Tackling demand together

A toolkit for improving urgent and emergency care pathways by understanding increases in 999 demand
“Our group of ambulance providers and primary care trust (PCT) commissioners has worked closely with the Department of Health (DH) to develop this toolkit. We wanted to create a practical tool which could be used by commissioners and providers to inform decisions affecting the commissioning of urgent and emergency care services.

“Demand for ambulance services is influenced by multiple complex and interrelating factors. Urgent and emergency care services are also complex systems, and commissioners and providers need to make the best use of the available information so that they can offer the right services to meet the health needs within their local area.

“A number of us have tried and tested this toolkit in our own local areas with positive results and we encourage you to do so too.”

Ambulance Demand Toolkit
Sounding Board Group

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“Ambulance demand has been rising steadily at a rate of around 6.5% per year. This toolkit is the first attempt to take a view across the wide range of factors that are influencing this steep rise. Working through this toolkit will help ambulance trusts and PCTs to make the best use of the data that is available to them. Crucially, it will also help them in working together to use the data to support reducing demand where possible, and handling demand efficiently where it cannot be reduced. Ambulance services are working in increasingly closer partnership with other urgent and emergency care services to provide seamless, 24-hour integrated care, and this toolkit will help to achieve that goal.”

Peter Bradley, National Ambulance Adviser

“Urgent and Emergency healthcare is the first point of contact that millions of patients each year have with the NHS. Many of these are very unwell, anxious and in need of a fast and high quality response. The NHS provides a wide range of urgent and emergency care services, however the Emergency Services Review (ESR) has identified that more work is needed to make sure that, through excellent commissioning practices, these services are well integrated, clearly signposted to patients and the public, and able to refer patients appropriately.

Alongside the tools developed as part of the ESR, this toolkit offers real, practical support to help all PCTs and networks, not just lead ambulance commissioners, make the best use of the wealth of information that the ambulance services have to offer. Specifically, by better understanding the factors affecting the ongoing trend of year on year increases in ambulance demand, the NHS can provide better urgent and emergency care services to patients as part of a well planned system.

I encourage all PCTs, ambulance trusts and urgent & emergency care networks, to make use of this toolkit and the support offered by the ESR, as part of an integrated approach to delivering high quality care for all.”

Mike Farrar, North West Strategic Health Authority Chief Executive, Lead for the Emergency Services Review
Who should use this toolkit?

This toolkit is for ambulance trusts and PCT commissioners of urgent and emergency care services – not just lead commissioners of ambulance trusts.

Why look at 999 ambulance demand?

- 999 demand is going up by 6.5% per year.
- 999 demand is growing faster than both population growth and the growth in demand for other urgent and emergency care services such as A&E.
- 999 demand reflects how well other urgent and emergency care services are functioning, and how well integrated they are.
- Using World Class Commissioning principles to support integrated urgent and emergency care services can lead to better use of ambulance resources.
- More efficient use of ambulance resources should mean less pressure on services at times of high demand, supporting good performance on ambulance response times and A&E waiting time.
- Ambulance and A&E services are expensive – managing the rise in 999 demand through making better use of alternative pathways can save money.
- Most importantly, addressing ambulance demand can help patients get the right care from the right service at the right time, to achieve the best health outcomes.

What does this toolkit do?

Tackling rising demand for services can seem like a daunting task. This toolkit helps to break demand down into factors and create manageable workplans to address them and achieve real local change, in line with QIPP – Quality, Innovation, Productivity and Prevention.
How to use this toolkit

The toolkit is designed with a series of worksheets that can be filled in electronically or printed out. They each set out an issue, the evidence, and a set of checklist questions for providers and commissioners. You can work through the toolkit page by page, or choose particular issues that you want to focus on from the toolkit map.

You can also input your own data into the tools:

- Demography ready reckoner
- PCT ambulance activity benchmarking tool
- Costings and activity flows tool.

You are encouraged to use this toolkit at commissioner–provider meetings, where both parties can review an issue (or issues), answer the checklist questions and generate action grids.

The grids guide you through a series of questions, helping to make links with key drivers such as:

- calculating cost efficiencies
- linking to QIPP
- looking at how best to support system alignment.

Please ensure that actions that are taken as a result of working through this toolkit are supported by an equality impact assessment where necessary, as this is a legal requirement.

Outcomes from using this toolkit

We hope that by using this toolkit PCT commissioners and ambulance providers will:

- have a greater understanding of the factors affecting increasing demand for ambulance services and what can be done to address them
- use ambulance service data to inform commissioning strategies across all urgent and emergency care services, leading to more cost-effective and efficient services in line with QIPP
- have in place strong relationships and partnership working practices between ambulance providers and PCT commissioners.
Commissioning urgent and emergency care services
Ambulances, major A&E, walk-in centres, minor injury units, GP out-of-hours services, NHS Direct, Primary Care, GP-led health centres, pharmacy services, dental services, plans for a 3-digit number, etc.

Factors affecting demand
- Seasonal factors
- Social/attitude change
- Long-term conditions
- Changes to patient care
- Demographic change
- Frequent callers
- Deprivation
- Alcohol

By how much is ambulance demand increasing?
What effect does demand have on performance standards?
Which conditions account for the greatest increase 999 calls?
The number of calls handled by ambulance services in England is increasing by 6.5% each year on average, which is equal to approximately 300,000 extra calls each year.

