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Unscheduled Care – Patient handovers at hospital emergency departments

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I have prepared this report for presentation to the National Assembly under section 145A of the Government of Wales Act 1998.

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Report presented by the Auditor General to the National Assembly on 23 April 2009

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Ambulance crews often face excessive delays at emergency departments waiting to hand over patients to hospital staff, compromising the ability of the ambulance trust to respond to other emergencies.

Six ambulances and one Rapid Response Vehicle faced delayed handovers during one of our visits to the University Hospital of Wales in November 2008.

NHS staff are required to measure patient handover times using data terminals with touch screen technology. But during our fieldwork, the data terminals frequently did not work which has contributed to the lack of clarity about how long the handover process is taking.

Summary

1 Unscheduled care is a term used to describe any unplanned and urgent health or social care. This ranges from emergency hospital treatment to people who need urgent help to care for themselves at home. Other examples include telephoning 999 during an emergency, calling the NHS Direct Wales helpline or booking an urgent appointment with a GP. Figure 1 shows the major services that provide unscheduled care.

2 The Wales Audit Office is undertaking a national study into the effectiveness of unscheduled care services in Wales, which builds on our three reports on ambulance services in Wales[1 2 3]. The study will look at the issues from the perspective of the citizen or service user. We intend to look at emergency and urgent health and social care that is provided out of normal working hours and in normal working hours. Appendix 5 sets out the suite of reports we plan to produce on specific aspects of the unscheduled care system.

3 This report is the first in our suite of reports and focuses on the interface between hospital emergency departments (sometimes called accident and emergency departments or emergency units) and the Welsh Ambulance Services NHS Trust (the ambulance trust). There have been longstanding problems at the interface between hospital emergency departments and the ambulance trust which have frequently resulted in ambulances queuing outside hospitals. This has consequences for patients who suffer excessive delays in being transferred into the care of hospital staff. This transfer of care is called a patient handover. The time taken for an ambulance to be ready to take the next call, which includes handover and making the vehicle ready, is known as the 'turnaround' time (see Box 1). Figure 2 sets out how the handover and turnaround times are measured.

Box 1 - Definitions of patient handover and ambulance turnaround

Patient handover time
The patient handover time is the period of time from the ambulance crew, having arrived at hospital, informing the emergency department staff that they have a patient who requires attention, to the time that the duty of care for the patient is formally handed over to the hospital staff, thereby relieving the ambulance crew of their responsibilities for that individual patient.

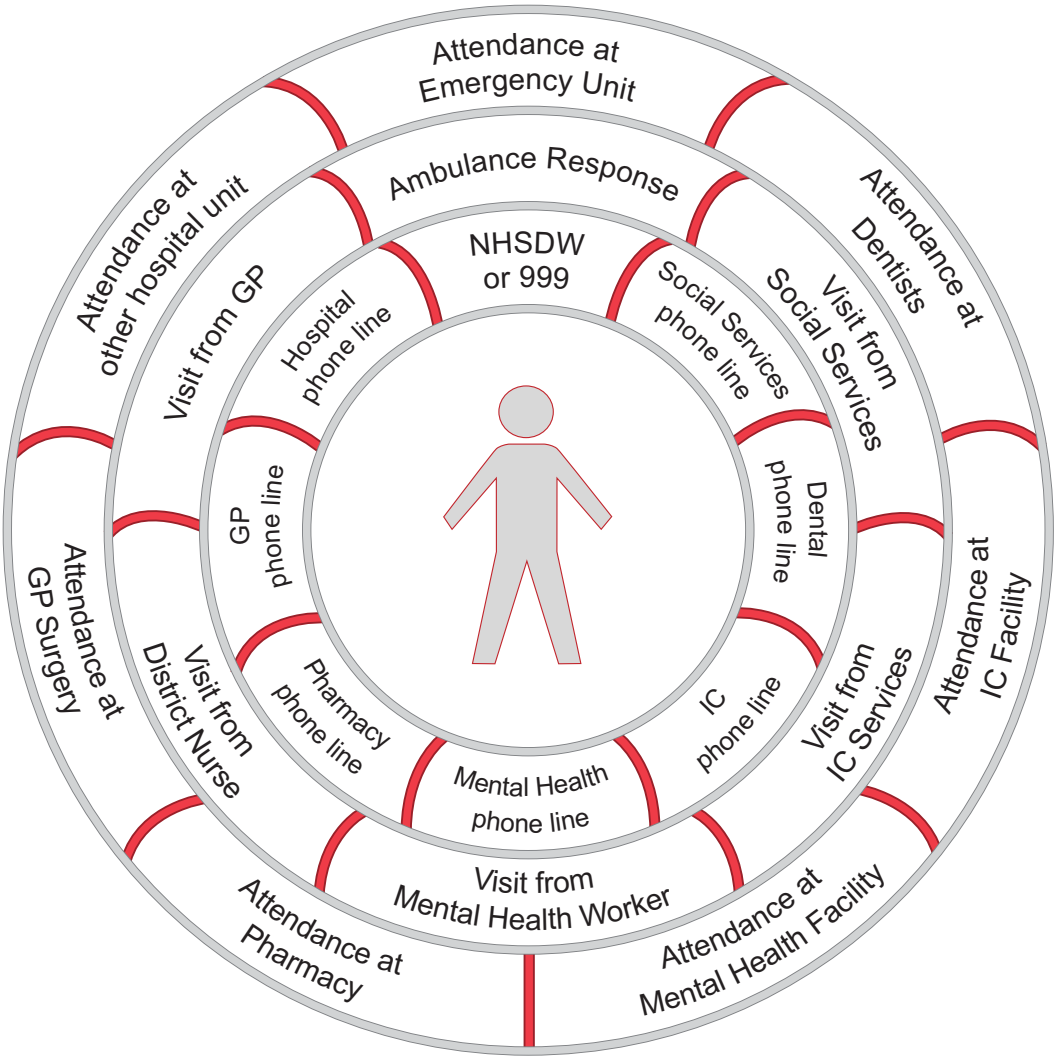
Ambulance turnaround time
The ambulance turnaround time begins when the ambulance arrives at the hospital and does not end until the ambulance crew has informed ambulance control that it is ready to respond to another emergency. The turnaround time therefore includes the time it takes for the crew to make themselves and their ambulance ready to respond to another call, following the completion of the patient handover.

The measurement and improvement of patient handover times is viewed as a more direct indicator of patient care, safety and experience than ambulance turnaround, and should help to identify more accurately the root cause of lost ambulance unit hours.

Source: Wales Audit Office

1 Auditor General for Wales, Ambulance services in Wales, December 2006
2 Auditor General for Wales, Follow up review – Ambulance services in Wales, June 2008
3 Auditor General for Wales, Ambulance services in Wales – further update to the National Assembly for Wales' Audit Committee, March 2009

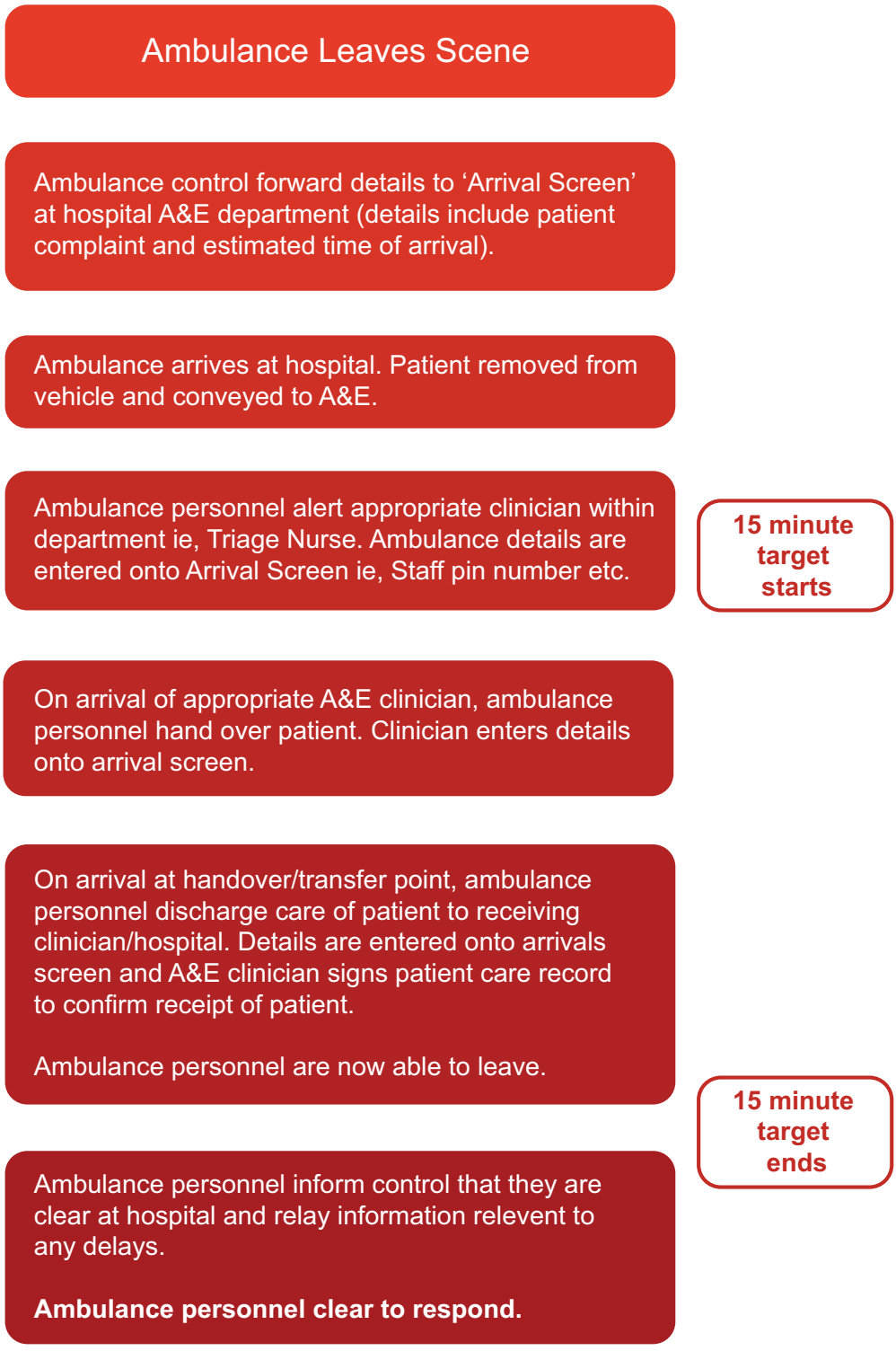
Figure 1 - Unscheduled care is a broad term and includes the work of many services



NHSDW - NHS Direct Wales
IC - Intermediate Care

Source: Wales Audit Office

Figure 2 - Measuring handover and turnaround times



Note
A patient care record is a document completed by ambulance crews that provides a formal record of the treatment provided to an individual patient.

Source: Welsh Ambulance Services NHS Trust, Procedure for transferring care of patient at receiving hospital, January 2008

4 In addition to the effects on patients, delayed patient handovers have detrimental impacts on the ambulance trust and their response time performance, as well as on the wider NHS and other emergency services which sometimes transport patients to hospital when ambulances struggle to respond to calls. During these delays, ambulances are tied up at hospital and are unavailable to respond to new emergency calls. Consequently, the Minister for Health and Social Services set a new target from 2008 requiring NHS organisations to achieve a handover of patients from an emergency ambulance to a hospital emergency department within 15 minutes[4]. Based on practice from elsewhere in the United Kingdom, the ambulance trust has set an internal target that following the handover, ambulance crews should make ready their vehicles and declare themselves available to respond to another emergency within five minutes. This gives crews a total 'turnaround time' target of 20 minutes.

5 Figure 3 shows the sequence of activities that occur within a typical emergency incident. Figure 3 highlights which activities are included within the Assembly Government's performance targets and also those that the ambulance trust has set as internal performance targets. As the sequence of activities progresses, the detail of each incident is recorded on the ambulance trust's central information systems and is also displayed upon the data terminals situated in the hospital that is expected to receive the patient(s) involved in the incident under the following headings:

- **a** initially, when a response is despatched to an emergency call the hospital likely to receive the patient(s) involved in the incident is alerted by details of the incident being listed under the heading of 'expected';
- **b** if the ambulance crew does not need to transport the patient to hospital the incident will simply disappear from the screen;
- **c** if the ambulance crew decides to transport a patient to hospital, then the status of the incident changes from 'expected' to 'inbound' and an estimated time of arrival is given;
- **d** when the ambulance arrives at the hospital, the status of the incident changes from 'inbound' to 'arrived'; and
- **e** when the duty of care for the patient has been handed over to the hospital staff, the patient handover is complete and the incident no longer appears on the data terminal but all of the details of the incident are recorded on the ambulance trust's electronic information system.

6 NHS staff are required to measure patient handover times using data terminals with touch-screen technology. The data terminal system was installed in all Welsh hospital emergency departments in September 2008 and the first data were released in December 2008. Our fieldwork teams visited all of the main hospital emergency departments in Wales to conduct spot-check observations of the handover process and the implementation and user operation of the new touch-screen technology commonly referred to as 'data terminals'. Our methodology is detailed in Appendix 1.

7 This project considered whether the handover of patients by ambulance crews to hospital emergency departments was being managed efficiently whilst safeguarding patient care. We found that while there have been some positive steps towards improving the handover process, patients are frequently delayed too long and the data on handovers is not yet providing an accurate view of the

4 Welsh Assembly Government, Annual Operating Framework, Target 19, 2008-09 and Annual Operating Framework, Target 9, 2009-10

Figure 3 - There is a range of performance targets surrounding the handover of patients from ambulance crews to hospital staff

The Assembly Government Performance Targets	Ambulance Trust Targets	Activity	Data Terminal Status
		Citizen telephone call to Ambulance Control	Nil
Assembly Government AOF target 4: (2008-09) for arriving within 8,9 and 10 mins		Clock for response starts once ambulance control have obtained telephone number and verified the location and type of incident	Nil
	30 Seconds	Prioritise call (into Categories A,B or C) and despatch ambulance vehicle(s)/RRV/First Responder	Expected
	Remainder of first response target	RRV/Ambulance arrive at scene and determine number of patients requiring transportation to A&E	Expected
	Within 14, 18, 21 Minutes*	Ambulance arrive at scene	Expected
		Stand down any over supply of ambulances	Expected
	20 Minutes	Ambulance Control/Crew decide upon most appropriate hospital destination	Expected
		Ambulance crew continue to gather vital patient data	Inbound
		A&E staff prepare for arrival of ambulance	Inbound
Ambulance Turnaround:		Ambulance arrives at A&E - notifies Ambulance Control	Inbound
Patient Handover: Assembly Government AOF target 19: (2008-09) Handover of patient from an ambulance to A&E within 15 minutes	15 Minutes	Ambulance Crew enter A&E, record their arrival on data terminal and notify A&E of arrival	Arrived
		Ambulance crew stay with patient. Patient remains on ambulance trust trolley whilst waiting to transfer into the care of the A&E staff	Arrived
		Ambulance Crew provide verbal hand to A&E staff and provides written sheet (patient care record)	Arrived
		A&E staff records that the handover is complete on the data terminal	Completed
	5 Minutes	Ambulance crew restock and clean ambulance and equipment	Nil
		Ambulance crew notify Ambulance Control of their availability for another call	Nil

*Dependent upon the rurality of the area and including the time taken for ambulance control despatch

Source: Wales Audit Office

extent of the problem. Further progress depends on NHS organisations taking a firmer grip of the handover issue in the context of improving the wider system of unscheduled care.

The handover of patients from ambulance crews to hospital emergency departments frequently takes too long but the true extent of the problem is unclear

8 During our visits to emergency departments we frequently observed delays in the handover process. We saw examples of detrimental impacts on patients who often awaited medical attention on ambulance trolleys in hospital corridors. This has implications for patient privacy and dignity as well as exacerbating the anxiety that these patients and their families or carers might be feeling. Queuing ambulances and patients being cared for on trolleys or in corridors gives a very negative impression of unscheduled care in Wales and is damaging to the reputation of the NHS.

9 Handover delays often coincide with, and exacerbate, times of severe pressure within emergency departments. The delays add to the stresses and frustrations facing NHS staff who are focused on getting patients the help they require, as quickly and as safely as possible.

10 In 2008, ambulance trust figures show that its crews were delayed at hospital emergency departments for nearly 30,000 hours beyond the 20 minutes that the turnaround target says should be sufficient. With ambulance crews facing delays at emergency departments, there are fewer crews available to respond to other emergency calls. This can mean that it takes the ambulance trust longer to respond to emergency calls from members of the public. Delayed ambulance turnarounds, therefore, have implications for the speed with which patients receive emergency care but also for the ambulance trust's ability to meet its targets for responding to emergency calls within clinically appropriate timescales, particularly the target to respond to immediately life threatening emergencies (Category 'A' calls) within eight minutes.

11 However, turnaround times are an imperfect measure and relate only to the ambulance trust's records, which highlights the importance of developing robust measurement of patient handover times. The accurate and consistent measurement of patient handover times would help distinguish between and quantify the lost time arising from issues caused by the ambulance trust's own systems and those caused at the interface with the wider system.

12 We also found that the ambulance control has consistently struggled to despatch a response within its 30-second target[5]. However, at times of extreme pressure, for example December 2008, it has used up the majority of the eight-minute response time period on the process of allocating a response.

13 The significant variability in the extent of excessive turnaround times can lead to the wider system becoming blocked up when there are sharp increases in pressures arising from lost ambulance hours. Managing variation which goes so far beyond what is predictable is extremely difficult when attempting to provide a responsive and efficient ambulance service. Consequently, during December 2008, there was a very significant fall in ambulance response time

5 The ambulance trust has set itself a target to despatch a response to a 999 call within 30 seconds of verifying three pieces of information from the caller – caller name, location of incident and the nature of the incident.

performance which exacerbated an existing downward trend. Although the causes were complex and reflected significant increased demand across the system, one of the effects was a major spike in time lost through excessive turnarounds and also significant problems allocating ambulances to jobs in which the allocation process sometimes took longer than the eight minutes required to respond.

14 We found that as well as the delays that ambulances face at emergency departments, there was a growing number of patients being transported to hospital by the police or fire and rescue services during December 2008 and January 2009. The extended severe weather conditions at this time caused a significant increase in demand on emergency services across Wales and so contributed to the increased numbers in December and January. Problems with the wider system mean that police officers and fire crews are still transporting patients to hospital. Data provided by the police and fire services suggested that there were significant increases in the number of such incidents between October and December 2008 when there was a monthly average of 30 incidents, the majority of which involved South Wales and Gwent Police. In some instances, these incidents put patients at risk because they are not being cared for by appropriately trained ambulance crews, damage the reputation and credibility of the ambulance trust, limit the ability of the police and fire and rescue services to respond to other emergencies, and put police officers and fire-fighters at personal and professional risk. The ambulance trust reports that the extent of these incidents has fallen in February and March 2009 in line with reductions in lost time arising from long turnarounds.

15 Despite the introduction of the new data terminal system, NHS organisations are still not clear about how long handovers take at hospital emergency departments. The use of the data terminals began in September 2008, was suspended in November due to technical problems but in the first month of full operation, December 2008, nearly four out of five handovers were not recorded using the data terminals. This is partly due to problems with the data terminal system. Although the ambulance trust ran training sessions at all hospitals to clarify roles and responsibilities, we also found that some staff were resistant to using the screens and there was some uncertainty about who is responsible for recording this information. It also reflects the very significant problems throughout the whole system in December 2008. Even when the handover times are being recorded, we found that this is often done inaccurately.

While the new target has raised awareness of handover delays, acute trusts and the ambulance trust need to work together more closely to resolve the problems that result in these delays

NHS organisations have not yet collaborated effectively to ensure there is the required leadership and vision to eliminate excessive handover times

16 The Assembly Government has stated that the accident and emergency access target, for treating patients at emergency departments and the patient handover target are of equal importance for organisations. Whilst the new handover target has drawn greater attention to the problem of handover delays, our spot check visits suggested that

the access targets, are more firmly embedded in the practice of the acute trusts than the newer handover target[6].

17 It is welcome that the handover target makes NHS organisations collectively accountable for excessive handover times and in this way highlights the fact that excessive handovers reflect whole systems issues. Nevertheless, acute trusts and the ambulance trust are not yet working in the right ways to find joint solutions to the problems that cause these delays. These organisations are collaborating at a strategic level to work towards whole systems improvements in unscheduled care, and they are working together to address immediate operational problems that cause handover delays. Although the ambulance trust has made significant effort to engage acute trusts over the last two years, they have not consistently agreed formal approaches specifically to reduce handover delays.

18 The Assembly Government has acknowledged this issue and in January 2009 requested that all NHS trusts submit action plans for minimising excessive handover times which it received at the end of February 2009. Giving evidence to the National Assembly's Audit Committee in March 2009, the ambulance trust Chief Executive pointed to some promising developments at the Royal Gwent Hospital which had led to some improvements in time lost by ambulance crews. There have been a number of further recent actions taken by the Assembly Government which have led to an improving position in recent months, particularly significant reductions in excessive patient handover delays and improvements in ambulance response times across Wales.

Staff appear fully committed to improving handovers but NHS bodies must inspire greater commitment to data recording and prevent handover delays becoming an accepted part of the working culture

19 Throughout our fieldwork we were impressed by the dedication shown by NHS staff in striving to minimise the impacts on patients who experience delayed handovers. We did, however, observe less positive attitudes to the recording of handover information. Some staff felt that it should not be their responsibility to record such information and others were opposed to what they saw as excessive monitoring of their performance. Others also expressed concern about infection control risks arising from using a touch screen, which the ambulance trust addressed by procuring medical grade screens so that they would withstand appropriate cleaning. Initially staff did not receive any information on handover performance as a result of the data they were being asked to enter. The ambulance trust is now monitoring the compliance of all crew members against the recording requirements. But monitoring compliance is not enough. We found that staff are generally not yet convinced of the benefits that this monitoring will bring to patients and to the NHS.

20 Despite the positive attitudes of staff regarding the need to minimise handover times, if the current problems continue to arise there is a risk that these delays will become an accepted part of work in hospital emergency departments and the target could have little impact on reducing the long handovers and the consequences for patient care.

6 Welsh Assembly Government, Annual Operating Framework 2009-10, AOF 7 and Annual Operating Framework 2008-09, AOF 2, Ninety-five per cent of new patients (including paediatrics) spend no longer than four hours in a major accident and emergency department from arrival until admission, transfer or discharge; and ninety-nine per cent of patients spend no longer than eight hours for admission, transfer or discharge.

Poor matching of hospital resourcing to peaks in demand is a major factor in excessive handover times

21 While our work did not involve a detailed analysis of the causes of excessive handover times, we were able to observe them and we asked staff their opinions on the main reasons for long handover times. We found that better planning would be helpful around the resourcing of emergency departments at peak times of demand.

22 Problems at the front door of emergency units reflect much wider problems with the system. Hospitals' ability to admit patients efficiently at the front door reflects issues of demand, patient flow, patterns of accessing services and bed management across the whole system. The most commonly cited reason by staff for delayed handovers was that emergency department beds were not available because all inpatient beds were occupied. Our reports on delayed transfers of care highlighted the significant detrimental impacts that delayed hospital discharges can have on individual patients and the ability of acute trusts to manage their capacity effectively[7]. Our recent visits to hospital emergency departments showed that problems in the management of patient flow and bed capacity, including the 'back door' of the hospital by ensuring efficient discharge of patients from hospital beds, are having considerable impacts on the 'front door' so that patients are treated quickly in hospital if their condition requires it. And we were told that in some hospitals, inpatient specialist teams could provide better support to relieve the pressures on the emergency department.

23 Handover delays are an indication of problems with the allocation of resources to meet demand. However, NHS organisations are not using handover data effectively to assess the balance of capacity and demand within their services. Where mismatches between capacity and demand are identified, the solution might not be to increase the available resources, as adding more ambulances to a queue is unlikely to improve ambulance response time performance. With work ongoing across Wales to improve the model of unscheduled care services provided in each health and social care community, NHS organisations will need to consider the potential impacts on demand from these changes across the whole system of unscheduled care instead of taking isolated decisions on the resourcing of ambulances services or emergency departments.

The processes that set out how patient handovers should happen vary widely across Wales and there is little sharing of lessons or innovative practice

24 We found many positive aspects of the process for handing over patients at emergency departments. We have used these positive aspects to put together a checklist (see Appendix 2) that acute trusts and the ambulance trust can use at each emergency department to assess the efficiency and effectiveness of the handover process.

25 Whilst there are examples of positive aspects of the handover process across Wales it is also true that the process could be improved in every emergency department. We also found that NHS organisations are not learning effectively from each other. Our specific findings about the handover processes are that:

- **a** effective communications between hospitals and the ambulance trust would help emergency departments be more prepared for the patient's arrival;

7 Auditor General for Wales, Tackling delayed transfers of care across the whole system; Overview report based on work in Cardiff and Vale of Glamorgan, Gwent and Carmarthenshire health and social care communities, November 2007

b standardisation of the handover processes at different acute trusts would prevent problems that sometimes occur when ambulance crews arrive at unfamiliar hospitals;

c opportunity costs arise in terms of the managerial capacity of the ambulance trust through the widespread use of additional ambulance officers to take over the care of a patient at hospital accident and emergency departments in order to free up an ambulance crew at times of particular pressure on patient handover; and

d delays restocking and turning ambulances around arise because of problems with the availability of certain stock items at hospital and contribute to delays in ambulance crews returning to the road after handing over the care of their patient.

Recommendations

To improve the completeness and accuracy of handover time data

1 Frequent malfunctioning of the data terminals is preventing data recording becoming a routine part of working in emergency departments. And during periods of prolonged inactivity, a screensaver will appear on the data terminal, giving the impression to some staff that the screen is not working. **The ambulance trust should, as a matter of urgency, work with the acute trusts and system provider to:**

a address the technical problems that result in the screens breaking down to deliver measurable reductions in downtime and increases in the extent to which the handover data is recorded;

b deactivate the screensaver so that users can see that the data terminals are working properly;

c ensure that all screens have alongside them the standard advice card highlighting how users should restart or refresh the data terminal when the screen is showing an error message during instances when no specialist IT solution is required;

d ensure that the ambulance trust's information systems can distinguish between handovers of patient care from ambulance crews to other ambulance trust staff stationed at emergency departments to deal with handovers and the time taken to complete the direct handover of patient care from crews to hospital staff; and

e set up robust systems to undertake, jointly with colleagues from the emergency department, periodic spot check audits to validate the accuracy and completeness of the handover data.

2 Some data terminals have been positioned in inappropriate locations within emergency departments. Some screens are in areas that become heavily congested at busy times and others have been placed in more remote locations that are not automatically visited by staff involved in handovers. **Acute trusts should review the locations of existing data terminals in consultation with both ambulance and nursing staff. Wherever possible, a data terminal should be positioned inside the department, close to the entrance used by ambulance crews, as a visual reminder to staff that they must record the handover time information.**

To improve the way that NHS staff use the data terminals

3 Staff attitudes to the recording of handover time information are a significant barrier to the accurate monitoring and management of the handover process. Some staff feel over-monitored and others do not agree with,

or understand, the principles behind the recording of handover information, reflecting the need to recognise the human as well as technological elements of introducing a new system. These views may have been compounded by a lack of information provided by NHS organisations to their staff about the intentions of the data terminal system. **To inspire greater commitment to the recording of accurate handover time data:**

a **NHS organisations should communicate more clearly to their staff the reasons for recording handover time information and the important role that this information plays in quantifying the scale of problems facing the unscheduled care system and improving the planning of services;**

b **acute trusts should display handover time performance information within emergency departments so that the staff are more aware of the impacts of delayed handovers and can see improvements to handover times as a result of local actions; and**

c **the ambulance trust should provide its staff with data relating to the handover times that is specific to the patients they have conveyed to hospital.**

4 Despite a training programme rolled out across Wales, we found that some staff remain unclear about exactly when they should use the screens. There is also uncertainty about the division of responsibilities for recording this information between hospital staff and ambulance crews. While protocols have been developed, they are not yet consistently applied. **To remove ambiguity in the use of the data terminals, the ambulance trust should clearly display alongside the terminals the local protocols that place specific responsibilities on particular staff members for using the data terminals at specific points in the handover process. The ambulance and acute trusts should periodically audit compliance with the implementation of the protocols.**

To improve the use and analysis of handover time data

5 The data collected through the data terminals are not being widely used by service managers and those planning unscheduled care services. This is largely because of limitations in the data such as problems with consistency in recording and the comprehensiveness of the data. There are also more practical problems arising from the priority to attend to the handover of sometimes critically ill patients rather than entering data onto a terminal. **Once better and more consistent recording is being achieved, NHS organisations should:**

a **use the handover time data to highlight patterns in demand and improve their planning of the resources they require to meet the demand;**

b **use the handover time data as a real time indicator of the pressures facing emergency departments and as a tool to help inform decisions about diverting ambulances away from hospitals that are experiencing excessive handover delays; and**

c **use the handover time data as part of broader work to assess the issues and problems facing the whole system of unscheduled care.**

To ensure lessons about the handover process are learned and shared

6 There are a large number of positive aspects of the handover process across Wales. However these positive aspects vary widely by hospital and little is being done to share messages about what is working well.

We have developed a checklist (see Appendix 2) to help NHS organisations improve the handover process at every emergency department. **NHS organisations involved in each emergency department should meet, where possible within existing unscheduled care fora, to discuss the implications of this report and to fully consider whether they are implementing the positive aspects of the handover process highlighted in our checklist.**

7 The processes and protocols that govern the handover of patients vary widely between hospitals. When ambulance crews arrive at hospitals that they are not familiar with, they can be uncertain of the local arrangements for handovers and this can result in inefficiencies in the handover process. **Acute trusts should display near the data terminal in each emergency department, a poster giving up-to-date information regarding the local arrangements for patient handover.**

8 At times of severe pressure at some emergency departments, the ambulance trust might decide to send an ambulance officer to the department to speed up the handover process. Amongst other roles, the ambulance officer might take over the clinical care of a patient in order to free up an ambulance crew to respond to other emergency incidents. These arrangements can be effective in freeing up ambulances but raise clinical governance issues because handing over to an ambulance officer represents an additional step in the handover process which essentially reflects demand created by the failure of the overall system. **The ambulance trust should specifically audit the practice of ambulance crews handing over to ambulance officers. The audit should examine patient safety aspects as well as data recording issues to inform the future use of ambulance officers to receive patients handed over from the crews that transported them.**

9 Ambulance crews are sometimes delayed after they have handed over their patient because they cannot easily restock their vehicles with items such as medicines, bedding or equipment. **Acute trusts and the ambulance trust should review the arrangements at each emergency department for stocking replacement items for ambulance staff. Once improved stock arrangements are agreed, they should monitor handover and turnaround time data to identify improvements in the ambulance job cycle arising from timely restocking of vehicles after each incident. The details of these arrangements should be included as part of the poster for ambulance crews mentioned in recommendation 7.**

To ensure patients are transported to hospital by the most appropriate service

10 Delays that ambulances face at emergency departments have contributed to the number of patients being transported to hospital by the police or fire and rescue services. These incidents put patients at risk, damage the reputation of the ambulance trust, present significant problems for police and fire officers on a personal level and limit the ability of the police and fire and rescue services to respond to other emergencies. **We recommend that the ambulance trust should:**

- **a implement a system to report and record every instance where a patient has been transported to hospital by another emergency service; and**
- **b after every instance where a patient has been transported to hospital by another emergency service, carry out a debrief or in-depth analysis to identify the specific causes for the incident and to see if lessons can be learned to avoid such incidents in the future.**

Part 1 - The handover of patients from ambulance crews to hospital emergency departments frequently takes too long but the true extent of the problem is unclear

Princess of Wales Hospital, Bridgend, November 2008

The patient handover process frequently takes too long and results in detrimental impacts for citizens and the wider NHS in Wales

Excessive handover times have detrimental impacts on patients

1.1 This section considers the extent to which patients experience delays during the handover process and the ways in which handover performance is being monitored. We found that:

- **a** handovers frequently take too long and have detrimental impacts on patients, staff, NHS service delivery and the other emergency services who sometimes transport patients to hospital; and
- **b** the monitoring of handover times is not yet effective enough to give a clear indication of the speed and efficiency of the handover process.

1.2 Patients who experience excessive handover times at hospital emergency departments are delayed in receiving the medical attention they need. Staff told us that handovers involving the more seriously ill patients are very rarely delayed. But delays for any patient are unacceptable because the vast majority of patients brought to hospital by ambulance require urgent treatment or care that cannot be provided solely by a paramedic.

1.3 During our fieldwork visits we saw firsthand how patients can be affected by delays during handovers. In a small number of cases patients became anxious and agitated because of the delay they faced and we saw examples of patients and their families or carers becoming frustrated and confused about the reasons for these delays.

1.4 When patients experience delays in the handover process, they often wait on ambulance trolleys in hospital corridors. These corridors are often busy, draughty thoroughfares and this clearly has implications for the patient's dignity, privacy and their comfort.

1.5 In addition to the queues of patients that can build up at times of handover delays, we found that problems in the handover process also often lead to queues of ambulances outside hospitals (such as in Figure 4). The images of ambulances and patients queuing at hospitals is damaging to the reputation of the NHS in Wales because they are obvious signs of inefficiencies and of the people affected by these inefficiencies. As well as handover delays, long queues of ambulances can arise for other reasons which can include very serious incidents involving multiple casualties, crews taking breaks and capacity within the emergency unit.

Handover delays risk damaging the morale of NHS staff through increased stress and frustration

1.6 Hospital emergency departments can be stressful places to work. They are generally busy workplaces with large numbers of patients requiring varying degrees of care which include very serious emergency cases that threaten people's lives. Excessive handover times frequently coincide with times of acute pressure within these departments. The fact that patients might be awaiting treatment on ambulance trolleys in hospital corridors undoubtedly adds to the pressure and stress felt by staff working within these departments.

1.7 During our fieldwork visits we were told about the considerable frustration that NHS staff can feel at times of handover delays. Nursing staff told us they can be frustrated because of issues outside of their control causing delays in the handover process. And many ambulance crews told us about the frustration they feel when they are delayed at hospital and are therefore unavailable to respond to other emergency calls. Box 2 summarises some of the views we were given by staff

Figure 4 - We frequently observed queues of ambulances outside emergency departments

Source: Wales Audit Office Royal Gwent Hospital, December 2008

Box 2 - Some staff told us about the frustration they feel during handover delays

This box summarises some of the views expressed by staff regarding the way they are affected by delayed handovers.

- **a** Ambulance crews can face long waits in hospital corridors when they feel their time would be better spent responding to emergency calls.
- **b** Some crews perceive there to be inefficient bed management in freeing up hospital beds and facilitating the flow of patients through the hospital.
- **c** Some hospital staff feel powerless to do anything to prevent handover delays and feel that the occurrence of these delays causes tension between the hospital staff and the ambulance crews.

Source: Wales Audit Office

Figure 5 - Up to seven ambulance crews faced handover delays at the Royal Gwent Hospital during one of our visits

Source: Wales Audit Office, Royal Gwent Hospital, December 2008

about the way they are affected by delayed handovers and Figure 5 shows the situation we found at Royal Gwent Hospital when up to seven ambulance crews were delayed at the emergency department.

Excessive patient handover and ambulance turnaround times tie up vital resources and reduce the ability of the ambulance trust to respond to other emergencies

1.8 In addition to the detrimental impacts that handover delays have on patients and staff, these delays also make it more difficult for the ambulance trust to be able to respond to other emergencies. If ambulances are delayed at hospital emergency departments, the ambulance trust has fewer ambulance crews available to send to emergency incidents. As we will discuss throughout this section of the report, this effective reduction of available ambulance crews causes a wide range of operational problems for the ambulance trust.

1.9 The ambulance trust has experienced long-term problems with time lost due excessive turnarounds. There were some signs of improvement in the first half of the 2008 calendar year, where for most months the number of hours lost through turnarounds of over 20 minutes was lower than equivalent months in 2007[8]. However, in the 2008 calendar year, the ambulance trust calculated that it lost 29,200 ambulance crew hours beyond the 20-minute turnaround time target at Welsh hospital emergency departments and a further 3,100 hours at hospitals in England. Delays at English hospitals can have a significant impact in areas such as Powys and Monmouthshire where coverage and response time performance are especially challenging. Based upon the ambulance trust's own calculation of a direct cost of £76 per hour, the estimated direct cost of these lost hours is over £2.4 million, although there are much wider costs in terms of service effectiveness. Appearing before the National Assembly's Audit Committee in March 2009, the ambulance trust's Chief Executive indicated that his regression analysis showed that for every 24 unit hours of ambulance cover lost at the 'front door' of the Royal Gwent Hospital, there was a six per cent fall in Category 'A' response time performance in the South East Wales region. Figure 6 shows a scene outside the emergency unit at the University Hospital of Wales during our visit.

1.10 Figures 2 and 3 show the activities that form the process of providing an emergency response and also the targets for how long those activities should take. The ambulance

8 Auditor General for Wales, Ambulance services in Wales – further update to the National Assembly for Wales' Audit Committee, March 2009

Figure 6 - Six ambulances and a rapid response vehicle were delayed at the University Hospital of Wales during our visit

Photograph taken at the University of Wales Hospital in November 2008 at the time of one of our two visits. The ambulance trust calculated that in the month of November 2008, it lost 547 ambulance hours at the hospital beyond the maximum 20 minutes given for the turnaround of an ambulance at an emergency department.

Source: Wales Audit Office, University Hospital of Wales, November 2008

trust has set itself a target to despatch a response, usually an ambulance or rapid response vehicle, within 30 seconds of verifying three pieces of information from a citizen making a 999 call - caller name, location of incident and the nature of the incident. This 30-second period is the first step within the process of providing a response to a Category 'A' incident within eight minutes and is commonly referred to as 'verification to despatch'. Once the verification process is complete, there is no reason for any delay in despatching an emergency response to an incident other than a lack of available response vehicles.

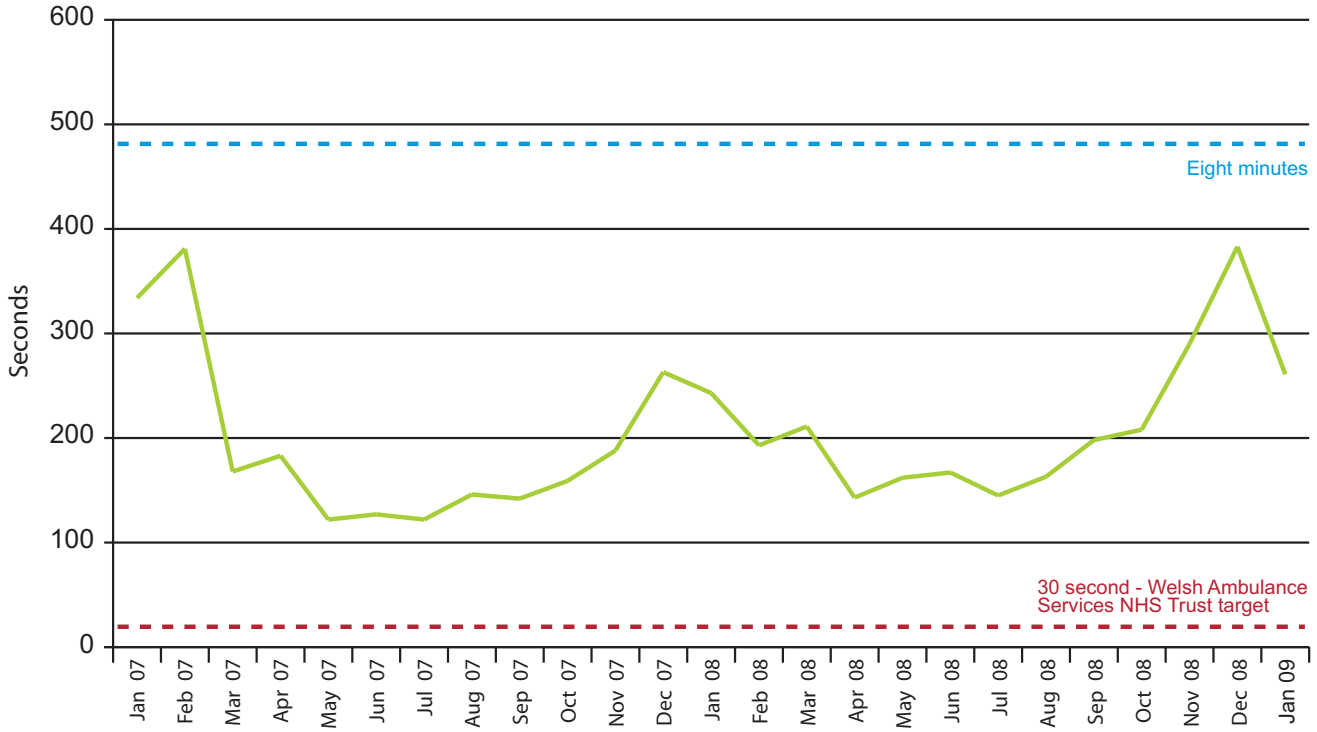
1.11 However, when large numbers of ambulances are delayed at hospitals, this dramatically reduces the number of crews available to control for despatching to respond to new emergency calls.

1.12 Figure 7 shows the average number of seconds taken for the verification to despatch process in each month over a 25-month period for all Category 'A' incidents that the ambulance trust received. This shows that the ambulance control has consistently struggled to despatch a response within its 30-second target but that at times of extreme pressure, for example December 2008, it has used up the majority of the eight-minute response time period on the process of allocating a response.

1.13 At the level of particular localities, we found that these problems were so serious that the ambulance control centre is frequently unable to despatch an ambulance to a Category 'A' incident within the eight-minute target for the emergency response to reach the patient, particularly in Cardiff, Merthyr Tydfil, Rhondda Cynon Taf and Torfaen. Appendix 4 provides graphs that illustrate the monthly average time taken to despatch a response to Category 'A' calls in each of the 22 localities of Wales.

1.14 Another contributory factor of the local problems in achieving good response time performance is the significant variation in time lost through excessive turnarounds. The

Figure 7 - The average monthly time taken by the ambulance trust to despatch a response to all the Category 'A' incidents has been increasing in recent months and peaked at 383 seconds in December 2008, leaving on average only 97 seconds for the response to arrive at the incident within the Assembly Government's eight-minute target.



Source: Wales Audit Office analysis of ambulance trust data, February 2009

ambulance trust's own analysis shows that in all three regions, there was significant variability in the amount of time lost, which means that at particular times there are considerable problems providing responsive services.

1.15 The number of patients attending the emergency departments of Welsh hospitals is gradually increasing (Figure 8). In December 2008 average weekly attendances at emergency departments was broadly in line with seasonal trends, but the ambulance trust experienced a significant increase in the number of lost hours by ambulances that were delayed at emergency departments (Figure 9).

1.16 The increase in lost ambulance hours at emergency departments in October, November and December 2008 corresponds to the increase in time taken to despatch a response to Category 'A' incidents due to the lack of available resources. It is also reflected in the decline in the ambulance trust's performance in responding to Category 'A' incidents within eight minutes (Figure 10). Whilst excessive turnaround times are a significant factor in the deterioration of the ambulance trust's response time performance, other contributory factors include financial pressures, staffing levels and vacancies in South East Wales, shift patterns in Cardiff that do not match supply and

Figure 8 - There has been an increasing trend in average weekly attendances at major emergency departments in Wales over the last two years. The number of patients being transported to emergency departments has increased more rapidly over the same period.

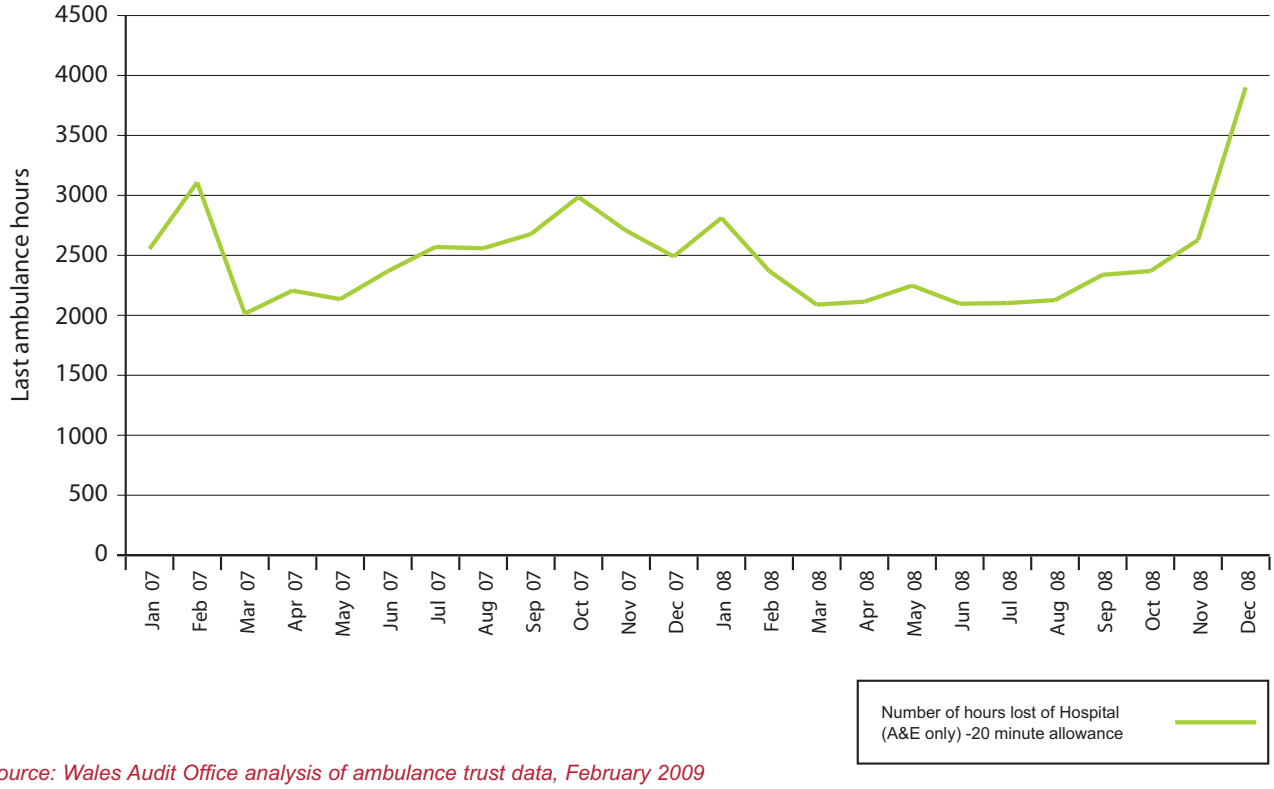
Sources: Wales Audit Office analysis of ambulance trust data, and Assembly Government data, February 2009

demand and sickness absence levels. Further explanation of these factors can be found in our recent update report to the National Assembly's Audit Committee[9].

1.17 Another impact of excessive turnaround times upon the ambulance trust is the disruption this causes to the trust's plans for meeting demand. When planning the number of crews required in a particular area, the ambulance trust makes assumptions about the typical number of calls it receives and the typical time it takes to respond to these calls. The ambulance trust assumes that when a crew responds to an incident, the crew will be available again to respond to the next call within a total job cycle of one hour. If it is taking longer than an hour just to turnaround ambulances at hospital emergency departments then this will cause significant problems within the ambulance trust's model of capacity and demand. While Figure 11 shows that most turnaround times are completed in less than one hour, nearly 10,000 turnarounds in 2008 were in excess of one hour. Similar analyses for each hospital we visited in our fieldwork are provided in Appendix 3 of this report.

