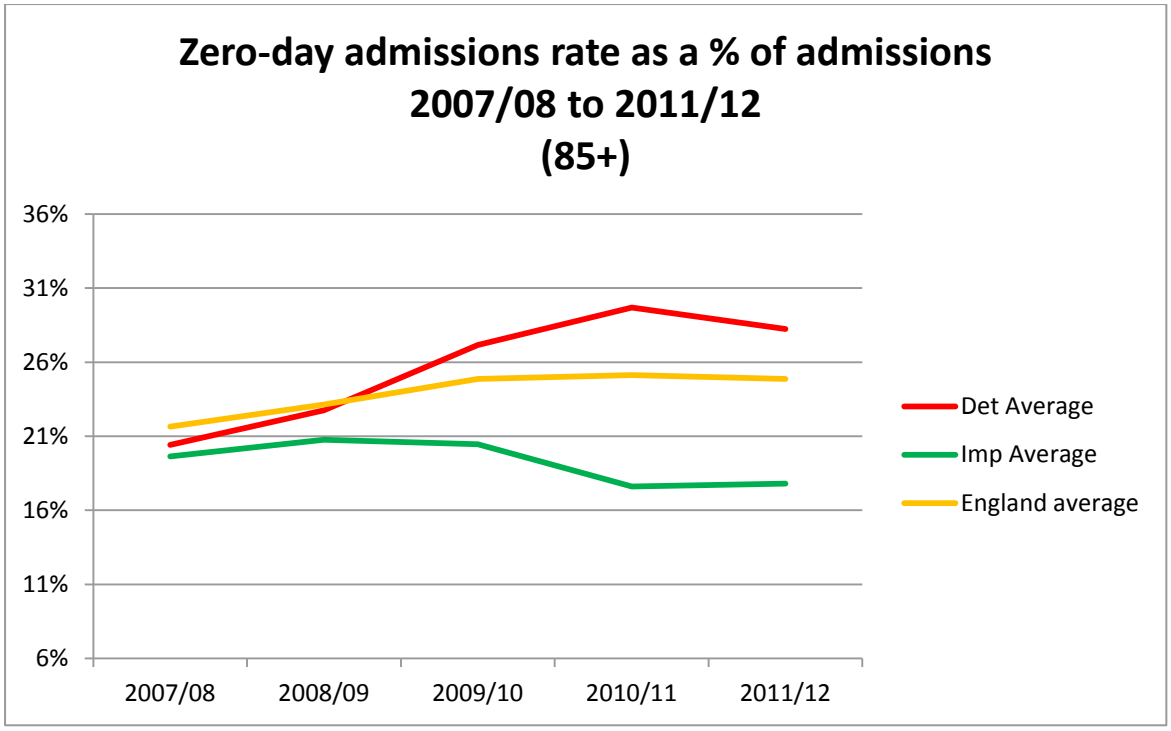
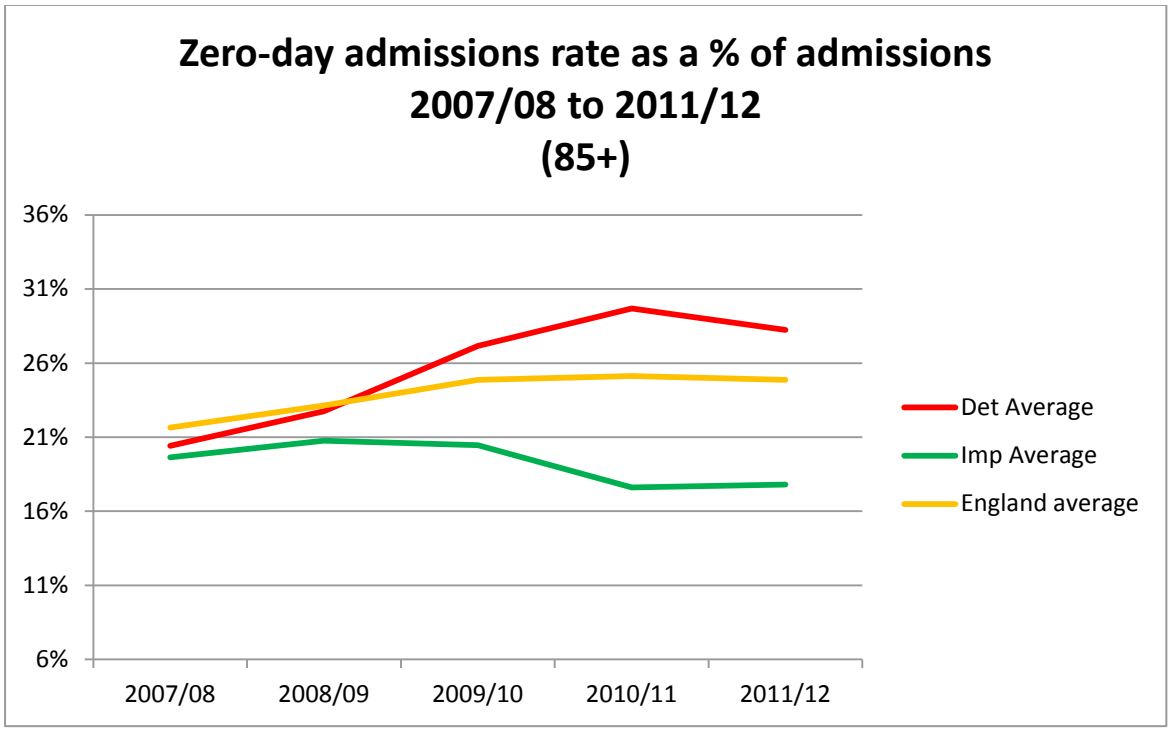
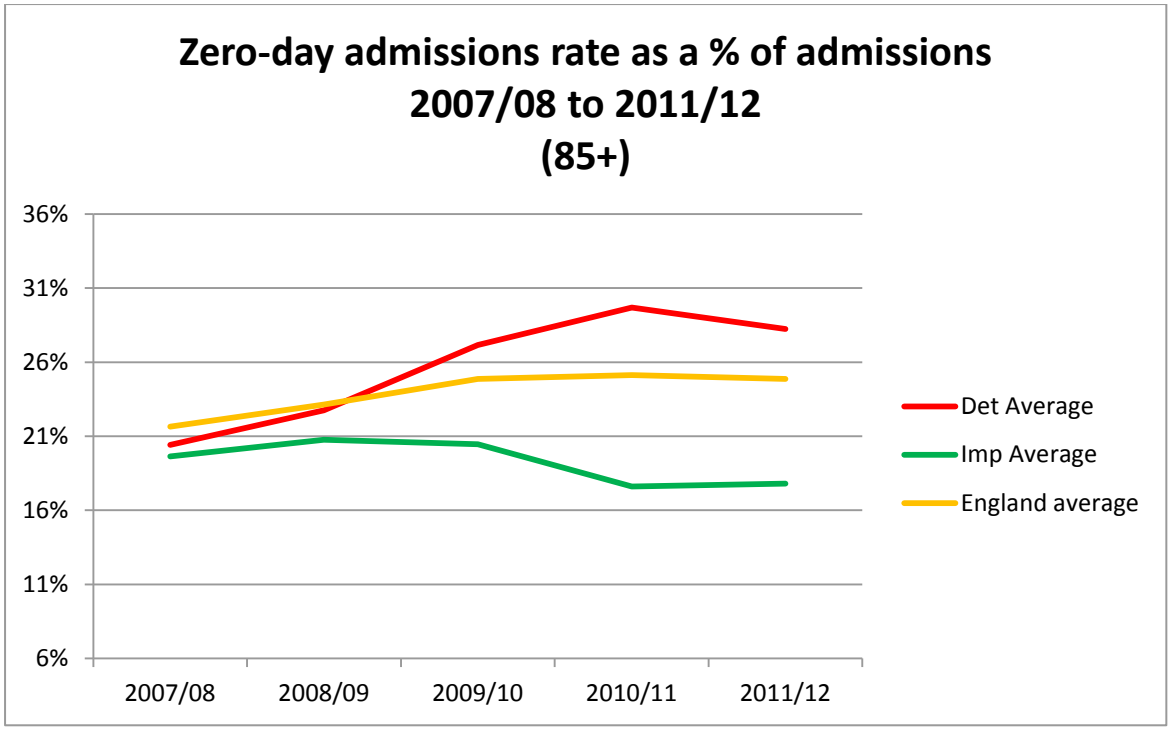


Figure 10 - Zero-day admissions rate as a % of admissions, 2007/08 to 2011/12, all ages. (Source: HES dataset)

The zero-day admissions rate as a percentage of all admissions for the group of 85+ year olds followed the same trends as the rates for the whole population, with the exception that both the improving and deteriorating sites started out near the England average but then diverged. In 2010/11 the percentage of zero-day admission in this age group was 30% in deteriorating sites, compared with 18% in improving sites.


Zero-day admissions rate as a % of admissions
2007/08 to 2011/12
(85+)
36%
31%
26%
21%
16%
11%
6%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Zero-day admissions rate as a % of admissions
2007/08 to 2011/12
(85+)
36%
31%
26%
21%
16%
11%
6%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



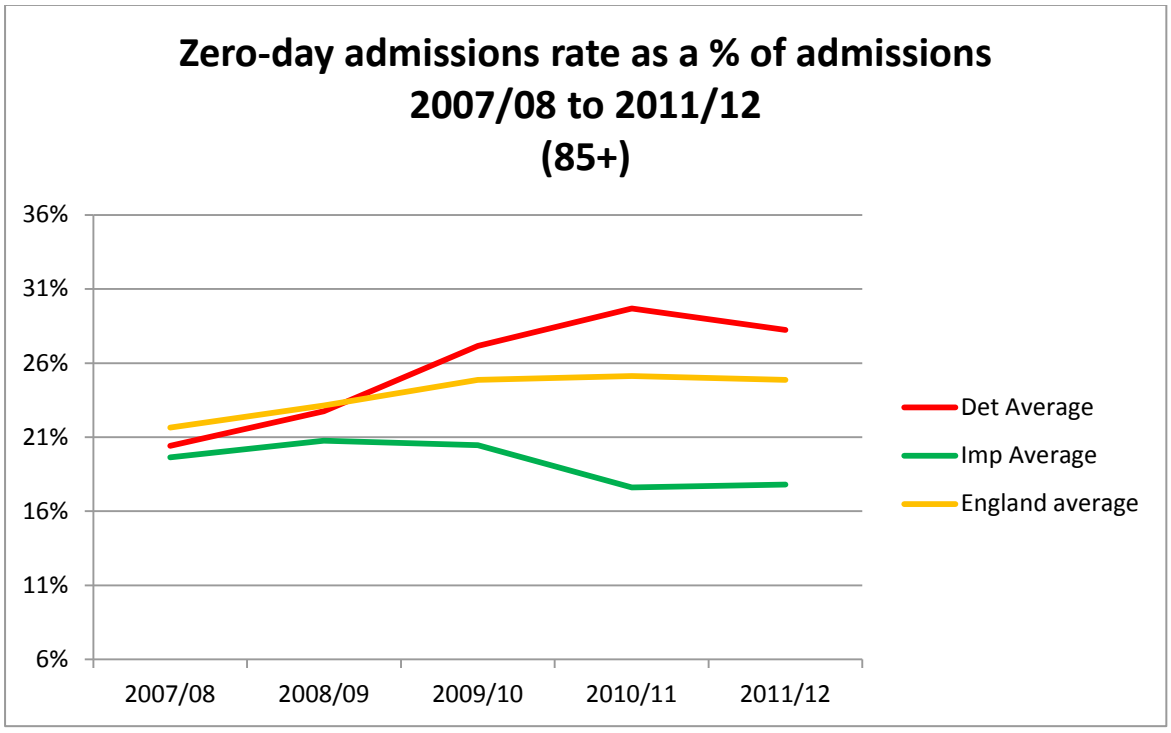
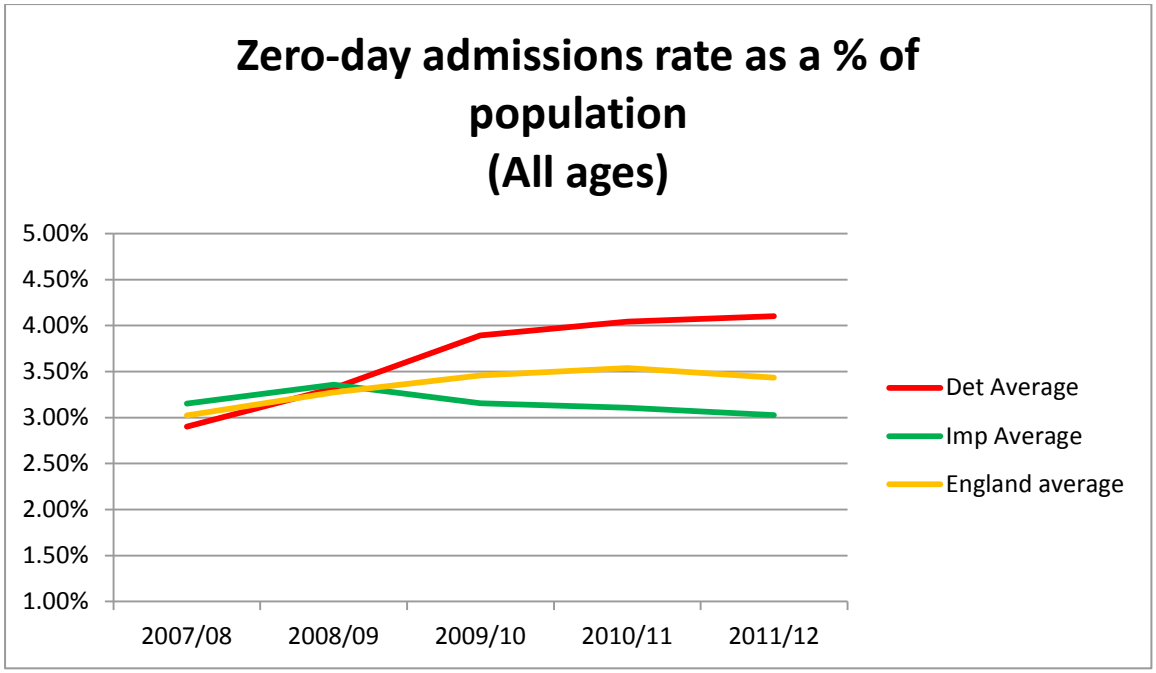
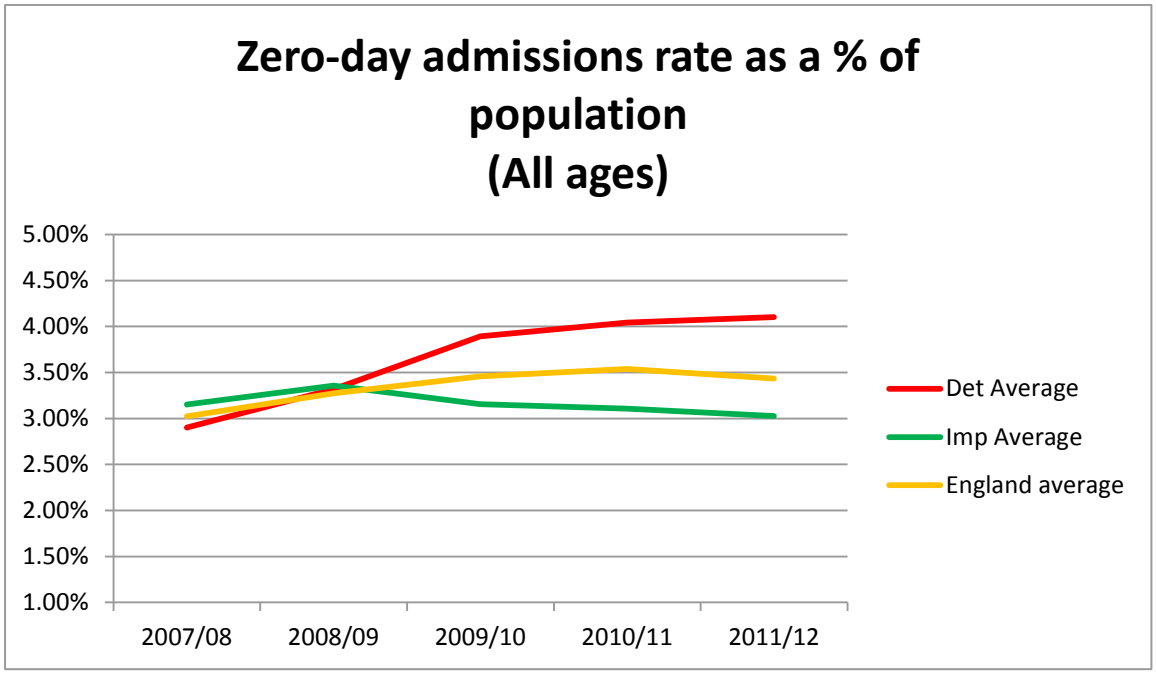


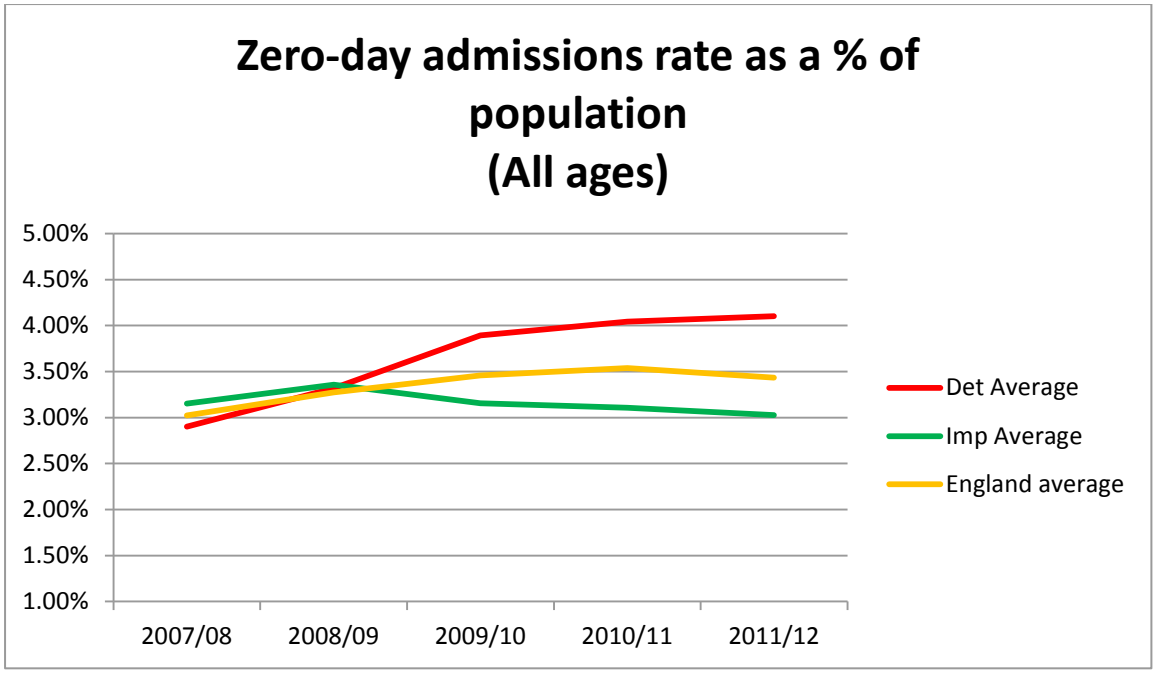
Figure 11 - Zero-day admissions rate as a % of admissions, 2007/08 to 2011/12, 85+ age group. (Source: HES dataset)

Rates of zero-day and multi-day were also examined for all age groups and those aged 85+. In the latter group it can be seen that rates of zero-day admissions started close to the English average, but increased to 4.1% in deteriorating sites and fell to 3.0% in improving sites. Conversely, multi-day admissions in those aged 85+ were stable in both types of site, and close to the national average. This trend was noted also in Blunt et al., 2010, who suggest that it is complex in nature, probably

due to the interplay of several factors, and does not offer a causal explanation of the trend of increasing overall admission rates on its own.


Zero-day admissions rate as a % of population (All ages)
5.00%
4.50%
4.00%
3.50%
3.00%
2.50%
2.00%
1.50%
1.00%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Zero-day admissions rate as a % of population (All ages)
5.00%
4.50%
4.00%
3.50%
3.00%
2.50%
2.00%
1.50%
1.00%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



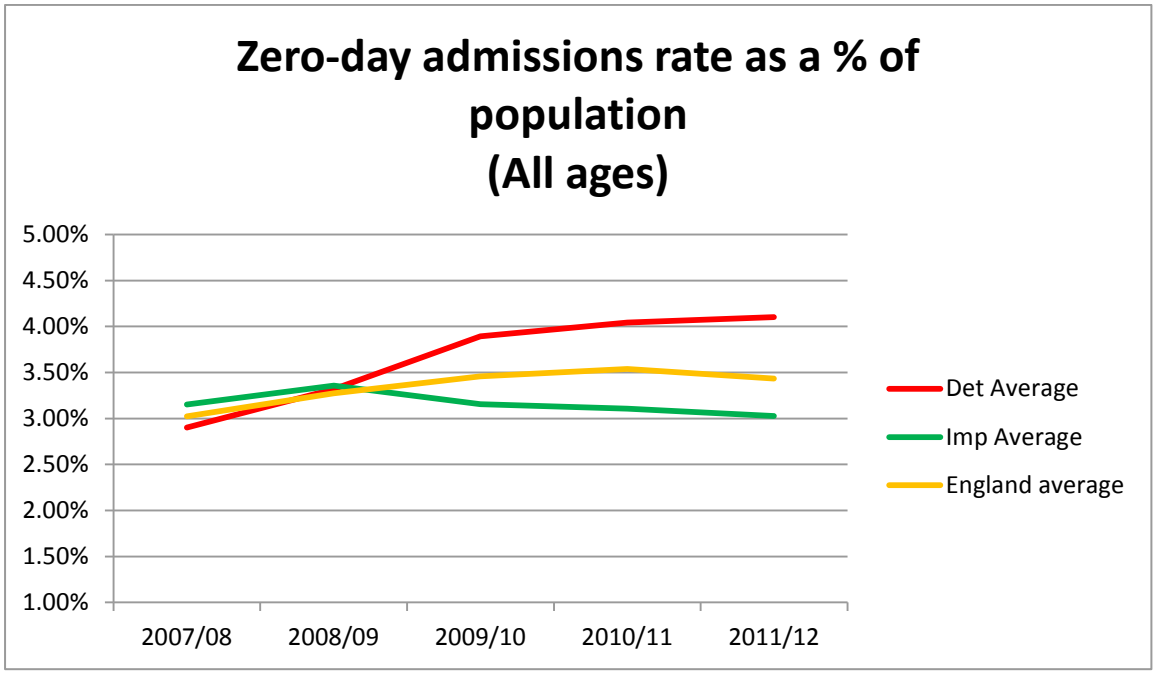
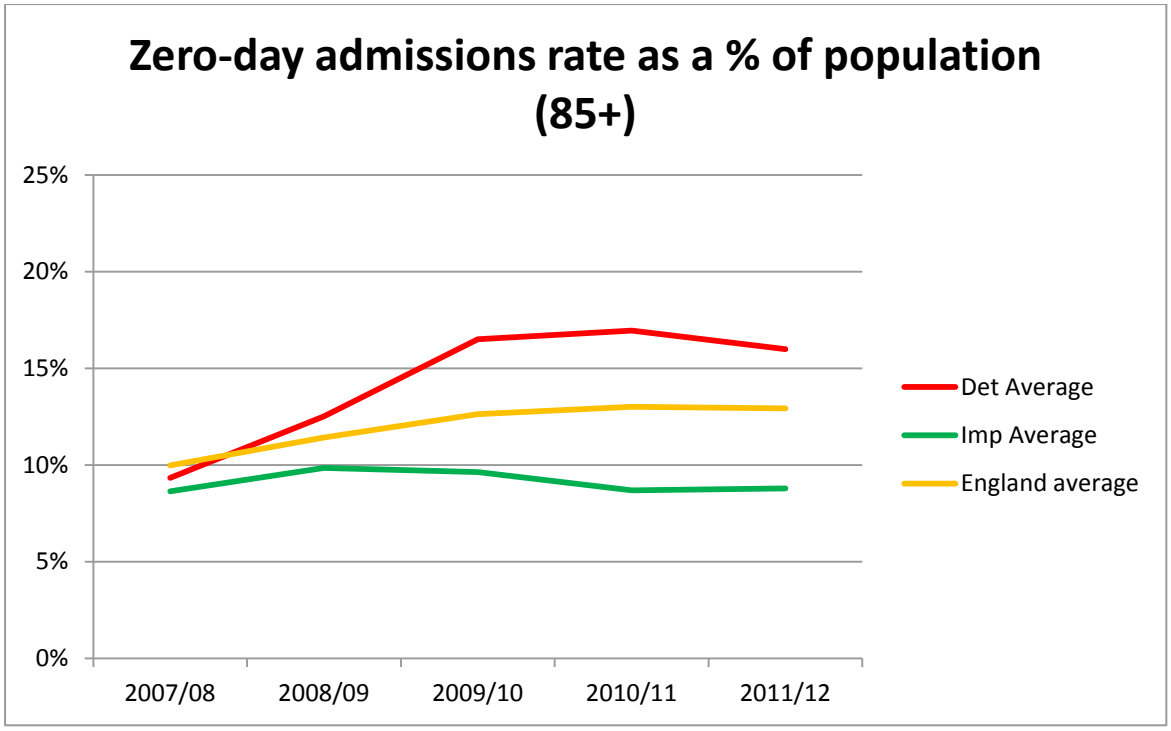
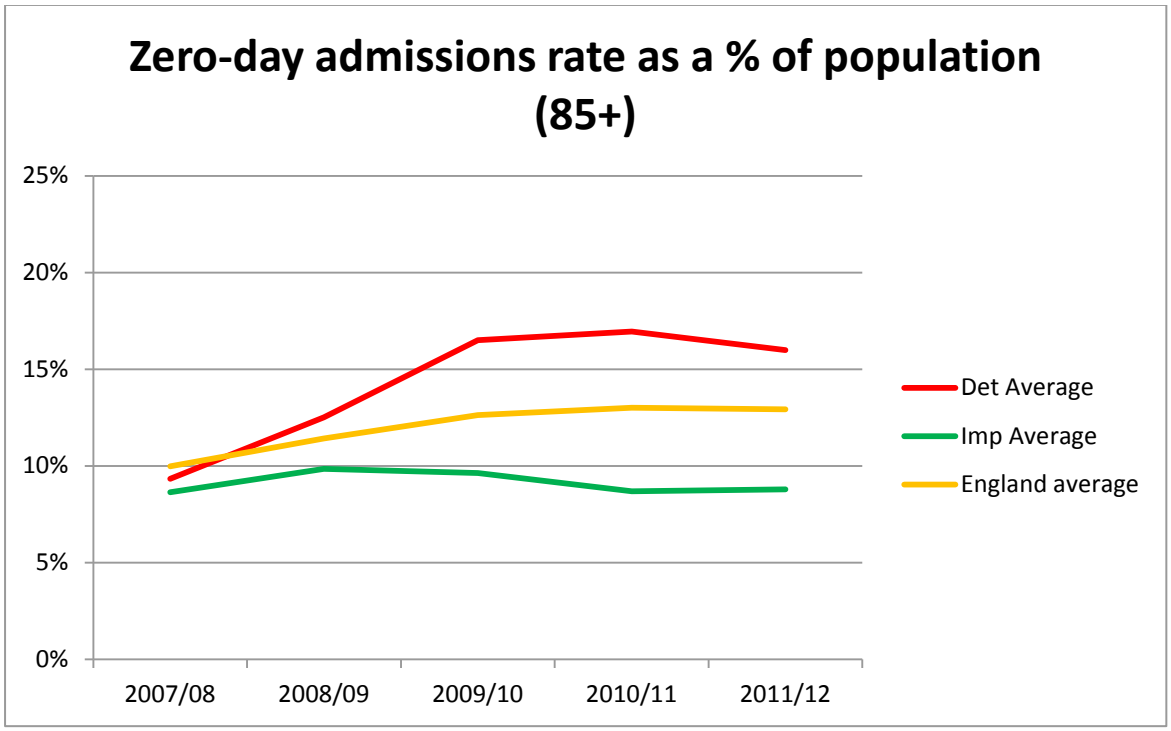
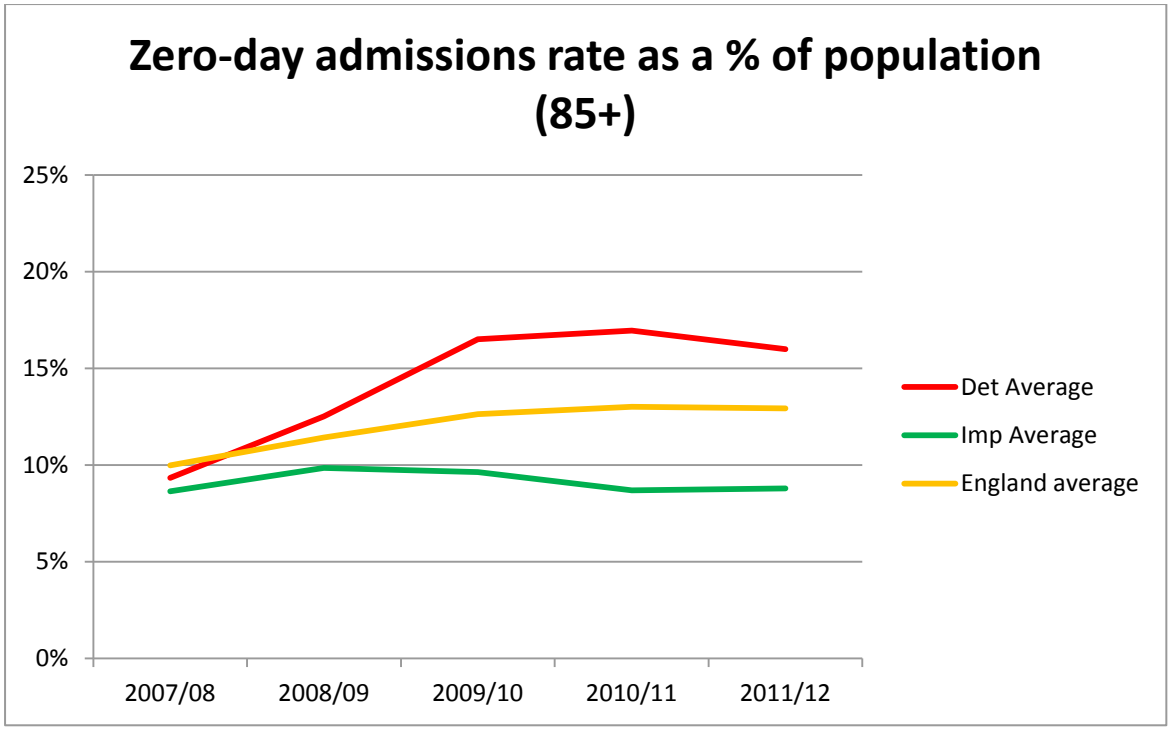


Figure 12 - Zero-day admissions rate as a % of population, all ages. (Source: HES dataset)


Zero-day admissions rate as a % of population (85+)
25%
20%
15%
10%
5%
0%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Zero-day admissions rate as a % of population (85+)
25%
20%
15%
10%
5%
0%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



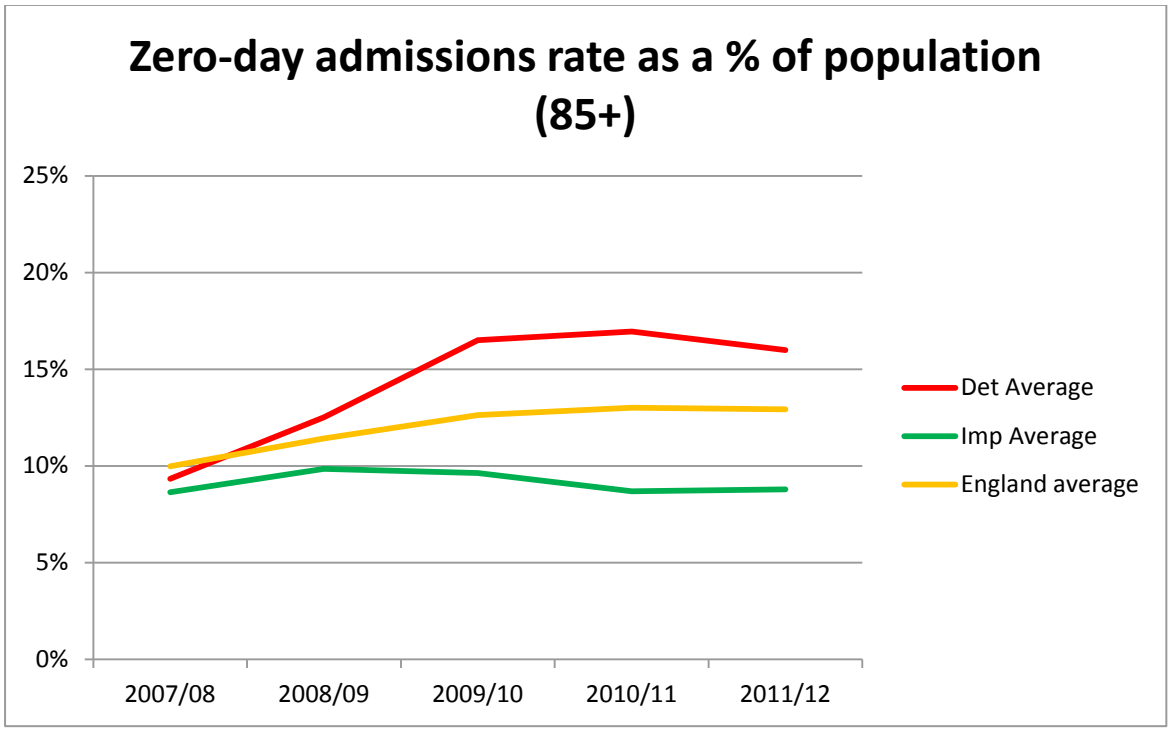
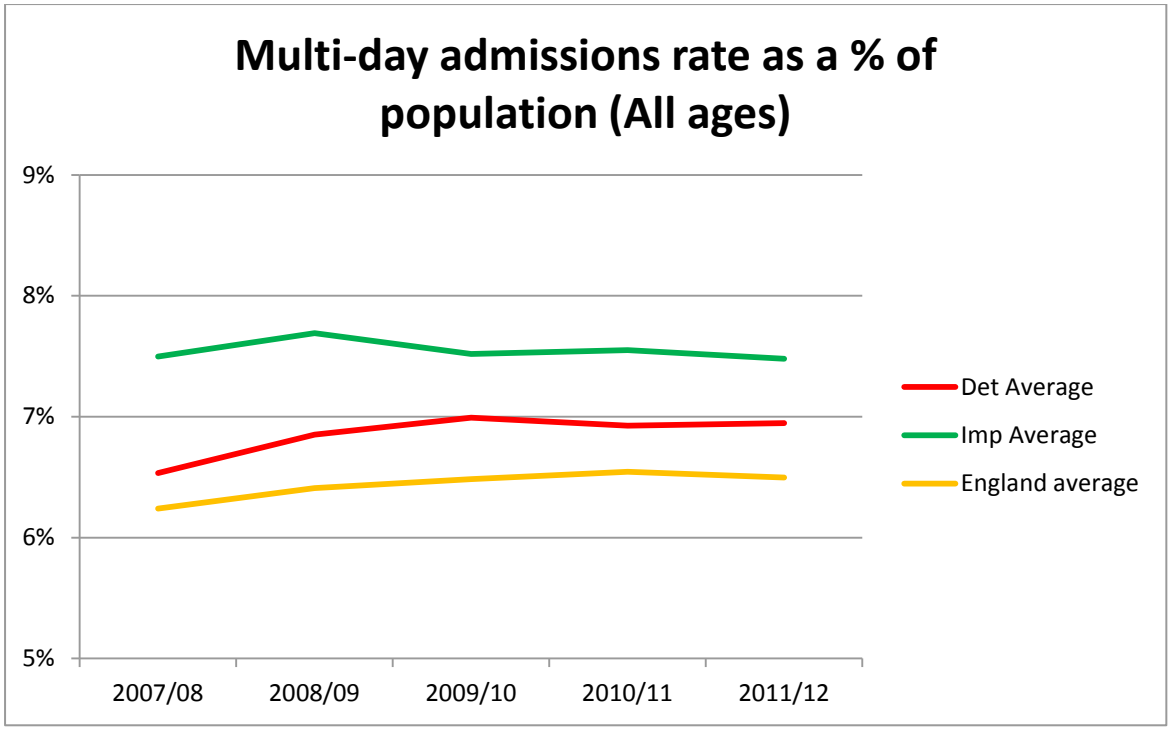
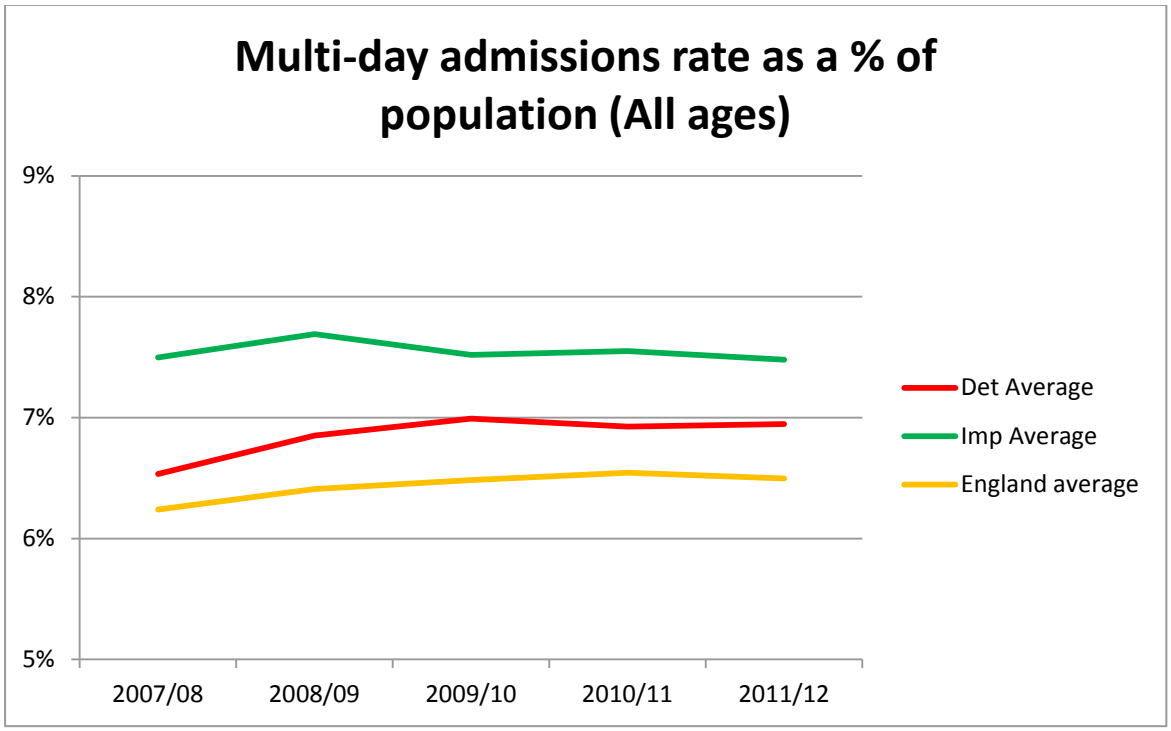
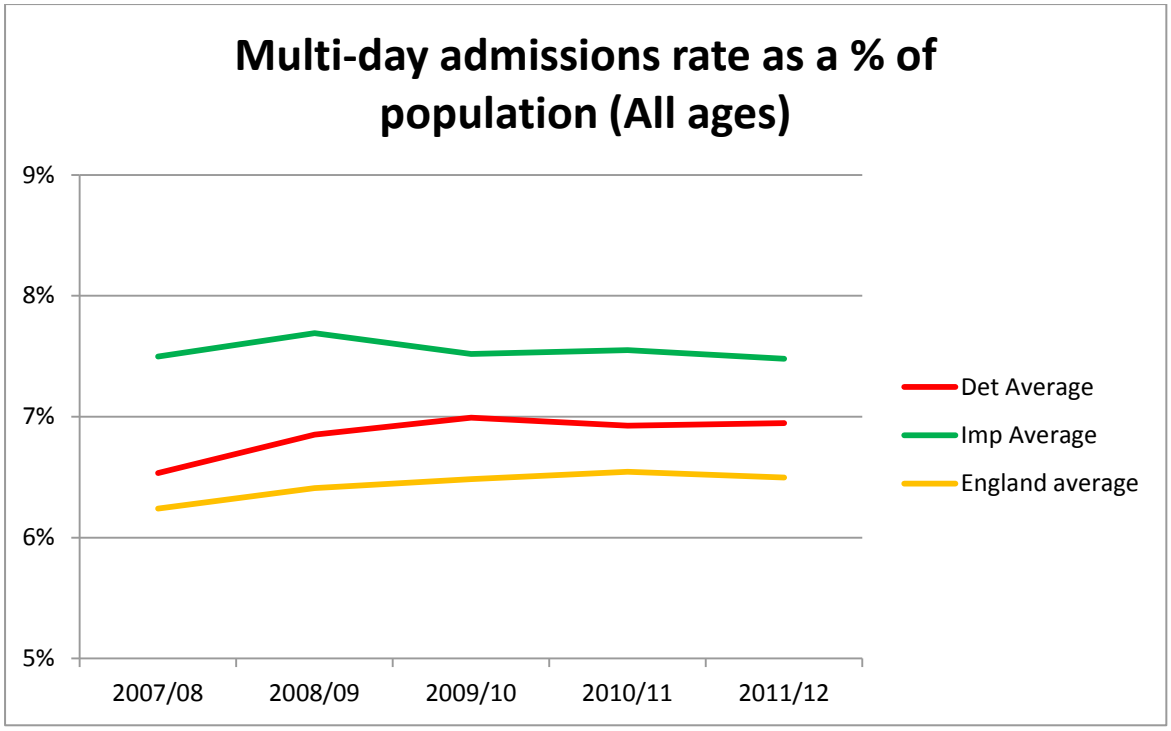


Figure 13 - Zero-day admissions rate as a % of population, 85+ age group. (Source: HES dataset)


Multi-day admissions rate as a % of population (All ages)
9%
8%
7%
6%
5%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Multi-day admissions rate as a % of population (All ages)
9%
8%
7%
6%
5%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



