

A Strategic Review of Welsh Ambulance Services

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Foreword

The Welsh Ambulance Services NHS Trust (WAST) has come under significant and frequent scrutiny since its establishment as a national organisation in 1998.

There has been concern about the way the Trust is funded and managed, and the impact this may have had on the ability to meet performance targets set by the Welsh Government.

The former Minister for Health, Social Services commissioned this Review to establish where improvements can be made to deliver high quality ambulance services, within the context of NHS Wales' strategic direction.

This is a strategic Review focusing on the wider challenges facing the ambulance service. The Review focuses on the ambulance service but recognises its place within a whole system approach to the delivery of care.

Ambulance services are one part of health and social care and, as such, they are just as much impacted upon by that system as they themselves impact upon it. The whole of the Unscheduled Care System is under very severe pressure affecting the staff who deliver, and patients who receive health care services. While the recommendations within this Review aim to help with this, they have to be considered together with other urgently required measures.

The Trust and NHS Wales in general are facing significant challenges notably in the increasing demand for health and social care services: an ageing population who have a diverse range of needs; public expectations; increasing costs of technology; and a challenging financial position.

WAST has been the subject of many Reviews, possibly more than any other part of NHS Wales, and this in itself has contributed to the issues the organisation faces. I was conscious that this work was seen by some as "yet another Review" creating anxiety and uncertainty and with little chance of significant improvements for patients. I feel strongly that this Review should result in decisive actions and a collective commitment to allow the decisions and changes that flow from them to mature.

I would like to thank the Review Team who supported me in undertaking this work alongside their other duties in what has been a very busy and challenging time. I would also like to thank everyone who took time to talk to us in interviews or focus groups. There are always more people we would like to have spoken to during the Review but I hope that we have been as inclusive as possible.

Finally I would like to pay tribute particularly to the hard work of the staff of the ambulance service, who work day in day out to deliver services to the people of Wales. We need to create an environment in which they can provide services of the highest quality resulting in the best outcomes for patients. I hope that this Review will help with achieving that.



Professor Siobhan McClelland
Review Chair

Glossary of Terms

A

A&E – Accident and Emergency
AED – Automatic External
Defibrillator

C

CAD – Computer Aided Despatch

E

EMS – Emergency Medical Services

F

FAST – Face. Arms. Speech. Time.

G

GP – General Practitioner

H

HCW – Health Commission Wales

L

LHBs – Local Health Boards

N

NHSDW – NHS Direct Wales
NIAS - Northern Ireland Ambulance
Service

O

OOH - Out of Hours

P

PCS – Patient Care Services

R

ROSC – Return of Spontaneous
Circulation
RRV – Rapid Response Vehicle

S

SHA – Strategic Health Authority
SLA – Service Level Agreement
STEMI – ST Elevated Myocardial
Infarction

U

USC – Unscheduled Care

W

WAO - Wales Audit Office
WAST - Welsh Ambulance Services
NHS Trust
WHSC – Welsh Health Specialist
Services Committee

Executive Summary

Following longstanding concern about the delivery of ambulance services in Wales, the former Minister for Health and Social Services announced in November 2012 that a Review would commence in January 2013. The Review was tasked with making recommendations to enable high quality and sustainable ambulance services for the people of Wales.

To do this, the Review has focused on appraising the effectiveness of current funding, accountability and governance arrangements, and identifying resilient options for the future strategic structure for ambulance services.

The efficacy of current targets and the performance of ambulance services in Wales were also assessed, alongside considerations of the management of WAST as an organisation.

The Review was conducted over a short period of time and took a targeted and pragmatic approach to gathering and analysing evidence. A rapid literature review was conducted to analyse best practice within the UK and internationally, and analysis of previous Reviews of ambulance services in Wales was undertaken, including progress against the recommendations of those Reviews.

Evidence was also gathered from engagement with a wide range of stakeholders, including WAST staff, political representatives and Union members, and evidence was thematically analysed to generate understandings of the key issues facing the ambulance service.

This report contains 12 recommendations that invoke the requirement for an agreed vision for ambulance services, and identify the key challenges which need to be mitigated.

It sets out a range of suggestions which will enable progression towards delivery of robustly managed, sustainable ambulance services which play a central role in an integrated, whole system approach to the delivery of unscheduled care.

The ambulance service has probably been reviewed more than any other part of NHS Wales, and in part this constant cycle of Reviews has created some of the problems it seeks to resolve.

It has also been difficult to establish the extent to which the recommendations from previous reviews have been fully enacted and is, therefore, imperative that the cycle of review upon review is broken to allow the future model for the delivery of ambulance services to mature. Ultimately, any future recommendations need to be accompanied by a clearly measurable work programme.

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Articulating and agreeing a clear **vision** for ambulance services is the key to any recommendations and future developments which may commence as a result of this Review. Everything else, including how services are planned, delivered and funded should flow from this vision.

Further, ambulance services will play a key role in the shaping of future models of service delivery, and it is vital that they are considered as part of the wider context of any plans for service change for NHS Wales.

The vision for Emergency Medical Services (EMS) - that is emergency ambulance response service - is for the delivery of a robust, **clinical** service that is a fundamental and embedded component of the wider unscheduled care system.

Aligned to an agreed vision for the EMS element of ambulance services, is the future of Patient Care Services (PCS), which deliver planned, non-emergency transport for patients to outpatient, day treatment and other services at NHS Wales hospitals.

PCS should be locally responsive, cost effective and provided on clear eligibility and accessibility criteria, and similarly to EMS, should be seen as a core part of service change proposals. They should also be considered a high priority for whoever is responsible for their delivery.

This Review should be read in conjunction with the Griffiths *Review of Non Emergency Patient Transport in Wales* (2010), and the three-year national programme of non-emergency patient transport pilots. Decisions regarding future direction for PCS should be linked to the outcomes of these pilots.

The Review found a fundamental problem with the current accountability and governance arrangements for ambulance services in Wales which are multiple, complex and lacking in clarity and transparency. This needs to be addressed to create arrangements which are simple, clear and aligned to the agreed vision for service delivery.

Current arrangements require strategic commissioning but the mechanics and levers for achieving this, such as service specifications, Service Level Agreements (SLAs) and contract management, are not being used. Moreover, there is limited capacity and capability to undertake effective commissioning within NHS Wales.