At an average cost of £200 per call, this equates to an additional cost of £60 million pounds each year. These cost pressures increase significantly if the cost of subsequent hospital attendances are included.

There is some regional variation in the growth in demand for ambulance services, with particularly high growth recorded in the North East, South West and East of England regions. However, all ambulance trusts have continued to report average annual growth rates exceeding 4%.

“Demand for ambulance services is rising by over 6% each year.”
The increase in 999 ambulance calls is reflected by an increase in incidents (where an emergency response is sent to the scene of the call) and patient journeys by ambulance to a healthcare provider.

Different regions experience different incident and transportation rates for 999 calls. For example, in 2008/09 just over two-thirds of calls to the London Ambulance Service resulted in an incident and only 54% of calls resulted in a patient journey, while nationally 82% of calls resulted in an incident and 60% of calls resulted in a patient journey.
Periods of greater demand, particularly at the height of summer and winter, are associated with dramatic declines in performance against the response time standards for ambulances, as the top graph shows.

The graph below shows how increased ambulance activity (especially for high-acuity Category A serious and life-threatening calls) is clearly associated with poorer performance against the A&E four-hour waiting-time standard.

Effectively managing the root causes of rising ambulance demand has the potential to improve performance throughout urgent and emergency care pathways, delivering better health outcomes for patients and more cost-effective care.

“Higher ambulance demand is associated with poorer performance against targets.”
Questions for ambulance trusts

A1. What are the long-term patterns in ambulance demand in your area? Are you breaking down increases in demand by case mix and age group?

A2. What is the ratio of patient journeys and incidents to calls? Could more ambulance incidents could be handled by clinical telephone advice (hear and treat) or referral to other healthcare services?

A3. Have you calculated the effect of increases in demand on performance against response time standards in your area?

A4. What is the proportion of ambulance-conveyed A&E attendances where no follow-up is needed or where patients are immediately referred to other services such as GPs or fracture clinics? TIP: Use the tools to help calculate this.

A5. How are you supporting ambulance crews to feel comfortable leaving patients at the scene or referring to other services, where appropriate? How are you using advanced practitioners?

Questions for PCTs

P1. What is the scale of the problem of increasing demand for ambulance services for your PCT?

P2. What is the cost to your PCT of the ambulance staffing and vehicle provision that will be needed if the trend of increasing ambulance demand continues? What will the increased cost be next year and over the next five years?

P3. What are the downstream cost savings for your PCT that could be realised by understanding and reducing demands on the ambulance service, e.g. through avoidable A&E attendances? TIP: Use the tools to help calculate this, and look at the NHS Institute for Innovation and Improvement, Better Care, Better Value indicators.

P4. What improvement in performance against national targets could be delivered through reducing demand on the ambulance service?
Demand for ambulance services is growing faster than demand for most other urgent and emergency care services, except for type 3 A&E services (minor injury units and walk-in centres).

Rising ambulance activity is probably related to the next highest grower, A&E admissions. Hospital Episode Statistics show that 23% of attendances and 55% of admissions are brought in by ambulance. Many of these patients need emergency care. However, of the A&E attendances that were brought in by ambulance, 43% were discharged from A&E and over two-thirds of these did not need follow-up treatment. It is likely that some of these patients could have been cared for more appropriately and more cost-effectively by other urgent care services.

“Many patients transported by ambulance to A&E are discharged from A&E without the need for follow-up.”
Patients have a wide choice of where to access care when they have an urgent, but not an emergency, need. The range of services can be confusing and includes A&E, 999, walk-in centres, minor injury units, GPs out-of-hours, primary care, GP led health centres, pharmacies and NHS Direct. Effective public information is needed to help patients get the right care at the right time by the right service.

Gaps in provision of high-quality, accessible urgent care services may be a factor in the increase in 999 calls, and ambulance use may be greater in places where the accessibility or quality of other urgent care services is relatively low.

Recent data shows that only two-thirds of patients know how to contact a GP out-of-hours service, and over a quarter of the patients using these services felt that they took too long to deliver care.
Questions for ambulance trusts

A6. How are you using ‘hear & treat’ and ‘see and treat’ and other urgent care services to minimise unnecessary journeys to A&E?

A7. Have you analysed the relationships between ambulance demand and demand for other urgent and emergency services in your area? Have you shared that data with PCTs?

A8. How do you support good working relationships with PCT commissioners? How do you engage with non-lead commissioner PCTs?

A9. Are you using your local operations managers effectively to make links with PCTs and local services?

Questions for PCTs

P5. What is the relationship between ambulance demand and demand for other urgent and emergency healthcare services in your area? TIP: Use the tools to help calculate this.

P6. How easy is it for people to access primary care in and out of hours in your area? Have you measured this?

P7. What is the relationship between four-hour A&E performance, ambulance response time performance, GP access performance and GP out-of-hours service national quality standards in your local health economy?

P8. How do you support good working relationships with your ambulance trust and other PCTs in your area? How do non-lead commissioner PCTs engage with the trust?