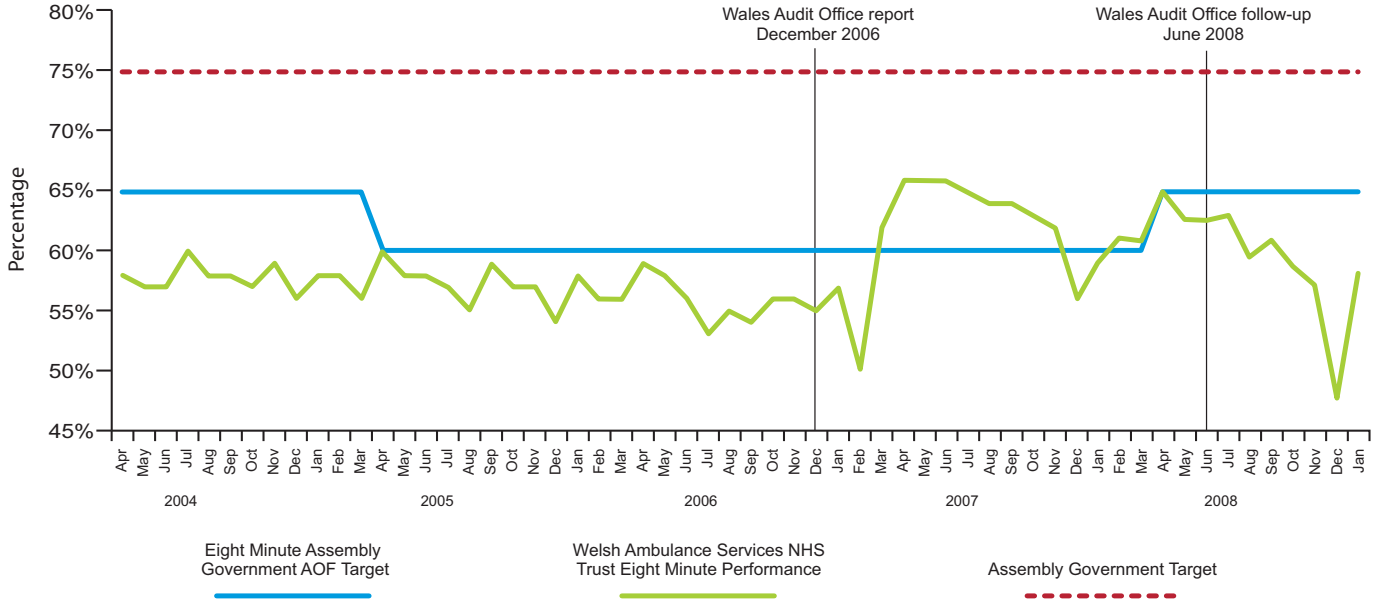
9 Auditor General for Wales, Ambulance services in Wales – further update to the National Assembly for Wales' Audit Committee, March 2009

Figure 9 - In December 2008 there was a significant increase in the total ambulance hours lost at Welsh hospitals with a major emergency department



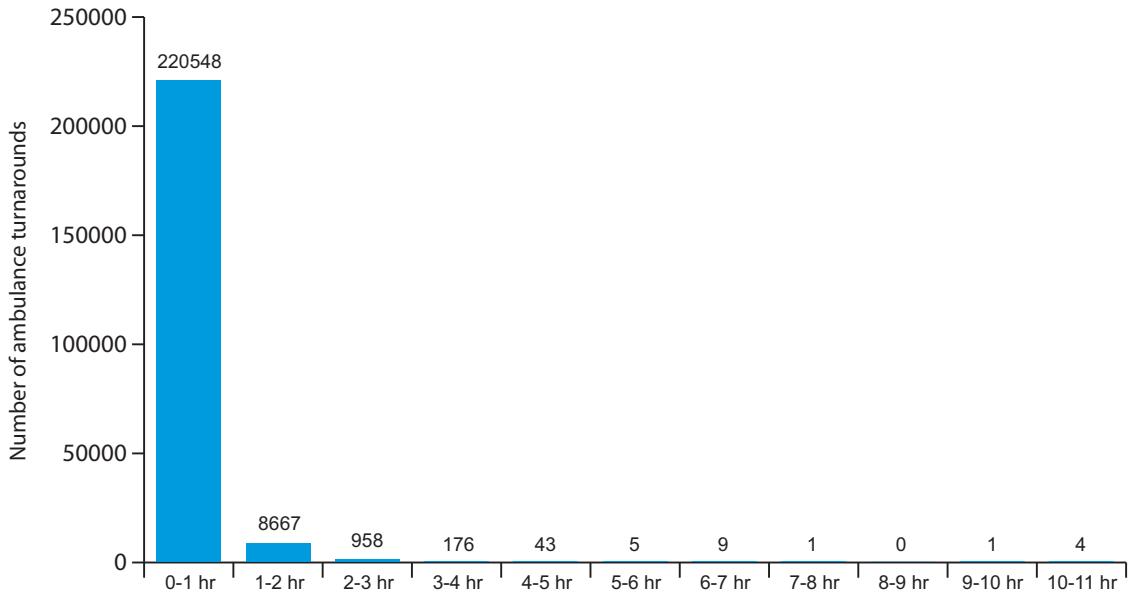
Source: Wales Audit Office analysis of ambulance trust data, February 2009

Figure 10 - The percentage of Category 'A' calls receiving a response within eight minutes has fallen across Wales since May 2008



Source: Wales Audit Office analysis of Assembly Government data

Figure 11 - A significant minority of turnarounds can take longer than one hour to complete



Total for Welsh Ambulance Services NHS Trust, the number of ambulance turnarounds for category A and B incidents and the extent of the delay in 2008

Note

These data include part-time emergency departments.

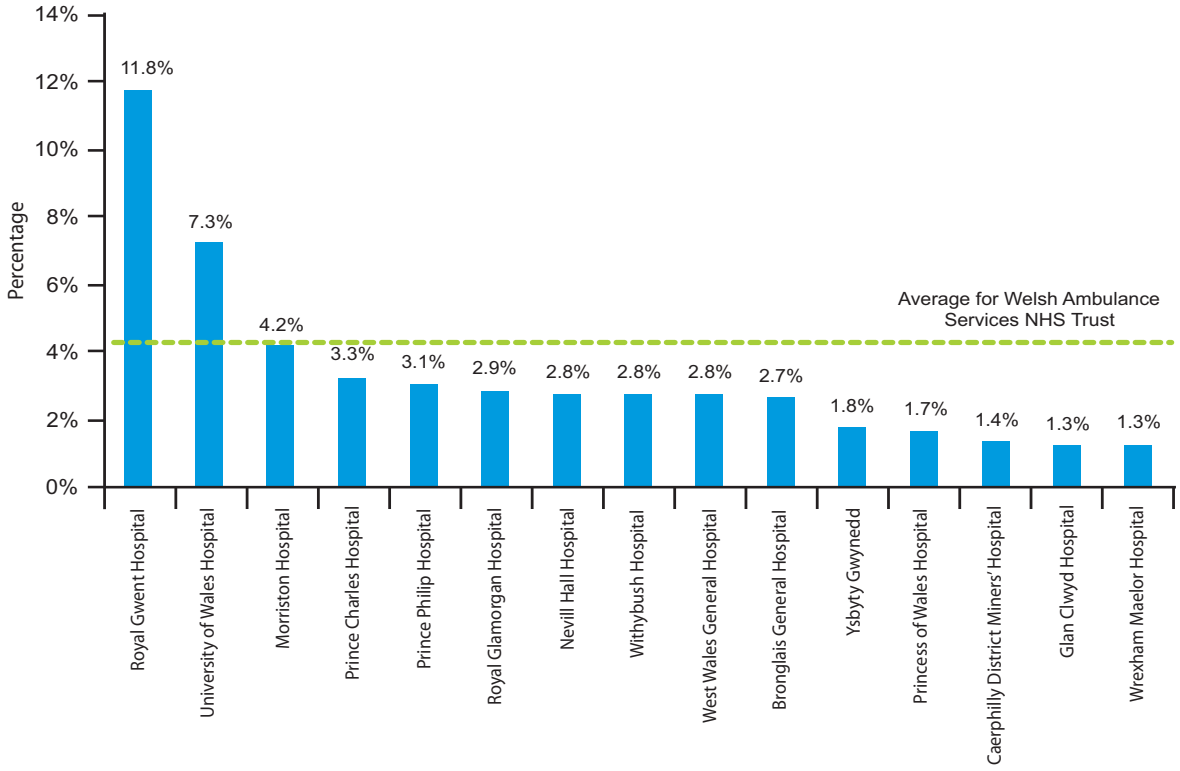
Source: Wales Audit Office analysis of ambulance trust data, February 2009

1.18 Figure 12 shows the large variation by acute trust in the percentage of turnarounds that took longer than one hour to complete. There are particular problems at the Royal Gwent Hospital where nearly 12 per cent of turnarounds in 2008 took longer than an hour, and at the University Hospital of Wales where more than seven per cent exceeded an hour. Between March and December 2008, the ambulance trust's Chief Executive told the National Assembly's Audit Committee in March 2009 that lost ambulance hours at the Royal Gwent Hospital grew from under half of a 12-hour shift to two and a half 12-hour shifts.

1.19 With turnaround times frequently exceeding one hour at these hospitals, the ambulance trust often has far fewer ambulances than it needs to meet demand in these areas. This results in ambulance crews from more rural areas being drawn into areas like Cardiff and Newport to respond to emergency calls. These rurally based ambulances have to travel further to respond to emergencies in the urban areas, thereby prolonging the time it takes to arrive at emergency incidents. Also, the removal of these rurally based ambulances from their original localities reduces the ambulance resources within the rural areas, thereby limiting the ambulance trust's ability to respond quickly to emergencies in the rural areas.

1.20 In giving evidence to the National Assembly's Audit Committee in March 2009, the ambulance trust's Chief Executive indicated that time lost through excessive turnarounds at the Royal Gwent Hospital, and Category 'A' response time performance in the area, had very recently started to improve through additional senior medical resources in the

Figure 12 - There is large variation in the percentage of total ambulance turnaround times that took over one hour to complete in 2008



Source: Wales Audit Office analysis of data provided by the Welsh Ambulance Services NHS Trust

emergency department and the revival of the Gwent Rapid Assessment and Treatment Service (GRATS).

Excessive turnaround times contribute to the unacceptable extent of other emergency services transporting patients to hospital in the absence of timely ambulance responses

1.21 The Auditor General's first report on ambulance services showed that between January and August 2006, the fire and police services had transported a minimum of 90 patients to hospital, which equates to around 11 patients per month[10]. Problems with the wider system mean that police officers and fire crews are still transporting patients to hospital. Data collected by fire and rescue and police services suggests that the ambulance trust's problems in responding to emergency calls have resulted in an increasing burden for other emergency services transporting patients to hospital, particularly during the period of severe and prolonged winter pressures in December 2008 and January 2009. South Wales and Gwent Police informed us that between October and December 2008, they had transported 89 patients to hospital, a monthly rate of around 30 patients. Occasional incidents took place involving Dyfed Powys Police and South Wales Fire and Rescue Service. We found no evidence of any such incidents in North Wales involving the Fire and Rescue or Police services. The ambulance trust reports that the extent of

10 Auditor General for Wales, Ambulance Services in Wales, December 2006, paragraph 1.26

these incidents has fallen in February and March 2009 in line with reductions in lost time arising from long turnarounds – but there were still 23 incidents reported to the Joint Emergency Services Group in March 2009.

1.22 Each incident of a patient being transported to hospital by an emergency service other than the ambulance trust poses considerable risks to everyone involved. The patient's safety is at risk because they are not being cared for by appropriately trained ambulance staff and they are being transported in vehicles that are not designed for the purpose of patient transportation. And there are personal and professional risks for the police officers and fire-fighters transporting patients. The police have identified a risk in that if a patient being transported by the Police dies, then it would be classified as a "death in police contact" and would be the subject of an inquiry by the Independent Police Complaints Commission with significant resource and reputational implications for all services involved.

1.23 These incidents have been very damaging to the reputation and credibility of the ambulance trust and represent a failure of the ambulance trust in providing its most fundamental role, the emergency transportation of patients to hospital. Such incidents also reflect badly on the wider NHS and the other emergency services transporting patients to hospital.

1.24 Finally, these incidents incur costs and have direct impacts on the ability of the fire and rescue and police services to discharge their core functions. If police officers, fire-fighters and their response vehicles are engaged in conveying patients to hospital and then waiting to hand them over to the care of hospital staff, these vital resources are prevented from responding to the other emergencies that fall specifically under the remit of police and fire and rescue services. The Joint Emergency Services Group has formally raised its concerns with the Assembly Government and is working to achieve a sustainable solution to these problems.

The true extent to which patients are delayed during the handover process is unclear

Handover times are not being consistently recorded because of problems with data terminals and human behaviour

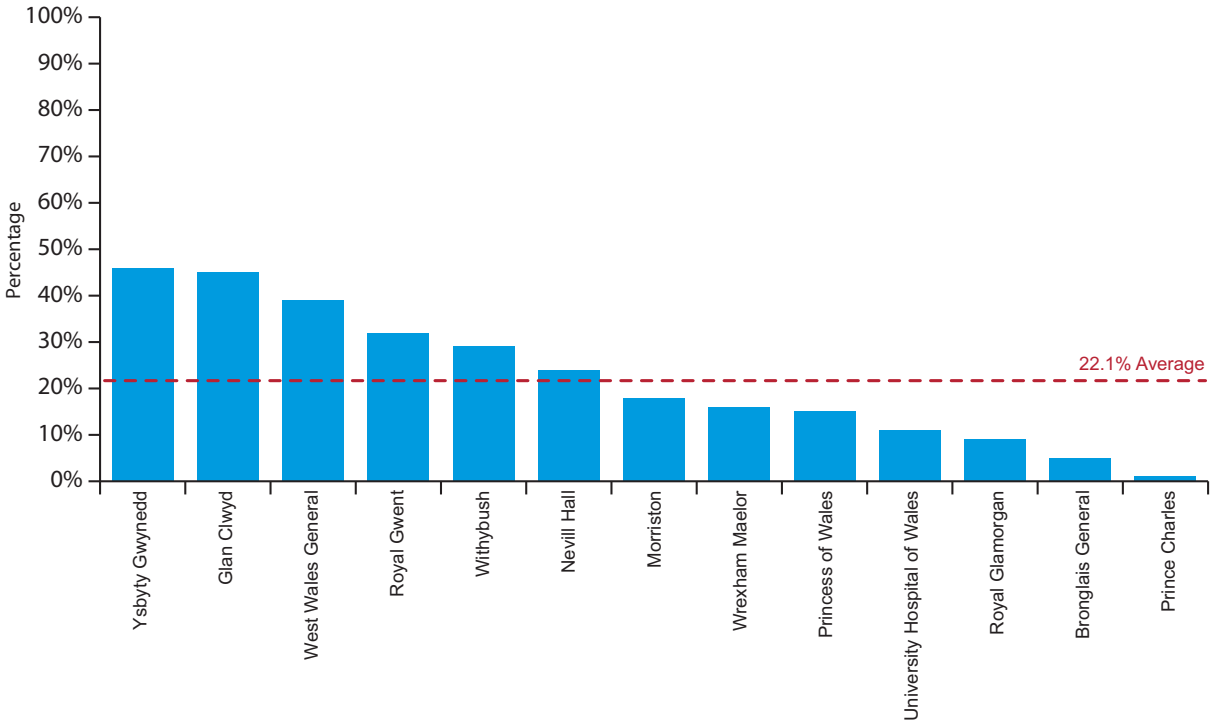
Across Wales, in December 2008, nearly four in every five handovers were not recorded using the data terminals and compliance with the recording requirements varies hugely by acute trust

1.25 The handover target requires all patient handover times to be monitored. The use of the data terminals began in September 2008 and was suspended in November due to technical problems but in the first month of full operation, December 2008, we found that nearly four in every five patient handovers were not recorded using the data terminal system. For this reason, and because of our concerns about the accuracy of the handover data, we have decided not to analyse the data on handover times gathered from the data terminals. Figure 13 shows that the percentage of handovers that were recorded using the data terminals varies widely by NHS acute trust. And even in the trust with the highest percentage of recorded handovers this figure only reached 46 per cent.

Problems with the data terminal system are preventing some handover times being recorded

1.26 One of the main problems with securing consistent recording of patient handover times at the time of our fieldwork was that the data terminals frequently malfunctioned and therefore could not be used. Whilst the

Figure 13 - There is wide variation by trust in the percentage of total patient handovers that were recorded using the data terminals during December 2008



Source: Wales Audit Office analysis of ambulance trust data

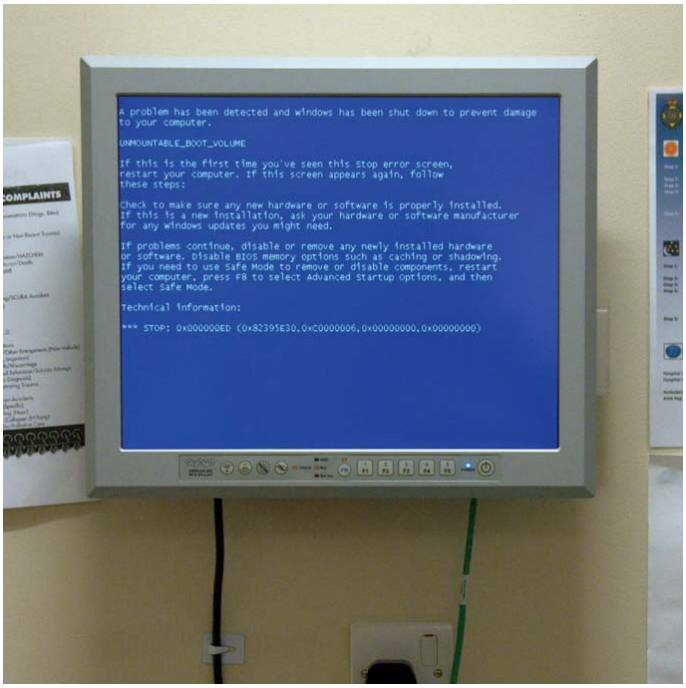
ambulance trust was unable to provide information about the time that the data terminal system was not working, we saw a number of malfunctioning screens during our fieldwork. When we asked ambulance and hospital staff whether there were any unanticipated issues arising from the use of the data terminals, around 21 per cent (27 out of 127) said that poor reliability of the screens was an issue.

1.27 The ambulance trust's internal Hospital Arrival Screen Audit report in December 2008[11] reported that five of seven accident and emergency departments visited had issues that were unresolved with poorly placed screens, inoperable screens or screens that had not been fitted. Because these issues lay outside of the scope of the ambulance trust's responsibilities, the trust referred them to the Assembly Government to resolve. The ambulance trust will conduct a further all-Wales audit in April 2009.

1.28 We found that NHS staff were, at best, largely indifferent toward the data terminals and gladly used the malfunctioning of the data terminals as an excuse not to use them rather than reporting the error to correct the problem. This diagnosis is supported by the infrequent reporting of errors to the ambulance trust's central support team compared with the extent of malfunctioning we observed that we found on our visits to hospitals (Figure 14 provides one example of a malfunctioning data terminal during our visit to a hospital which had not been reported).

11 Hospital Screens Audit, Welsh Ambulances Services NHS Trust, December 2008

Figure 14 - The data terminals frequently did not work and instead displayed a blue screen



Source: Wales Audit Office, Royal Gwent Hospital, December 2008

Figure 15 - Some of the data terminals were in inappropriate places

Source: Wales Audit Office: Withybush Hospital, November 2008. At Withybush Hospital, the accident and emergency department is currently in a temporary location to facilitate the £8 million development of a new emergency and unscheduled care department

1.29 Since the time of our fieldwork the ambulance trust has taken some positive steps to ensuring better reliability of the data terminal system.

1.30 During periods of prolonged inactivity, a screensaver is displayed on the data screen. The screensaver makes the display appear black and might give the incorrect impression that the terminal is not working properly. We also found that some apparently malfunctioning screens may only have required a reboot or refresh but many staff were unaware of how to reboot or refresh the system. Information on how to reboot the system is included on a standard advice card that is presented alongside some, but not all, data terminals.

1.31 Another problem with the implementation of the data terminal system is that some of the screens have been positioned in inappropriate places (Figure 15). Some staff felt that the screens were hidden away within emergency departments or were in locations that could get very busy and congested. The preferred screen location for many ambulance crews was just inside the ambulance entrance to the emergency department. Only five departments, Glan Clwyd, Ysbyty Gwynedd, University Hospital of Wales, Morriston Hospital and Royal Glamorgan, had screens immediately inside the entrance to the department used by ambulance crews.

1.32 The Department of Health has not set a handover target in England and there are no data terminals in English hospitals for recording these times. However, Welsh ambulance crews frequently handover patients at English hospitals with 9,600 ambulance turnarounds being undertaken in 2008. The ambulance trust lost 3,100 hours beyond the 20-minute turnaround target at English hospitals during 2008. There is no specific recording of the time patient handovers, as opposed to turnarounds, take in English hospitals despite the impact of any delays at English hospitals on crews from Powys and Monmouthshire who often have long journeys back to their usual deployment points.

Some staff do not record handover times because they are resistant to additional monitoring of their activities, they are uncertain of their responsibilities or they feel the data recording takes them away from their clinical duties

1.33 Staff attitudes to the recording of handover times are a significant barrier to the accurate monitoring and management of the handover process. Box 3 summarises some typical examples of what staff told us about their views on recording handover times.

1.34 The requirement to record handover times might have been more readily accepted by NHS staff if there had been better understanding, at an operational level, about the intentions of the data terminal system. Many staff told us they were given little information about the system before its implementation.

1.35 The ambulance trust did roll out a training programme to accompany the launch of the data terminal system. Training generally involved ambulance staff on light duties attending hospital emergency departments to train ambulance crews and to a lesser extent, nursing staff. It was the responsibility of the acute trusts to cascade this training to other staff, and the ambulance trust made available a web-based training package for staff. The vast majority of staff felt the training was brief but many also felt that the basic training was sufficient because the system is so easy to use. Some other staff were less positive about the training and felt they needed more time and support. Some of the views about the training programme we heard during our fieldwork are summarised in Box 4.

1.36 Although local agreements were made about recording handover times, a significant limitation with the training programme was that some staff remain uncertain about exactly who should enter the handover time information into the data terminals. These responsibilities vary by hospital with some departments expecting ambulance crews to enter all of the handover time information, whilst other departments expect nursing staff to use the terminals to confirm the handover is complete. This lack of procedural consistency, and the variability by hospital, was leading to some staff not using the screens at all.

Box 3 - Some staff have negative views about the need to record handover time information

- **a** Some ambulance crews appear not to have accepted the need to use the data terminals.
- **b** Some nursing staff and ambulance crews are opposed to the need to record this information and feel that the recording gets in the way of patient care.
- **c** There is evidence of tension in some areas between nursing staff and ambulance crews regarding the recording of handover times. This sometimes stems from nursing staff reminding crews to use the screens and the perception that nursing staff are therefore checking up on the ambulance staff.
- **d** Using the data terminals has not yet become ingrained in the emergency department culture and is therefore not being carried out consistently.

Source: Wales Audit Office

1.37 At the time of our fieldwork, the data screens displayed the logo of the ambulance trust but not any other organisation's logo. The ambulance trust has now changed the system to display the NHS Wales logo to emphasise that recording patient handover times is not the sole responsibility of ambulance trust staff.

1.38 If a patient who is very unwell is brought to hospital by ambulance and is in need of immediate attention from the emergency department staff, we found that handover time information is often not recorded. Staff told us that in these circumstances they often ignore the data recording requirements because they need to be wholly focused on quickly addressing patients' clinical needs.

1.39 Some crews told us that following the handover of a seriously ill patient, the ambulance control centre may contact the crew to ask for their handover time information. But this practice appears inconsistent and the information provided can be inaccurate because it was not recorded at the time of the incident.

When handover times are recorded this is not always carried out accurately or efficiently

1.40 Figure 2 gives details of how NHS staff should record the handover time information according to the ambulance trust's standard operating procedures, but we found that even when the data terminals are being used, the information is frequently recorded inaccurately or inefficiently.

1.41 Despite the documented processes, one important source of inaccuracy is that many staff remain unclear about the precise point in the handover process when they should be using the data terminals. We found that some ambulance crews were using the screens to record that the handover was complete as soon as they spoke to nursing staff upon their arrival to hospital. And we found that some nursing staff were recording that the handover was complete as soon as the patient had been triaged. In both of these instances, the handover might not have been fully completed for a considerable period of time.

Box 4 - There were many positive views about the training programme but other staff said they needed more support

- **a** We found that many staff were satisfied with the training programme and felt that the system was intuitive and easy to use.
- **b** Some staff felt that the training was too brief and they needed additional help to be able to be confident in using the data terminals.
- **c** One issue highlighted by a small number of staff was the long time lag between the provision of training and the data terminals going live. Some felt that they had forgotten their training in the intervening period.

Source: Wales Audit Office fieldwork

1.42 Another source of inaccuracy is in relation to the recording of handover times when ambulance crews handover a patient's care to an ambulance officer. At times of severe turnaround delays at a hospital, the ambulance trust might decide to deploy an ambulance officer to the emergency department. This officer's role is to take responsibility for the care of the patients from several ambulance crews. This practice, which cost the ambulance trust over £330,000 in 2008, releases ambulance crews to be available to respond to other emergency calls.

1.43 When an ambulance crew hands over to an officer and then notifies the control centre that it is free to respond to another emergency, the handover and turnaround is recorded as being complete. In reality, the care of the patient has not been handed over to hospital staff, but to another ambulance trust colleague. From a patient point of view, the patient is still waiting to be seen by hospital

staff but from a data point of view, the information system shows that the patient has been handed over. The shortcomings of this process are resulting in the extent of prolonged delays in patient handover being under-recorded. Snapshot audit work in Gwent Healthcare NHS Trust suggests that there may also be problems with: crews not clearing on the data terminal screens when the crew hands the patient over to the liaison officer; or problems when crews are not being cleared if they cannot be found to have left the department having handed the patient over to the liaison officer.

1.44 As well as the inaccuracies involved in recording handover times, we have found that there are inefficiencies in the recording process because of widespread duplication of effort. Some hospitals record handover times in additional ways to using the data terminals. Such methods include hospital receptionists writing handover times on casualty cards or manually recording these times on a clipboard; and one trust is using its own ICT system to monitor handover times in recognition of limitations and inaccuracy in the data produced by the touch screens. Since January, trusts have provided the ambulance trust with manually recorded data on a monthly basis to check the accuracy of the data provided.

In the absence of robust handover data, turnaround times are the most accurate proxy measure although this data does not provide a clear picture of the causes of delays

1.45 Until the data terminals are working effectively, and are being used consistently to produce accurate data on handover times, the data the ambulance trust collects regarding turnaround times is the best proxy measure for time lost during the handover and turnaround process. A number of acute trusts, as well as the Assembly Government, have concerns about the accuracy of the ambulance trust's turnaround data arising from a range of concerns about data integrity. This further highlights the importance of establishing robust systems to measure handover times. These concerns also arise because the data is not validated. We did not audit the integrity of the data because of the ongoing work to move to the use of the data terminals to deliver accurate information on handover times.

1.46 Turnaround time data show the total amount of time ambulance crews spend at hospital emergency departments but are not detailed enough to show the time taken just to complete the patient handover, or the time between completing the patient handover and the ambulance crew declaring themselves ready for the next emergency call.

1.47 As well as concerns about the integrity of the turnaround data, the use of turnaround times as a proxy measure of handover times is therefore limited because the data cannot be used to distinguish between delayed turnarounds due to patient handovers, and delayed turnarounds due to delays in crews declaring themselves ready to the respond to the next emergency call. The ambulance trust has put in place a number of measures to ensure that its control centres are notified as soon as possible once an ambulance crew is ready to respond to the next emergency call. These include:

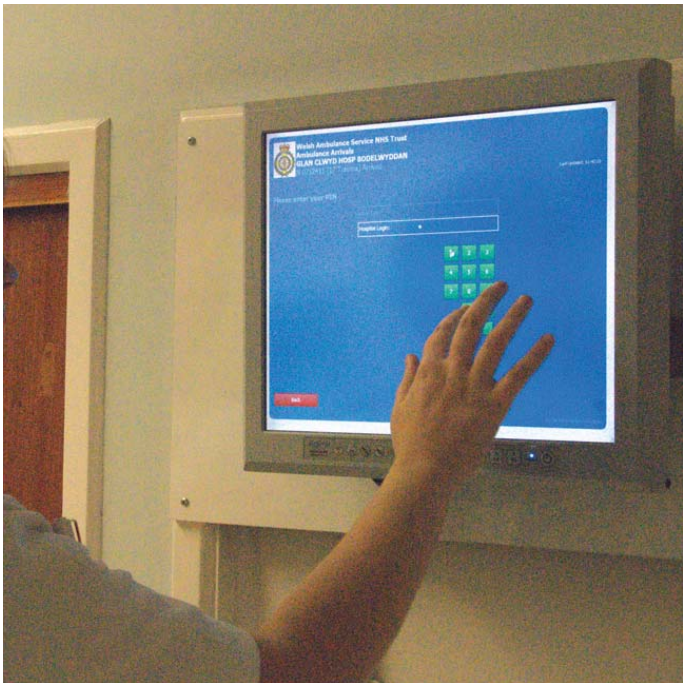
a ambulance control keeps an electronic record of sequential events within the process of each incident which enables monitoring of elapsed time from the last milestone in the process for each incident. The identification of outliers prompts ambulance control to contact crews to clarify their situation;

b interim automatic vehicle location technology provides an automatic time stamp when ambulances arrive at hospital; a virtual geographical fence, 150 metres around each hospital, triggers the automatic recording of a crew's arrival and triggers a communication from ambulance control if an ambulance exceeds the geo fence but the crew is not recorded in control as being available;

c ambulance control closely monitors real time waiting times at hospitals for multiple ambulance crews which enables control to clarify the position with any individual crew that exceeds expectations at any given time based upon available intelligence; and

d as compliance with the patient handover data recording on the terminals improves, there will be improved data and monitoring of patient handovers and ambulance availability.

Part 2 - While the new target has raised awareness of handover delays, acute trusts and the ambulance trust need to work together more closely to resolve the systemic problems that result in these delays



Source: Wales Audit Office, Glan Clwyd Hospital, November 2008

2.1 This section of the report focuses on the extent and effectiveness of joint working to ensure that minimising handover delays is both a corporate priority and a priority for operational staff, that NHS organisations are appropriately resourced to prevent delays and that the protocols used in patient handovers are safe and efficient. We found that:

- **a** there has not yet been the necessary leadership and vision shown by NHS organisations to find joint solutions to the problems that cause handover delays;
- **b** while NHS staff appear fully committed to reducing handover times, there is a need for these workers to understand the benefits of recording handover information and NHS organisations must stop these delays becoming an accepted part of emergency department culture;
- **c** mismatches in demand within the emergency department and available resources are a major cause of excessive handover times; and
- **d** the processes involved in handing over patients vary at different hospitals but there has been little work to share messages between hospitals about what works.

NHS organisations have not yet collaborated effectively in all areas to ensure there is the required leadership and vision to eliminate excessive handover times

2.2 The handover target is designed to work alongside other national targets that state 95 per cent of the patients in emergency departments should be seen, treated and have left the department within four hours and that all of these patients should be dealt with in under eight hours. This suite of targets aims to ensure that patients can access unscheduled care quickly. The Assembly

Government has stated that all of these targets should be considered of equal importance by NHS organisations. We found that while many staff felt the introduction of the handover target has resulted in a greater focus on handover times within their organisation, it was apparent that some operational staff felt that meeting the handover target was a lower priority for some acute trusts than meeting the four and eight-hour targets.

2.3 The wording of the handover target in the Annual Operating Framework of 2008-09 states that 15-minute handovers will be achieved by 'NHS organisations'. Meeting the target is therefore not the sole responsibility of any one organisation, which reflects the systemic nature of effective handover. During our fieldwork we found that while NHS organisations in all areas have begun working together to improve the system of unscheduled care, specific measures to minimise handover delays have not been enough of a joint focus.

2.4 Joint working through the Delivering Emergency Care Services (DECS) framework has focused on the strategic development of the whole unscheduled care system[12]. And while this strategic thinking is a vital part of improving unscheduled care, these discussions have not yet tended to focus specifically on handover delays.

2.5 Since our fieldwork was completed the Chief Executive of the ambulance trust, Alan Murray and Chief Executive of NHS Wales, Paul Williams gave evidence to the National Assembly's Audit Committee on 11 March 2009 and spoke of joint initiatives and working that have already improved ambulance turnaround times at the Royal Gwent Hospital. The Assembly Government has also pointed to a number of recent actions that have been taken since the period of our fieldwork which have significantly improved the situation:

a there has been additional performance management of this issue across the NHS to address excessive patient handover times in the hospitals manifesting the most significant problems; specific focus has been placed on resolving the problems at Gwent Healthcare NHS Trust and Cardiff and Vale NHS Trust;

b Health Commission Wales provided the ambulance trust with £300,000 stabilisation funding to help improve performance against key targets in the final quarter of the 2008-09 financial year;

c a Task and Finish Group has been established to look at the issues raised by the Joint Emergency Services Group in respect of the other emergency services transporting patients to hospital which led to recent recommendations to improve performance and ensure more effective working arrangements and protocols between the emergency services;

d the Assembly Government has agreed for the ambulance trust to develop an Outline Business Case for a joint control room in North Wales, which will improve collaboration and assist in developing a better integrated emergency service response across Wales; and

e the Assembly Government reports that there have been improvements in recent months in ambulance response times which improved significantly to 65 per cent in March and significant reductions in excessive patient handovers at Cardiff and Vale and Gwent Healthcare NHS Trust.

12 Welsh Assembly Government, Delivering Emergency Care Services: An Integrated Approach for Delivering Emergency Care in Wales, February 2008.

2.6 Acknowledging that NHS organisations have not done enough to develop formal approaches to minimise handover delays, the Assembly Government has requested that all acute trusts submit action plans setting out exactly how they will tackle the unscheduled care agenda, particularly by reducing handover delays. The Director General requested that organisations submit two unscheduled care action plans, one identifying a range of operational actions which could be taken to achieve rapid and sustainable improvement, and longer-term Local Delivery Plans covering the period 2009-11 which set out a medium-term approach to whole system change. These action plans were submitted at the end of February and have been updated and re-submitted following initial comments from the Assembly Government.

2.7 Whilst at most hospital sites we found positive working relationships between the ambulance trust and the staff of the acute trust, we did identify tensions at one hospital that were a barrier to joint working. At Wrexham Maelor Hospital we found that the implementation of the handover target has damaged relationships between the two groups of staff. This appears to stem from all data terminals being situated at the convenience of nursing staff without consulting ambulance crews; and nursing staff reminding crews to use the data terminals and giving the impression that they are policing the ambulance crews' performance. Working towards joint solutions to handover delays at this hospital will be difficult unless these tensions are eased.

Staff appear fully committed to improving handovers but NHS bodies must inspire greater commitment to data recording and prevent handover delays becoming an accepted part of the working culture

2.8 The vast majority of the staff we spoke to during our fieldwork appeared committed and engaged with the importance of achieving rapid and safe patient handovers. Staff often commented that they were doing all they could to reduce handover delays but were frustrated that issues outside of their immediate control were causing excessive handover times.

2.9 Staff attitudes to the recording of handover times are a significant barrier to the accurate recording and management of the handover process. The ambulance trust has now introduced an information system that will enable line managers to monitor the completion rates of patient handovers timings for each individual staff member. Whilst the introduction of this system is a positive step, it will not of itself generate support for data recording particularly because some staff did not feel it should be their responsibility while others were opposed to what they considered excessive monitoring of their performance. Others also expressed concern about infection control risks arising from using a touch screen, which the ambulance trust addressed by procuring medical grade screens so that they would withstand appropriate cleaning. The ambulance trust and NHS trusts need to do more to communicate effectively the intentions and potential benefits of the monitoring system. These organisations should highlight the fact that this information will be used as a

management tool for easing the pressure on hospital emergency departments through better planning and targeted support. We found that the vast majority of staff using the data terminals had never seen any of the resulting performance information. This is vital to ensuring engagement and compliance with the recording requirements.

2.10 A potential problem with continued and consistent handover delays is that ambulance crews often now expect there to be a long delay at hospital emergency departments. NHS organisations need to act quickly to minimise handover times so that delays do not become an accepted part of the working culture in hospital emergency departments.

Poor matching of hospital resourcing to peaks in demand is a major factor in excessive handover times

Some handover delays occur because of staffing issues in emergency departments

2.11 Our fieldwork visits focused on the views of staff and observations of the pressure within hospital emergency departments. Whilst we asked staff for their opinions on the causes of excessive handover times, we did not carry out any in-depth analysis to verify these causes. Nevertheless, staff views suggested that delays in patient handovers commonly occur when there are mismatches between the resourcing within the emergency department and peak times in demand. These resourcing issues were frequently related to the availability of staff or the availability of beds. The causes are more complex than simply being a matter of capacity and are likely to arise from poor processes, inefficiency and ineffective management.

The lack of an inpatient bed was the most commonly cited reason for emergency department beds not being available

2.12 By far the most common reason staff gave for delays to patient handovers was that the emergency department was ‘full’. In these circumstances, all bed spaces in the emergency department are occupied by a patient. Patients arriving by ambulance must therefore wait for a bed space to become vacant before handover can be completed. The emergency department might become full because of a sudden surge of patients coming into the department, or because of problems moving patients from the emergency department to other areas of the hospital or because of problems discharging patients home from the emergency department.

2.13 Problems at the ‘front door’ of emergency units reflect much wider problems with the system. Hospitals’ ability to admit patients efficiently at the ‘front door’ reflects issues of demand, patient flow, patterns of accessing services and bed management across the whole system. Our previous report on delayed transfers of care highlighted the significant detrimental impacts that delayed hospital discharges can have on individual patients and the ability of acute trusts to deliver their services[13]. Our recent visits to hospital emergency departments showed that problems in the management of the ‘back door’ of the hospital (ensuring efficient discharge of patients from hospital beds) are having considerable impacts on the ‘front door’ (ensuring patients are treated quickly in hospital if their condition requires hospital treatment).

13 Auditor General for Wales, Tackling delayed transfers of care across the whole system; Overview report based on work in Cardiff and Vale of Glamorgan, Gwent and Carmarthenshire health and social care communities, November 2007

2.14 Although we did not carry out an in-depth analysis of the problems beyond the emergency department of the hospital, some staff expressed views that accorded with our previous work on delayed transfers of care, in that they felt that they felt bed management processes were not effective enough in ensuring the flow of patients through the hospital. In some hospitals we were told that a lack of support for emergency departments from inpatient ward teams was delaying the movement of patients from emergency departments to the wards. We were told that there can be long delays in awaiting an inpatient specialist doctor to come to the emergency department to clerk and assess patients and problems finding inpatient beds because of high levels of bed occupancy. Therefore these delays prevent emergency department beds becoming vacant and can lead to delayed handovers.

2.15 In addition to transporting patients to emergency departments, ambulances also transfer patients to other places of care, such as community hospitals. At times of severe delays in ambulance turnarounds and response times are under pressure, it is unlikely that ambulances will undertake patient transferring duties. This has a consequence of further blocking the movement of patients within the health service.

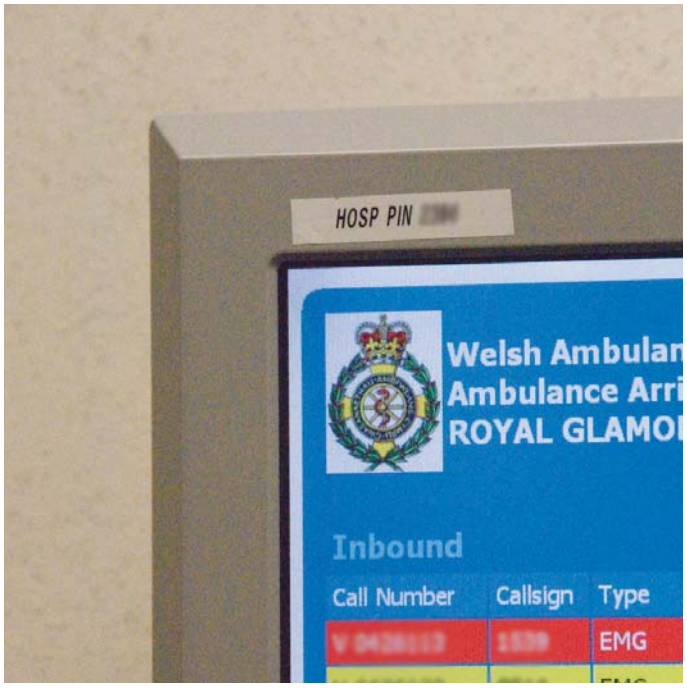
Information about handover times is not being used effectively as a management tool for assessing the balance of capacity and demand

2.16 By analysing handover time data, NHS organisations should be able to highlight the times when patient handovers are most commonly delayed and therefore inform the planning and resourcing of their services accordingly. We found that the information recorded through the new data terminal system is being largely ignored by those planning services because the data are both incomplete and inconsistent.

2.17 Hospital service managers generally did not yet trust the data from the terminals because of its incompleteness and also because it often contradicted other information collected regarding handover times. We found that in some emergency departments, staff manually record handover times in addition to using the data terminals. The disparities between the manually collected data and the data from the terminals were sometimes considerable. In the absence of robust data on handovers, the ambulance trust still uses turnaround data. When more robust handover data becomes available, it is likely that the ambulance trust will benefit significantly from the ability to isolate separately delays relating to handover and turnaround.

2.18 We also identified data integrity issues in the use of the data terminals. To ensure that the data terminals are only used by authorised members of staff, each member of staff is provided with a personal identification number (PIN). However, Figure 16 shows that Royal Glamorgan Hospital has its PIN displayed on the data terminal using a sticker. There are specific issues about the ambulance crew PINs that we have passed on to the ambulance trust. If the PIN of the data terminal system is widely visible, there are risks that unauthorised users could operate the screens and potentially tamper with the data recording process and further damage the integrity of this information.

Figure 16 - One screen at Royal Glamorgan Hospital had the system's personal identification clearly displayed on a sticker



Source: Wales Audit Office, Royal Glamorgan Hospital, November 2008

2.19 The data terminal system sends automatically generated performance reports to hospital service managers on a daily basis. These reports give the previous day's performance against the 15-minute target. However, these reports are largely ignored because of the widespread distrust of the data but also because some managers told us that they do not understand the way that the data are presented in the reports.

Addressing the mismatches between capacity and demand will require action across the whole system of unscheduled care

2.20 The problem of mismatched capacity and demand is a fundamental issue facing the unscheduled care system in Wales. Our report on the whole system of unscheduled care will look in more detail at these issues but from the work we have undertaken already it is clear that the capacity and demand issues are complex. Box 5 shows a few of these whole systems issues that NHS staff told us were affecting capacity and demand.

Box 5 - Some typical examples of NHS staff views about the problems across the whole system of unscheduled care

- **a** Some staff feel that the public is confused about what services are available, how they should access services and inappropriate use of ambulances.
- **b** There were concerns about the difficulties in accessing GP home visits during the out-of-hours period.
- **c** We were told about people attending emergency departments when they could be cared for more appropriately in an alternative care setting.

Source: Wales Audit Office

2.21 Through the DECS framework, there is work ongoing across Wales to improve the models of unscheduled care services provided in each health and social care community. The DECS strategy takes the view that a whole system approach is vital to improving unscheduled care in Wales. Therefore, NHS organisations will need to consider how the planned changes to the model of unscheduled care will impact on demand for their services instead of taking isolated decisions on the resourcing of ambulance services or emergency departments. We will look more closely at the approaches being taken in Wales in our whole systems overview report.

The processes that set out how patient handovers should happen vary widely across Wales and there is little sharing of lessons or innovative practice

Better communications between hospitals and the ambulance trust would help emergency departments be better prepared for a patient's arrival

2.22 During our fieldwork we identified many positive aspects of the process for handing over patients from ambulance crews to hospital staff. We have gathered these aspects together in the form of a checklist in Appendix 2. In developing the checklist, we have also considered the work carried out by other organisations in relation to the handover process, for example the October 2008 guide to ensuring timely handovers produced by NHS South West in England[14]. Whilst many of the issues covered in our checklist might appear simplistic, we observed many simple processes not being carried out appropriately throughout Wales.

2.23 A particular area of weakness is in the communication between hospitals, ambulance control centres and ambulance crews. We were told of several occasions where a lack of clarity in communications between these parties had resulted in patients being transported by ambulance to the wrong area of the hospital. One example involved ambulance control telling the crew to take a patient to the hospital's medical admissions department but when the crew arrived, this department was full and the patient then had to be taken to the emergency department. Such breakdowns in communication result in wasted time and effort, frustration for frontline staff, as well as additional distress and discomfort for patients who are further delayed in receiving the care and attention they require.

2.24 There needs to be better communication between ambulance control and hospital emergency departments when a seriously ill patient is being transported by ambulance. Most areas have local protocols that should result in the ambulance control centre telephoning the emergency department on a dedicated phone line when a seriously ill patient is being brought to the department by ambulance. However, a small number of ambulance crews told us that emergency departments were not always forewarned about, and prepared for, the arrival of seriously ill patients.

2.25 In Bronglais Hospital we were told that when some crews bring a seriously ill patient to hospital they use mobile phones to warn emergency department staff directly. Whilst this is often carried out because of coverage problems with the ambulance trust's radio system, some staff told us that these direct communications have benefits in ensuring all information is accurate.

2.26 The data terminal system provides hospitals with information about the number of patients who are being brought to the emergency department. Hospital staff should be able to use this information as a forewarning of increased pressures within the emergency department and the need to free up beds in the department and on the wards. However, few emergency department staff use this information because they do not understand the information or because they believe the information is inaccurate. We were told that the system frequently gives inaccurate information about the destination hospital for

14 NHS South West, Ensuring timely handover of patient care – ambulance to hospital. October 2008.

certain ambulance crews. And we found that whilst at any one time the data terminal might be warning of a large number of ambulances being expected at a particular hospital, many of these ambulances do not arrive.

2.27 The data terminals provide some limited information about the clinical condition of the patients that are being brought into the hospital. Where the patient is seriously ill, ambulance crews send to the screens, via ambulance control, vital information about the patient's clinical condition and circumstances. This so-called ASHICE information can give the emergency department an important forewarning of the emergency care that the patient is likely to require[15]. The data terminal system has the facility to display this ASHICE information but we found that many hospital staff were uncertain about the purpose of this information and this facility appeared to be used inconsistently. Even where patients are not seriously ill, the screens often display limited and coded clinical information so that private information about the condition of patients is not displayed on the arrival screens in semi-public areas. We found that whilst many emergency department staff said it was a good idea to provide such information through the data screen, frequently they did not understand the coding.

Better standardisation of the processes between acute trusts would prevent problems that sometimes occur when ambulance crews arrive at unfamiliar hospitals

2.28 Our visits highlighted the large number of differences that exist in the handover processes at different hospitals in Wales. Ambulance crews tend to transport the majority of their patients to a small number of hospitals but on occasions they might need to go to hospitals with which they are unfamiliar. We found that when this happens, crews can be unsure about the local procedures and protocols. Such uncertainty can involve:

- **a** whether or not to bring the patient into the emergency department without first informing hospital staff of their arrival;
- **b** how to inform staff of their arrival;
- **c** which staff to inform of their arrival; and
- **d** where to wait with the patient before they are triaged.

2.29 Three hospitals we visited had tried to overcome some of these problems by using posters or signs to tell ambulance crews where to wait, who to inform about their arrival or how to get attention from nursing staff upon their arrival (see Figures 17 and 18).

Figure 17 - This poster at Morriston Hospital lets crews know how to inform the nursing staff of their arrival

Source: Wales Audit Office, Morriston Hospital, December 2008

15 ASHICE is a term used to describe the transfer of information about a patient to a receiving hospital or clinician. ASHICE stands for age, sex, history, injuries/illness, condition and ETA (estimated time of arrival).