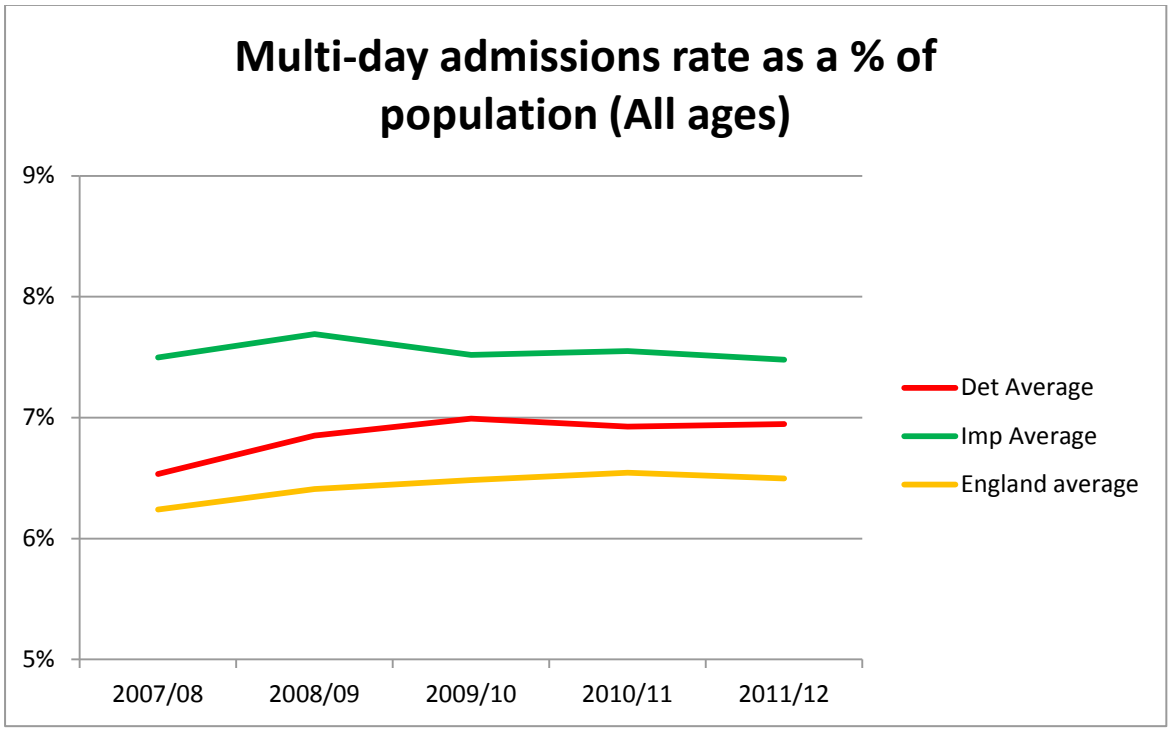
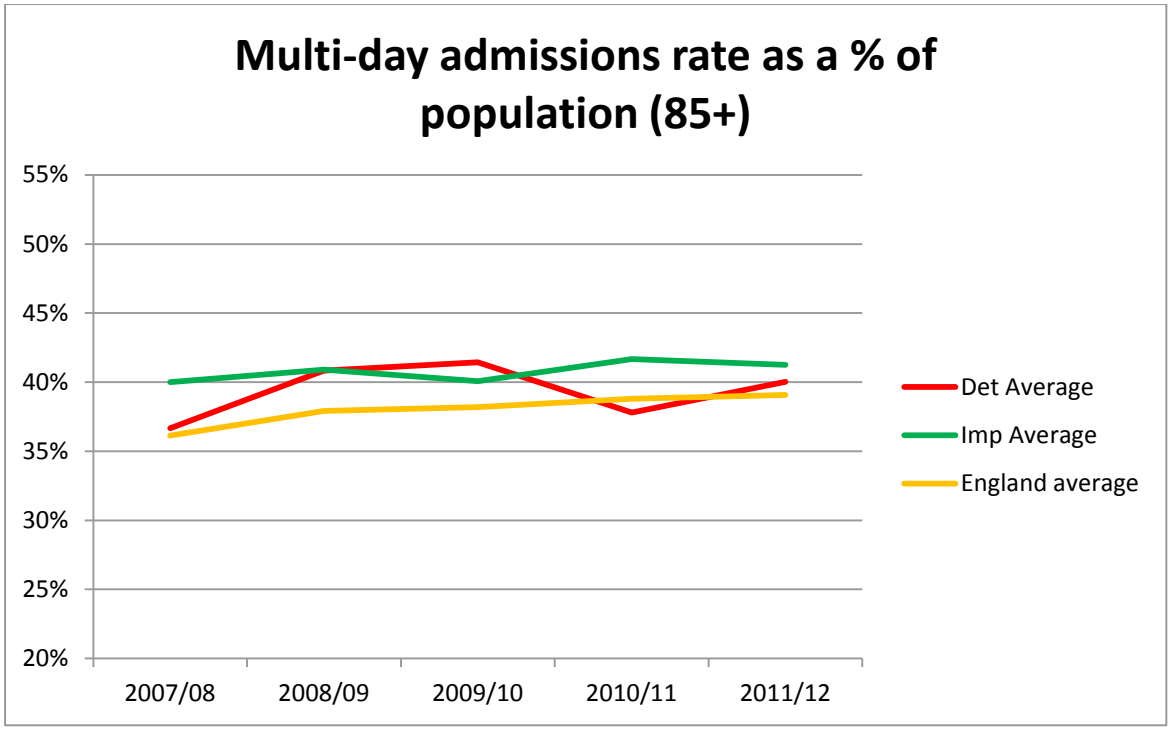
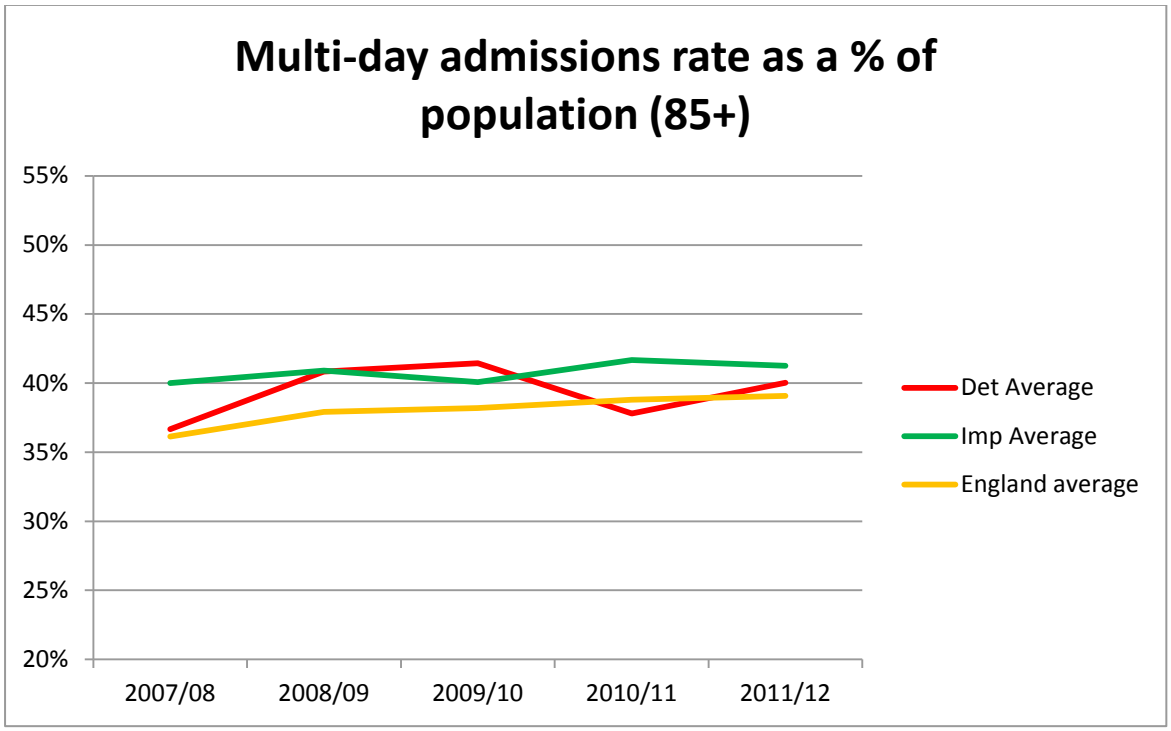
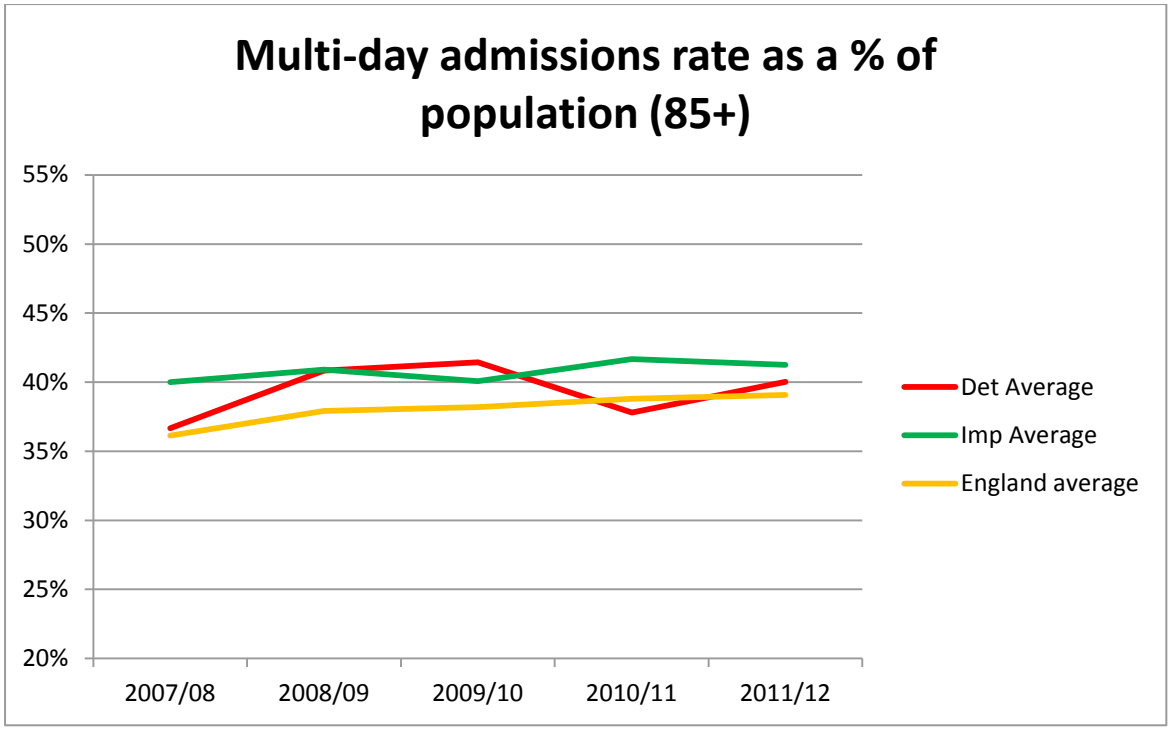


Figure 14 - Multi-day admissions rate as a % of population, all ages. (Source: HES dataset)


Multi-day admissions rate as a % of population (85+)
55%
50%
45%
40%
35%
30%
25%
20%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Multi-day admissions rate as a % of population (85+)
55%
50%
45%
40%
35%
30%
25%
20%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



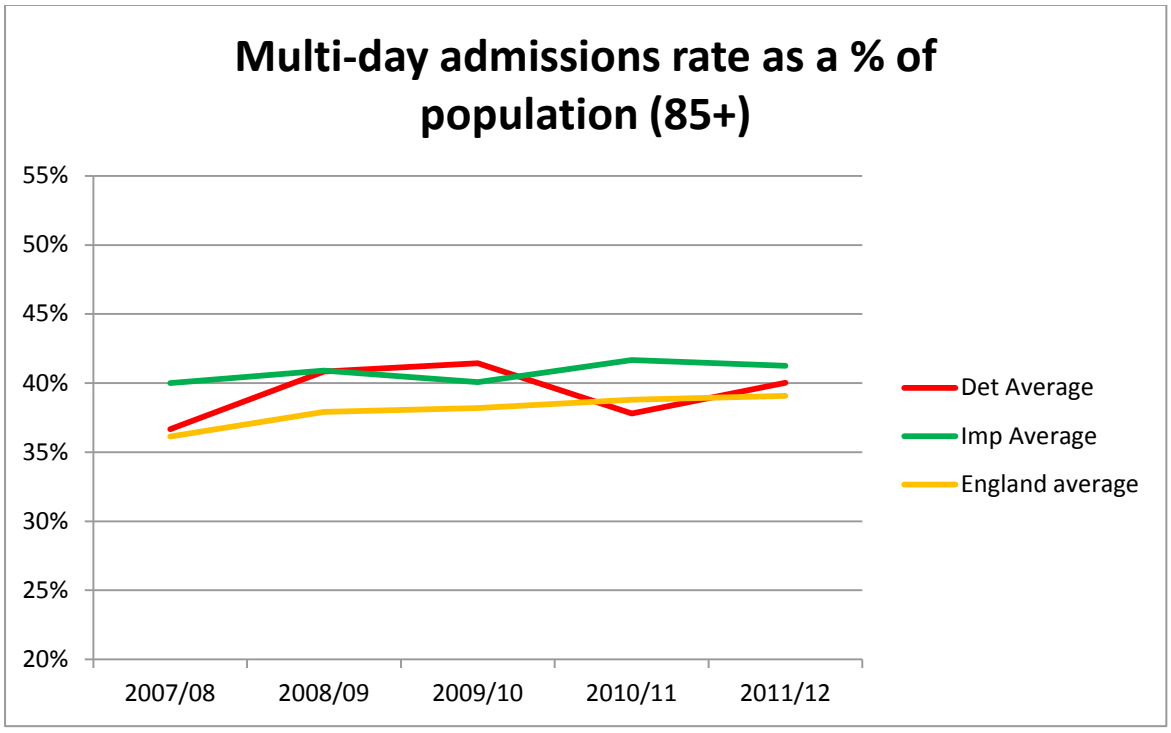


Figure 15 - Multi-day admissions rate as a % of population, 85+ age group. (Source: HES dataset)

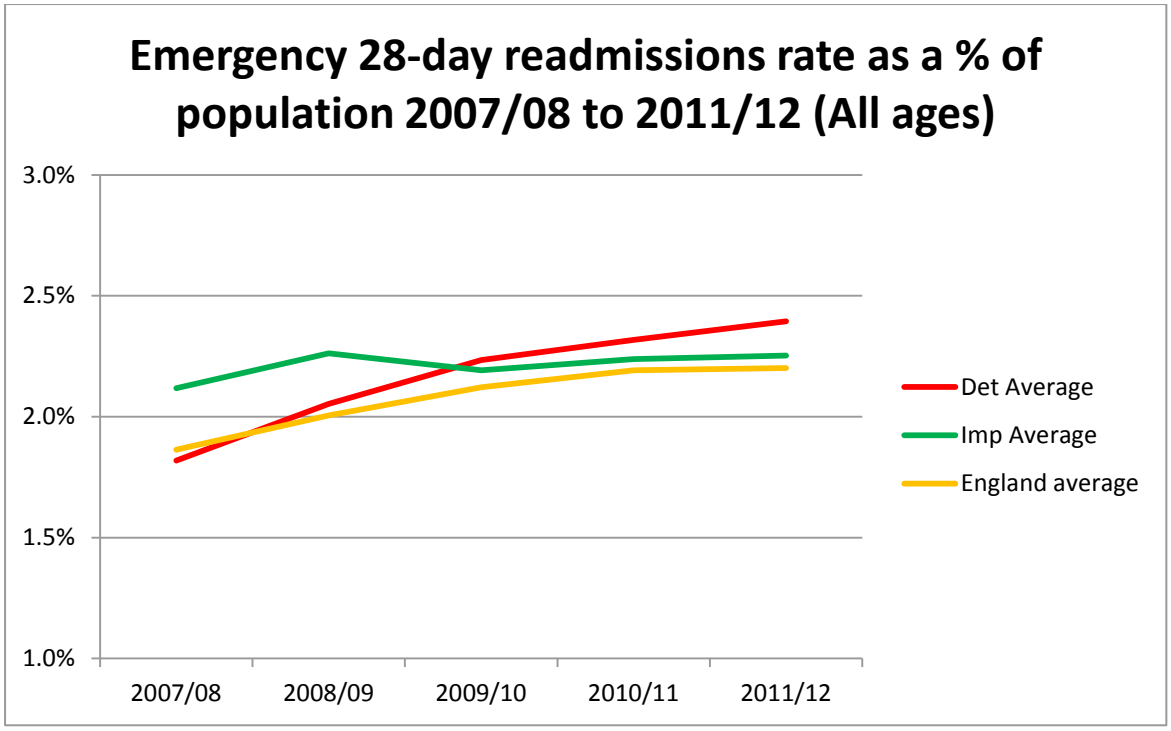
4.1.4 Emergency readmissions within 28 days of discharge

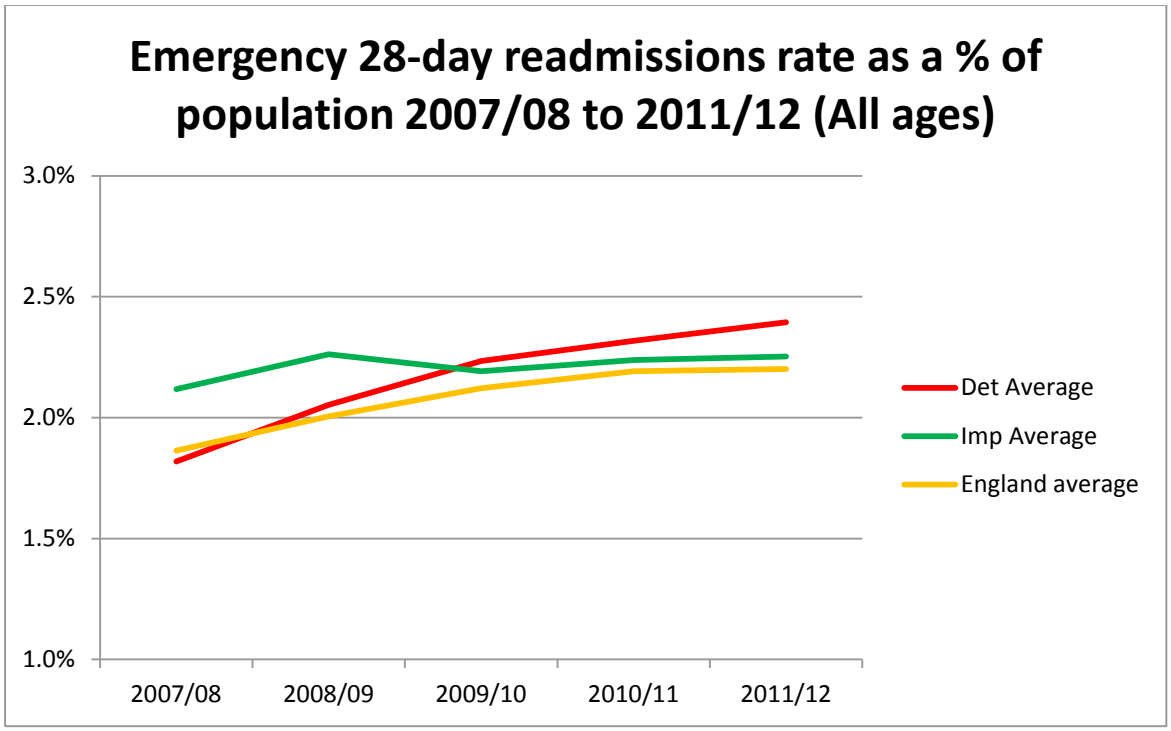
The numbers of emergency readmissions within 28 days of a previous admission were calculated by populating an additional field in the HES Database table with the date difference in days from the discharge date to the admission date. This was done regardless of the type of index admission, and so included planned admissions. This yielded the number of emergency admissions following an earlier discharge within 28 days. The number of readmissions for the first year was adjusted by one half of 28/365 (=0.038356) to account for lack of data on admissions in the preceding 28 days.

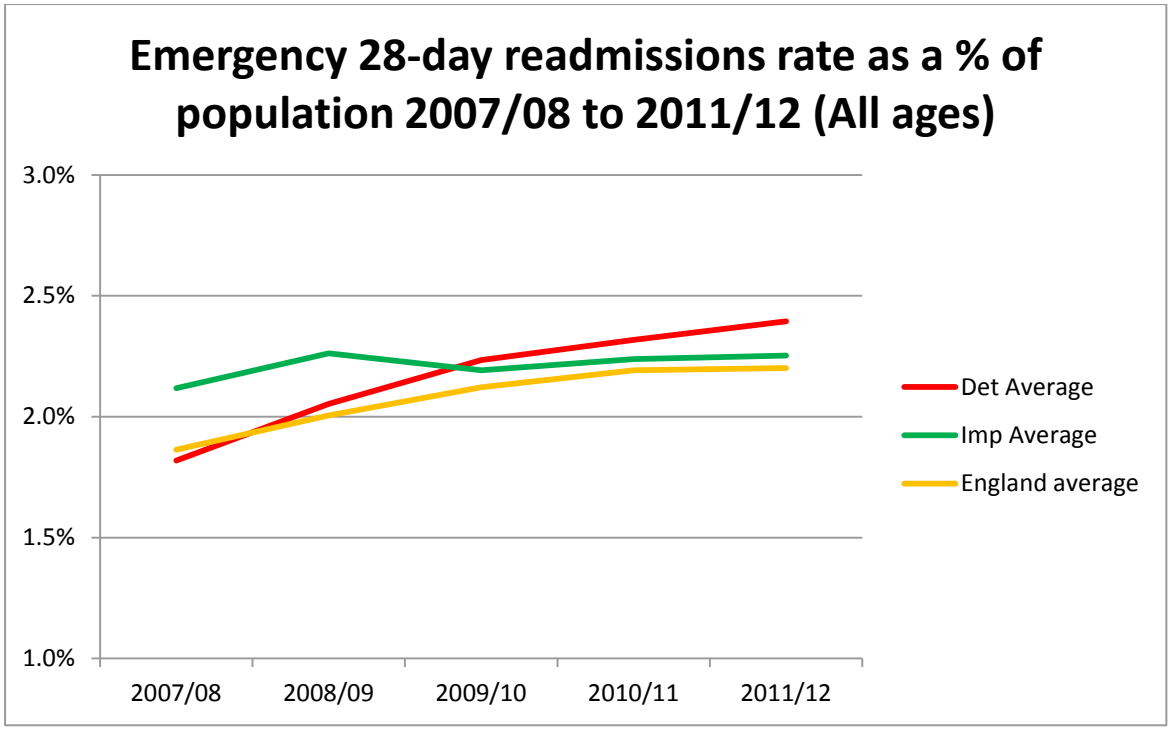
a) Emergency readmission rates as a percentage of the population

i) All ages

Across England, readmission rates increased from 2.0% to 2.2% of the total population between 2007/8 and 2011/12. Deteriorating sites started at close to this average, but showed a larger increase. In contrast, improving sites started above average but finished below.


Emergency 28-day readmissions rate as a % of population 2007/08 to 2011/12 (All ages)
3.0%
2.5%
2.0%
1.5%
1.0%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Emergency 28-day readmissions rate as a % of population 2007/08 to 2011/12 (All ages)
3.0%
2.5%
2.0%
1.5%
1.0%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



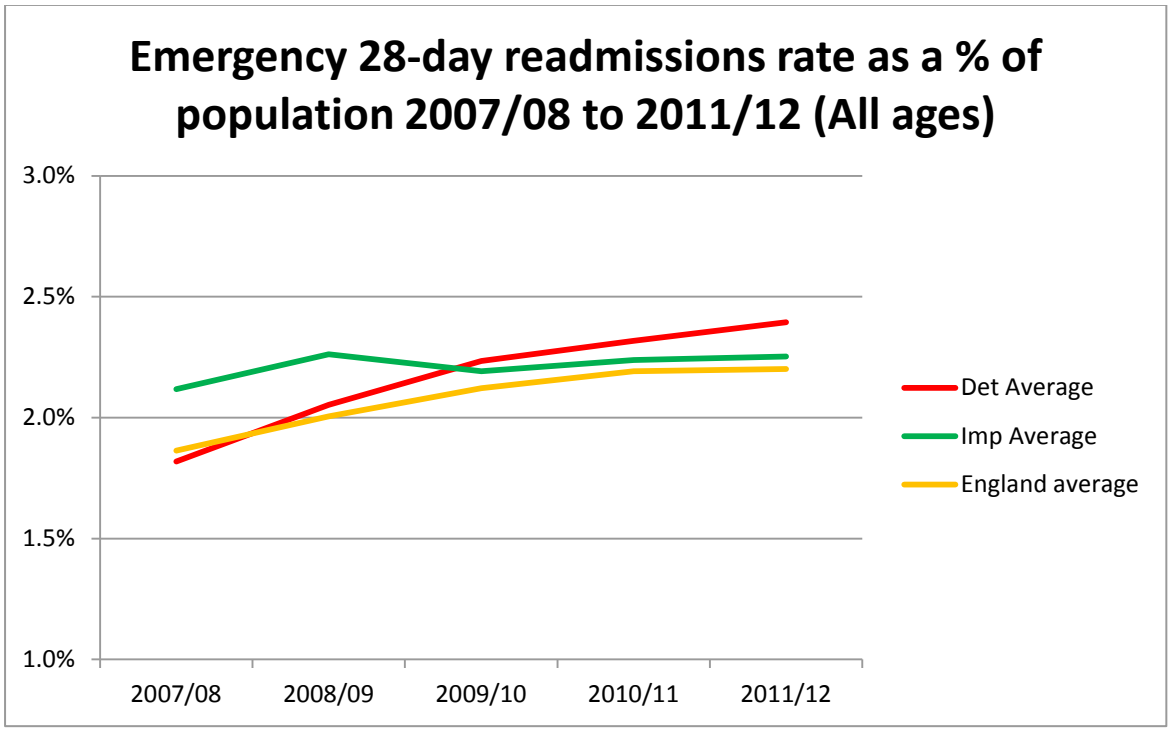
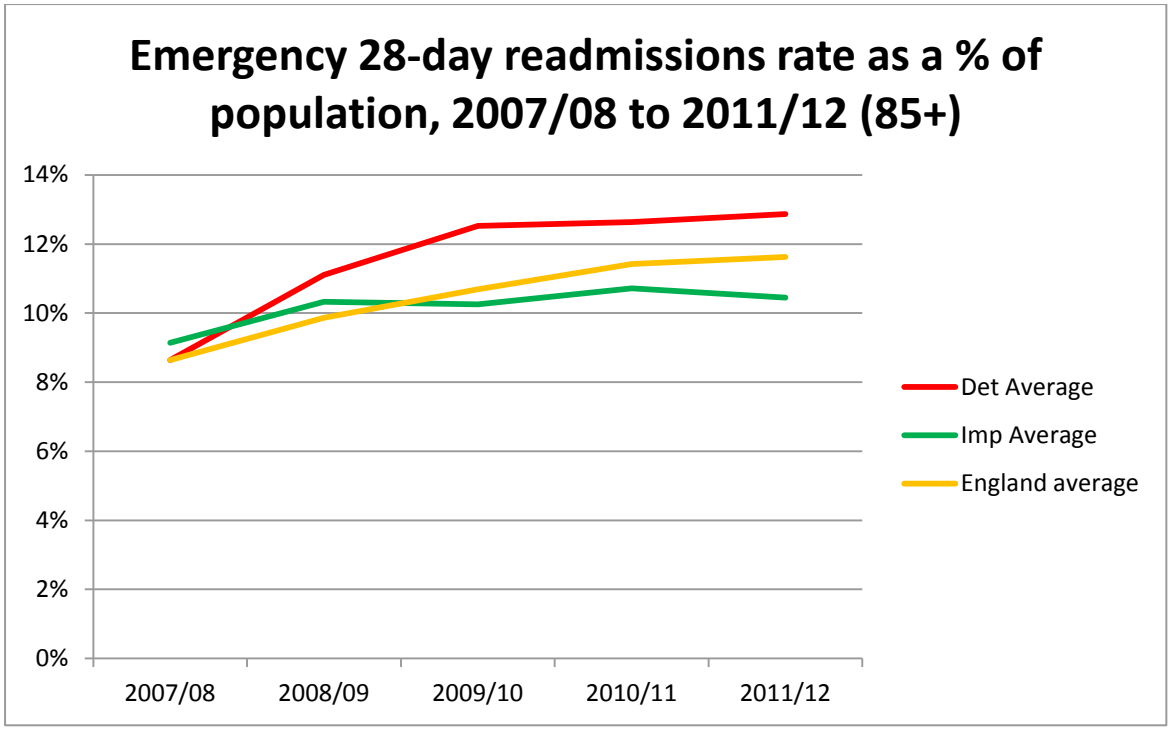
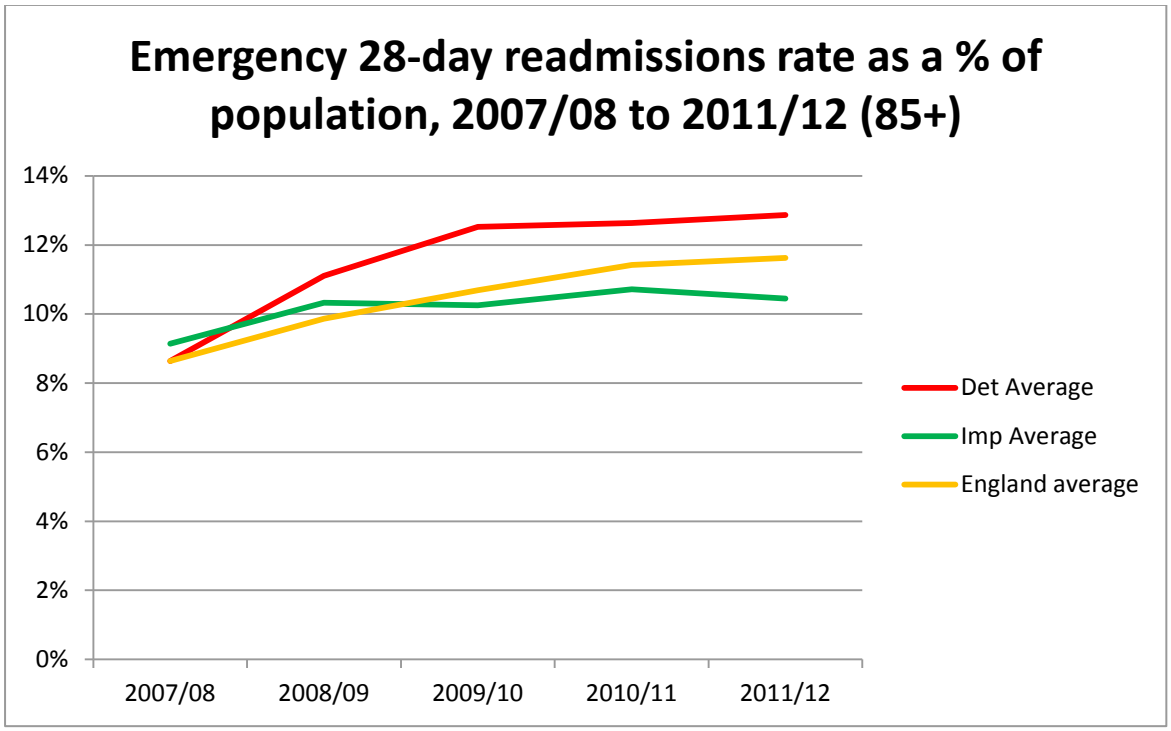


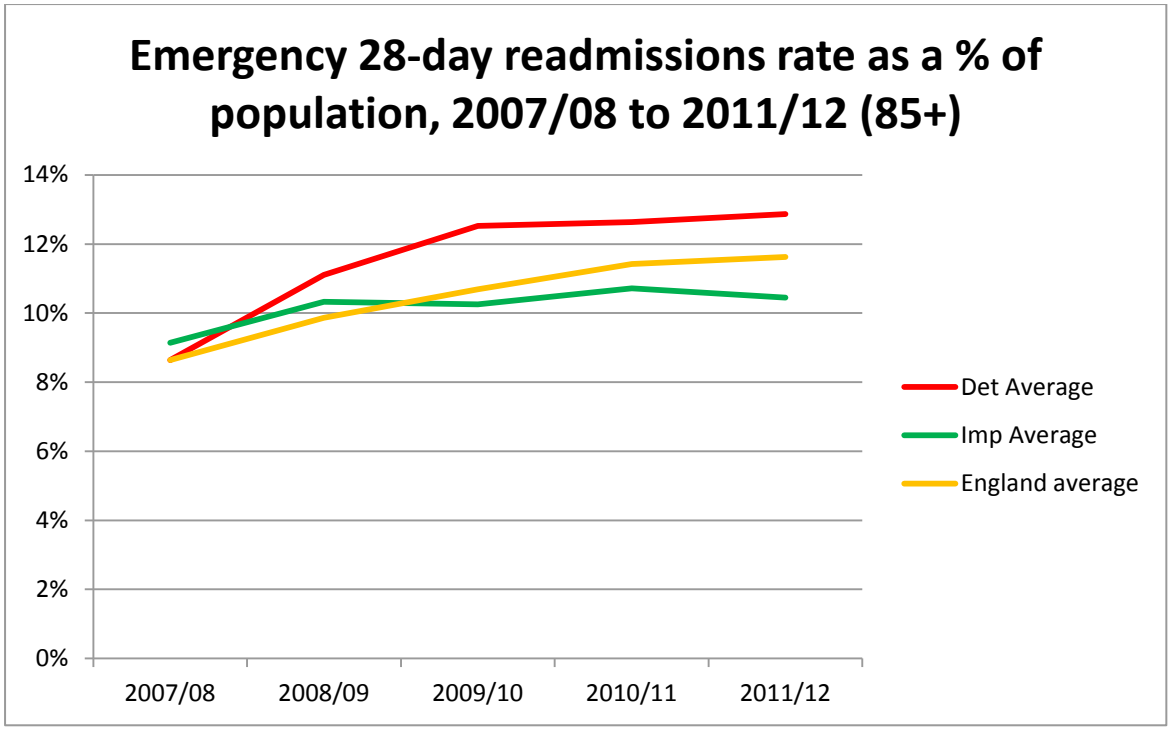
Figure 16 - Emergency 28-day readmissions rate as a % of population, 2007/08 to 2011/12, all ages. (Source: HES dataset)

ii) Age group 85+

Readmission rates in this age group were higher but showed similar time trends. Both improving and deteriorating sites started close to the English average, but at the end of the period, rates were 12.3% in the deteriorating group compared with 10.4 in the improving group.


Emergency 28-day readmissions rate as a % of population, 2007/08 to 2011/12 (85+)
14%
12%
10%
8%
6%
4%
2%
0%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Emergency 28-day readmissions rate as a % of population, 2007/08 to 2011/12 (85+)
14%
12%
10%
8%
6%
4%
2%
0%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



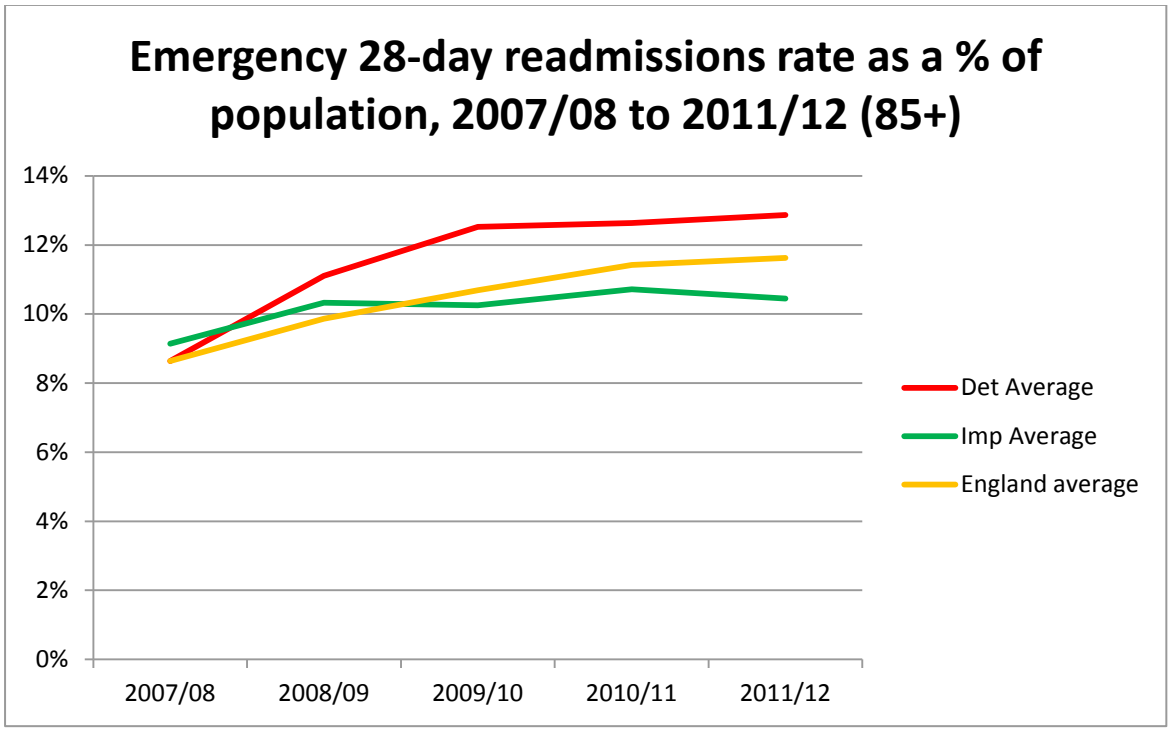
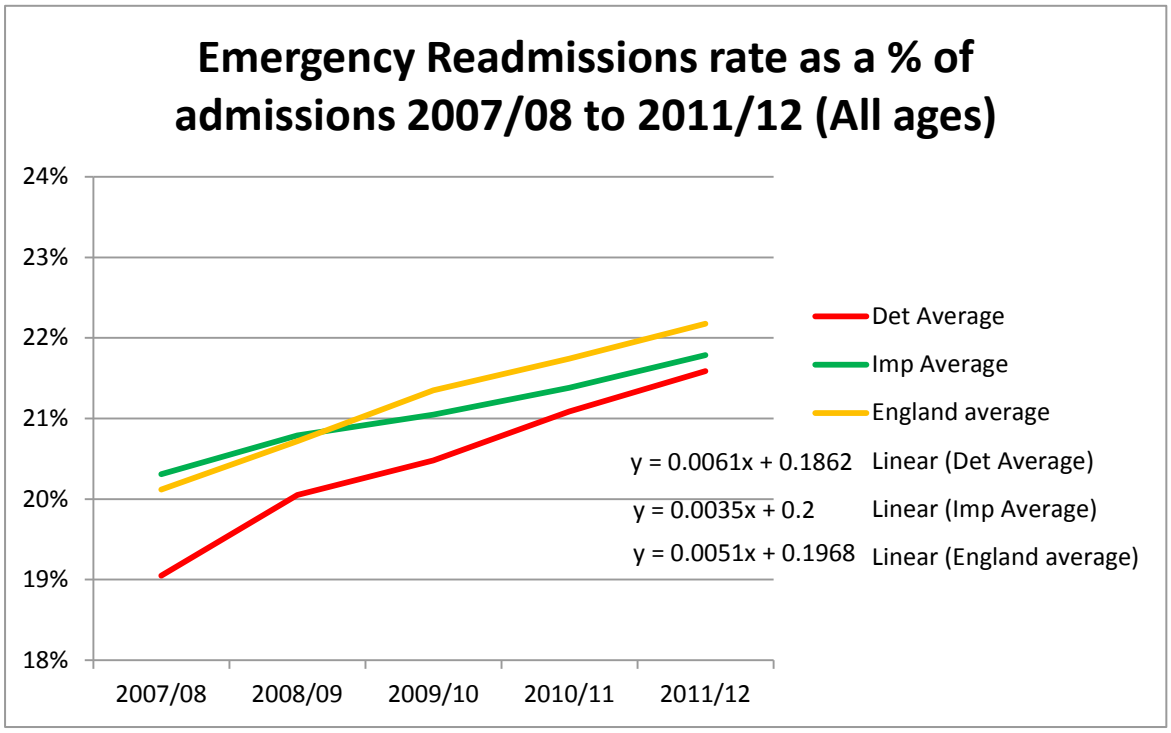


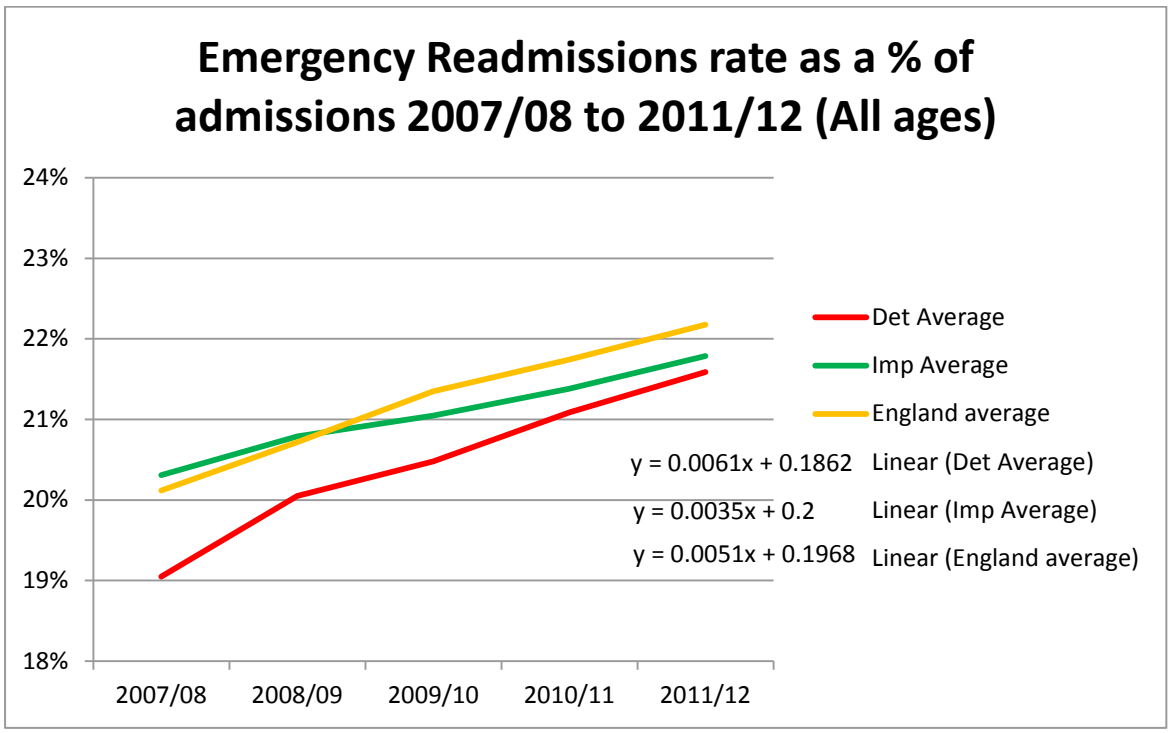
Figure 17 - Emergency 28-day readmissions rate as a % of population, 2007/08 to 2011/12, 85+ age group. (Source: HES dataset)