P9. How are you engaging with practice based commissioners to support provision of integrated urgent and emergency services and reducing unnecessary 999 demand?
Questions for ambulance trusts

P10. Is there an option to safely refer or redirect some calls from the ambulance service to NHS Direct and GP out-of-hours services in your area? How much would this save?

P11. Are you commissioning advanced paramedic practitioners to help deliver appropriate care closer to home and link up with other local services?

P12. Are you working with ambulance services to populate a real time directory of services that provides clear referral alternatives to services other than A&E?
Although the year-on-year increase in incidents for some chief complaints is steady (e.g. breathing problems), other chief complaints show spikes in demand (e.g. chest pain in 2004/05) or even decreases in activity over the period (e.g. traffic accidents).

Four patient conditions account for just under 75% of the increase in ambulance incidents from 2000/01 to 2007/08 in London:

- traumatic falls/back injury,
- breathing problems
- unconsciousness/passing out
- chest pain.

A similar case mix of ambulance activity was observed in the East Midlands and North West regions.

“A small number of patient conditions account for a large proportion of the increased demand for ambulance services.”
Questions for ambulance trusts

A10. Are you analysing long-term trends in the case mix of ambulance demand? Where could targeted interventions help to tackle key patient conditions that are particularly driving increases in demand? Have you shared this data with PCTs?

A11. Are you doing work to determine specific drivers of demand within broader call categories, e.g. breaking down ‘breathing problems’ to look at asthma or Chronic Obstructive Pulmonary Disease? Have you shared this data with PCTs?

A12. Do you know what time of day and day of week these conditions are mostly presenting? Have you shared this data with PCTs?

Questions for PCTs

P13. Which patient conditions account for the majority of the rise in 999 demand in your area? Have you used data from public health observatories, ambulance trusts and A&E departments to identify patient conditions that are contributing most to healthcare activity?

P14. What time of day and day of the week are these conditions mostly presenting? How do these patterns align with the provision of other in-hours and out-of-hours services (e.g. are falls units available outside business hours and at the weekend?)

P15. How do you reflect changes in the case mix of demand in service planning across urgent and emergency care?

P16. How does your demand case mix and your provision of services compare with other PCTs with similar needs? (*TIP use the tools to help compare PCTs.)
Demand for ambulance services is greatest during the winter months, although there are also smaller peaks in the summer.

It does not appear that the year-on-year increases in ambulance demand are solely due to winters becoming progressively worse.

However, there is a small trend for the months of October to December accounting for a greater than average share of the annual increase in ambulance demand. Some 29% of the increase in ambulance demand from 2005/06 to 2008/09 came solely from increases in demand over the months of October to December.

This highlights the need for strong resilience planning by the whole health economy during the demanding winter months.

“Winter months contribute slightly more to the annual increase in ambulance demand.”
Seasonal factors

Questions for ambulance trusts

A13. Is your trust able to predict seasonal variation in demand, including the case mix of calls, using analysis and forecasting techniques?

A14. How does this data inform your winter resilience planning?

A15. Do you proactively place ambulance resources in other services during winter, (e.g. by placing advanced practitioners in primary care settings to help manage chronic respiratory conditions, and establishing links with falls units)?

A16. What arrangements do you have in place to manage demand in partnership with local acute trusts and primary care services? (e.g. divert policies, referral pathways with GP led health centres, urgent care centres, and mental health teams.)

Questions for PCTs

P17. How much does seasonal variation in specific patient conditions (e.g. breathing problems) lead to increased demand on ambulance services and consequent pressure on A&E departments in your area?

P18. Does the ambulance service act as an ‘early predictor’ of demand on other services such as A&E in your area, at times of peak demand such as winter?

P19. Have you worked through the Emergency Services Review toolkit, available online at www.osha.nhs.uk. This includes good practice guides, international best practice information, and analysis of system resilience.
A17. What are you doing to support clinicians and staff to be able to direct patients to self-care where appropriate?

A18. Have you worked through the Emergency Services (ESR) Review toolkit (available online at www.osha.nhs.uk). This includes good practice guides, international best practice information, and analysis of system resilience.
Over recent years, lifestyle changes – including new media and technology – may have influenced attitudes towards calling 999.

For all 999 calls, it is for ambulance trusts and commissioners to ensure that the right response is given, whether this is to send an ambulance, to offer telephone advice or to refer to another service.

A future 3-digit number for urgent care may help patients who are confused by the range of services available at different times of day – GPs, out-of-hours services, walk-in centres, minor injury units, NHS Direct, community services such as district nurses, etc. In the meantime, work on real-time directories of local services is under way and is a key element of supporting appropriate referrals by the ambulance service to a range of other urgent care services. Media campaigns such as Choose Well can also raise awareness of local services and help people to choose an appropriate route to healthcare.

“Changes in people’s attitudes and expectations may mean that they are using 999 to get rapid and convenient access to health services.”
A19. What work have you done to understand who is calling 999 in your trust, and why? Do you repeat qualitative work to find out if attitudes are changing?

A20. What are the different attitudes towards calling 999 within your population? Are they linked to age, ethnicity, gender or socioeconomic status, specific long-term conditions or specific settings (such as residential and nursing homes)?

A21. How do you engage with local communities to communicate when to call 999?

A22. Are you referring patients to other urgent care services where appropriate, both at the point when a person calls in on the phone, and at the scene?