Figure 18 - This whiteboard at Morriston Hospital displays the name of the ambulance triage nurse to assist communications with ambulance crews

Source: Wales Audit Office, Morriston Hospital, December 2008

The ambulance trust sometimes deploys officers to take over the care of patients at hospital in order to free up several crews but this approach is not taken consistently for reasons including constraints in funding and availability of staff

2.30 Ambulance crews sometimes handover the care of a patient to an ambulance officer. This tends to happen only at times of severe pressure within the emergency department. During our fieldwork we were told that the use of officers in this way tends to be a daily occurrence at the Royal Gwent Hospital and the University Hospital of Wales but happens much less frequently at other hospitals.

2.31 The use of ambulance officers to take over the care of patients at emergency departments represents demand created by the failure of the overall system. The use of officers in this way is an attempt from the ambulance trust to reduce handover delays without directly addressing the causes of these handover delays. The ambulance trust estimates the annual costs of this practice as over £330,000. As well as the direct costs to the ambulance trust, there are considerable opportunity costs given the longstanding and significant need to improve leadership and management within the ambulance trust and the pressures of managerial capacity. These opportunity costs relate to the development and improvement of the organisation but also to the wider development and improvement of the unscheduled care system. While ambulance trust senior managers are working as additional operational resource at emergency departments, they cannot work on sustainable solutions across the whole system that might prevent unnecessary delays in the longer term.

2.32 Nevertheless, it is important to recognise that when there is such considerable variability of long handovers, with significant impacts on clinically effective performance, it is a common sense solution for the ambulance trust to deploy managers in this way to release its ambulance crews. However, it is potentially detrimental to the patient because responsibility for their well-being is handed over from the ambulance crew to the ambulance officer and then from the officer to the hospital staff. This additional step in the handover process risks losing important clinical information. Where this approach is used, the ambulance service should record the additional time the ambulance officer looks after the patients once the crews have turned around.

Most verbal handovers benefit from positive relationships between crews and hospital staff but some staff fail to acknowledge the patient during this process

2.33 The recent Assembly Government's document Designed to Realise our Potential[16] says that care should be founded on the 'principles focused on individual rights for respect, well-being, choice and dignity, for these are the things that really matter to patients and which determine their experience of care, regardless of outcome'.

2.34 The majority of handovers that we observed involved clear communications, positive relationships between staff and utmost respect shown to the patient. We observed occasional examples of triage nurses greeting ambulance crews during handovers but failing to greet the patient directly. And we observed examples where the patient was spoken about but not spoken to during the handover discussion between ambulance crews and hospital staff. Including the patient in handover discussions is not always possible because of the patient's condition but the patient's feelings and opinions can be crucial in coming to the most appropriate diagnosis and treatment plan.

Problems with the availability of certain stock items can delay ambulance crews returning to the road as soon as possible after the patient handover

2.35 Once an ambulance crew has handed over the care of their patient to hospital staff, the ambulance trust's turnaround target allows five minutes for the crew to make themselves and their vehicle ready to get back on the road. During this time, the ambulance crew must clean their trolley and equipment and restock their vehicle with any equipment, bedding or medication that they have used.

2.36 Where crews require replacement drugs, they are sometimes delayed in waiting for a nurse to become available who can open the emergency department's store of medication. Some crews can also be delayed in trying to find replacement backboards, braces or bedding. We were told that crews sometimes have to walk around the emergency department to try to find replacements and in some instances will get back on the road without these pieces of equipment. Box 6 summarises some of the crews' views on the turnaround target and the stocking of equipment.

Box 6 - Many members of ambulance crews believe they need more time to make themselves ready to respond to the next call

a Some crews felt that the target times regarding handover and turnaround were unrealistic.

b The re-stocking of ambulances with replacement equipment and drugs can take a long time, according to some crews.

c Some staff felt that there should be more flexibility within the targets to allow crews to take a break between calls.

Source: Wales Audit Office

16 Designed to Realise our Potential – a 'Beliefs and Actions' Statement for Nurses, Midwives and Specialist Community Public Health Nurses in Wales for 2008 and Beyond, Welsh Assembly Government, June 2008

Appendix 1 - Methodology

Fieldwork visits

1 Between 28 October 2008 and 17 December 2008 we visited the hospital emergency departments listed in the table below. Wherever possible we visited each department twice. These two visits took place at different times of day to give us a broader understanding of the issues that might arise in emergency departments at different times. One visit was carried out between 11am and 1pm while the other visit was carried out between 4pm and 6pm.

Acute trust	Emergency department	Number of times visited
Abertawe Bro Morgannwg University NHS Trust	Morriston Hospital	2
Abertawe Bro Morgannwg University NHS Trust	Princess of Wales Hospital	2
Cardiff and Vale NHS Trust	University Hospital of Wales	2
Cwm Taf NHS Trust	Royal Glamorgan Hospital	2
Cwm Taf NHS Trust	Prince Charles Hospital	2
Gwent Healthcare NHS Trust	Caerphilly District Miners' Hospital	1
Gwent Healthcare NHS Trust	Nevill Hall Hospital	2
Gwent Healthcare NHS Trust	Royal Gwent Hospital	2
Hywel Dda NHS Trust	Bronglais Hospital	2
Hywel Dda NHS Trust	West Wales General Hospital	2
Hywel Dda NHS Trust	Withybush Hospital	2
North West Wales NHS Trust	Glan Clwyd Hospital	2
North West Wales NHS Trust	Wrexham Maelor Hospital	2
North West Wales NHS Trust	Ysbyty Gwynedd	2

2 We spoke with the operational manager in charge of the emergency department at the time of our visit, which was most commonly the lead sister or nurse in charge. We also spoke to nurses involved in the handover process, ambulance crews and where appropriate, the ambulance liaison officer.

3 Our interviews were kept as brief as possible to prevent any impact on the services being delivered by the ambulance trust and the hospital. At the start of each interview we clearly stated that if the member of staff was required elsewhere then our interview must not delay them.

Central interviews

4 As part of the scoping, set-up and delivery of this report we have interviewed key members of staff from the following organisations:

a Welsh Ambulance Services NHS Trust; and

b Welsh Assembly Government.

Good practice

5 Appendix 2 includes a checklist for acute trusts to complete to improve the handover process based on interesting or innovative practice we observed. This checklist will be posted on the Wales Audit Office Good Practice Exchange website (http://www.wao.gov.uk/goodpracticeexchange.asp).

Appendix 2 - Patient Handover Checklist

Good Practice Guide - Self-assessment Checklist

Introduction

1 This checklist is designed to be a simplistic aid to improving the handover process at hospital emergency departments. Many of the issues covered in the checklist appear very basic but we have highlighted them because during our fieldwork visits we have observed both good and bad practice in relation to all of these issues.

2 We suggest that the ambulance trust and the staff at each emergency department jointly work through the checklist to ensure that areas for improvement can be identified and addressed.

The self-assessment is split into the following three key areas:

1. before an ambulance arrives at hospital (1-6);
2. upon the arrival of the ambulance crew at the emergency department (7-9); and
3. during the verbal handover (10-12).

Some of the statements require a 'yes' or 'no' response. Others are based on a four-point scale examining the extent to which the authority complies with the good practice described:

1 = Not at all

2 = Some, but limited, progress

3 = Generally compliant but some gaps remain

4 = Fully compliant

No.	Statement	Yes	No	Self-assessment				Improvement	Responsible person or organisation	Target date
				1	2	3	4			
Before an ambulance arrives at hospital										
1	Emergency department staff should use the data terminals as a source of information to ensure they are fully prepared for the arrival of patients in ambulances. Staff should be aware of the difference between ambulances being 'expected' and 'inbound' and can change due to ambulances being stood down from incidents or being diverted to alternative hospitals.									
2	When ambulance patients are expected at hospital, the emergency department staff should, where possible, make the department ready to receive the patient. This might involve alerting the crash team or escalating issues to facilitate the freeing up of emergency department bed spaces.									
3	If a data terminal is malfunctioning, NHS staff should take the appropriate remedial action, whether this be rebooting the data terminal themselves, or reporting the malfunction to the acute trust IT team or to the ambulance trust's central support team. The appropriate troubleshooting information and support contact details should be displayed alongside each data terminal.									
4	Ambulance control should telephone the emergency department, ideally via a separate phone line, to warn of seriously ill patients on their way to hospital.									

No.	Statement	Yes	No	Self-assessment				Improvement	Responsible person or organisation	Target date
				1	2	3	4			
5	Ambulance control should use the real time patient handover time data to inform ambulance crews about the current delays at hospitals with a view to diverting to alternative hospitals where safe and appropriate.									
6	When emergency departments are full and where the department staff are requesting that ambulance patients remain onboard the vehicles rather than being brought into the department corridors, the department should communicate this information to ambulance control who should pass this information to the crews. This will prevent any unnecessary moving of the patient.									
Upon the arrival of the ambulance crew at the emergency department										
7	Within the emergency department there should be posters at the entrance to emergency departments used by arriving ambulance crews displaying the local protocols and procedures for patient handovers. This will ensure that all ambulance crews are aware of what is expected of them and what they can expect from department staff.									
8	The local protocols need to be clear about the most appropriate way that ambulance crews should announce their arrival at the department, for example by pressing a button that gives an audible chime to alert nursing staff that a patient has arrived.									

No.	Statement	Yes	No	Self-assessment				Improvement	Responsible person or organisation	Target date
				1	2	3	4			
9	All emergency departments should have a nominated member of staff responsible for patient handovers and ambulance patient triage. Where staffing levels allow, this should be a separate role to the triage of self-presenting patients at the department.									
During the verbal handover										
10	At the start of the verbal handover, the patient should be acknowledged and greeted by the relevant member of emergency department staff. The patient's views and opinions should be sought, wherever possible, throughout the verbal handover.									
11	The information communicated during the verbal handover is vital to patient safety. Full attention during the verbal handover should be on the clinical information and not bed management issues. Where local problems exist with the effectiveness of verbal handovers, NHS organisations should consider specific training on communication techniques, for example a technique called SBAR (Situation, Background, Assessment, Recommendations) which is an easy-to-remember mechanism that is used to frame conversations, especially critical ones, requiring a clinician's immediate attention and action.									
12	The patient should not be left unattended at any point during the handover. Where a delay in the handover process is expected, the reasons for this delay should be clearly communicated amongst the staff involved in the handover and to the patient.									

Appendix 3 - Trust level data

Three graphs have been produced for each hospital in Wales that has a major accident and emergency department.

The first graph shows the length of time taken for ambulances turnarounds at each hospital in 2008. The data used to produce this graph was supplied by the ambulance trust.

The second graph illustrates the average weekly number of patients in each month attending the accident and emergency department of the hospital. The analysis spans the 24 monthly period between January 2007 and December 2008. It illustrates the demand for the services of the accident and emergency department. The data used to produce this graph was supplied by the Assembly Government.

The third graph in the series compares the trends in:

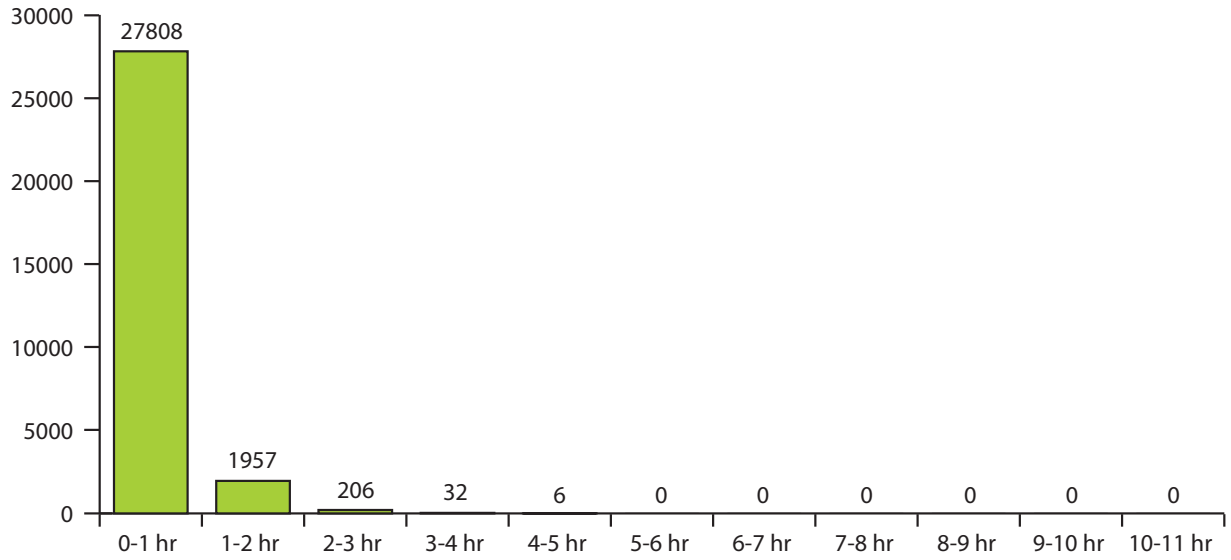
a the average weekly number of patients transported to the hospital by the ambulance trust; and

b the number of ambulance crew lost hours beyond 20 minutes at that hospital.

The data used to produce this graph was supplied by the ambulance trust.

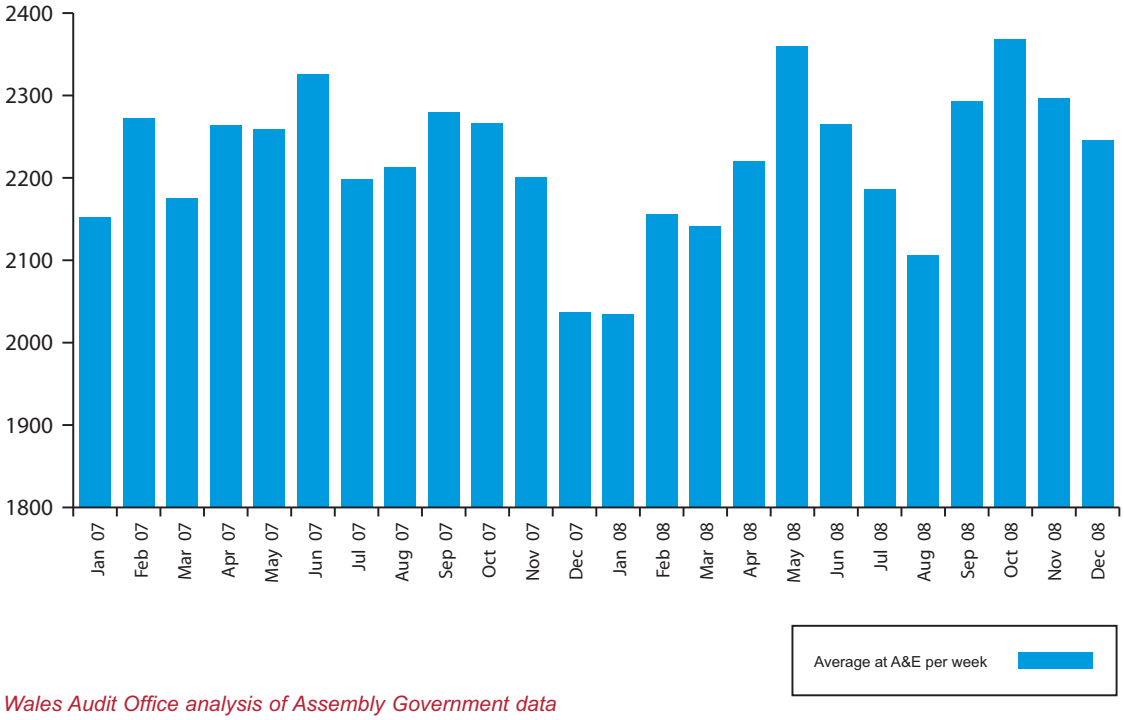
South East Region of Wales
University Hospital of Wales, Cardiff

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



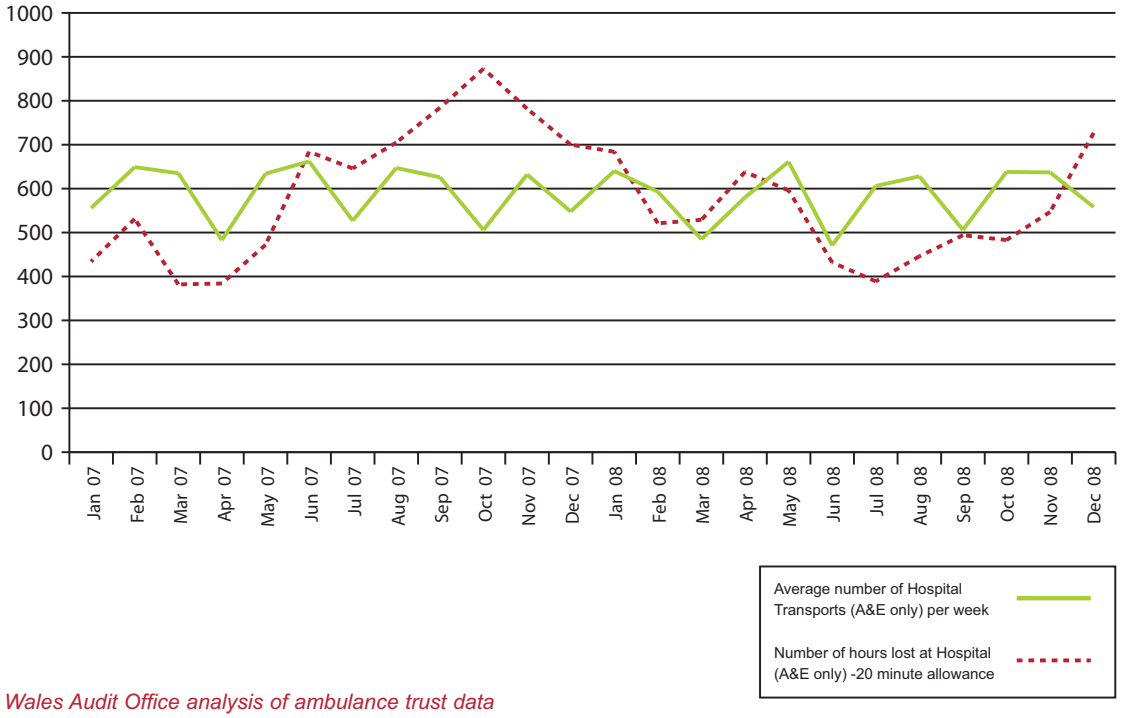
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

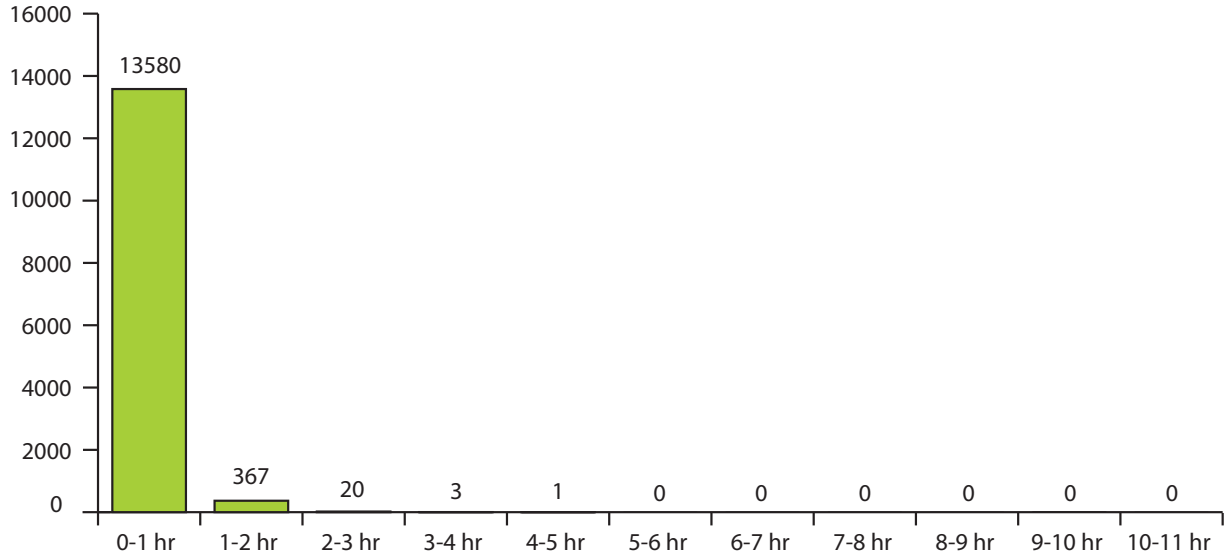
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

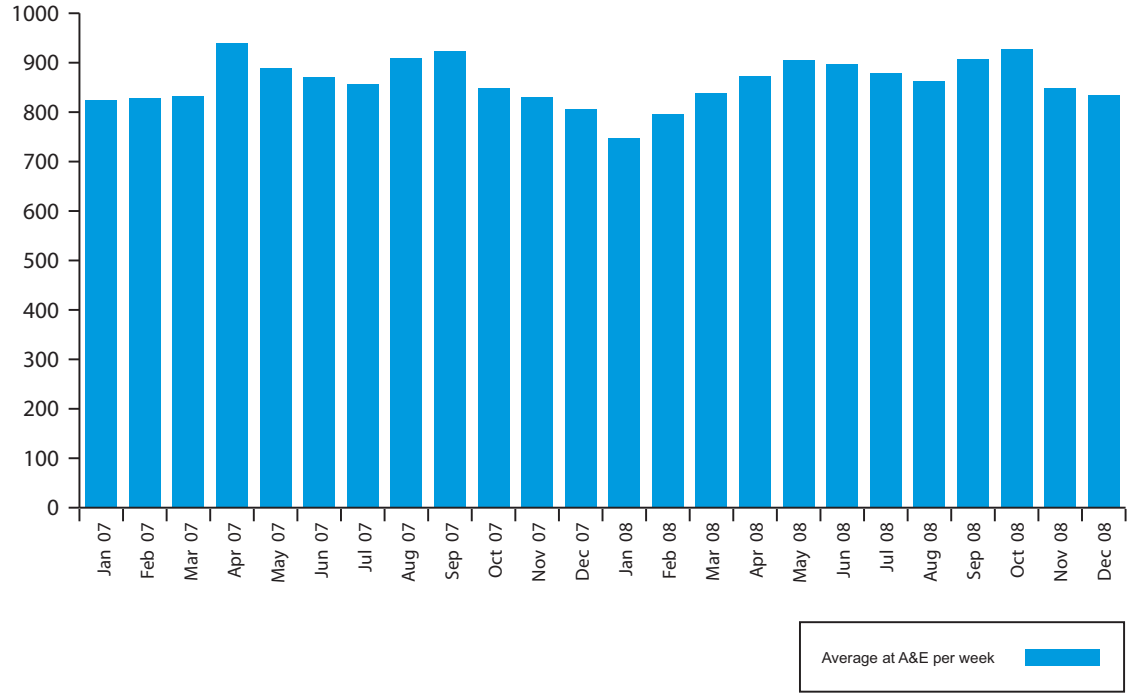
Nevill Hall, Abergavenny

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



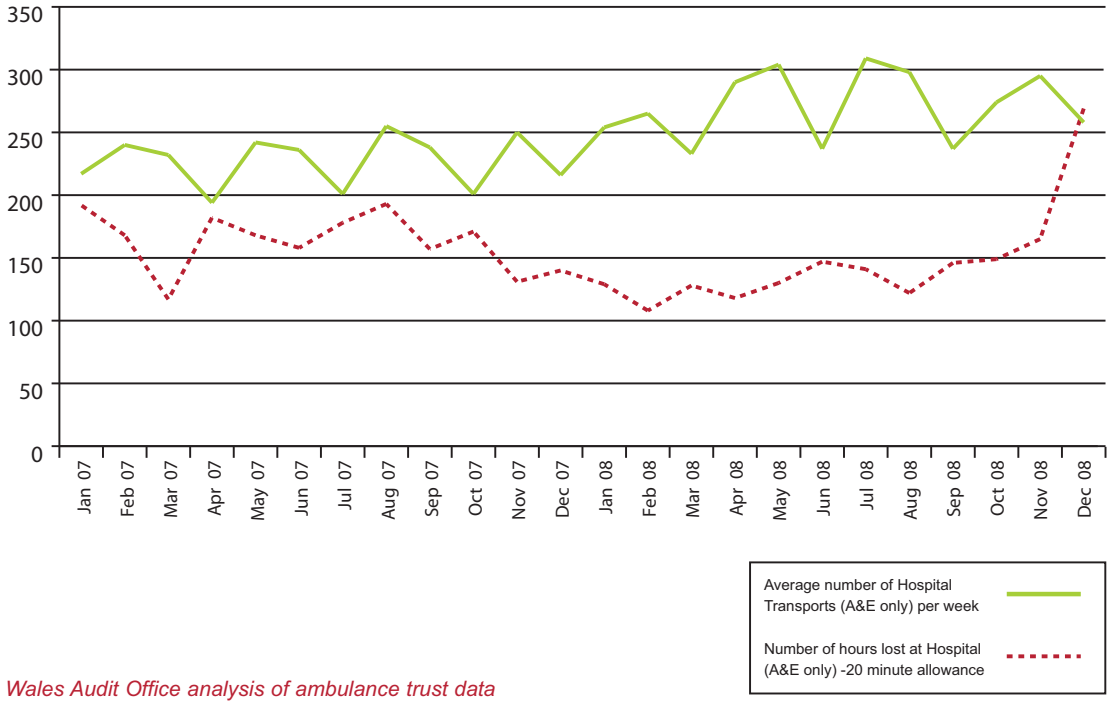
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

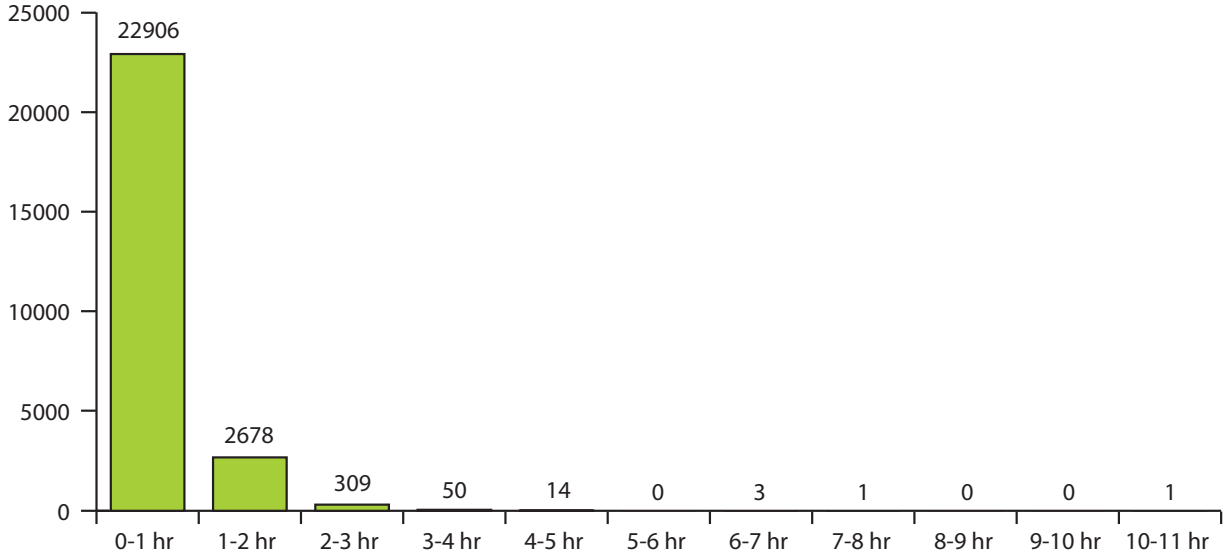
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

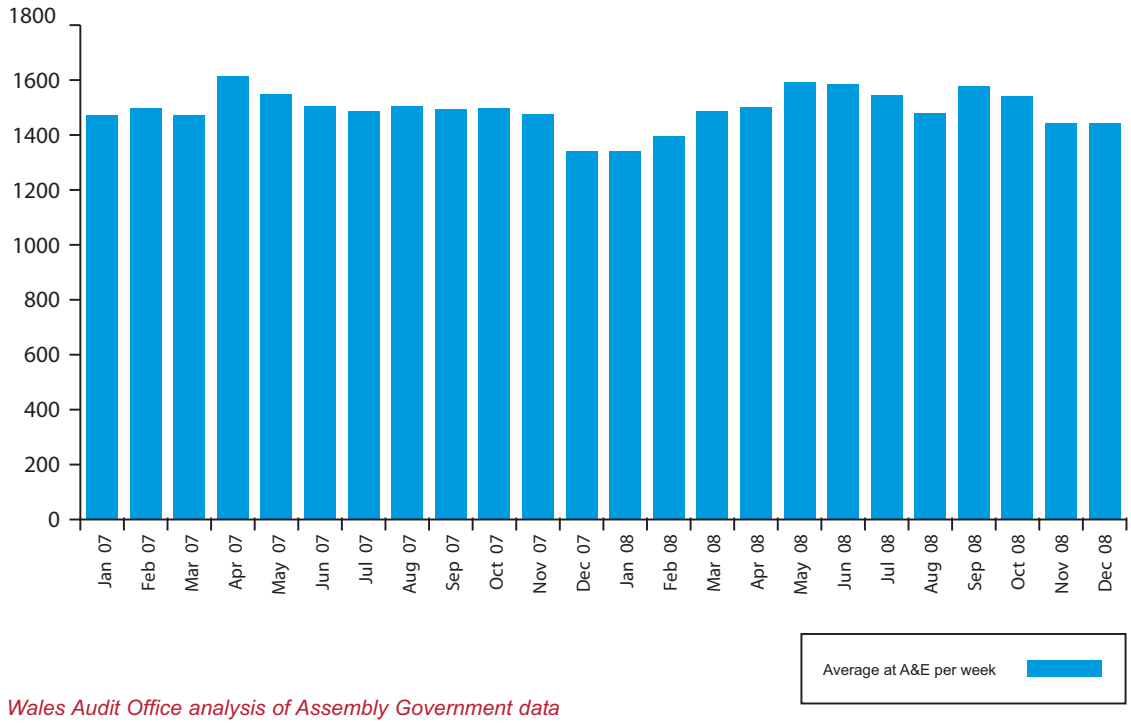
Royal Gwent, Newport

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



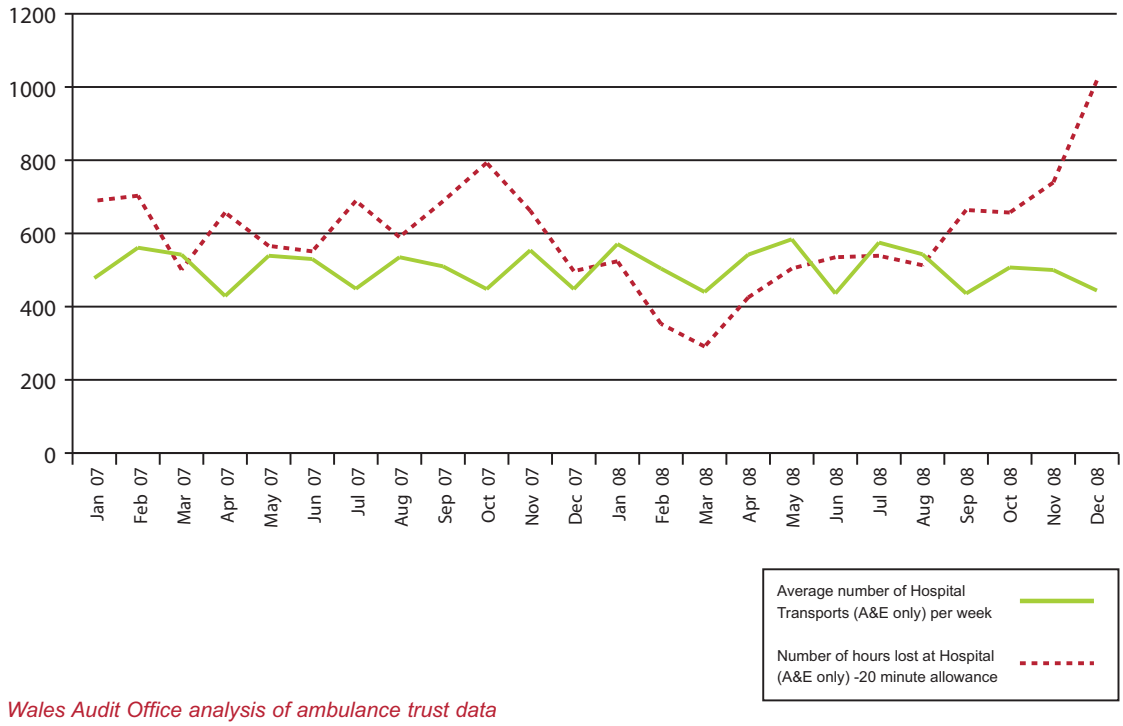
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

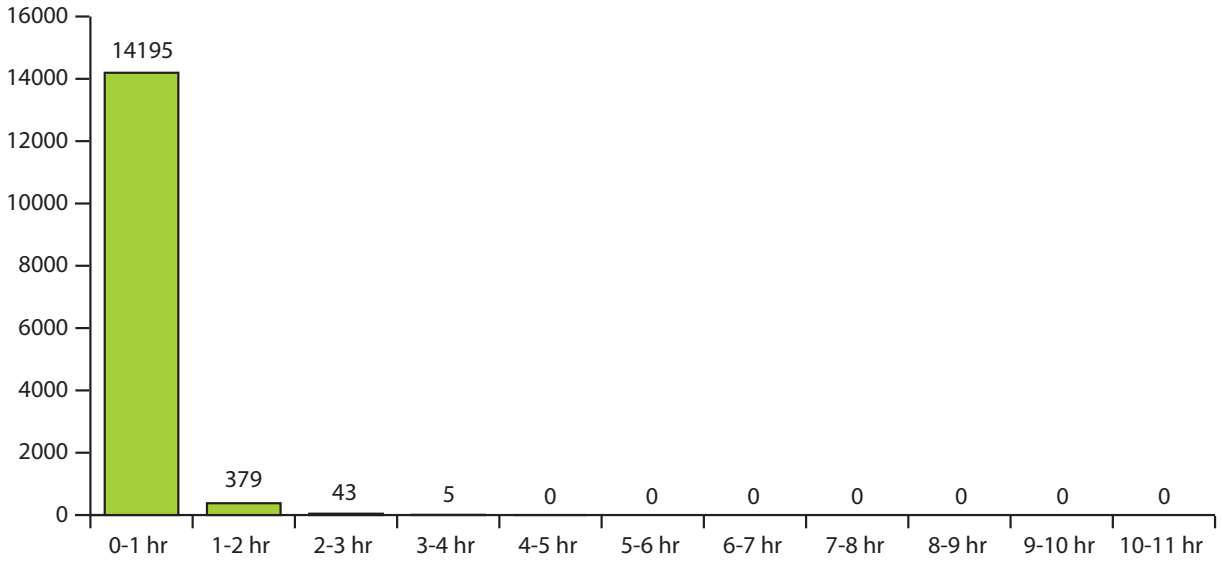
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

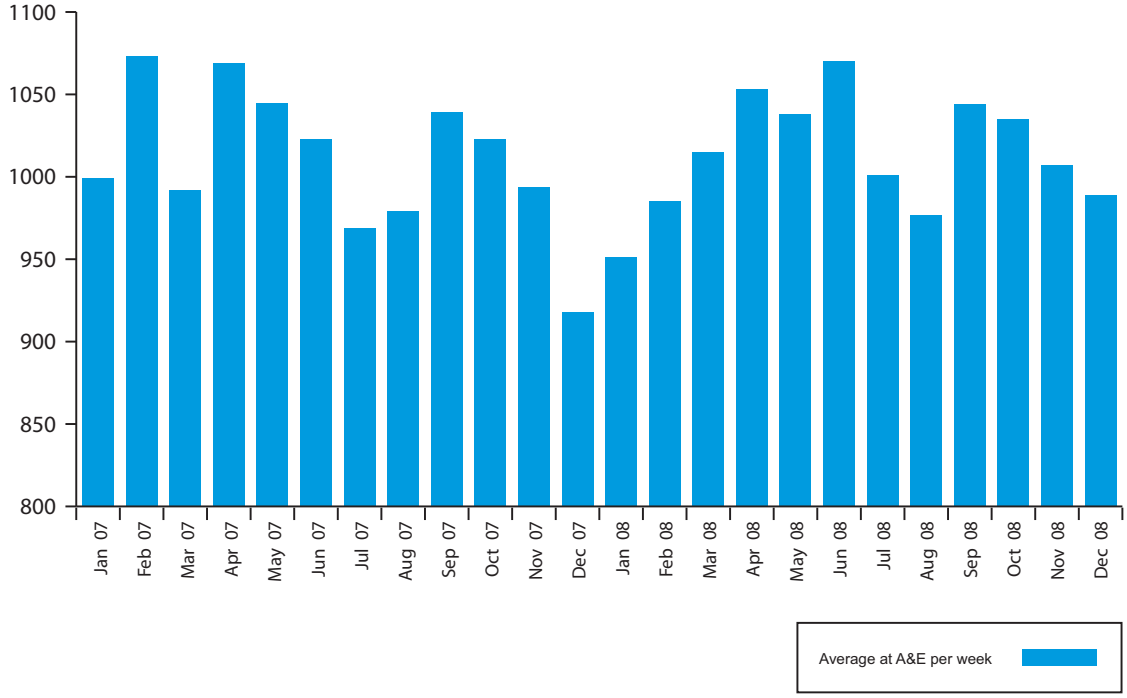
Royal Glamorgan, Llantrisant

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



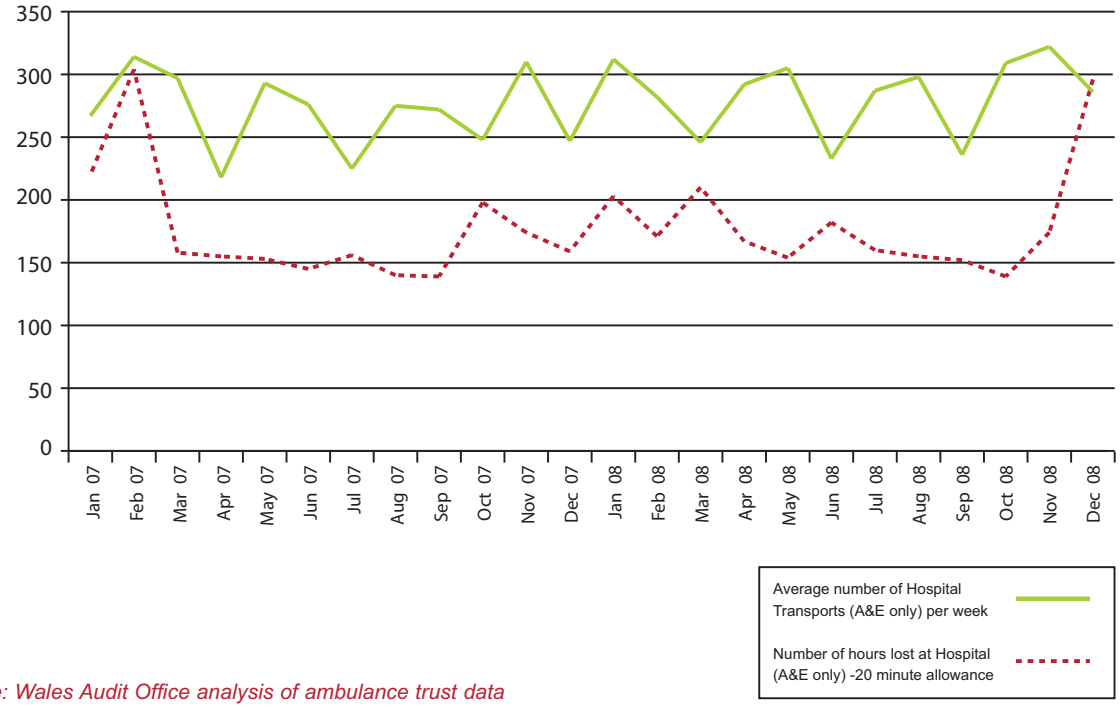
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

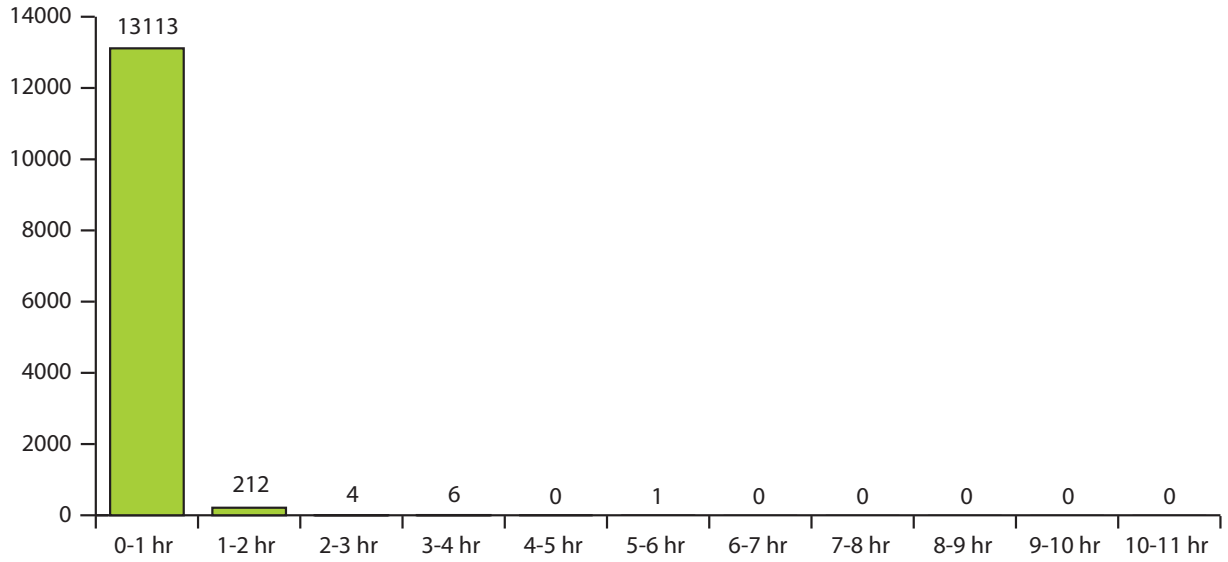
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

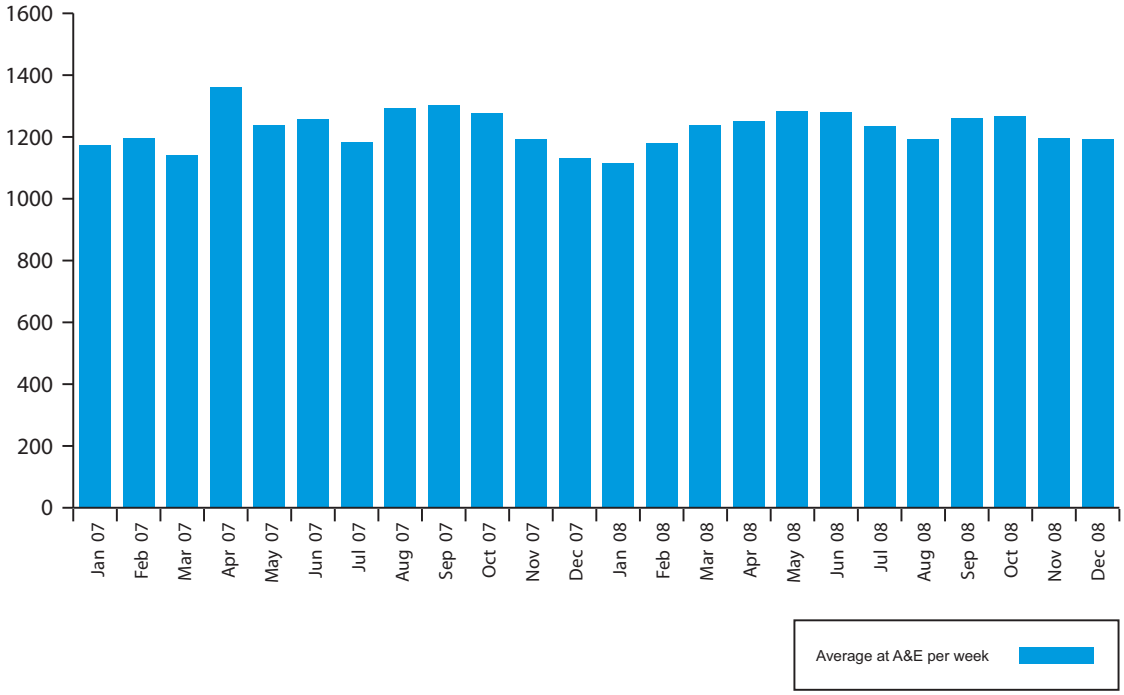
Princess of Wales, Bridgend

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



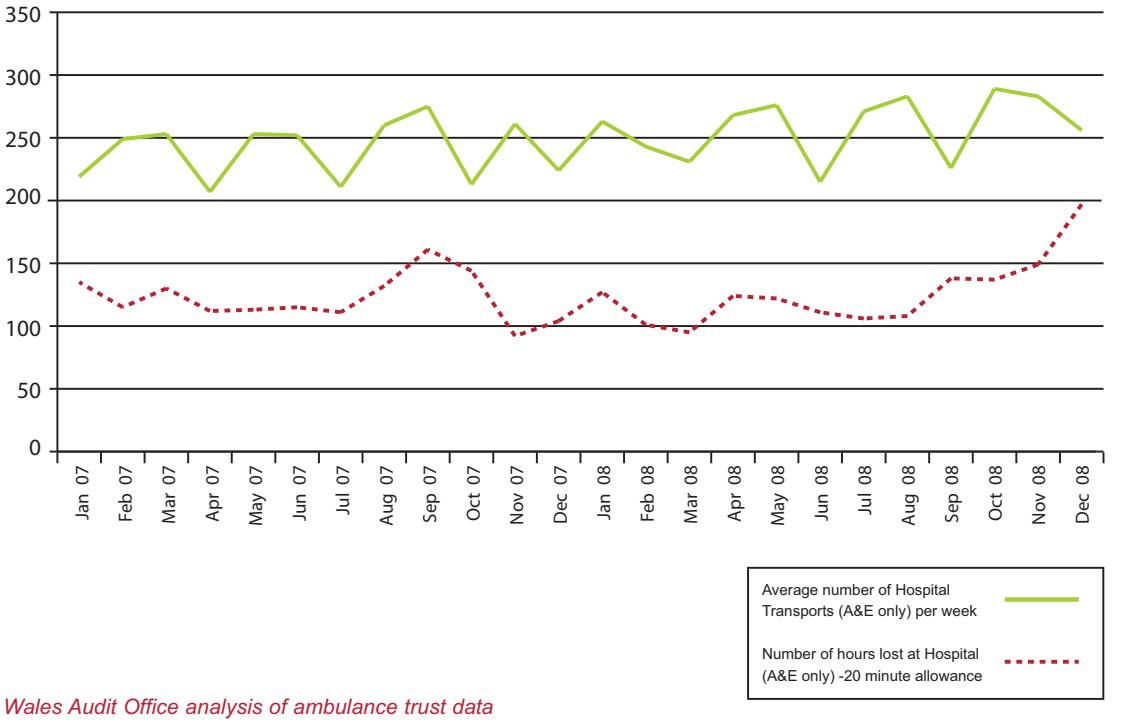
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department