The structural, organisational and systematic problems experienced by WAST make it difficult to establish whether current funding is sufficient or used as effectively and efficiently as it might be. There are, however, some particular problems with funding for capital development. Any future funding formula should be clearly linked to the achievement of the vision for the delivery of ambulance services.

Previous Reviews and actions have placed significant focus on changes to the detail of organisation and management of ambulance services, and the number of changes WAST has experienced at the most senior management levels in particular. Despite

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this many of the problems previously identified remain. This suggests a much more fundamental problem with the organisation itself and how the system it has operated within has impacted on it. This is a difficult and complex issue which does, however, need to be clearly addressed.

There are a number of structural options which could address the current problems which all have advantages and disadvantages and this report sets out three potential strategic options to improve on existing arrangements: a 'Strategic Health Board' model, a LHB Commissioning Model and an LHB Delivery and Management Model.

These options should be assessed against a series of core guiding principles to ensure form follows function. Any future direction of travel should be firmly embedded in an agreed vision for the delivery of ambulance services within the wider health care system.

There is no 'magic bullet' that will resolve the structural difficulties. However, it is important to make a clear decision on the most suitable model, co-create the development of the details of the model with key stakeholders, and implement and allow the arrangements to mature.

Further, there are significant opportunities for NHS Wales to build on existing, alternative care pathways to reduce pressure on overburdened Accident & Emergency (A&E) departments, and ensure patients receive the most appropriate care, from the right clinician, at the right time and in the right place.

Aligned to the development of care pathways is the need for a skilled workforce to make appropriate decisions. To this end, there is a general consensus that the development of a clinical service requires an up skilled workforce with greater levels of autonomy and clinical decision making. It also requires a high level of clinical understanding, support and leadership from within the ambulance service and from other clinicians working in unscheduled and primary care.

The national response time target, which requires 65% of patients categorised as 'life-threatening' to receive a response within 8 minutes, is currently the primary focus for performance management. It is, however, a very limited way of judging and incentivising the performance of ambulance services. Speed is particularly important for some conditions such as cardiac arrest but there is little clinical evidence to support the blanket 8 minute national target.

There is a general consensus that a more intelligent suite of targets and standards which incentivise change and provide a greater focus on patient experience and outcomes should be developed, and these should form part of a range of measures across the unscheduled care system.

Accurate and easily accessible data is fundamental to facilitating rigorous performance management and understanding demand and there is a clear lack of integrated data across the patient journey. Improving data systems and information

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on patient outcomes should be progressed as a priority to support the delivery of emergency ambulance services within a whole system context.

Further, there is limited useful comparative information available to assess performance, quality of care, efficiency and effectiveness, and although WAST has plans in place to ensure more regular and accurate benchmarking, this mechanism needs to be widened to include other comparison measures.

Given the common challenges faced, additional comparative and collaborative research across the UK and internationally should also be supported and encouraged.

Finally, regardless of the future strategic direction and structure of ambulance service delivery, it is imperative that resilient and universally agreed interim arrangements are put in place during any transitional period, to ensure clinically safe services continue without difficulty.

The review makes a number of key recommendations which should be underpinned by a clearly articulated and commonly agreed vision of the future delivery of ambulance services.

Any changes to the ways in which ambulance services are structured, funded, organised and performance managed should be clearly related to the achievement of that vision.

Recommendation 1

Welsh Government and NHS Wales should agree that Emergency Medical Services (EMS) be operated as a clinical service and embedded in the unscheduled care system. This will need to be a key part of the service change agenda.

Further, Patient Care Services (PCS) should be locally responsive, cost effective and provided on clear eligibility and accessibility criteria.

Recommendation 2

Work should begin to disaggregate PCS from the EMS element of Welsh ambulance service delivery, with PCS becoming a routine function of Local Health Boards' (LHBs) business.

Consideration should be given to providing a form of national co-ordination to ensure the resilience and benchmarking of effective PCS across Wales.

Recommendation 3

The future delivery model for NHS Direct Wales (NHSDW) should be further considered within the context of the options for changes in structure and accountability for the ambulance service.

The wider context of the development of the 111 non-emergency number and other advice services also needs to be considered.

Recommendation 4

The fundamental problem with the non-alignment of current accountability, funding and governance arrangements for ambulance services in Wales needs to be addressed.

There are also deep rooted problems with WAST itself and issues also persist in WAST's relationship with partners. Both of these issues need to be addressed.

Recommendation 5

Three main structural options should be considered for the future delivery of EMS: a 'Strategic Health Board' Model, an LHB Commissioning Model and an LHB Management and Delivery Model. Options should be assessed against a series of core guiding principles to ensure form follows function and a clear decision made on the future direction of travel.

Recommendation 6

Robust workforce planning should be put in place to deliver an up skilled and modernised EMS workforce enabling greater levels of autonomy and clinical decision making.

This should be developed in partnership with the NHS, Higher Education Institutions and Regulatory Organisations.

Recommendation 7

Care pathways and protocols should be further developed across the unscheduled care system to allow patients to be treated at the right time and in the right place and reduce unnecessary pressure on A&E. There are considerable benefits associated with alternative care pathways - not least for patients - and all parties should work together to accelerate their development as a priority.

Recommendation 8

The Welsh Government should consider moving from a primary focus on the 8 minute response time standard to a more intelligent suite of targets and standards which work across the whole unscheduled care system.

This should include a greater emphasis on patient outcomes and experience.

The Welsh Government's recently formed Measures Group could provide an opportunity to establish this suite of measures, recognising the co-dependencies across the system.

Recommendation 9

Consideration should be given to developing speed based standards in areas where the clinical evidence demonstrates a clear impact on outcomes, for example formalising the standard for 4 minute responses to calls categorised as cardiac arrest and publishing it on a monthly basis to encourage improvement.

Consideration should also be given to developing a wider threshold analysis of the 8 minute target.

Recommendation 10

Consideration should be given to introducing incentive based targets, for example a non-conveyance or appropriate rate target to incentivise greater development and use of alternative pathways, and reduction in inappropriate conveyance of patients to A&E.

Recommendation 11

More joined up and granular data is required across the patient journey through primary, community, acute and social care. This could also be taken forward by the Welsh Government Measures Group

Recommendation 12

Consideration should be given to making a clear decision on the future structural model, accompanied by a robust time-bound work plan for taking that forward. This should be taken forward and co-created with key stakeholders.

Welsh Government and NHS Wales should also put resilient interim arrangements in place during any transitional period to ensure clinically safe services continue without difficulty.