P20. What work have you done to understand who is using urgent and emergency services, and why? Do you repeat qualitative work to find out if attitudes are changing?

P21. What work with patients have you done to find out what the different attitudes are towards urgent and emergency services within your population? Are they linked to age, ethnicity, gender or socioeconomic status, specific long-term conditions or specific settings (such as residential and nursing homes)?

P22. Are you using social marketing techniques to communicate to patients which service to use when they have a need for urgent healthcare? If so, have you evaluated the success of these campaigns?

P23. What are you doing to support ambulance trusts to be able to refer people to other urgent care services where appropriate?
Due to an ageing population and changing lifestyle choices there are now many more people living longer with long-term conditions such as heart disease, diabetes and asthma. It is estimated that by 2025 the number of people with at least one long term condition will rise by 3 million to 18 million.

Rising obesity levels have been identified as one of the main causes of the increase diabetes and heart disease prevalence. Over recent years, the average body mass index and the proportion of the population classified as obese have continued to increase.

This increase in obesity is translating into more hospital admissions and ambulance incidents related to diabetes.
A23. What proportion of ambulance activity in your trust can be attributed to long-term conditions? Have you shared this information with PCTs?

A24. Does your trust have a public health strategy that looks at what it can do to prevent people with long-term conditions from needing to call 999 due to poor management of their conditions (e.g. proactively offering diabetes testing for patients aged over 40)?

P24. How much do ambulance calls from people with long-term conditions cost per year (including downstream hospital attendance/admission? How many of these calls could be prevented?

P25. What are you doing to support prevention, early diagnosis and good management of long-term conditions to help improve health outcomes and reduce costs from long-term conditions-related ambulance activity, (for example the introduction of personalised care planning)?

P26. Is the ambulance service part of your long-term conditions strategy/public health strategy, given they see large numbers of patients in their homes?

P27. Have you commissioned services to support people to self-care and to make the best use of assistive technologies to ensure more people are seen in their homes and exacerbations are minimised?
Over recent years the NHS has moved towards treating patients as close to home as possible and avoiding unnecessary hospital stays. The ambulance service is also working towards more treatment of patients at the scene, reducing unnecessary patient journeys.

While this is a positive step, shorter lengths of stay could lead to increased ambulance demand due to readmissions. Many emergency readmissions are for chest pain and breathing problems, which are the symptoms that account for much of the increase in ambulance calls (see patient conditions factsheet).

Service reconfigurations and specialisation of healthcare facilities like hyper-acute stroke and trauma centres can also affect ambulance services, if they result in:

- longer journey times
- extended job cycle times, including taking patients home
- inter-hospital transfers.

Commissioners and providers should model the impact of these major changes on ambulance services.
A25. Are you using evidence-based models to calculate and communicate the effect of service redesign on your ambulance service?

P28. Do your discharge support plans for patients include information on supported self-care and primary care as well as calling 999 if their symptoms get worse?

P29. How much does it cost to put an additional ambulance on the road in your area, including procurement and staff costs?

P30. When redesigning services or commissioning new ones (e.g. specialist stroke and trauma centres), how do you calculate the impact on the demand for ambulances and patient transport services?

P31. How have you used the recent Transforming Community Services guides to improve services along care pathways and help to prevent the need for people to call 999?
We would expect ambulance demand to increase as the population grows. However, the 6.5% annual increase in ambulance demand far outstrips the 0.5% annual increase in population size.

Changes in the age structure of the population affect the demand for ambulance services, as older people use ambulances more than younger people. In London, people aged over 60 account for over one-third of all ambulance incidents, even though the over-60s only make up a sixth of the general population. Due to an ageing population, it is estimated that by 2030 there will be 41% more people in England aged 60 or over, and it is estimated that by 2030 almost half of all ambulance incidents will be for patients aged over 60.

Looking at the way the population is changing can help to understand who is using 999. In London, for example, there has been an increase in ambulance use among 20–29-year-olds and in older age groups since 2001, compared with how much those groups have grown in size. Applying ambulance utilisation rates from 2000/01 to the population in 2007/08 suggests that 17% of the rise in ambulance demand in London is due to both the growth and ageing of the general population.

“Almost 20% of the increase in ambulance activity is due to ageing and population growth.”
### Questions for ambulance trusts

**A26.** Which population groups in your area are using 999 services at higher-than-expected levels? (TIP use the ready reckoner in the Tools section to help calculate this.)

**A27.** Have you analysed why these age groups might be calling 999 more? (E.g. is the increase in demand by 20–29-year-olds in London linked to alcohol use?) Have you shared this information with PCTs?

**A28.** What will the future effect on your service be as the population gets older? In five years? In ten years?

### Questions for PCTs

**P32.** Which population groups in your area are using 999 services at higher-than-expected levels, and why? What specific action are you taking to address unexpected levels of calls from particular age groups?

**P33.** What measures are you putting in place to support an ageing population? (E.g. commissioning of falls units, geriatric units, intermediate care facilities, proactive case coordination.)

**P34.** Have you involved ambulance services and other urgent and emergency care services in long-term planning strategies for an ageing population?