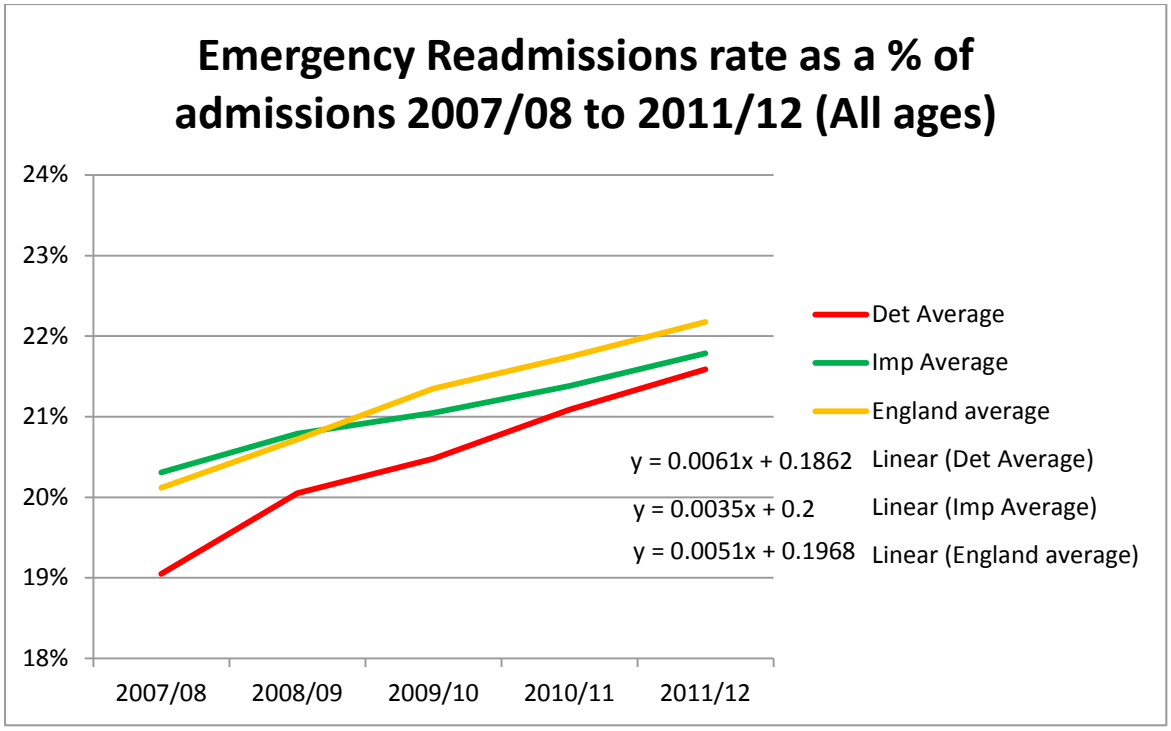
b) Emergency readmission rates as a percentage of admissions

Since admission rates and the readmission rates show similar trends, the ratio between them should be close to constant. This is what we observe in both graphs – for all ages and for the age group 85+. There is a slight trend of increase in the ratio, with the slope of the trendline for all ages in the deteriorating sites (=0.61%) being higher than the slope of the trendline for the improving sites (=0.35%) and closer to the England average (=0.51%), which suggests that the readmission rates are rising more than the admission rates in the deteriorating sites. In 2011/12, for those aged 85+, emergency readmissions comprised 23% of admissions, compared with 21% in improving sites.

i) All ages


Emergency Readmissions rate as a % of admissions 2007/08 to 2011/12 (All ages)
24%
23%
22%
21%
20%
19%
18%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average
y = 0.0061x + 0.1862
Linear (Det Average)
y = 0.0035x + 0.2
Linear (Imp Average)
y = 0.0051x + 0.1968
Linear (England average)


Emergency Readmissions rate as a % of admissions 2007/08 to 2011/12 (All ages)
24%
23%
22%
21%
20%
19%
18%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average
y = 0.0061x + 0.1862
Linear (Det Average)
y = 0.0035x + 0.2
Linear (Imp Average)
y = 0.0051x + 0.1968
Linear (England average)



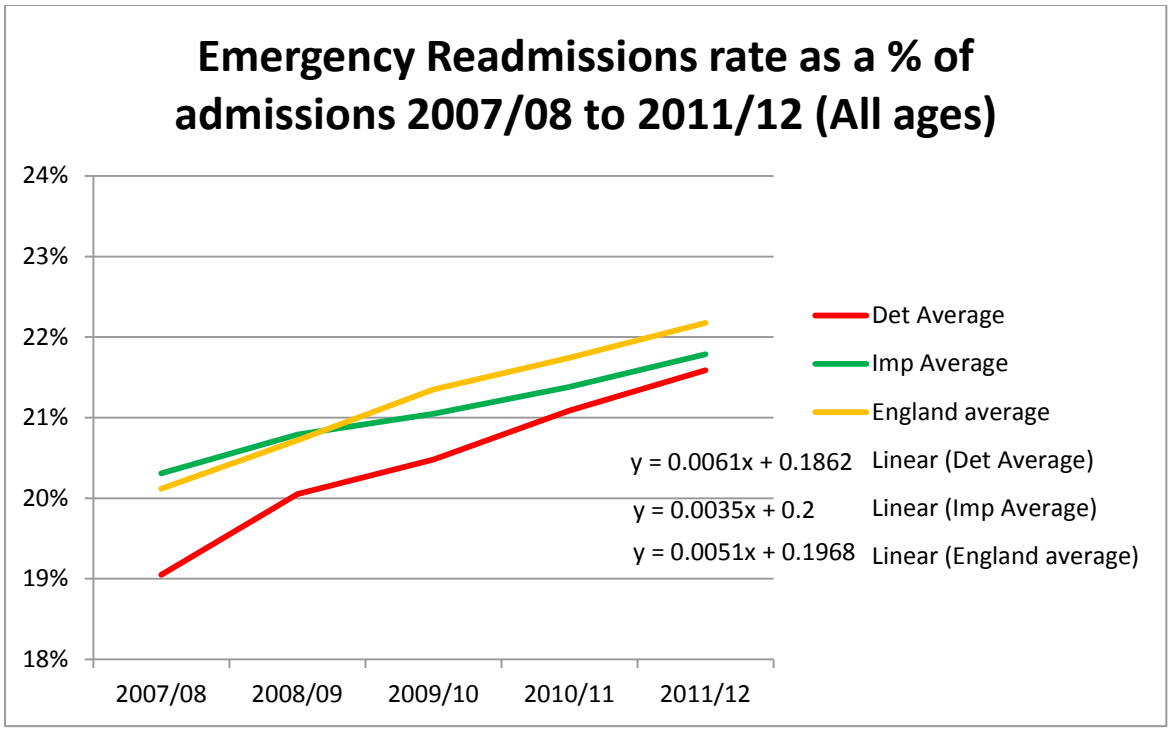
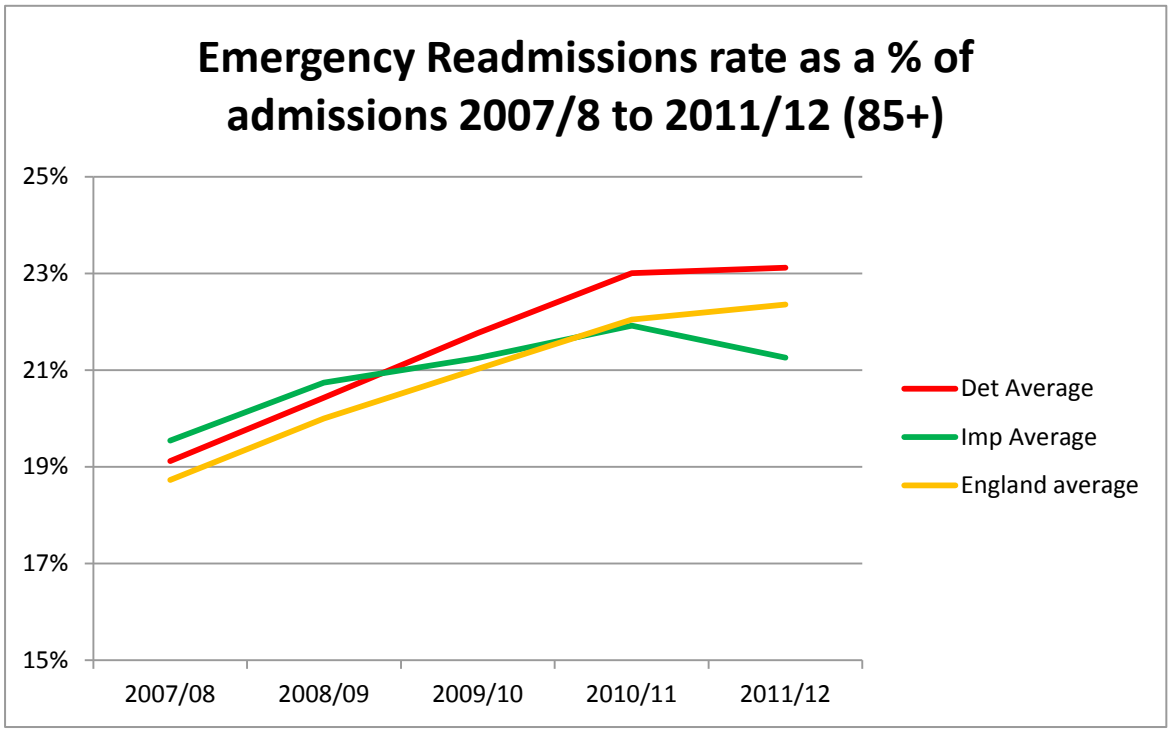
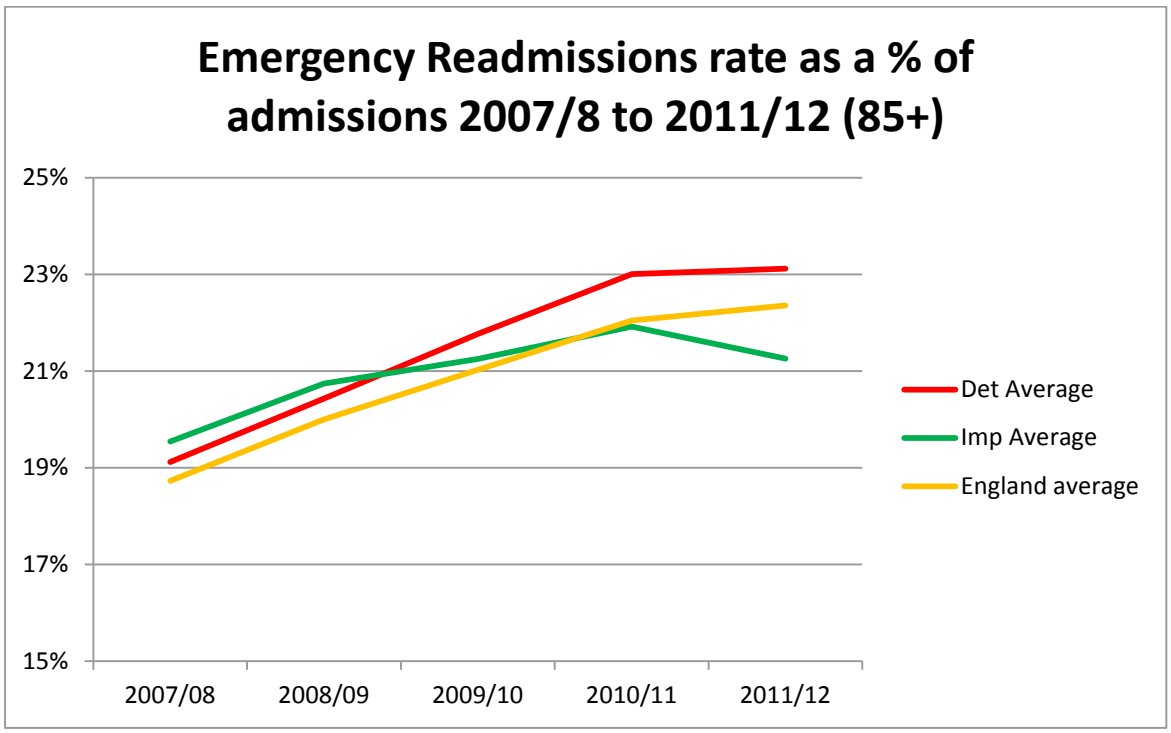
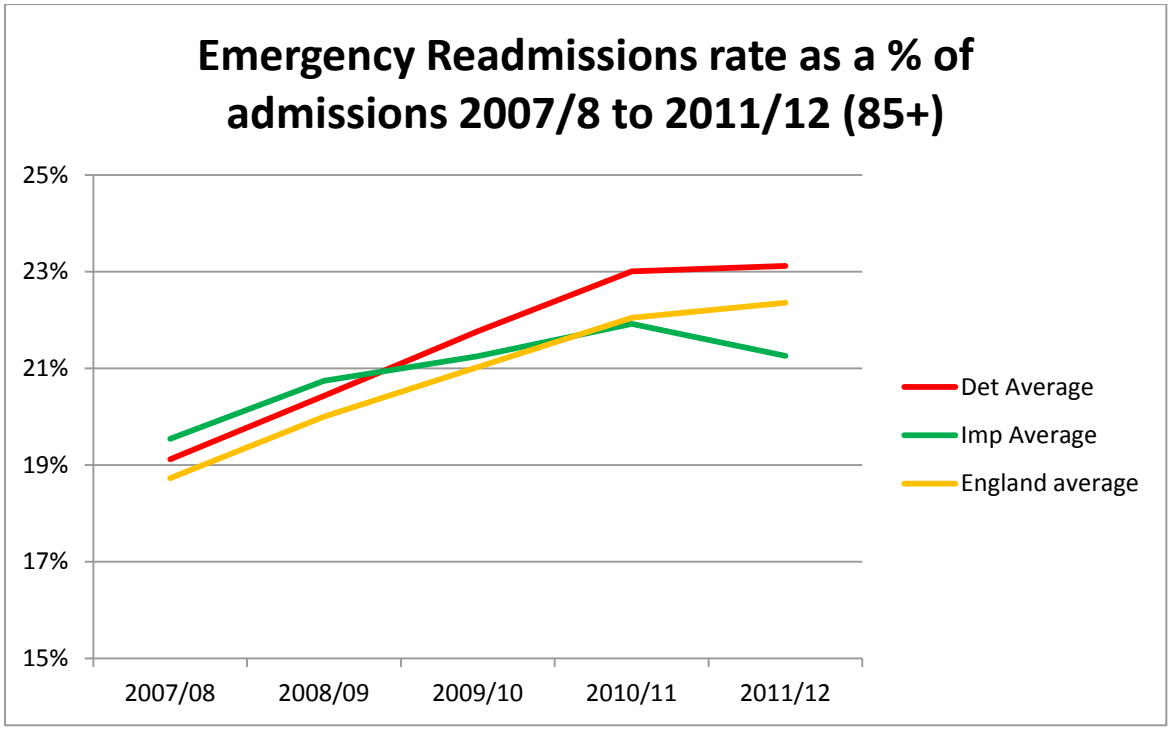


Figure 18 - Emergency Readmissions rate as a % of admissions, 2007/08 to 2011/12, all ages. (Source: HES dataset)

ii) Age group 85+







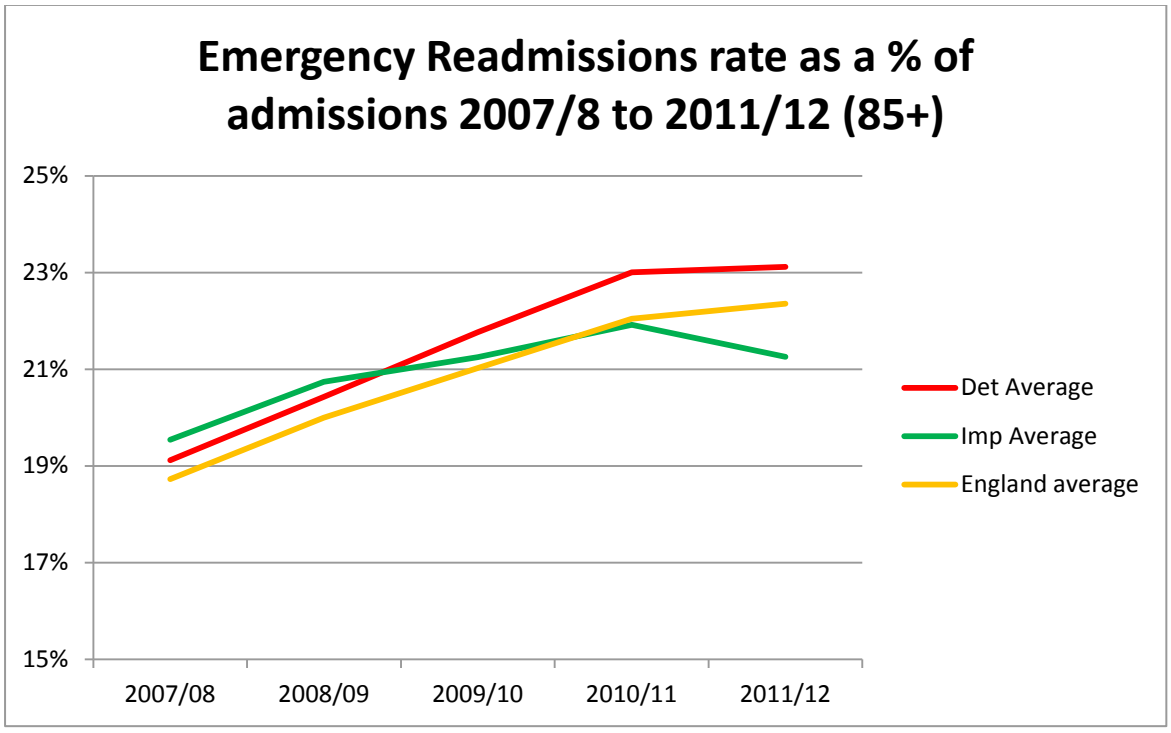


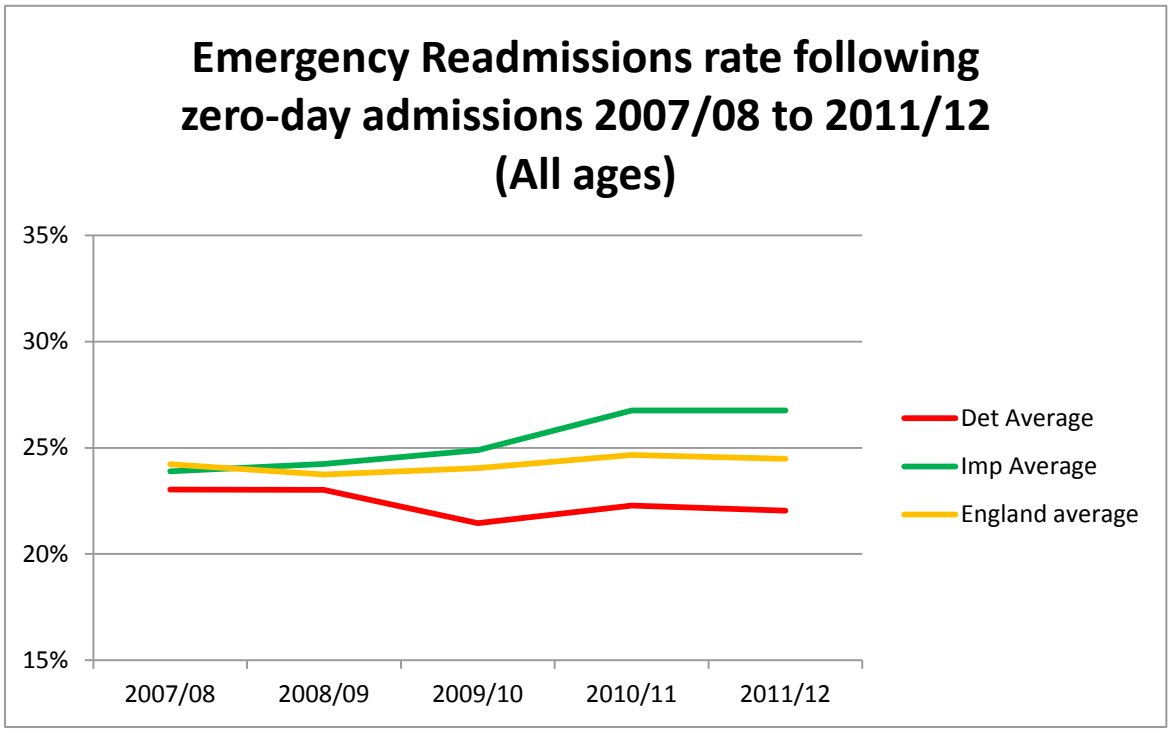
Figure 19 - Emergency Readmissions rate as a % of admissions, 2007/08 to 2011/12, 85+ age group. (Source: HES dataset)

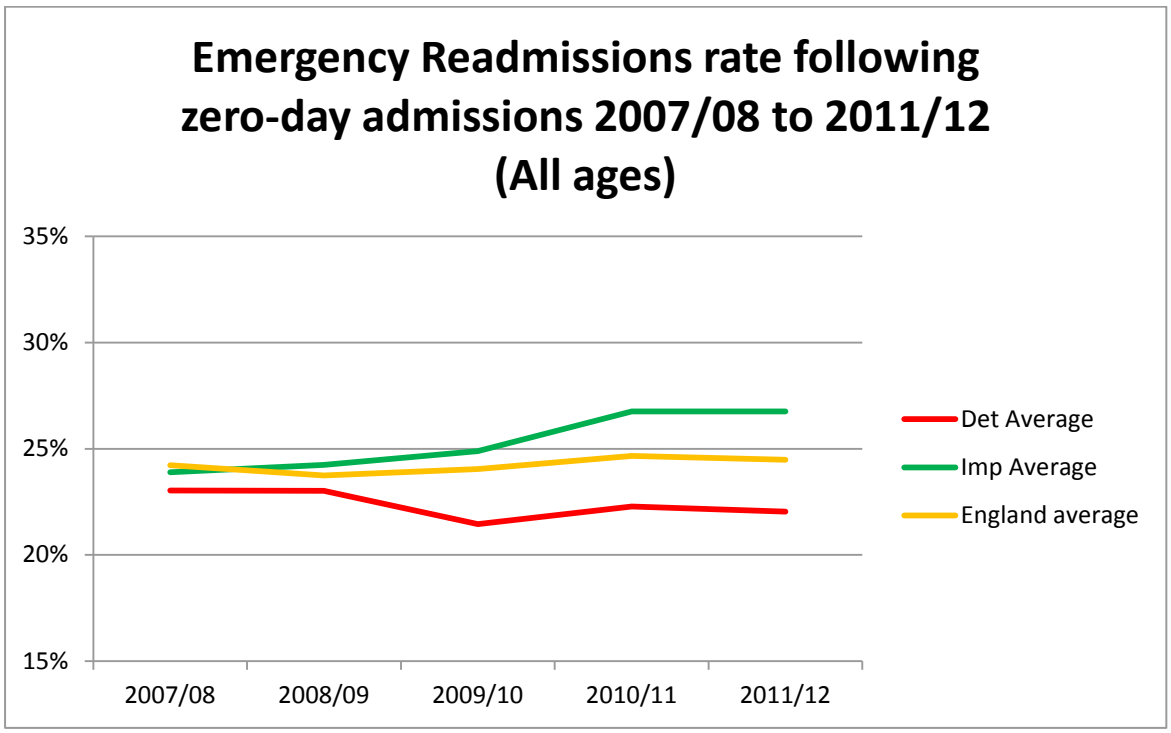
c) Emergency readmission rates following zero-day admissions

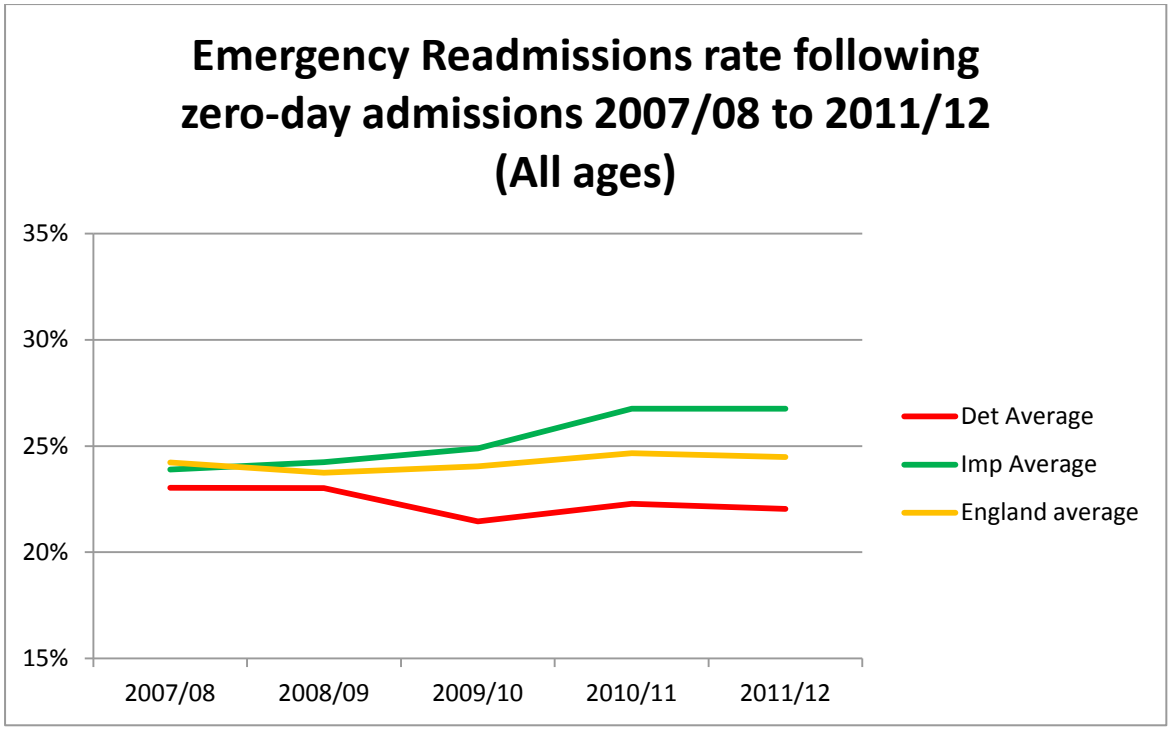
Emergency readmissions rates following zero-day admissions were higher in improving sites, and this was more pronounced in those aged 85+. There was an inverse relationship between zero-day

admission rates and readmission rates following this type of admission. In the deteriorating sites one-day admission rates for all age groups rose from about 3% to about 4%, while the associated readmission rates fell from 23% to 22%. Conversely, the one-day admission rates for all age groups in the improving sites fell slightly falling from 3.2% to 3.0% of the population, while the associated readmission rates rose from 24% to 27%. This suggests that the absolute numbers of the readmissions tend to remain stable, and the rates are affected mainly by the rising and falling admission numbers. It might also suggest that in improving sites, people admitted for zero days are more ill, and so more likely to be readmitted.

i) All ages


Emergency Readmissions rate following zero-day admissions 2007/08 to 2011/12 (All ages)
35%
30%
25%
20%
15%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average


Emergency Readmissions rate following zero-day admissions 2007/08 to 2011/12 (All ages)
35%
30%
25%
20%
15%
2007/08
2008/09
2009/10
2010/11
2011/12
Det Average
Imp Average
England average



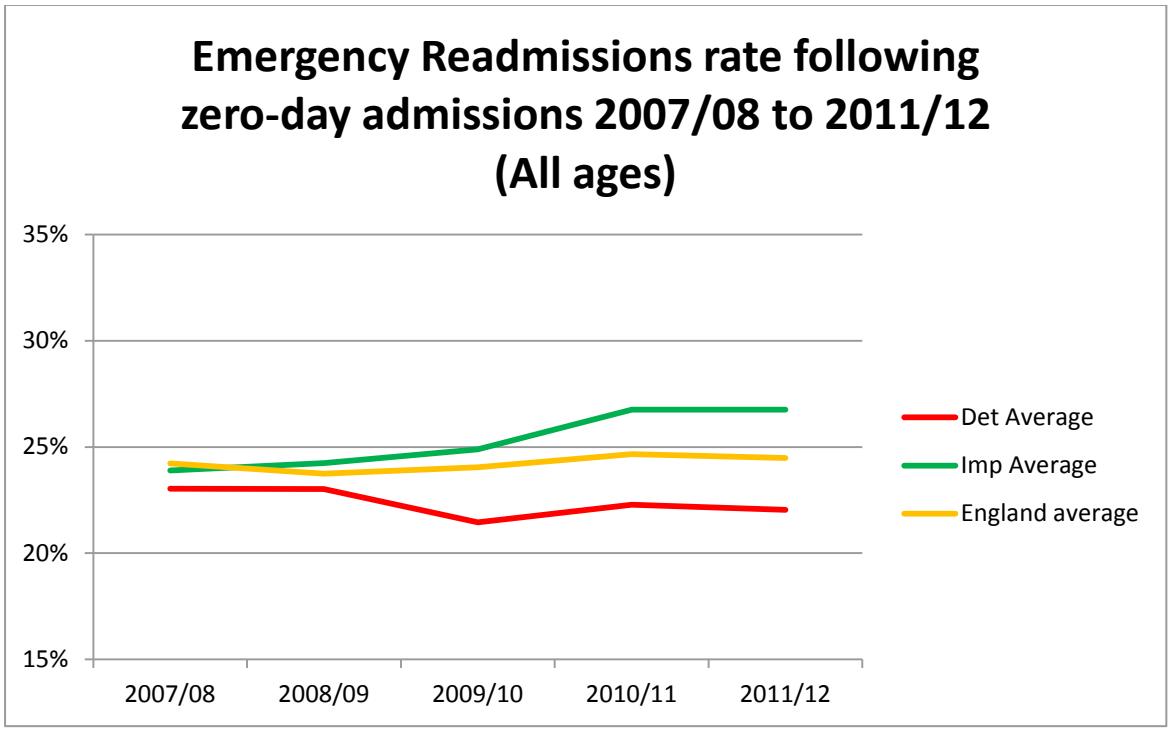
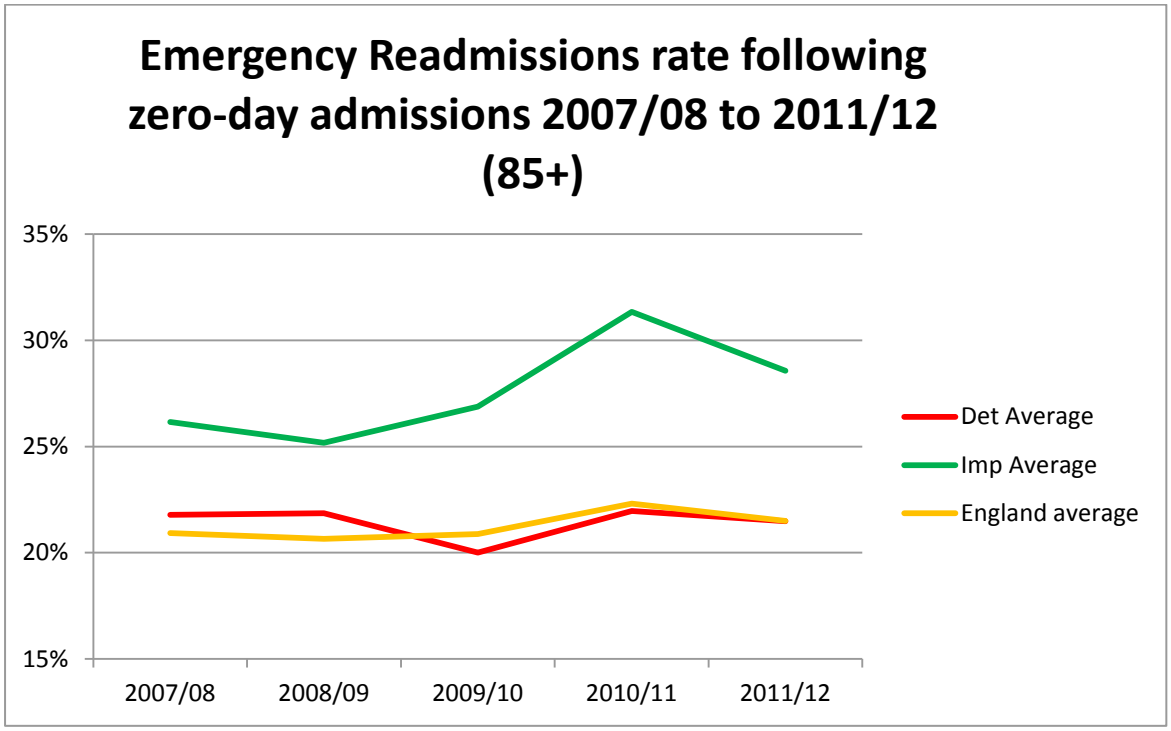
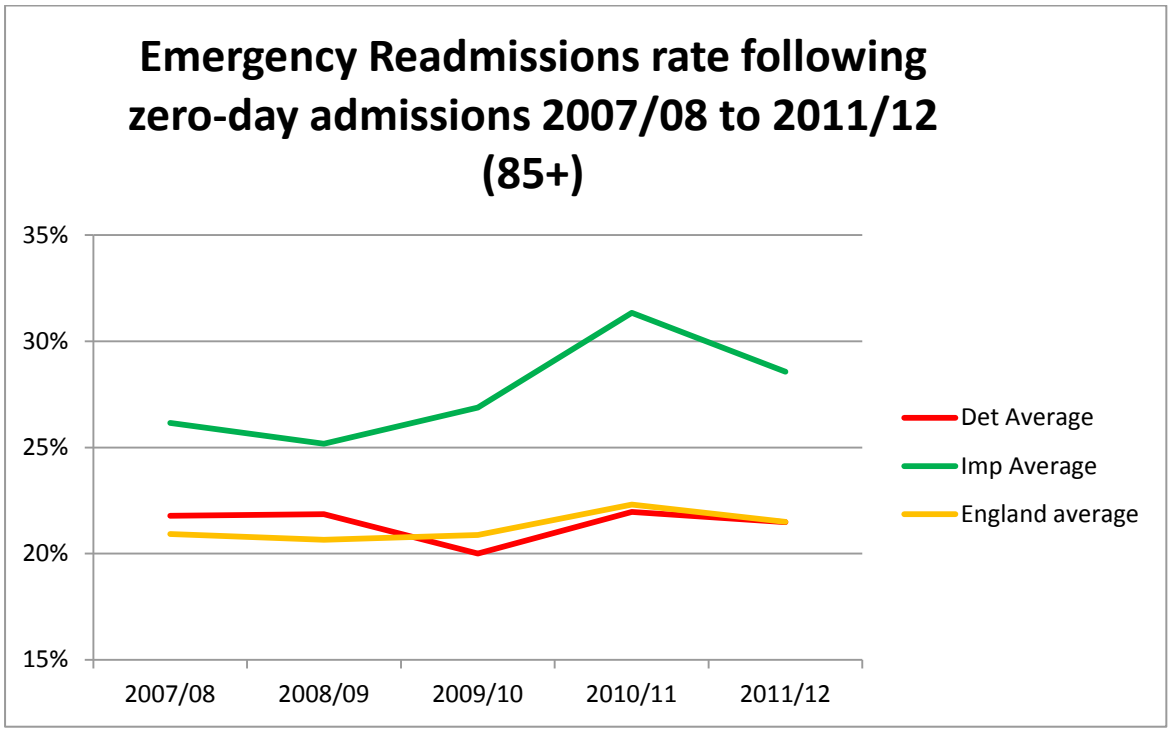


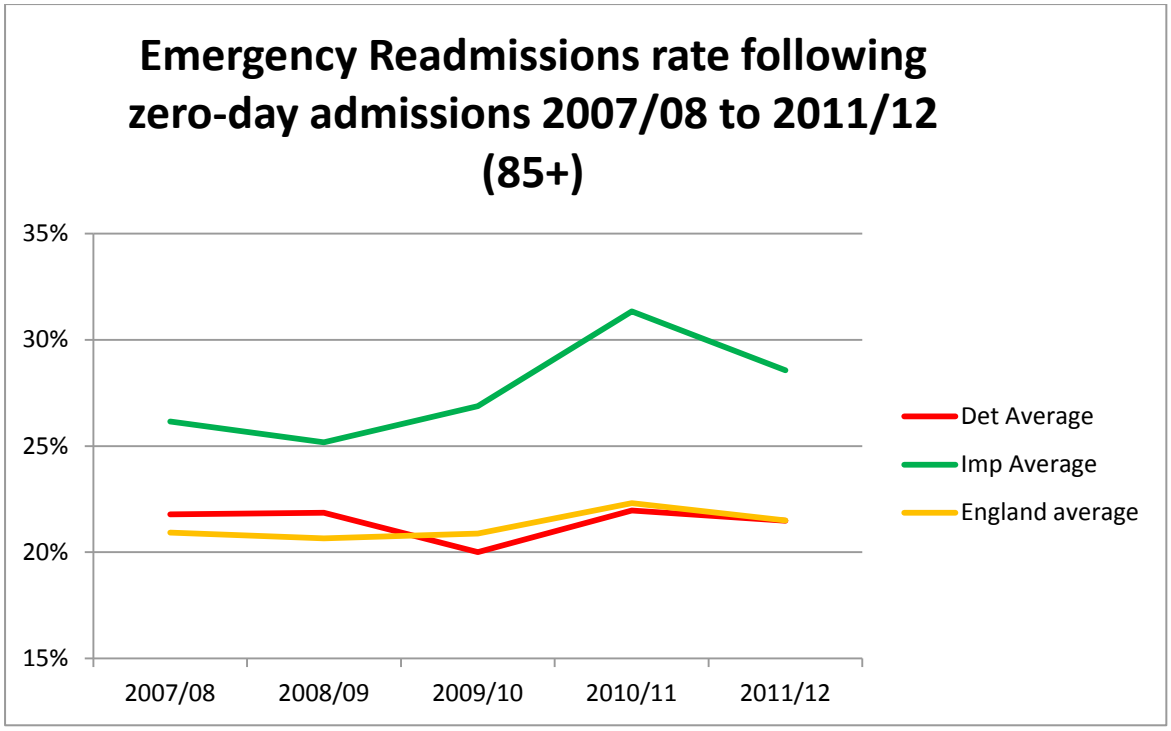
Figure 20 - Emergency Readmissions rate following zero-day admissions, 2007/08 to 2011/12, all ages. (Source: HES dataset)

ii) Age group 85+

The pattern for the age group of 85+ resembles the one for all ages. Deteriorating sites are very close to the English average, whereas readmission rates for improving sites are much higher.







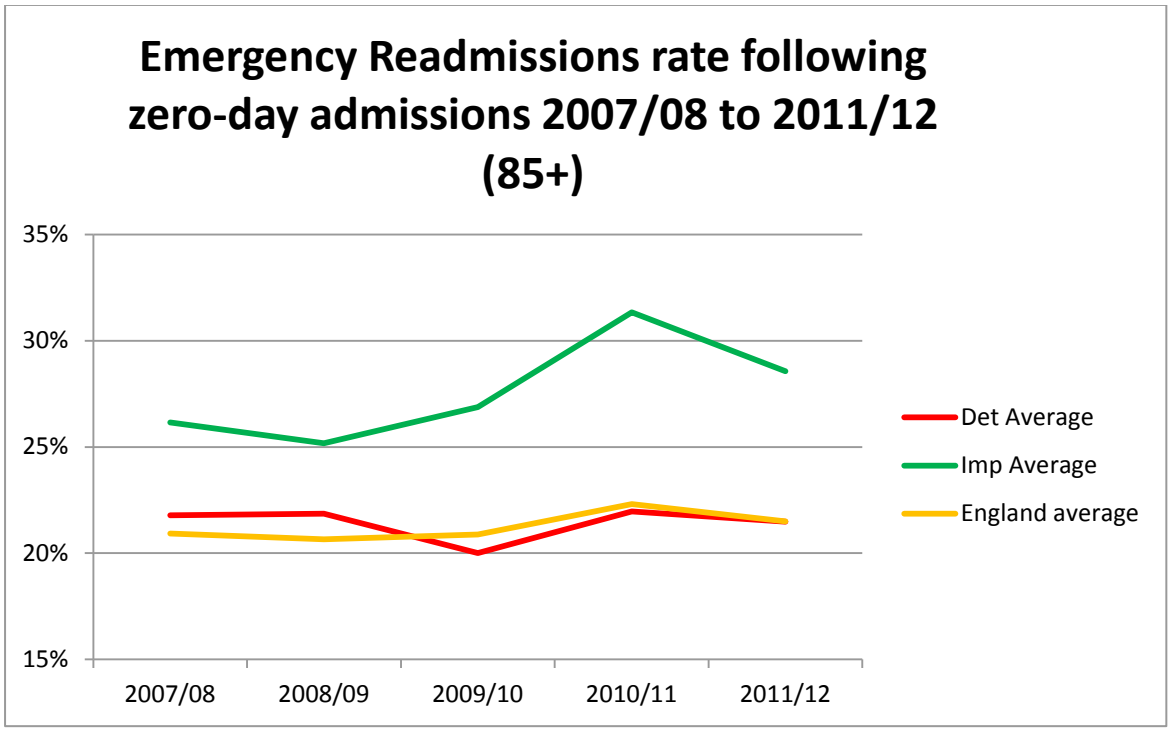


Figure 21 - Emergency Readmissions rate following zero-day admissions, 2007/08 to 2011/12, 85+ age group. (Source: HES dataset)

4.1.5 Admission to and from care homes

We aimed to examine differences in admissions from care homes as the literature suggests initiatives based in these settings may be effective in reducing unplanned admissions. Unfortunately it was clear from examining HES data that these fields had not been reliably completed as shown in *Table 4*, and so no conclusions are possible. Similarly, there were no reliable data for discharges to care homes.