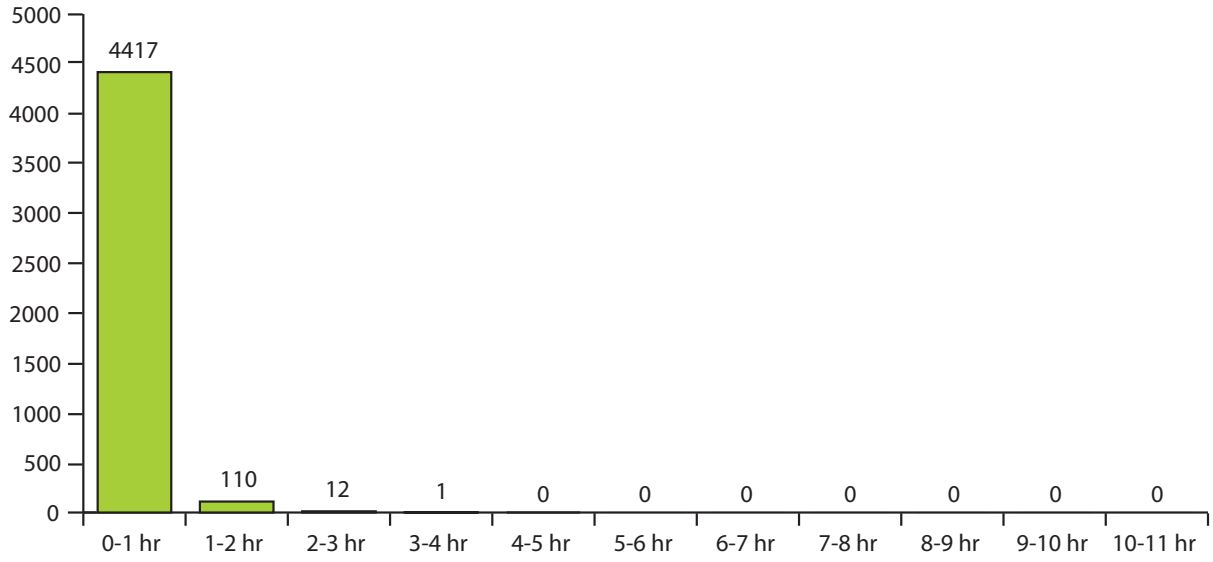


Source: Wales Audit Office analysis of ambulance trust data

Central and West Wales

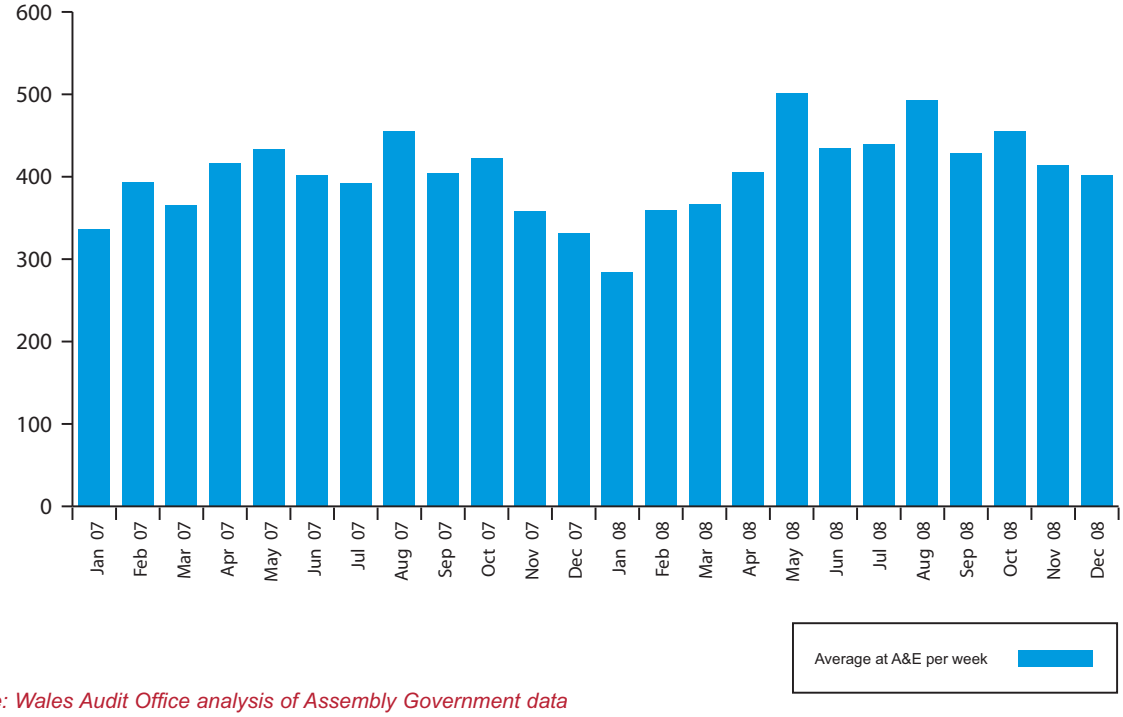
Bronglais General Hospital

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



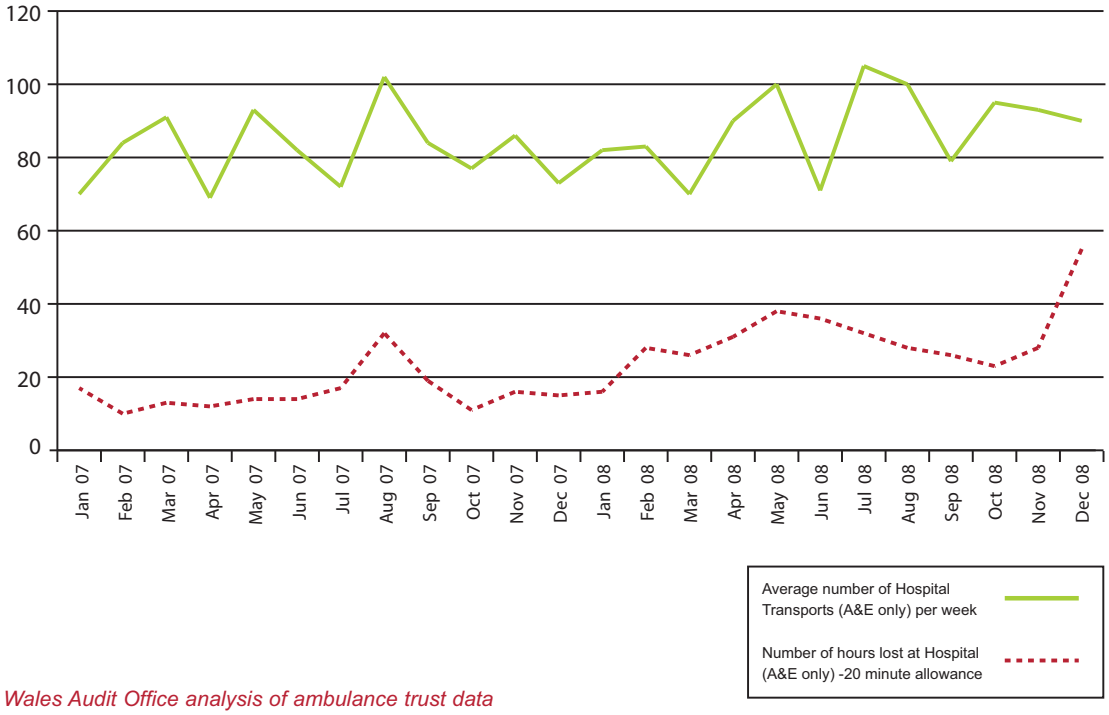
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

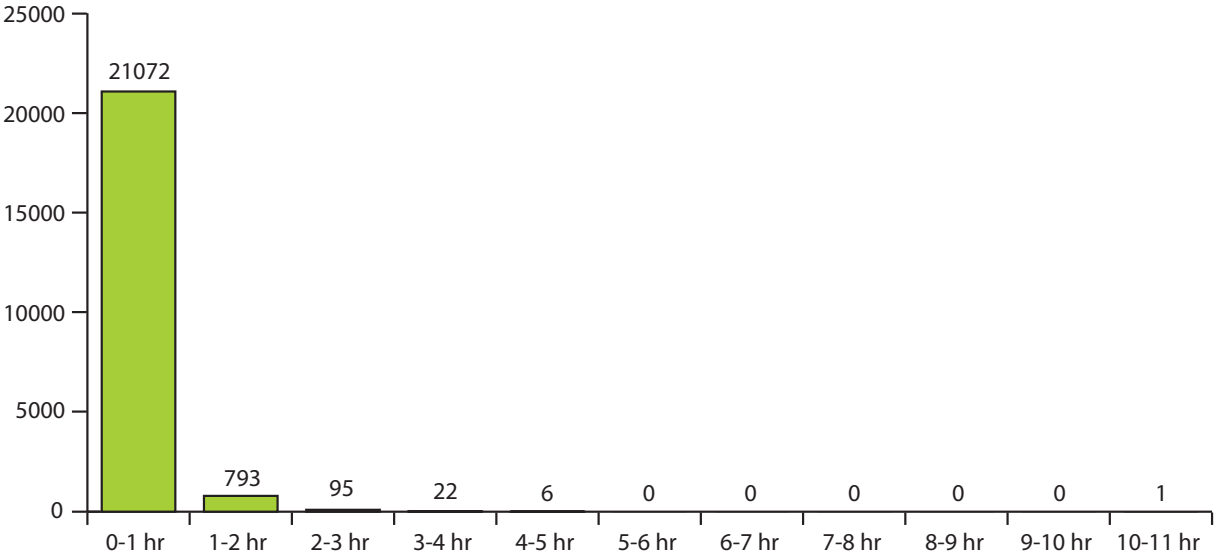
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

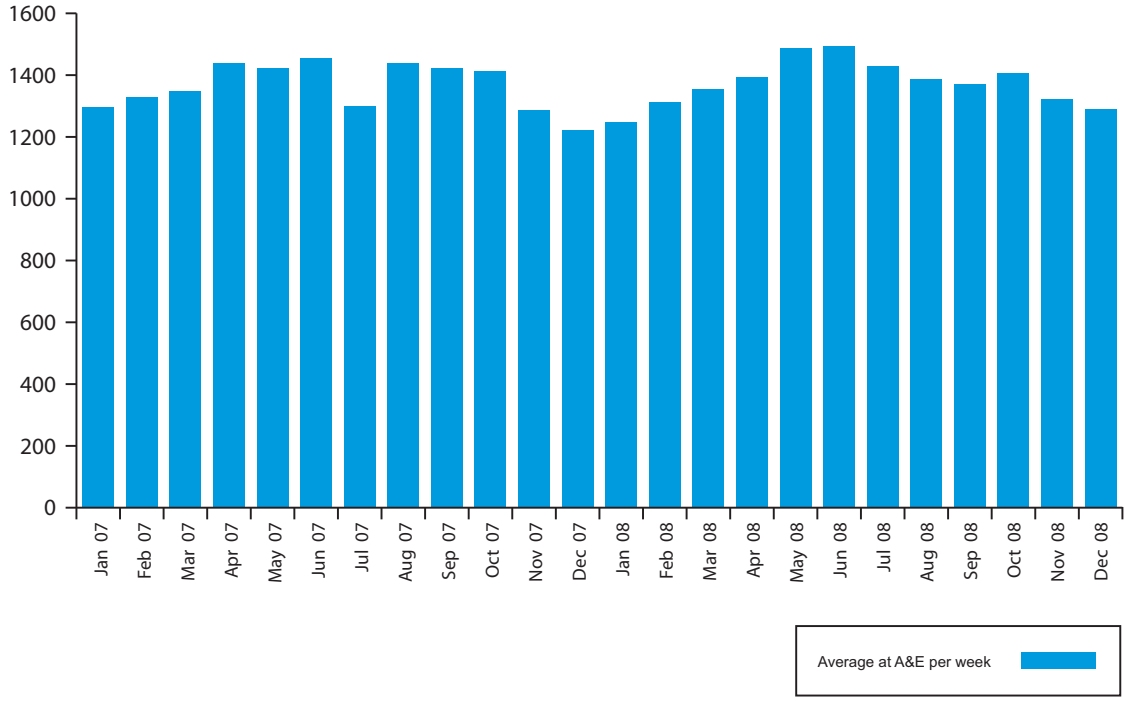
Morriston Hospital, Swansea

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



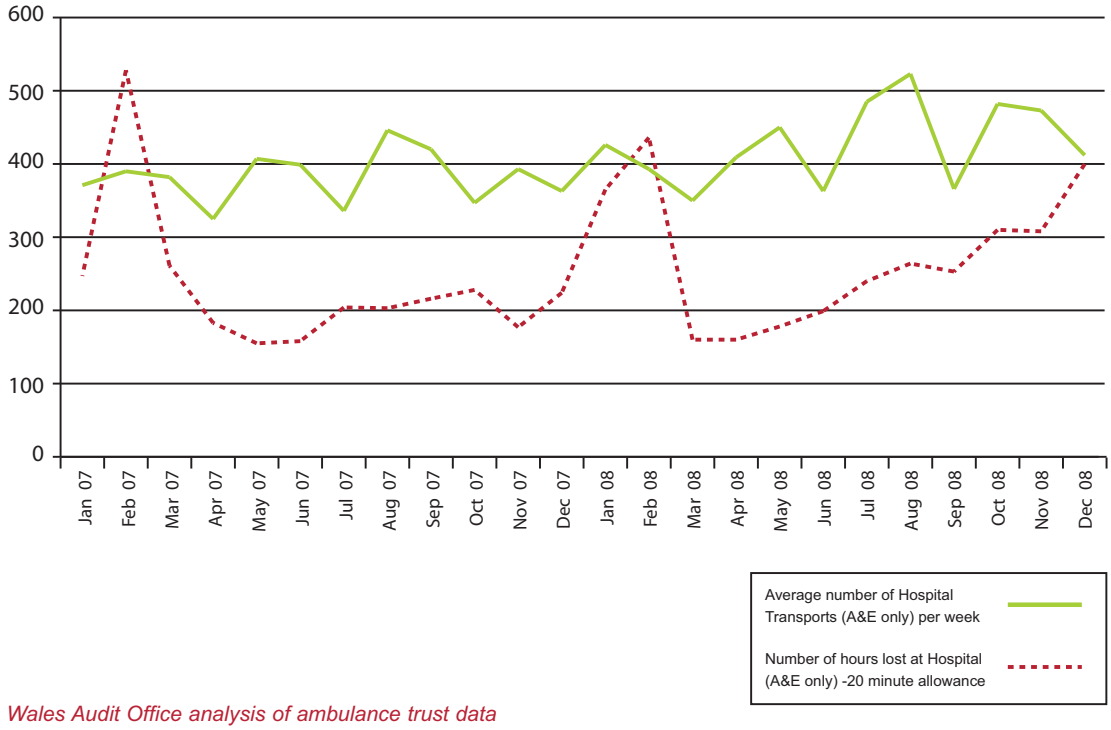
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

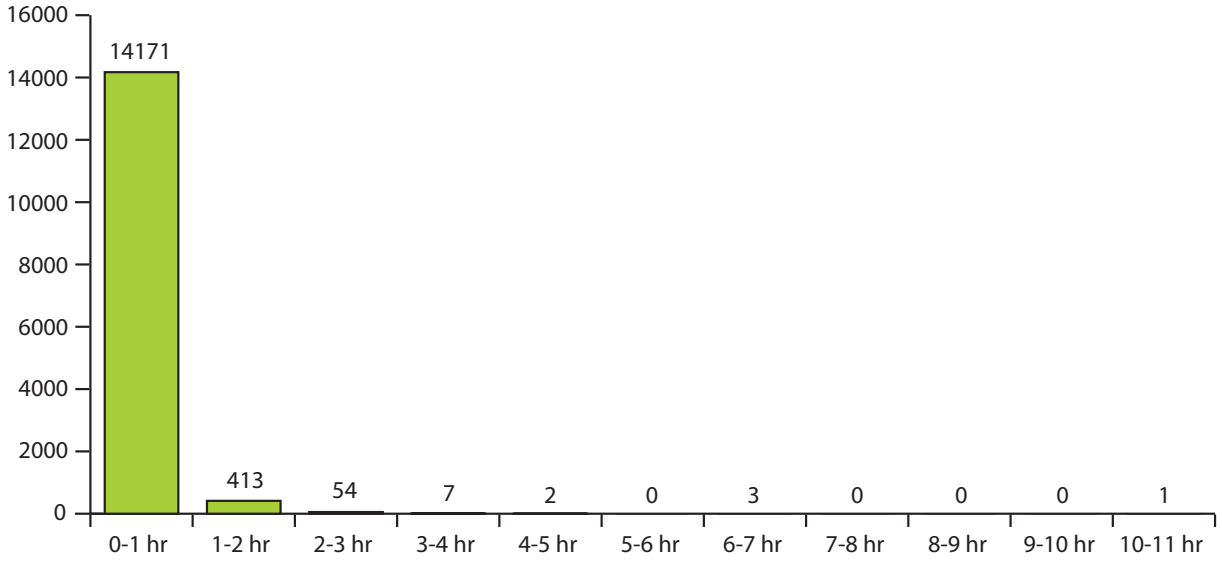
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

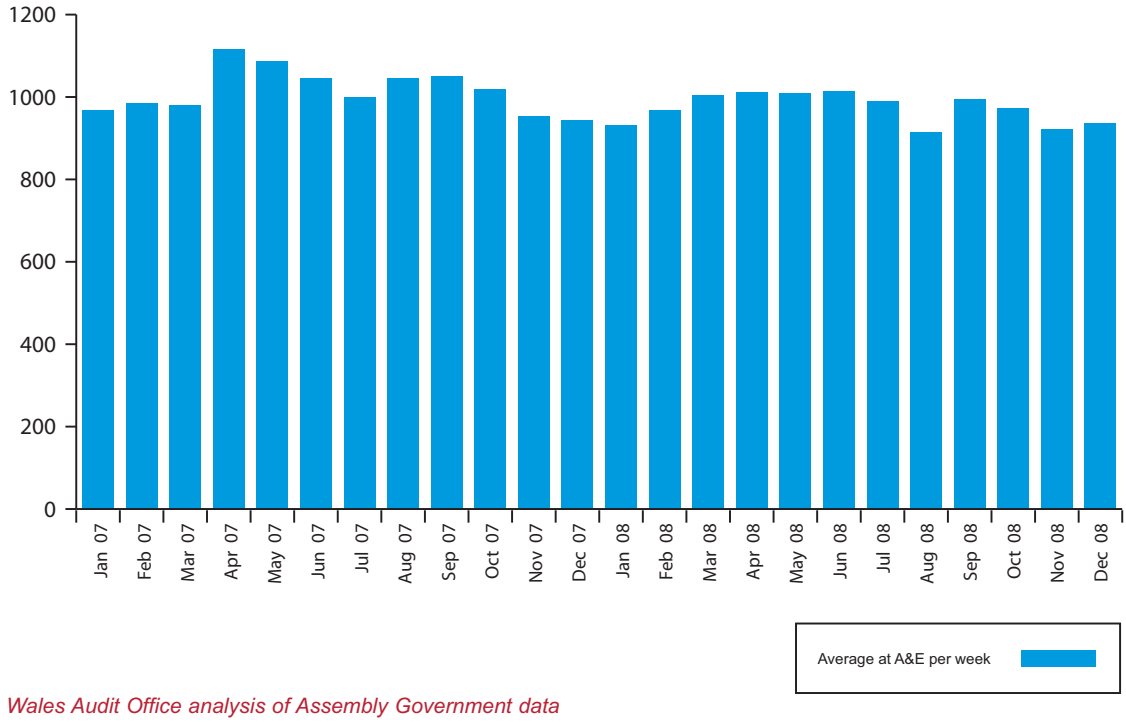
Prince Charles Hospital, Merthyr Tydfil

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



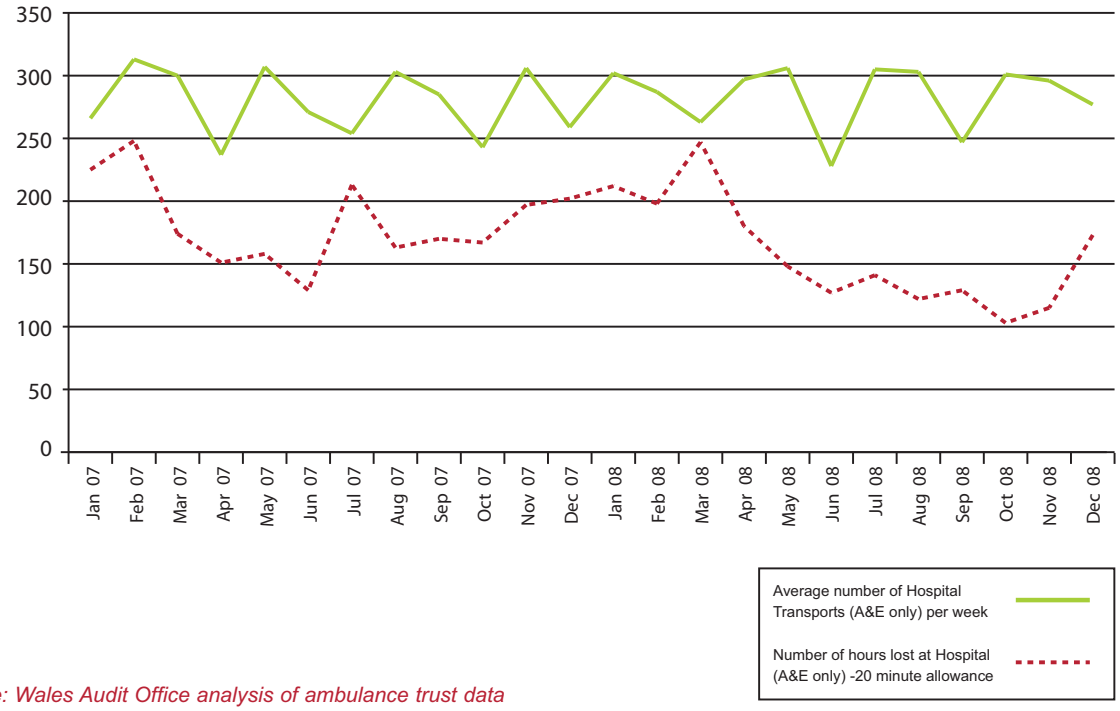
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

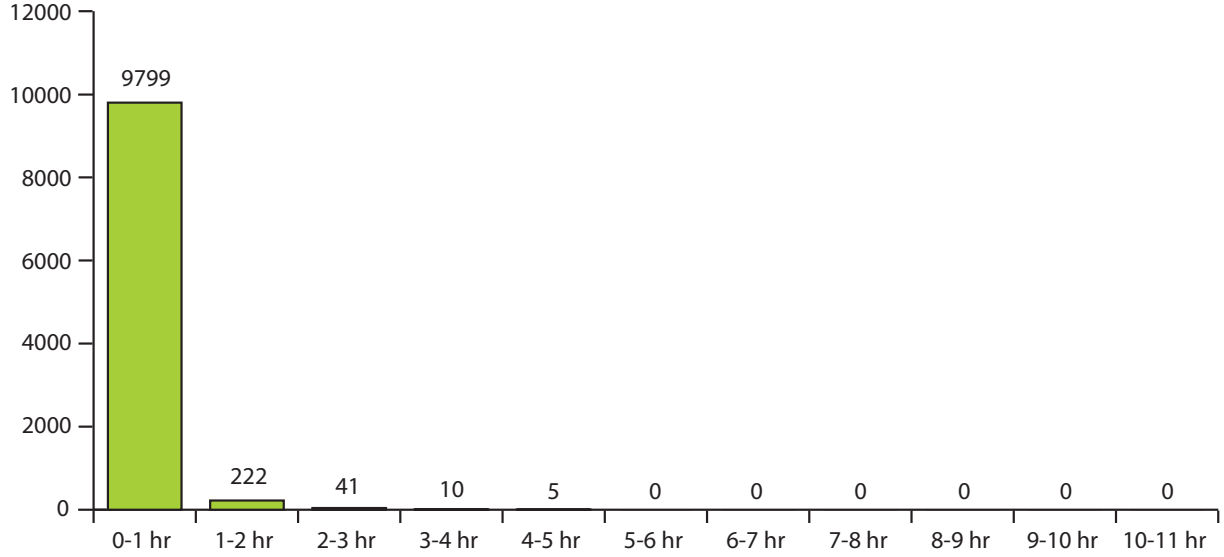
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

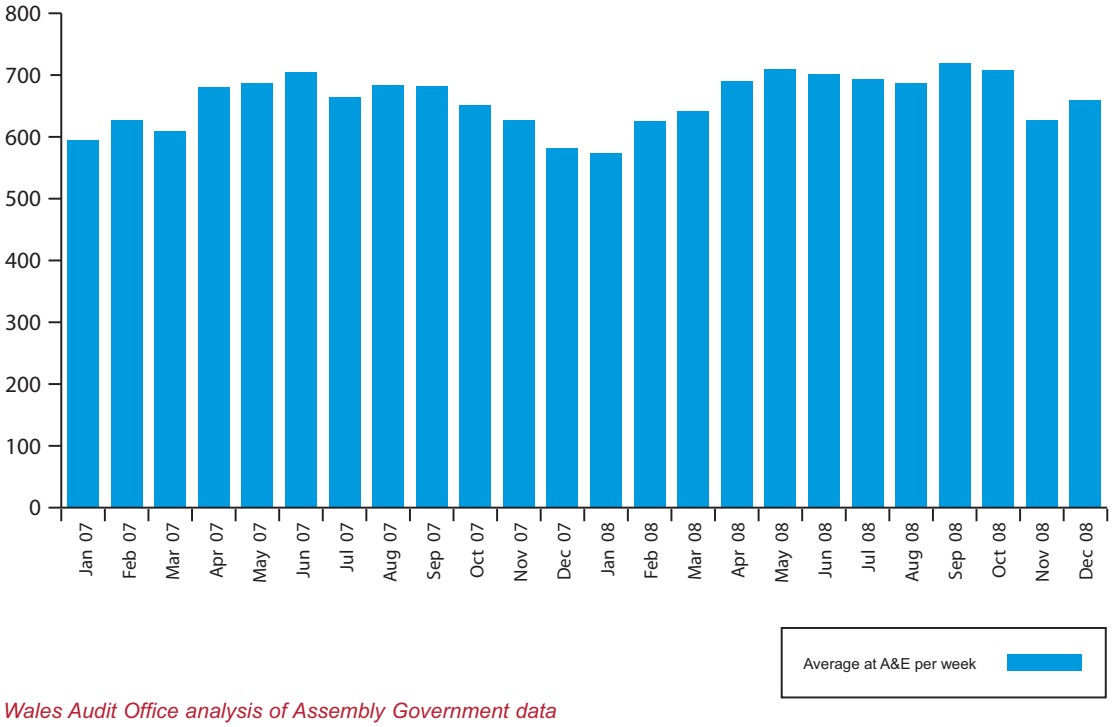
West Wales General Hospital, Carmarthen

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



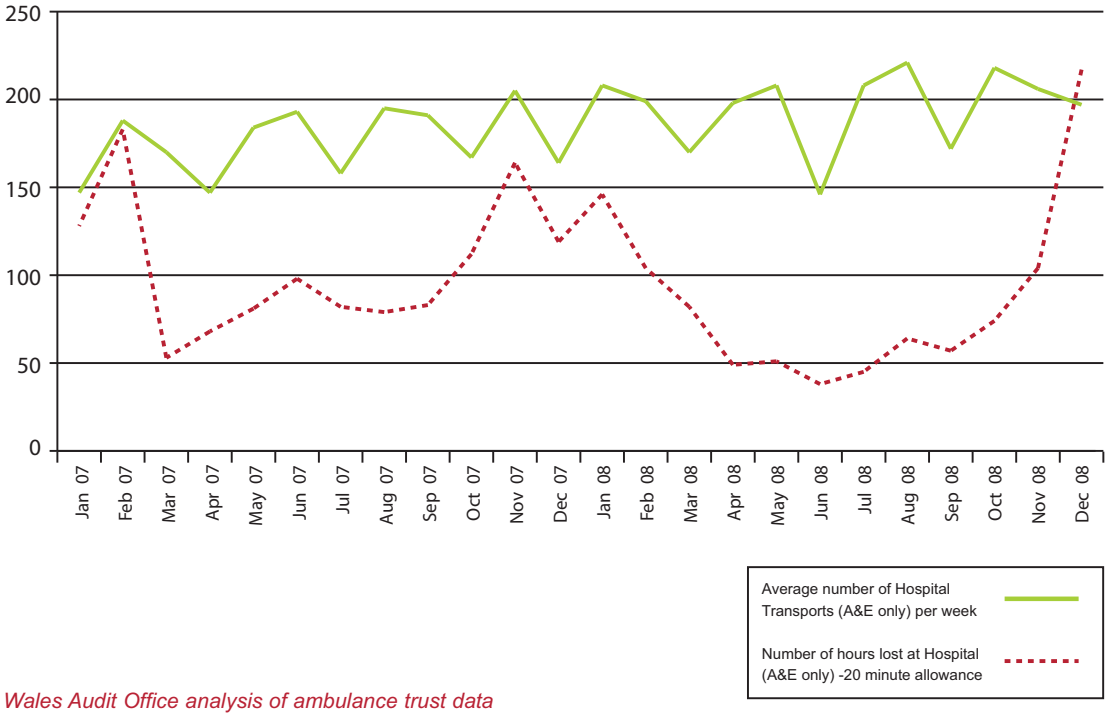
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

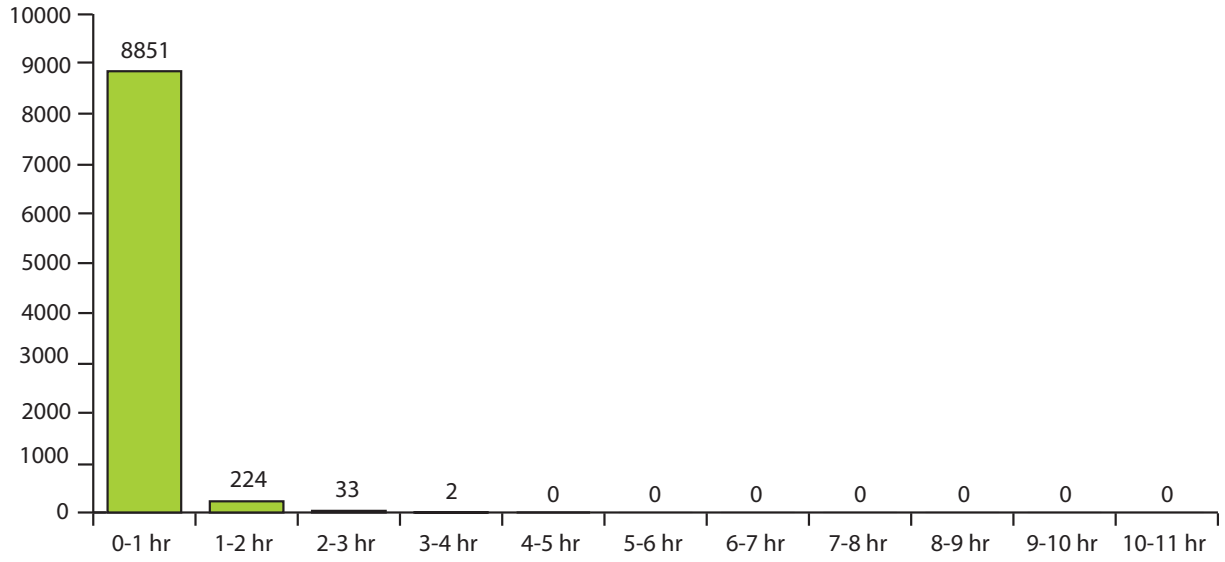
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

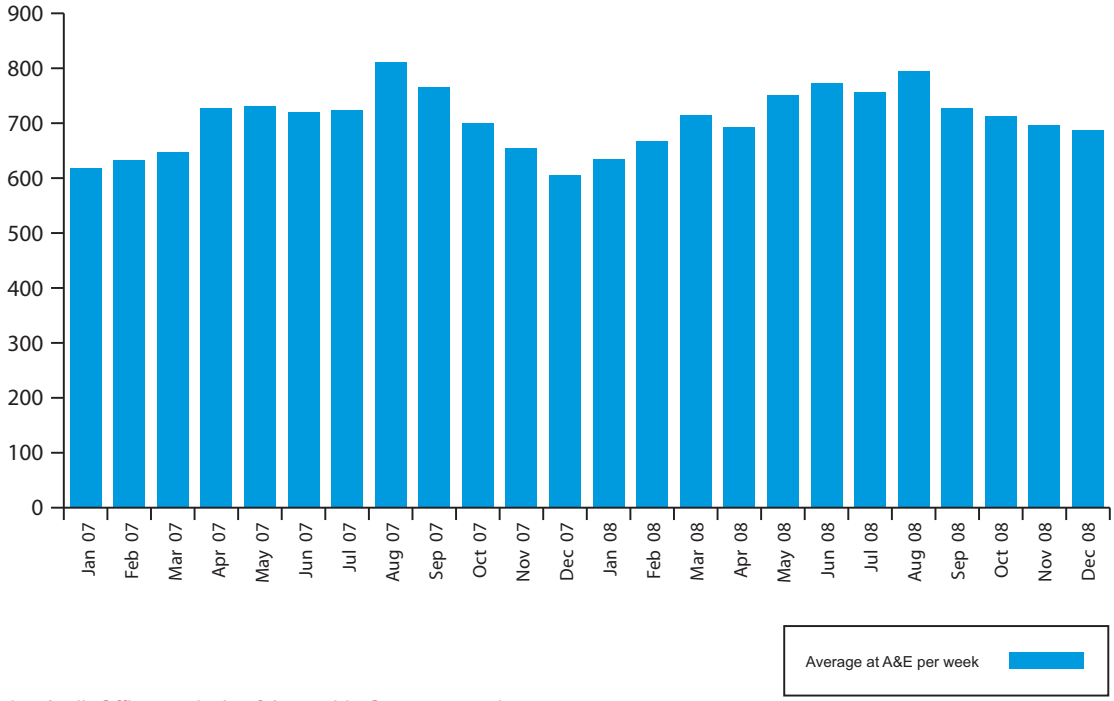
Withybush General Hospital, Haverfordwest

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



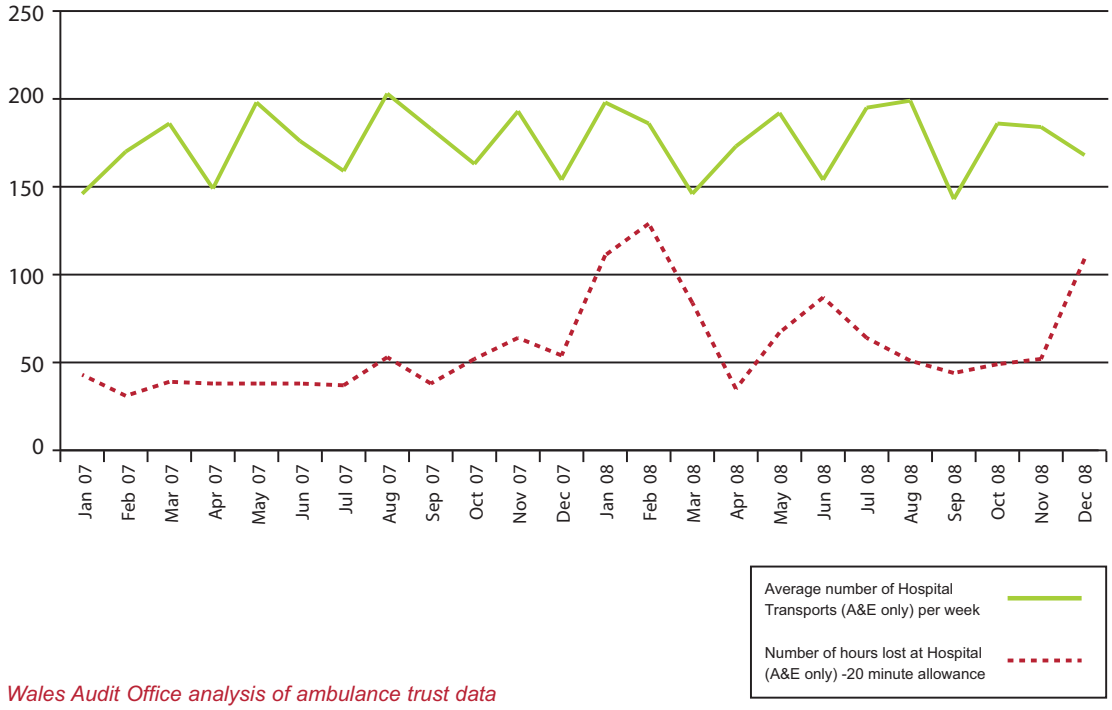
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department

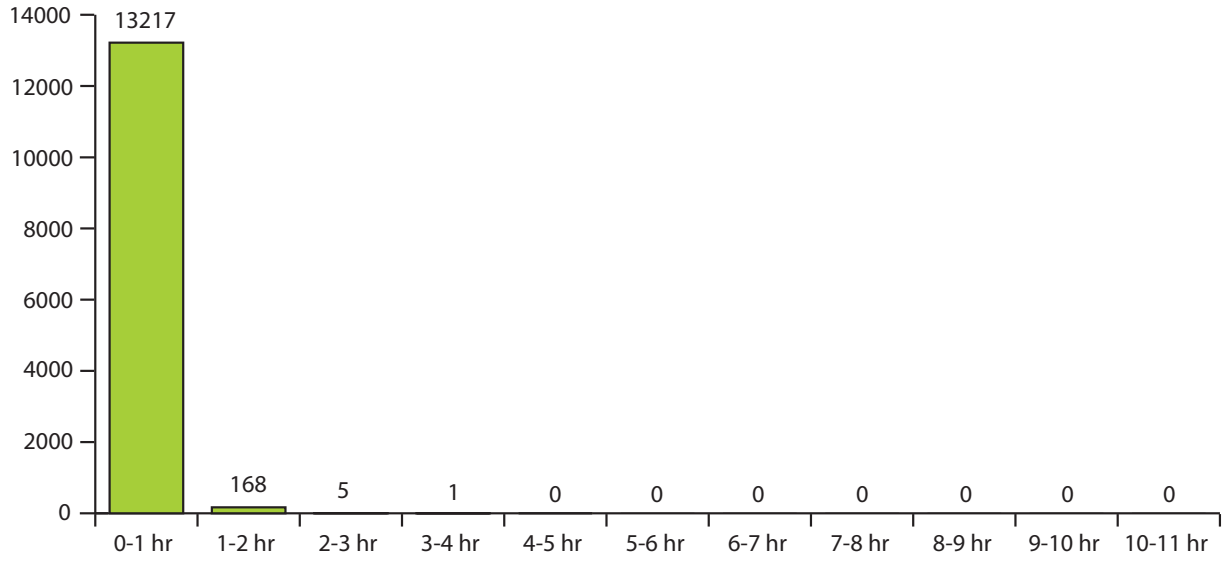


Source: Wales Audit Office analysis of ambulance trust data

North Wales Region

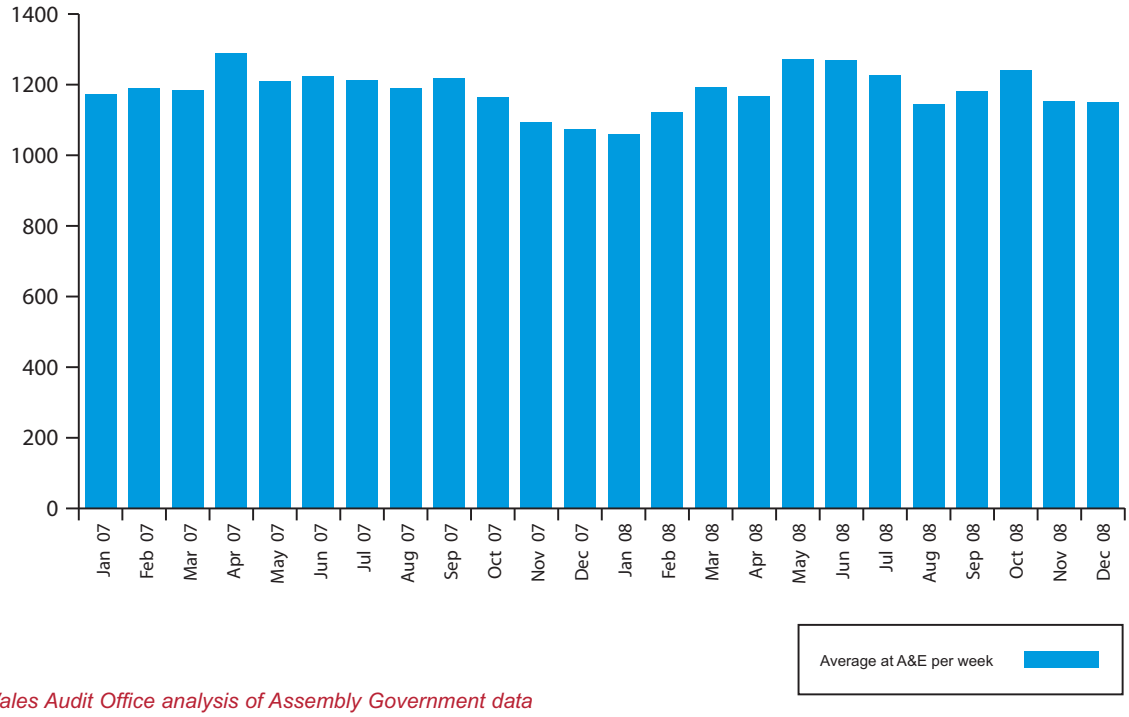
Wrexham Maelor Hospital, Wrexham

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



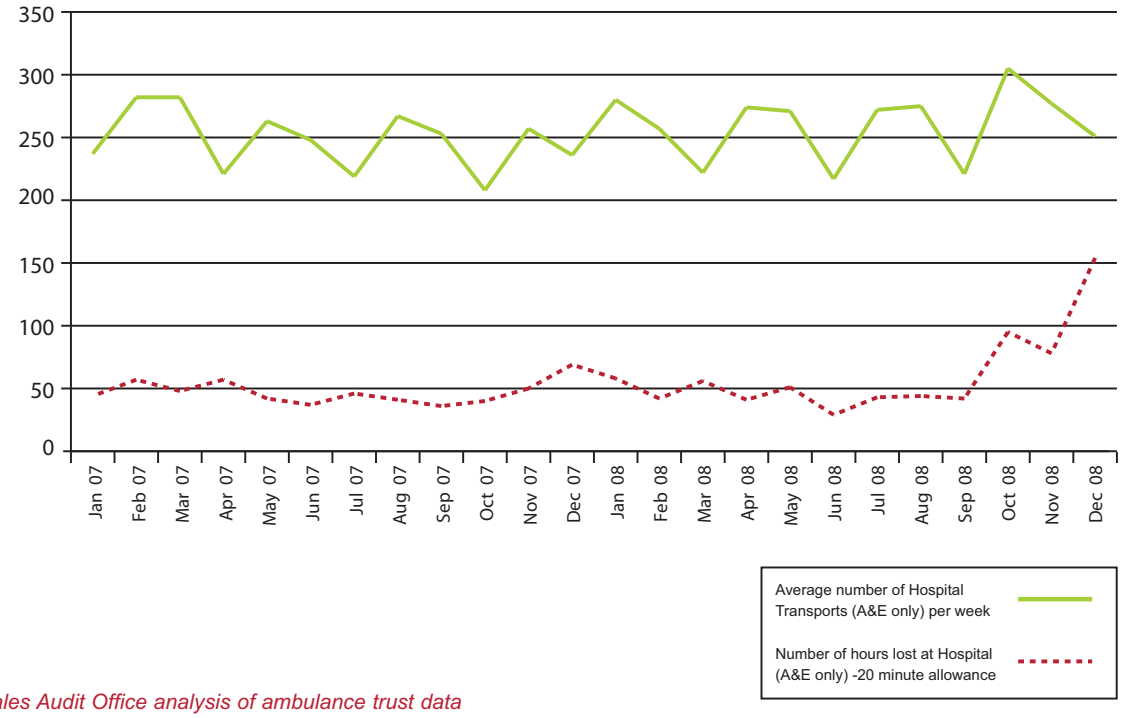
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

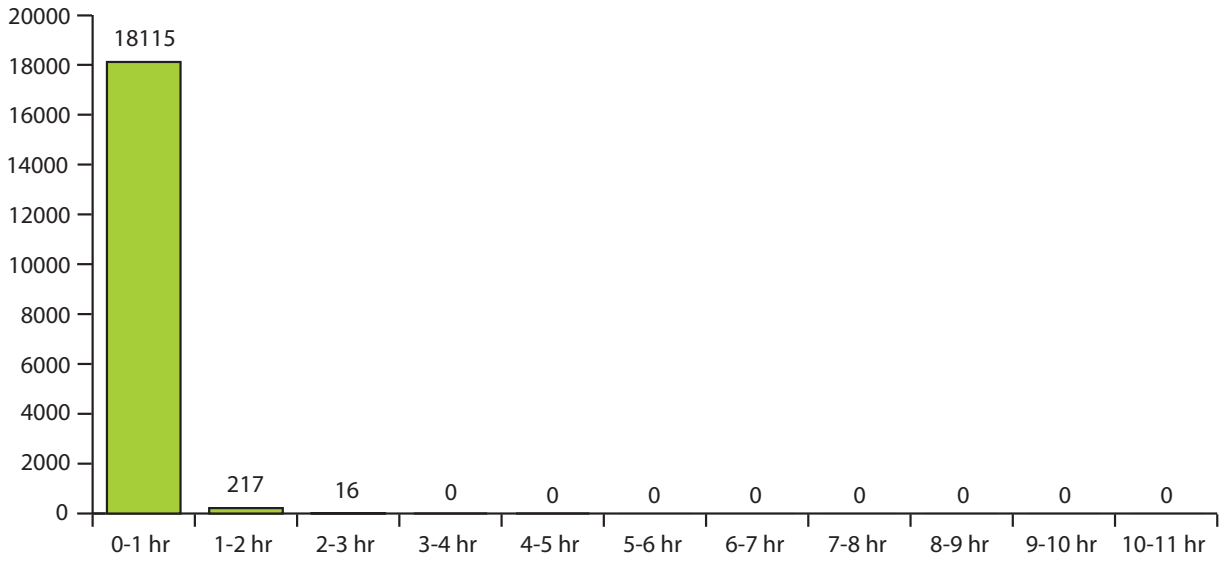
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