Approach

The Review was conducted over a relatively short period of time commencing on 14 January 2013 and concluding on 31 March 2013. The Review was established as a Ministerial Review with governance processes from the Chair of the Review through to the Minister for Health and Social Care. It was led by the Chair, Professor Siobhan McClelland and supported by a Review team drawn predominantly from officials within the Welsh Government Department for Health and Social Services.

The approach to the Review was by necessity highly focused and pragmatic and aimed to be as robust, rigorous and inclusive as possible. Whilst placing the ambulance service within the wider health and particularly unscheduled care context, the Review's focus had to be on the Terms of Reference (see Appendix 1) set by the former Minister for Health and Social Services for the Welsh Government.

A technical document, which includes a compendium of data, detailed stakeholder analysis and further international benchmarking information, is available and can be used to read alongside this report.

A broad methodology was developed and followed for the Review comprising the following components:

Literature Review

A rapid review was conducted of the literature on the provision of ambulance services within the UK and internationally. The primarily web based literature search focused on locating documents that provided practical analysis as opposed to academic discourse.

Given the dynamic nature of the provision of ambulance and health care services, the search focused on documents produced in recent years.

The literature was analysed against the key headings of the Terms of Reference, together with identifying any models of good practice in the strategic provision of ambulance services within the UK and internationally.

A summary of the Literature Review is provided in Section 1 of the Review with a full list of the references provided in Appendix 3.

Analysis of Previous Reviews of the Ambulance Service

WAST has been the subject of a significant number of Reviews, both internal and external, since its inception in 1998. These range from broad Reviews of the service through to more detailed Reviews of operational efficiency and effectiveness.

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Previous Reviews were analysed against the Terms of Reference and the extent to which recommendations from previous Reviews had been acted upon were established, although it was not always easy to find a definitive answer.

The summary of the Review's findings are provided in Part Two of this report and a full list of Reviews considered is set out in Appendix 2. More detailed analysis of previous Reviews can be read in the technical document.

Data Analysis

We analysed ambulance service performance, workforce and financial data and also undertook some comparative analysis of performance although it should be noted that this is limited by data not necessarily being directly comparable (for example in the point at which response times start to be measured).

Whilst this data analysis need to be placed in the wider context of data on demand and performance for unscheduled care, we focused on the data that specifically relates to the ambulance service, and the majority of this data was provided by WAST.

A wider analysis of demand and performance across the unscheduled care system has been undertaken by the Wales Audit Office (WAO) which is due to report to the National Assembly for Wales' Public Accounts Committee in the near future. Their report and this Review can be read as complementary documents.

Importantly, there are limitations in the data available across the whole healthcare system (from primary care through to hospital services), in particular integrated data across the patient journey, which impedes meaningful whole systems analysis.

Stakeholder and WAST Staff Engagement

Stakeholder and staff engagement were seen as integral elements within the Review process and this took place at three levels as outlined below. All stakeholders were interviewed either face-to-face or via the telephone using a semi-structured topic guide in line with the Review's Terms of Reference. This process ensured issues raised by the interviews were relevant to the Review.

A detailed review of potential stakeholders was undertaken with WAST and Welsh Government officials and agreed by the Minister, to ensure that the stakeholders interviewed were representative of the areas they operate in. This process also ensured there was sufficient understanding of the issues and challenges facing a modern day ambulance service. In total 88 stakeholders were interviewed.

Assessing Stakeholders' Influence and Importance

It is important to understand that individuals and groups behave differently in different situations and the impact stakeholders can have on the Review is

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dependent on their relationship to either WAST itself or the issues of concern, or both.

Once a list of possible stakeholders was created, a matrix was developed to estimate their influence and importance, and key stakeholders were identified as those that could potentially affect or be affected by the Review.

Stakeholder interests were then assessed against the power and influence matrix and the potential impact of the Review on these interests, and the following main stakeholder groups were interviewed:

Stakeholders within WAST

Interviews were conducted with the Chief Executive and Chair of the Trust, members of the Board and members of the Senior Management Team. Trade Union representatives were also interviewed.

Stakeholders outside WAST

A number of ambulance service stakeholders were interviewed including politicians, representatives of the police and fire services, the Wales Air Ambulance charity, Local Government, the third sector, Community Health Councils, First Responders, representatives from LHBs including key clinicians, employees of the Welsh Government and Chairs and Chief Executives of LHBs.

Informants outside NHS Wales

Interviews were conducted with key informants who had particular expertise and experience in the provision of ambulance services outside Wales. This included key individuals in England, Northern Ireland and Scotland. These interviews focused on experiences, benchmarking, and models of good practice in the strategic provision of ambulance services across the UK.

Focus Groups

WAST staff were invited to attend one of nine focus groups held between 19 February and 5 March 2013, and each lasted 90 minutes. Staff were selected at random through a vertical slice of the WAST payroll to ensure focus groups were representative of the organisational structure below senior management level.

Each of the focus groups followed an agreed proforma to ensure consistency. The background, purpose and areas covered by the review were shared with each of the focus groups and the participants were assured of confidentiality. All facilitators were independent of WAST.

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The focus groups were asked about the three main challenges currently facing the ambulance service and were guided towards discussions around the following four areas in specific:

- Structure;
- Funding;
- The organisation and delivery of ambulance services; and
- Performance, demand and targets;

The participants were asked to suggest the top three ways to improve the ambulance service, and facilitators took notes and encouraged participants to express their opinions in their own words by using flip charts on tables. Where participants came with notes from other colleagues they were asked to ensure all areas had been covered and each session had a 'final thoughts' session.

Written Submissions and Correspondence

The Review did not seek written submissions or evidence given the timescale and approach. Written submissions were received from WAST and UNISON following the face to face interviews conducted between the Chair and WAST and UNISON representatives. A range of correspondence was also received and this is summarised in the technical document.

Analysis

Interviews were conducted in a confidential environment with assurance given to stakeholders that comments would not be attributed.

Stakeholder and focus groups' verbal and written comments were typed up and merged into a large document for analysis against the Terms of Reference. The long document was read and then discussed by the Review team to establish common themes, and this provided the basis for the findings featured in Part Two of this document. The longer document is summarised in the separate technical document.

I) Background: A History of WAST

WAST was established in 1998 following the *All Wales Ambulance Service Review* (1998) which recommended the creation of a single ambulance service by the amalgamation of four existing ambulance Trusts, and the ambulance service provided by Pembrokeshire and Derwen NHS Trust.