Table 4 - Recorded number of 85+ from care homes, 2007/08 to 2011/12. (Source: HES dataset)

	2007/08	2008/09	2009/10	2010/11	2011/12
Deteriorating Site 1	91	54	17	13	6
Deteriorating Site 2	57	59	21	32	24
Deteriorating Site 3	<5	<5	<5	<5	8
Deteriorating Average	**50**	**38**	**13**	**15**	**13**
Improving Site 1	9	5	5	<5	<5
Improving Site 2	<5	<5	<5	<5	<5
Improving Site 3	367	370	377	143	28
Improving Average	**126**	**125**	**128**	**49**	**10**

4.1.6 GP Survey

PCT level results from the GP survey [65] were examined for study sites. This survey is conducted regularly by Ipsos-MORI. In 2014, 2.63 million patients were sent a questionnaire, which they could complete by post, telephone or on line. As in previous years, a response rate of around 34% was achieved and from 2009/10 onwards the results are adjusted for age, ethnicity, deprivation etc.

Two questions about access which were included in 2008/09 to 2010/11 are shown in *Figure 22* and *Figure 23*. Similar questions were asked in 2007/08 and 2011/12, and this data is combined with the other 3 years. In all years, access scores were higher in improving than deteriorating sites, falling below and above the English average respectively. In all groups of sites ease of access declined between 2007 and 2009 and then levelled off, and differences between improving and deteriorating sites persisted. Similar results were found in response to a question about ability to obtain an appointment (data is available for only 2008/09 to 2010/11).

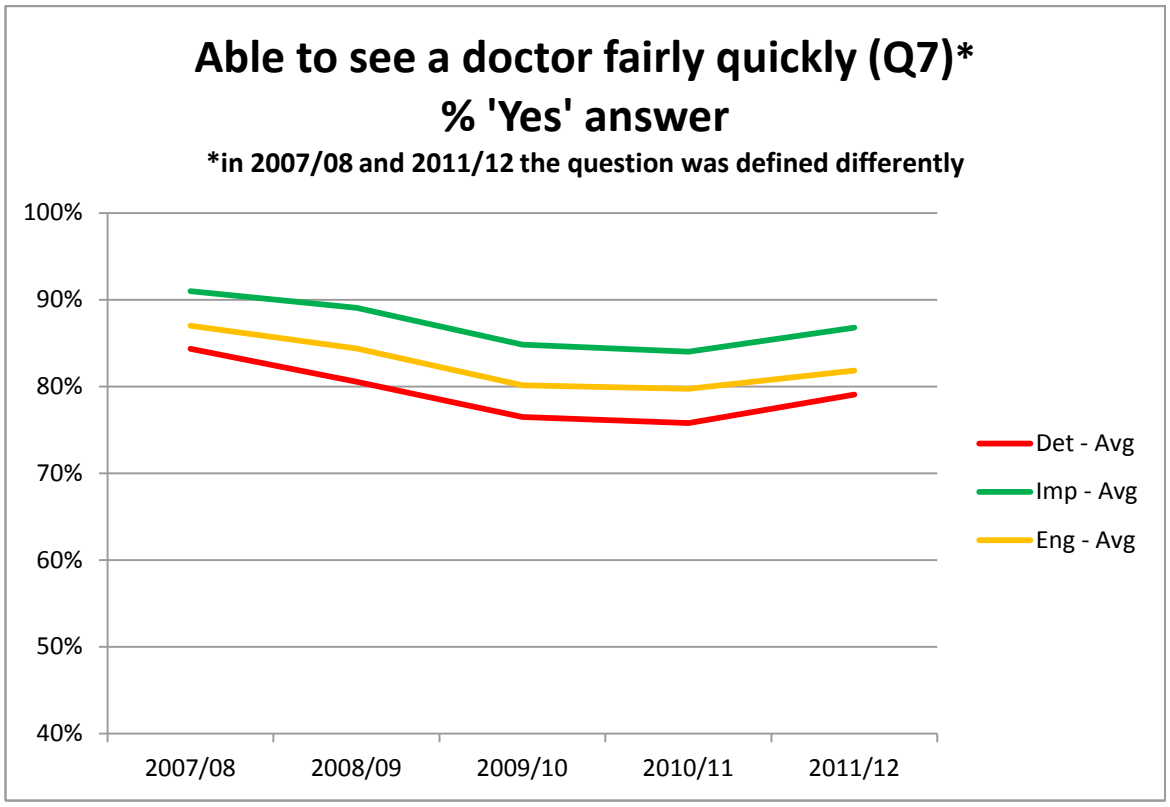


Figure 22 - Able to see a doctor fairly quickly (Question 7), % 'Yes' answer. (Source: http://www.gp-patient.co.uk/results/)

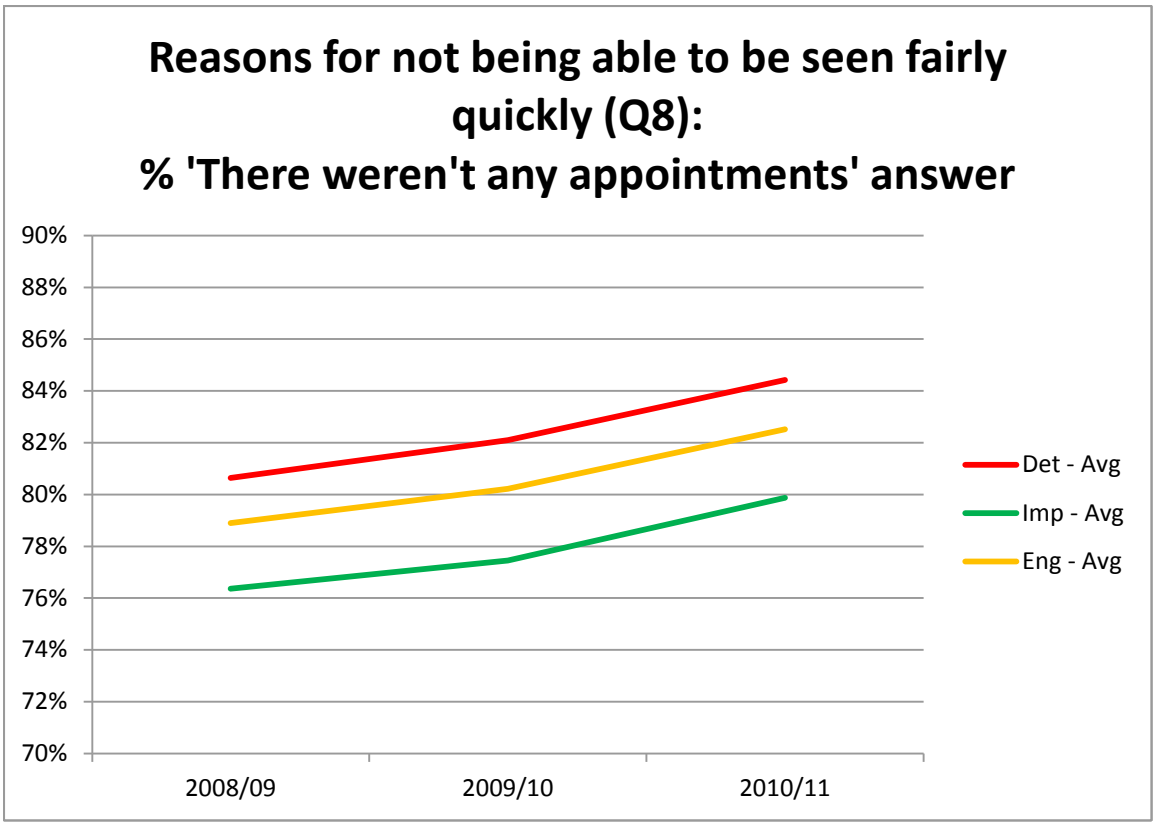


Figure 23 - Reasons for not being able to be seen fairly quickly (Question 8): % 'There weren't any appointments' answer. (Source: http://www.gp-patient.co.uk/results/)

The 2010/11 survey included a question about ease of contacting out of hours GP services by telephone. In deteriorating sites 23% reported it was 'not very easy or not at all easy' compared to 16% in improving sites.

4.1.7 Summary of quantitative findings

This analysis has revealed several factors that might explain differences in performance between improving and deteriorating sites, despite differences in admission rates for the 85+ being attenuated in the years after the period used to identify sites. The most important differences are the much lower proportion of zero-day admissions in improving sites, and lower overall readmission rates, suggesting that improving sites have been able to provide alternatives for these patients. The finding that readmission rates following one day admissions are higher in improving sites supports the suggestion that in these places more severely ill patients are being admitted. Another reason for differences in performance is changes in admission rates for acute ACSCs, which rose sharply in deteriorating sites and declined in improving sites. This could reflect lower provision of community

and GP services in these locations, as supported by evidence from the GP survey that access to GP services, including out of hours services was poorer. Furthermore, problems with GP access are associated with increased usage of emergency departments, which could itself increase admission rates, particularly for less than one day. The suggestion that both primary and secondary care services are under more strain in deteriorating sites is also supported by our finding that the oldest old population increased more rapidly in these locations.

4.2 Participants in qualitative interviews

We were able to gain participation from all key organisations in four of the six study sites. As outlined in the methods chapter, in site I1 the acute trust withdrew following a change of chief executive and the social services department declined to participate. In site D3, we were not able to secure an agreement with the social enterprise organisation with responsibility for community services. As shown in *Table 5* we interviewed over 140 individuals in total, including some focus groups, with the number of participants at each site ranging from 15-43. *Table 6* shows the background of those we interviewed. Across the sites we were able to capture the views of a range of professionals, including senior managers involved in commissioning and delivery, operational staff and clinicians from medicine, nursing and rehabilitation.

Table 5 - Participants at each site

Site	Acute Trust	PCT/CCG	Community Services	Social services	PPI	Total
I1	declined	2	13 (7 individual, 2 focus groups [n=2 and 4])	declined		15
I2	6	6	16 (7 individual, 2 focus groups [n=9]		Focus group (n= 5)	33
I3	5	3	24 (4 individual, 3 focus groups [n=6,6,8])	2	Focus group (n=9)	43
D1	7	3	3	2	Focus group (n=5)	20
D2	10	3	2	4	Focus group (n=5)	24
D3	2	3	declined	1	1	7
Total	30	20	58	9	25	142

Table 6 - Profile of participants

I1	I2	I3	D1	D2	D3
PCT/CCG	**PCT/CCG**	**PCT/CCG**	**PCT/CCG**	**PCT/CCG**	**PCT/CCG**
Locality transformation manager	Service lead, unplanned care	Commissioning manager planned care (nurse)	GP member, CCG	CCG chair (GP)	CCG board member (GP)
Commissioning manager, urgent care	Clinical lead, unplanned care	Commissioning manager urgent care	Head of Development	Urgent care lead (GP)	CCG lead, unscheduled care (GP)
Community Services	Nurse commissioner	Chief operating officer	Service redesign manager	Director of commissioning	Locality commissioning director
Manager, rehab	Strategic advisor, adult social care	Chief operating officer (nurse)	**Community Services**	**Community Services**	**Acute Trust**
Head, Re-ablement	Director of commissioning	**Community Services**	Director of operations	Clinical lead re-ablement (nurse)	Chief executive (medical)
Manager, end of life care	Commissioning chair (GP)	Medical director (GP)	Deputy director of operations	Mental health and dementia lead (nurse)	geriatrician
Head of adult services	**Community Services**	Manager, community nursing	General manager	**Acute Trust**	**Social Services**
Demand, capacity and resilience team leader	Chief executive (nurse)	Service lead, therapies	**Acute Trust**	Clinical director, unscheduled care	Head of policy, adult social care
Deputy head,	Head of service,	Clinical director (GP)	Coordinator, services	Divisional nurse	**PPI**

Community Services	intermediate tier		for older people	manager	
Advanced nurse practitioners	Team manager, intermediate care	Discharge coordinator (nurse)	Clinical Director, acute and elderly medicine	Manager, unscheduled care (2)	Head of Healthwatch
Head OT	Discharge team manager (nurse)	Team leaders, intermediate care (3)	Consultant in acute medicine	Matron	
Head Nurse	Advanced nurse practitioner, rapid response	Alternatives to hospital nurses (2), administrators (2)	Associate director, non-elective care	Manager, clinical assessment unit	
Team manager, integrated care	Manager , older people	Nurse practitioner, older people	Nurse specialist, older people	Clinical lead, clinical assessment unit	
Team manager , falls (physio)	Head of service, demand management and commissioning	Community Matrons (4)	Practice facilitator (matron)	Manager, medical assessment unit (nurse)	
GP and lead for Roving GP services	**Acute Trust**	Community Nurses (3)	**Social Services**	Manager, acute nursing	
	Clinical director, ED	**PPG**	Assistant director, adult social care	**Social Services**	
	Assistant director of operations	Older People's Parliament; chair and 5 members	Assistant director	Head, adult care services	
	Director of operations	Age UK project	**PPG**	Commissioning	

		Manager		manager	
	Manager, medicine group		Older people's partnership	Hospital social worker	
	Operations centre manager		Age UK	Manager, community rehab	
	Clinical director for medicine (geriatrician)			**PPG**	
	Social Services			Chair, User carer forum	
	Manager, adult social services			Members, User carer forum (4)	
	Manager, access and assessment				
	PPG				
	Chair of Engage				
	Voluntary worker				
	Care home manager				
	Lay member, CCG				

4.3 Site reports

A detailed qualitative case report can be found for each in-depth study in the Appendix D. These reports provide more detailed analysis of each site in terms of broader system configuration in line with the 7S framework and include illustrative extracts of data from study participants and other empirical sources. These case reports also provide summary tables for each site that draw out the main findings from each site, which were subsequently used to inform and develop recommendations for system improvement (see chapter 5). In this chapter, we draw on both quantitative and qualitative data to provide a brief descriptive overview of each study site and present an account of their main learning points. After reviewing each site, the chapter provides a cross-case comparison to draw out the main learning from both the deteriorating and improving groups with the aim of elaborating recommendations. It is worth noting that the primary focus of these short case summaries is on the organisation and delivery of unplanned care for patients aged 85 years and over between 2007-10, but where many other aspects of service configuration were described to the research team through comparison with current practices. For example, participants often talked of more recent initiatives as a way of highlighting previous shortcoming. As such, there is an inevitable hindsight bias to some of the accounts provided by participants and possibly a desire to present an improving picture. Readers are also encouraged to examine the more detailed case reports found in Appendix D where primary data supports the summary account provided below.

4.3.1 Deteriorating sites

Site D1

D1 PCT has a large urban population base, classified as a 'centre with industry' by ONS. For total population it ranked 56th out of 151 PCTs, and had higher than average population growth, including those aged 85+. Its deprivation rank is 43/151, meaning it is the most deprived third of PCTs. Its admissions rate for the age group of 85+ ranked 37th out of 143 PCTs , which is the second highest of the sites included in this report. 92% of acute admissions from the PCT are to the linked acute Trust. As shown in *Table 7* and *Table 8*, admission and readmission rates for older people aged 85+ rose more rapidly than the average for our deteriorating sites. Between 2010 and 2011, emergency admission rates for ACSC rose slightly, but less than the average for deteriorating sites. Results from

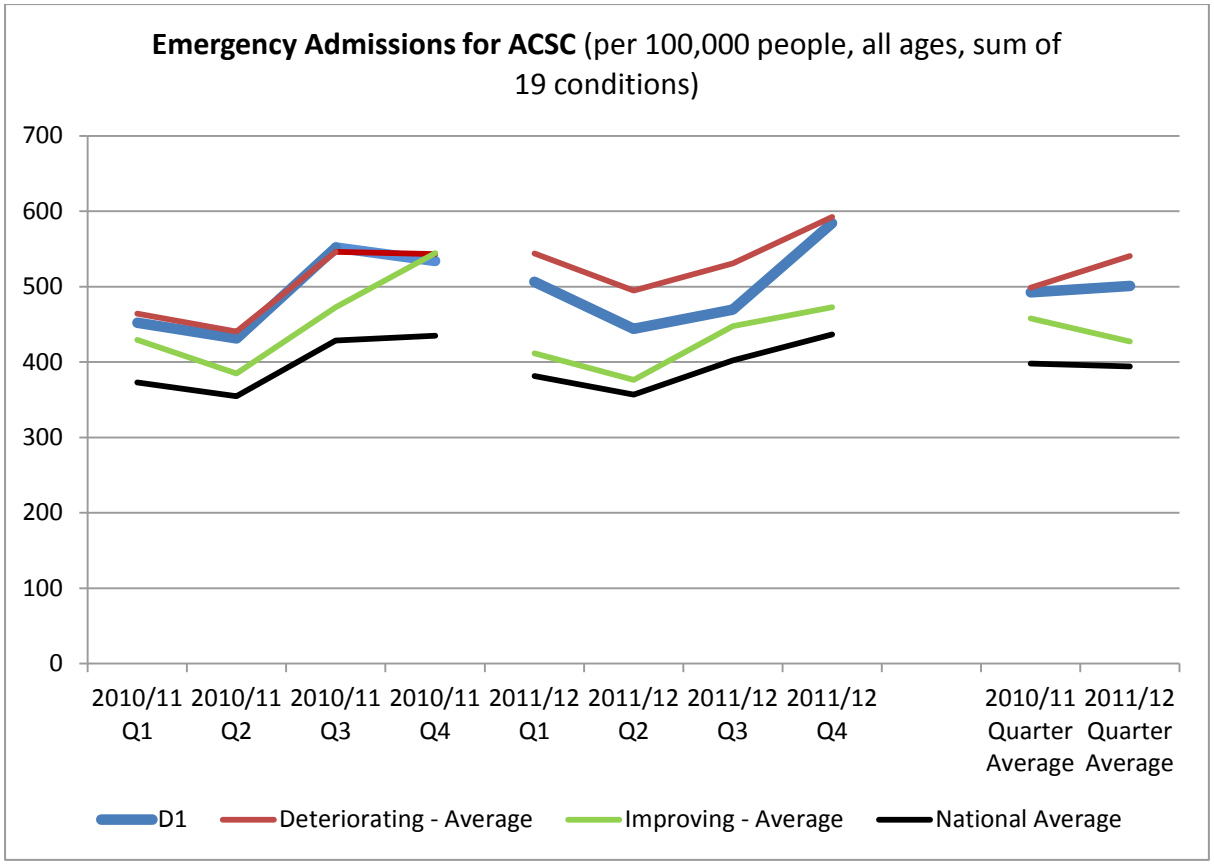
the GP survey for access to GP services and out of hours were similar to the average for deteriorating sites.

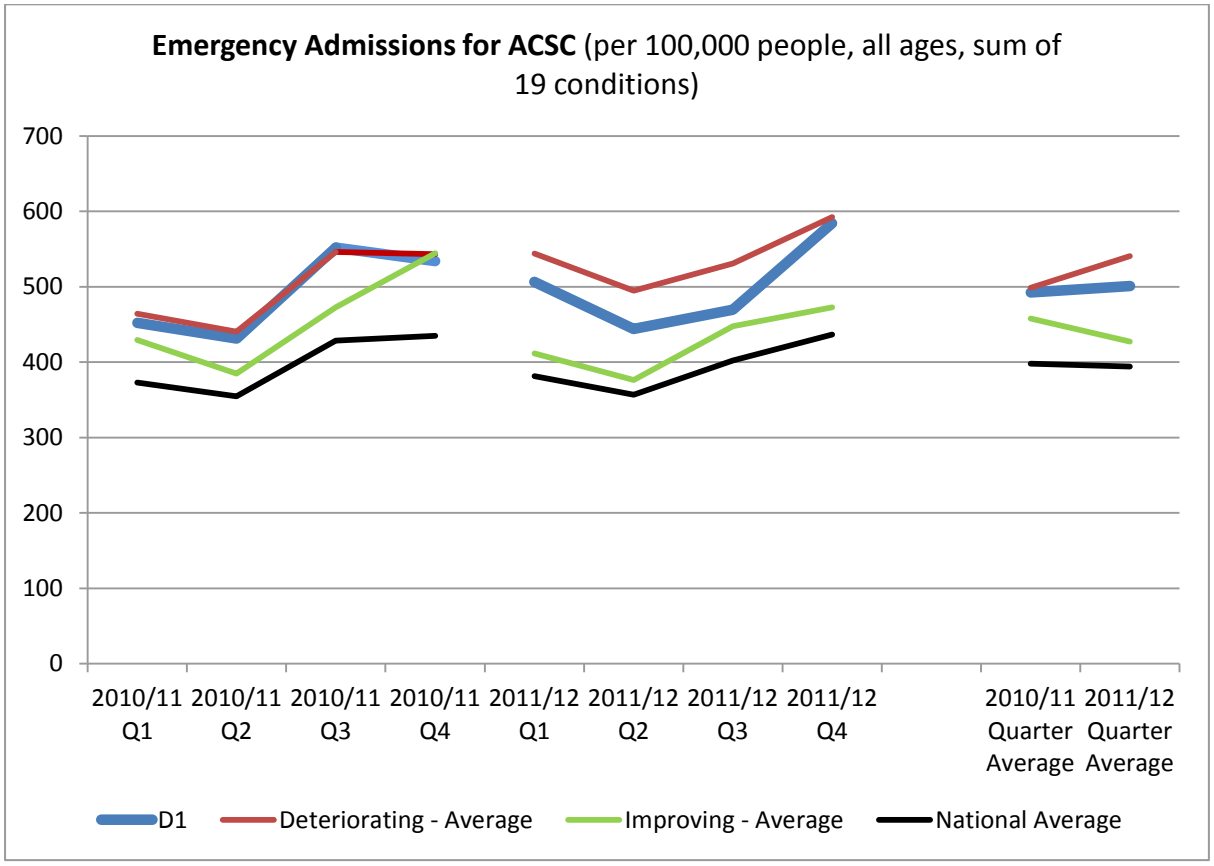
Table 7 - Admission rates 85+, 2007/8 to 2009/10, site D1

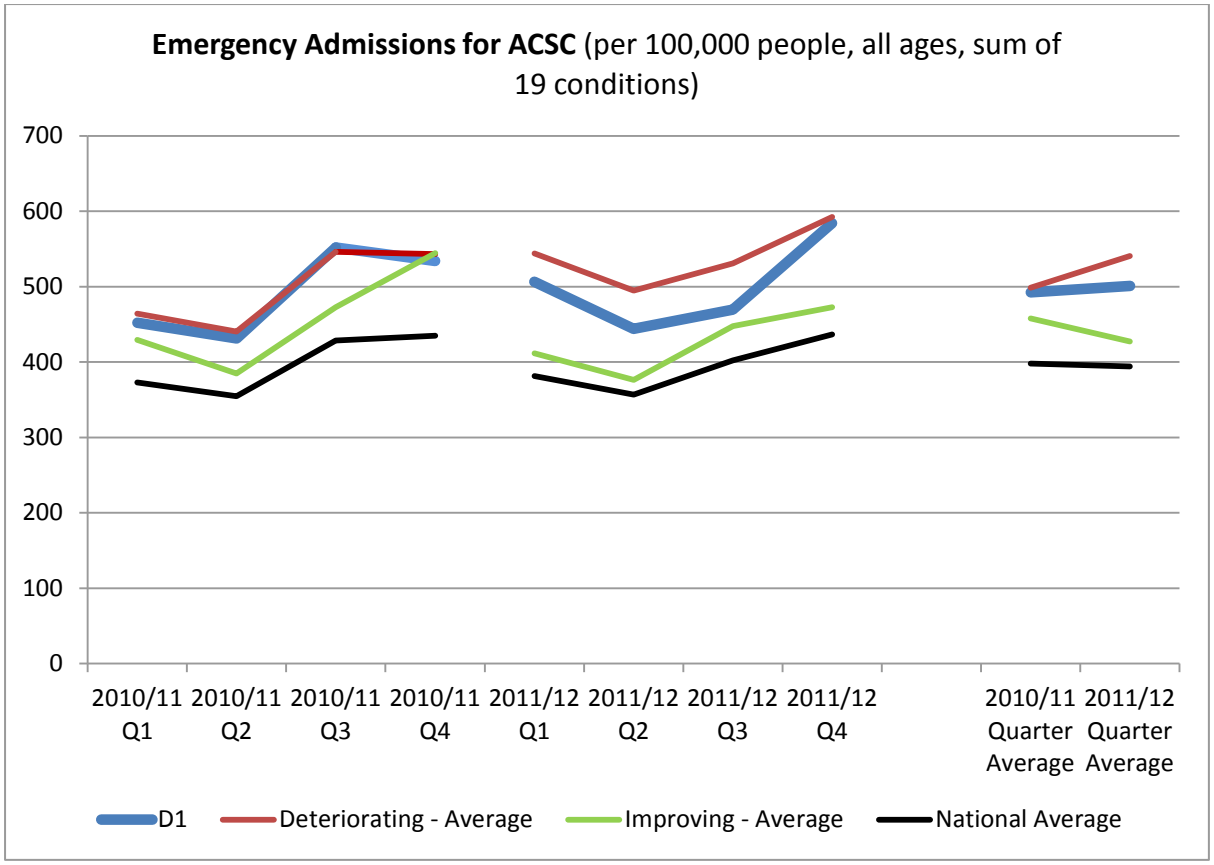
Site	2007/08	2008/09	2009/10
D1	48%	54%	59%
Deteriorating sites - Average	46%	53%	57%
England - Average	48%	52%	52%

Table 8 - Emergency readmissions rates (%) within 28 days of discharge from hospital: adults aged 75+, 2007/08 to 2009/10, site D1

Site	2007/08	2008/09	2009/10
D1	15.5%	16.0%	18.0%
Deteriorating sites - Average	15.3%	15.9%	16.7%
England - Average	14.4%	14.9%	15.4%


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
D1
Deteriorating - Average
Improving - Average
National Average


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
D1
Deteriorating - Average
Improving - Average
National Average



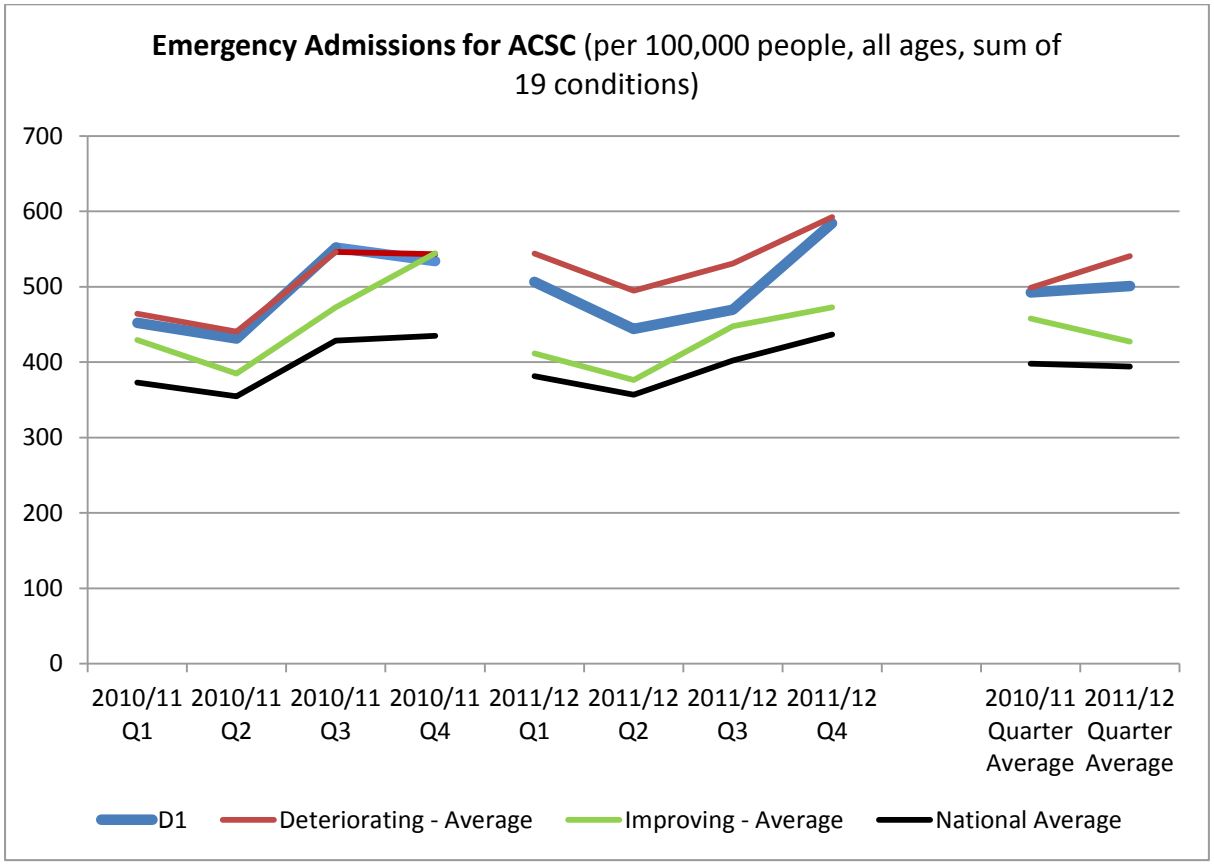


Figure 24 - Emergency admissions for ACSC 2010/11 to 2011/12, site D1

Site D1 comprised a large acute teaching hospital (NHS Trust) formed in 2006, consisting of over 1200 beds and providing an extensive range of acute and specialist services. The hospital is located in the main administrative city of the county and provides acute service to city and county, and specialist services to bordering counties. Two smaller NHS Trusts provided a selective range of acute and non-acute services to the wider county area and surrounding catchment populations. A Community Healthcare NHS Trust was formed in 2006 and provided a range of community services and rehabilitation to the city and county. This Trust provided inpatient, community and day clinics as well as specialist services to a population of over 850,000. The organisation provides services from more than 80 locations and employs more than 4,000 dedicated staff. Over 60 GP Practices served the principal administrative city, with many being operated by single-handed GPs or in small practices. An urgent care Walk-In centre is also provided in a city-centre location.

The overriding finding from D1 was the absence of any coherent or system-wide strategy for managing urgent, unplanned care, particularly for those aged 85 and over. Specifically, the strategy developed over the preceding five years had largely been in relation to the formation and development of specialist acute services within the NHS acute Trust provider, rather than primary or community services. Linked to this participants described an operational strategy driven by prevailing national targets, especially for 4-hour ED attendance, which could convert more complex patients into in-patients admissions. Where innovations and changes had been adopted across the wider health system, they often lacked strategic leadership or alignment between acute and community care, focusing instead on expanding acute care. In addition, many innovations were based around rapid improvement projects, many of which failed to complete or were surpassed by new initiatives before being completed and evaluated.

Reflecting the above strategy, the structure of the health system at site D1 was largely centred around the main acute NHS Trust with the emphasis on building up the expertise and resources of this Trust to meet the growing needs of older people. As such, a number of systems had been put in place in and around the ED to improve the flow of patients into and through the acute hospital and avoid breaches to the 4-hour target. This also seemed to drive a set of values around the importance of meeting targets.

The organisation and delivery of community care had recently undergone change, with care being provided by multi-disciplinary care teams, but with limited evidence of integration with either acute or primary care services. However, with increased admissions to the acute Trust and evidence that certain patient groups were receiving restricted packages of care, there had been a move to develop alternate forms of community provision based upon care-at-home. The involvement of GPs in the management of longer term and acute care for the over 85s was uneven and widely seen as

problematic, especially for smaller practices which struggled to respond to urgent patient needs. In particular, urgent access to GP was commonly identified as a problem; although where access was available it was believed medical expertise was usually adequate to manage patient care needs. Some areas of primary care witnessed increased specialisation for the care of older people, including specialist nurses and geriatrician working in the community, but this recent development was not necessarily meeting demand over the entire city and county. Additional concerns were also raised about the management, resources and inspection of nursing homes. As well as difficulties with recruitment and training for complex care needs, it was reported that nursing home staff were poorly supported by primary or community healthcare specialists, making it difficult to manage urgent care needs without referring the patient to the ED. It was also felt that patients aged 85 and over struggled to navigate the care system and there was a growing reliance on families and other carers to service the needs of these groups.

In sum, site D1 illustrated a highly acute-care centred system, with some degree of fragmentation of other primary and community services. The problems of urgent care attendance at the ED for those aged 85 and over was, accordingly, managed through streamlining the acute care system to avoid breaches of targets over and above the better management of complex care needs in the community. The lack of integration and planning at a wider system level was further evidenced by widespread concerns about the lack of communication between care providers, and a lack of shared vision or strategy about the management of care for older patients.

Site D1 offers possible lessons for the management of urgent care for patients aged 85 and over. These include:

Strategy

- Define a specific strategy for the care of patients aged 85 and over.
- Align this strategy with existing local and regional service strategies
- National pressures and targets need to take into account the impact they have on older people.
- Learn from pilots and implement good practice.

Structures

- Better integration of acute, community and primary care.
- Re-strengthen relations between GPs and community nursing where these are no longer co-located

Systems

- Provide greater transparency of service availability and provision.
- Longer term packages of care need to be provided.
- Systems to access GP's may need to improve.

Shared values

- Service providers should unite around the quality of care and communicate.
- Alignment of staff and public values on care and funding of care for older people.

Style

- Overcome cultural differentiation between care providers
- Improve communication and manage expectations between: different professional members/roles, staff and family, and practitioners and patients.

Staff

- Consider specialised roles e.g. community geriatricians and specialist nurses,

Skills

- Champion recognised ways to overcome existing practical problems, both in terms of health care provision and organisational make up.

Site D2

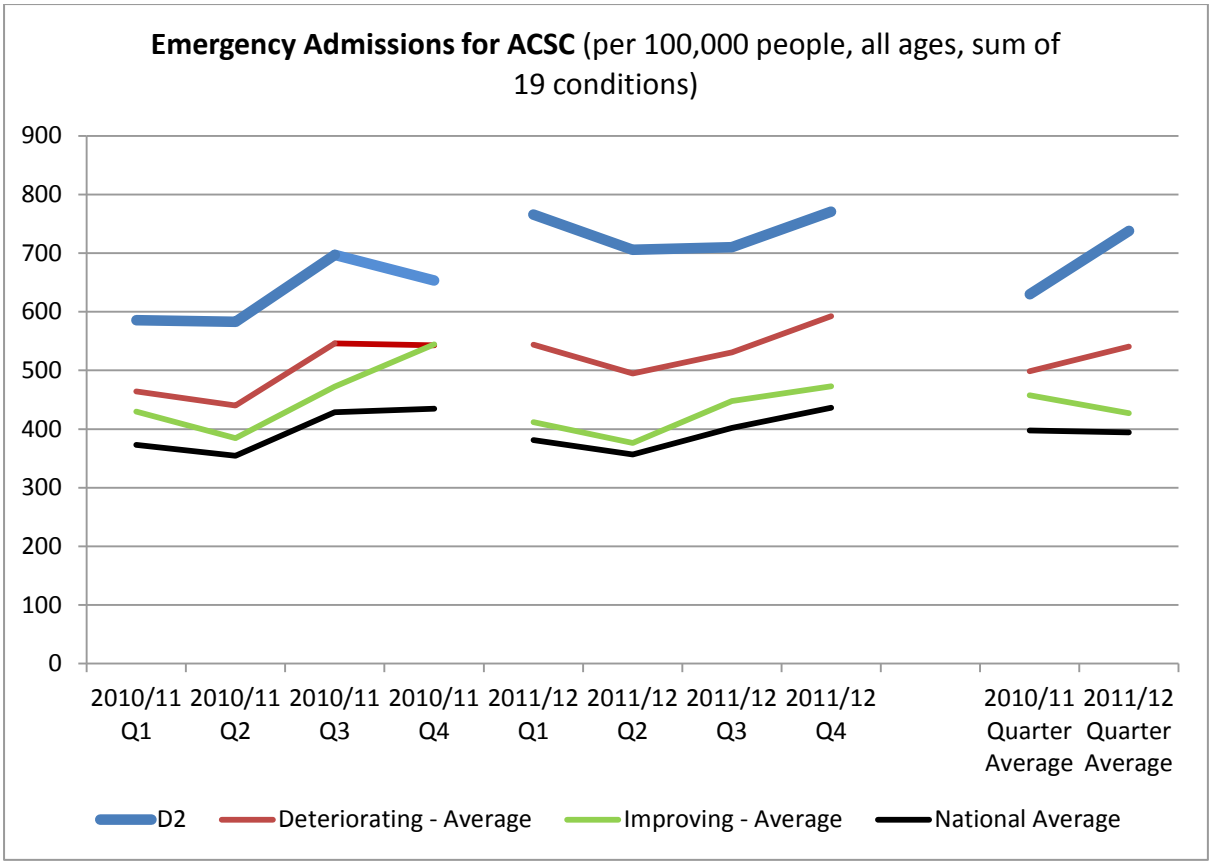
D2 PCT is a mixed urban and rural area, classified as a 'centre with industry' by ONS. It has a relatively small population, ranked 120th out of 151 PCT's. Its deprivation rank is 22/151, meaning it is in the most deprived fifth of PCTs. Its admission rate for the age group of 85+ ranked 30th out of 143 PCTs, which is the highest of the sites included in this report. 83% of acute admissions from the PCT are to the linked acute Trust. As shown in *Table 9* and *Table 10*, admission and readmission rates for older people aged 85+ rose more rapidly than the average for our deteriorating sites, with most of the increase occurring between 2007/08 and 2008/09. Between 2010 and 2011, emergency admission rates for ACSC rose sharply, more than the average for deteriorating sites. Results from the GP survey for access to GP services and out of hours were similar to the average for deteriorating sites.