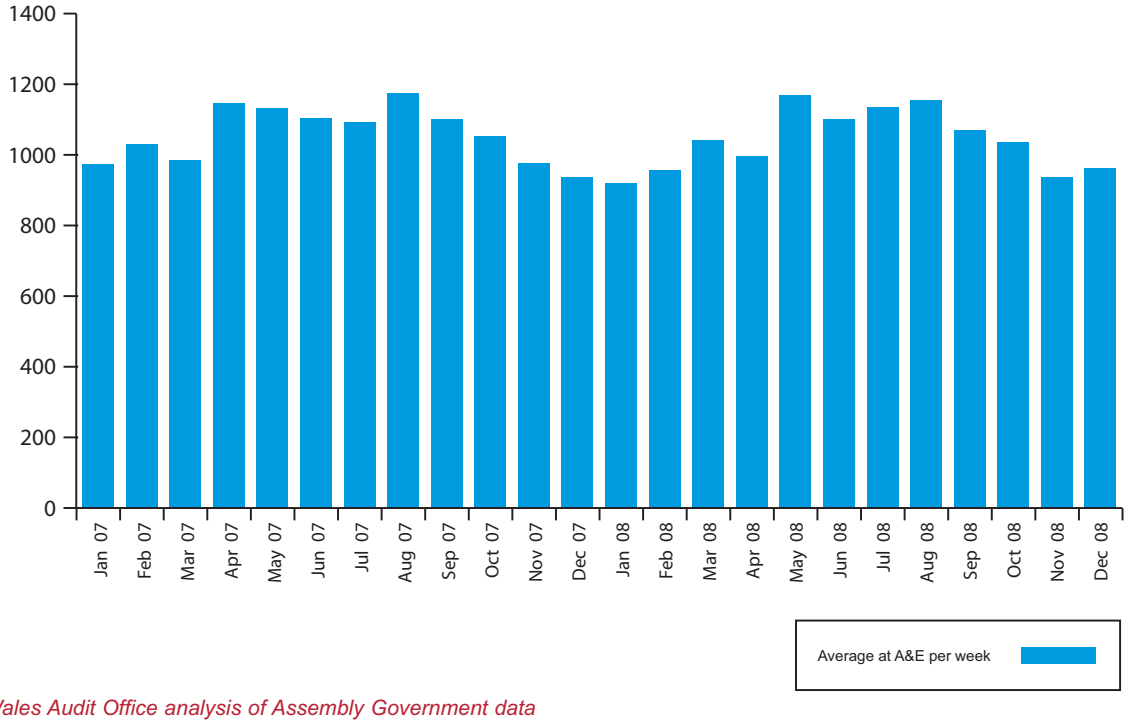
Glan Clwyd Hospital, Denbighshire

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



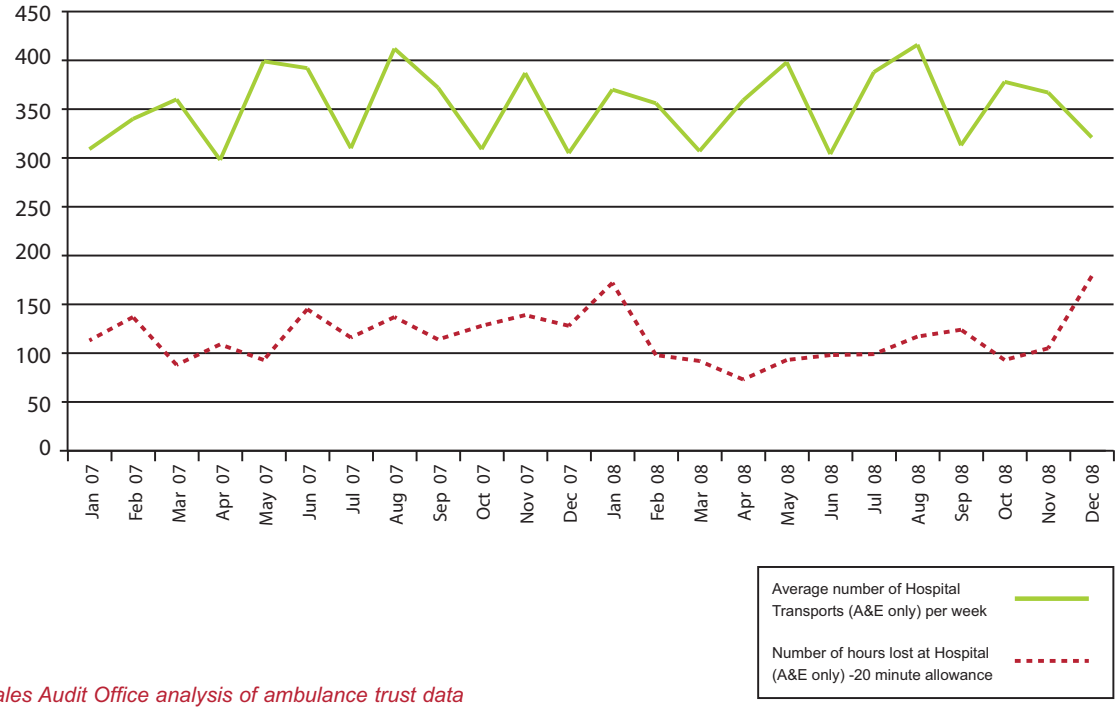
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

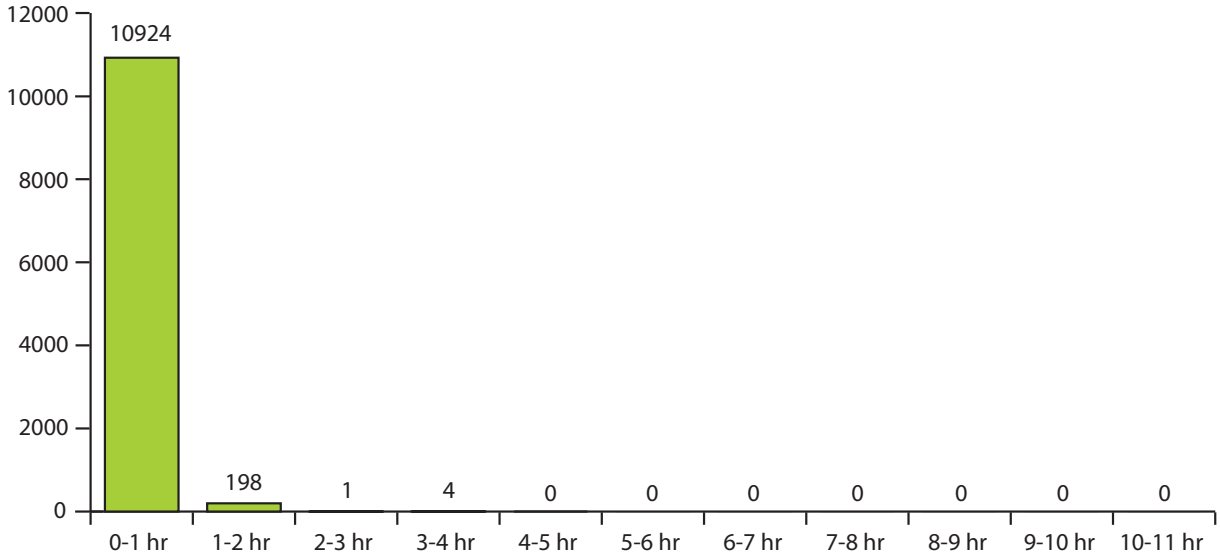
Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

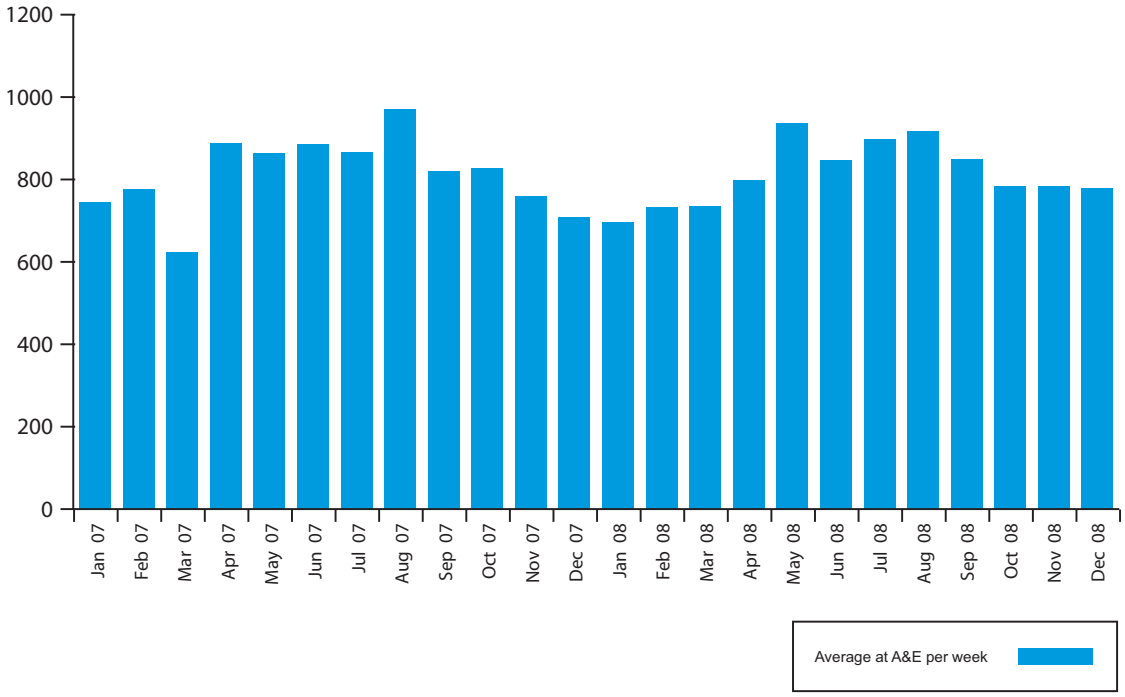
Ysbyty Gwynedd, Bangor

The number of ambulance turnarounds for Category 'A' and 'B' incidents and the extent of the delay in 2008



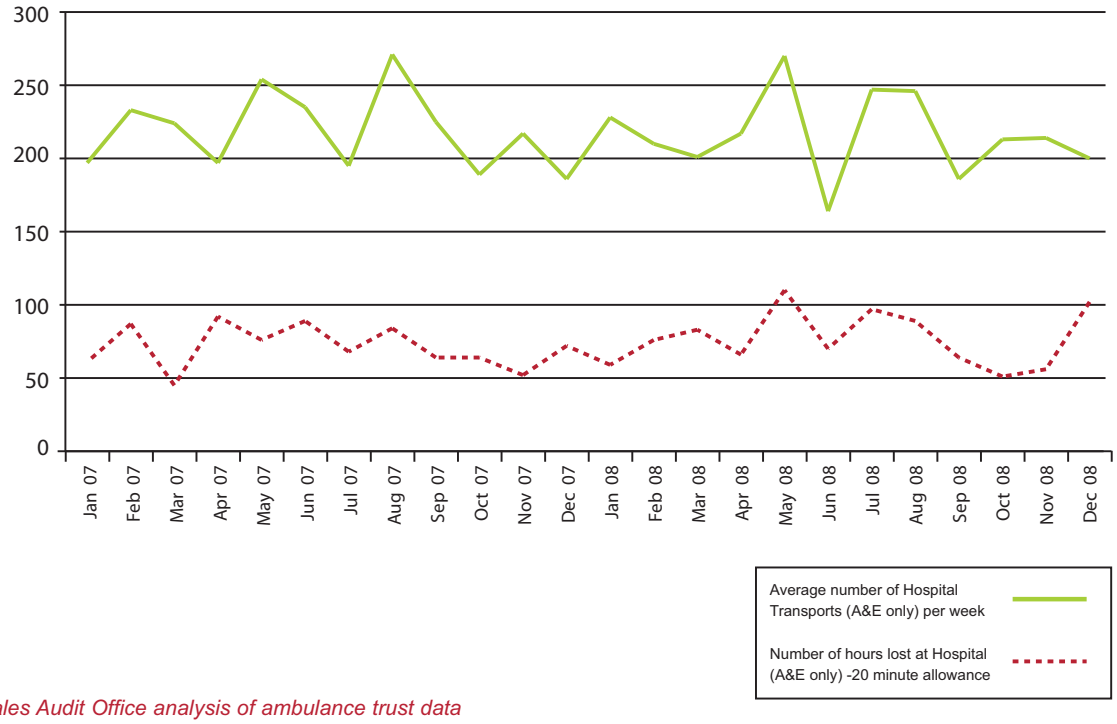
Source: Wales Audit Office analysis of ambulance trust data

Average number of patients attending the accident and emergency department each week



Source: Wales Audit Office analysis of Assembly Government data

Trend analysis of average number of patients transported by the ambulance trust and lost ambulance hours at the A&E department



Source: Wales Audit Office analysis of ambulance trust data

Appendix 4 - Activity and performance within unitary authority/local health board areas

This appendix summarises the key activity and performance information regarding emergency incidents in each unitary authority/local health board area. We have used data from the ambulance trust to present three graphs for each area.

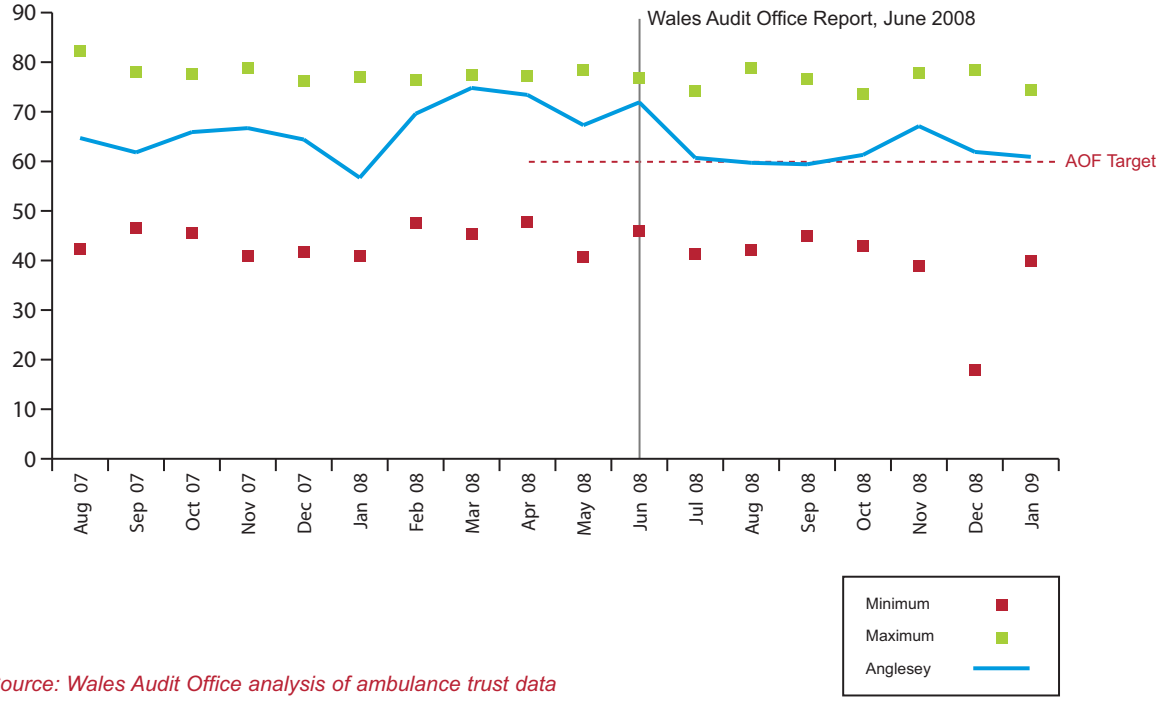
The first graph shows the monthly trend in the ambulance trust's response times for Category 'A' incidents. It shows the percentage of Category 'A' incidents that the ambulance trust responded to within eight minutes. The Assembly Government's Annual Operating Framework (AOF) includes a target that requires the ambulance trust to provide a first response to at least 60 per cent of these calls within eight minutes, in every unitary authority/local health board area.

The second graph gives an indication of the ambulance trust's workload in each area unitary authority/local health board area. The graph shows the number of responses that the ambulance trust made to emergency incidents in each area. The graph also shows the average number of responses in Wales for each month as well as the highest and lowest numbers of responses in any one area in Wales each month.

The third graph shows the amount of time the ambulance trust takes to despatch a response to emergency incidents. Ambulance control can only allocate a response to an incident once the 999 caller has provided three vital pieces of information – the caller's name, the location of the incident and the nature of the incident. The provision of this information is called 'call verification'. The ambulance trust has set an internal target to allocate a response within 30 seconds of call verification. The graph shows the average monthly time taken between verifying the call and allocating a response. The graph also shows the highest and lowest value in any unitary authority/local health board area each month. We found that, during certain months, in certain areas, ambulance control faced significant problems in allocating responses to incidents. These problems are discussed further in paragraphs 1.10 to 1.14.

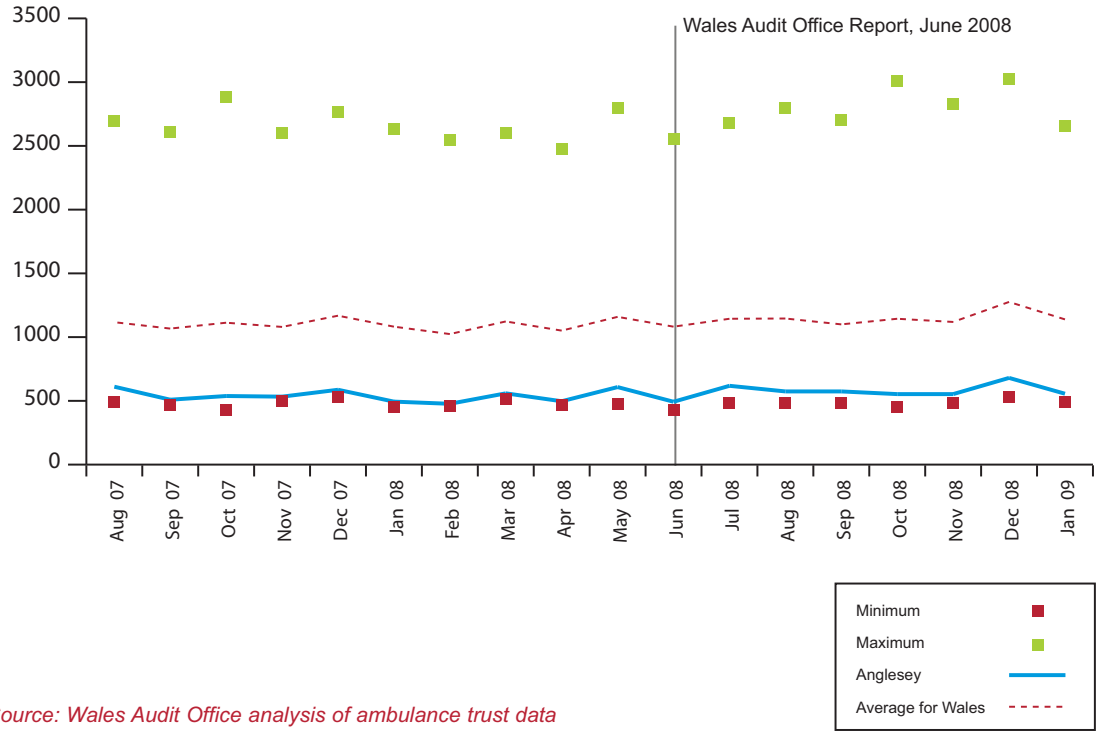
Isle of Anglesey

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



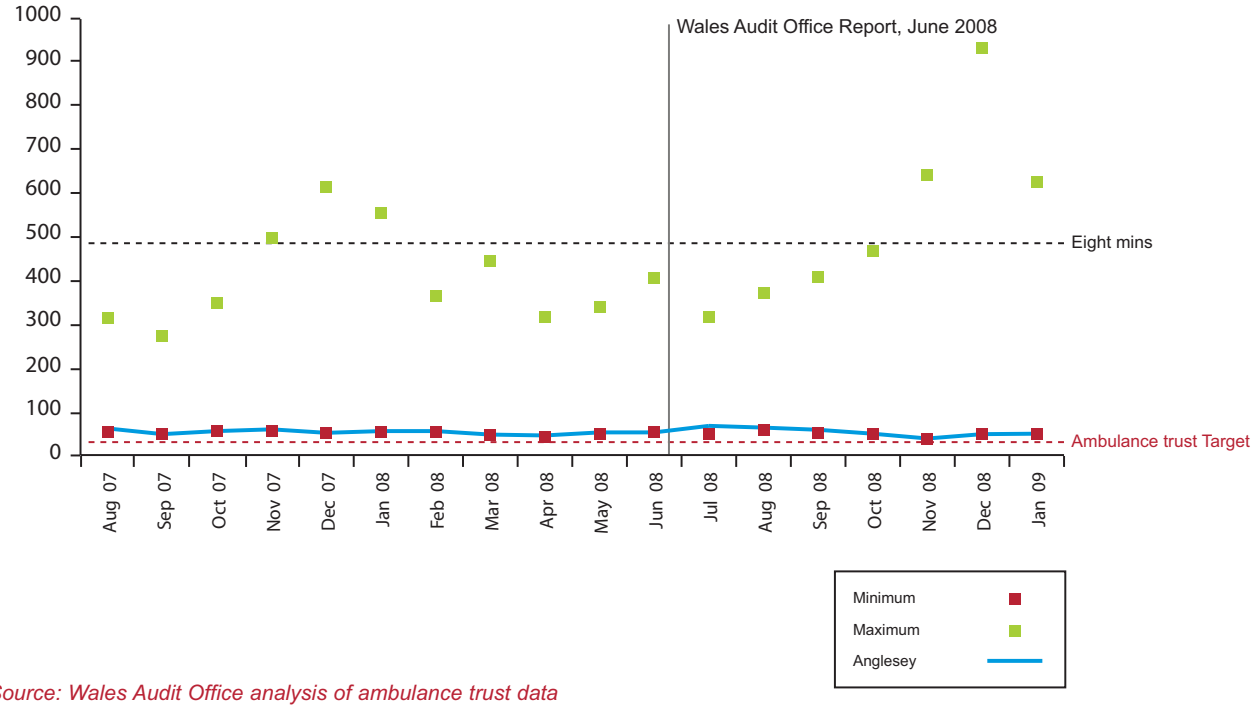
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

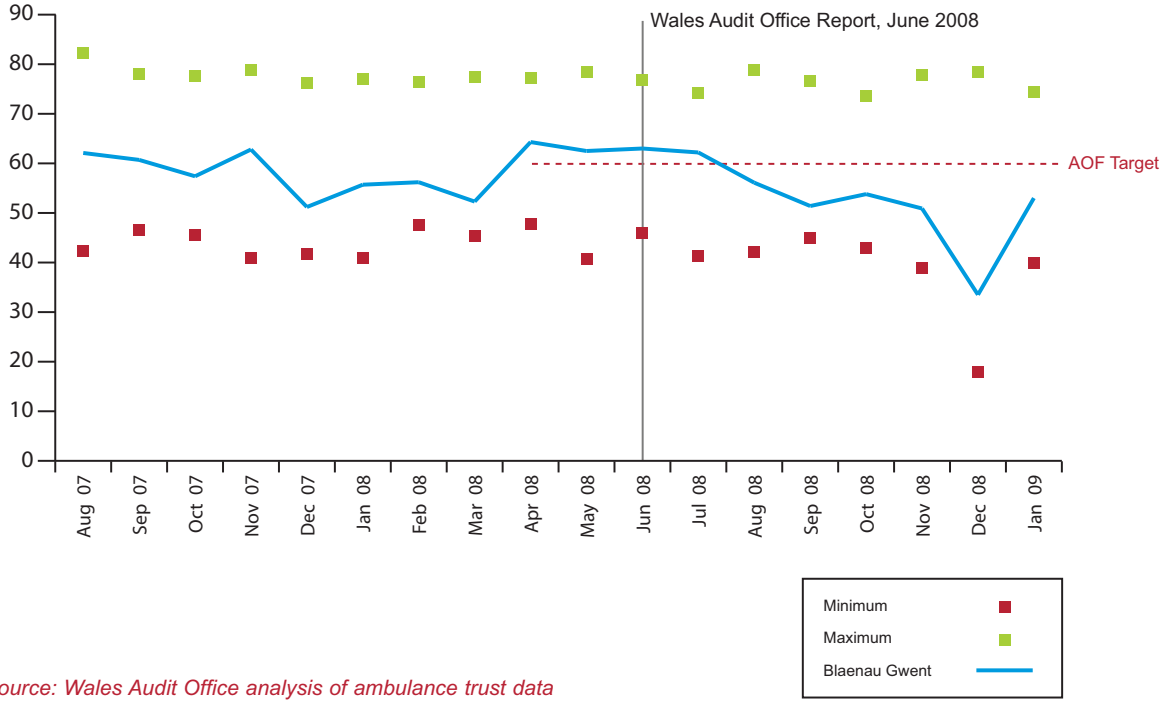
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

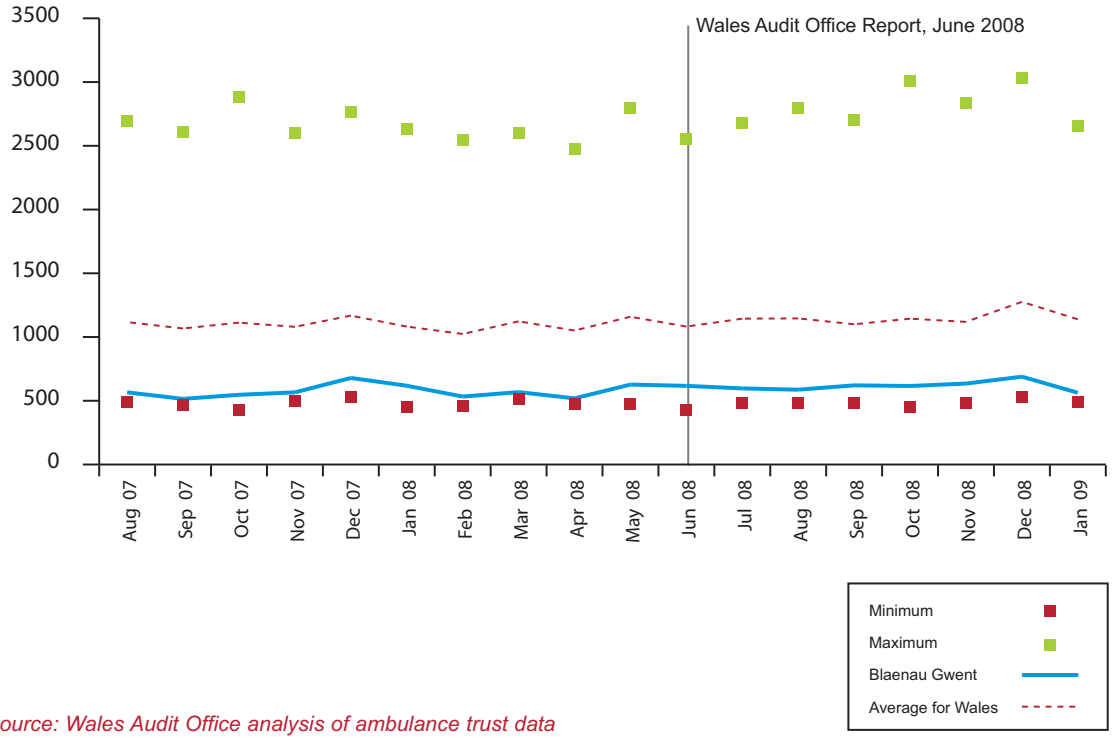
Blaenau Gwent

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



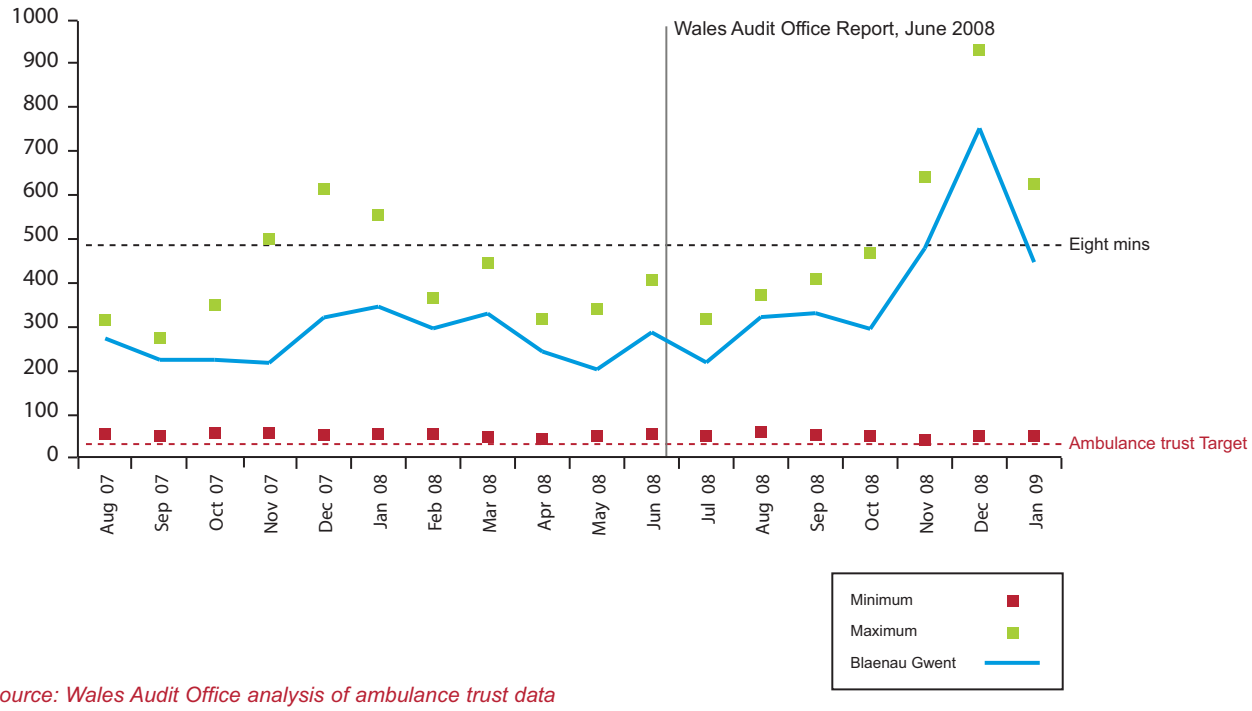
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

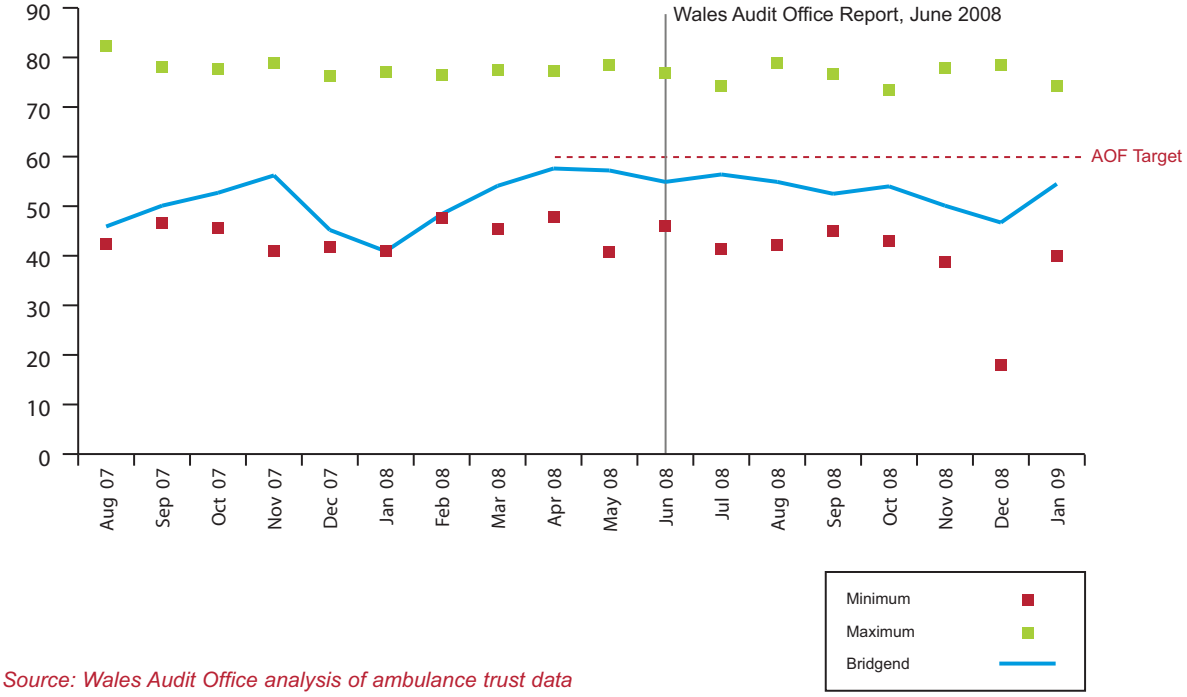
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

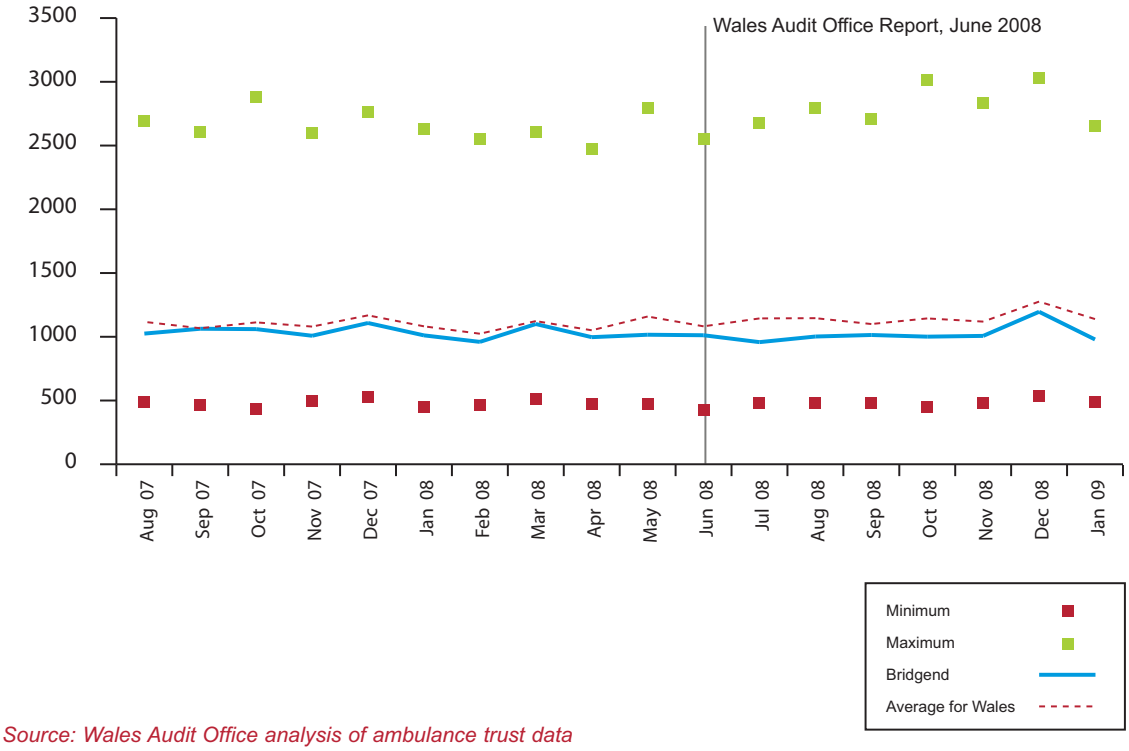
Bridgend

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



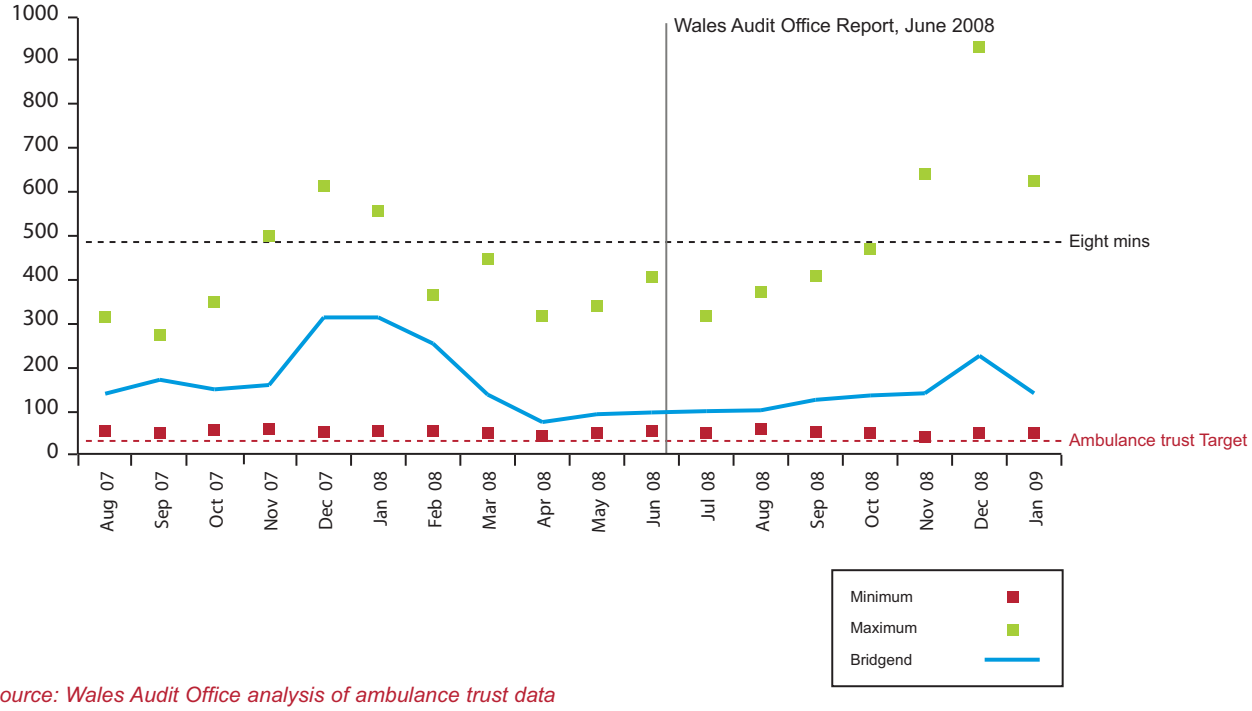
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

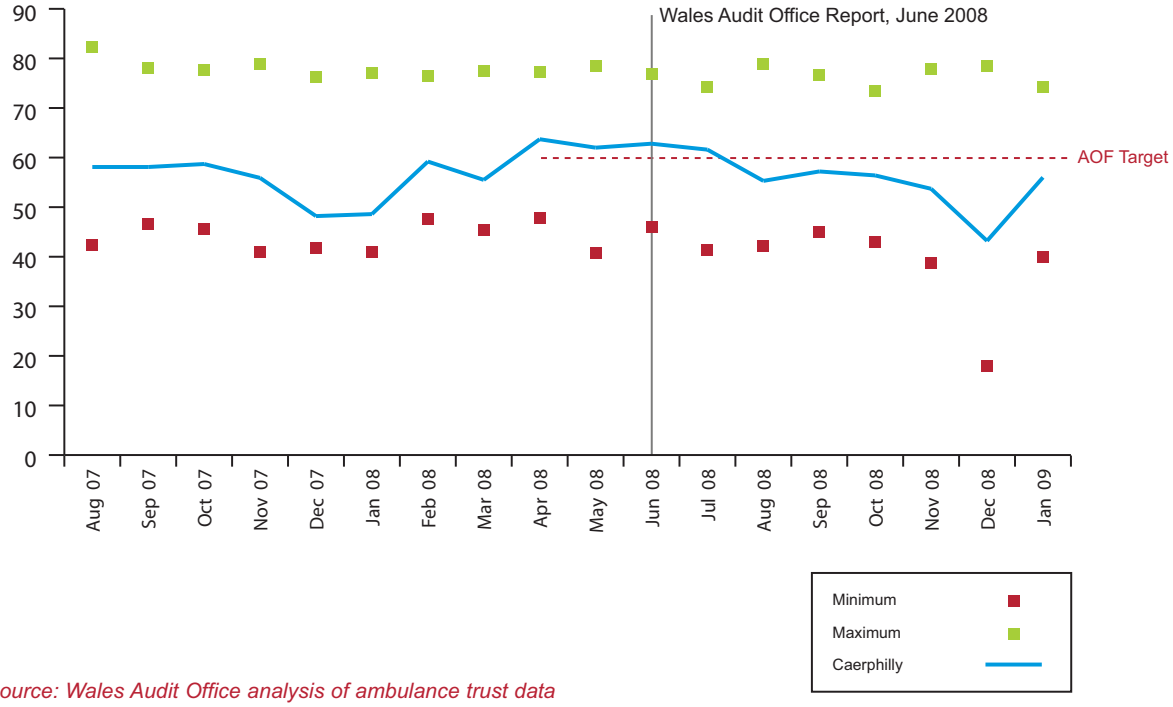
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

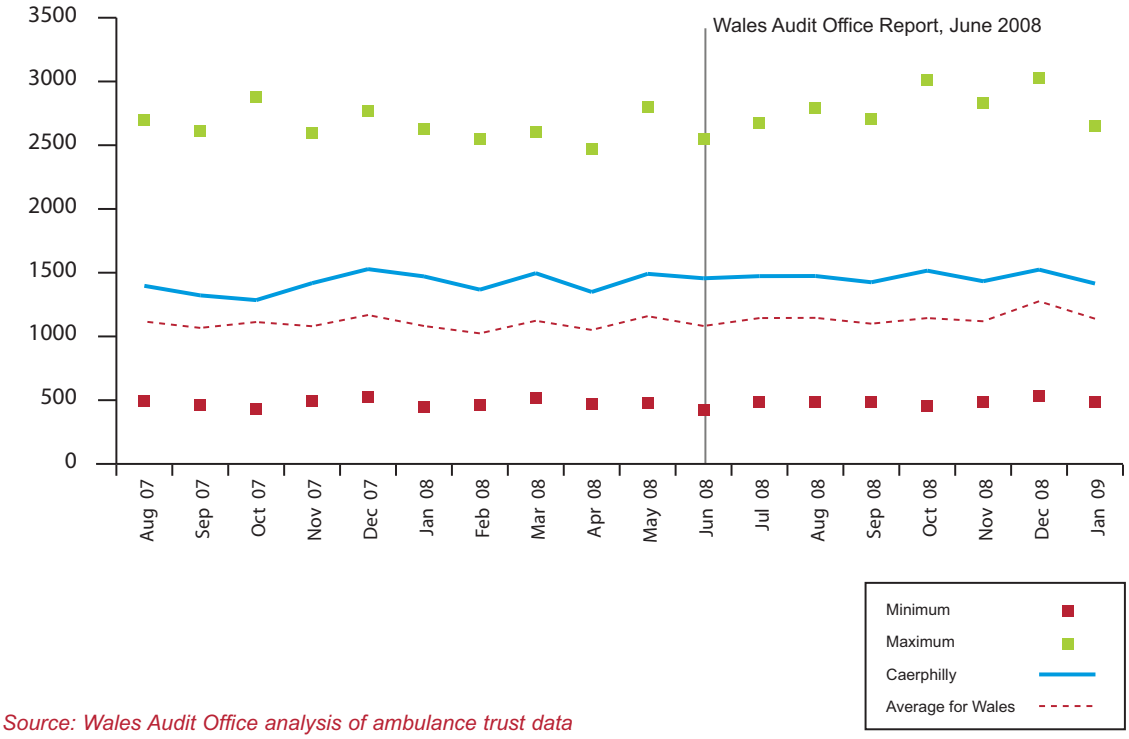
Caerphilly

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



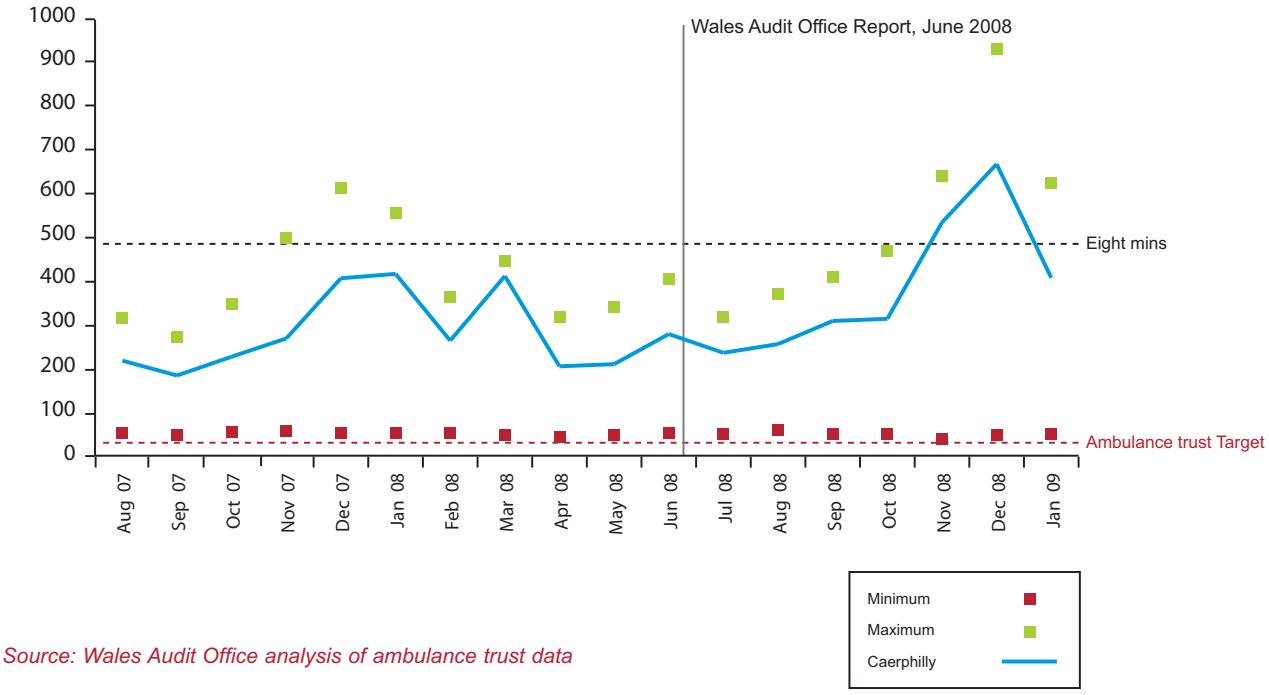
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

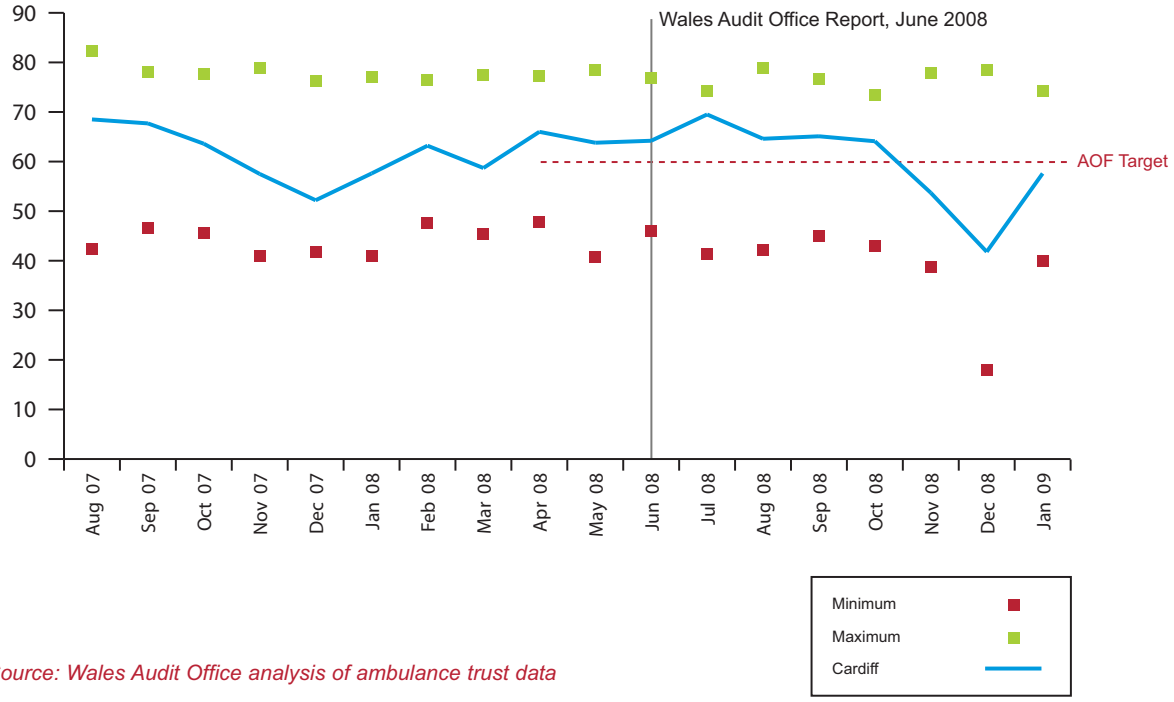
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