The 1998 Review concluded that this move would deliver benefits by removing artificial boundaries between organisations, improving resource management, developing expertise and sharing best practice and enhancing quality and cost effectiveness.

In 2007, NHSDW became part of the Trust following its previous hosting arrangement with the Swansea NHS Trust.

Facts and Figures

WAST serves a population of 3.1 million, across 7,969 square miles, employs 2,576 staff and had a budget of £158million in 2012/13 (*WAST Annual Report 2011/12*).

Funding and Accountability

WAST is funded by LHBs through the Welsh Health Specialist Services Committee (WHSSC) who agree service requirements for LHB areas. WAST is formally accountable for the delivery of services to the Welsh Government.

Services Delivered

WAST provides clinical care and health related transport as part of its two core services:

- **Unscheduled Care Services**

Emergency and urgent care services which are not pre-planned by the patient, available 24 hours a day, 7 days a week and dealing with patients who have illnesses ranging from immediately life-threatening to a minor injury. The emergency ambulance response element of WAST services are known as EMS.

In 2011/12, the Trust received 760,000 direct calls, of which 430,000 were emergency 999 calls and provided 52,000 journeys to hospital following a call from patients' GPs.

NHSDW provides a 24 hour health advice and information service, signposting the people of Wales to the most appropriate level of healthcare for their needs. In 2011/12, the Trust received 326,048 NHSDW calls, with a further 963,767 website hits (*WAST Annual Report 2011/12*).

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Planned PCS

Planned PCS or non-emergency patient transport is the provision of transport for patients to a variety of planned hospital appointments and outpatient clinics. This includes transport to dialysis, chemotherapy and diabetic clinics.

In 2011/12 the Trust transported patients to their hospital appointments on over 1 million occasions and transported 10,000 non-emergency patients to 200 treatment centres throughout Wales and elsewhere (*WAST Annual Report 2011/12*).

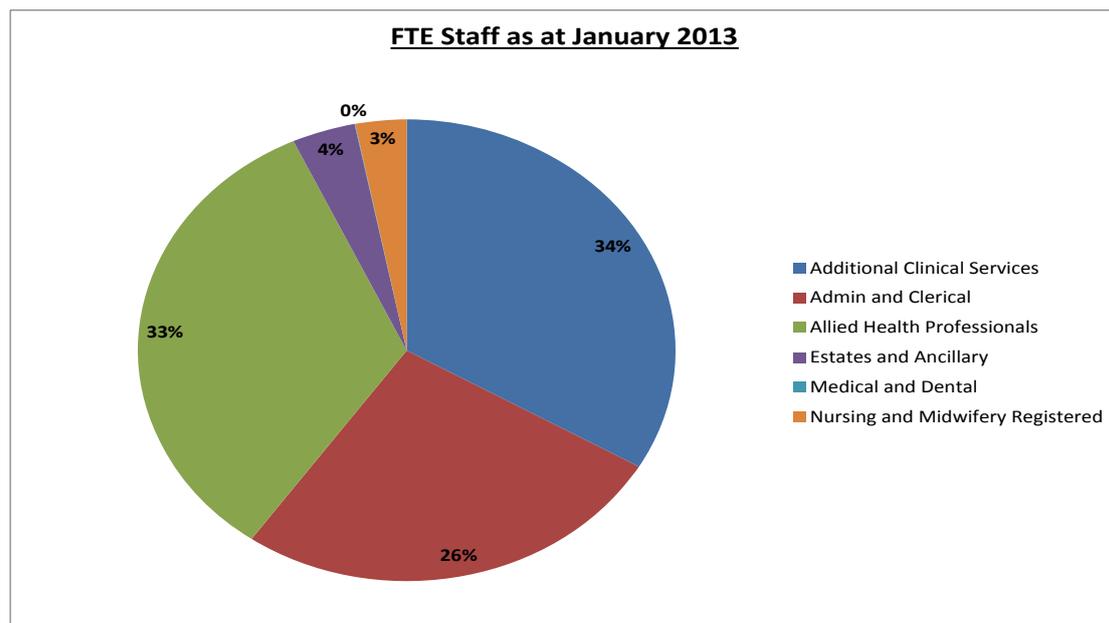
The Health Courier Service also forms part of WAST's PCS work, supporting communities across Wales with daily contact to GP surgeries supporting needle and clinical waste disposal, syringe exchange schemes, pharmacists and working with Health Boards in the safe and dynamic movement of hospital items. HCS works in close partnership with Local Health Boards to proactively implement and develop service improvement programmes

Workforce

The Trust employs in the region of 2,576 staff. Staff members are employed in:

EMS;
PCS;
Control and Communication;
NHSDW;
Management; and
Administrative support.

Figure 1 Full Time Equivalent Welsh Ambulance Services NHS Trust Staff (Source: WAST)



Infrastructure and Fleet

The Trust has over 300 vehicles, 90 ambulance stations, three control centres, three regional offices and five vehicle workshops.

Other Providers

A range of other organisations provide PCS for those eligible for the service across Wales which is funded via individual SLAs with LHBs, which are all different although operate under an overarching, national SLA. Further details on PCS delivery arrangements are featured on page 21.

The **Wales Air Ambulance Charity** works in partnership with the Trust to take patients with life threatening injuries in difficult to reach locations rapidly and comfortably direct to specialists without having to go to a local A&E and wait for transfer.

There are three 'helimed' crews based in the North (Caernarfon), Mid (Welshpool) and South (Swansea) of Wales. Each crew has one pilot and two advanced life support paramedics who are trained in the latest techniques in pre hospital emergency care to ensure the patient receives the most effective treatment.

The Charity is funded through charitable donations and Welsh Government provides additional funding to WAST (via LHBs) to fund the costs of WAST employed paramedics who travel on board the air ambulance.

Emergency Service **co-responders** provide emergency medical cover in areas that have been identified as having a greater need for ambulance cover. Mid and West Wales Fire and Rescue Service provides co-responder cover for WAST from 14 stations across the region.

The aim of a co-responder team is to preserve life until the arrival of either a Rapid Response Vehicle (RRV) or an EMS vehicle. Co-responder vehicles are equipped with oxygen and automatic external defibrillation (AED) equipment.

Community Support

Community First Responder Groups volunteers attend 999 calls where appropriate and provide first hand emergency care to people in their own community. First Responders operate in the same way as co-responders.