**P35.** How are you linking health and social care services to help support older people and other age groups in staying healthy to prevent the need to call 999?
This toolkit includes information on factors affecting large-scale and long-term shifts in ambulance demand. However, short-term high-volume demand can also be addressed by ambulance trusts and PCTs working together to address frequent callers to the service.

A large volume of calls to the ambulance service are attributable to individuals who call 999 multiple times a day. These individuals often have mental health problems, and some areas now employ dedicated health professionals to work with them to meet their needs and prevent repeated 999 calls.

High volumes of calls can also be made by organisations and businesses. Police services are frequent callers, but other frequent calling organisations are:
- supermarkets
- nursing homes
- pubs.

“A small number of patients account for a disproportionately large portion of ambulance activity.”

Investigating disproportionate demand from other services (including nursing homes and GP practices) can help to address gaps in services and reduce 999 calls.

The North West Ambulance Service NHS Trust identified that over 7% of ambulance activity was accounted for by calls from GP practices in 2008/09. Regional variations were also highlighted, e.g. the GP call rate was four times higher than the regional average in Cumbria. This data could be used to investigate whether the demand arising from certain practices is greater than would be expected compared to the health needs of the local population.

Making the local PCT aware of this kind of ambulance information can lead to greater consistency in the use of 999 by other health services.
Questions for ambulance trusts

A29. Are you taking proactive action to tackle frequent callers, e.g. employing dedicated staff to work with them?

A30. Are you working with the police, GPs, nursing homes and other frequently calling organisations to ensure that your collaborative working is efficient and appropriate?

A31. Are you working with PCTs, other urgent care services and social care services to manage frequent callers, both individuals and organisations?

Questions for PCTs

P36. How many ambulance calls are from frequent calling individuals and organisations in your area? What is the cost associated with this (including the downstream cost of A&E attendances)?

P37. How do you support ambulance trusts to manage frequent caller individuals and organisations in your area? Are urgent and social care services in place to support the needs of frequent callers and to help to reduce inappropriate 999 calls?
12 Is demand for ambulance services greater in more deprived areas?

Deprived areas, such as the most deprived one-fifth of PCTs (the Spearhead PCTs), are identified using a range of indicators such as income, employment, health, education, housing and living conditions.

Demand for ambulance services is greater in more deprived areas of the country, and growth in demand is also greater in more deprived areas.

It is unclear to what extent this increased demand is due to the greater health needs of deprived areas, and to what extent it is due to other factors associated with deprivation (such as population density and lower car ownership levels).

Work in deprived areas is often focused on helping people to access healthcare rather than reducing demand. However, knowing which areas have high rates of 999 calls can help to inform commissioning of other urgent and emergency care services to help patients in deprived areas get the right care at the right time.

“Ambulance demand is greater in more deprived areas.”

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<th>Category A activity per 1000 population, 2006/7, North West</th>
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<td>Spearhead PCTs</td>
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<td>Non-Spearhead PCTs</td>
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Number of ambulance incidents per 1000 population, by deprivation of local area, North East Ambulance Service (NEAS)

Average number of incidents per 1000 head of population
**Questions for ambulance trusts**

A32. Where are the hotspots of deprivation in your area that have greater health needs or rely more on ambulance transport to A&E? Have you mapped ambulance activity in relation to deprived areas to find these? Have you shared this information with PCTs?

A33. How do you tailor services to support deprived areas?

**Questions for PCTs**

P38. How high is ambulance demand in the most deprived areas of your PCT?

P39. Could additional services be made available in those areas to help people access healthcare without calling 999? Could you provide better public information to signpost people to the health services that are available?

P40. How are you engaging with local authorities to provide the right services to deprived areas?

P41. Do you share information with the ambulance trust about your most deprived areas and the services you have commissioned for them, to enable the ambulance service to work more closely with other partners in those areas?
Alcohol-related ambulance incidents are increasing in London, and are accounting for a growing share of total ambulance activity. Currently, nearly 1 in 20 London ambulance incidents are alcohol related.

The effects of changes in binge-drinking behaviour and the increasing affordability of alcohol may be reflected in other ambulance activity trends, such as the significant increase in the number of calls from 20–29-year-olds (see Demographic change section) and changes in the day and time of calls to ambulance trusts. Between 2000/01 and 2007/08 London has seen a greater proportion of trauma and falls ambulance incidents occurring on weekend evenings.

"Alcohol-related incidents account for an increasing proportion of ambulance activity."
**Questions for ambulance trusts**

A34. Have you done any geographical or time-of-day mapping in relation to alcohol hotspots? Have you shared this information with PCTs? Do you tailor services to support these hotspots?

A35. Are you making effective use of alternatives to taking patients to A&E, such as ‘field hospitals’ and ‘booze buses’?

A36. Have you worked with your PCT to share information on alcohol hotspots with your local Crime and Disorder Reduction Partnership (CDRP)?

**Questions for PCTs**

P42. Where are the hotspots of alcohol-related ambulance demand in your area? What services/projects/strategies have you commissioned in relation to these?

P43. How do you work with ambulance trusts on hotspot areas? Has your PCT explored entering into separate arrangements with ambulance services, if you are in an area that is particularly affected by alcohol?

P44. Have you worked with ambulance trust to share information on alcohol hotspots with your local crime and Disorder Reduction Partnership (CDRP)?
What does the ready reckoner do?
The ready reckoner estimates how much of the increase in demand for ambulance services is due to changes in the size and age structure of the general population, and also estimates what effect an ageing population will have on future demand for ambulances.