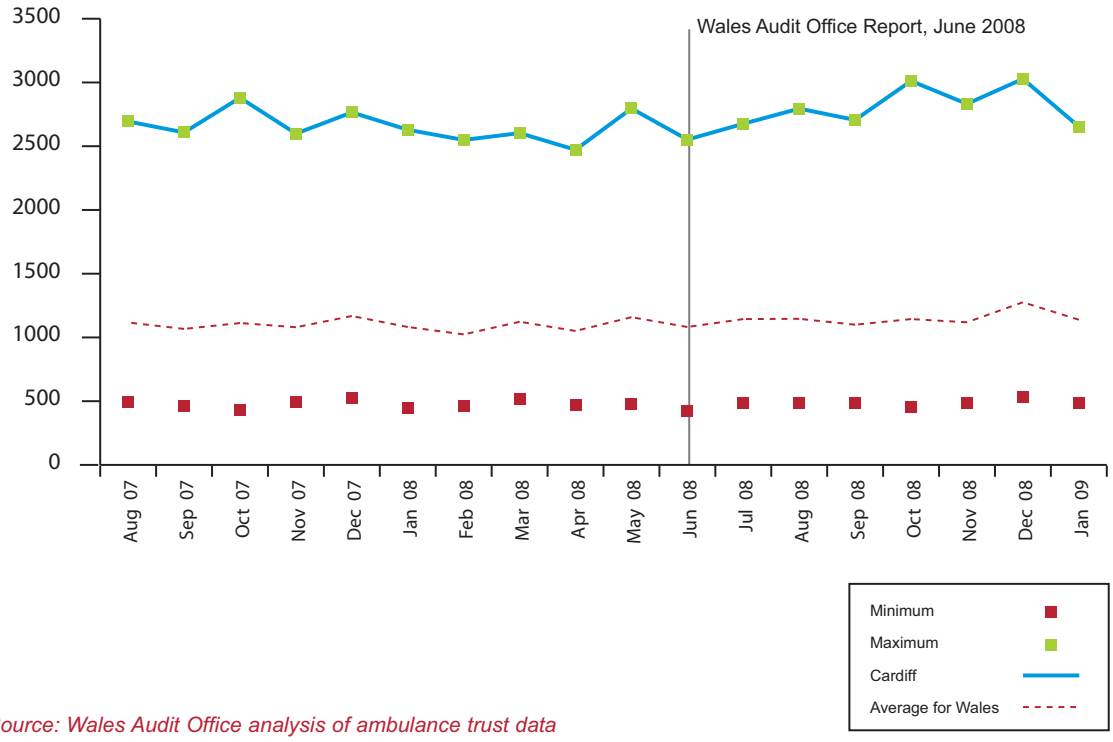
Cardiff

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



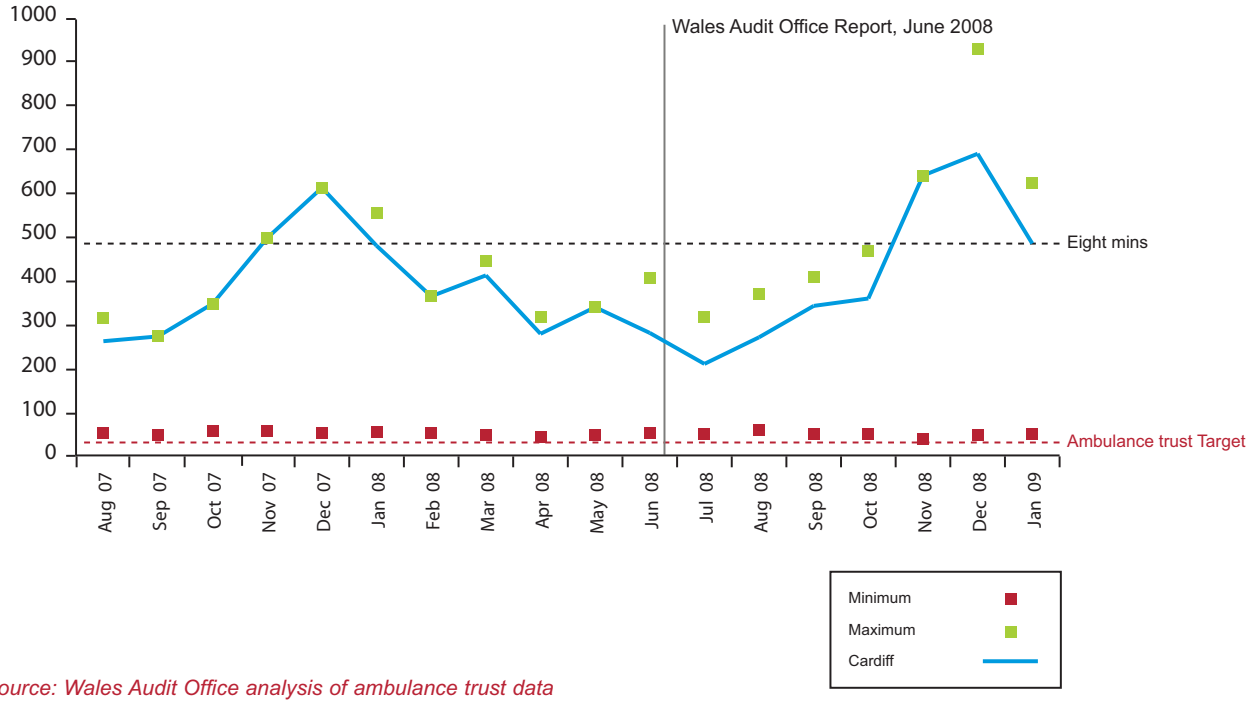
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

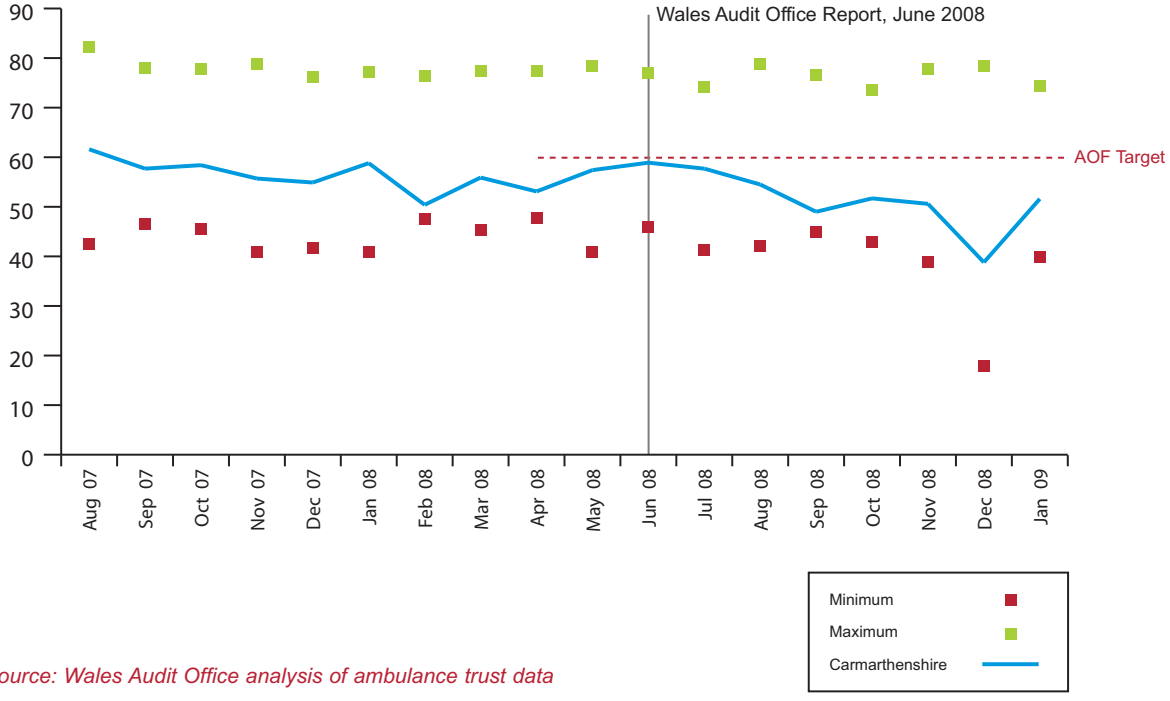
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

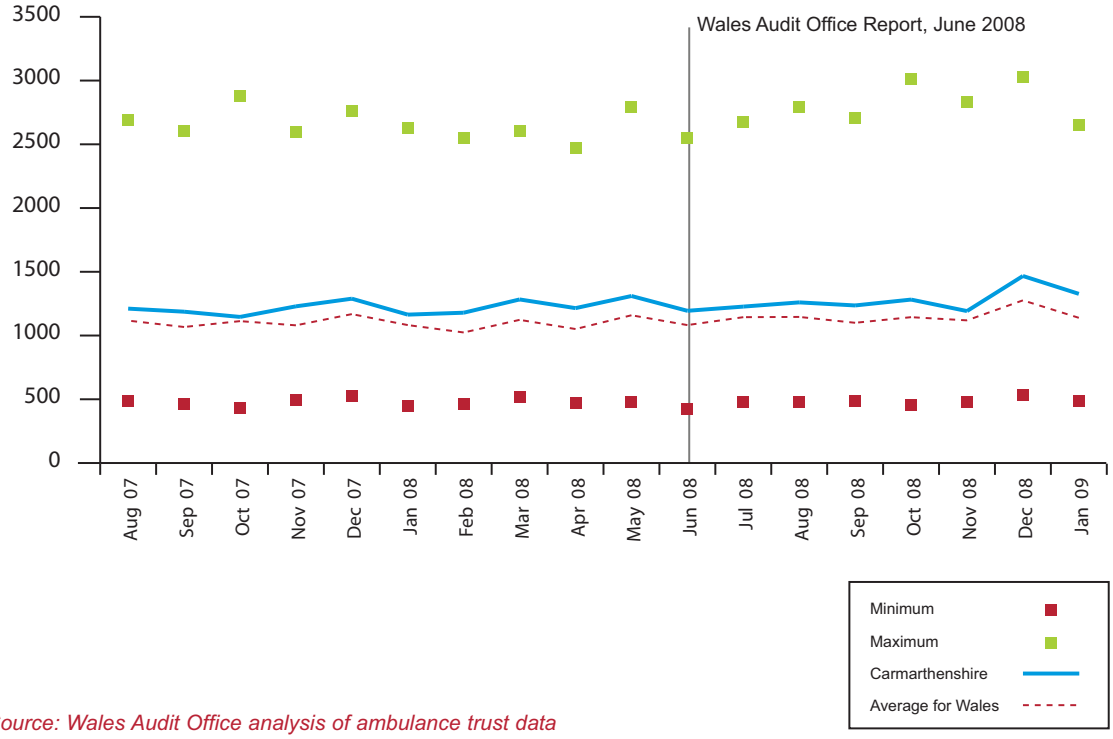
Carmarthenshire

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



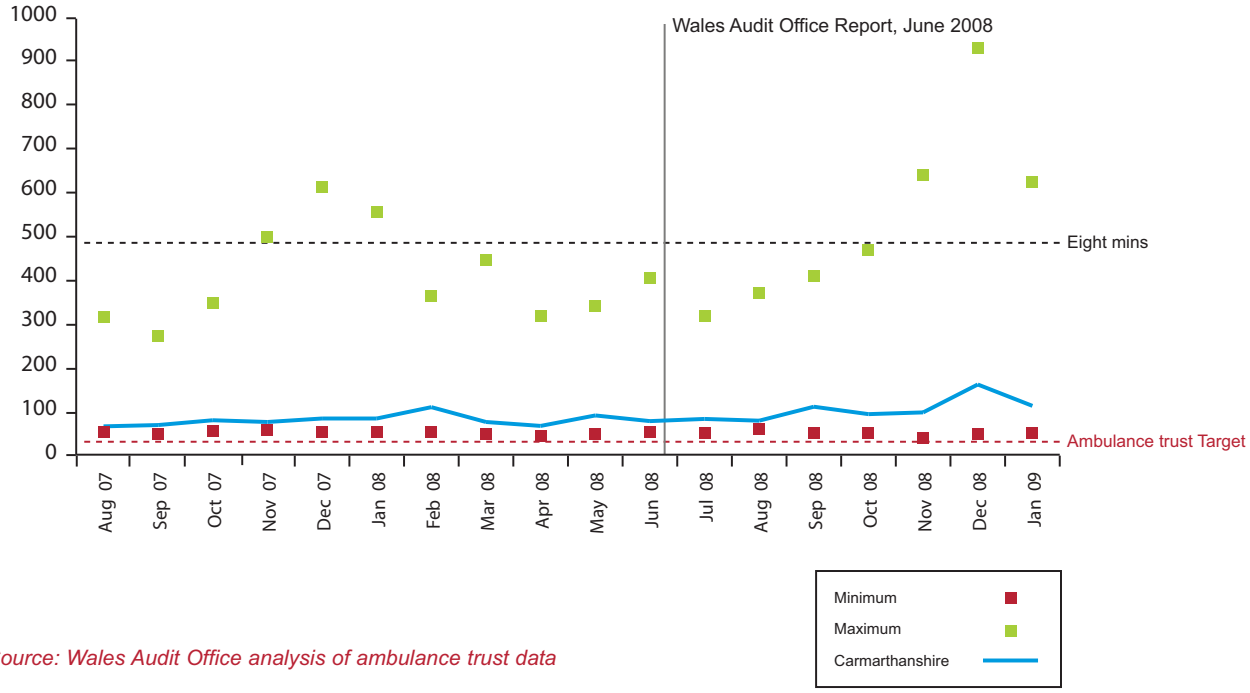
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

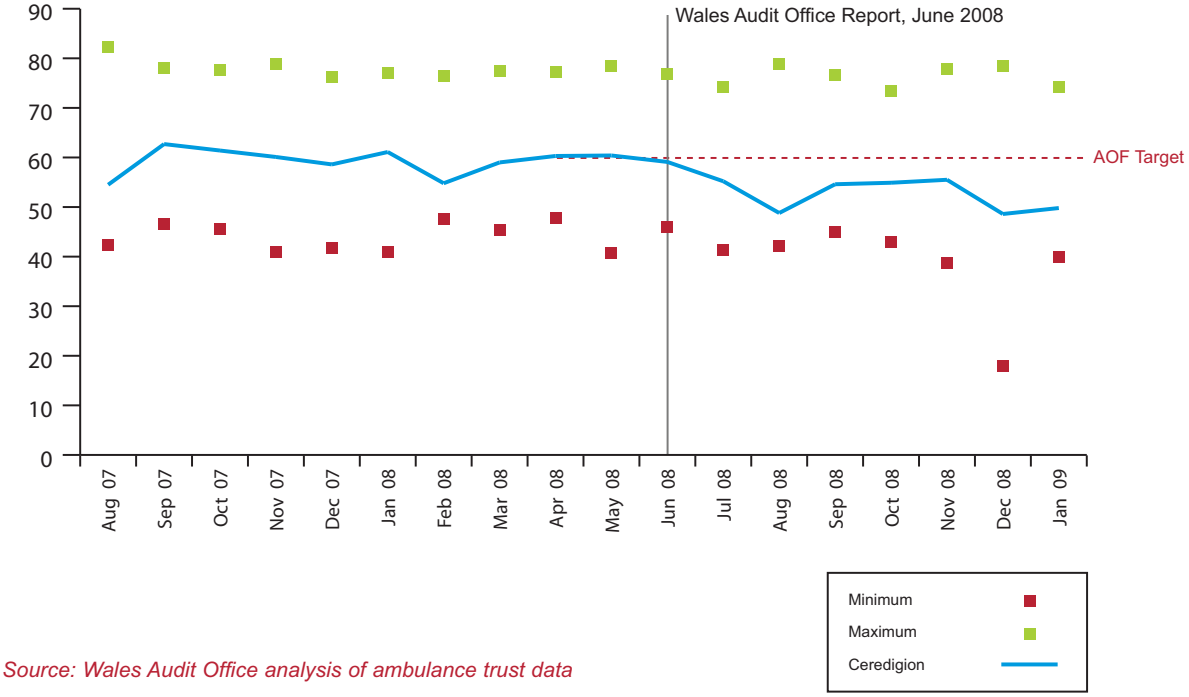
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

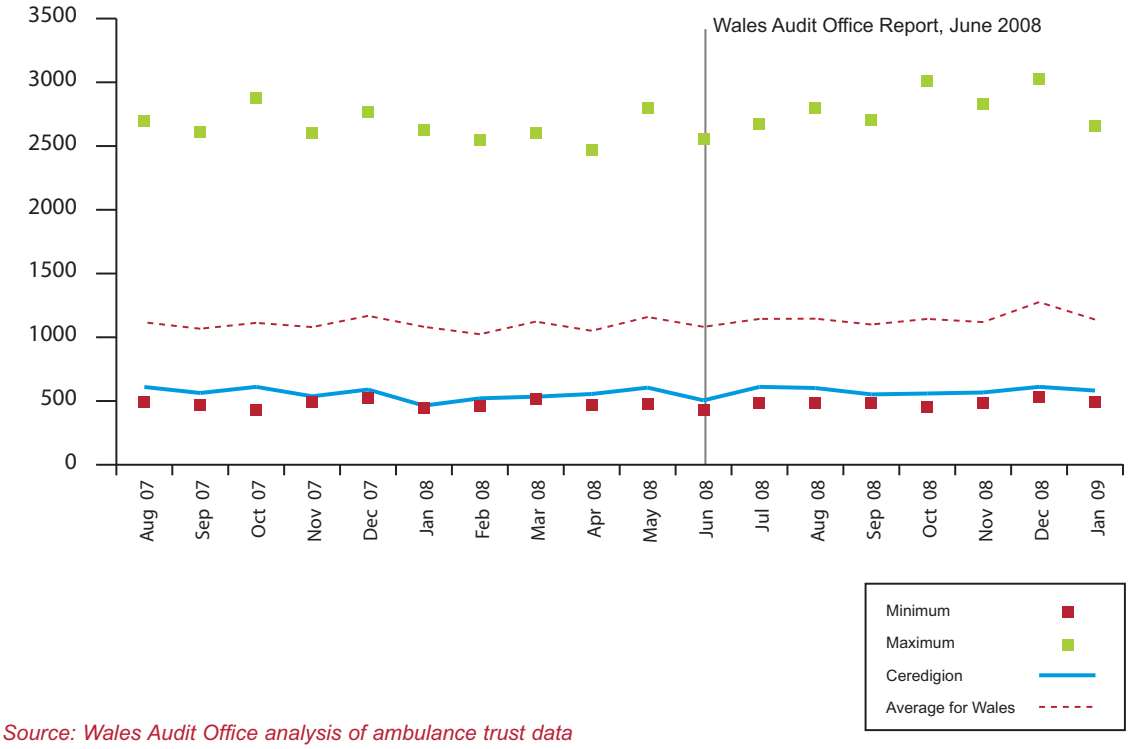
Ceredigion

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



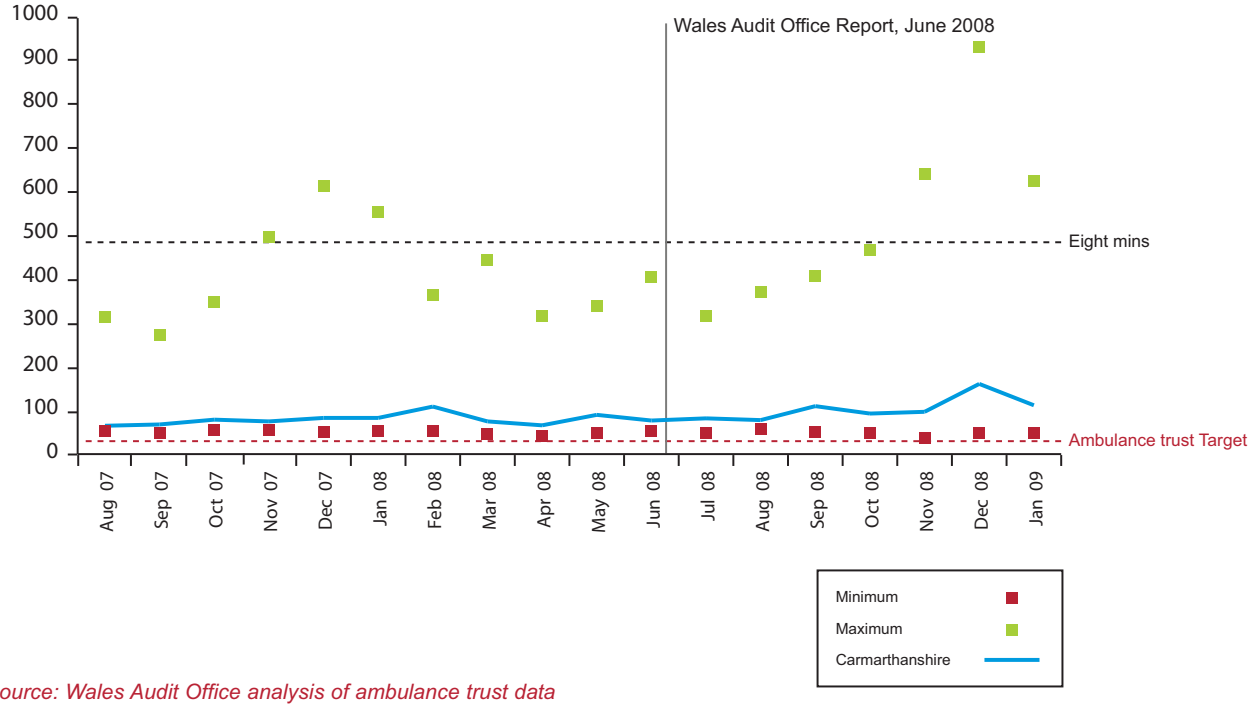
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

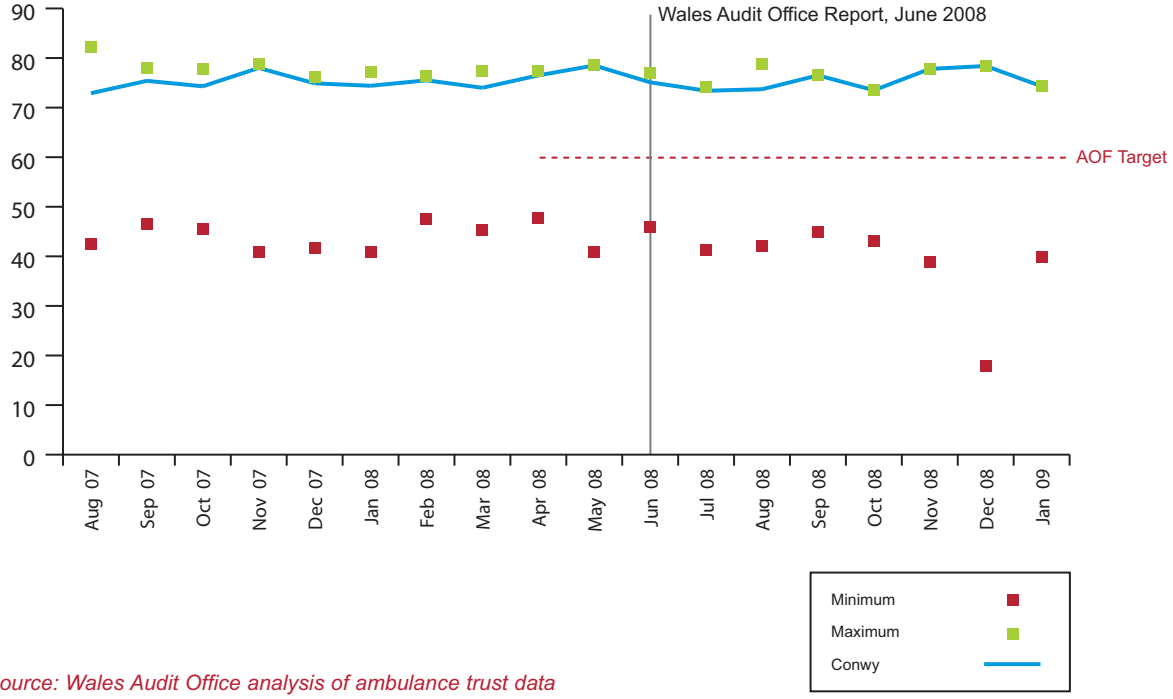
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

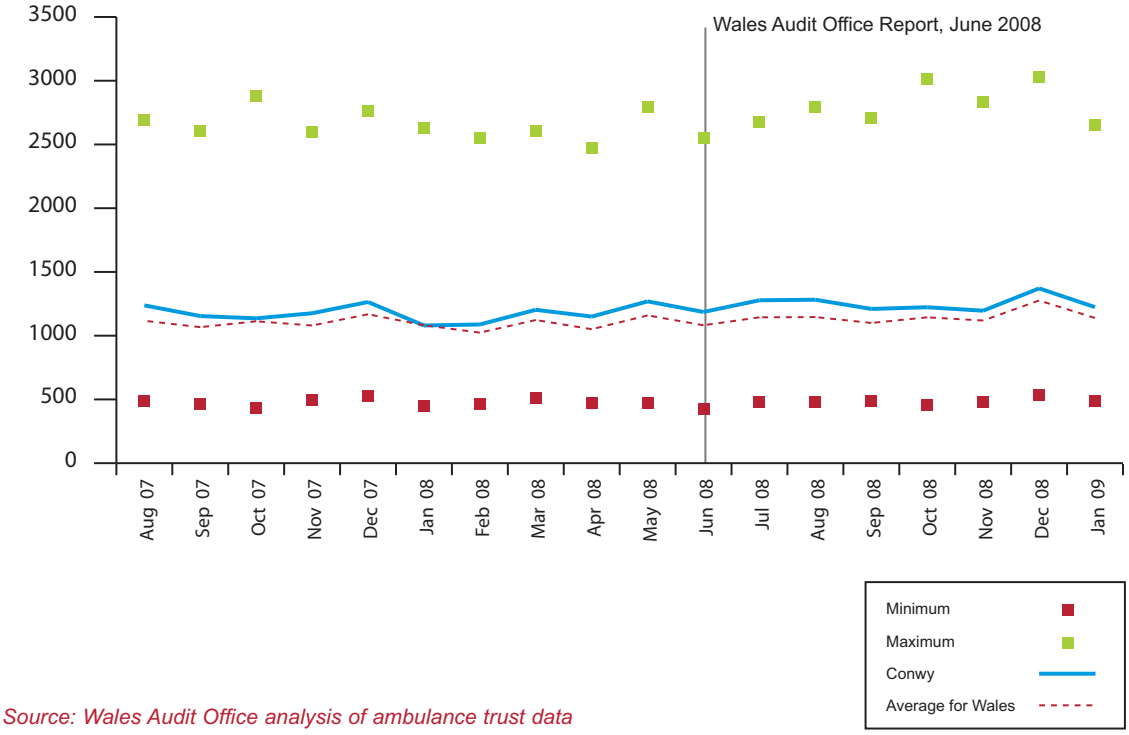
Conwy

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



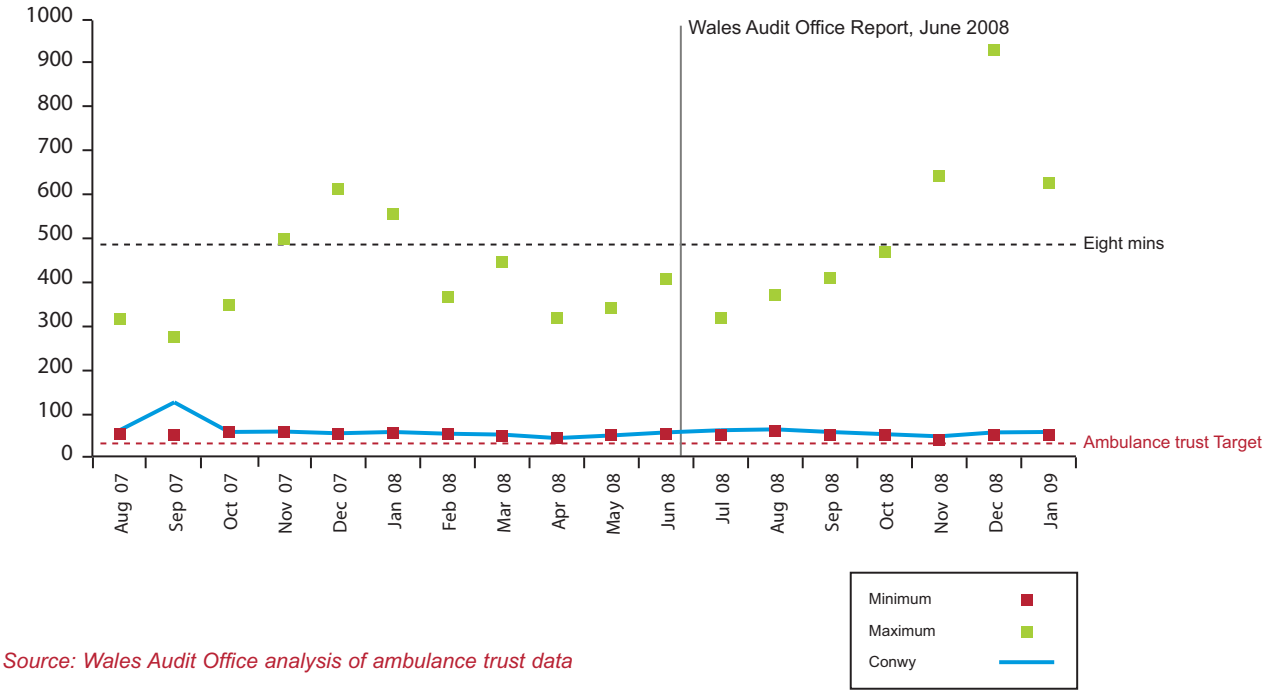
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

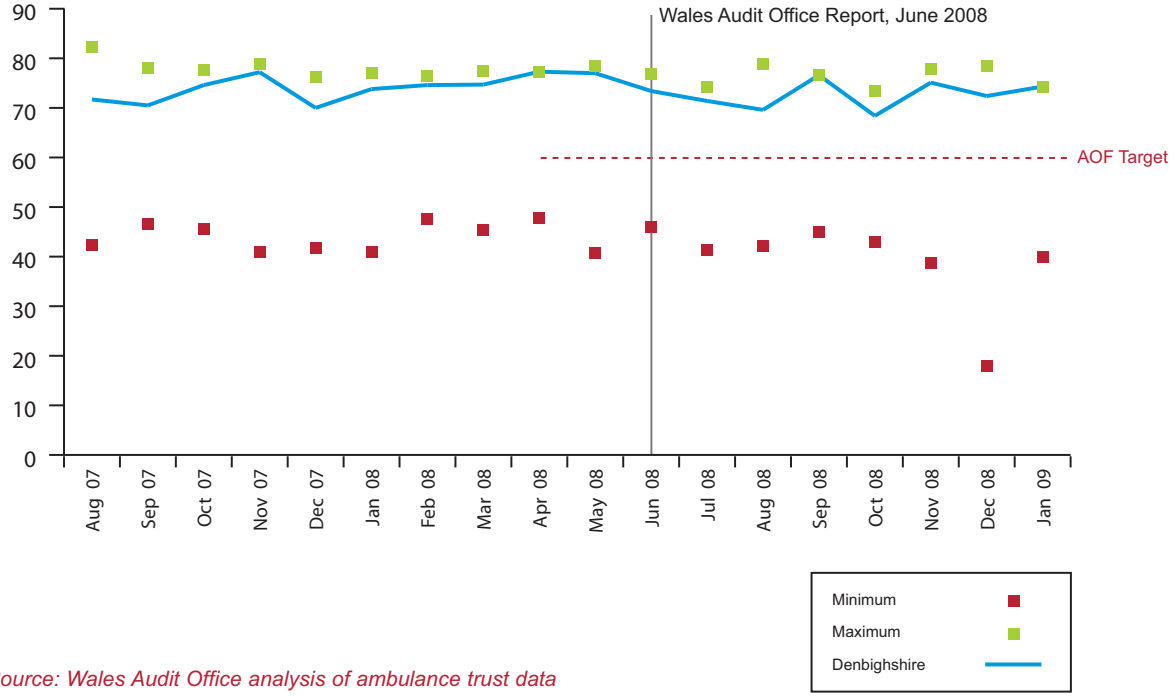
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

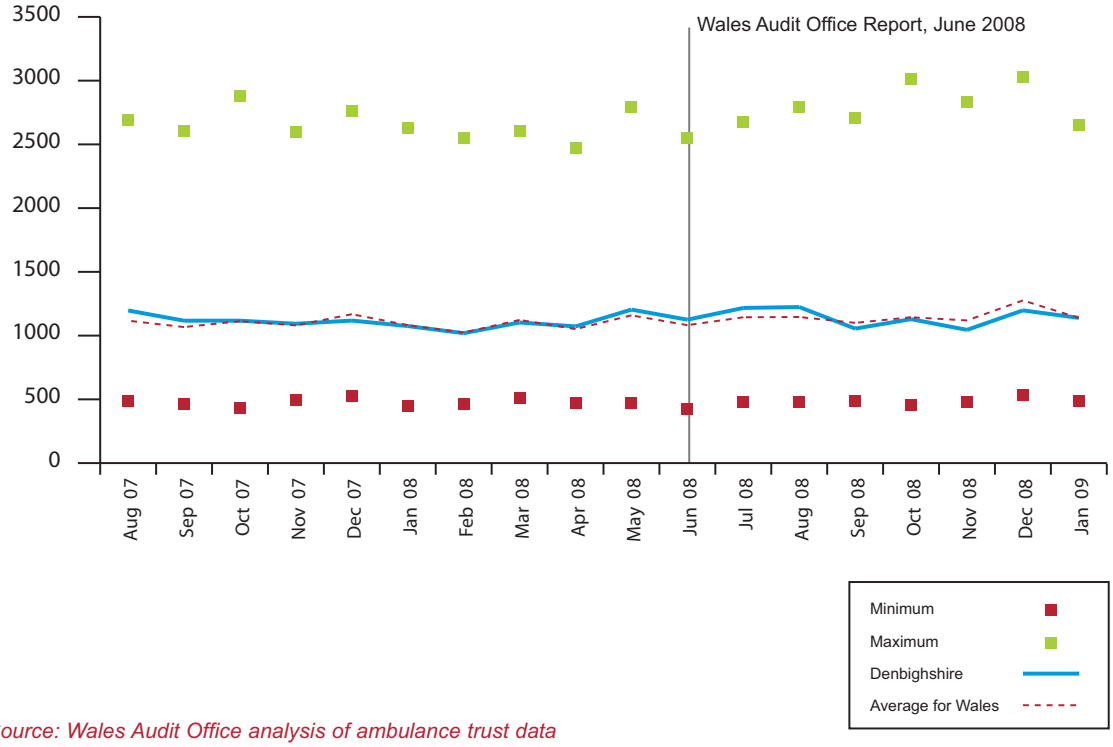
Denbighshire

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



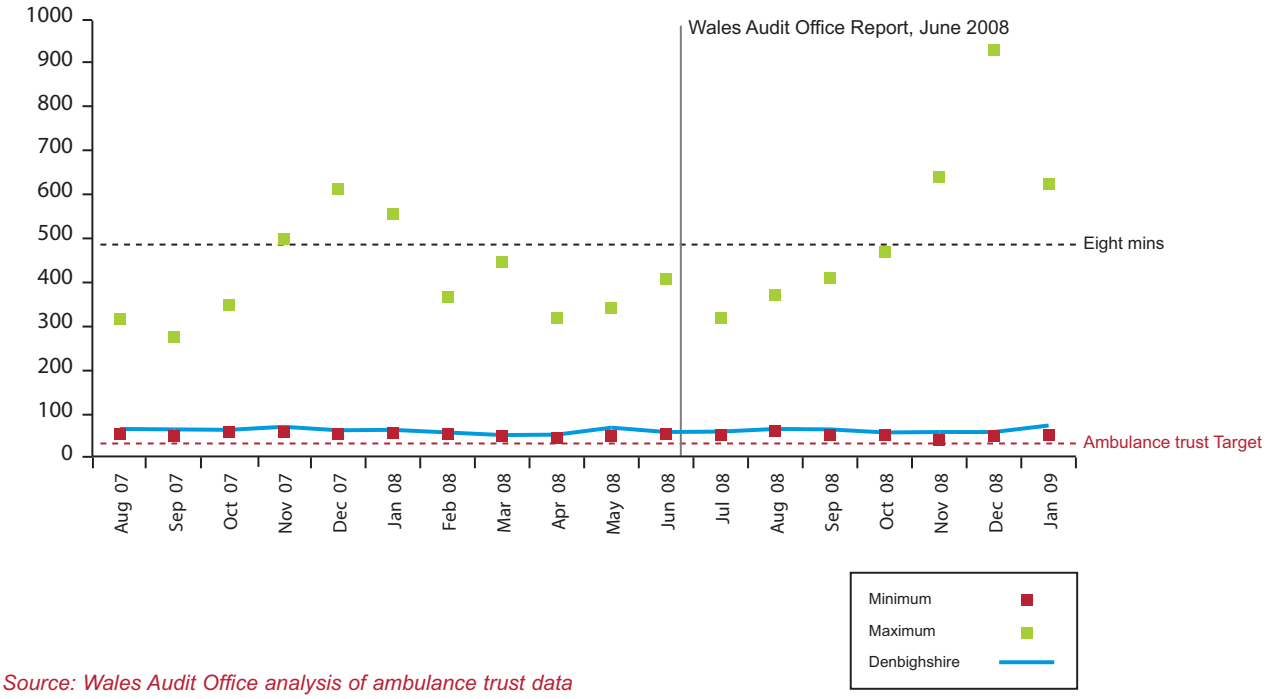
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

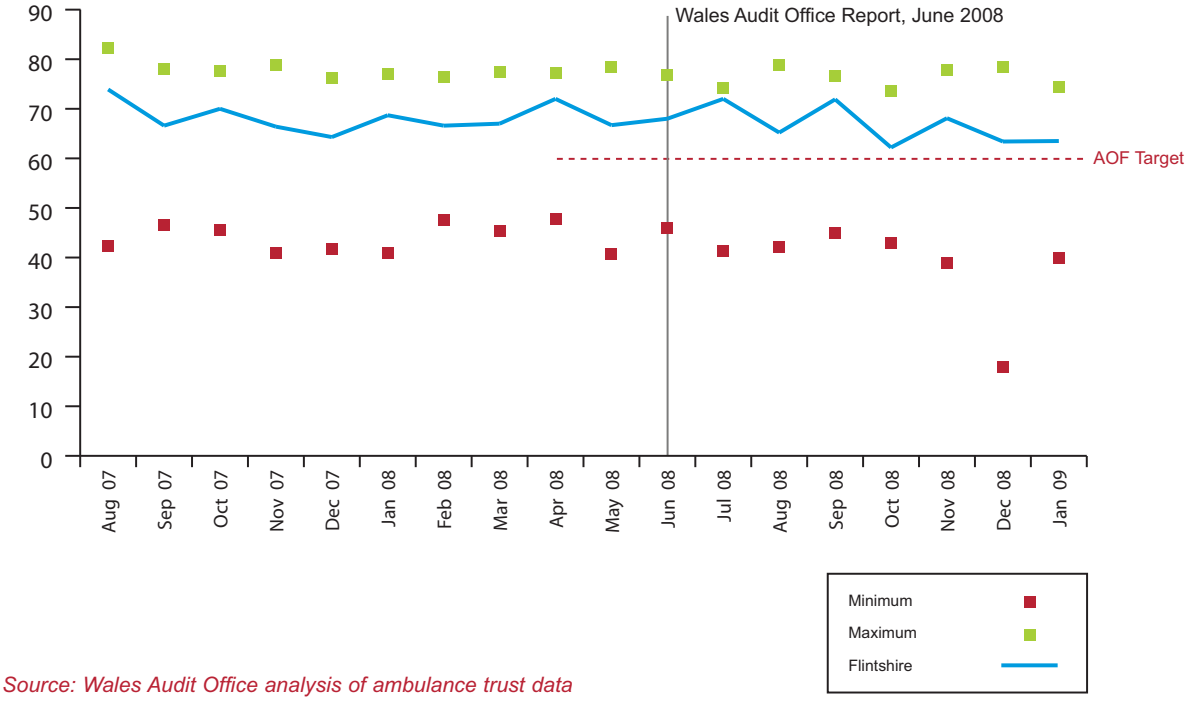
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

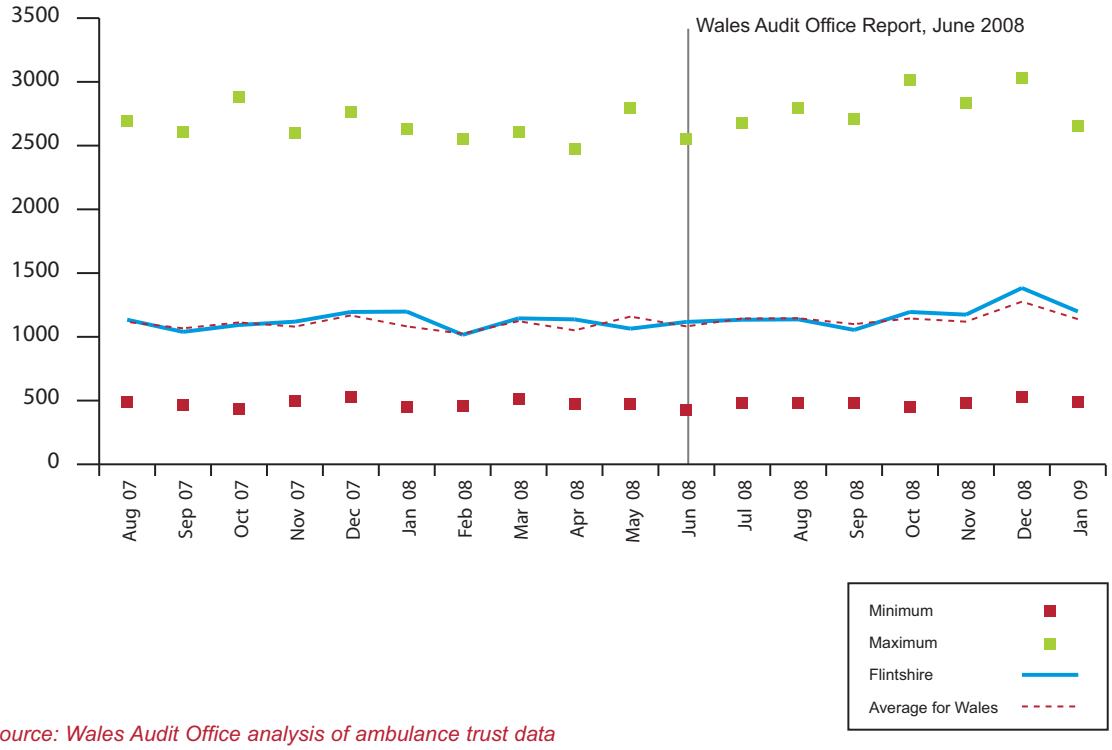
Flintshire

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



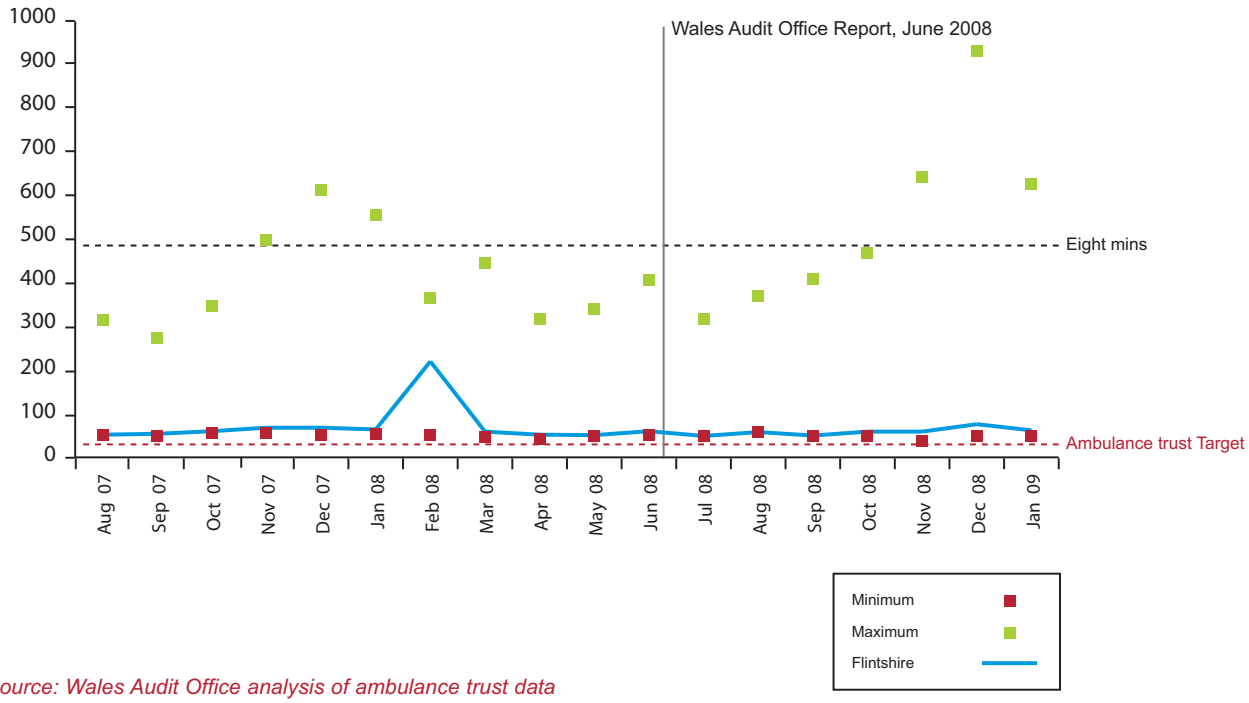
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

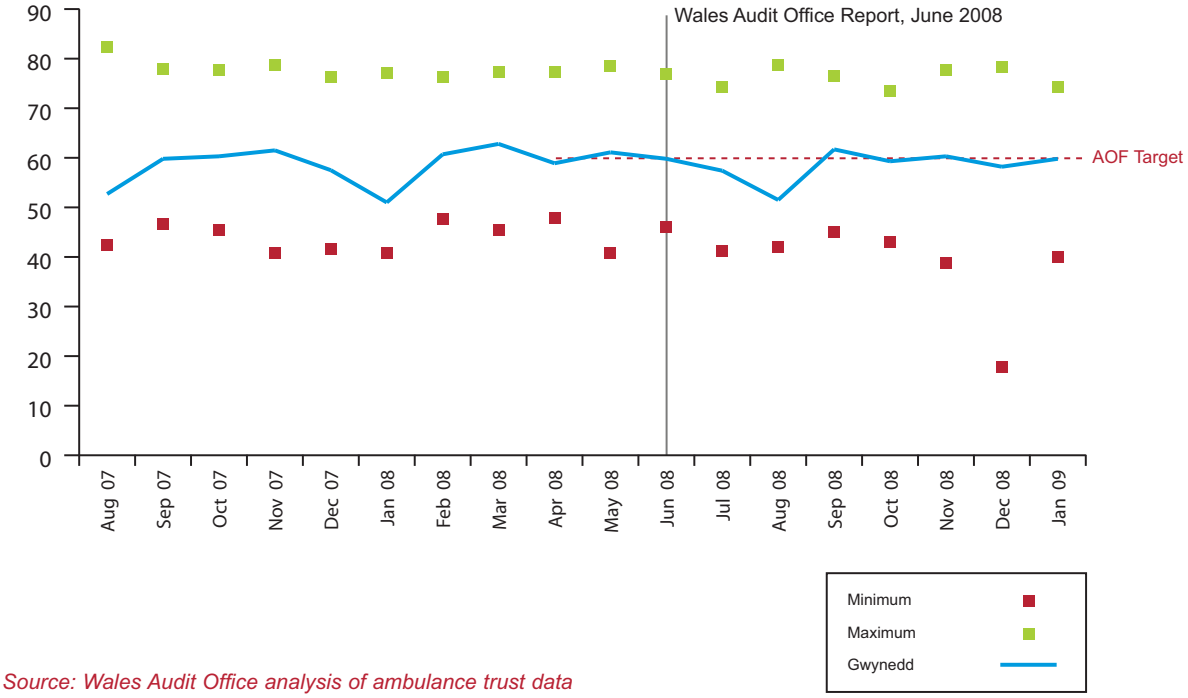
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