Previous Reviews

WAST has come under significant scrutiny since its establishment as a national organisation in 1998. There has been widespread concern about the way in which the Trust is funded and managed and the impact these issues may have had on its inability to meet performance targets set by the Welsh Government.

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This has resulted in at least 13 Reviews or audits into the delivery of services by WAST since 2006. This Review was not conducted in isolation from previous reviews which were analysed as a means of understanding the current situation and potential future directions of travel.

A focused literature review was performed to establish if there were any lessons to be learned from previous reviews which could inform the findings of this report (a full list of reviews considered can be seen in appendix 2), and to establish how far the recommendations of previous reviews had been taken forward.

The analysis of previous review work raised a number of consistent themes for the ambulance service, the Welsh Government and Local Health Boards and which are factored into the findings section of this report.

Key Points

The Ambulance Service has been reviewed probably more than any other part of the NHS.

In part this constant cycle of reviews has created some of the problems it seeks to resolve. Further, it is difficult to establish the extent to which all the recommendations from previous reviews have been enacted.

The cycle of review upon review needs to be broken and any future recommendations need to be accompanied by a clearly measurable work programme.

WAST's Strategic Direction

Previous reviews have helped to shape the Trust's current operational delivery and planning and the organisation's most recent five year strategic framework *Working Together for Success* was published in December 2010.

The framework set out the following vision for the organisation: *'An ambulance service for the people of Wales which delivers high quality care wherever and whenever it is needed;*

And a strategic aim: *'We will move from being perceived as simply a transport service to a provider of high quality health care and scheduled transport services'.*

The strategy document also focuses on three strategic objectives:

1. To achieve all of the national quality standards and clinical requirements;
2. To provide the right service with the right care, in the right place, at the right time with the right skills; and
3. To provide high quality planned patient care services which are valued by users.

Unscheduled Care Services Strategy

The Trust, through its strategy, set out criteria for success for patients using the unscheduled care service:

- Ensure patient calls are answered promptly;
- Safely and effectively assess patients clinical needs;
- Instantly provide patients with (or direct them to) the right service;
- Respond quickly to patients with immediately life-threatening conditions, with four minutes being the norm for cardiac, stroke and serious trauma cases;
- Treat more patients over the phone;
- Treat more patients at the scene of their accident;
- Provide more treatment options for patients in their homes and support them in remaining there;
- Share patient information routinely with partners;
- Develop evidence based clinical practice and care pathways;
- Stop patients being taken to or attending an A&E department unnecessarily and reduce the number of patients who are admitted to hospital;
- Routinely measure success against a range of clinical outcomes and patient experience; and
- Be viewed as excellent by the public, patients, partners and peers.

The delivery of the strategy is supported by a number of key enabling strategies and plans including those for ICT, workforce, fleet and notably a clinical strategy. The Trust implemented a new way of responding to calls to its 999 service in December 2011. The 'clinical response model' aims to provide the right service with the right care, in the right place, at the right time and with the right skills, ensuring that the sickest patients in Wales receive a timely response.

The implementation of the clinical model was also intended to have a positive impact on performance against the national 65% standard. However, after an immediate improvement in performance where the target was met consistently for a number of months, performance has subsided resulting in a period of nine consecutive months where the target has been missed (June 2012 – February 2013).

Patient Care Services (PCS): Griffiths Review

In addition to delivering emergency services, the Welsh Ambulance Services NHS Trust is also responsible for the provision of non-emergency patient transport. This service is used to transport patients, with medical need, to and from hospitals.

Following a number of critical audit reports of the Trust and examples of poor patient experience a review on non-emergency patient transport, led by Win Griffiths, was undertaken, concluding early in 2010.

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Following the Review and public consultation, a three-year national programme of non-emergency patient transport pilots commenced, involving the Trust, LHBs and the voluntary sector, to test out different models of transport provision and identify evidence based methods for improving non-emergency transport for service users.

As part of the Review's recommendations, the Welsh Ambulance Services NHS Trust commenced its PCS Modernisation Plan which identified key elements of the existing service which could be built upon and improved.

The Minister for Health and Social Services is expecting to receive a report detailing the outcome of the pilots in June 2013.

NHSDW and Emerging Service Developments

NHSDW provides a national 24 hour health advice and information service, both telephone and web based; this includes a dental helpline for a number of LHBs. Management of NHSDW was transferred from Swansea NHS Trust to WAST in April 2007 to provide a more integrated unscheduled care service in Wales.

Since 2011, NHSDW has also provided a nurse led clinical triage service for Category C (non-emergency) 999 calls. All callers to 999 and 0845 are provided with an initial assessment to ensure that calls are prioritised in accordance with the clinical need of the patient.

As the only national telephony platform in Wales, NHSDW also provides support for other health initiatives and currently answer calls to the smokers' helpline number.

There are plans to develop the over 50s health checks and there have been early discussions with NHSDW, with a view to ensuring the emerging programme complements the work of NHSDW and vice versa. There are also plans for an on-line resource for expectant and new parents with the potential for NHSDW to host this.

NHS 111 is the 24/7 free to call number for non-emergency NHS healthcare currently being introduced in England. A national group is considering how the 111 number could be used to deliver a range of telephone and web based services in Wales.

The group is developing a service model which in the short term aims to address the immediate pressures on GP Out of Hours services, the ability to dispatch an ambulance if needed, and the advice and information services currently provided by NHSDW. In the longer term, the service aims to deliver an integrated approach to planning urgent care, chronic conditions management and social care.