How is the ready reckoner structured?
The ready reckoner presents a series of charts which ask:

- How has the age structure of the local population changed over time?
- How much do different age groups use ambulance services?
- How do changes in the size and age structure of the population affect demand for ambulance services?
- How will the age structure of the population change in future years?

- What changes can we expect to how different age groups use ambulance services?

You can select data for your relevant strategic health authority and ambulance trust, and compare changes in population and ambulance use across a range of years.

How can the outputs of the ready reckoner be used?
The ready reckoner can highlight demographic groups (e.g. males aged 20–29) that have seen unusual increases in demand – increases that are significantly greater than would have been expected based on demographic changes in the population over time.

Interventions and further analyses can then be targeted to particular demographic groups.
What does the benchmarking tool do?
This benchmarking tool can be used to compare the growth in demand for ambulance services across different PCTs, by inputting data on activity in urgent and emergency care services.

The benchmarking tool presents a series of charts which set out:

- How the growth in the demand for ambulance services within a selected PCT compares to:
  average growth rates in ambulance demand for a group of similar PCTs (i.e. PCTs within the same demographic “cluster”) average growth rates in ambulance demand for all PCTs in the region

- How the growth in the demand for ambulance services correlates with a range of factors such as disease prevalence, deprivation, performance and access to other emergency and urgent care services. Experimental data on the number of A&E attendances by ambulance have also been included.

Data from North West SHA is provided as an example.

How to use the tool
- Select an individual PCT’s data
- Specify whether to compare growth in calls, incidents or patient journeys
- Specify a patient condition
- Specify out-of-hours or in-hours (out of hours defined as 6pm – 8am on weekdays, and all of Saturday and Sunday)
- Select whether you wish to view growth as percentage or volume increases.

How can the outputs of the benchmarking tool be used?
The benchmarking tool can highlight PCTs which have experienced growth in ambulance demand that is higher than in other similar PCTs. Detailed information on particular patient conditions or times of the day that display high growth rates can also be obtained. These data can suggest possible areas for targeted interventions and help PCTs identify high performing areas and share good practice.
What does the activity costs tool do?

This tool can be used to compare PCTs on their spread of activity, and associated costs, across a range of urgent and emergency care services. The tool contains PCT level activity and unit cost data for the following urgent and emergency care services:

- Ambulances (categories A, B and C, calls, incidents and journeys)
- A&E and walk in centres attendances (by streaming)
- Emergency admissions
- GP consultations in hours and out of hours (home visit, telephone, surgery)
- NHS direct (calls and website visits)
- District nurse contacts

The benchmarking tool allows PCTs to compare their spread of activity per 1000 population and associated costs against:

- the activity and costs of any other PCT
- the average activity and costs of a group of similar PCTs
- the average national activity and costs
- different levels of activity (lower, median and upper quartiles)

How can the outputs of the activity-cost tool be used?

By using this tool, commissioners and providers can view different models of urgent and emergency care provision and explore the possible cost savings that can be achieved by redirecting their activity.
The best available data have been used within the Demography ready reckoner, PCT ambulance activity benchmarking tool and PCT urgent and emergency care activity-costs benchmarking tool. However, it is important to note that some of the data are historical or have limited coverage or quality. It was also not possible to obtain data on all aspects of the urgent and emergency care system.

Updated versions of these tools may become available over time, and questions on their use should be directed to the mailbox below.

urgent&emergencycare@dh.gsi.gov.uk
Case study: Commissioning across urgent and emergency care
The Birchwood Practice, Norfolk – urgent care in-hours

What was the issue?
How to handle urgent cases in GP practices during normal surgery hours in an effective manner.

What was the action/solution?
The Birchwood Practice in Norfolk uses an integrated team, with immediate phone assessments by a team leader to assess patients quickly and treat them efficiently.

What was the measured outcome?
The practice has 16% fewer hospital admissions when compared to other local doctors’ surgeries.

Further information
See the Primary Care Foundation publication, Urgent Care – a Practical Guide to transforming same-day care in general practice.
Case study: Seasonal factors
Met Office Healthy Outlook

What was the issue?
Severe weather can increase the numbers of people coming into hospital with problems related to Chronic Obstructive Pulmonary Disease (COPD).

What was the solution?
The Met Office has piloted an innovative project to help reduce the numbers of COPD sufferers affected by bad weather. When severe weather is predicted, the Met Office will email patients with COPD, giving them information about how to care for themselves.

What was the measured outcome?
Data from Cornwall, Worcester and Rhondda shows that GP practices which use the Met Office service have found it to reduce hospital admissions by 20%. The service costs £21 per patient (plus a £10 start-up fee) – and with COPD admissions costing around £2,500 per patient, the Met Office’s Healthy Outlook service has quickly shown efficiency savings.
Case study: Social/attitude change
Tower Hamlets social marketing

What was the issue?
Tower Hamlets found that people were going to the Royal London Hospital’s Emergency Department with minor complaints instead of accessing alternative services.

What was the solution?
Tower Hamlets commissioned a management consultancy to use social marketing techniques to find out why patients were doing this.