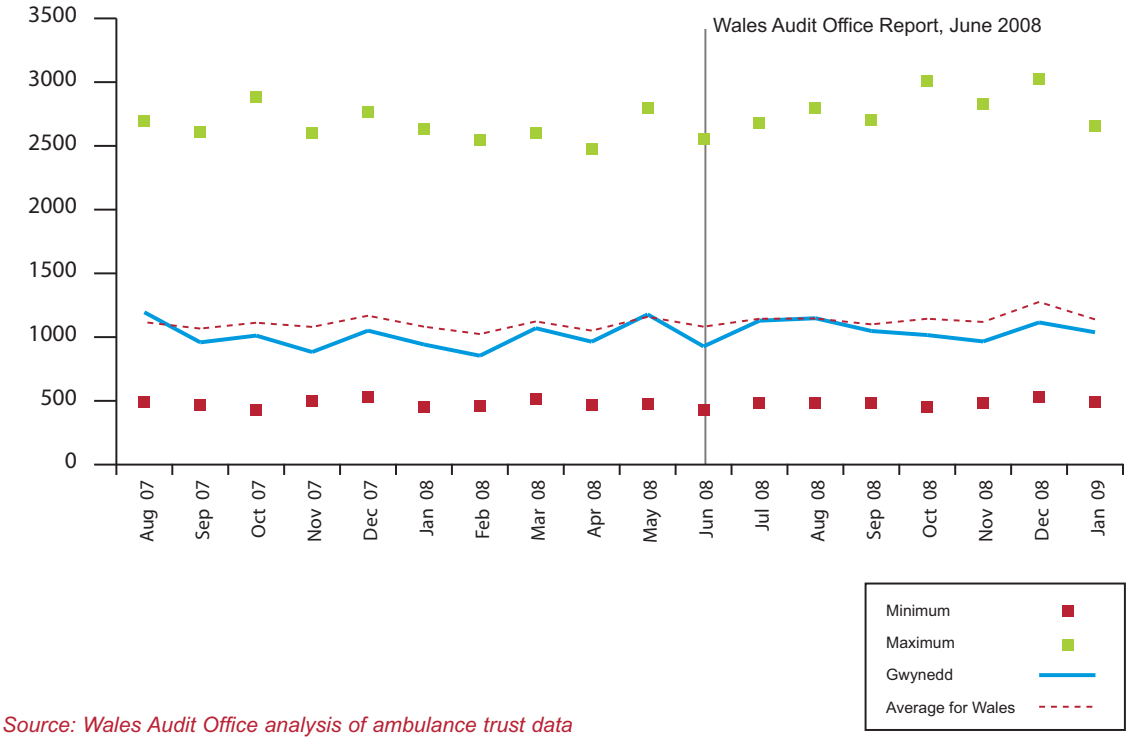
Gwynedd

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



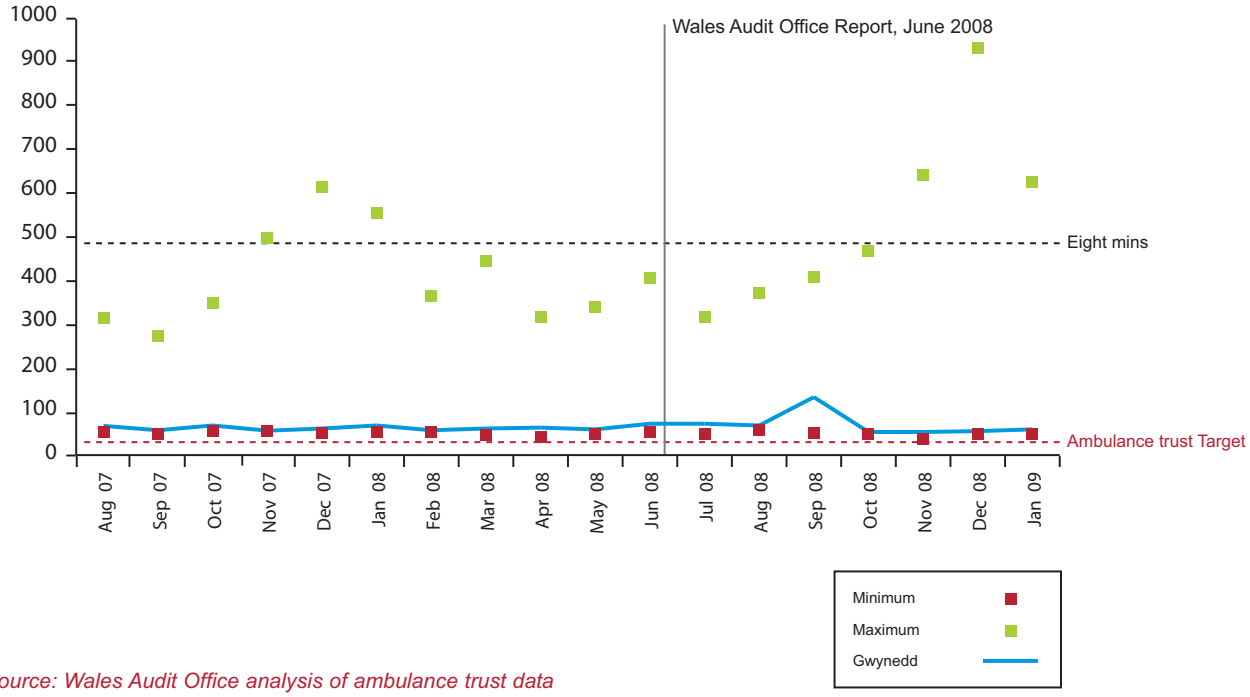
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

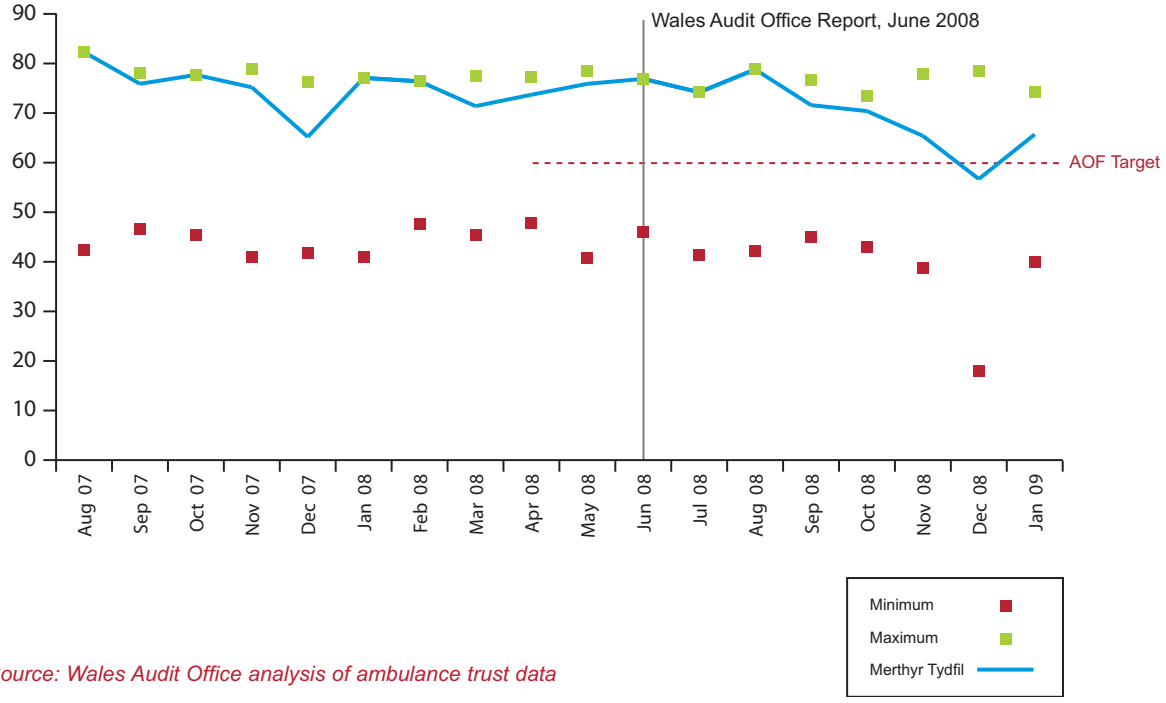
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

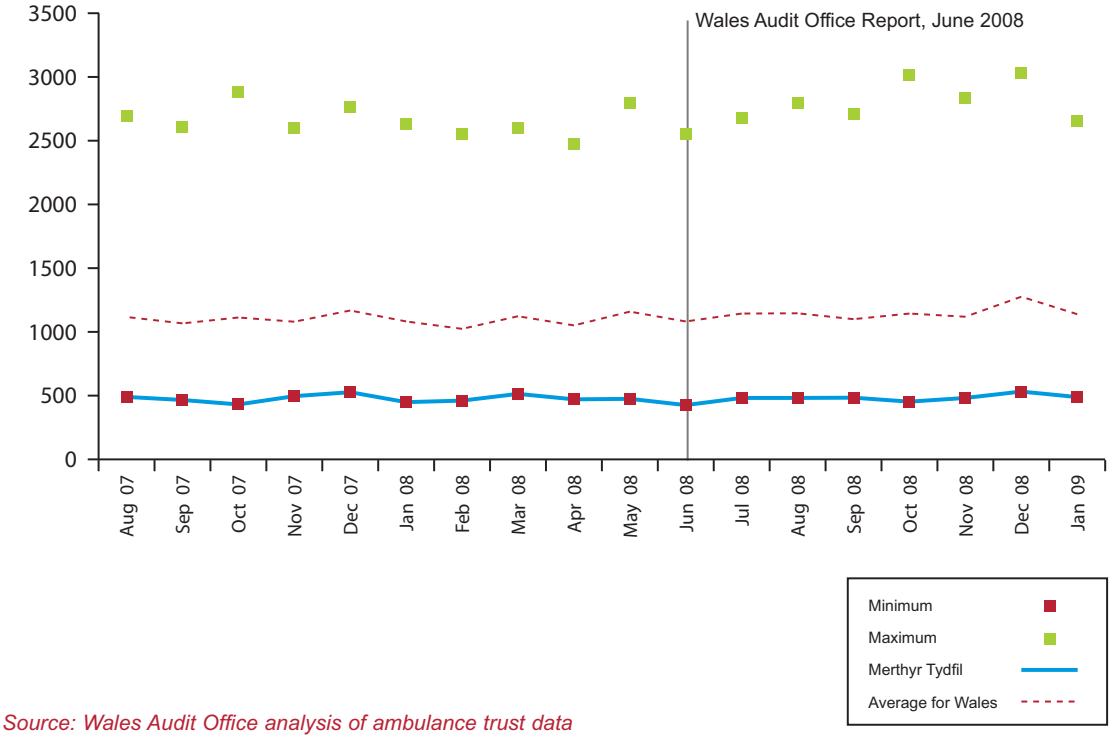
Merthyr Tydfil

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



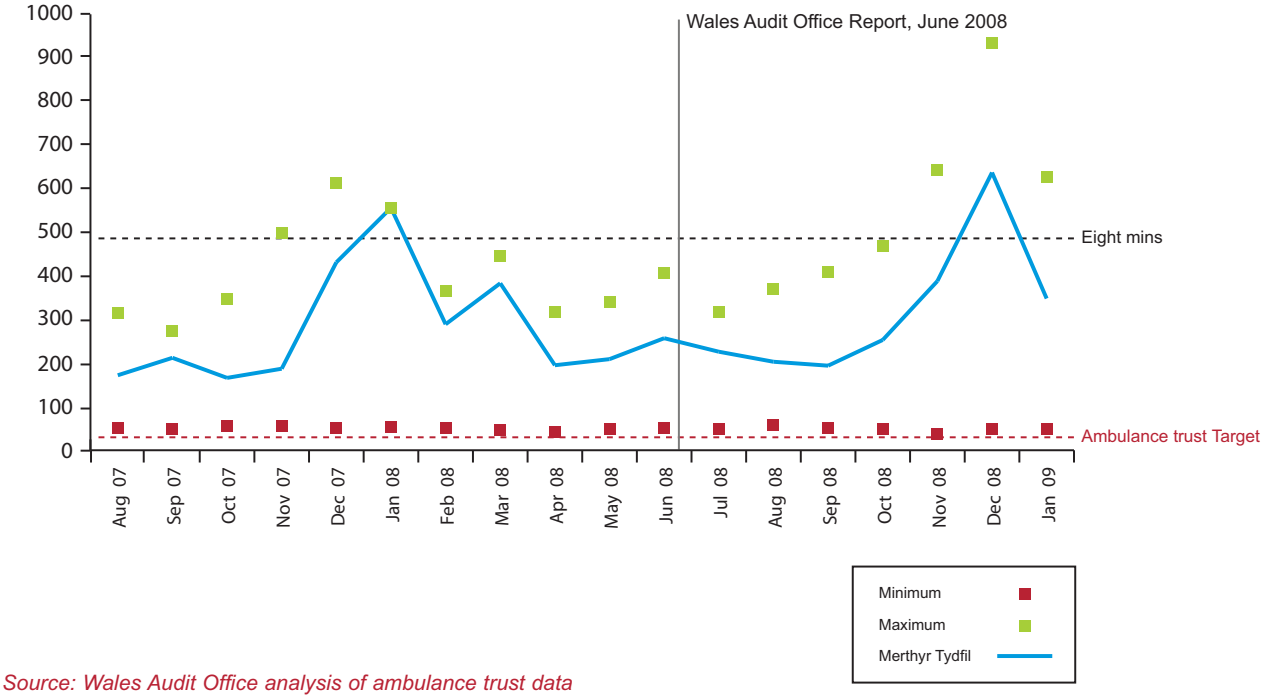
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

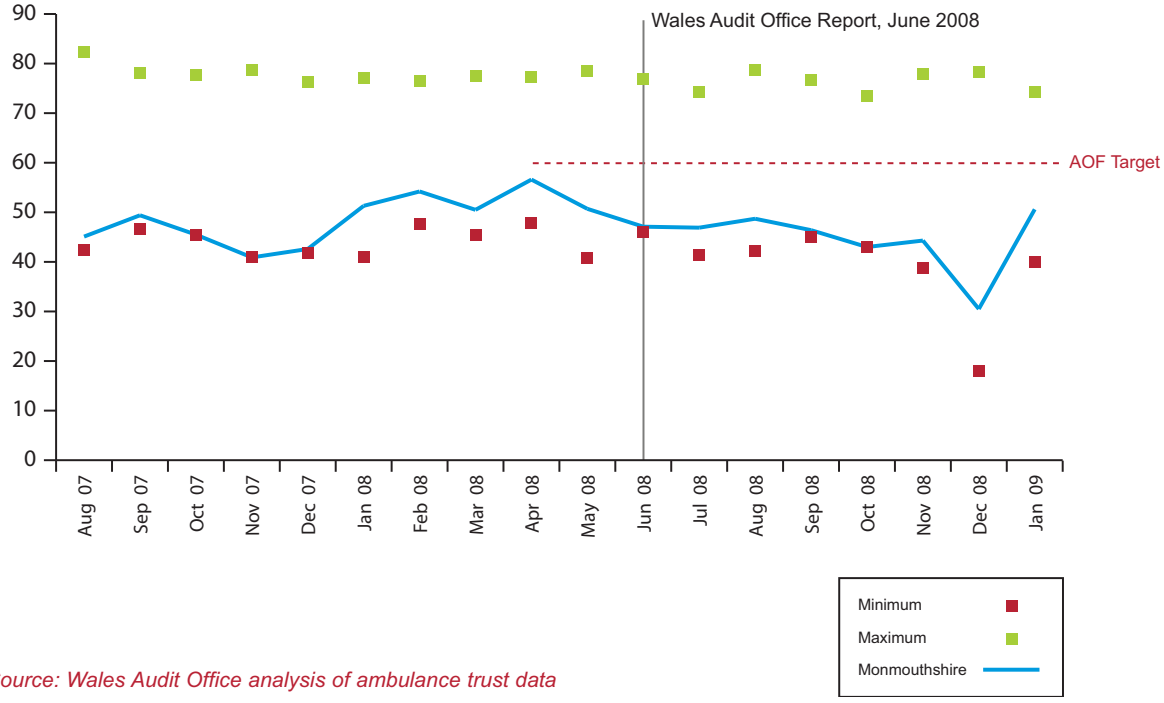
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

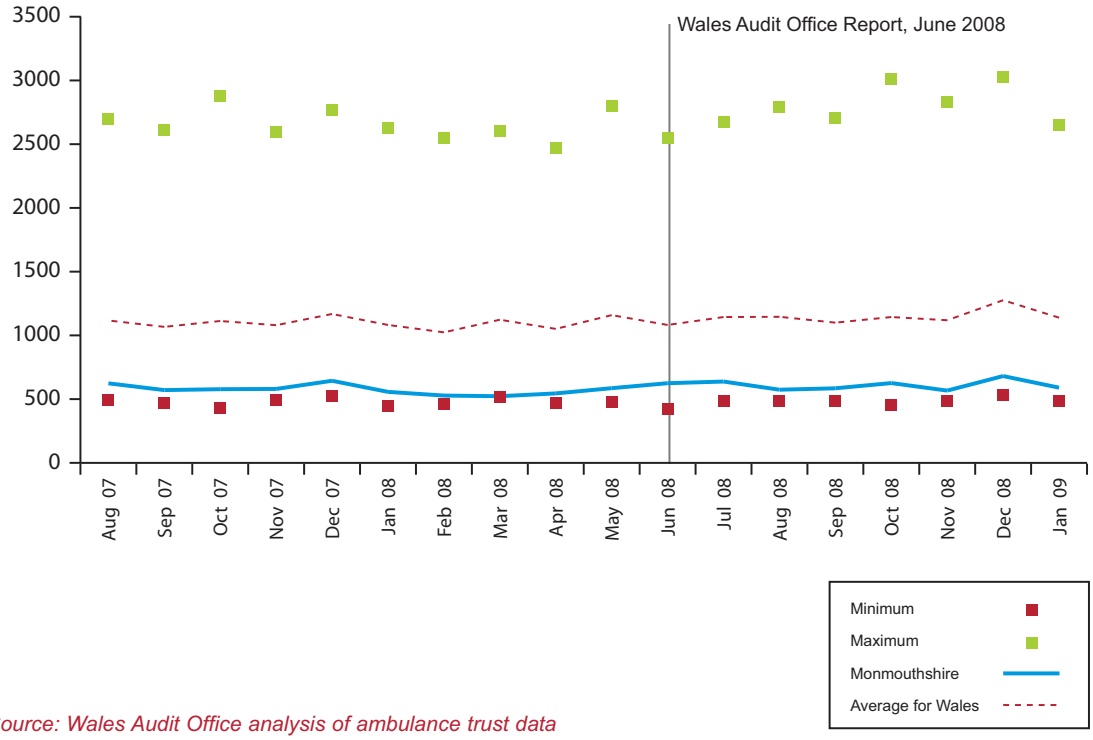
Monmouthshire

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



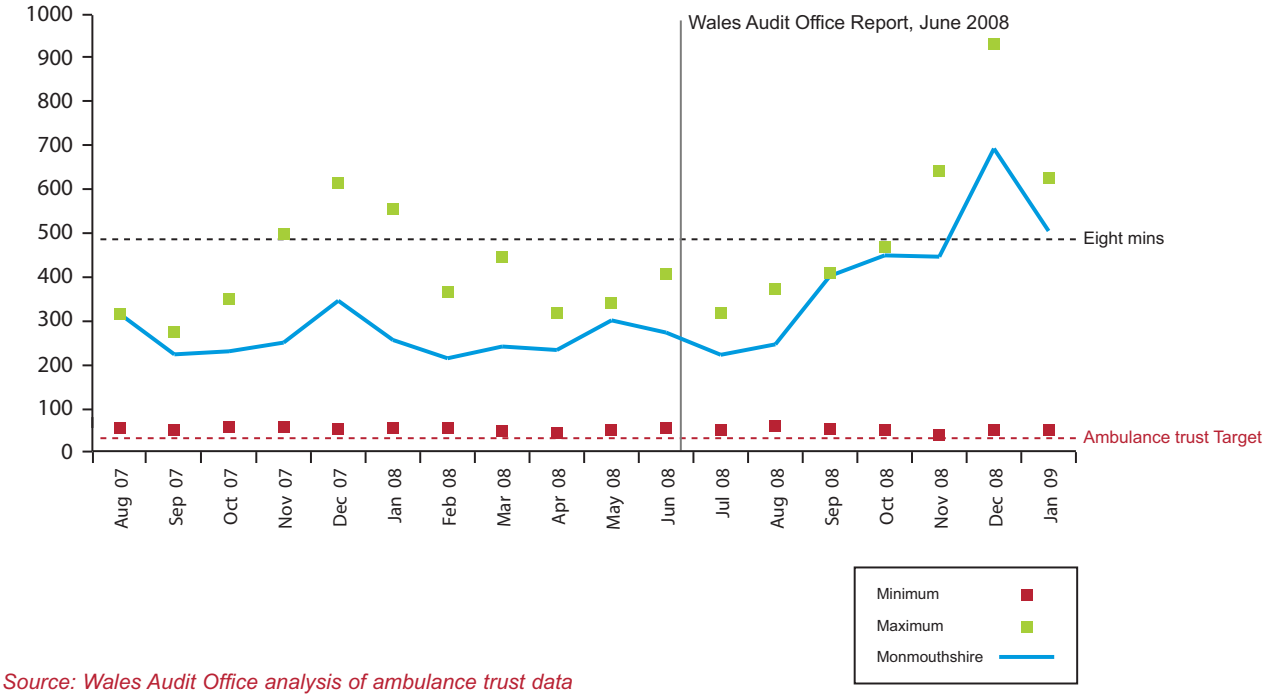
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

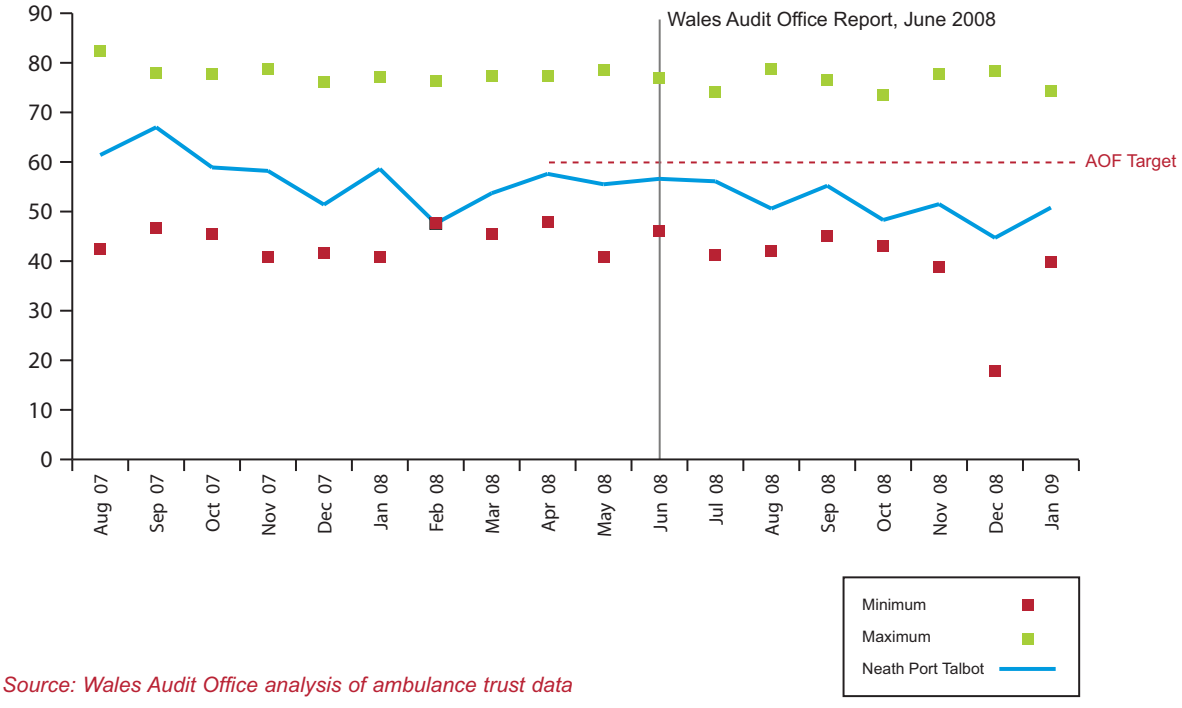
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

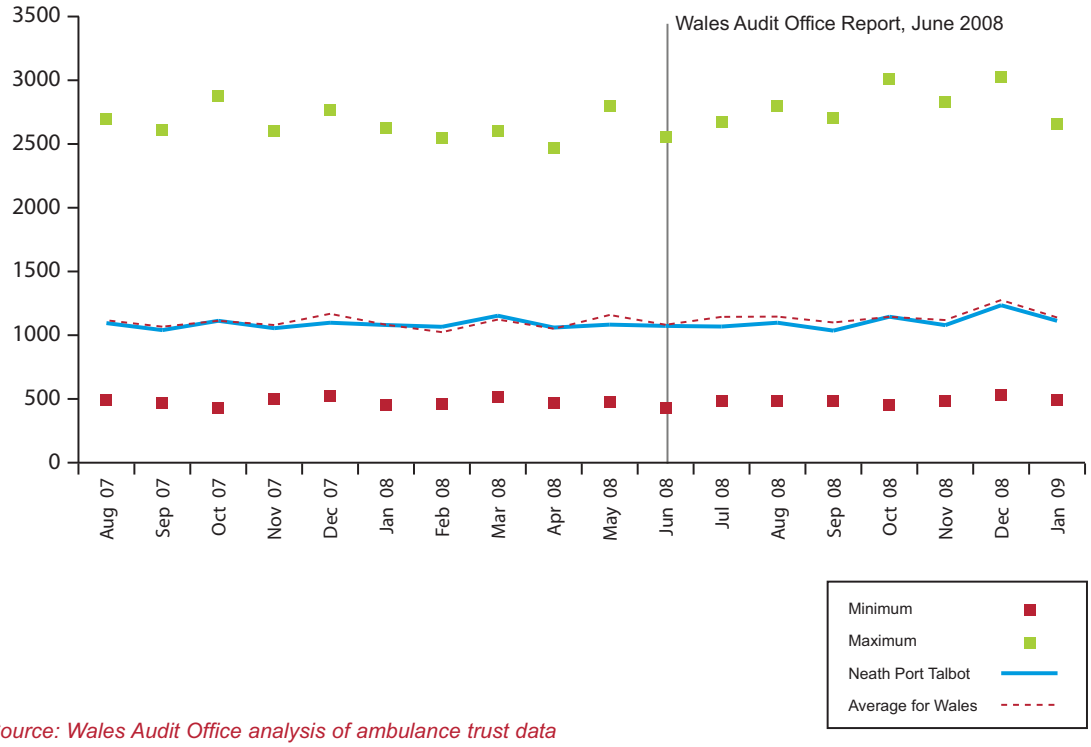
Neath Port Talbot

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



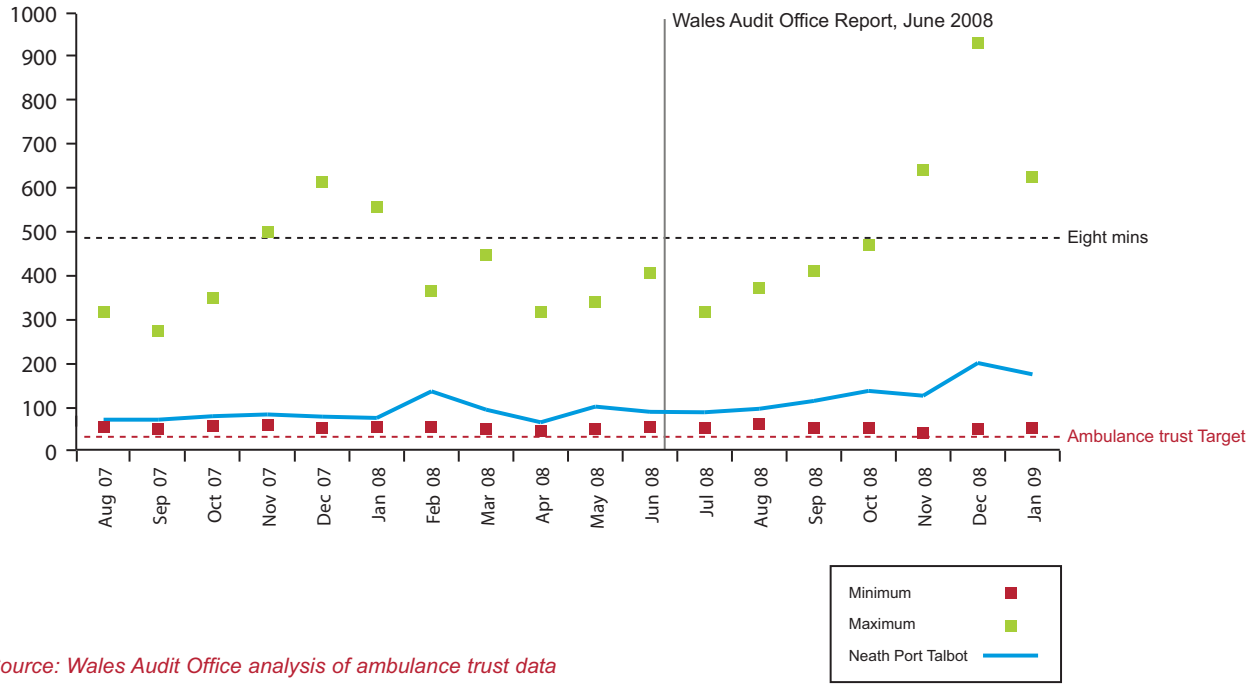
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

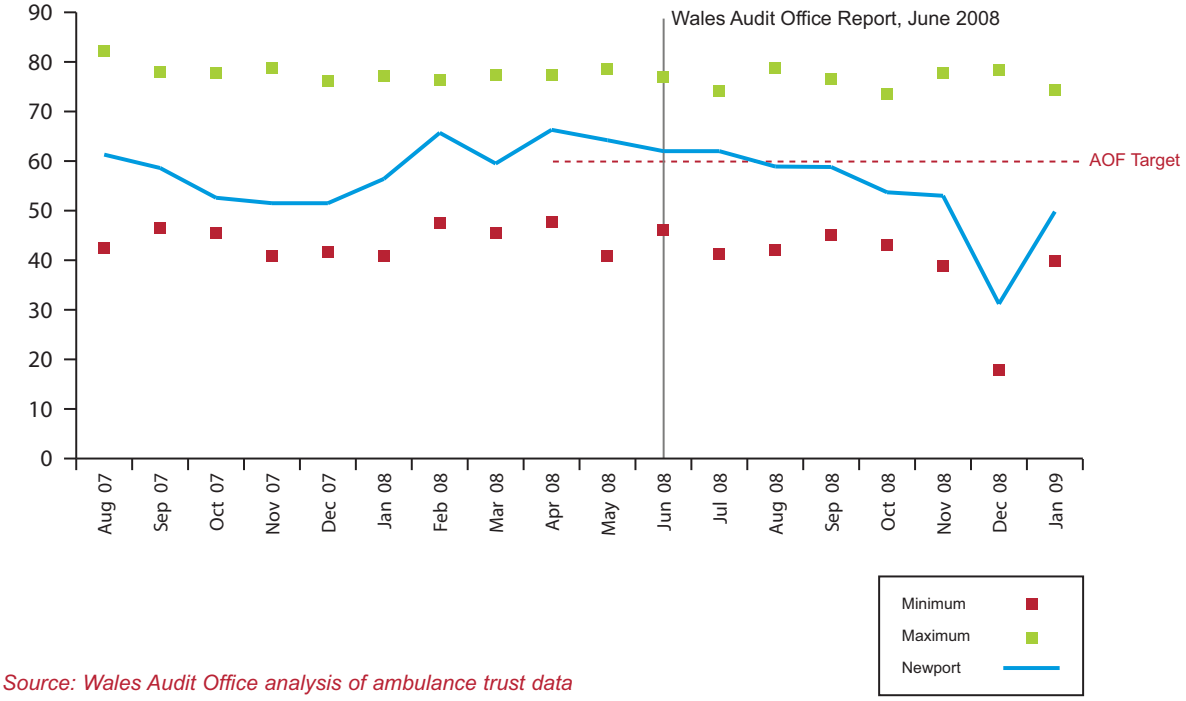
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

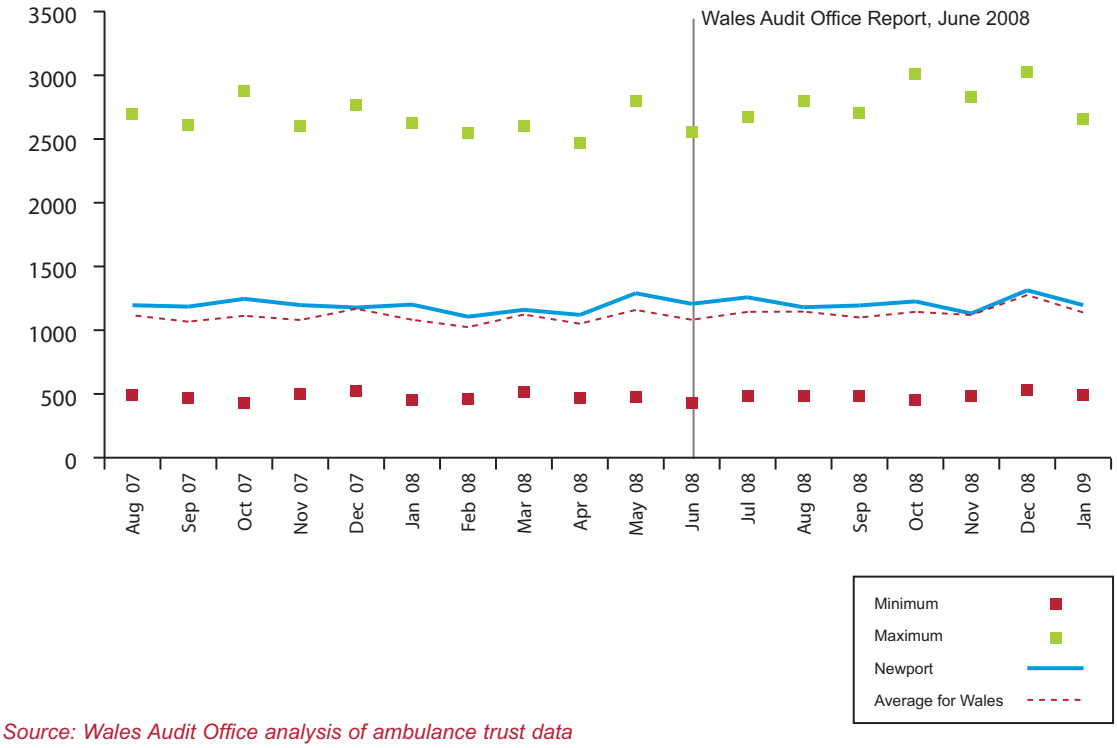
Newport

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



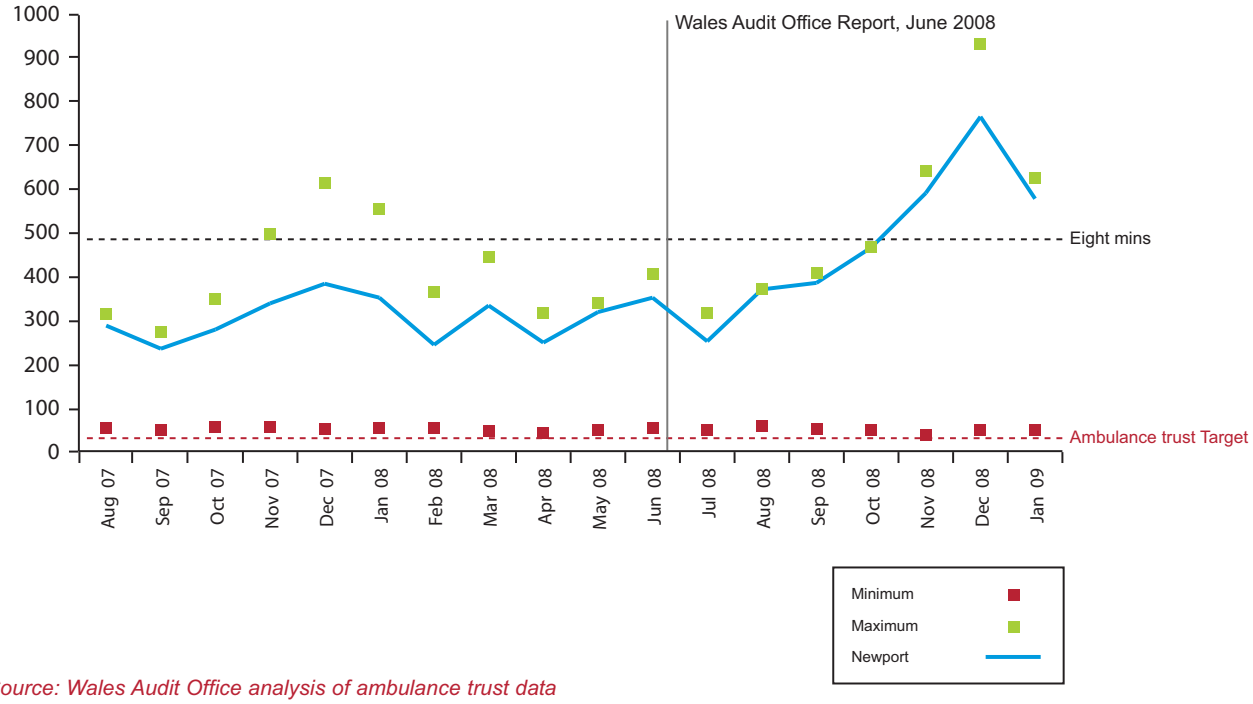
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

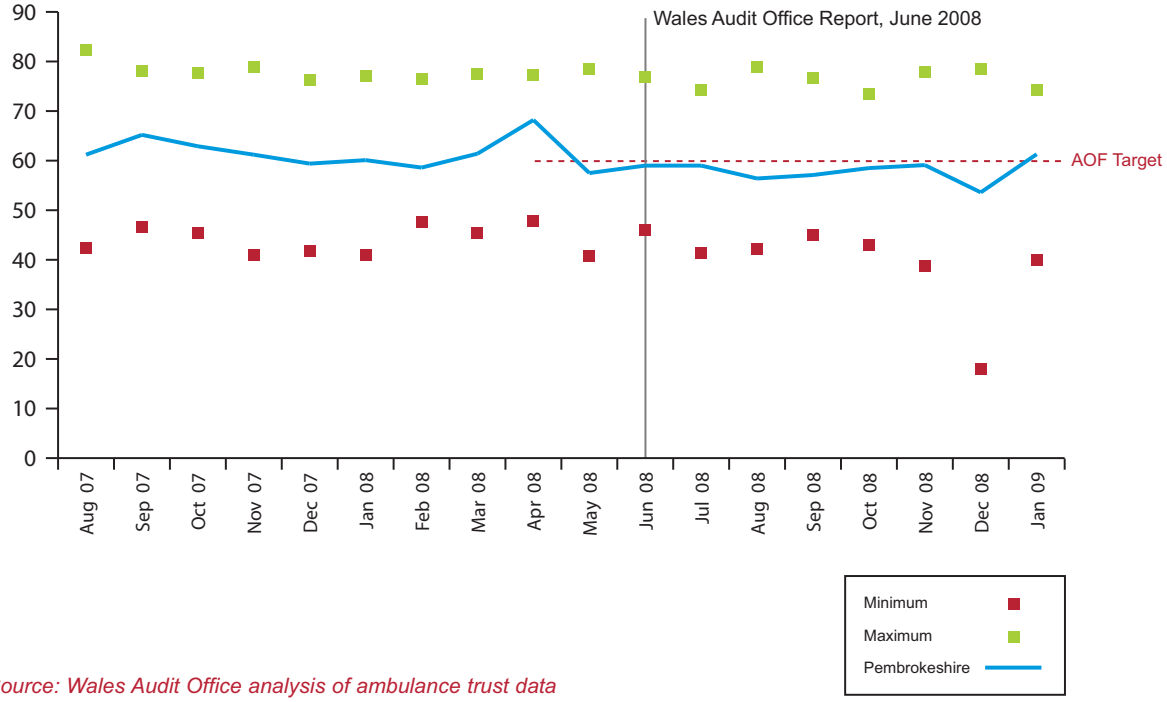
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

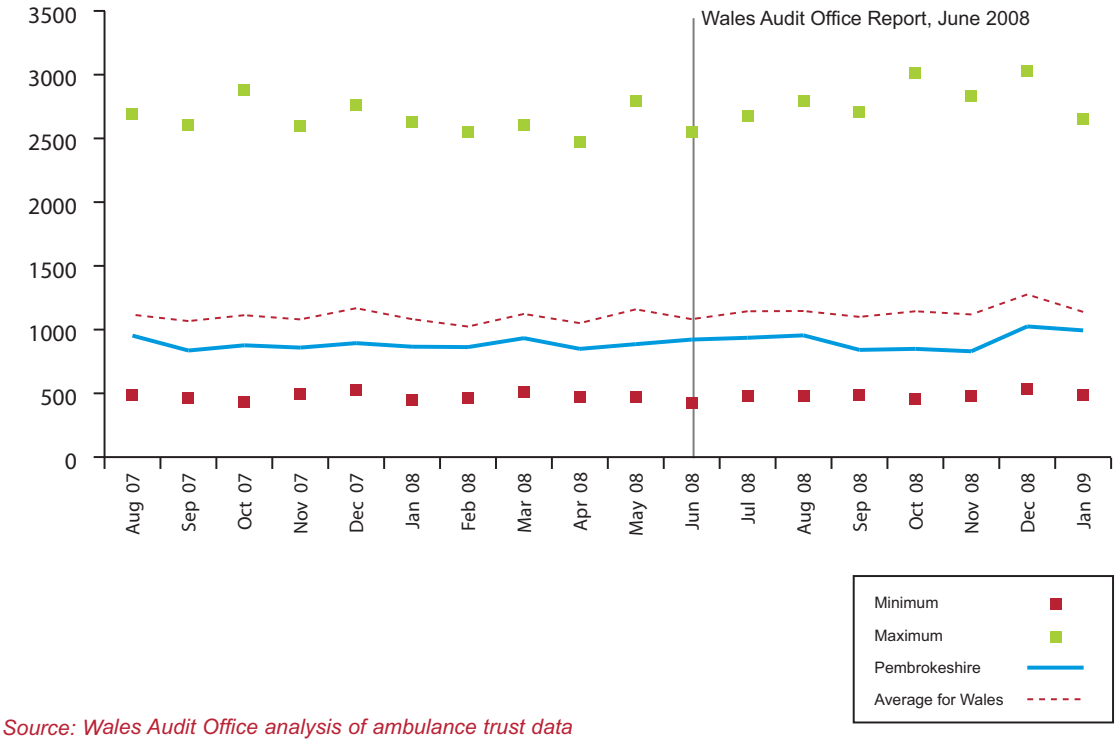
Pembrokeshire

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



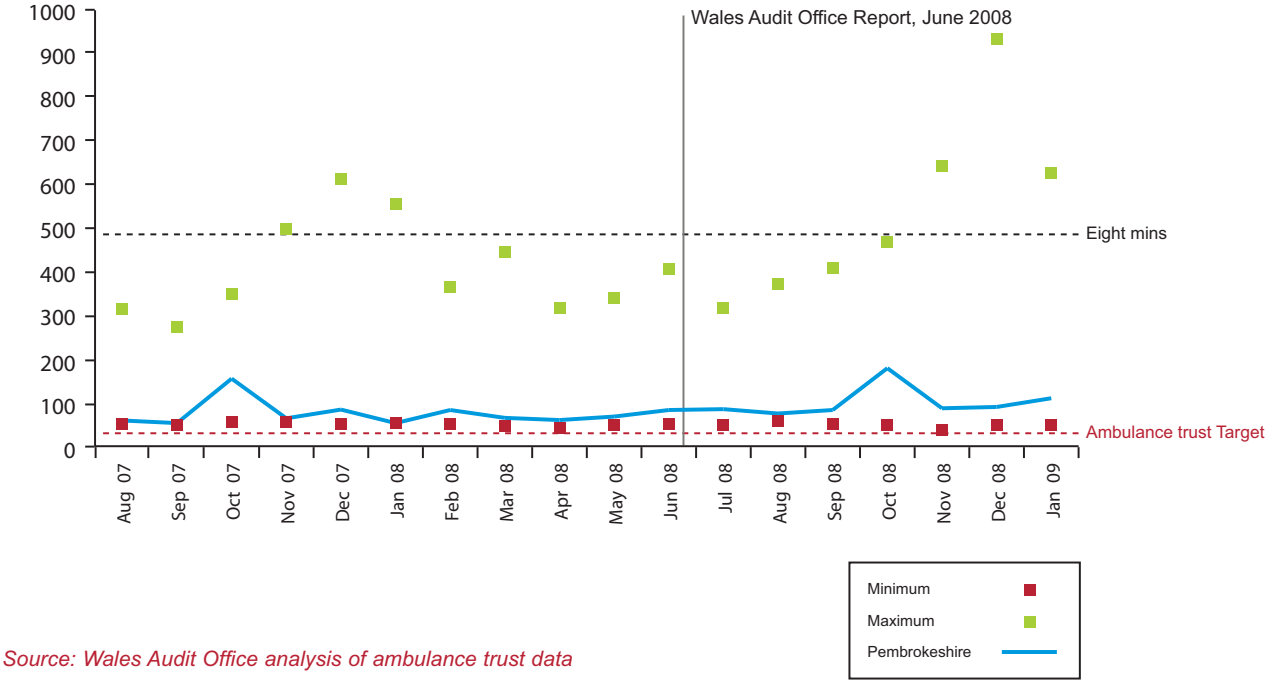
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

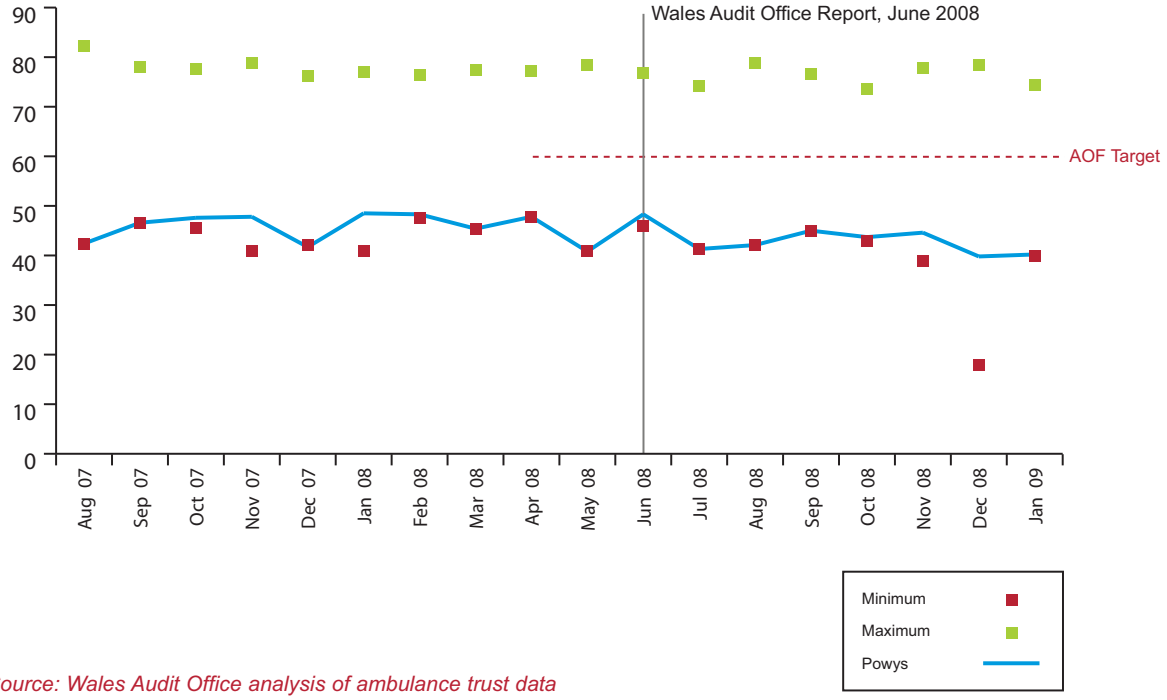
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