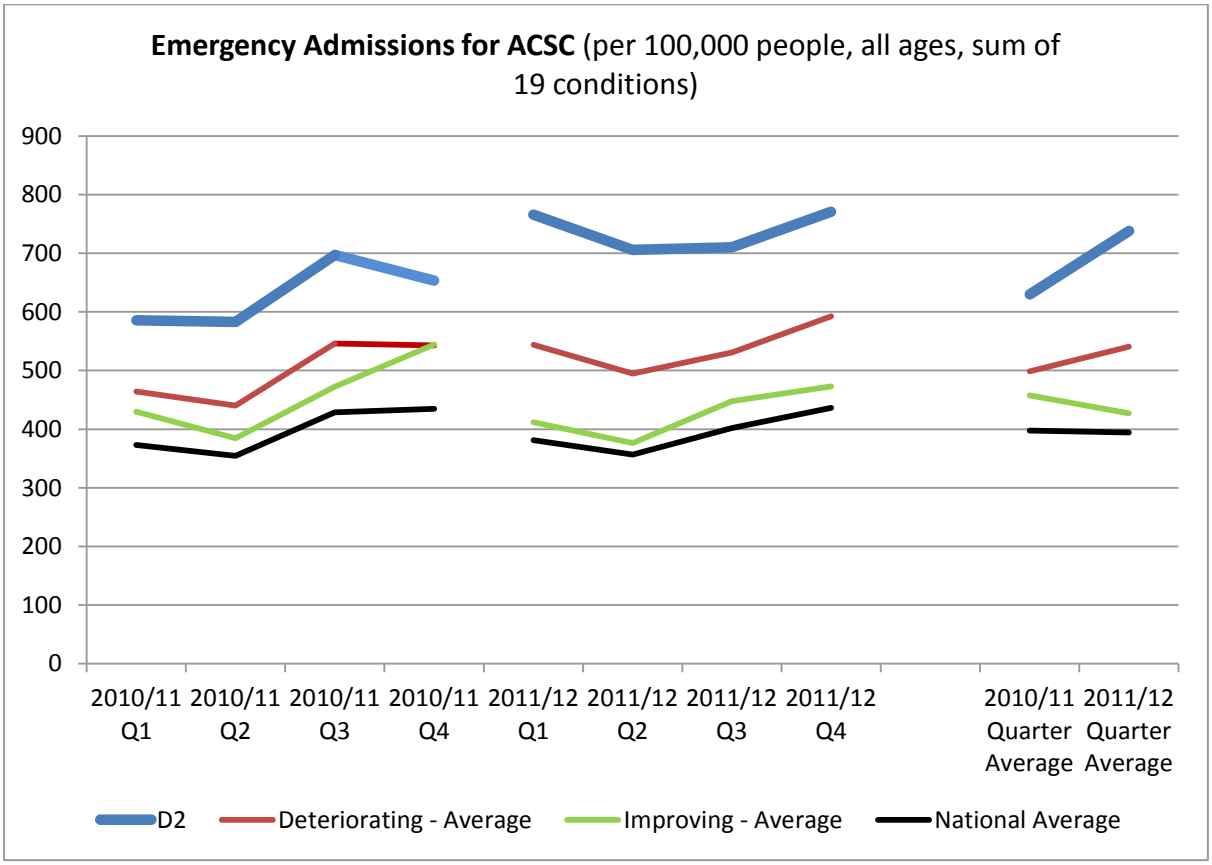
Table 9 - Admission rates 85+, 2007/8 to 2009/10, site D2

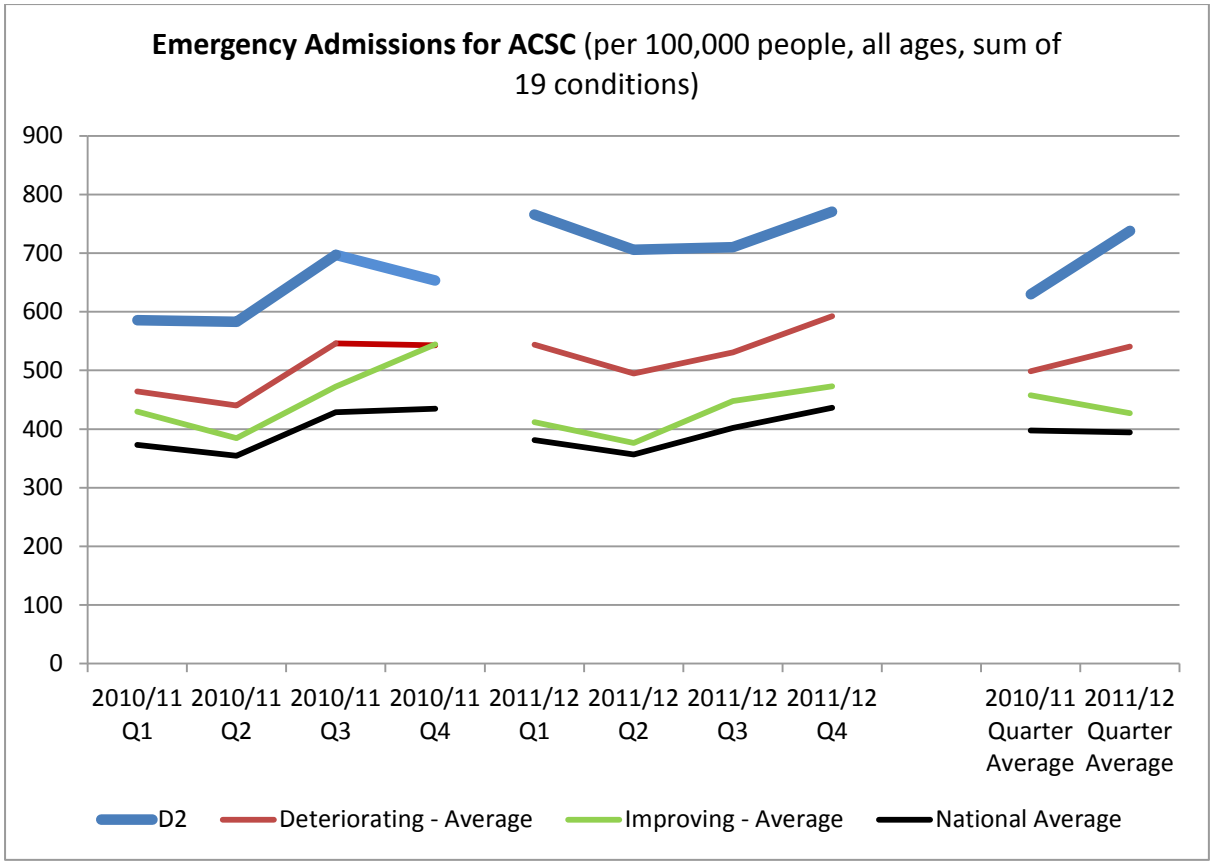
Site	2007/08	2008/09	2009/10
D2	49%	59%	61%
Deteriorating sites - Average	46%	53%	57%
England - Average	48%	52%	52%

Table 10 - Emergency readmissions rates (%) within 28 days of discharge from hospital: adults aged 75+, 2007/08 to 2009/10, site D2

Site	2007/08	2008/09	2009/10
D2	16.5%	17.7%	16.8%
Deteriorating sites - Average	15.3%	15.9%	16.7%
England - Average	14.4%	14.9%	15.4%


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
900
800
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
D2
Deteriorating - Average
Improving - Average
National Average


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
900
800
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
D2
Deteriorating - Average
Improving - Average
National Average



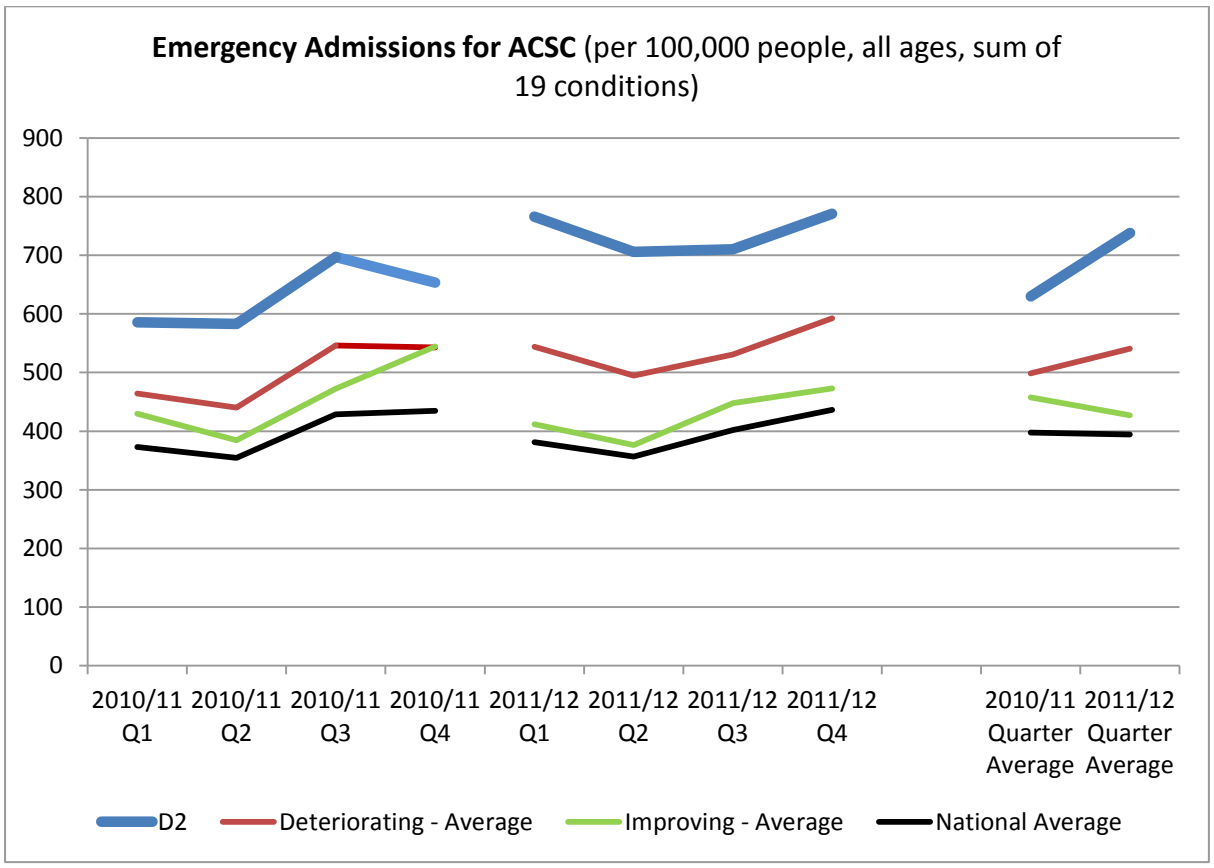


Figure 25 - Emergency admissions for ACSC 2010/11 to 2011/12, site D2

Site D2 involved a highly complex system of health and social care provision arranged over three small-medium sized towns located within the same metropolitan borough of a large county. Acute hospital services were provided by a NHS Trust that managed four acute district general hospitals and some community and specialist services. This included the hospital and urgent care services provided within the D2 catchment area as well as those provided in adjoining areas, which broadly reflected prevailing PCT borders. In the years preceding and included within the analysis, the acute care system had witnessed significant transformation in the organisation and provision of acute and emergency care. This included the downgrading of D2's acute hospital's emergency department to an urgent care centre, with the transfer of emergency cases to an acute hospital managed by the NHS Trust but located outside of the D2 catchment area. This also reflected a general diminution of acute care provision with the D2 area, with the main hospital providing limited in-patient treatment and more day-based, out-patient clinics and community care services. GP services in the surrounding area were characterised by a mix of small- and medium-sized group practices and a range of private nursing and care homes operated across the area. The study found service leaders placed strategic priority of managing and supporting discharge from hospital and reducing readmissions as reflected in the support for a Short Term Assessment and Re-ablement Service (STARS) which provided a 6-week package of care for patients after leaving hospital. The changes in service configuration and urgent care provision across the area were described by some as creating additional pressures on the local ambulance service.

Alongside, and possibly reflecting, these major structural changes the study found, the D2 site had little in the way of an overarching or shared strategy or vision for managing older people care or reducing unplanned admissions for patients aged 85 years and over. Rather, the overriding strategy was aimed at reducing length of acute hospital stay, improving hospital discharge and reducing readmission, as illustrated by the STARS and the widespread need for investment in community services to reduce delays in discharge. In broad terms there was little recognition or priority given to reducing unplanned urgent care, but rather to establish appropriate systems that ensured patients were either seen with the urgent care centre, within the D2 area, or transported to the ED outside the area. In short, the wider reconfiguration of urgent and emergency care appeared to over-shadow efforts to better manage the need for urgent or unplanned care within the community setting. In line with this, the study found local improvement and transformation projects aimed to ensure appropriate and timely access to and discharge from hospital care. This strategy was further evidenced by changes introduced in 2010 where by additional investment was made by the NHS Trust in community services and hospital prevention schemes that aimed to offer more proactive management of complex patient needs before escalating care.

The reconfiguration of service might also have led to, or exacerbated, fragmentation amongst the wider health and social care system. It was widely reported that there was lack of partnership working or collaboration between individual services providers, especially between primary and secondary care. It appeared that GP practices had little strategy or systems for managing chronic or complex care needs in the community, and there were significant concerns about out-of-hours GP provision, which might further add to the demand for unplanned care. Instead there was a reliance of community healthcare services, such as community matrons, and local authority re-ablement services. However, these were also aligned to the management of post-discharge care rather than avoiding unplanned admission.

In sum, site D2 highlighted a preoccupation with and the longer term repercussions of making large scale system change, whereby the emphasis was on improving access to and discharge from hospital, rather than reducing demand for hospital care. This shaped the organisation and delivery of services for a significant period during data capture and only recently have services started to respond with a different approach. Site D2 offers possible lessons for the management of urgent care for patients aged 85 and over. These include:

Strategy

- Aim to a better integration between care providers, especially community and acute care Trusts and health and social care
- Minimise disruption due to re-organisations
- Reduce the tension between localism versus regionalism

Structures

- Develop clearer pathways across the region
- When focusing on reconfiguring (hospital) urgent and acute care, consider primary care and urgent care in the community

Systems

- More engagement between Acute and Ambulance Trusts
- Tackle variations in GP provision and coverage

Style

- Primary and Secondary care need to adopt a collaborative approach

Staff

- Staff problems across the region

Site D3

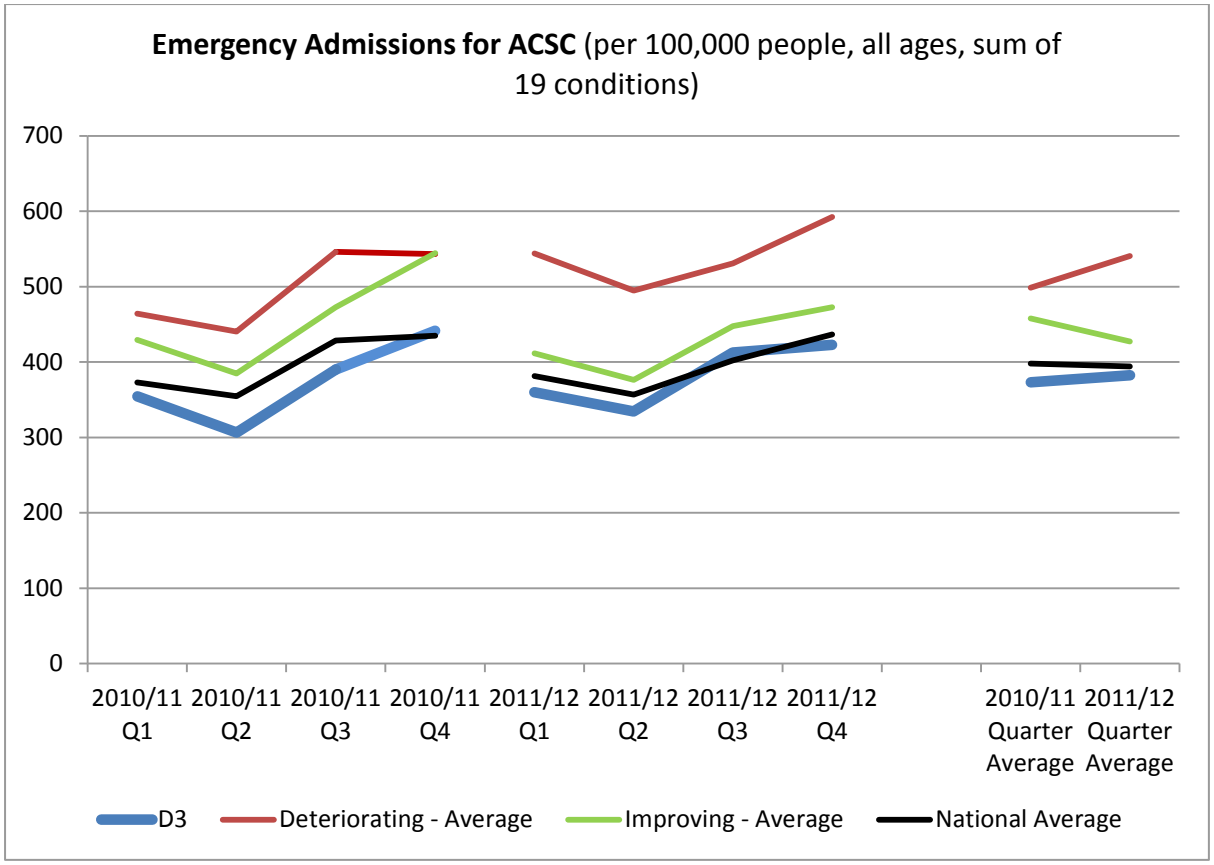
D3 PCT is a mixed urban and rural area, classified as a 'new and growing town' by ONS. It has a relatively small population, ranked 118th out of 151 PCT's. Its deprivation rank is 119/151, meaning it is the least deprived quartile of PCTs. Its admission rate for the age group of 85+ ranked 67th out of 143 PCTs. 87% of acute admissions from the PCT are to the linked acute Trust. As shown in *Table 11* and *Table 12*, admission and readmission rates for older people aged 85+ were below the English average in 2007/8, but increased rapidly over the subsequent two years to reach the average. This pattern is also reflected in admissions for ACSCs. Results from the GP survey for access to GP services and out of hours were similar to the average for deteriorating sites.

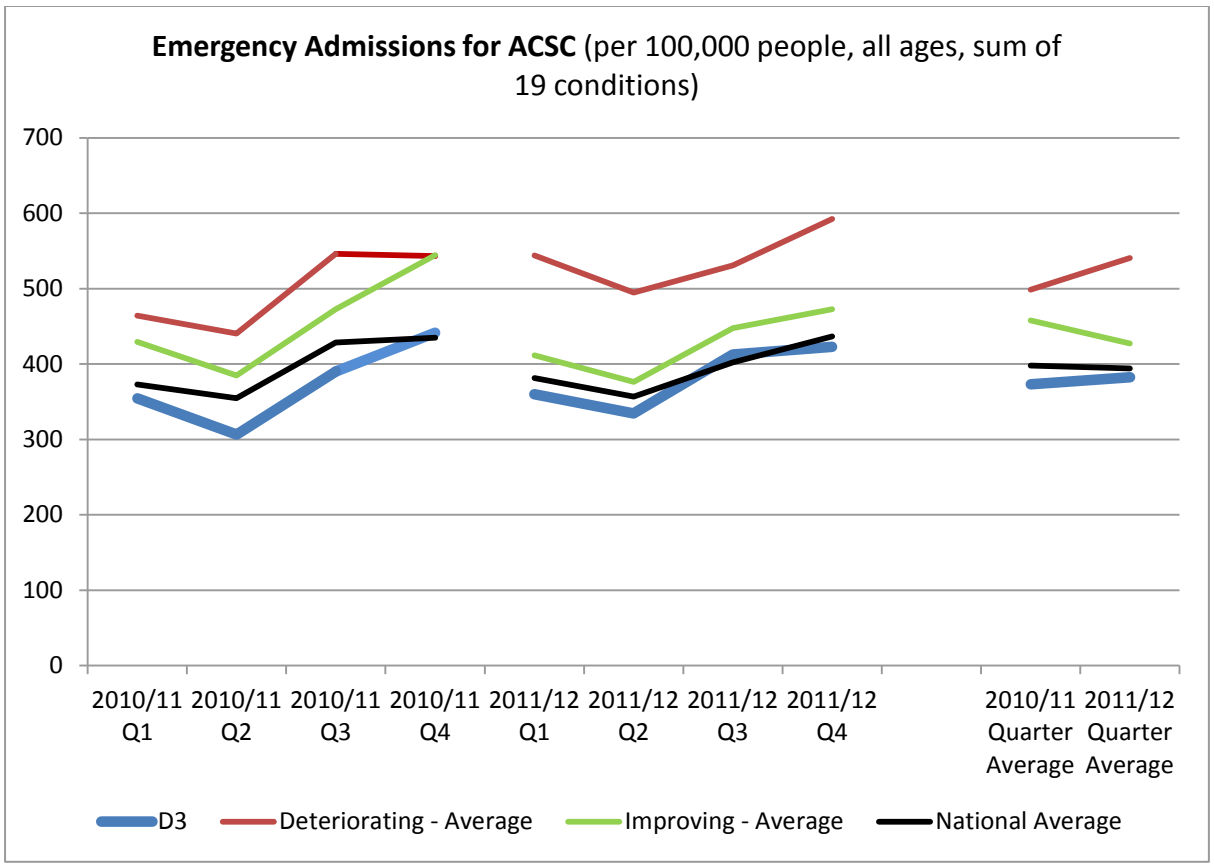
Table 11 - Admission rates 85+, 2007/8 to 2009/10, site D3

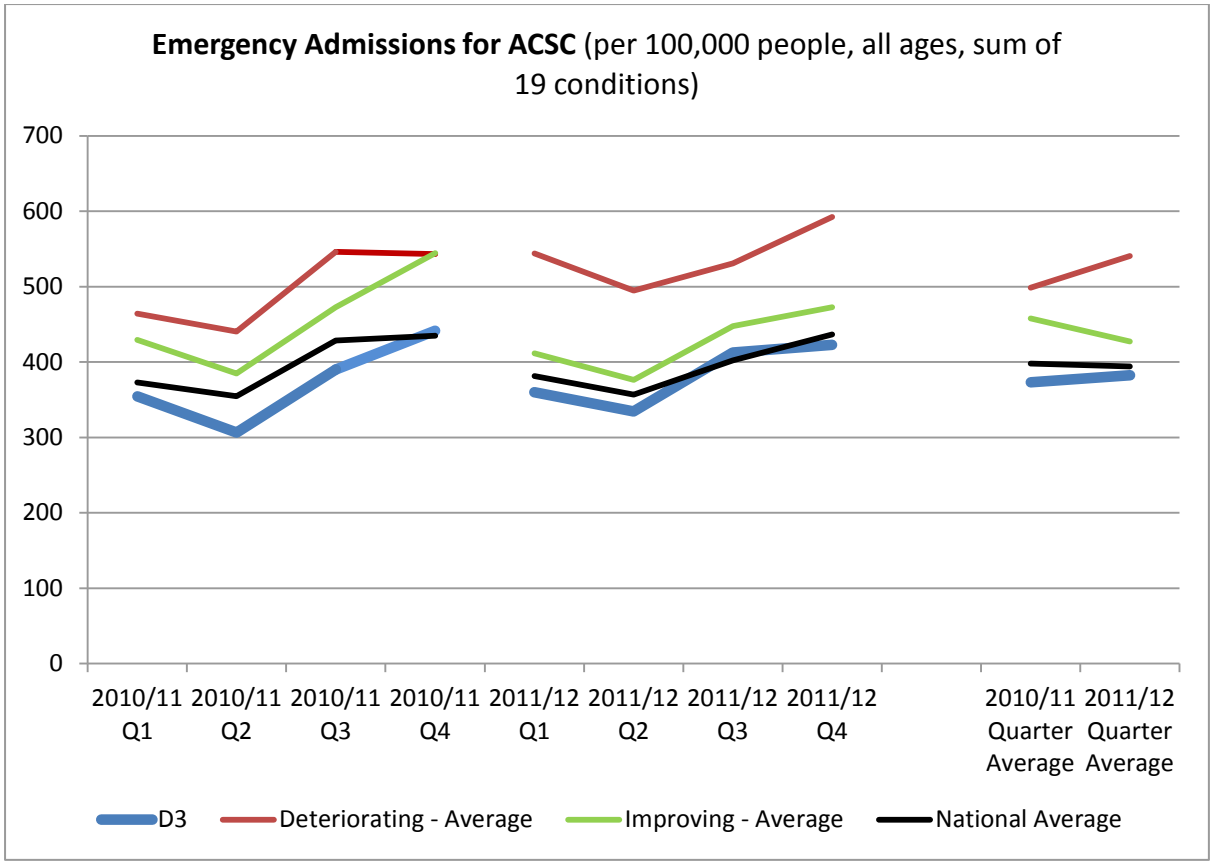
Site	2007/08	2008/09	2009/10
D3	41%	45%	52%
Deteriorating sites - Average	46%	53%	57%
England - Average	48%	52%	52%

Table 12 - Emergency readmissions rates (%) within 28 days of discharge from hospital: adults aged 75+, 2007/08 to 2009/10, site D3

Site	2007/08	2008/09	2009/10
D3	13.9%	14.2%	15.3%
Deteriorating sites - Average	15.3%	15.9%	16.7%
England - Average	14.4%	14.9%	15.4%


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
D3
Deteriorating - Average
Improving - Average
National Average


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
D3
Deteriorating - Average
Improving - Average
National Average



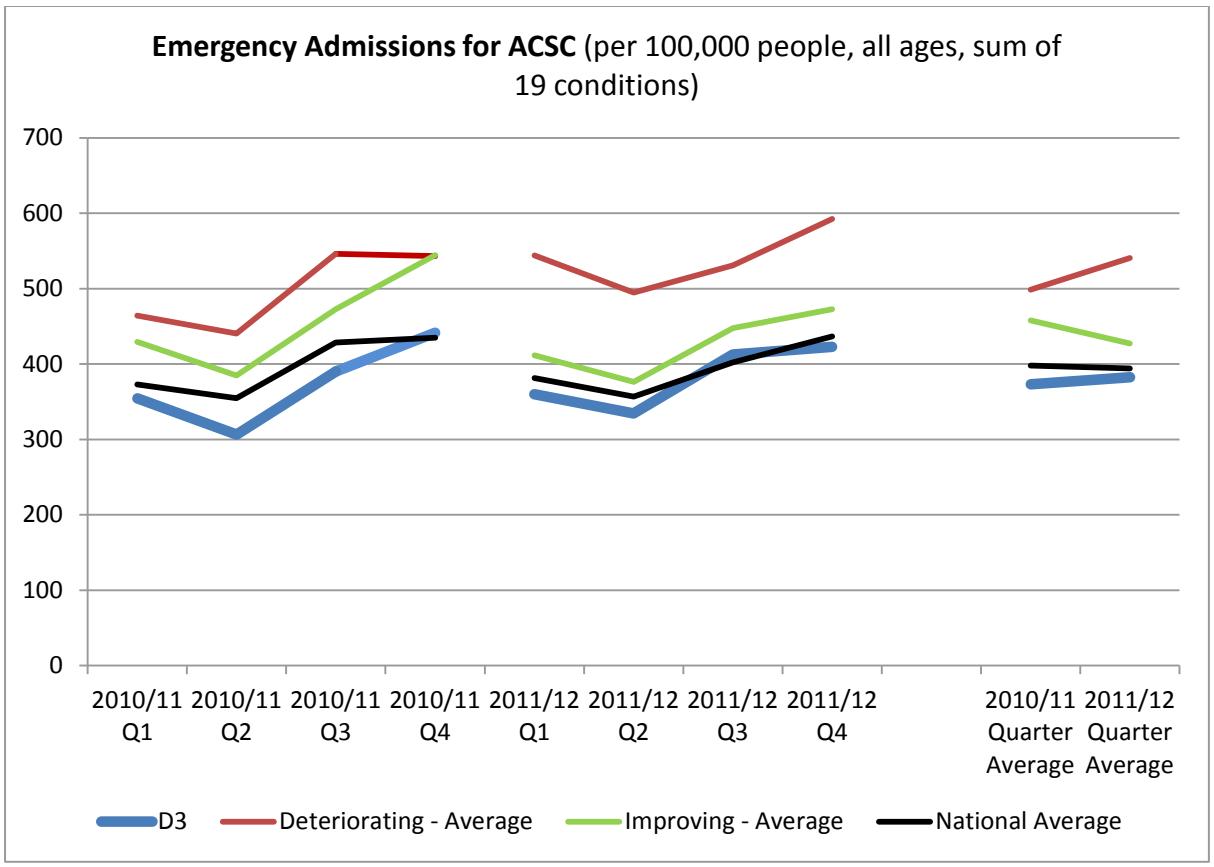


Figure 26 - Emergency admissions for ACSC 2010/11 to 2011/12, site D3

Health care services within site D3 were predominantly organised around a large acute and community healthcare NHS Trust. The Trust was formed in 2003 and provides a full range of acute services at a single hospital site located in the main administrative city for the area, together with a range of community rehabilitation, nursing and care services provided across the wider county, but not for the city area. Community care provision in the city area is currently provided by a social enterprise organisation established in 2011, which formed from the dissolution of PCT care provision. In line with previous NHS provision, the social enterprise provides integrated communication and social care through a Single Point of Access including a crisis service, community matrons, out-of-hours GP services and urgent care facilities, based within the acute hospital. Despite the perceived benefits of community matrons in managing urgent care demand, it was widely believed these services were being over-stretched by growing demand. A walk-in service is also provided within the city centre area, which was seen by many as successfully diverting patients from ED. Traditionally, there had been close working between the former PCT and the social service department which might explain the range of services now offered through the social enterprise, but notable changes have included the reduction in consultant-led services in favour of more nurse-led services.

The findings suggest that despite the extensive coverage of acute and community care within the area, there remained significant problems in primary care. In particular, primary care services were described as highly fragmented and not well integrated with other community and acute services. For some this was expressed in terms of the problems of accessing primary care, as demonstrated by recent patient survey, but for GPs there was a sense of being disconnected with other services. This had recently been addressed, for example, with enhanced information sharing between acute and primary care in terms of number of ED attendances. There were also new initiatives to support GPs in risk-profiling patients in order to intervene early in care management and avoid unplanned admission.

The problems of developing a coherent strategy for unplanned care, especially for patients 85 and over, was widely seen as stemming from frequent reorganisations at both national and local levels. Firstly, in terms of community healthcare provision, secondly in terms of the role of national targets and commissioning frameworks and thirdly in terms of wider health system restructuring. For example, the changes in city and country community care provision was widely seen as beneficial but also creating considerable flux in local strategy, with attention focused on establishing new services rather than managing care needs. Substantial re-structuring since 2007, for example, saw

many old facilities closed and a new Intermediate Care Centre (ICC) being built. At the same time, commissioning decisions were greatly influenced by national targets and financial incentives which exacerbated competition between care providers rather than collaboration and integration. However, the development of these services did not always appear to fully consider the staffing and resource implication, with questions raised about the level of specialist geriatric input, the location of services and integration with other community providers.

Site D3 revealed no significant or stand-out issues that prevented the management of unplanned care for older people, but rather a preoccupation with structural change and working within changing commissioning and service frameworks. The range of acute, community and primary care services generally appeared to reflect the diverse needs of both city and county patients, but little strategic thought had been given to how these services should align or integrate within each other. Site D3 therefore offers a number of learning points:

Strategy

- Minimise disruptions due to re-organisations and staff changes
- Avoid transient pilots with no follow through
- Admission reduction strategy needs to include investment in primary care

Structures

- Develop Single Point of Access for community and Intermediate Care services
- Integrate information systems for Walk In Centre , Urgent Care Centre, Ambulatory Care Service

Systems

- Assess need for geriatrician input to Intermediate Care

Shared values

- Develop vision on quality care for older people including medical, functional and managerial perspectives
- Avoid perverse incentives (e.g. PBR versus block contract)

Style

- Recognise importance of clinical leadership

4.3.2 Synthesis of deteriorating sites

The three deteriorating sites reveal a picture of uncertain and complex health system change, where service leaders did not always display a shared vision, clear understanding or anticipation of how different system elements should interact with each other. However, it would be misleading to suggest these three sites only exhibited negative qualities, rather the case reports show how each area was characterised by an array of positive features relating to existing organisational resources and strengths. However, in the changing context of older patients' requirements, as well as regional and national shifts in resources and policy, a number of overriding features appeared to out-weigh these positive elements and tip the balance in favour of poor system performance. Looking across the three sites a number of common features might explain the described findings.

First, all three sites revealed no evidence of overall 'system strategy'. Although individual system components might have quite developed strategies for aspects of unplanned care, such as the ED, there was little appreciation of how the components of the wider health system should fit and work together. In short, service leaders need more strategic and system-wide understanding of shared problems.

Second, strategies tended to be dominated with acute care provision and system changes to support the reconfiguration of acute care. This could be seen in all three sites, to the detriment of policies to expand or improve primary and community care. This might suggest some form of capture or dominance by large acute Trusts when working with commissioners.

Third, strategies were driven by prevailing national targets, which also reinforced the importance of acute care and potentially fragmented community care. This was exemplified by the preoccupation with delayed hospital admission and discharge over and above preventing hospital attendance, and changes in commissioning arrangements that transformed the provision of primary and community services.

Fourth, where improvement projects were identified these tended to be highly reactive and short-lived with little follow through, strategic alignment or consideration of the resources implications, such as developing specialist geriatric services within the community. This might reflect constantly changing local and national priorities and an over-arching sense of strategic planning in each area.

Fifth, there was widespread under-investment and planning for primary care. GP practices were generally seen as managing chronic care and needing to direct urgent care demand to appropriate

service providers. There was little understanding of the potential role of primary care providers in providing holistic case management.

Sixth, there was little evidence of integration between acute, primary and community services. Each was characterised by distinct governance and funding arrangements, divergent cultures and values, and different ways of working. These occupational and organisational boundaries hinder the potential for integration.

Seventh, there was little understanding of or planning for whole pathway care, i.e. understanding the complex journeys that patients travel through the health and social care systems. As above, there was often emphasis on key care stages, such as admission and discharge, but not on the wider constellation of agencies, handovers and transitions that patients face across the system.

Eighth, there was excessive demand of limited services, especially community based services, because of the failure to align or integrate other services. This meant many specialist community teams were routinely over-stretched and struggled to provide comprehensive packages of care.

Table 13 - Summarised factors for the declining sites

Influences	Stems from	Strong/Positive type	Dimension	Weak/Negative	Stems from	Influences
Commissioning	Restructuring Recognised need to address health and social care problems New funding opportunities for integrated working	New recognition of strategic deficit by CCG's Increased provision of re-ablement funding and service innovation around care of older people Close working between PCT and social services	**Strategy**	Awareness of overall strategy on unplanned admissions for those aged 85 and over Strategies are influenced by changes in leadership roles too often Targets and incentives, like 4 hour target may increase	Higher status professional specialisation challenged by complexity of treatment requirements for very old people Lack of consistent leadership Communication across regions poor	Higher status professions more narrowly driven by progression of natural science research instead of social science

				admissions Elective care dominated service planning ahead of urgent admission Piloting of initiatives but often no sustained change Reducing length of stay instead of admissions Frequent restructuring at	National strategies Commissioning strategy Emphasis on quick-fixes rather than sustained improvements Lack of strategic communication at regional level	Under investment and planning for care for old people Constant change and uncertainty Lack of investment and planning Constant change and
	More investment in Community Services (2010)	New projects that have a strong social element to them				

				different organisational levels		uncertainty in funding
	Increased funding Changes in local care planning Service innovations and pilots that work	New forms of health provision in community – e.g. virtual wards being supported Consultant led services can positively influence structural organisation Some regions developing SPA and integrated care teams for community health and social care	**Structure (Of care system)**	Community care provision is hampered when multidisciplinary teams cannot function Structure of GP practices - Many singled handed's which relates to trouble in managing service hours Hospital amenities for old people limited	Changes in how packages of care are delivered. This can involve new organisations funded by existing trusts Existing style of work is less flexible to modern challenges Lack of strategic planning Reactionary strategy	Forward planning on the detail of new work connections limited Reduction in family support and out of hours care Integrated and coordination of services Staff and skill mix

		Some new community providers with embedded practices for rapid patient support outside of hospital Access to GP's in many areas very good		Constant change in system structure and team configurations, including change in hospital sites, new intermediate facilities, shift towards more nursing care Lots of pilot change Poor integration between Primary care & Secondary Care Lack of partnership	Wider system change Organisational barriers between system actors Lack of strategic planning Organisational barriers between system actors	Patient planning and care pathway Reduced communication between staff at executive levels

				working Poor integration between Primary care & Secondary Care		
Structural change in primary and social care	Recognising opportunities for change Improve integration	New services being piloted using new technologies Reduced bureaucracy and streamlined information systems (*recent)* Integrated processes for SPA and associated service	**System (Processes)**	Over complexity of community care. Patients get confused with the ever-changing numbers and names of services. Systems to support and work with family carer's could be improved Lack of resources to prevent patients bouncing back into A and E	Design and communication of community services not as well supported Lack of funding	Recognition of service user perspective lacking

	Recognising opportunities for change	Some restructuring has provided new assessment and re-ablement services		GP waiting and opening times Quality of care in nursing homes reduced Concept of 'safe discharge' inadequate for very old patients Inadequate technology systems Lack of integration between care processes,	Existing work style and culture Diminished care home inspections Existing style of work with very old people Technology incompatible, knowledge sharing challenged and lack of training. Structural change	Government policy not implemented to define standards

				especially primary, community and secondary Problematic access to primary care (patient survey) Incentive systems encourage over medication and polypharmacy Lack of integration between ambulance and acute trust interface New projects are sporadic – lack of system	Persistent organisational and occupational boundaries Lack of primary engagement in service planning (???) Troubled design of processing structural change	Shared values Team work Role of primary care teams in SPA and other services Shared values

				consistency Varied out of hours services		
		There was an implicit agreement that avoiding hospital admissions of old people was valuable	**Shared Values (for system working)**	Poor communication about community provision between trusts and providers Age of GP can be found to influence motivation for change Cultural and normative differences between primary and secondary care	Established culture of work Sustained organisational and occupational boundaries Prioritisation of elective and non-	Scope for integrated working

		Emphasis on patient function rather than age		Conflict between the medical model and therapist nurse model. Frail older disadvantaged by care system Tension between clinical and managerial values for care system Culture was not team focused Blame culture too apparent	elderly care	

		Gerontologists have a very good skill set for dealing with very old people Skills of geriatricians and community matrons very well utilized	**Skills**			
		2010 NHS reforms on clinical leadership associated with positive change Clinical leadership associated with	**Style**	Challenging to engage the right staff earlier prior to admission Change of culture of service user families around the expectation of provision In connection with this culture is	Contact between services is poor, patient described as being 'offloaded' Societal shift in family composition and geographic location Constant change	Too much of a work load to cater for the demand Setting issues around wealth and family values Culture and values

		positive change		reactive culture of admission by practitioners Lack of stability and high turnover in senior management Lack of integrated working Emphasis on quick-fixes rather than sustained improvements Pressure to discharge was not matched with effective team linkages	Lack of strategy Emphasis of quick wins	Service integration Strategy development

				Pressures have been seen to increase the divide between primary and secondary care		
		Community Matrons have a central role in care provision for the frail older adults, and supporting GPs to identify repeated hospital activity. They provide a key mechanism for reducing unplanned admissions Increase of consultant	**Staff**	Care home staff claimed to be under-skilled Care home staff not supported by other professionals working in the community Overmedication by some staff can lead to falls and medically it is unclear what the correct policy is	Lack of investment in community staff	Specialist input into strategy and process

		involvement, in for example ambulatory care units or A&E, can display improved service function		on this Access to GP's increasing hard Recruitment of good staff in deprived areas Turnover of senior managers and leaders Lack of geriatric (HCOPs) in community Primary Care teams had become fragmented and disjointed		

				There are not enough staff Poor skill mix of staff – reduction in A&E consultants Defining role boundaries is a constant issue		
			Setting	Existing political issues can cause problems, for example around where services are geographically located. A poor relationship between primary and secondary care may be historically		

				established Ease of access to services in some locations might push up admissions		

4.3.3 Improving sites

Site I1

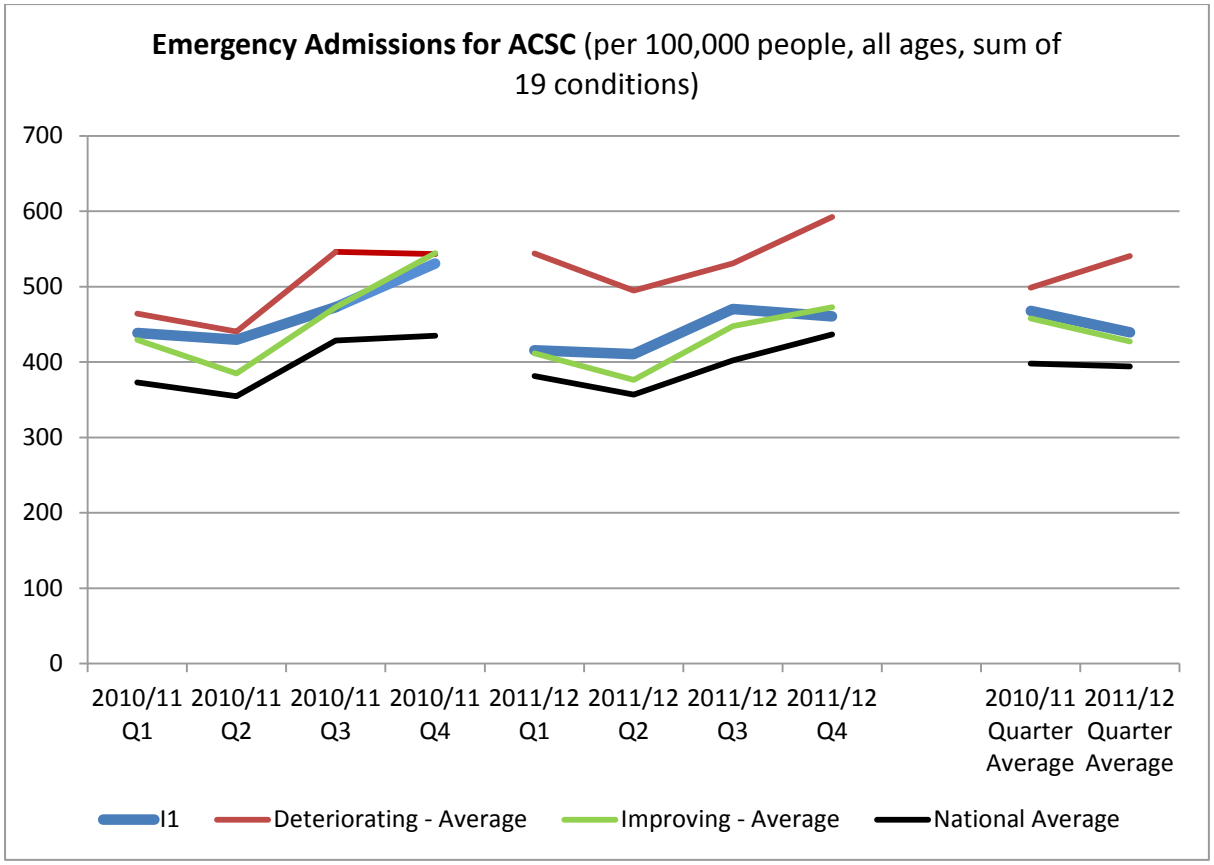
I1 PCT is an urban centre, classified as a 'regional centre' by ONS. It has an average population base, ranked 85th out of 151 PCT's. Its deprivation rank is 56/151. Its admissions rate for the age group of 85+ ranked 79th out of 143 PCTs, which is the second lowest of our selected sites. 89% of acute admissions from the PCT are to the linked acute Trust. As shown in *Table 14* and *Table 15*, admission and readmission rates for people aged 85+ were above the English average in 2007/8, but declined over the subsequent years to end below the average. Readmission rates increased slightly, in line with other improving sites. Admissions for ACSCs declined to a similar extent to that seen in the other improving sites. Results from the GP survey for access to GP services and out of hours were similar to the average for improving sites.