II) The Context of NHS Wales – A Whole System Approach

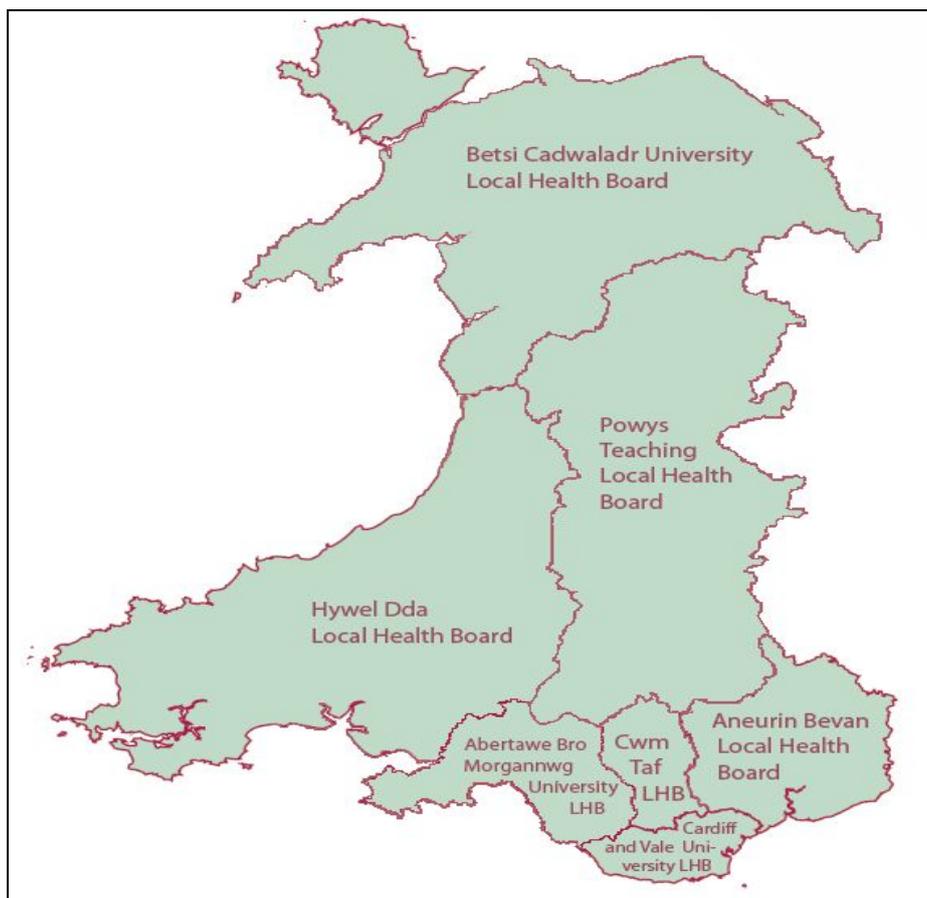
NHS Wales Organisation

In October 2009, the previous NHS Wales structure of 22 Local Health Boards (LHBs) and seven NHS Trusts was replaced with seven integrated Local Health Boards, responsible for all health care services.

In addition, a new unified public health organisation, Public Health Wales NHS Trust, became fully operational, and Velindre NHS Trust, the specialist cancer Trust, continued along with WAST as established providers of goods or services for the purposes of the NHS.

The new simplified structure was intended to transform the NHS into an integrated health care system which works closely with Local Government and the Third Sector through partnership working and ensuring that public health is central (*NHS in Wales - Why We Are Changing the Structure (2009)*).

Fig 2 NHS Wales' Seven Local Health Boards



NHS Wales' Strategic Direction

It is important to read this report in the context of NHS Wales and the Welsh Government's strategic policy direction for the delivery of healthcare services in Wales, and, more specifically, the wider policy context for urgent and emergency care services – which form the core business for the Welsh Ambulance Services NHS Trust.

The Welsh Government's wider vision for the delivery of health services best suited to Wales but comparable with the best anywhere by 2016 is set out in its *Together for Health* (2012) document.

The document outlines the challenges facing the health service and the actions necessary to ensure it is capable of world-class performance. It is based around community services with patients at the centre, and places prevention, quality and transparency at the heart of healthcare.

The Welsh Government states its intention to achieve world-class health and social services by organising all local services as part of a single 'co-ordinated' system, where all elements work seamlessly and reliably to offer a personalised response.

Together for Health (2012) suggests that this vision is to be achieved through:

- Improving health as well as treating sickness;
- Delivering one system for health;
- Hospitals for the 21st century as part of a well designed, fully;
- An integrated network of care;
- Aiming at Excellence Everywhere;
- Absolute transparency on performance;
- A new partnership with the public; and
- Making every penny count.

Specifically, the 2012 document sets out this overarching NHS vision for better access and improved patient experience is intended to be achieved through the following improvement:

- Easier access to primary care services;
- Developed pathways of care across the NHS to improve patient experience and effectiveness of services;
- Improved links across primary, community, acute and social care in line with the Setting the Direction document – *Figure 3* sets out how an integrated healthcare concept looks;
- More services available 24 hours a day, 365 days a year;
- More information on services and on health issues available by telephone through the 111 non-emergency number; and

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Reduced inappropriate demand on emergency care services by educating the public about the range of health and social care services available to them through the Choose Well campaign.

Figure 3 Integrated Healthcare System Concept Diagram



To support the delivery of this whole system vision, the Welsh Government has worked in partnership with NHS Wales to produce a number of enabling strategies and policies including the Annual Quality Framework, Annual Quality Plan, Standards for Health Services for Wales, Setting the Direction and the 1000 Lives (Plus) Programme.

NHS Wales Service Change Plans

NHS Wales has recently completed or is undergoing a range of public consultations over the future configuration of health services, with a view to changing the models of delivery of some services.

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The plans include the *South Wales Programme* (covering LHBs in South Wales), *Your Health, Your Future* (covering Hywel Dda Local Health Board), *Changing for the Better* (covering Abertawe Bro Morgannwg University Health Board), *Healthcare in North Wales is Changing* (covering Betsi Cadwaladr University Health Board) and *New Directions* (covering Powys teaching Health Board).

These plans are currently the subject of ongoing debate and it would not be appropriate to comment further within this report however it is clear that ambulance services should be seen as a key component in delivering service change as part of a whole system stretching from primary and community care through to the provision of tertiary specialist services.

Key Point

Ambulance services will play a key role in the shaping of future models of service delivery, and it is vital that they are considered as part of the wider context of any plans for service change for NHS Wales.

Current and Emerging Challenges for Health and Social Care

Together for Health (2012) suggests the principal challenges faced by NHS Wales are rising demand, increasing patient expectations, and financial constraint and recruitment difficulties.

Further, many of the causes of poor health are deep-rooted and they are often difficult to tackle. Along with other countries, Wales faces an obesity epidemic and rates of smoking, drinking and substance misuse continue to cause concern. Clinical practice is also changing, and in some areas NHS Wales is facing acute difficulties in recruiting specialist staff.

Allied to these problems, *Together for Health* (2012) suggests that within two decades it is estimated almost one in three people in Wales will be aged 60 or over. By 2031, the number of people aged 75 or over will have increased by 76 per cent. Older people are more likely to have at least one chronic condition – an illness such as diabetes, dementia or arthritis - and have more as their age increases.