What was the outcome?
The research showed that patients attending Royal London Hospital’s Emergency Department fell into four categories. They were confused about how to access Tower Hamlets healthcare, they were dissatisfied with the alternatives, they believed that the emergency department service was better than GP treatment or they found that going to the emergency department was more convenient.

This information can be used to plan healthcare strategies and in particular to devise educational and promotional campaigns to reach these patients.
**Case study: Long-term conditions**
East Lancashire PCT/North West Ambulance Trust – Utilisation management

**What was the issue?**
How to cut avoidable hospital admissions, improve capability and capacity and ensure good decision making in this area.

**What was the action/solution?**
East Lancashire PCT has developed a *utilisation management programme* (UM) in conjunction with the North West Ambulance Trust. This looks at hospital admissions which were avoidable, and takes action with key stakeholders to improve the appropriateness of where patients are taken. Many of these patients have long term conditions, live alone, and are in an older age group.

**What was the measured outcome?**
It was found that 49% of ‘UM’ patients arrived by ambulance at A&E. Solutions could then be found to give patients more appropriate care.
Case study: Changes to patient care
North West Ambulance Service and modelling changes to services

What was the issue?
How to measure the effect of changes to health services on the demand for ambulance services.

What was the action/solution?
The North West Ambulance Service has worked with consultancy services to develop a model that estimates the effect of emergency service design (for example the introduction of a specialist stroke unit), on demand for ambulance services.

What was the measured outcome?
The model estimates the staffing and vehicle provision that would be required to meet this increased demand, enabling accurate planning for the use of resources.
Case study: Demographic change
The London Borough of Croydon and Croydon PCT – virtual ward

What was the issue?
The London Borough of Croydon and Croydon PCT wanted to reduce the numbers of older people experiencing emergency admissions to hospital and being admitted to residential and nursing care.

What was the action?
The core of the service is an investment by the PCT in primary care services, to set up a “virtual ward” in the community. Using a software predictor tool from the Kings Fund (called the ‘Predicting and Reducing Readmissions (PARR) Combined Model’) about 1500 people who are most at risk of a first hospital admission (and consequent admissions to residential care) have been identified. Primary Health Care services are targeted at these people. The local authority has invested in a 24-hour emergency response service, which supports ambulance crews when they attend an older person and believe a hospital admission can be avoided through a bit of support. The PCT and the local authority work closely with their providers and a vibrant voluntary sector, to ensure that people are supported to live in their own homes.

What was the outcome?
No one in Croydon is discharged from hospital to a different residence from the place from which they were admitted without an Intermediate Care assessment based on a model of recovery/re-ablement. This has led to fewer admissions to residential care. Other councils such as Bradford and Coventry are now also taking this approach.
Case study: Demographic change
South East Coast Ambulance Service – directory of services

What was the issue?
Older people who have fallen are sometimes taken to when A&E when they could have been cared for more appropriately by other services.

What was the solution?
South East Coast Ambulance Service (SECAMB) is piloting a directory of urgent and emergency services for ambulance services, to help ambulance crews refer patients to the right service. The pilot reviewed calls to SECAMB’s falls team, which handles patients who have suffered falls.

What was the measured outcome?
Reviewing its data on the pilot directory, SECAMB founds that a significant number of patients who had suffered falls and been referred to the falls team would otherwise have gone to A&E. Many PCTs are also considering adding other services such as respiratory care, end of life pathways and pharmacy to directories of services.
Case study: Frequent callers
London Ambulance Service and frequent callers

What is the issue?
How you deal appropriately with individual callers who may ring 999 hundreds of times a year.

What was the action/solution?
London Ambulance Service employs three full time and one part social worker to work with callers, who can dial 999 hundreds of times per week. The Frequent Callers Unit was created in 2007. It is a dedicated taskforce to review and manage the needs of patients who, for a variety of often complex reasons, persistently place 999 calls. The Unit is within the Patient Experiences Department, but works across boundaries to achieve better care arrangements and alternative care pathways for patients.

What was the measured outcome?
Social workers manage individual cases and delivering strategic policy and practice. Initially, there were some 400 patients referred to the unit. A review was conducted which reduced the number of cases to 140. This is the usual workload with more cases referred on a daily basis.

Many frequent and persistent 999 callers have underlying issues that need attention from other services, such as mental health or social care. LAS employs social worker Clive Palmer to assess the needs of such callers and help them access the care they need.
“My social work background helps me identify the issues behind their calls – anything from serious mental health conditions to homelessness to old people suffering anxiety,” said Clive, who is part of the LAS’s dedicated frequent callers unit.

“It also helps me to make the right contacts with other service providers – for example, if the person is receiving social care, I can liaise with the service providers and call for a review of the care package. Often the providers have no idea that the person is calling 999.”

Clive feeds information about frequent callers’ back into the system, so that 999 call takers can advise care or accommodation providers when they call, often removing the need for an ambulance.

The result has been not only a reduction in 999 calls and ambulance attendance in these cases, but also a marked improvement in care provision for the frequent callers.
Case study: Deprivation
North West Ambulance Service – Spearhead PCTs

What was the issue?
Of 24 PCTs served by North West Ambulance Service, 18 are ‘Spearheads’, defined as an area within the worst 20% of health and deprivation indicators nationally. Analysis showed that Category A calls per head in Spearhead PCTs was much greater than in non-Spearhead PCTs – 46.5 per thousand compared to 34.3 per thousand in 2006/07.