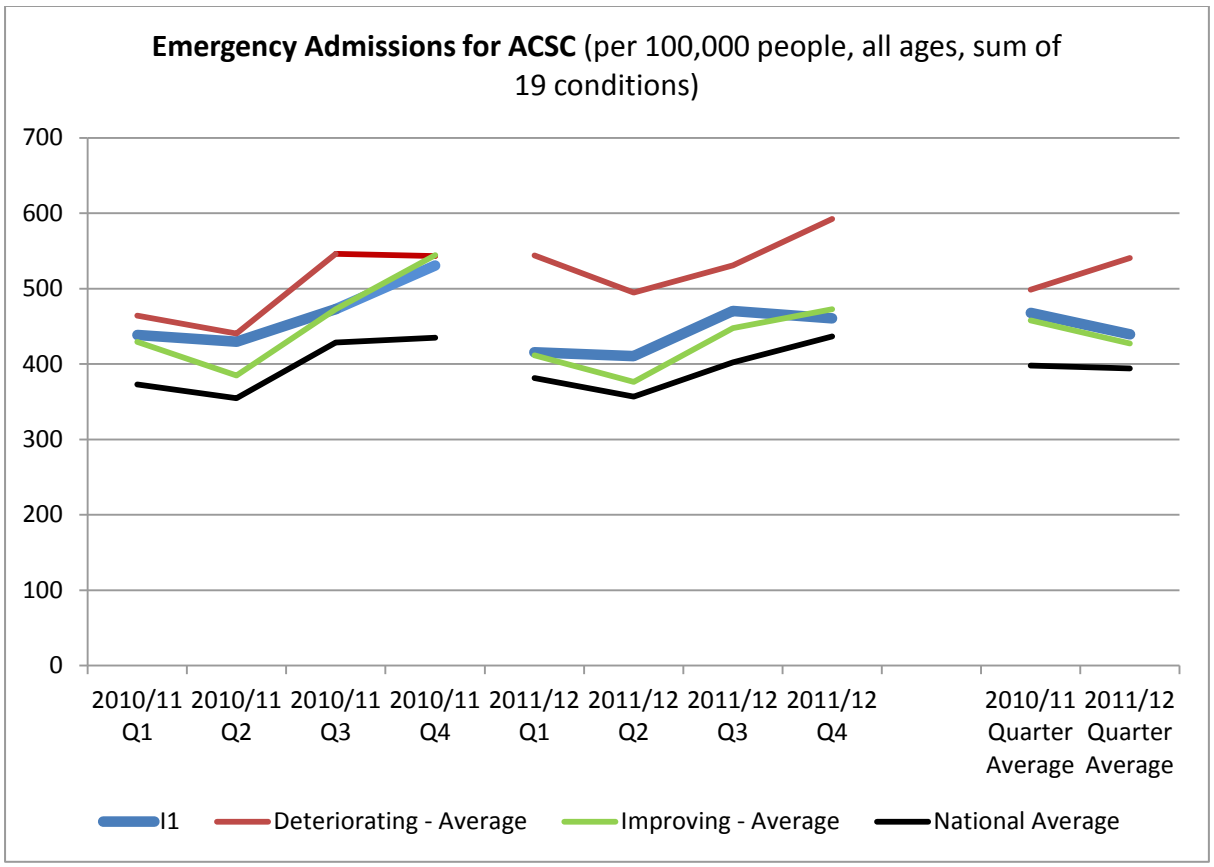
Table 14 - Admission rates 85+, 2007/8 to 2009/10, site I1

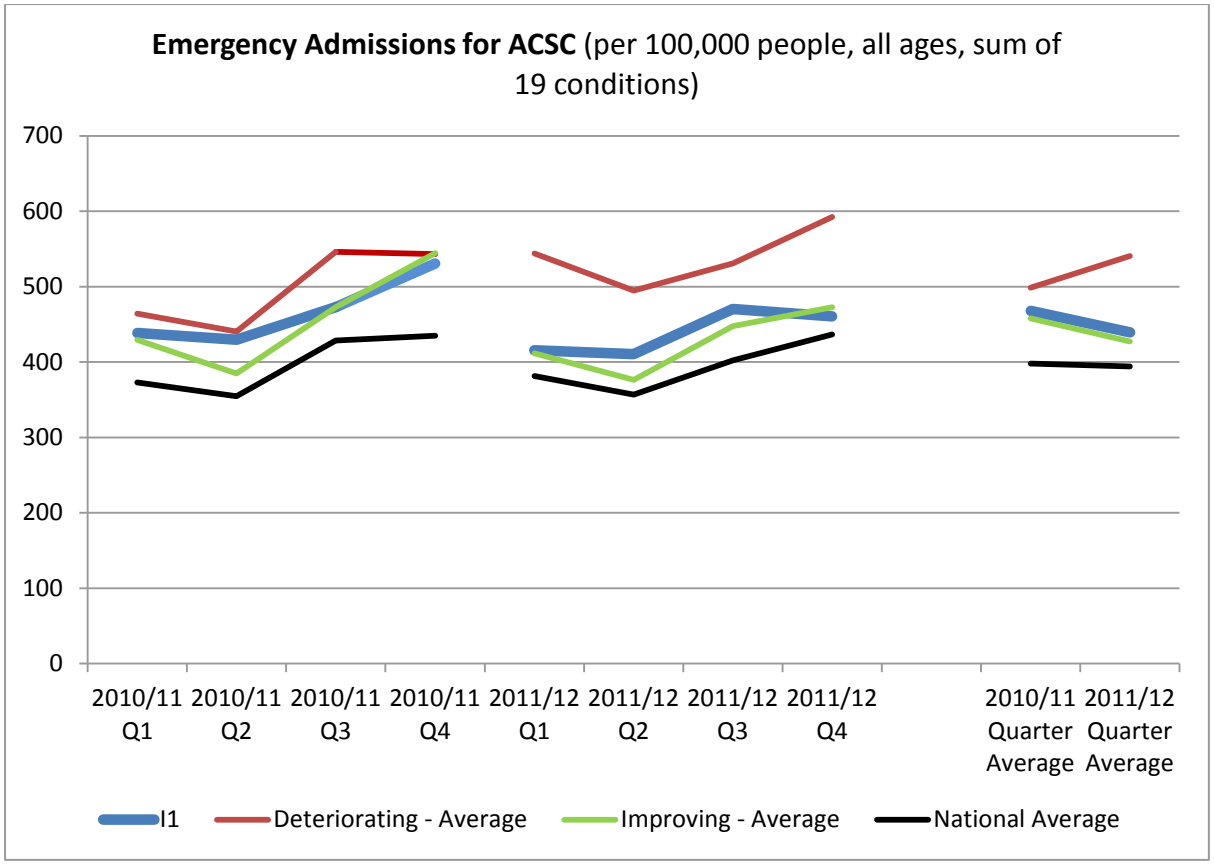
Site	2007/08	2008/09	2009/10
I1	55%	51%	51%
Improving sites - Average	52%	51%	49%
England - Average	48%	52%	52%

Table 15 - Emergency readmissions rates (%) within 28 days of discharge from hospital: adults aged 75+, 2007/08 to 2009/10, site I1

Site	2007/08	2008/09	2009/10
I1	15.3%	15.7%	16.3%
Improving sites - Average	14.1%	15.0%	15.1%
England - Average	14.4%	14.9%	15.4%


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
I1
Deteriorating - Average
Improving - Average
National Average


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
I1
Deteriorating - Average
Improving - Average
National Average



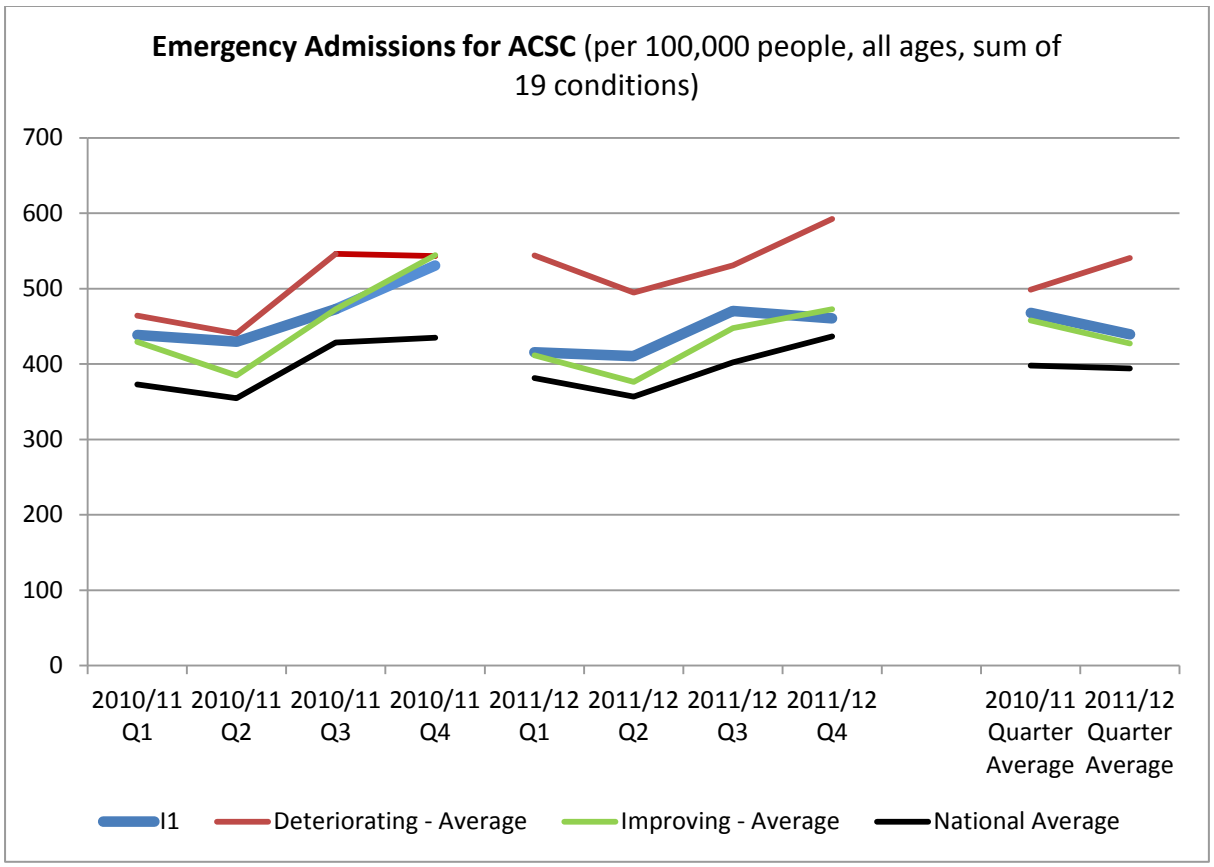


Figure 27 - Emergency admissions for ACSC 2010/11 to 2011/12, site I1

A large university NHS Trust managed and provided acute and specialist services for site I1. This included one teaching hospital, one specialist children's hospital, one general hospital and a walk-in centre within the I1 catchment area, together with other specialist hospitals in adjacent counties. Urgent and emergency services were provided through the large teaching hospital located in the centre of the county's principal city. A community NHS Trust provided locality rehabilitation, therapies and nursing care across the county through a number of community hospital, out-patient clinics, and home care services. A range of private providers offer additional home, residential and nursing care, including intermediate care and out-of-hours nursing care. There are over 45 GP practices in the area, ranging from small to large practices.

A prominent finding from site I1 was a longstanding strategic commitment to community care, including the integration of acute, primary and community care (although as reported earlier, the acute Trust did not participate in the research). There was no specific strategy of the care over people aged 85 or over, but there was a strategic recognition of the need to better manage care needs in the community in advance of patients seeking urgent or unplanned care. This view was widely supported and shared across different strategic actors, including GPs, acute specialist, community care providers and commissioners, revealing a strong set of shared priorities around the management of patient need. A significant feature of site I1 was the existence of a single unitary community healthcare provider that covered the range of services for both city and county. This was seen as not only producing efficiencies and cost savings but also supported integration across the range of services rather than different services being provided by a range of agencies.

This strategy was further exemplified by a number of significant interventions and approaches found within the I1 site. This included sustained financial investment in community care services, such as new clinics, out-reach services and community hospitals. It was also described how change had been backed and driven by both strong service leadership and widespread engagement with clinical and patient groups, so as to garner and secure support for change initiatives. The importance of this was further reported in relation to recent leadership changes and the belief that transformation was now more difficult. It was also suggested that change agents had persevered in the face of adversity to realise shared strategic vision for enhance community care. In addition, service transformation programmes were described as clearly aligned to overall strategic objectives, well-lead and resources and supported with workforce development and education.

A further feature of site I1, which might stem from the unitary community care provider, was the strategic and operational emphasis of integrated care, between both health and social care agencies,

and between acute and community care providers. This was supported by the co-funding of improvement projects and the joint commissioning of services. Where changes might have run counter to this integrated approach, such as with the introduction of a private provider for out-of-hours primary care, it was reported that services still operated on the basis of integration and collaboration, rather than competition. Integration within the area was described as being supported by targeted technologies. Although these were also described as inhibited integration in some circumstances, in most cases they were described as enabling timely and effective communication and knowledge exchange across occupational and organisational boundaries. This was described as enabling frontline care providers to direct patients to more appropriate services rather than to the ED.

In sum, site I1 revealed an over-arching strategic commitment to supporting patient care in the community and where specialist or urgent care was a necessary last resort. This was matched by giving strategic leadership to community agencies and working to integrate acute and community services through a variety of financial, structural and technological activities. It was also found that the close integration of service support learning both within and across organisational boundaries, revealing a form of system resilience and dynamism. In addition to these headline findings site I1 offered a number of associated learning points:

Strategy

- Create and maintain a shared vision and agree a strategy across health and social care services
- Allow time for relationships to develop so that it is possible for this vision to succeed and survive
- Work hard to keep the vision alive over time, through reorganisations and changes in key decision makers

Structures

- Vehicles such as system wide Urgent Care Boards can play a key role in overseeing service change and service integration
- Clustering services under the same provider can be a constructive strategy through which to foster integration
- Address the challenge of creating integrated primary care teams inclusive of general practice and out of hours care

Systems

- Develop IT systems that are integrated across acute, community and primary care
- Support and involve families, carers and care homes in the management of vulnerable patients

Shared values

- Work towards seeing people as based in the community and help them continue to support themselves there

Style

- Retain and support leaders who can champion the right culture

Staff

- Make all staff accountable to their contribution in achieving the organisational goals

Skills

- Assess need to improve IT systems training

Site 12

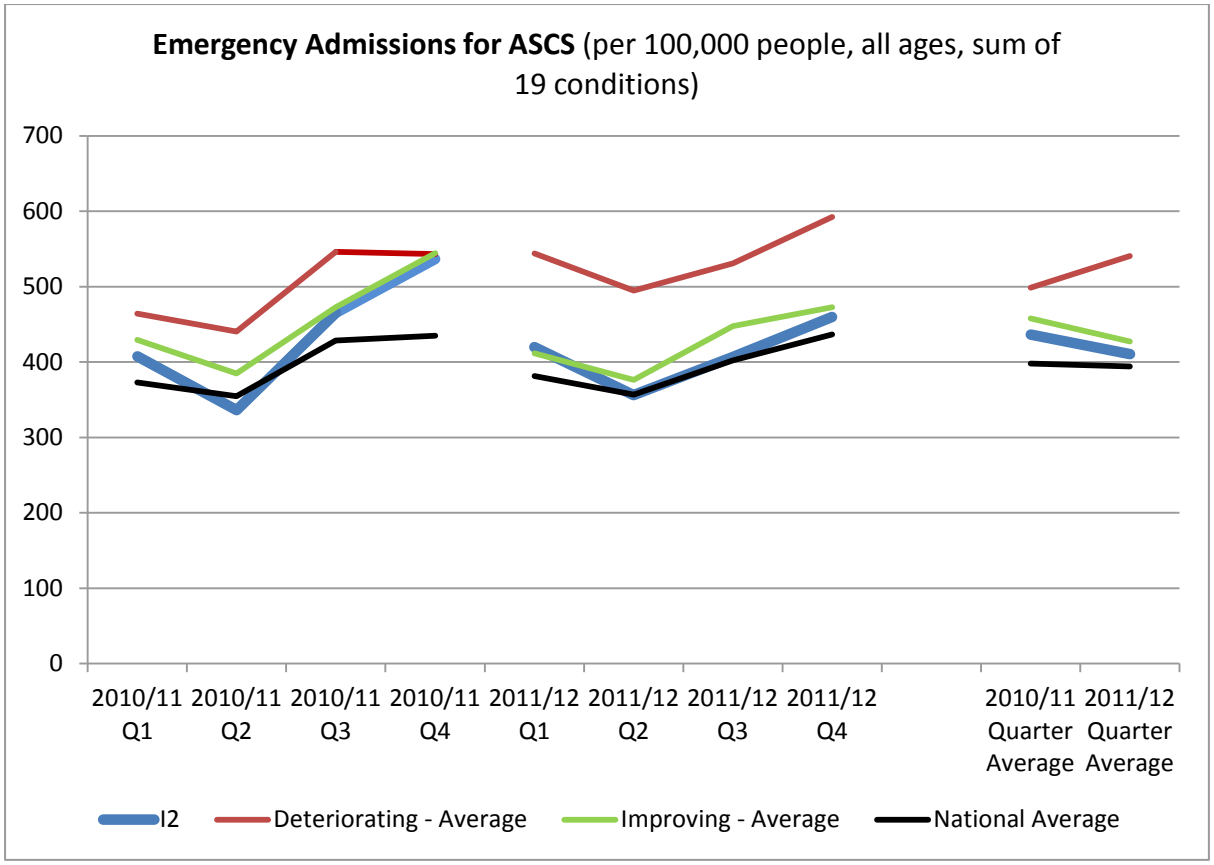
I1 PCT is a rural area with several towns, classified as a 'manufacturing town' by ONS. It has a relatively small population base, ranked 139th out of 151 PCT's. Its deprivation rank is 40/151, meaning it is in the most deprived third. Its admissions rate for the age group of 85+ ranked 137th out of 143 PCTs, by far the lowest of our selected sites. 83% of acute admissions from the PCT are to the linked acute Trust. As shown in *Table 16* and *Table 17*, admission rates for people aged 85+ were well below the English average in 2007/8, and fell further over the subsequent two years. Readmission rates were below the average for England and improving sites, but increased slightly, in line with other improving sites. Admissions for ACSCs declined to a similar extent to that seen in the other improving sites. Results from the GP survey for access to GP services and out of hours were similar to the average for improving sites.

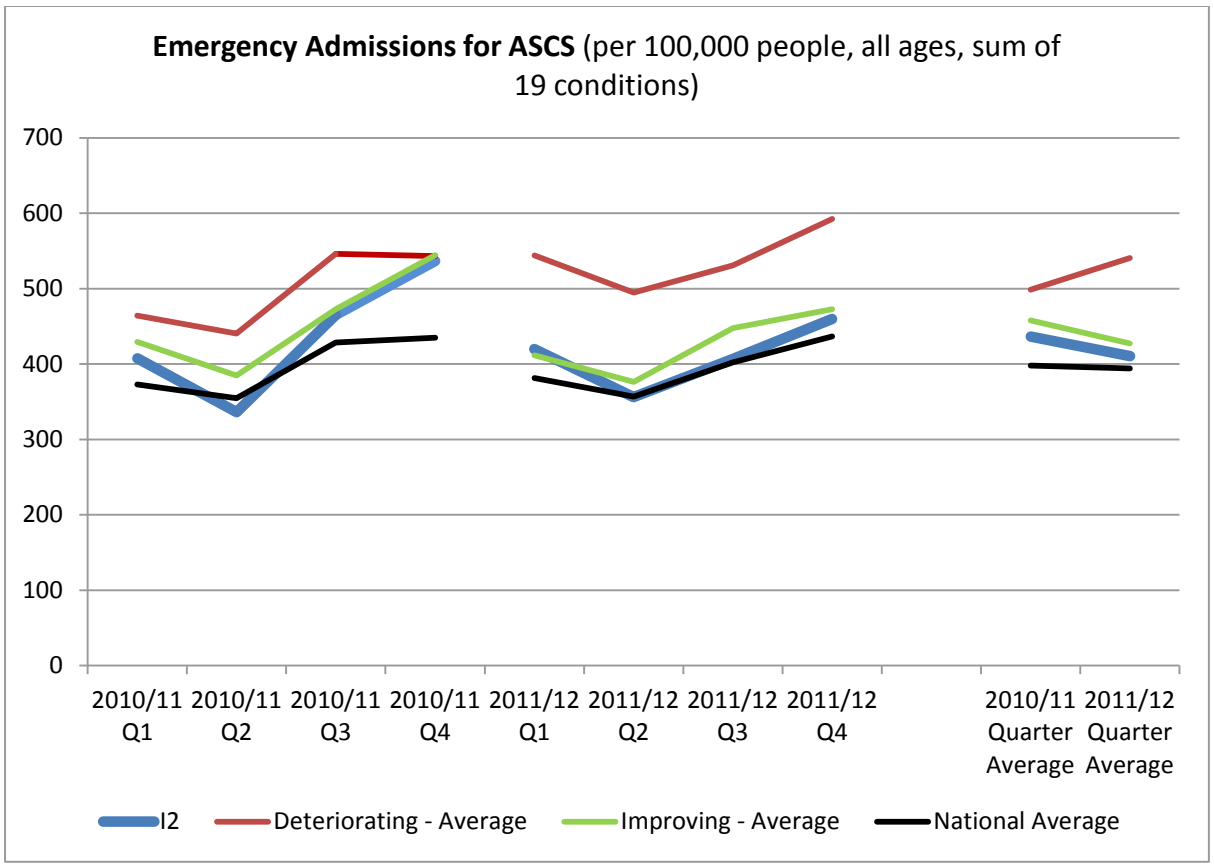
Table 16 - Admission rates 85+, 2007/8 to 2009/10, site I2

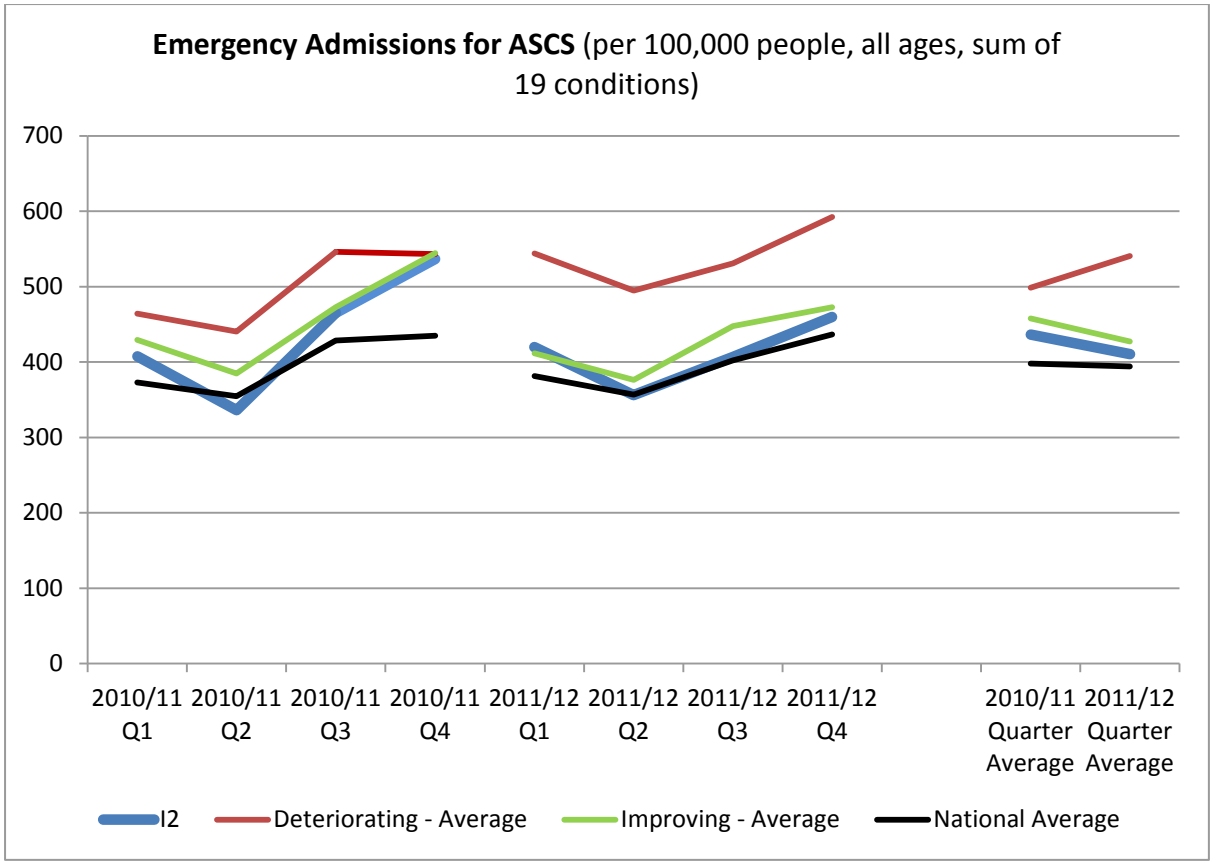
Site	2007/08	2008/09	2009/10
I2	41%	41%	39%
Improving sites - Average	52%	51%	49%
England - Average	48%	52%	52%

Table 17 - Emergency readmissions rates (%) within 28 days of discharge from hospital: adults aged 75+, 2007/08 to 2009/10, site I2

Site	2007/08	2008/09	2009/10
I2	10.6%	12.3%	11.9%
Imp - Average	14.1%	15.0%	15.1%
England - Average	14.4%	14.9%	15.4%


Emergency Admissions for ASCS (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
I2
Deteriorating - Average
Improving - Average
National Average


Emergency Admissions for ASCS (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
I2
Deteriorating - Average
Improving - Average
National Average



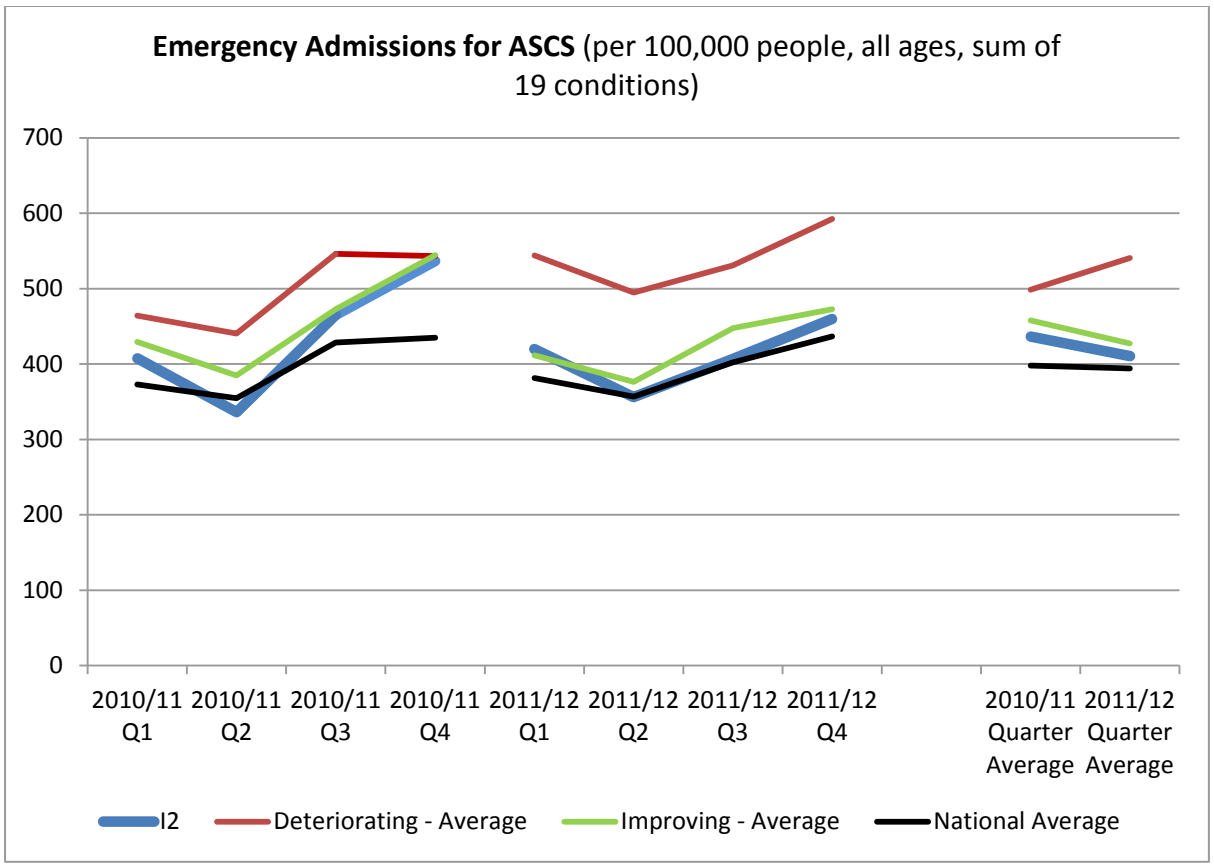


Figure 28 - Emergency admissions for ACSC 2010/11 to 2011/12, site I2

Site I2 is a largely rural and in some places remote geographical area comprising three small-medium sized towns. The area is served by a single NHS Acute Trust which manages three district general hospitals, one in each town, which together provide a wide range of acute services. Although some specialist services are provided by the Trust many patients travel out of area to a regional teaching hospital for specialist care. Emergency services are provided by two of the larger hospitals, whilst the smaller hospital offers an urgent care centre. The Trust is also the primary community health care provider and manages a number of community-based clinics. In 2007 a new Care Trust Plus was established which involved the transfer of adult social care from the local authority to the NHS Trust, which was premised on the idea that the NHS should focus on disease management and older people. In addition, a nationally-funded initiative community care agency operates across the region alongside existing health and social care providers. In addition, a range of social enterprise and private care providers operate within the area, including a local authority volunteer scheme which includes over 250 volunteers helping with a range of community and social care services. The local PCT also provides a walk in centre at the largest town. There are over 40 GP practices in the area, of which about 54% are single-hand GPs.

The findings suggest site I2 was characterised by a high degree of integration and coordination between acute, community, primary and social care services. This was exemplified by the fact that the main NHS Trust managed and provided both acute and community adult care services, involving a transfer of some community and social care services from other agencies. This therefore enabled closer integration of services across the patient pathways and a strong sense of organisational cohesion. For example, there was evidence of services being provided by 'one organisation', which could reduce the need for discussion about resource allocation. More generally, it was felt that services shared a sense of purpose and there was generally a good working relationship between different component parts of the health and social care system.

The sense of integration between sectors was further evidenced through the use of explicit and transparent care pathways and relatively simplistic system designs that could help commissioners, referrers and patients navigate the care system, as well as clearly define the roles and responsibilities of different systems actors. In particular, there was evidence of close strategic working between the NHS Trust and the local authority, as explicitly by the transfer of adult services, as well as coordinated working with the wider range of private and voluntary care providers. This sense of collaboration and coordination made it easier to share information between service providers, deliver more patient-centred holistic care and also enabled the targeting of interventions to better manage patient care needs. For example, GPs operated a Personal Medical Service that

helped to proactively assess and manage the needs of patients to avert unplanned admissions. GPs also remained active in managing the local out-of-hours services, rather than relying on external contractors, therefore providing continuity of care in terms of available information and clinical resources. In particular, a rapid response service was introduced to explicitly manage unplanned admission through addressing the needs of deteriorating patients at home or in the community rather than referring to the ED. Also of significance was the large team of voluntary workers who helped to manage patient needs in the home. The range of support included meals, personal care, mobility and home help among many other initiatives. This also involved specific community based campaigns to support older patients, such as during winter. In parallel, efforts had been made across the region to improve and monitor the standard of care homes through the local authority.

At a strategic level, it was reported that there had been a clear and relatively stable leadership at senior levels across the health and social care system that typically worked in unison. This had enabled services to respond effectively and quickly to funding cuts and working in more coordinated ways to help share financial shortcomings and potential risks to service delivery. In frontline services it was also reported that relative stability and continuity of staff had enabled strong and open working relationships to develop and to ensure that any uncertainties brought about by changes in wider system structure, e.g. commissioning, were mitigated by continuity of leaders and staff. In sum, site I2 highlights the scope for integrated working between health and social care providers across public, private and third sectors, in particular for strategic actors to align and coordinate their activities in ways to support more integrated and coordinated front line services. Further learning points from the across this site include:

Strategy

- Allow time for the integration between new local partners, encouraging the spread of common goals
- Vertical integration enables services across the patient pathways to work more closely and provides a strong sense of organisational cohesion

Structures

- Integration can be facilitated by leaders in each service stream (primary care, community care, social care) being matched to partner leads in the other services
- Colocation, when practical, helps improve interactions between services.

Systems

- Rapid response services at sufficient scale are a key means for reducing unplanned admissions
- Integrate social work and nursing teams that cross the boundary between community and hospital
- Keep patient pathways simple and transparent
- Integrate clinical information systems

Shared values

- Share values across the leadership of all involved organisations
- Promote and share the value of enabling older people to stay at home

Staff

- Consider incentives for staff to encourage them to stay within the region
- Champion strong leadership

Style

- Foster mutual respect to improve quality of working relationships

Site I3

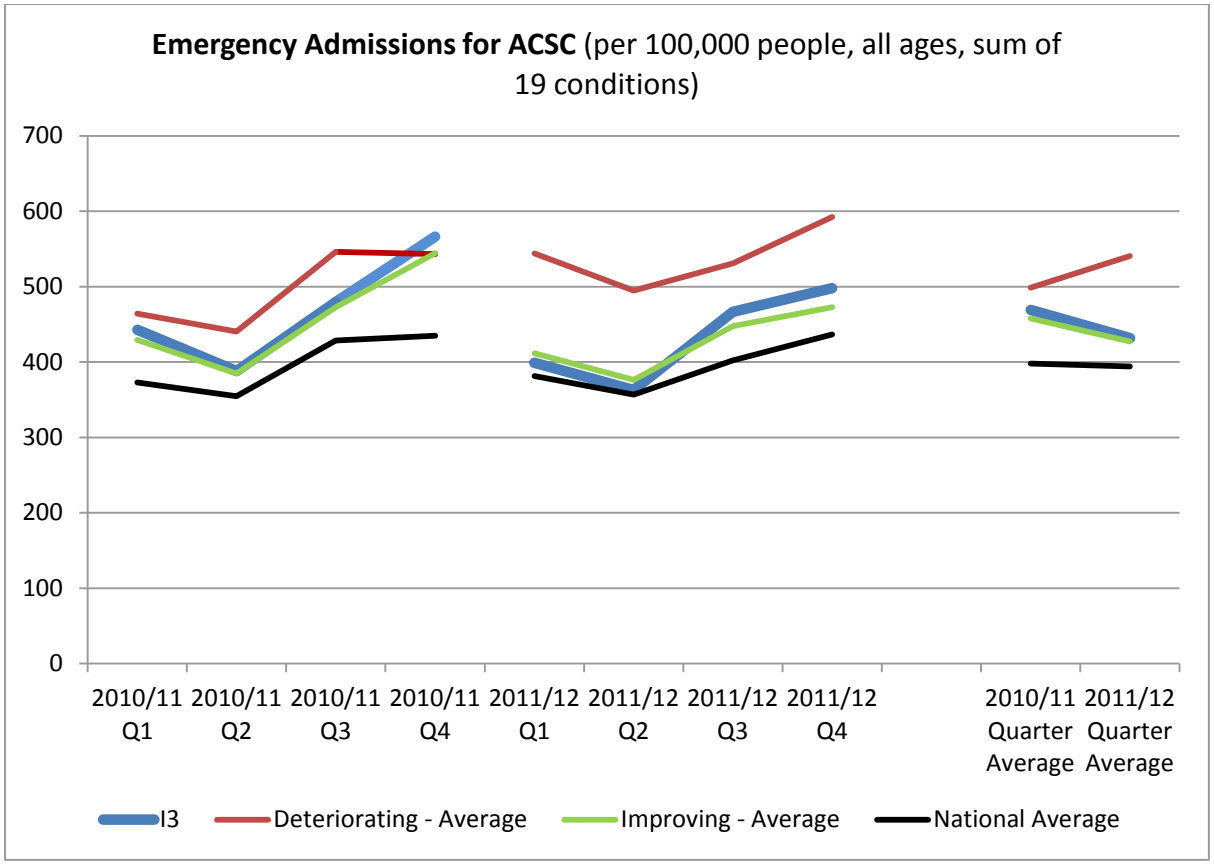
I1 PCT is a mixed urban and rural area, classified as 'industrial hinterlands' by ONS. It has an average population base, ranked 42nd out of 151 PCTs. Its deprivation rank is 50/151, with pockets of affluence and severe deprivation. Its admissions rate for the age group of 85+ are higher than average, ranked 42nd out of 143 PCTs. 87% of acute admissions from the PCT are to the linked acute Trust. As shown in *Table 18* and *Table 19*, admission rates for people aged 85+ were well above the English average in 2007/8, but fell over the subsequent two years. Readmission rates were also above the average for England and improving sites, and increased slightly, but less than the national trend. Admissions for ACSCs declined to a similar extent to that seen in the other improving sites. Results from the GP survey for access to GP services and out of hours were similar to the average for improving sites.

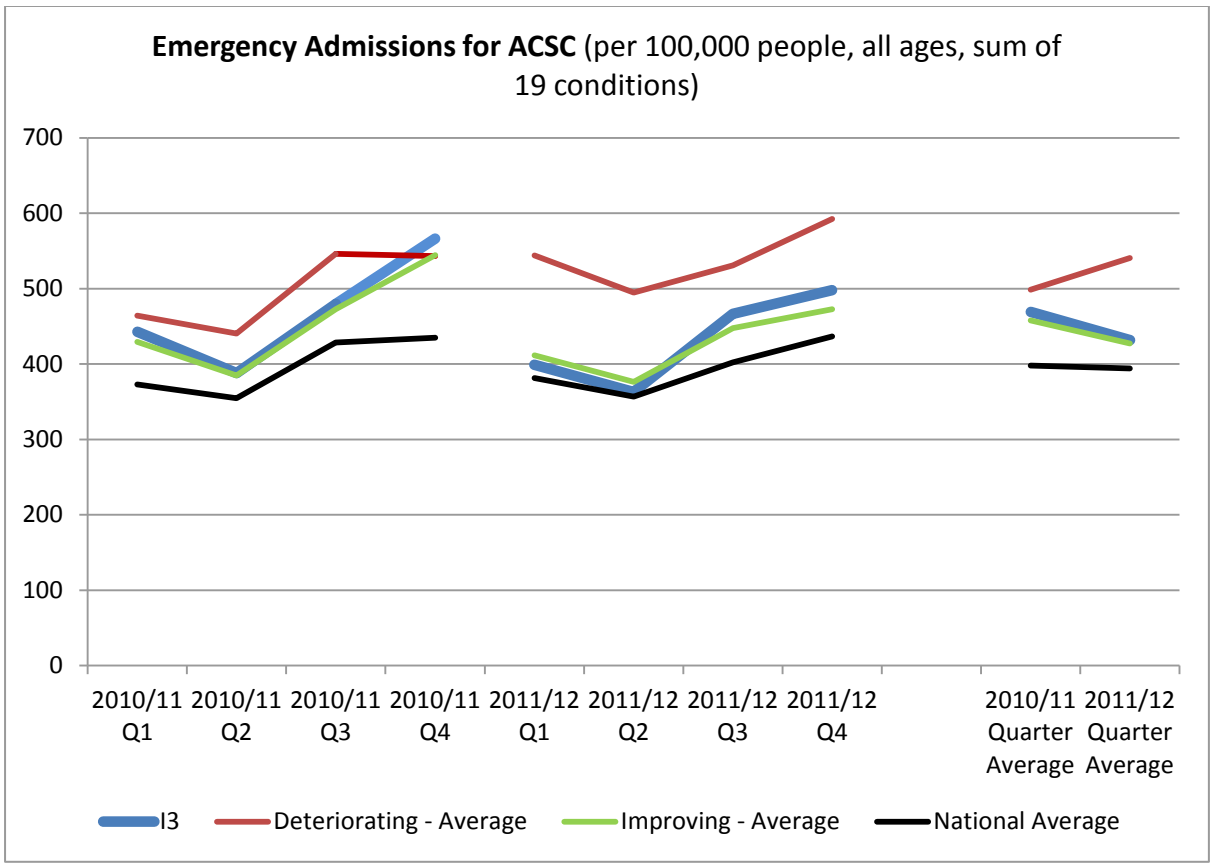
Table 18 - Admission rates 85+, 2007/8 to 2009/10, site I3

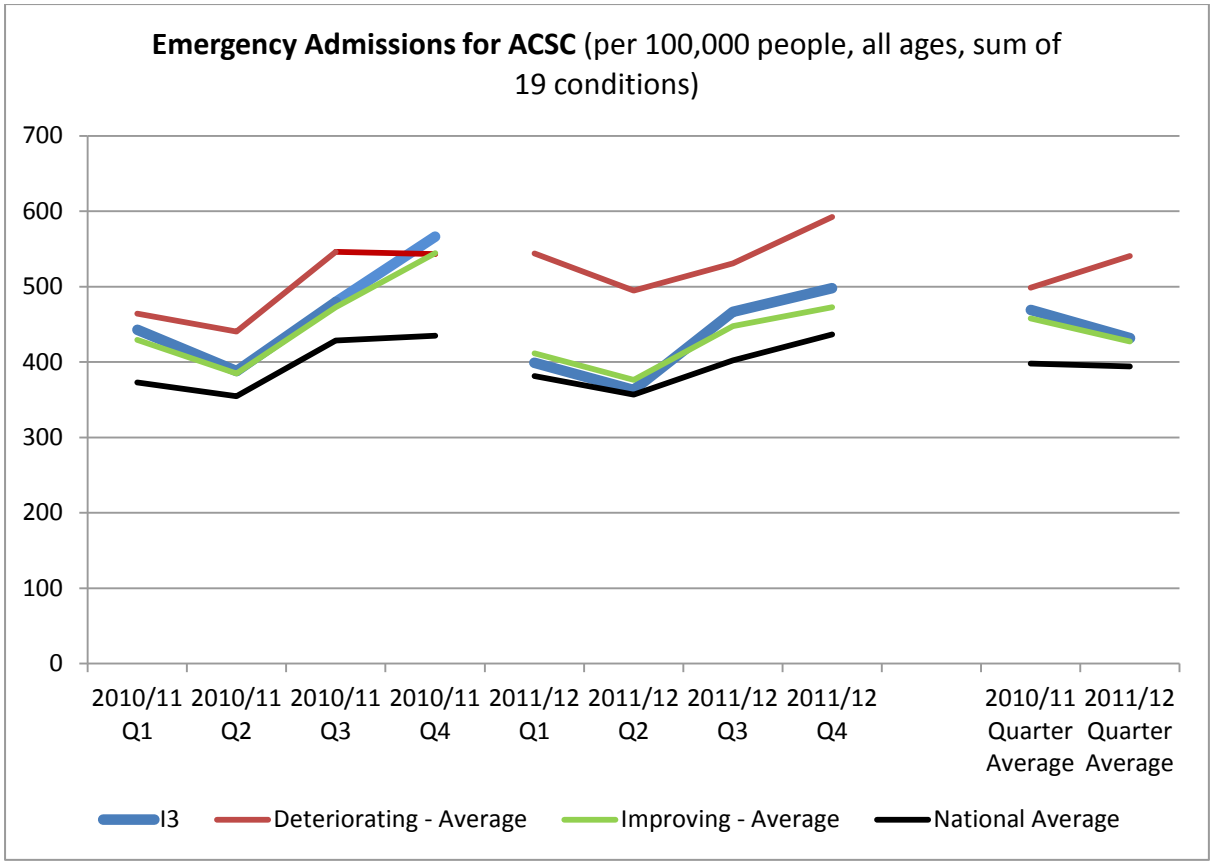
Site	2007/08	2008/09	2009/10
Imp2 – I3 PCT (5NK)	61%	60%	57%
Imp – Average	52%	51%	49%
England – Average	48%	52%	52%

Table 19 - Emergency readmissions rates (%) within 28 days of discharge from hospital: adults aged 75+, 2007/08 to 2009/10, site I3

Site	2007/08	2008/09	2009/10
Imp2 – I3 PCT (5NK)	16.4%	16.8%	16.9%
Imp – Average	14.1%	15.0%	15.1%
England – Average	14.4%	14.9%	15.4%


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
I3
Deteriorating - Average
Improving - Average
National Average


Emergency Admissions for ACSC (per 100,000 people, all ages, sum of 19 conditions)
700
600
500
400
300
200
100
0
2010/11 Q1
2010/11 Q2
2010/11 Q3
2010/11 Q4
2011/12 Q1
2011/12 Q2
2011/12 Q3
2011/12 Q4
2010/11 Quarter Average
2011/12 Quarter Average
I3
Deteriorating - Average
Improving - Average
National Average



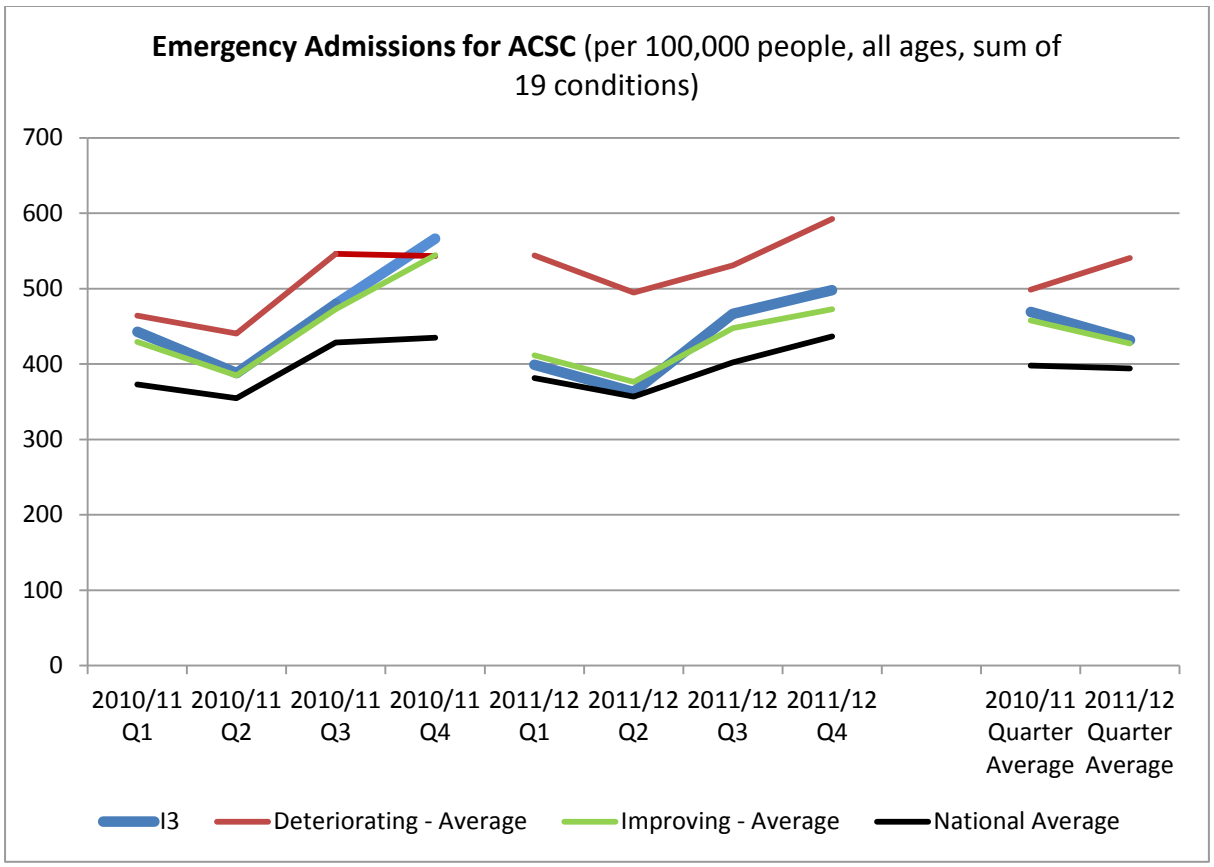


Figure 29- Emergency admissions for ACSC 2010/11 to 2011/12, site I3

Site D3 is a semi-rural and urban conurbation with close proximity to a large metropolitan area. Although the majority of acute and community healthcare services are organised and managed within this catchment area, local authority services are managed by a larger authority that extends outside the catchment area. Within site I3 a single NHS Foundation Trust provides a wide range of acute and emergency services, across two hospital sites, each located in small commuter towns. Although some specialist services are provided by the Trust, other specialists services are provided at hospitals located in adjacent metropolitan areas. Alongside the two distinct general hospitals, the Trust also operated one community hospital and a health centre providing outpatients services. Community healthcare services are provided by a single NHS Trust, including community nursing, out-of-hours GP services and dedicated services for unplanned care, including single-point of access service. These services are provided through community hospitals, 3 walk-in centres and an urgent care centre co-located with the acute Trust. The region relies heavily on care homes in which they have introduced a rapid access (intermediate care) scheme that provides urgent beds for patients. This facilitates both discharge and avoids unplanned admission, and is funded collaboratively by the local authority and healthcare commissioners fund.