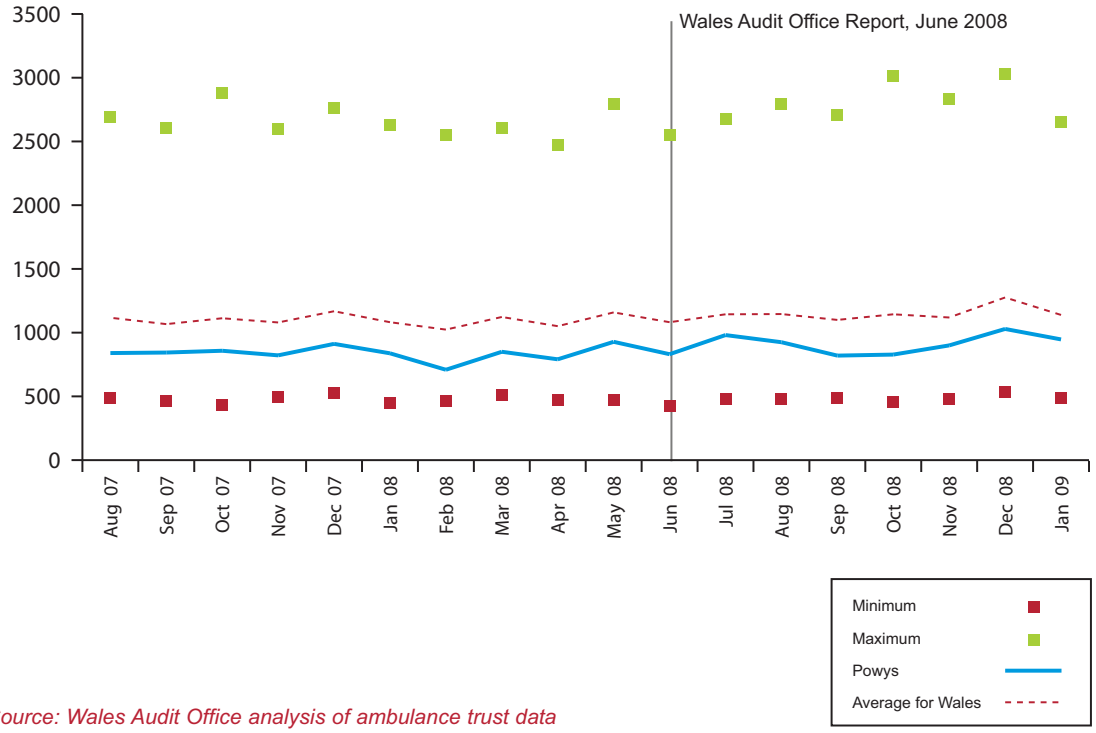
Powys

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



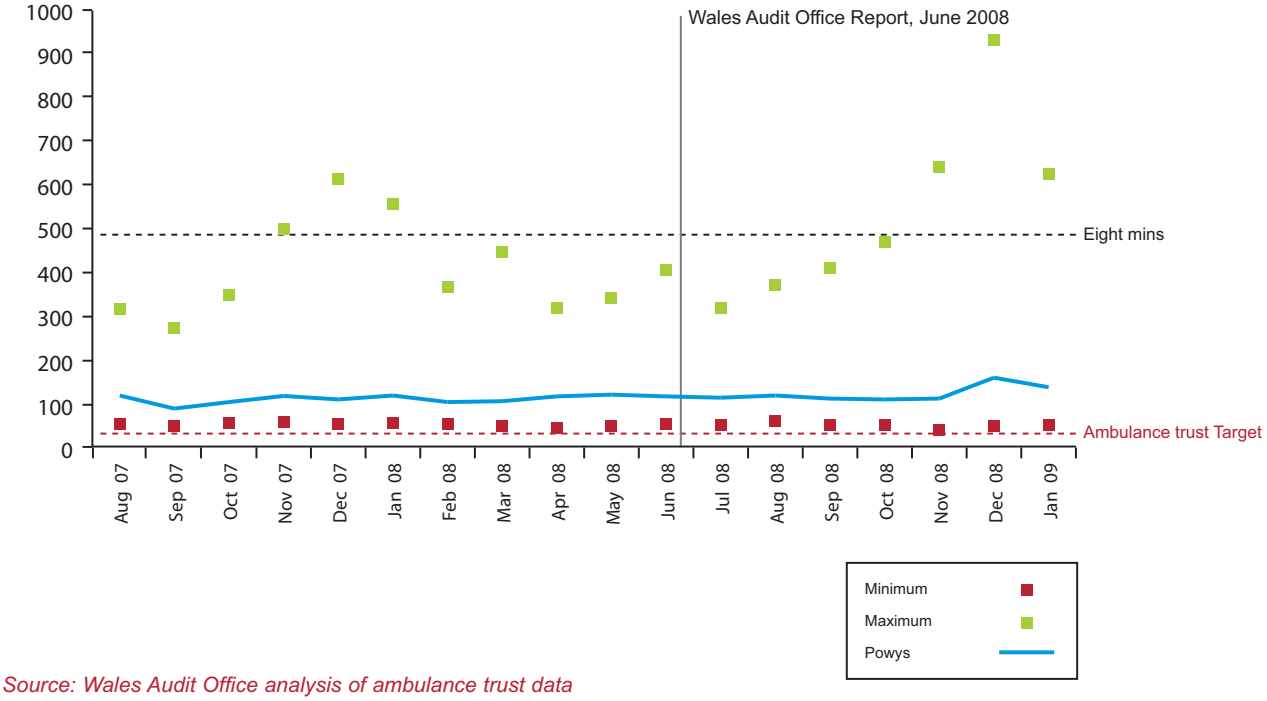
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

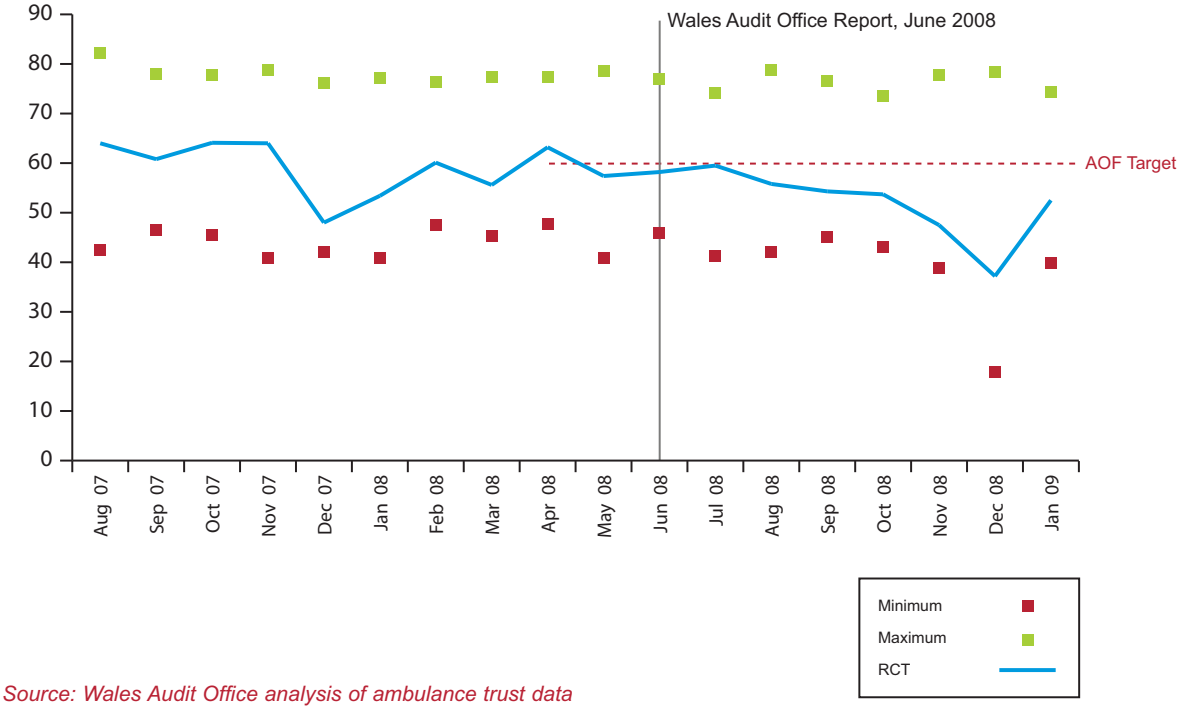
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

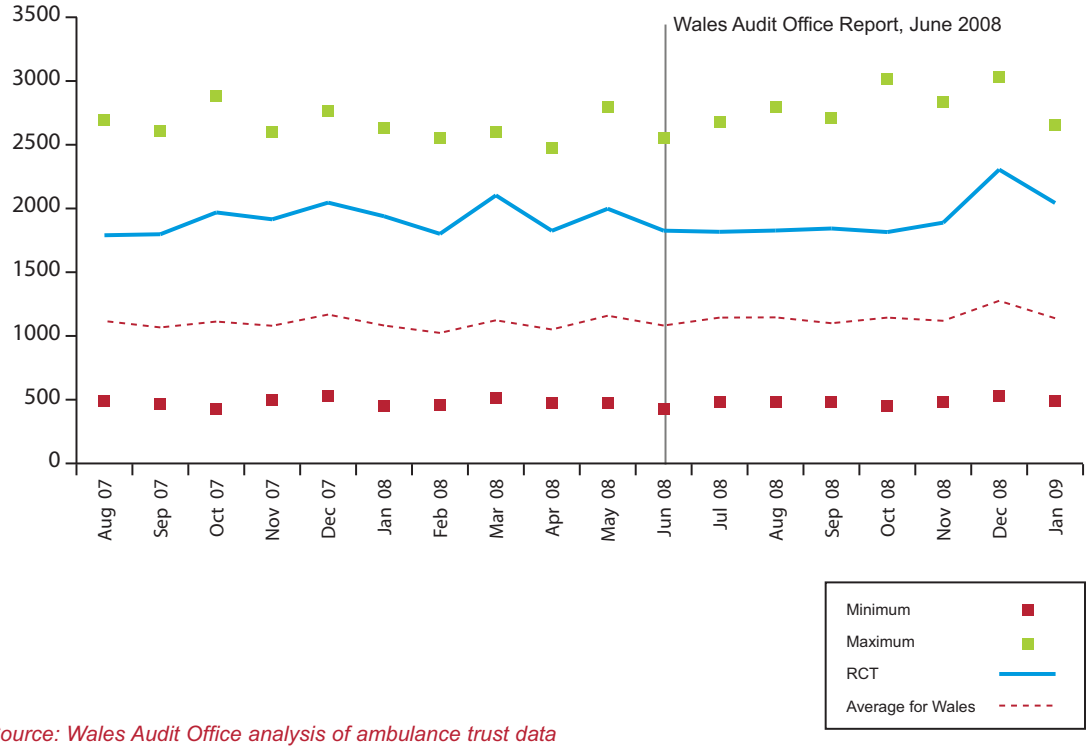
Rhondda Cynon Taf

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



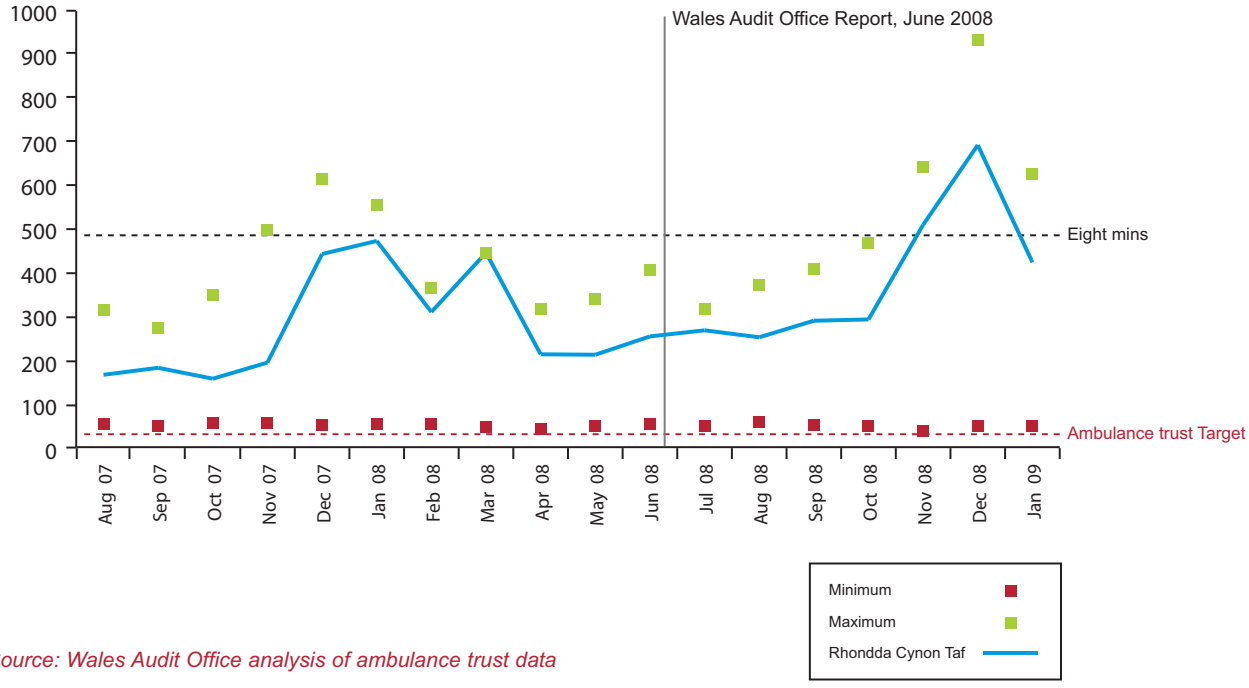
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

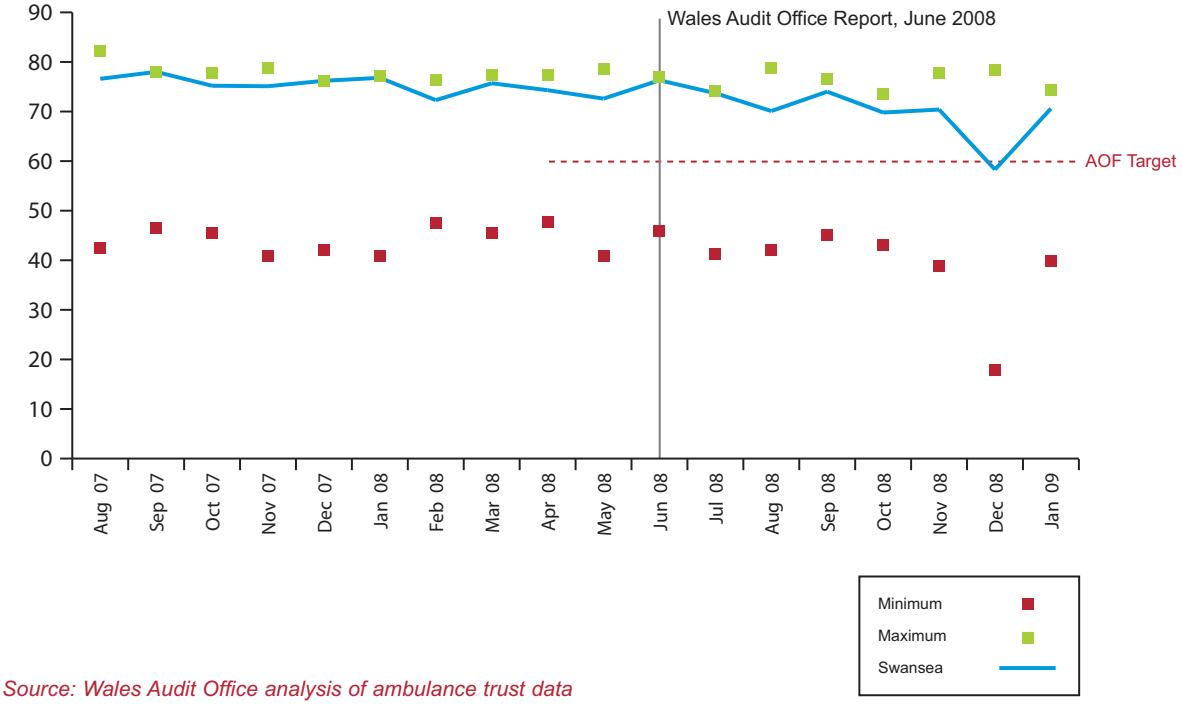
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

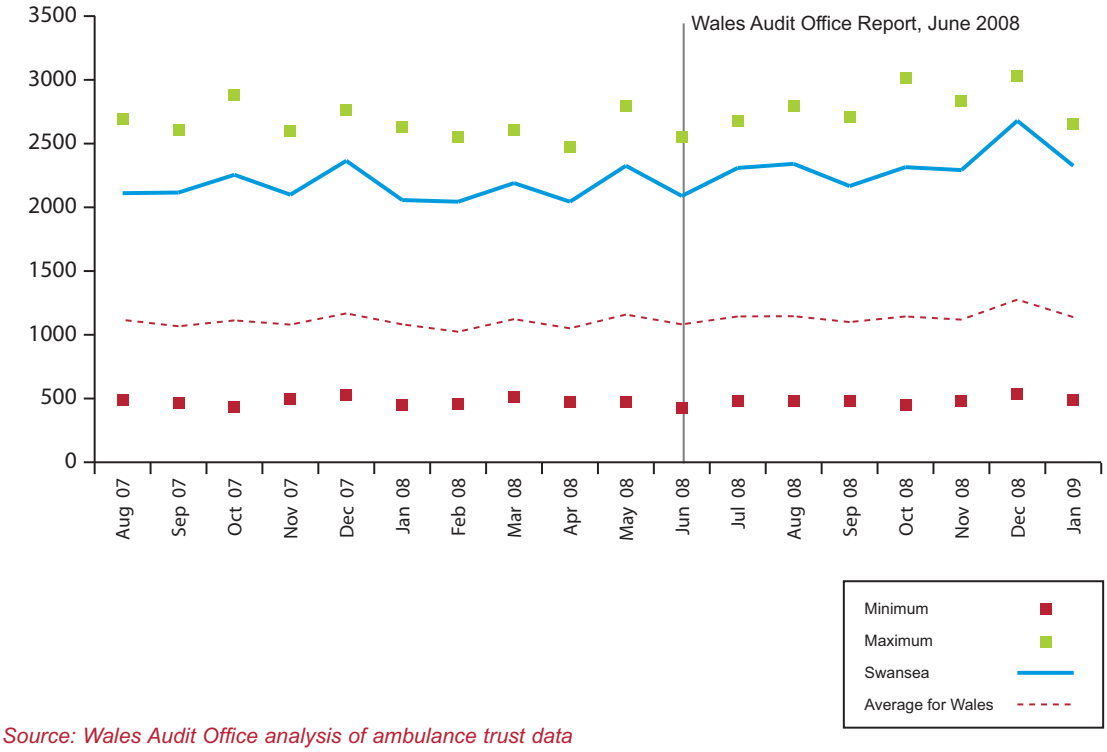
Swansea

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



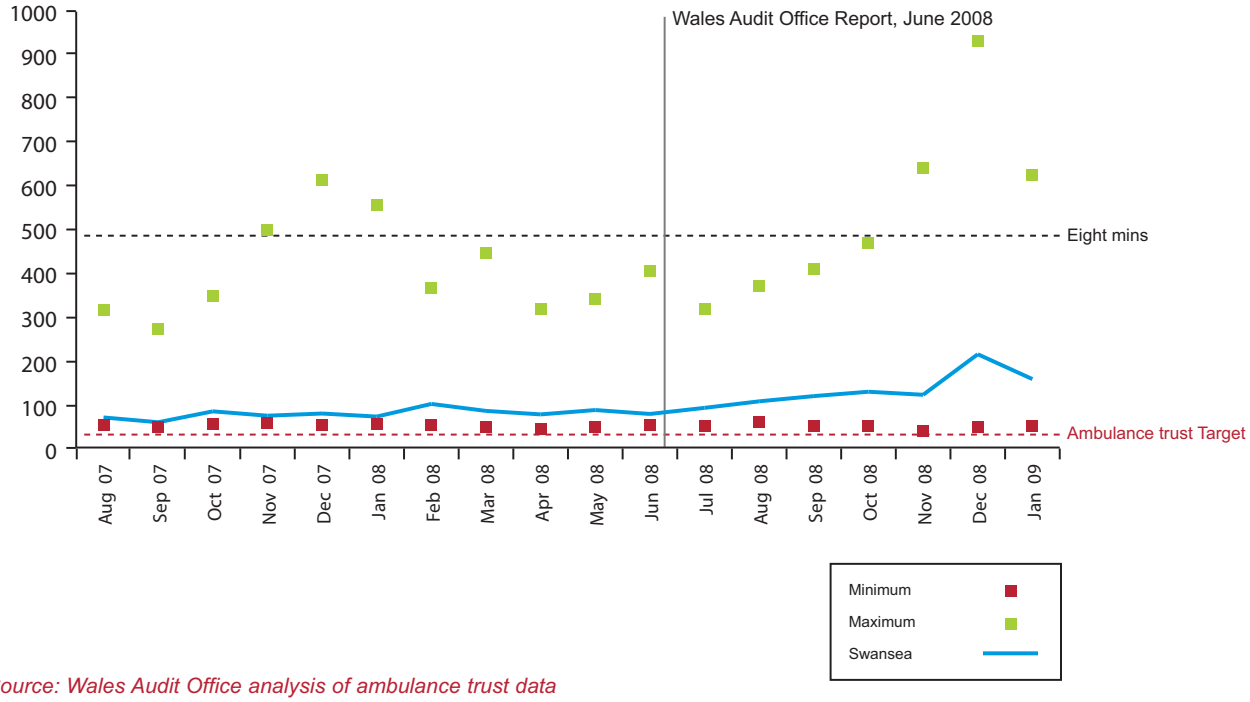
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

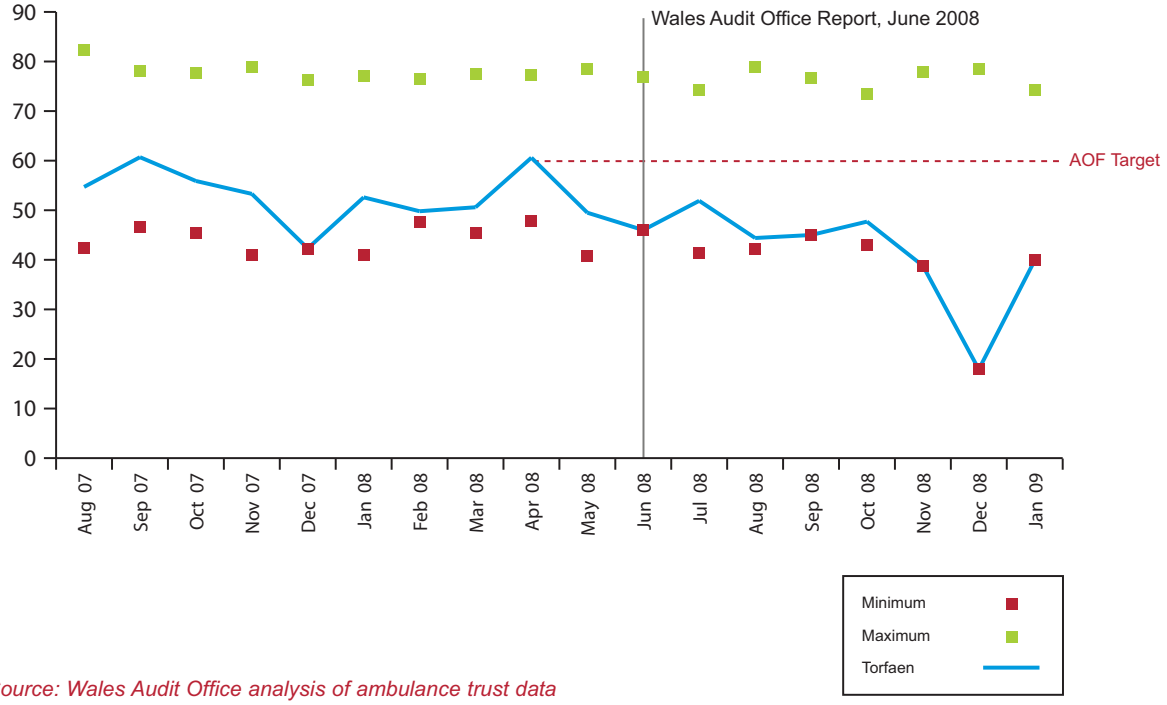
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

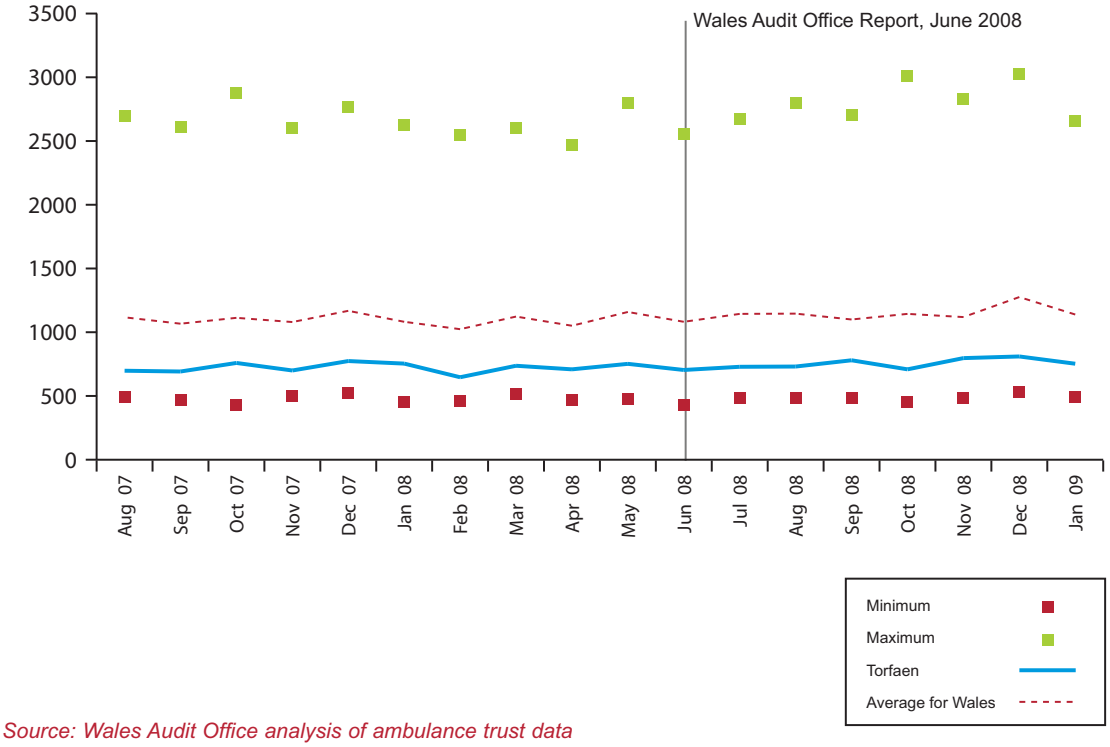
Torfaen

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



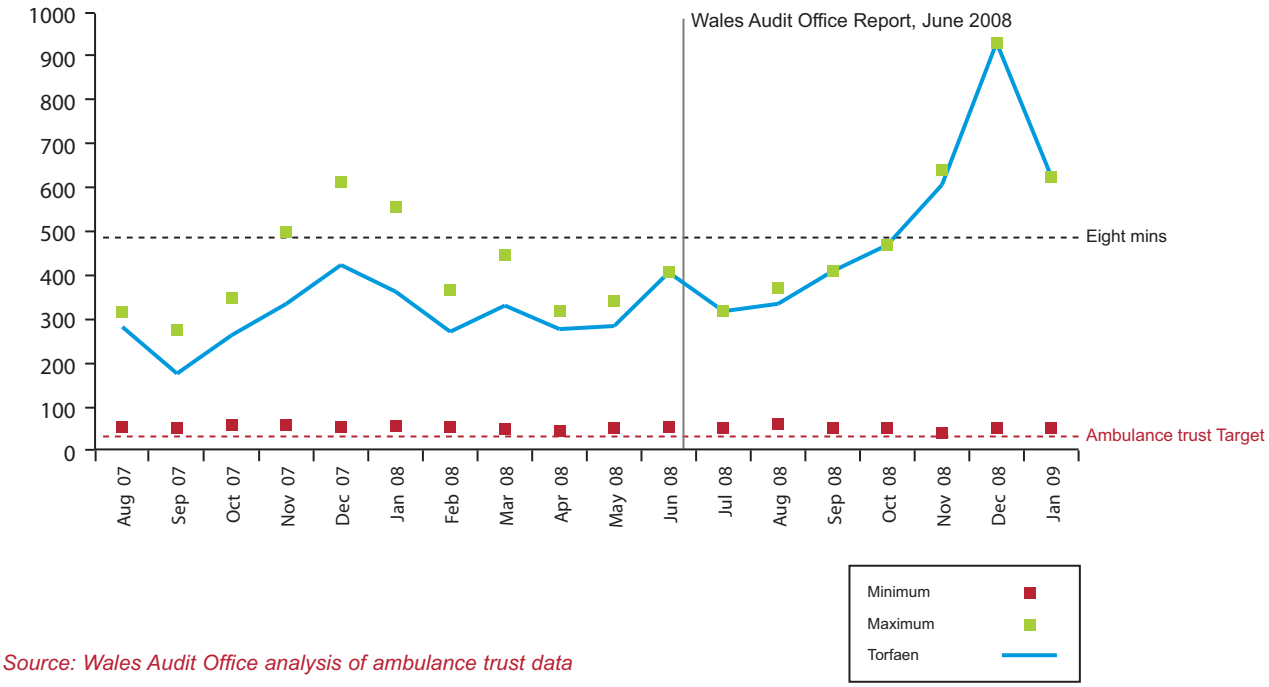
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

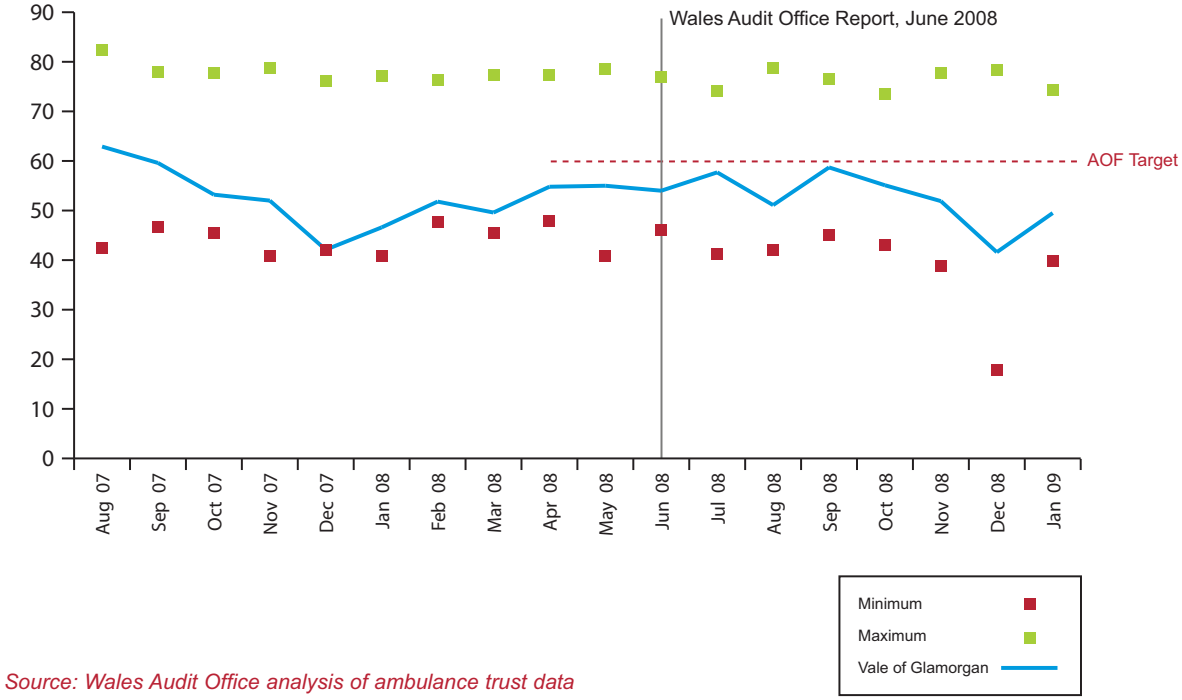
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

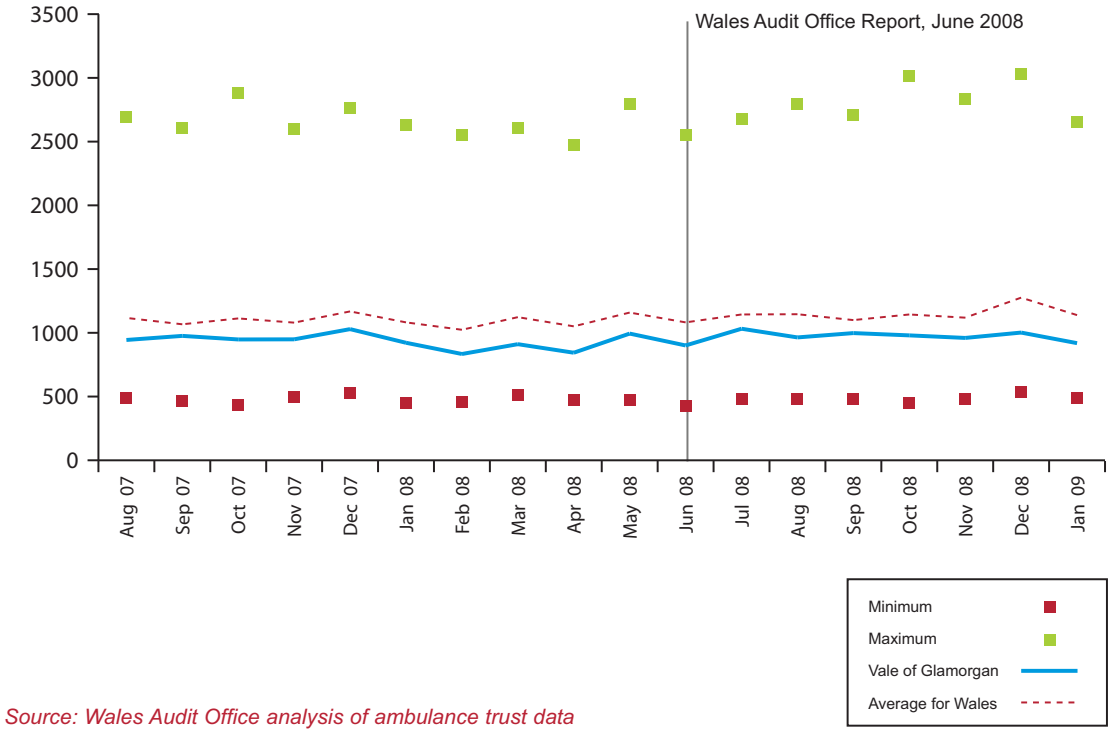
Vale of Glamorgan

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



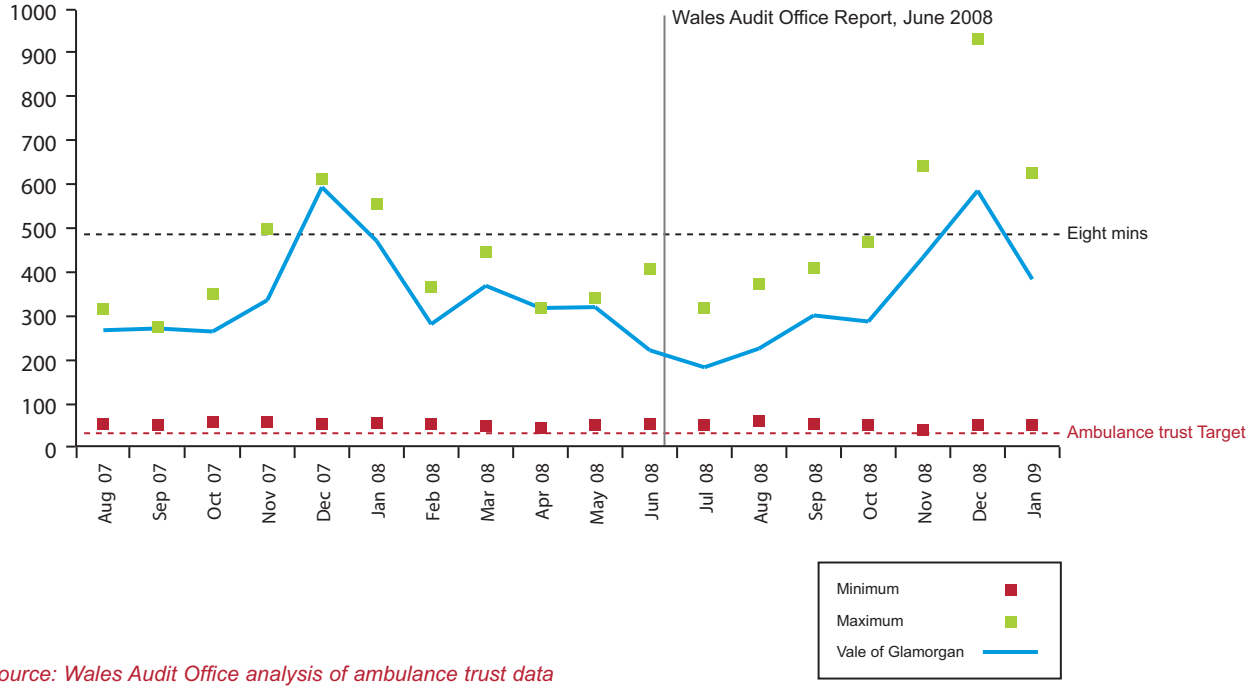
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

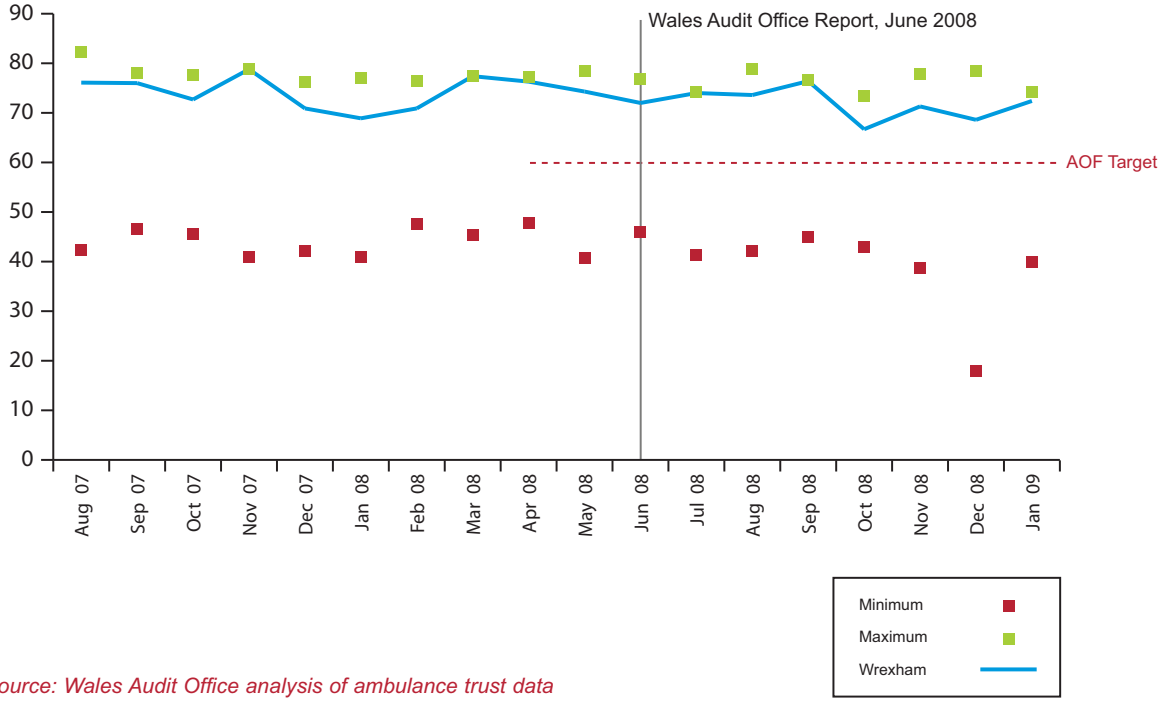
Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

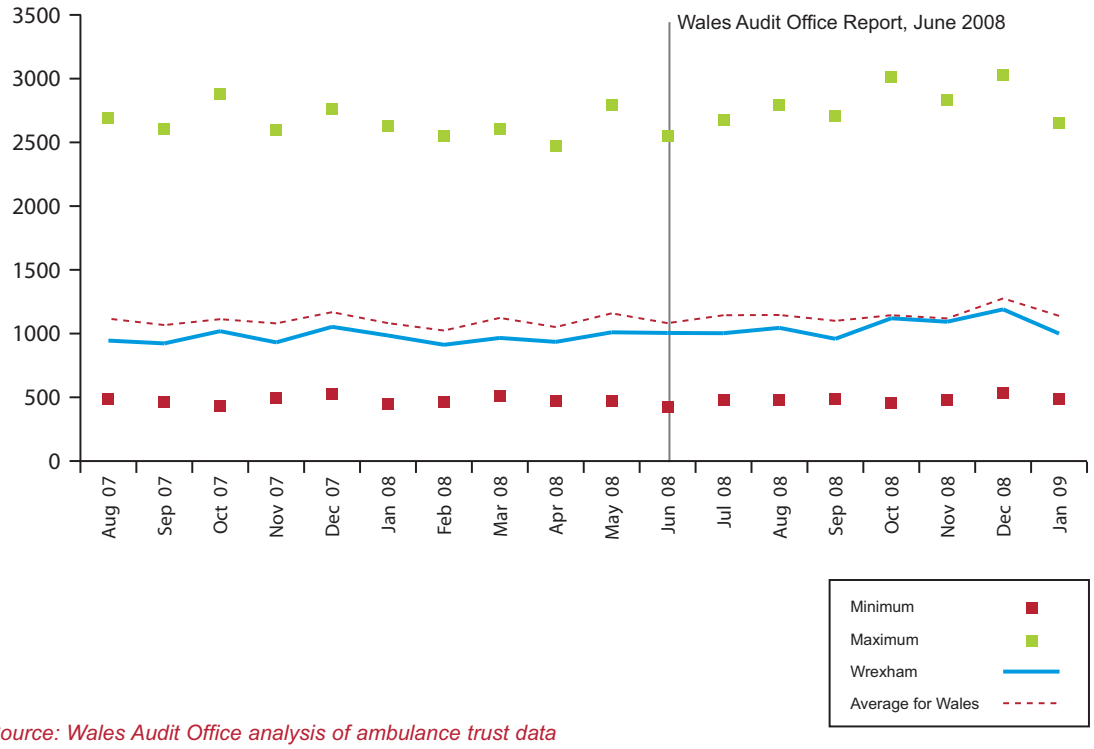
Wrexham

Percentage of Category 'A' incidents receiving a response within eight minutes in each Local Health Board area



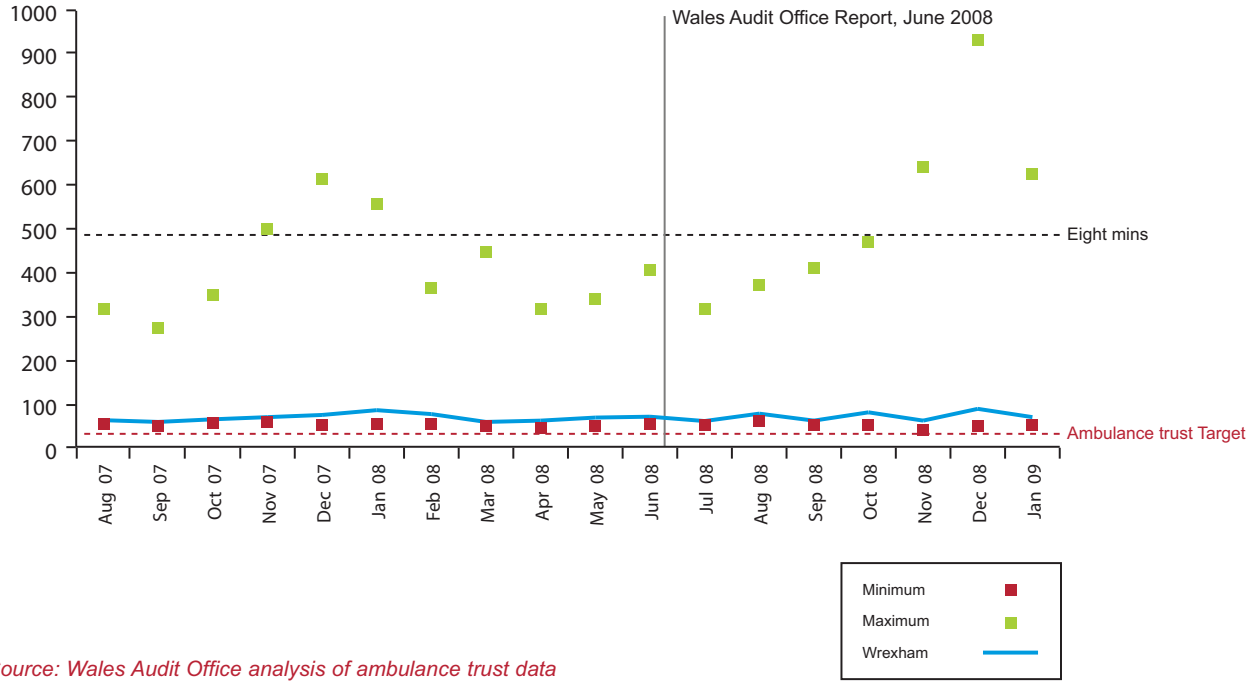
Source: Wales Audit Office analysis of ambulance trust data

Number of responses to Category 'A' emergency incidents



Source: Wales Audit Office analysis of ambulance trust data

Average monthly time taken (in seconds) from Verification of call to Allocation of emergency response to Category 'A' incidents



Source: Wales Audit Office analysis of ambulance trust data

Appendix 5 - Suite of reports we will produce on the unscheduled care system

1 Appendix 5 sets out the suite of reports we plan to produce on specific aspects of the unscheduled care system.

Module	Main question	Estimated publication
Patient handovers at hospital emergency departments	Is the handover of patients by ambulance crews to hospital emergency departments being managed effectively while safeguarding patient care?	Spring
NHS Direct	Is NHS Direct Wales a valuable part of the unscheduled care system in Wales?	Summer
Out-of-hours services	Are out-of-hours services contributing effectively to the system of unscheduled care?	Autumn
Whole systems module	Does the unscheduled care system in Wales function effectively from the citizen's perspective?	Autumn