The impact of such chronic conditions on people's lives and services in Wales is of growing concern and Wales has the highest rates of long-term limiting illness in the UK accounting for a large proportion of unnecessary emergency admissions to hospital (*Designed to Improve Health and the Management of Chronic Conditions in Wales: An Integrated Model and Framework* 2007).

In recent years rising demands and expectations were largely matched by increased budgets but the current financial situation means that NHS Wales is delivering

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services in a 'flat cash' environment. NHS organisations continue to plan on the basis of a flat-cash settlement for the 2013-14 and for future years beyond that. Organisations need to balance the need to find sufficient savings year on year to offset cost pressures of around 5% while at the same time generating sufficient headroom to make transformational service improvements.

The impact of cost pressures and service improvements will vary from organisation to organisation. Whilst ambulance services will not experience many of the cost increases facing the integrated health boards, they will nevertheless have their own specific pressures which they will need to continue to plan to meet through efficiencies.

NHS Wales' Strategic Direction for Urgent and Emergency Care

The Delivering Emergency Care Services (DECS) Strategy was published in 2008 and set out the need for an integrated approach for delivering unscheduled care in Wales.

One of the main principles of the DECS Strategy was to ensure that people have a better understanding of the range of unscheduled care services that are available to them and clearly understand how to access these services quickly and appropriately. DECS also aimed to provide a framework for action focusing upon re-balancing the system to deliver an effective and efficient service which was coming under increasing pressure.

In 2010, as part of implementing the 5 year Service Workforce and Financial Framework 2010/11 (SWAFF), which co-ordinates and oversees the key priorities for the new NHS, eleven National Programmes were established including the National Unscheduled Care Programme by the Welsh Government.

The Programme Boards were established to support the delivery of the opportunities identified in the restructured NHS. A National Programme Board for Unscheduled Care was established to 'Support NHS and local Communities adopt a system-wide approach to change, engaging partners throughout acute, primary and community Care and the voluntary sector, to redesign unscheduled care processes and systems across the total patient journey' (Terms of Reference, Unscheduled Care Programme Board 2010).

The Board's output included the "10 Transformational Steps" document which sets out a 10 step approach to delivering a co-ordinated approach needed to reduce pressure on A&E and ambulance services, and ensure immediately life-threatened patients have access to time critical treatment.

The Board was renamed the National Urgent and Emergency Care Board in 2012 and has developed the 'transformational steps' into ten high impact areas. The ten areas are designed to provide a resource to support improvement changes, generate ideas

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and create the climate of innovation required to deliver safe, effective and efficient services for unscheduled care.

National Urgent and Emergency Care Board “10 High Impact Areas”

High impact area
1. There is a shared vision for USC across all stakeholders
2. We have defined together with stakeholders how we will measure improvement and monitor it regularly together and act upon it
3. We have improved telephony and care co-ordination so they are no longer a system constraint on USC improvement
4. We have improved access to primary care so it is no longer a constraint on USC improvement
5. OOH services are no longer a constraint on the USC system
6. We are satisfied that we have got the messages right to USC system users and Health and Social Care staff and they are acting upon them
7. We know and actively manage in primary care patients by risk and have active care co-ordination and packages managing all our high risk groups including frequent users
8. We have optimised flow through ED, into the hospital and through to discharge
9. We have a discharge planning process agreed with stakeholders that is keeping patients who are medically fit from staying unnecessarily in hospital
10. We know our most important pathways within USC , have shared plans with stakeholders to manage these pathways effectively to avoid admissions and bypass ED when appropriate

Source: Welsh Government

The ten high impact areas work will be complemented by a work programme for unscheduled care designed to accelerate improvements and alleviate pressure on emergency care services through greater collaboration across the whole unscheduled care system.

Welsh Government ‘Measures Group’

The Welsh Government established the Measures Group to provide an opportunity to discuss how to measure the NHS and determine what the measurement system should look like for 2013/2014 and beyond. The Group also aims to develop a cross cutting measure system that includes Social Services, Children & Families which

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focuses on prevention; experience & access; quality, safety and outcomes; integration; and sustainability.

WAO Review of Unscheduled Care

The WAO intends to publish a report on unscheduled care shortly which aims to track progress made since the publication of *Unscheduled Care: a Whole Systems Approach* (2009).

The 2009 report expressed concerns about the effectiveness of urgent and emergency care delivery in Wales and detailed a series of recommendations towards delivering a whole systems approach to their delivery.

The latest review will seek to understand whether there has been progress in transforming unscheduled care services to address the issues previously identified in WAO publications.

The Francis Report

The Francis report, released in February 2013, made recommendations on patient safety and quality of care following failures at Mid Staffordshire NHS Trust and has clear implications for the future of service delivery for NHS Wales.

Part 1 – Literature Review

Introduction

A literature review search was undertaken for reports on international ambulance service best practice and recent documents produced on ambulance services in the UK and internationally. This section of the Review summarises the analysis of the literature with some comparative data used in the second section of the report. Details of the source references are provided in Appendix 3.

Care does need to be taken in attempting to compare ambulance services internationally particularly in the benchmarking of data given the different methods of data collection, methods of measuring performance, varying organisational and policy contexts, definitions of service (which often have a wider definition of EMS) and varied methods of funding and providing services.

This applies even within the UK and becomes more challenging outside the UK. Comparison is perhaps more helpful in more specific areas of operational practice than in strategic direction.

The current evidence base for ambulance performance measures is sparse although the majority of literature available indicates that systems are moving from single target focus to set of performance indicators. Despite a well developed literature on reducing demand, there is little prospective research looking at reducing demand. The issue is widely recognised.

The literature search found a limited amount of recent documents explicitly about ambulance services to inform the findings of this review. Articles and reports were generally single country focused providing limited opportunity for robust and systematic comparison.

The most often cited comparative document was the SHA *“Emergency Services Review: A comparative review of international Ambulance Service best practice”* (2009). The focus of this work was on international comparisons, response time targets, performance indicators (and benchmarking) and dealing with increased demand.

The report summarised that Ambulance Services within the UK were considered “amongst the high-performing medical services from around the world” and confirmed our findings that there was limited research from which to directly compare services internationally, stating that “At present the inability to directly compare pre-hospital healthcare systems makes it impossible to identify system factors that would obviously improve performance, quality of care or efficiency and effectiveness”.