A significant finding from site I3 was the absence of boundary complexity or disputes between different health and social care agencies. In part, this might reflect the particular geography of the area, but there was close alignment between primary, acute and community care boundaries, whilst also borough (not county) authorities also aligned with these boundaries. This was seen as making it easier to design and enact coordinated services and streamlined issues of accountability and communication. Reflecting this, it was reported that services were well integrated, despite some discrepancies and tensions between acute and community care where, for example both provided similar or linked services. Similarly, the provision of out-of-hours GP service by the community NHS Trust was seen as supporting integration with primary care.

Urgent and emergency care was widely recognised as a common strategic priority across site D3. This was evidenced through align policies, common care pathways and a range of specific service interventions aimed at reducing unplanned admission and supporting care management in the community. Of particular note, these strategies were explicitly targeted at older patient groups. This included, for instance, an admission prevention service, which provided rapid response to patients in need, a single point of access and multidisciplinary clinics for managing the older people care needs. These clinics were described as well-suited to understanding and managing the complex care needs typically associated with older patients.

Alongside NHS service, additional co-investment was made by local authority and NHS services in intermediate care to help avoid admissions or support care transition. This included the provision of additional bed capacity in private or statutory care homes through the introduction of a rapid access service. Linked to this, additional activities were introduced within the care home sector to better manage patient care and reduce admissions, including community nursing and geriatric care.

Site I3 shows how the alignment of organisational boundaries can help to align potential divergent modes of working and encourage more combined strategy. It also highlights a sustained commitment to reducing unplanned admission across organisational sector boundaries through better and more proactive management of complex patient needs through alternate community pathways. Further evidence and detail from site I3 is present in the case report in Appendix D and additional learning points are summarised below:

Strategy

- Create and maintain a shared vision across health and social care
- Minimise disruptions due to re-organisations and staff changes
- Avoid multiple initiatives which are inadequately marketed

Structures

- Maintain a clear organisational structure
- Consider using social fund to purchase admission avoidance/supported discharge schemes

Systems

- Intermediate care provision should be integrated with 24/7 availability and a single point of access
- Offer home based intermediate care to reduce risk of institutionalisation
- Support care home staff training by more skilled NHS nursing staff
- Develop IT systems that are integrated across acute, community and primary care and all work roles

Shared values

- Create a more patient-centred approach to overcome service delivery disagreements

Skills

- Improve IT systems and training
- Allow community and hospital staff to learn each other's skills for dealing with the very old

Staff

- Push and champion high standards of staff in care homes
- Establish strong and reliable leaders

Style

- Recognise that staff need to perform different roles and help them bridge the gap between health and corporate performance

4.3.4 Synthesis of improving sites

The three improving sites provide a picture of a health system, which in contrast with the deteriorating sites, involved greater stability and continuity amongst a range of well-coordinated health and social care service providers. Each case identifies key areas and issues (please also refer to the individual case reports) relevant to the challenge of dealing with unplanned admissions, and collectively, these build up a picture of the common attributes that might explain how these systems managed better and had reduced levels of unplanned admissions for patients aged 85 years or over. Looking across these three sites, and in comparison to the first three sites, a number of headline features can be identified.

First, all three improving sites exhibited a shared and comprehensive strategy for managing unplanned care, including specific policies and procedures for older patient groups. These were linked to a range of interventions to better manage patient care in the community, which includes rapid access service, intermediate care service, out-of-hours care and support from voluntary sectors. Significantly, these strategies and policies were not isolated to individual care providers. Instead, they were shared across the wider health and social care setting suggesting an underlying basis of collaboration and coordination between care providers, reducing the risk of dominance by one provider as noted in deteriorating sites.

Second, and possibly influencing the first, each site was characterised by stable and clear strategic leadership, whether through individual change agents or coordinated agencies that provided continuity of purpose, fostered collaborative working and maintained commitment to improvement. Significantly, there was less evidence of knee-jerk change or projects not being brought to completion.

Third, and supporting the above, improvement projects were generally well-resourced, often through co- or matched funding arrangements between local agencies and national bodies.

Moreover, change projects were usually given time to develop and embed into practice rather than being subject to changing fashions or emerging policies.

Fourth, these sites typically provided integrated community health (and in some cases social) care provision through a single or main NHS organisation. This could either be a typical community healthcare provider or a unified community and acute provider. Significantly, the integration of community care within one provider not only enabled efficiency savings but more importantly enhanced integration between specialist teams or care providers. It also meant that the introduction of service innovations could be more easily aligned with and integrated into existing services, rather than seen as operating in competition.

Fifth, there was also closer alignment of out-of-hours GP services with either community or acute NHS providers. As above, this facilitated closer integration of primary, acute and community services, especially for information sharing, continuity of care and joined up working more generally.

Sixth, these services also seemed to make more explicit and strategic use of voluntary care agencies. These often provided service in more responsive and dynamic ways that eluded traditional healthcare providers.

Finally, and as a final point of clarification, it is worth noting that all three improving sites were relatively small and geographic bounded and comprised of smaller cities or towns with surrounding rural areas. Only one had a large city and none had large metropolitan areas. In two sites, acute services were predominantly provided through traditional District General Hospitals with limited teaching and specialist services, and where specialist services were managed out of area. As such, it might be that these acute trusts could be easily focus on organising and prioritising reductions in acute care and working in collaboration with local health and social care partners, i.e. these acute hospitals did not act as large centres of excellence and dominate the regional health economy. That being said, one of the improving sites did have a large specialist teaching hospital and continued to work collaboratively with regional care providers.

4.3.5 Improving sites summary

Table 20 - Summarised factors for the improving sites

Influences	Stems from	Strong/Positive type	Dimension	Weak/Negative	Stems from	Influences
Commissioning	Structuring	Good investment in community care	**Strategy**	More recent lack of clarity in strategy for urgent care		
		Early engagement of all practitioners a key strategic decision		Increase professional barriers	National strategic funding cuts	Government policy
Design of trusts	Integration of acute, primary and community	Strategic decisions made in a care trust, which allowed for integrated decision making from acute to social care in the community		Targets and incentives, like 4 hour target may increase admissions	National strategies	
				Lack of strategy for patients aged 85 and over	Lack of recognition of rising importance	Government policy and cuts

	Good understanding of patients' needs and management Forward thinking and collaboration Executive decision making	Strategy to focus on needs assessment for very old people helped reduced unplanned admissions Smart ways of dealing with the funding cuts Urgent care a top strategic priority Recognised importance of community care		More recent changes with the shift to CCG's mean organisational goals still up in the air – unsettled and difficult to plan	Significant organisational change	
		Good governance structure,	**Structure (Of care system)**	Out of hours not clearly structured	GP's only expressing interest	

	One of the few places in the country with a dedicated community trust	integration of all service providers at top level Good level of autonomy to design and deliver services Placement of staff whose knowledge complements new structural implementation Accountability of GP services through PMS service design Interdisciplinary teams set up		and reliable Recent changes in out of hours services threaten existing reliability An increasing number of providers threatens to complicate the existing strengths of the organisational structure	when it suits them	

		Out of hours previously run by GP's as a cooperative Rapid response seen an essential structure in the organisation in reducing unplanned admissions		Gradual reduction in intermediate care in care homes, but not much has been done to replace deficit in bed numbers	Recognised damage of institutionalisation	
	Regional layout and planning Commissioning	Lack of boundary issues helps keep a clear structure Investment in interdisciplinary clinics with specialist services for old people		Reduction in nursing and care home support	Costs and workload	

		Out of hours run through the community trust successfully				
Leaders focused on patient centred care Commissioning	Recognised need for the sharing of information Good strategic decisions around innovation Resources in the right places, upstream defence Collaborative delivery and good	Evidence of innovative technology systems being employed Pilots trialling new methods of work are often successful GP out of hours works well at the point of access, as well as rapid response 24/7 hour phone triage service	**System (Processes)**	Interface between teams weakening and struggling to provide services Care homes not always visited by more qualified staff Some technology systems not good enough, dangerous for patients Pilots being used but lack of	Lack of strong leadership/short term contracts/ staff turnover/high level of demand Work load pressures and overlap of professional boundaries Existing professional boundaries stifling innovation Systems for evaluating pilots	

	relationships	through GP's and nurses allowing further access to rapid response if required- recognition of family need for advice Simplistic system design makes it clear for patients and families who they can call – one acute trust Good support and training for care home patients and staff Good community initiatives and volunteering,		education around them Lack of IT systems that allow the sharing of information between all providers highly problematic. A&E often going in blind, which is incredibly dangerous A&E targets can side track professionals judgment	not in place Professional boundaries/lack of investment/ poor choice of computer systems/ computer systems chosen	Government policy

		especially in winter A focus on key programs on urgent, stroke and EOL care puts systems in place to reduce unplanned admissions Good integration with care and nursing homes to allows for staff engagement and development Attention to the importance of poly-pharmacy and initiatives to reduce falls				

	Good governance and leadership/good communication Build up systems fostering long-term relationships	Clear direction and strategies fostered shared value in reaching goals Professionals willing to work together and bend hierarchies in order to put the patient first Strong organisational cohesion Health over politics Families tuned into help the care of their older relatives	**Shared Values (for system working)**	Shared values of families towards the care of old people being challenged by the requirement for work and travel Recognition that the government cuts stifle cohesion Patient centred care sometimes lost due to boundary issues	Increased workload and costs	

		Good communication and energy for providing good quality care for old people				
	Strong values and goals	Perseverance of staff to see through projects and get people on-board Very good at overcoming disagreements. Staff/organisations have developed interpersonal skills that enable effective working relationships	**Skills**	Variance in skill set of GP's Hospital staff very risk adverse Readmission rates high suggest problems with community care	Lack of GP governance Risk adverse culture Care pathways back into the community not available	

	Long standing teams	Nursing staff highly skilled and effective				
Culture of patient centred care	Willingness to come together and dealing with the negative aspects of acute/community barriers Built upon over time	Regular contact and meetings between hospital and community professionals arranged A lot of pride in providing services that keep old people out of hospital Effective working relationships, especially between GP's and other services Systems to	**Style**	Risk of complacency, knowing that some services work well can lead to over dependency Some blame culture when services are pressurised Lack of contact with front line care can create problems when commissioners wish to understand patient	Leadership weakening	

		integrate and educate the community on healthcare issues for old people		experiences		
	Close working relationships and simple structure	Multidisciplinary teams in intermediate care particularly beneficial for treating very old people Recognised need for involvement of pharmacists to reduce over medication Loyalty and effort of staff at a high level – long working and close	**Staff**	Communication challenges with ambulance services General trouble with attracting and keeping high quality staff with the region. (GP's nursing and care home staff included) Staff at the very top of the organisation tend to be a bit		

		relationships Previously had very strong leadership		academic and research orientated Staff boundaries and competencies not always used effectively – especially regarding specialist staff Skills required for the best quality community care not always understood appreciated by hospital staff Care home staff can make a huge difference to unplanned	Systems for experiential learning not in place Lack of regulation of staff and care home inspections	

				admissions and the well-being of old patients A lot of leadership change		
		Rapid response and intermediate care being geographically integrated improves patient pathways Dense population used to advantage, but all areas recognised as having specific problems Increased unemployment in the region has led	**Setting**	Inequalities in wealth greatly affect the healthcare challenge Risk of hospital loosing teaching status, affecting staff numbers, skills sets and attraction to the region Ease of getting to hospital can prevent patients and their families		

		to more volunteering (the value of community help has been recognised) Recognised the challenges for people with less money, tailored services and provided information as best as possible		using other services		

4.3.6 Comparison between improving and deteriorating sites and concluding observations

It is first worth reiterating that further empirical and analytical detail can be found within Appendix D for each case study site and the account given above aims to capture the main findings and learning points. It is also important to highlight the enormous challenge of describing and understanding local health and social care systems, because they are inherently complex and characterised by relatively distinct configurations and characteristics. That being said, comparison both within and between the deteriorating and improving sites makes it possible to identify system features that might explain the observed variations on unplanned admission for people aged 85 years and over. A detailed list of possible recommendations was developed through cross-case comparison and subsequently verified and clarified through respondent validation. (see Chapter 4) from which recommendations for change were developed with the implementation sites (see Chapter 6). However, a number of significant issues are identified here.

An overall strategy for unplanned care, in particular, and system integration, more broadly, appears to be essential. This needs to encompass more than the main healthcare providers, e.g. acute hospitals, and be inclusive of primary, community and social care. Moreover, the strategy should be focused on the collective system, not isolated components or sub-systems. For example, focusing strategy on acute care at the expense of community care might lead to unintentional bias in service development. Extending this line of analysis, strategy should be developed at the level of the local or regional system rather than component organisations. This might be challenging given the diversification and pluralisation of care provision and the extension of more competitive market-mechanisms to drive performance.

Second, strategies need to reflect national policy priorities and targets, but these should not be addressed at the expense of local patient and community needs. As powerfully illustrated by the Francis report [66] care providers can easily become trapped in a culture of doing the systems business where 'what is measured, gets managed' (see also Bevan and Hood (67)). In addition, local strategies need to have continuity of purpose and direction, whilst recognising that wider structural change is an inevitable and cyclical feature of health policy. In this regard, consistency of service leadership seems important, which includes leaders who not only represent the interests of their individual organisation but understand the inter-dependencies between service organisations and the need for integrated working.

Third, and reflecting the above, strategies should place at their heart a commitment to integration and coordination between the entire health and social care systems, recognising that all service providers, commissioners and other stakeholders have an active role to play. This also includes full inclusion of the voluntary and social enterprise sectors as key actors in meeting and managing patient demand. Significant in this regard is the need for investment and support for primary care to play and active and full role in system performance. This might involve transforming the image of the GP as a gatekeeper to acute or specialist services, and instead a champion of managing patient need and coordinating the wider health systems around the patient.

Fourth, improvement and innovation projects are common across both deteriorating and improving sites but what characterised the latter was a focus on aligning change projects to overall systems strategy, establishing continuity of change and 'seeing change through', and providing sufficient resources, time and skills to enable change to become embedded in practice. In contrast the former were associated with a plethora of short-lived, sectional improvement projects that were not given the opportunity to become embedded because they did not provide 'quick-wins'. This suggests therefore a change in culture away from short-term strategy and improvement towards more longer-term and shared goals.

5 Development of recommendations

Transcripts of interviews from all sites were analysed by members of the research team to identify lessons that could inform recommendations. Draft recommendations from each site were compiled separately and then combined. Appendix C shows the first draft, with items colour coded to indicate from which site they were derived.

This version was revised following comments by all members of the research team. Evidence (for and against) each recommendation was sought from the literature and references were added to alert readers to the evidence base to support them. This did not aim to be a comprehensive review of the literature, in that evidence was only included for topics related to the recommendations.

Using Survey Monkey, this version was then sent to all site respondents and external members of the project steering group, of whom 21 and 3 respectively responded after two reminders. *Table 21* shows details of site respondents.

Table 21 - Respondents to consultation exercise for recommendations

Organisation:		**Role:**		**Professional Background:**	
CCG	3	Senior manager	10	Medical	3
Acute Trust	6	Service manager	5	Nursing	5
Community Trust	4	Service provider	3	AHP	3
Social Services	2	Other	3	Management	6
Other	6			Other	4

Respondents were asked to indicate their agreement or disagreement with each recommendation on a 5 point Likert scale (Strongly agree (5), Agree (4), Neutral (3), Disagree (2), Strongly disagree (1)). Results and average scores are presented in *Table 22*, with averages from site respondents and steering group members presented in separate columns. An agreement and disagreement score for site respondents was also calculated by counting strongly agree/disagree as 2 and agree/disagree as 1. Items with the low levels of agreement are highlighted in red, yellow, and green, with red indicating strongest disagreement. Both sets of respondents were also invited to add free text

comments. It can be seen that for several items scores allocated by the steering group members differed from site respondents, although it should be remembered that numbers are small.

Results from this consultation exercise were considered at a meeting of the Project Management Group and a revised and shortened list produced. Changes were made based on results from the consensus exercise, consideration of the evidence base and views of the research team. Some items were dropped completely and others were rephrased or consolidated. Details of the changes are listed below.

Strategy: item 5 was dropped as it scored below 4 by both groups, and was felt to reflect a particular problem at one site. Item 16 scored low and so was rephrased and combined with item 15 and 18, emphasising that non evidence based services should only be introduced as part of an evaluation. Items 14 and 20 scored low and so were dropped.

Structure: All items had high levels of agreement by site respondents and were retained, although some were rephrased for clarity.

Systems: in general levels of agreement were high, apart from items 36 (re community beds) and item 39 (re telehealth). These items were dropped, and it was also noted that recent reviews do not support the extension of telehealth. Item 42 was also dropped as it was felt to be too general to be useful, and items 43 and 44 (re care homes) were combined.

Shared values: Although all items scored high, there was felt to be some duplication, and so recommendations in this section were consolidated from eleven to six.

Skills: items 57 and 58 (re multidisciplinary teams) were combined.

Staff and Style: all items scored high and so were retained, although some were rephrased for clarity.

This resulted in a reduction in the number of recommendations from 64 to 47. The final list, with the accompanying evidence is shown in *Figure 30*.

Table 22 - Agreement and Disagreement with draft recommendations by respondents (n=24) and external steering group members (n=4)

Q#	Question	Average	SD (1)	D (2)	N (3)	A (4)	SA (5)	Disagree Score	Agree Score	Net Score	Steering group average
STRATEGY											
	Long Term										
Q1	Create and maintain a shared vision across health and social care: be aware that "big ideas" and "national must dos" and re-organisations come and go	**4.25**	1	0	2	10	11	2	32	30	**4.50**
Q2	Aim to maximise integration between care providers: community and acute care Trusts and health and social care	**4.50**	1	0	2	4	17	2	38	36	**4.75**
Q3	Work at relationships with the local authority and acknowledge that this is a political organisation	**4.33**	0	0	2	12	10	0	32	32	**3.75**
Q4	Allow time for relationships to develop between the local partners, involving the emergence of common goals	**3.88**	1	1	5	10	7	3	24	21	**4.25**
Q5	Avoid tension between localism versus regionalism	**3.92**	1	0	5	12	6	2	24	22	**3.50**
Q6	Try to reconcile tensions between competition and collaboration	**4.04**	1	1	1	14	7	3	28	25	**4.00**
	Medium Term										
Q7	Focus on reconfiguring according to needs of whole system, not isolated pockets	**4.30**	1	0	1	10	11	2	32	30	**4.50**

Q8	Minimise disruptions due to re-organisations and staff changes: these need to be risk managed	**4.13**	1	0	2	12	8	2	28	26	**4.50**
Q9	Admission reduction strategy needs to address underinvestment in primary care	**4.17**	0	1	5	6	11	1	28	27	**4.25**
Q10	Integration of funding and plans should include collectively shared and mutually dependent performance management.	**4.13**	1	0	1	14	7	2	28	26	**4.25**
	Short Term										
Q11	Avoid transient pilots with no follow through and multiple initiatives which are inadequately promoted/ marketed (E)	**4.43**	0	1	1	8	13	1	34	33	**3.75**
Q12	Assess measures directed towards productivity and savings carefully and so avoid downside impact on quality and/or capacity	**4.30**	1	0	0	12	10	2	32	30	**4.50**
Q13	There are perverse incentives in the system; CCG should challenge trusts through active performance management of admissions and length of stay. (H)	**3.74**	1	3	2	12	5	5	22	17	**4.50**
Q14	Consider direct to public marketing to influence health utilisation behaviours	**3.48**	2	1	6	12	2	5	16	11	**3.25**
Q15	Invest in the full range of evidence based intermediate care services (e.g. early supported discharge for orthopaedic patients) (J)	**4.30**	1	0	1	10	11	2	32	30	**3.75**
Q16	Be prepared to take risks by investing in new models of care that as yet have a poor evidence base	**3.52**	1	1	9	9	3	3	15	12	**3.00**
Q17	CCGs could consider using social fund to purchase	**3.78**	1	0	6	12	4	2	20	18	**3.75**

	admission avoidance/supported discharge schemes										
Q18	Acknowledge that some services will be decommissioned in the process of service redesign	**3.83**	1	0	3	17	2	2	21	19	**4.50**
Q19	Providers prefer broad specifications for service change that are outcome focused as this enables them to make best use of their resources	**3.91**	0	2	5	9	7	2	23	21	**3.75**
Q20	Commissioners are purchasing services for their own patients while providers serve more than one commissioner ; mechanisms need to be in place to enable tailoring of services to populations served	**3.74**	1	3	2	12	5	5	22	17	**3.50**
STRUCTURE (BETWEEN SERVICES)											
Q21	Forums such as system wide Urgent Care Boards should play a key role in overseeing service change and service integration	**3.82**	0	1	6	11	4	1	19	18	**3.00**
Q22	Integration can be facilitated by leaders in each service stream (primary care, community care, social care) being matched to partner leads in the other services.	**4.00**	0	0	5	12	5	0	22	22	**3.33**
Q23	Clustering services under the same provider can be a constructive strategy through which to foster integration	**3.73**	0	2	5	12	3	2	18	16	**2.67**
Q24	Integrate social work and nursing teams that cross the boundary between community and hospital.	**4.18**	1	0	2	10	9	2	28	26	**4.00**

Q25	Effort is needed to integrate mental health trusts in system change especially when community staff sit in other organisations	**4.00**	1	0	3	12	6	2	24	22	**4.67**
Q26	Consider how palliative care teams are integrated as part of the overall system of care	**4.32**	1	0	1	9	11	2	31	29	**4.00**
Q27	Where district nursing teams are no longer based in GP surgeries, relationships should be re-strengthened with more formal links	**4.00**	0	1	3	13	5	1	23	22	**2.67**
Q28	Maximise opportunities for co-location of services	**4.14**	1	0	3	9	9	2	27	25	**4.67**
Q29	Integrate clinical information systems for primary care, walk in centres, urgent care centres, ambulatory care and social care	**4.36**	1	0	1	8	12	2	32	30	**5.00**
Q30	Understand and address the impact that early discharge policies can have on admissions unless additional and compensatory changes are made to the system to accommodate these patients	**4.32**	1	0	1	9	11	2	31	29	**3.67**
SYSTEMS (INDIVIDUAL SERVICES)											
	Emergency Care										
Q31	Review skill mix in ED, consider specialist geriatric cover (24/7), GPs, community matrons, OTs and social workers	**4.18**	0	0	4	10	8	0	26	26	**4.33**
Q32	Review skill mix (including GP and geriatrician input) in Assessment Units (and consider integrating with	**4.32**	0	0	0	15	7	0	29	29	**4.33**

	Primary Care Assessment Unit)										
Q33	Implement a system for assessment and management of people who fall with ambulance trusts and extend this to reduce the conveyance of patients with other conditions.	**3.95**	0	0	6	11	5	0	21	21	**4.67**
Q34	Consider Ambulatory Care Centres (which allow patients who would normally be treated as inpatients to be seen as day cases) to take referrals from GP and divert from ED	**4.05**	0	0	4	13	5	0	23	23	**4.33**
	Intermediate Care										
Q35	Intermediate care provision should be integrated, with 24/7 availability and a single point of access	**4.19**	1	0	2	9	9	2	27	25	**4.67**
Q36	Acknowledge that community "beds" is an old and discredited model for care in the community	**3.10**	0	7	7	5	2	7	9	2	**2.67**
Q37	Assess the need for geriatrician input to intermediate care	**4.29**	1	0	0	11	9	2	29	27	**4.33**
Q38	A roving GP supported by a consultant geriatrician may oversee use of a limited number of "step up" and "step down" beds	**3.81**	1	1	4	10	5	3	20	17	**3.33**
Q39	Consider telehealth as an addition to community matron provision for COPD and HF	**3.38**	3	1	5	9	3	7	15	8	**2.00**
Q40	Provide a specialist community based 24/7 response service for people with urgent mental health needs	**4.33**	1	0	1	8	11	2	30	28	**4.33**
	Geriatric Services										

Q41	Provide GPs with access to urgent geriatric advice (telephone) and urgent clinic appointments	3.95	1	0	3	12	5	2	22	20	4.33
	GP and Extended Hours Services										
Q42	Monitor the performance of GPs in urgent care provision	4.33	1	0	1	8	11	2	30	28	3.67
	Care Homes										
Q43	Work closely with nursing homes hosting beds to assure the quality of care in this setting	4.43	1	0	1	6	13	2	32	30	4.67
Q44	Be flexible about community nurses supporting residents of nursing homes	4.33	0	0	2	10	9	0	28	28	4.33
SHARED VALUES											
	Vision										
Q45	Develop and communicate a shared vision on quality care for older people accommodating medical, functional and managerial perspectives. (A)	4.24	0	0	2	12	7	0	26	26	2.67
Q46	Be proactive in creating the kind of future that is needed; don't wait to be pushed	4.29	1	1	1	6	12	3	30	27	3.67
	Culture and Change										
Q47	Accept and accommodate role changes, including the cultural shift needed for hospital trained staff to work in the community	4.19	1	0	1	11	8	2	27	25	4.33
Q48	Community nurses and GPs need to better	4.24	1	0	0	12	8	2	28	26	4.00

	understand each other's worlds, priorities and ways of working										
Q49	Accept that a key role for NHS managers is to manage uncertainty	**4.43**	0	0	2	8	11	0	30	30	**5.00**
Q50	Acknowledge that new organisations (CCGs) need to find their feet, build relationships	**3.95**	0	1	5	9	6	1	21	20	**3.00**
	Relationships										
Q51	Consider trust-building initiatives to improve relationships between commissioners and providers	**3.71**	1	1	6	8	5	3	18	15	**3.33**
Q52	Avoid blaming other organisations or groups for things that aren't going well; collaborative solutions are more likely to work	**4.10**	1	0	2	11	7	2	25	23	**3.67**
Q53	Focus on the needs of the patient; there is no room for ego	**4.52**	1	0	0	6	14	2	34	32	**3.67**
Q54	Focus on building relationships and supporting staff through redesign	**4.33**	1	0	0	10	10	2	30	28	**3.67**
Q55	Break down role boundaries wherever they get in the way of effective care	**4.38**	1	0	0	9	11	2	31	29	**2.33**
SKILLS											
Q56	Integrate LTC nurses into primary care teams, blending specialist knowledge and generic skills	**4.10**	0	0	3	13	5	0	23	23	**3.33**
Q57	Assure all relevant disciplines are given the opportunity to contribute to multi-disciplinary teams (MDTs)	**4.38**	0	0	1	11	9	0	29	29	**3.00**

Q58	Look to role extension as an alternative to increasing complexity of MDTs	**3.81**	0	1	6	10	4	1	18	17	**3.67**
Q59	Assess need to improve IT systems training	**4.19**	1	0	2	9	9	2	27	25	**3.67**
Q60	Invest effort in developing skills of key groups e.g. staff in care homes	**4.57**	0	0	0	9	12	0	33	33	**4.33**
STAFF											
Q61	Manage pressures at work; stretched or stressed staff resort to silo mentality which will ultimately work counter to integration	**4.38**	1	0	1	7	12	2	31	29	**4.33**
STYLE											
Q62	Leadership by key individuals make a difference especially when working across organisations; take advantage of these people	**4.48**	0	0	1	9	11	0	31	31	**4.33**
Q63	Recognise the importance of clinical leadership: clinician managers can offer particular perspectives	**4.48**	0	0	2	7	12	0	31	31	**3.67**
Q64	Recognise that different leadership styles are appropriate to different problems and situations. Aggressive/tenacious leaders can get things done; liberal, inclusive, charismatic leaders have their strengths-all can be relevant.	**4.29**	0	1	1	10	9	1	28	27	**2.67**

Figure 30 - Final Recommendations

ESCAPE 85+: DRAFT RECOMMENDATIONS v3

Letters in brackets refer to the evidence base at end of document

STRATEGY

LONG TERM

1. Create and maintain a shared vision across health and social care, despite the fact that "big ideas", "national must dos" and re-organisations come and go (A)
2. Aim to maximise integration between care providers: primary care, community and acute care Trusts, health and social care, acknowledging the major cultural shift needed to make this happen (B)(C)
3. Work at relationships with the local authority and acknowledge that this is a politically led organisation. Recognise the role of Health and Wellbeing Boards
4. Allow time for relationships to develop between the local partners, involving the emergence of common goals and consensus that will last (D)
5. Try to reconcile tensions between competition and collaboration by putting the needs of patients first

MEDIUM TERM

6. Focus on reconfiguring according to needs of whole system, not isolated pockets (E)
7. Minimise disruptions due to re-organisations and staff changes: these need to be risk managed through wide involvement and engagement of staff
8. Admission reduction strategy needs to address underinvestment in primary care, including out of hours care (F)
9. Integration of funding and plans should include collectively shared and mutually dependent performance management. (G)

SHORT TERM

10. Avoid transient pilots with no forward planning and multiple initiatives which are inadequately promoted (E)

11. There are perverse incentives in the system; CCG should challenge trusts through active performance management of admissions and length of stay. (H)
12. Assess measures directed towards productivity and savings carefully and so avoid downside impact on quality and/or capacity
13. Invest in evidence based intermediate care services (I) and be prepared to invest in new models of care that lack an evidence base if part of a robust evaluation. Acknowledge that some services will be decommissioned
14. Commissioners could consider using flexible funding (e.g. Social Fund) to purchase admission avoidance/supported discharge schemes
15. Commission services on well-defined outcomes rather than process as this enables providers to make best use of their resources

STRUCTURE (BETWEEN SERVICES)

16. Forums such as system wide Urgent Care Boards should play a transparent role in overseeing service change and service integration (J)
17. Consider facilitating integration by matching leaders in each service stream (primary care, community care, social care) to partner leads in the other services (K)
18. Clustering services under the same provider can be an effective strategy through which to foster integration (L)
19. Integrate social work and nursing teams that cross the boundary between community and hospital.
20. Effort is needed to integrate mental health trusts in system change especially when community staff sit in other organisations
21. Maximise the integration of palliative care teams with the overall system of care
22. Where district nursing teams are no longer based in GP surgeries, relationships should be re-strengthened with more formal links
23. Maximise opportunities for co-location of services and where this is not possible use technology to bridge the gap

24. Integrate clinical information systems for primary and secondary care, walk in centres, urgent care centres, ambulatory care and social care (N)

25. Understand and address the impact that early discharge policies can have on admissions unless additional and compensatory changes are made to the system to accommodate these patients

SYSTEMS (INDIVIDUAL SERVICES)

EMERGENCY CARE

26. Review skill mix in Emergency Departments and Acute Assessment Units, consider specialist geriatric teams/frailty units (24/7), GPs, community matrons, OTs and social workers (M)

27. Implement a system for community assessment and management of people who call emergency ambulance services. This could start with those who fall and be extended to patients with other conditions. (P)

28. Consider Ambulatory Care Centres (which allow patients who would normally be treated as inpatients to be managed as day cases) on hospital sites to take referrals from GP and divert from Emergency Departments (Q)

INTERMEDIATE CARE

29. Intermediate care provision should offer a single point of access, with 24/7 availability (L)

30. Assess the need for geriatrician input, including GP with geriatrician support to multidisciplinary intermediate care services (R)

31. Provide a specialist community based 24/7 response service for people with urgent mental health needs

GERIATRIC SERVICES

32. Provide GPs with access to urgent geriatric advice (telephone) and urgent clinic appointments

CARE HOMES

33. Be flexible about community nurses supporting residents of nursing homes and assure quality of care where homes provide intermediate care

SHARED VALUES

34. Develop and communicate a shared vision on quality care for older people accommodating medical, functional and managerial perspectives (A)

35. Accept and accommodate role changes, including the cultural shift needed for hospital trained staff to work in the community and vice versa

36. Break down role boundaries wherever they get in the way of effective care

37. Professionals across the system need to better understand each other's roles, priorities and ways of working, including recognising that a key role for managers is to manage uncertainty; consider rotating staff through services to enhance this knowledge transfer

38. Avoid blaming other organisations or groups for things that aren't going well; collaborative solutions are more likely to work

39. Focus on the needs of the patient, building relationships and supporting staff through redesign

SKILLS

40. Integrate long term condition nurses into primary care teams, blending specialist knowledge and generic skills

41. Ensure all relevant disciplines are given the opportunity to contribute their skills to multi-disciplinary teams and look to role extension as an alternative to increasing their complexity

42. Assess need to improve staff training in IT skills

43. Invest effort in developing skills of key groups e.g. staff in care homes

STAFF

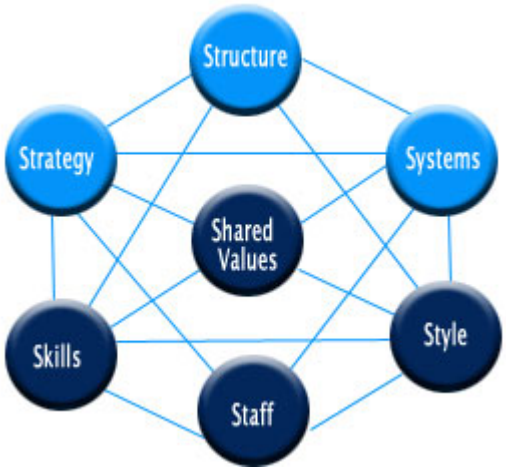
44. Manage pressures at work; stretched or stressed staff may resort to silo mentality

STYLE

45. Leadership by committed and charismatic individuals makes a difference especially when working across organisations; take advantage of these people but build in succession planning

46. Recognise the importance of clinical leadership: clinician managers can offer particular perspectives

47. Recognise that different leadership styles are appropriate to different problems and situations. Aggressive/tenacious leaders can get things done; liberal, inclusive, leaders can increase cohesion, aim to achieve a balance



EVIDENCE BASE

(A) The national evaluation of integrated care pilots (Rand, 2012) concluded that strong leadership and shared vision were facilitators for success, and that 'national policies, processes and legislation; NHS and local government bureaucracy' were barriers

(B)The national evaluation of integrated care pilots (Rand, 2012) showed an increase in emergency admissions but a decrease in planned admissions and outpatient visits

(C) Kings Fund (2012) concluded 'areas that have well developed integrated services for older people have lower rates of hospital bed use' and that 'any local strategy should look across the system and align ways of working between primary, community and acute care to reduce avoidable admission and length of stay'.

(D) The national evaluation of integrated care pilots (Rand, 2012) found 'pre-existing relationships at a personal level across organisations' facilitated success. Kings Fund (2012) found commissioners buying a high proportion of activity from one provider had lower rates of (65+) bed use

(E) Kings Fund (2012) report concluded 'the key to improvement lies in changing a system rather than piecemeal initiatives. A set of unaligned projects will not produce system-wide results'

(F)Foundation Trusts Network (FTN, 2012) briefing found a negative association between primary care spend and Emergency Department attendances in the 65+ (admissions not presented)

(G) The national evaluation of integrated care pilots (Rand, 2012) recommended 'developing a monitoring framework to demonstrate the continuing benefits of integrating activity'. The National Audit Office (2013) identified a number of barriers to closer integration, including differences in funding, performance management and culture between the organisations.

(H) The national evaluation of integrated care pilots (Rand, 2012) recommended 'developing a monitoring framework to demonstrate the continuing benefits of integrating activity'.

(I) Kings Fund (2010) concluded that Hospital at Home was an effective intervention to reduce admissions. This draws on evidence from two Cochrane reviews suggesting hospital at home delivers similar clinical outcomes to inpatient care, is preferred by older people and that admission avoidance schemes may be cost saving

(J) The National Audit Office (2013), noted 'These groups bring together health and social care partners to build consensus, learn from best practice and identify how urgent care services can best be delivered locally. However, decisions about the use of resources will be the responsibility of the individual budget holding organisations'

(K) In its report on integrated care, Kings Fund (2013) emphasised the importance of shared leadership at all levels, not just at the top of organisations

(L) Kings Fund (2013) reports that 'experience indicates the importance of a single point of access, a single assessment process and close alignment between the work of the team and other providers'

(M) There is observational evidence that senior review in ED can reduce admissions by 12% (White, 2010) FTN reported that Trusts that provide early specialist geriatric assessment of older patients in ED and short-stay medical units achieve significantly fewer admissions and lower lengths of stay in hospital.

(N) National Audit Office (2013) noted that 'Patient information is key to better joint working and integration. Patient information is not commonly available across all parts of primary care, social care, community care and secondary care. Patient information is often fragmented and hard to access out of hours.

(P) Enhanced paramedic training can reduce the conveyance rate (relative risk 0.72, 95% CI 0.68 to 0.75) to hospital in older people, including those with cognitive impairment (Mason, 2007) Falls prevention for those assessed by the ambulance crew but not conveyed to hospital is clinically and cost-effective (Logan, 2010, Sach, 2012)

(Q) There is systematic review evidence that assessment/admission units reduce un-necessary admissions (Cook, 2003)

(R) FTN briefing also concluded that 'ensuring the expert geriatric workforce is available at times of peak demand from older patients will improve operational efficiency.

KEY REFERENCES

[68]Cooke MW, Higgins J, Kidd P. Use of emergency observation and assessment wards: a systematic literature review. Emergency Medicine Journal, 2003; 20:138–42.

[69]Kings Fund (2010). Avoiding hospital admissions: what does the research evidence say?

[70]Kings Fund (2012). Older People and emergency bed use: exploring variation.

[71]Kings Fund (2013). Making Integrated Care happen at scale and pace: lessons from experience.

[72]Foundation Trust Network (2012). FTN Benchmarking: Driving improvement in elderly care services.

[61]Logan PA, Coupland CAC, Gladman JRF, Sahota O, Stoner-Hobbs V, Robertson K, et al. Community falls prevention for people who call an emergency ambulance after a fall: randomised controlled trial. BMJ 2010;340:c2102

[73]National Audit Office (2013). Emergency admissions to hospital: managing the demand. London, HMSO

[74]Mason S, Knowles E, Colwell B, Dixon S, Wardrope J, Gorringe R, et al. Effectiveness of paramedic practitioners in attending 999 calls from elderly people in the community: cluster randomised controlled trial. BMJ 2007;39343.649097.55

[75]Rand Europe, Ernst and Young (2012). National Evaluation of the Department of Health's Integrated Care Pilots.

[61]Sach TH, Logan PA, Coupland CAC, Gladman JRF, Sahota O, Stoner-Hobbs V, et al. Community falls prevention for people who call an emergency ambulance after a fall: an economic evaluation alongside a randomised controlled trial. Age and Ageing 2012;41(5):635-41.

[44]White AL, Armstrong PA, Thakore S (2010). Impact of senior clinical review on patient disposition from the emergency department. *Emergency Medicine Journal*, vol 27, no 4, pp 262–5, 296

5.1 Prioritised recommendations

Finally, a list of 'top 20' recommendations was produced, selecting those with the highest scores in the poll of participants, for each component of the 7S model, combining the sections on skills staff and style. The numbers in parentheses refer to the number of the recommendation in the full list. Our findings support the view that recommendations addressing strategic issues should be given the highest priority as they will facilitate the adoption of more operational objectives and ensure their integration both with each other and the wider system.