Spearhead PCTs also see greater numbers of specific conditions, including CVD, stroke and falls.

What was the action?
NWAS focused on Cheshire and Merseyside where ambulance demand had been rising most rapidly, and produced detailed reports for two PCT performance management committees in that area, setting out data for those areas and identifying what additional resources the ambulance trust was providing to that area.

What was the solution?
This data could enable the PCTs to better understand those deprived areas and work with the trust to help provide targeted services to support the population.
Case study: Alcohol
East Midlands alcohol hotspots

What was the issue?
Patient pick-ups related to alcohol abuse cost around £193 per person. PCTs need data on alcohol-related A&E admissions in order to plan resources to tackle alcohol abuse. However, ambulance data is symptom-based and does not clearly indicate which emergency calls are alcohol-related.

What action was taken?
The East Midlands Ambulance Service (EMAS) developed a way of identifying which calls were likely to be alcohol-related by focusing on ages 14-30, assault, falls, unconsciousness, self-harm, traffic accidents and time of day and week. EMAS then used Geographical Information Systems (GIS) to map the calls and display local hotspots for alcohol abuse.

What was the measured outcome?
The GIS mapping demonstrated that the cost of alcohol pick-ups within the centre of Nottingham over one month was £63,304. Local information developed using GIS mapping could be used by PCTs to help develop targeted and cost-effective strategies to combat alcohol abuse.
Case study: Alcohol
South Central Ambulance Service – actions on alcohol

What was the issue?
How to reduce the amount of alcohol-related ill-health, anti-social behaviour and calls to the emergency services.

What was the action/solution?
South Central Ambulance Service with the Safer Portsmouth Partnership employs ‘community health practitioners’ (CHPs) who patrol alcohol hotspots with a response kit, offering information and advice to the public, licensees and door staff.

At weekends, the CHPs are located within the entertainment areas to provide a rapid response presence. During the day the CHPs promote healthy living, including safe drinking, and advise on reducing accidents. Paramedics also use a Clinical Audit Reporting Systems (CARS) which helps identify hotspots.

What was the measured outcome?
CARS evidence was used in court to tackle night clubs where frequent assaults and alcohol-induced emergencies were leading to 60 999 incidents in 12 months. This was reduced to just 6 incidents in the following month, and conditions were put on the night club’s licence.
### Action grid

#### ‘QIPP’ workbox
How could decreasing 999 ambulance demand in this area support:
- Quality?
- Innovation?
- Prevention?
- Productivity?

### System alignment workbox
What are the issues and impacts on other urgent and emergency care services?

| Service                              | Impact
<table>
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<tr>
<td>A&amp;E</td>
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<tr>
<td>Walk-in centres and minor injury units</td>
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<td>Primary care (in hours)</td>
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<td>Primary care (out of hours)</td>
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<tr>
<td>NHS Direct</td>
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<td>Pharmacy services</td>
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<td>Community services</td>
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<td>Other (e.g. GP led health centres)</td>
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### Costings workbox
What is the current annual cost of ambulance activity in this area?
What could be reduced or handled by other services?
What are the estimated savings? (short term and long term)
**Actions workbox**
Based on the checklist questions, what actions will be taken by providers and commissioners?

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<th>By when?</th>
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<th>Is an EqIA required?</th>
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<td>Commissioners</td>
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**Incentives workbox**
How will this agreement be reflected in:

The contract? .......................................................................................................................... 
Local indicators/targets? ........................................................................................................
Other agreements between partners? .........................................................................................
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The picture on factsheet 5 was supplied by Bob Henry, courtesy of West Midlands Ambulance Service NHS Trust.

The picture on factsheet 6 was supplied by Tim Saunders, courtesy of London Ambulance Service NHS Trust.
### Tackling demand together: A framework for improving urgent and emergency care pathways by understanding increases in 999 demand

**Policy**: Estates

**HR / Workforce**: Commissioning

**Management**: IM & T

**Planning / Clinical**: Finance

**Clinical**: Social Care / Partnership Working

#### Document Purpose
Best Practice Guidance

#### Gateway Reference
12427

#### Title
Tackling demand together: A framework for improving urgent and emergency care pathways by understanding increases in 999 demand

#### Author
DH

#### Publication Date
12 Oct 2009

#### Target Audience
PCT CEs, NHS Trust CEs, SHA CEs, Foundation Trust CEs, Directors of Finance, Emergency Care Leads, PCT Directors of Commissioning

#### Circulation List
PCT CEs, NHS Trust CEs, SHA CEs, Foundation Trust CEs, Directors of Finance, Emergency Care Leads

#### Description
A framework to provide practical support to help all PCT commissioners to better understand factors affecting huge rises in ambulance demand, so the NHS can provide better commissioned urgent and emergency care services to patients

#### Cross Ref
n/a

#### Superseded Docs
n/a

#### Action Required
n/a

#### Timing
n/a

#### Contact Details
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© Crown 2009
298050 1p Oct09
Published to DH website, in electronic PDF format only.
[www.dh.gov.uk/publications](http://www.dh.gov.uk/publications)