Strategy

1. Aim to maximise integration between care providers: community and acute care Trusts and health and social care (R2)
2. Work at relationships with the local authority and acknowledge that this is a political organisation (R3)
3. Focus on reconfiguring according to needs of whole system, not isolated pockets (R7)
4. Avoid transient pilots with no follow through and multiple initiatives which are inadequately promoted/ marketed (R11)

Structure

5. Consider how palliative care teams are integrated as part of the overall system of care (R21)
6. Integrate social work and nursing teams that cross the boundary between community and hospital. (R19)
7. Integrate clinical information systems for primary care, walk in centres, urgent care centres, ambulatory care and social care (R24)
8. Understand and address the impact that early discharge policies can have on admissions unless additional and compensatory changes are made to the system to accommodate these patients (R25)

Systems

9. Review skill mix in Emergency Departments and Acute Assessment Units, consider specialist geriatric teams/frailty units (24/7), GPs, community matrons, OTs and social workers (R26)
10. Assess the need for geriatrician input to intermediate care (R30)

11. Provide a specialist community based 24/7 response service for people with urgent mental health needs (R31)
12. Be flexible about community nurses supporting residents of nursing homes and assure quality of care where homes provide intermediate care (R33)

Shared values

13. Develop and communicate a shared vision on quality care for older people accommodating medical, functional and managerial perspectives. (R34)
14. Break down role boundaries wherever they get in the way of effective care (R36)
15. Professionals across the system need to better understand each other's roles, priorities and ways of working, including recognising that a key role for managers is to manage uncertainty; consider rotating staff through services to enhance this knowledge transfer (R37)
16. Focus on the needs of the patient, building relationships and supporting staff through redesign (R39)

Skills, staff and style

17. Ensure all relevant disciplines are given the opportunity to contribute their skills to multi-disciplinary teams and look to role extension as an alternative to increasing their (MDTs) complexity (R41)
18. Invest effort in developing skills of key groups e.g. staff in care homes (R43)
19. Leadership by committed and charismatic individuals makes a difference especially when working across organisations; take advantage of these people but build in succession planning (R45)
20. Recognise the importance of clinical leadership: clinician managers can offer particular perspectives (R46)

6 Implementation

6.1 Aim

The aim of this phase of the project was to identify the practical challenges faced by providers and commissioners in starting to implement system change to reduce unplanned admissions of very old people. More specifically, we wanted to establish the necessary conditions and contribute to drivers for initiating change and better practice for improved system performance for people aged 85+ with urgent care needs. This is not easy in a complex and dynamic environment. The Kings Fund report notes, 'in the real world, interventions will rarely be implemented in isolation. A combination of interventions intended to reduce admissions may be expected to have a 'cumulative' effect and, although each may have little effect individually, there may be greater benefit overall than the combined effects of single interventions'.[6]

6.2 Identification of sites

In the original proposal, we planned to identify two implementation sites in the East Midlands, one large teaching acute Trust, and one district general hospital (DGH). Despite approaching several DGHs at the start of the project, we were unable to find a volunteer, but gained expression s of interest from two university linked Trusts. A primary factor in their selection was that these two were agreeable and conducive to engage with the implementation phase of the project. Equally important was the fact that these sites were local and already had links with the research team. Unfortunately, after initial engagement and several meetings, one of these sites was unable to continue with the project because of staff sickness, and so, with permission from HSDR, we focused implementation activity on one site.

6.3 Methodological approach

The original plan for implementation was to have one Research Associate (RA) lead implementation within the two identified sites. However, following discussions at the two selected sites, the project team decided that a better way to effect change within the complex system would be enlist 'champions' within each site. Research by Soo, Berta (76) strongly recommends this as a demonstrably effective method of effecting change within healthcare systems. This change in direction envisaged identifying and enlisting an individual within the system who would be able to engage at all the necessary levels, from patients, commissioners, ED clinicians, GPs and social care managers, throughout the management structures to chief executive level. Key capabilities of such a person included ability to network, a root and branch understanding of the healthcare system, a willingness to promote the recommendations and assist in dissemination of the work. This approach was modelled on previous work on knowledge diffusion. [54]

Implementation focused on the dissemination and engagement of people on a system-wide level. This type of engagement understandably takes time to establish. Key factors included being aware of the timing of strategic planning and reviews, and being able to take advantage of this. In addition to this, an understanding of the current and future strategic priorities was also very helpful, particularly with regard to advising of 'fit' of some of the recommendation to the specific strategic initiative.

6.4 Profile of the implementation site

The implementation site (IS) was profiled in the same manner as previously done for improving and deteriorating sites in the earlier part of the research.

The health economy of IS has a catchment of 1.08 million, includes a single large teaching hospital with one ED, 3 CCGs covering 154 GP practices and 1 large provider of community health services.

Population demographics are diverse with 13% of the population in the city (total population 380,000) and 23% of the population in the county (total population 628,000) being over the age of 65 years. There is one CCG for the city and 2 for the county, covering the east and the west sides respectively. There is also a budding "Better Care Together" (BCT) Programme and Fund in place with an identified frail older persons' work stream.

Many projects related to older people have been ongoing for several years, including work on end of life care, acute care in emergency department and acute medical assessment units.

Key contextual messages from the research that informed our approach to implementation were:

- **Population** seemed from the study sites to be an important factor underlying increasing or decreasing admissions rates, as it grew more rapidly in the deteriorating sites than in the improving sites. It may be the case that more rapid population growth puts more stress on primary care and emergency systems and the patients get admitted to hospitals more readily. IS has an above average population base and a rapidly increasing number of admissions in the age group of 85+, growing much faster than the population numbers.
- Admissions for **Ambulatory Care Sensitive Conditions** also suggest that deteriorating sites are less able to cope with increased demand for primary care and emergency services. The evidence for this comes from the seasonal variations in admissions and their effect on the ranking of the PCT's. The deteriorating PCT's slip down in the rankings during the cold season while the improving PCT's go up in the rankings. IS had much higher admission rates for ACSCs than average, but in the last few years has been improving on this measure and conforms to the seasonal trends.
- The **out-of-hours GP service** and the **ease of access to GP services** seem to be worse in the deteriorating sites, which may be a reason for higher rates of transfers to hospital care. IS's results are very close to the deteriorating PCT's averages, except in the lack of appointments category, which were below this average.
- The **Chronic vs. Acute admission rates** comparison, as well as the **readmission rates** and the **deprivation** profile offer complementary evidence for pressures on the primary care system. IS is the one of the most deprived of our selection of PCT's and does relatively poorly on those measures.

6.5 Dissemination activity

The dissemination fellow is an ED Consultant and the acute Trust's Associate Medical Director for Clinical Quality and Improvement. He has also been a member of the Better Care Together (BCT) programme clinical reference group and the BCT fund's frailty task group since March 2014.

The dissemination of the recommendations is, although a partially promotional activity, essentially planning and searching for means to present and describe the recommendations to both system-wide and decision making stakeholders.

The draft recommendations were initially presented to the Board of the West [county] CCG in September 2013 where it was well received with an initial desire to tackle some aspects of the findings especially those that impacted on community services. The East [county] CCG had an annual local GP forum, also in September 2013, where some of the draft recommendations were also presented but with no response. Several unsuccessful attempts were made through emails and verbally to have the recommendations from the project presented at the IS's Urgent Care Board. This was more a reflection of the current crisis faced by the local emergency care system, with a constant failing to achieve the 4-hour emergency access target, and its effect on prioritisation rather than anything against the project.

Another opportunity arose in February 2014 when Pfizer invited the dissemination fellow to help organise a NHS-Pfizer collaboration lab in London where the theme proposed on behalf of IS was reducing admissions in older people. Despite representation from the 3 CCGs and acute Trust, nothing has happened as follow up. The stated intention was to develop work together towards developing more joint programmes on reducing admissions.

However, that inability to reduce admissions in older people may be a vital contributor to the system's inefficiencies may not have been acknowledged to the necessary extent. Further avenues are being pursued towards a dissemination that would result in change packages.

In May 2014, IS appointed a transformation advisor. This advisor is a senior geriatrician with knowledge of improvement methodology. He was given access to the draft recommendations to attempt to integrate some of the principles within the urgent care transformation work stream.

In June 2014, IS set up an older person's strategy group to improve care of frail older people within the hospital and in line with the recommendations from the "Silver Book". [55]Currently a summit is also being planned to present the recommendations of the project to the Directors of Strategy in IS to assist with transformation programmes aligned to the outcomes form the BCT projects.

Feedback on recommendations/gauging system-wide response is being planned to include the members of the frailty task group as primary responders with CCGs and other project boards to be included at a later date.

6.6 Understanding the challenges of implementation

For providers and commissioners to begin implementing system change, there are significant barriers to overcome. These include elements such as resources, funding, infrastructure, skills, culture and a dynamic economy. Parkin (77) notes how policy makers have struggled with understanding and managing the NHS (as a national system) and view it as a: "*1940s system in a 21st century world*".

Practitioners and commissioners will have to approach implementation from a systems perspective. This is an approach which is well recognised and established within the healthcare environment, but difficulties in achieving it have been described in the literature. Plsek and Greenhalgh (78) highlight the key aspects of complexity in healthcare and state that: "*In complex systems, unpredictability and paradox are ever present, and some things will remain unknowable*". In addition that: "*Clinical practice, organisation, information management, research, education, and professional development are interdependent and built around multiple self-adjusting and interacting systems*"

These different elements are essentially the same as we have tried to capture in this research by use of the McKinsey 7S framework. The framework attempted to capture and classify the whole system into the seven categories of Structure, Strategy, Systems, Shared Values, Style, Staff and Skills.

On implementing change, Parkin (77) states that: *"Implementing change is healthcare is difficult, challenging and often results are short-lived"*. This should be understood by commissioners and implementation seeks to clearly avoid such short-termism of outcome. This is a very important point and informed the project team's rationale by deciding to engage a dissemination fellow to interact with the system components.

The tasks of the dissemination fellow are ongoing and include:

- Encourage adoption of better practice amongst system stakeholders
- Guide an approach that seeks alignment with existing projects.
- Advising on 'fit' of recommendations within implementation site
- Assist in the dissemination the project findings

6.7 Management of change and overcoming resistance

As noted above, a major barrier to change for stakeholders to negotiate is culture. Scott, Mannion (79) identify a number of different factors that can impede change, with which some our own findings resonate and are highlighted below. Bate (80) points to Structure, Process and Context as three core dimensions as a means to understand and frame change. In the case of this project, the McKinsey 7S framework can be readily mapped onto this and provides a more detailed understanding of the environment under study. Campbell (81) emphasises the point that context (situation) as well as psychology is key in change management practice. Further, in terms of Parkin (77) levels of analysing change model (Macro, Meso and Micro), our concern here is Meso (organisations, institutions, health trusts) and Micro (individuals, groups, interactions).

Moving on from understanding and analysis, Kotter and Cohen (82) proposed a change management model that was effectively followed in this project. Kotter and Cohen (82) identified three phases of change implementation that were referred to as: creating a climate for change, engaging and enabling the whole organisation and finally, implementing and sustaining the change. The greatest concern for this project and where most effort was expended is on the first two of Kotter's phases – preparation and engagement. Much of this ongoing activity is reported above in sub-section 'Dissemination activity'.

In overcoming resistance to implementing change, stakeholders are advised of the following pitfalls as identified by Scott, Mannion (79), also captured by our research and implicitly incorporated into our recommendations ((numbers relate to Chapter 5, figure 3, pp114-119)

A. The lack of *ownership* by individuals and groups can create loss and confusion. People have to 'buy-in' to proposed changes.

Example from our recommendations

- No.34 - Develop and communicate a shared vision on quality care for older people accommodating medical, functional and managerial perspectives

B. *Complexity* and the multifarious influences on culture within the system should be acknowledged.

Examples from our recommendations:

- No.17 - Consider facilitating integration by matching leaders in each service stream (primary care, community care, social care) to partner leads in the other services

- No.3 - Work at relationships with the local authority and acknowledge that this is a politically led organisation. Recognise the role of Health and Wellbeing Boards

C. *External influences* such as policy, will occasionally cast a shadow over internal directions and initiatives, these must be managed.

Examples from our recommendations:

- No.1 - Create and maintain a shared vision across health and social care, despite the fact that "big ideas", "national must dos" and re-organisations come and go

- No.2 - Aim to maximise integration between care providers: primary care, community and acute care Trusts, health and social care, acknowledging the major cultural shift needed to make this happen

- No.12 - Assess measures directed towards productivity and savings carefully and so avoid downside impact on quality and/or capacity

D. Lack of *appropriate leadership* will smother any efforts at implementing change. In our research we noted clear issues where leaders had remained in post for relatively short lengths of time. This somewhat led to discontinuity in organisational direction.

Examples from our recommendations:

- No.45 - Leadership by committed and charismatic individuals makes a difference especially when working across organisations; take advantage of these people but build in succession planning

- No.47 - Recognise that different leadership styles are appropriate to different problems and situations. Aggressive/tenacious leaders can get things done; liberal, inclusive, leaders can increase cohesion, aim to achieve a balance

E. *Cultural diversity* can establish barriers to change. For example, sub-group cultures generally differ between nurses, doctors, managers and patient groups. Ideally there should exist a balance between power and effectiveness between these sub-groups.

Examples from our recommendations:

- No.34 - Develop and communicate a shared vision on quality care for older people accommodating medical, functional and managerial perspectives

- No.37 - Professionals across the system need to better understand each other's roles, priorities and ways of working, including recognising that a key role for managers is to manage uncertainty; consider rotating staff through services to enhance this knowledge transfer

- No.38 - Avoid blaming other organisations or groups for things that aren't going well; collaborative solutions are more likely to work

F. Dysfunctional consequences are usually those unwanted outcomes of some initiatives. An example of this can be seen as the recent policy drive for targets and performance measures. Although a useful device for process improvement, the side-effects have been detrimental to the service received by patients.

- No.12 - Assess measures directed towards productivity and savings carefully and so avoid downside impact on quality and/or capacity

- No.11 - There are perverse incentives in the system; CCG should challenge trusts through active performance management of admissions and length of stay. (H)

- No.9 - Integration of funding and plans should include collectively shared and mutually dependent performance management. (G)

7 Discussion

7.1 Summary of findings

Using a mix of methods we were able to identify important differences between sites in which admission rates of people aged 85 and over between 2007/08 and 2009/10 had increased most rapidly and sites in which these rates had stabilised or declined. Our selection was based on rates of change, not absolute rates, and so it should be remembered that some improving sites had higher admission rates than deteriorating sites. On average, in improving sites, these rates per 100 population at risk fell from 51% to 49%, and in deteriorating sites increased from 53% to 57%. For acute ambulatory care conditions (all ages, as data on 85+ are not available), differences were greater, decreasing from 0.49% to 0.45% in improving sites and increasing from 0.46% to 0.55% in deteriorating sites.

The main contributor to these differences in rates of admission for those aged 85+ was changes in the proportion of zero day admissions (i.e. people who were admitted and discharged on the same day). In improving sites these fell as a proportion of total admissions and were stable (at 9%) when expressed as a rate of the population at risk. Conversely, in deteriorating sites, zero day admissions increased both as a proportion of total admissions and from 10% to 15% of the population at risk. Another contributor to differences between sites was emergency readmission rates for those aged 85+, which were fairly stable in improving sites but rose from 9% to 13% in deteriorating sites. However, readmission rates following a one day admission were higher in improving sites. There are several possible reasons for, this including case mix (i.e. fewer patients with lower level of need were admitted) and that patients were discharged at an earlier stage of their recovery.

Higher rates of zero –day admissions could reflect a lack of alternatives, through provision (or co-ordination) of intermediate care, ambulatory care centres and other community services, and there was evidence from qualitative interviews that this was the case in deteriorating sites. These services appeared to work best when fully integrated with each other, offering round the clock availability with a single point of access, shared information systems and specialist nursing and geriatric support. There were examples from improving sites where all such services were provided by a single organisation, including, in one case, vertical integration through provision by an acute Trust. These conclusions are in line with those of a recent national audit of intermediate care, which found that these services were still fragmented, particularly in relation to mental health. [46]

We also found that in deteriorating sites GP access, including out of hours, was worse. Poor access is associated with increased usage of emergency departments, which could itself increase admission rates, particularly for less than one day. Interview data suggested that in all three deteriorating sites, there had been less focus on developing GP and community services when tackling emergency care. Again, integrated organisational structures appeared important, for example a community trust taking responsibility for out of hours provision.

Within EDs, difficulties reaching the four hour target were reported as increasing the risk of admission in that there may have been insufficient time to offer alternatives. We found evidence of effective strategies for reducing the proportion of older people attending ED who were subsequently admitted. These included review of skill mix, and provision of specialist geriatric teams, and general practitioners and community matrons who could facilitate support in the community following ED attendance. The suggestion that both primary and emergency care services were under more strain in deteriorating sites is supported by our interview findings, which included excessive demand for community based services, which were themselves poorly aligned with each other and other services. A contributory factor for services being under strain is likely to be our finding that the oldest old population increased more rapidly in these locations.

However our interviews showed that the most striking differences between improving and deteriorating sites were not the presence or absence of specific services, but overwhelming differences in leadership, culture and strategic development at the system level, that is not just confined to individual organisations or providers. All three improving sites had strong, stable strategic leadership, enabling the development of a comprehensive system-wide strategy for managing unplanned care, including specific policies and procedures for older people, which were shared across an integrated health and social care setting. This encouraged longer term, consistent development, often in the face of changing national imperatives, which avoided the risk of short term isolated projects. Conversely, in deteriorating sites, strategies were piecemeal, confined to individual organisations and disjointed, and there was less appreciation of how the components of the wider health system should fit and work together. Care was less well integrated, with divergent cultures, values and ways of working.

7.2 Development of recommendations

As outlined in earlier sections, transcripts were reviewed to derive a list of recommendations from each study site, drawing on negative and positive findings. Despite clear differences between improving and deteriorating sites, all were able to provide examples of what appeared to work well and less well, and several findings were common to more than one site. The 7S framework proved useful in encouraging consideration of all elements of organisational performance in deriving recommendations, especially broader issues such as shared values, which may have been under-recognised using a more service oriented approach. We tried to draw a clear distinction between 'structures', which lie above individual services, and 'systems' that describe the services themselves. Inevitably some recommendations could be classified under more than one category, for example lack of community based geriatricians could be considered under 'systems', 'skills' or 'staff'. However, we felt these distinctions were less important than the holistic approach that the 7S model encouraged. By compiling recommendations in this way, we inevitably constructed a long list that could be seen as unwieldy. Although participation in the consensus exercise was lower than we had hoped, it did allow us to eliminate some items where there was low level of agreement and to consolidate others. Although the unique feature of our recommendations is that they are derived from empirical findings, we felt it important to identify how far they are supported by external evidence and expert opinion. The original list of 64 recommendations was shortened to 47, based on results from the consensus exercise, consideration of the evidence base and views of the research team. Some items were dropped completely and others were rephrased or consolidated. Of the list of 47 recommendations, 16 were supported by external evidence, ranging in strength from Cochrane reviews to observational studies and reports by organisations including the Kings Fund and Nuffield Trust. In no case did the evidence contradict a recommendation (the only case it could have happened was regarding telehealth, which scored very low in the consensus exercise and so was removed). Although the final list of recommendations remains long, it will be used by organisations such as commissioning groups and urgent care boards which are likely to have considered several of the issues, so will be most useful to encourage a strategic and system wide approach and as a checklist for specific issues. Finally, a list of 'top 20' recommendations was produced, selecting those with the highest scores in the poll of participants, for each component of the 7S model combining the sections on skills staff and style.

7.3 Implementation

The implementation phase of the project evolved with both the project team's developing insights, as well as resources available for use at that time The original plan of enlisting a research associate to work with and promote our recommendations was amended following discussions at intended implementation sites. The conclusion was that real change within the system could only effectively be accomplished by a person in very particular type of role, and from within the organisation in question. This person would be required to operate at every level within the system and outside if needed, and would need a root and branch understanding of the system. To this end, two dissemination fellows were enlisted to operate at each of the two intended implementation sites. This followed the model of 'diffusion fellows', which have been described as 'champions for change, translating and disseminating knowledge from practice into the research studies and vice versa, taking the knowledge developed by academics back into their own practice environments'.[54] Unfortunately, as reported earlier, because the dissemination fellow at one site had to take long term sick leave, work at this site was not pursued, and the project team decided to commit resource to one site.

There have already been a number of successful interventions at the implementation site, including presentations to relevant CCG boards and a high profile national event organised by NHS-Pfizer to which the dissemination fellow was invited to describe the site's approach to reducing admissions in older people. Recommendations have also been presented to the site's recently appointed transformation advisor, a senior geriatrician charged with developing a whole systems approach to urgent care. Presentation of the recommendations to directors of strategy is planned and a feedback survey is currently being developed in order to gauge opinion of recommendations on a system-wide scale.

Implementation will be ongoing; however, as it is recognised that management of change can take a time. The important points for the project implementation phase are that our findings are carefully and appropriately enfolded within the ongoing needs and priorities of the implementation site. Lessons learned that can be applied to more widespread dissemination of our recommendations include the need for a champion with credibility and understanding of the whole system, an appreciation that all sites will have a significant programme of ongoing work with which recommendation have to fit, and the importance of identifying when, where and by whom key strategic decisions are made. Further work will be needed to test the impact of the project's recommendations in other settings.

7.4 Strengths and limitations

The study design enabled an in-depth examination of the study sites at the extremes of rankings for rates of change in the admission of people aged 85+ in recent years. The mixed method approach allowed quantitative and qualitative approaches to complement each other in several ways. Routinely available HES data enabled us to calculate rates of change within sites and to calculate rates of admission, while effectively controlling for factors such as age and deprivation which are the major drivers of admission rates. More detailed HES and other NHS data allowed us to profile each site in detail to inform the content of interviews with participants and trigger the discussion. Interviewers felt that providing as well as seeking information in this way contributed to interviewees' engagement with the project. By using both qualitative and quantitative data in the analysis we were able to build a complete picture for each site by both measuring changes and identifying reasons to explain them.

A multiple case study design that takes into account the local and wider context is seen as offering strong internal validity through in-depth analysis within case, and as providing a basis for external validity and theoretical generalisation through structure comparison between cases[58]. By following a multiple case study design, this study aimed to describe similarities and differences in the chosen cases, and through comparison of in-depth cases, identify and develop theoretical generalisation that explain differences amongst cases, especially in regards to levels of unplanned admission for over 85s.

Notwithstanding the increased scope for both internal and external validity from multiple case study research, criteria for validity and reliability in qualitative research are often superseded by those of confidence and trustworthiness given the integral role of the researcher in the research process. According to Lincoln and Guba (1985) the trustworthiness can be assessed in terms of a study's: credibility (the extent to which the reader can have confidence in the findings); transferability (the extent to which the findings are applicable beyond the give context or case); dependability (the extent to which the findings are consistent); and confirmability (the extent to which research bias is addressed and considered). In line with Lincoln and Guba's suggestions, the design and conduct of this study reflects a number of features directed at enhancing trustworthiness. In terms of establishing credibility, case selection included analytically distinct (negative) cases, e.g. high and low performing systems; data collection was in-depth and overtime; case analysis combined multiple

data sources, including statistical, documentary and interview data; and findings were sense-checked with relevant stakeholders and experts. In terms of establishing transferability, the study involved multiple cases with common methods of enquiry with the express aim of establishing more transferable and generalizable lessons based upon structured case comparison. In terms of dependability, the case study approaches was designed with a common method of data collection and all instances of individual data collection and analysis were subject to open scrutiny by the wider research team and advisors. Finally, in terms of confirmability, the researchers were all supported in being reflexive about their own role in the data collection process, including regular review meetings with wider research team to discuss data collection; whilst multiple data sources were used to systematically question emerging assumptions and to look for alternate interpretations. Furthermore, the emerging findings and analysis were regular reviewed by external advisors and specialist to sense-check emerging lines of interpretation.

However, the study did have several limitations, some inherent to the methods used, and some due to the climate in which the research was conducted. Our selection criteria were based on change in recent years and so would not have identified sites which had achieved and maintained optimally low admission rates for older people, or those in which rates were consistently higher than expected. Both of these categories of sites could have provided insights relevant to our aims. Although we used the most recent routine data available to us to select sites, inevitably this was historic by the time fieldwork commenced and represented a fairly short timeframe. The strongest interview data came from informants who had been in post, or at least in the locality, for the period of interest and so had an institutional memory, but inevitably many respondents were relatively new in post and were more able and inclined to describe the current situation than historical events. However it is notable that, in all study sites, trends for admission rates remained fairly stable when recalculated using more recent data. Lack of good quality routine data also hampered our ability to understand in detail parts of the whole system. For example, although HES data aims to capture information on admission from and discharge to, care homes, this was not adequately recorded. Another part of the system for which routine data are not available is intermediate care, so it was not possible to objectively examine the views of several participants that increased provision impacted on admission rates, particularly for older people.

The McKinsey 7S framework was used as a method to capture key elements of highly complex healthcare systems. [54] Although the 7S framework was very effective in enabling the systematic investigation of these structures, it did not and indeed does not allow for the context or external climate to be examined. The context was captured by detailed and extended interviews as part of

the mixed methods approach. A further limitation of the 7S framework is that there is a limit to the level of granularity that can effectively be rendered by this technique. Again this was captured to some extent by the rounds of face to face interviews. The study findings suggest the 7S model might be better suited to examining individual organisations or groups of organisations, rather than complex systems of inter-dependent heterogeneous system actors. Furthermore, the empirical findings reveal aspects of the local health and social care system that were not well addressed or covered by the 7S model. These included, for example, the wider social and demographic 'setting' and the influence of wider 'stakeholders' especially patient and public representative groups and dispersed communities.

The feature of the external climate that most affected the study was the fact that the NHS was undergoing a major reorganisation during the course of the study; for example Primary Care Trusts, which were used as the sampling frame, ceased to exist and were replaced by Clinical Commissioning Groups, which in some cases were not co-terminus, and in most cases involved change in personnel, meaning that a historical perspective was more difficult to obtain. This re-organisation and the associated uncertainty about their future that it imposed on staff meant it was very difficult in some cases to engage potential participants, despite organisational support, and interviews and focus groups were much more time-consuming to arrange than would have been the case in more stable periods. Furthermore, reorganisation led one acute Trust to withdraw from the study before fieldwork could begin, and at another site we were unable to recruit a social enterprise organisation because it raised issues about confidentiality and research governance that had not yet been resolved. Thus, although our sample remained large for a qualitative study, further interview data would have provided opportunities for more recommendations to be developed across rather than within study sites. Finally, obtaining NHS permissions at a time of organisational change led to severe delays, as new organisations did not have fully established procedures.

7.5 Need for further research

This project has emphasised the need for research on individual components of care for older people to take account of their impact on the system as a whole, and this is our main recommendation for future research. Parts of the system that appear important in managing

admission rates in older people include primary care, especially access in and out of hours, capacity of intermediate care and management of older people in Emergency Departments.

In primary care there is a need for intervention studies to demonstrate whether improving services for older people, particularly in terms of access and continuity, will result in reduced admissions. A number of initiatives are currently taking place, in part as a result of implementation of the Better Care Fund, a '£3.8 billion single pooled budget for health and social care services to work more closely together in local areas, based on a plan agreed between the NHS and local authorities'[83] These include a named doctor for older people, longer appointments and the provision of a care plan for people at high risk of admission. This provides an opportunity to gather much needed evidence on the impact of initiatives in primary care.

The Better Care Fund is also likely also to lead to an expansion of intermediate care services. Key questions for research include methods to determine the optimal capacity of these services, their skill mix and how they can best be integrated with other parts of the system. As noted earlier, a major limitation in researching these services is lack of consistent routine data.

Finally, there is lack of evidence about how frail older people can best be managed in Emergency Departments, including the need for specialist geriatric teams and acute frailty units.

7.6 Conclusions and recommendations

Both quantitative and qualitative data supported the conclusion that rising admission rates for older people were seen in places where several parts of the system were under strain. Pressure points in the system that contributed to this outcome included worse access to general practitioners both in and out of hours, excessive demand on emergency departments and lack of provision of intermediate care. Places which had stemmed the rising tide of admissions had done so through strong stable leadership and a shared vision and strategy and values across the system and our findings suggest these are the most important to address. The following is a summary of our main recommendations (with some clarification of wording following peer review).

Strategy

1. Aim to maximise integration between care providers: community and acute care Trusts and health and social care

2. Work at relationships with the local authority and acknowledge that this is a political organisation
3. Focus on reconfiguring according to needs of whole system, not isolated pockets
4. Avoid transient pilots with no follow through and multiple initiatives which are inadequately promoted/ marketed

Structure

5. Consider how palliative care teams are integrated as part of the overall system of care
6. Integrate social work and nursing teams that cross the boundary between community and hospital
7. Integrate clinical information systems for primary care, walk in centres, urgent care centres, ambulatory care units and social care
8. Understand and address the impact that early discharge policies can have on readmissions unless additional and compensatory changes are made to the system to accommodate these patients

Systems

9. Review skill mix in Emergency Departments and Acute Assessment Units, consider specialist geriatric teams/frailty units (24/7), GPs, community matrons, OTs and social workers could contribute to work in these departments
10. Assess the need for geriatrician input to intermediate care
11. Provide a specialist community based 24/7 response service for people with urgent mental health needs
12. Be flexible about community nurses supporting residents of nursing homes and assure quality of care where homes provide intermediate care

Shared values

13. Develop and communicate a shared vision on quality care for older people accommodating medical, functional and managerial perspectives
14. Break down role boundaries wherever they get in the way of effective care
15. Professionals across the system need to better understand each other's roles, priorities and ways of working, including recognising that a key role for managers is to manage uncertainty; consider rotating staff through services to enhance this knowledge transfer

16. Focus on the needs of the patient, building relationships and supporting staff through redesign

Skills, staff and style

17. Ensure all relevant disciplines are given the opportunity to contribute their skills to multi-disciplinary teams and look to role extension as an alternative to increasing their (MDTs) complexity
18. Invest effort in developing skills of key groups e.g. staff in care homes
19. Leadership by committed and charismatic individuals makes a difference especially when working across organisations; take advantage of these people but build in succession planning
20. Recognise the importance of clinical leadership: clinician managers can offer particular perspectives

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Contribution of authors

Andrew Wilson (Professor of Primary Care Research): Co-ordinated the project, led on development of recommendations, drafted the final report

Richard Baker (Professor of Quality in Healthcare): Contributed to analysis and development of recommendations, advised on quality improvement and primary care issues

John Bankart (Senior Lecturer in Medical Statistics): Led on site selection, including quantitative data analysis

Jay Banerjee (Consultant in Emergency Medicine): Contributed to analysis and development of recommendations and implementation, advised on emergency care issues

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Stoyan Kurtev (Data Officer): led on acquisition and analysis of quantitative data

Kay Phelps (Research Fellow): Developed topic guides, liaised with study sites, conducted fieldwork

Emma Regen (Research Fellow): Developed topic guides, liaised with study sites, conducted fieldwork

Stephen Rogers (Consultant in Public Health): Contributed to analysis and development of recommendations, advised on quality improvement and commissioning issues

Justin Waring (Professor of Organisational Sociology): Led on qualitative analysis, contributed to analysis and development of recommendations

All authors contributed the final report, and none have conflicts to declare.

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References

1. Office for National Statistics. Mid-year population estimates: ONS; 2010 [15/12/2010]. Available from: http://www.statistics.gov.uk/cci/nugget.asp?id=949.
2. Smith J. Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. Qual Res Psychol. 2004;1(1):39 - 54.
3. Rashidian A, Eccles M, Russell I. Falling on stony ground? A qualitative study of implementation of clinical guidelines' prescribing recommendations in primary care. Health Policy. 2008;85(2):148 - 61.
4. Charmaz K. London: Sage Publications; 2006.
5. Sager MA, Franke T, Inouye SK, Landefeld CS, Morgan TM, Rudberg MA, et al. Functional Outcomes of Acute Medical Illness and Hospitalization in Older Persons. Arch Intern Med. 1996;156(6):645-52.
6. Purdy S. Avoiding hospital admissions. What does the evidence say? London: The Kings Fund, 2010 2010. Report No.
7. Health Services Management Centre. Reducing Unplanned Hospital Admissions: what does the literature tell us? Birmingham: 2006.
8. Jones R. The unsolicited diary as a qualitative research tool for advanced research capacity in the field of health and illness. Qualitative Health Res. 2000;10(4):555 - 67.
9. Leamy M, Clough R. York: Joseph Rowntree Foundation; 2006.
10. Tian Y, Dixon A, Gao H. Emergency hospital admissions for ambulatory care sensitive condtions: identifying the potential for reducations. London: 2012.
11. Polit D, Beck C. Generalization in quantitative and qualitative research: Myths and strategies. Int J Nurs Studies. 2010;47(11):1451 - 8.
12. Glaser A, Strauss A. Chicago: Aldine; 1967.
13. Ellins J. It's better together: involving older people in research. HSMC Newsletter Focus Serv Users Publ. 2010;16(1):4.
14. Gill JM, Mainous III AG. The Role of Provider Continuity in Preventing Hospitalizations. Arch Fam Med. 1998;7(4):352-7.
15. Bankart MJ, Baker R, Rashid A, Habiba M, Banerjee J, Hsu R, et al. Characteristics of general practices associated with emergency admission rates to hospital: a cross-sectional study. Emerg Med J 2011. 2011;28:558-63.
16. Redwood S, Gale N, Greenfield S. 'You give us rangoli, we give you talk': using an art-based activity to elicit data from a seldom heard group. BMC Med Res Methodol. 2012;12(1):7.
17. Merleau-Ponty M. London: Routledge and Kegan Paul; 1962.
18. Thompson C, Hayhurst C, Boyle A. How have changes to out-of-hours primary care services since 2004 affected emergency department attendances at a UK District General Hospital? A longitudinal study. Emergency Medicine Journal. 2010;27(1):22-5.
19. Heath G, Cameron E, Cummins C, Greenfield S, Pattison H, Kelly D, et al. Paediatric 'care closer to home': stake-holder views and barriers to implementation. Health Place. 2012;18(5):1068 - 73.
20. de Stampa M, Vedel I, Buyck J-F, Lapointe L, Bergman H, Beland F, et al. Impact on hospital admissions of an integrated primary care model for very frail elderly patients. Archives of Gerontology and Geriatrics. 2014;58(3):350-5.
21. Oliver D. QOF and public health priorities don't improve care in ageing. BMJ. 2008;337:a1403.
22. Mays N, Pope C. Qualitative research in health care: assessing quality in qualitative research. BMJ British Med J. 2000;320(7226):50.

23. Pope C, Mays N. Critical reflections on the rise of qualitative research. British Med J. 2009;339:737 - 9.
24. Morse J, Barrett M, Mayan M, Olson K, Spiers J. Verification strategies for establishing reliability and validity in qualitative research. Int J Qual Methods. 2008;1(2):13 - 22.
25. Hodges B, Kuper A, Reeves S. Discourse analysis. British Med J. 2008;337:570 - 2.
26. Dingwall R, Murphy E, Watson P, Greatbatch D, Parker S. Catching goldfish: quality in qualitative research. J Health Serv Res Policy. 1998;3(3):167 - 72.
27. Boeije H. A purposeful approach to the constant comparative method in the analysis of qualitative interviews. Qual Quant. 2002;36(4):391 - 409.
28. Scott I, Vaughan L, Bell D. Effectiveness of acute medical units in hospitals: a systematic review. International Journal for Quality in Health Care. 2009;21(6):397-407.
29. Gale N, Sultan H. Telehealth as 'peace of mind': embodiment, emotions and the home as the primary health space for people with chronic obstructive pulmonary disorder. Health place. 2013;21:140 - 7.
30. Saldana J. London: Sage; 2009.
31. Ellis J, Wagland R, Tishelman C, Williams M, Bailey C, Haines J, et al. Considerations in developing and delivering a nonpharmacological intervention for symptom management in lung cancer: the views of patients and informal caregivers. J Pain Symptom Manag (0). 2012;44(6):831 - 42.
32. Gravelle H, Dusheiko M, Sheaff R, Sargent P, Boaden R, Pickard S, et al. Impact of case management (Evercare) on frail elderly patients: controlled before and after analysis of quantitative outcome data. BMJ. 2007;334(7583):31.
33. Svenaeus F. The phenomenology of health and illness. Handbook of phenomenology and medicine. 2001:87 - 108.
34. Woodford HJ, George J. Intermediate care for older people in the UK. Clinical Medicine. 2010;10(2):119-23.
35. Shepperd S, Doll H, Angus RM, Clarke MJ, Iliffe S, Kalra L, et al. Admission avoidance hospital at home. Cochrane Database of Systematic Reviews [Internet]. 2008; (4). Available from: http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD007491/frame.html.
36. Shepperd S, Doll H, Angus RM, Clarke MJ, Iliffe S, Kalra L, et al. Avoiding hospital admission through provision of hospital care at home: a systematic review and meta-analysis of individual patient data. Canadian Medical Association Journal. 2009;180(2):175-82.
37. Shepperd S, Doll H, Broad J, Gladman J, Iliffe S, Langhorne P, et al. Early discharge hospital at home. Cochrane Database of Systematic Reviews [Internet]. 2009; (1). Available from: http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000356/frame.html.
38. Clarey J, Lasserson D, Levi C, Parsons M, Dewey H, Barber PA, et al. Absolute cardiovascular risk and GP decision making in TIA and minor stroke. Family Practice. 2014;31(6):664-9.
39. Pope C, Ziebland S, Mays N. Analysing qualitative data. British Med J. 2000;320:114 - 6.
40. Barnard M, Webster S, O'Connor W, Jones A, Donmall M. London: Home Office; 2009.
41. Popay J, Rogers A, Williams G. Rationale and standards for the systematic review of qualitative literature in health services research. Qual Health Res. 1998;8(3):341 - 51.
42. Seale C. Quality in qualitative research. Qual Inquiry. 1999;5(4):465 - 78.
43. Bazeley P. Qualitative data analysis with NVIVO. London: Sage; 2007.
44. White AL, Armstrong PAR, Thakore S. Impact of senior clinical review on patient disposition from the emergency department. Emergency Medicine Journal. 2010;27(4):262-5.
45. Garfinkel H. Ethnomethodology's program. Soc Psychol Quarter. 1996;59(1):5 - 21.
46. NHS Benchmarking Network. National Audit of Intermediate Care. 2013.
47. Wright PN, Tan G, Iliffe S, Lee D. The impact of a new emergency admission avoidance system for older people on length of stay and same-day discharges. Age and Ageing. 2013:aft086.
48. Reissmann C. London: Sage Publications; 2008.

49. Kodner DL. Whole-system approaches to health and social care partnerships for the frail elderly: an exploration of orth American models and lessons. Health & Social Care in the Community. 2006;14(5):384-90.
50. Iles V, Sutherland K. Organisational Change: A review for health care managers, professionals and researchers. London: National Institute for Health Research (NIHR); 2001.
51. Pettigrew A, Ferlie E, Mc Kee L. Shaping strategic change: Making change in large organizations : the case of the National Health Service. London: Sage Publications; 1992.
52. Fairclough N. London: Longman; 2010.
53. van Loenen T, van den Berg MJ, Westert GP, Faber MJ. Organizational aspects of primary care related to avoidable hospitalization: a systematic review. Family Practice. 2014;31(5):502-16.
54. Rowley E. Protocol for a qualitative study exploring the roles of 'Diffusion Fellows' in bridging the research to practice gap in the Nottinghamshire, Derbyshire and Lincolnshire Collaboration for Leadership in Applied Health Research and Care (CLAHRC-NDL). BMJ Open. 2012;2(1).
55. Saldana J. The Coding Manual for Qualitative Researchers London: Sage Publications; 2009.
56. Mishler E. The struggle between the voice of medicine and the voice of the lifeworld. The sociology of health and illness: critical perspectives. 1990.
57. Jackson S. Organisational effectiveness within National Health Service (NHS) Trusts. International Journal of Health Care Quality Assurance. 1998;11(7):216-21.
58. Yin RK. Multiple case studies with embedded sub cases. Case Study Research: Design and Methods. Fourth Edition ed. California: Sage Publications; 2009.
59. Regen E, Martin G, Glasby J, Hewitt G, Nancarrow S, Parker H. Challenges, benefits and weaknesses of intermediate care: results from five UK case study sites. Health & Social Care in the Community. 2008;16(6):629-37.
60. Swanborn P. Case Study Research. London: Sage; 2010.
61. Logan PA, Coupland CAC, Gladman JRF, Sahota O, Stoner-Hobbs V, Robertson K, et al. Community falls prevention for people who call an emergency ambulance after a fall: randomised controlled trial. BMJ. 2010;340.
62. Spencer J, Ritchie L. Qualitative data analysis for applied policy research. Analysing Qualitative Data. London: Routledge; 1994.
63. Strauss A, Corbin JM. Basics of qualitative research: Grounded theory procedures and techniques. Third ed. California: Sage Publications; 2008.
64. NHS Better Care, Better Value Indicators. Available from: http://www.productivity.nhs.uk/.
65. GP Patient Survey. Available from: http://www.gp-patient.co.uk/results/.
66. Francis R. Report of the Mid Staffordshire NHS foundation trust public inquiry: executive summary: The Stationery Office; 2013.
67. Bevan G, Hood C. What's measured is what matters: targets and gaming in the English public health care system. Public administration. 2006;84(3):517-38.
68. Cooke M, Higgins J, Kidd P. Use of emergency observation and assessment wards: a systematic literature review. Emergency Medicine Journal. 2003;20(2):138-42.
69. Purdy S. Avoiding hospital admissions - What does the research evidence say? Kings Fund, 2010.
70. Imison K, Poteliakhoff E, Thompson J. Older people and emergency bed use: exploring variation. London: 2012.
71. Ham C, Walsh N. Making integrated care happen at scale and pace. London: The Kings Fund; 2013.
72. Foundation Trust Network. FTN Benchmarking. Driving improvements in Elderly Care Services. 2012.
73. National Audit Office. Emergency admissions to hospital: managing the demand. London: HMSO, 2013.

74. Mason S, Knowles E, Colwell B, Dixon S, Wardrope J, Gorringe R, et al. Effectiveness of paramedic practitioners in attending 999 calls from elderly people in the community: cluster randomised controlled trial. BMJ. 2007;335:919.
75. Ling T, Bardsley M, Adams JL, Lewis R, Roland M. Evaluation of UK Integrated Care Pilots. International Journal of Integrated Care. 2010;10:1-15.
76. Soo S, Berta W, Baker GR. Role of Champions in the Implementation of Patient Safety Practice Change. Healthcare Quarterly. 2009;12(Sp):123-8.
77. Parkin P. Managing change in healthcare: Using action research. London: Sage Publications; 2009.
78. Plsek PE, Greenhalgh T. The challenge of complexity in health care. Bmj. 2001;323(7313):625-8.
79. Scott T, Mannion R, Davies HT, Marshall MN. Implementing culture change in health care: theory and practice. International Journal for Quality in Health Care. 2003;15(2):111-8.
80. Bate SP. Strategies for cultural change: Routledge; 2010.
81. Campbell RJ. Change management in health care. The health care manager. 2008;27(1):23-39.
82. Kotter JP, Cohen DS. The heart of change: Real-life stories of how people change their organizations: Harvard Business Press; 2002.
83. Benett L HR. Making best use of the Better Care Fund. Spending to save? London: 2014.