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The report did, however, draw out the following key points:

Two main systems of pre-hospital care were identified: Paramedic led (with medical governance) and Physician led. Neither obviously outperformed the other;

The problems of increasing demand for services, both pre-hospital and emergency department care, are universal and very few strategies have been robustly tested to combat such increases. Despite a well developed literature on reducing demand, there is little prospective research looking at reducing demand;

Systems seem to be moving from a single target focus to a set of performance indicators; and

The current evidence base is sparse and the most convincing evidence for pre-hospital care relates to defibrillation and providing advanced life support as quickly as possible to those needing it.

UK Ambulance Services

The development of ambulance services within the UK has been strongly influenced by the Department of Health's strategy '*Taking Healthcare to the Patient*' (2005). This identified that ambulance services are playing an increasingly central role in the provision of care to patients in the NHS, not just providing a rapid response to 999 calls and transporting patients to hospital but becoming "a mobile healthcare service for the NHS".

The use of modern technology and wider clinical skills has enabled an increasing range of care to be provided from a mobile environment (an ambulance) to a wider range of patient groups – those who require an emergency response, those who have an urgent care need, those who can be treated in a primary care setting, through effective and co-ordinated multi-disciplinary team working and those who could be provided with definitive advice and treatment over the phone.

England

There are currently 11 regionally-based Ambulance Trusts providing emergency and urgent healthcare and some patient transport services in England, with separate arrangements for the Isle of Wight. Ambulance Trusts have been merged over recent years into larger provider based organisations. As part of a commissioner/provider system ambulance services have been commissioned from their Trusts by Primary Care Trusts and at present ambulance commissioning and contract management capability lies within PCT clusters.

Ambulance Trusts in England have a membership that reflects the requirements for successful application for Foundation Trust status and this means it is possible to have no ambulance professional on the board. The membership includes a Chief

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Executive, often from a non-ambulance service and sometimes even from a non-health service background; Director of Operations, who also may not have an ambulance service or an operational background; Director of Finance [and IT]; Director of Human Resources; Director of Nursing; and a Medical Director. There are also a number of Non-Executive Directors selected for their expertise, and Foundation Trusts have Members from a wide background across the community they serve.

Figure 4 Ambulance Trust regions and the population they serve

Ambulance Trust	Population serving
East Midlands Ambulance Service	4.8 million
East of England Ambulance Service	Over 5.83 million
London Ambulance Service	Over 7.5 million
North East Ambulance Service	2.66 million
North West Ambulance Service	7 million
South Central Ambulance Service	Over 4 million
South East Coast Ambulance Service	Over 4.5 million
South Western Ambulance Service	Over 5.3 million
West Midlands Ambulance Service	5.4 million
Yorkshire Ambulance Service	Over 5 million
Isle of Wight Primary Care Trust	140,000

(Great Western Ambulance Service Trust was merged into the South Western Ambulance Service Trust in February 2013.)

In most areas PCTs have a formal agreement as to how they will work together on ambulance commissioning, backed up with shared governance arrangements. There are lead commissioners (one for each region) and associate commissioners (one for each PCT or PCT cluster in a region) involved in the process. Both lead and associate commissioners – usually meet as part of an ambulance commissioning consortium – are responsible for agreeing strategic plans, priorities and funding across their PCTs.

The lead commissioner translates this into commissioning intentions and then negotiates contracts and specifications for ambulance services while also managing the performance of ambulance Trusts.

These arrangements are currently in a period of transition and uncertainty as the new arrangements for the NHS in England with the creation of Clinical Commissioning Groups come into place.

The following clinical performance criteria are used within England:

- Cardiac arrest return of spontaneous circulation at hospital
- Cardiac arrest survival to discharge
- Compliance to provision of ST-Segment Elevation Myocardial Infarction (STEMI) care bundle including reperfusion

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STEMI 30 day mortality
Stroke - proportion of FAST test positive patients arriving at acute stroke centre
Proportion of calls closed with telephone advice
Proportion of patients discharged without transportation
Re-contact rate following closure with telephone advice
Re-contact rate following non-conveyance
Calls abandoned before answered
Mean time to answer calls
'Service experience narratives'
Time to call answering (initial assessment)
Time to treatment
Category A 8 minute response (revised)
Unexpected mortality rate following discharge of care by telephone or face-to-face.

The House of Commons Committee of Public Accounts published “Transforming NHS Ambulance Services” in September 2011. This report summarised the following conclusions and recommendations:

Ambulance services provide a valuable service that is held in high regard for the care it provides for patients, but more could be done to improve efficiency and value for money;
Under the NHS reforms it is not clear who will be responsible for achieving efficiencies across ambulance services or intervening if an ambulance service runs into financial difficulties or fails to perform. It was also not clear who would be responsible for commissioning ambulance services under the reforms to the English NHS;
Performance information on ambulance services is not always comparable, making it difficult to benchmark services and identify the scope for efficiency improvements;
Focusing on response time targets has improved performance but has also led to some inefficiencies;
Delays in handing over patients from ambulances to hospitals lead to poor patient experience and reduced capacity in ambulance services; AND
Ambulance services do not collaborate sufficiently with other emergency services to generate efficiency savings

NHS 111 has been implemented in parts of England and strong evidence suggests that there has been a significant increase in 999 ambulance workload as callers who would not have presented themselves to the ambulance service have been transferred to it by 111's triage system. The national roll out of NHS 111 in England is currently under consideration.

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Scotland

The Scottish Ambulance Service (SAS) is a Special Health Board and a national operation based at over 180 locations in five Divisions. The Service is now co-located with NSS Scotland, NHS 24, NHS Boards' Out of Hours services and within hospital and GP practice premises.

It covers the largest geographic area of any ambulance service in the UK. The SAS provides scheduled, unscheduled and anticipatory care for patients in remote, rural and urban communities across Scotland.

The Strategic Framework "*Working Together for Better Patient Care 2010-15*" was published in 2010. The Strategy sets out the aims to be patient centred, clinically excellent and leading-edge. In its Annual Review of 2011/12 SAS cites the following key achievements:

- Improved Category A response times from 72% in 2010/11 to 73% in 2011/12;
- Increase from 14.5% to 16.9% ROSC across Scotland for patients in cardiac arrest;
- Emergency response within 8 minutes for patients in cardiac arrest improved from 77.4% to 78.3%;
- % of hyper-acute stroke patients taken to hospital within 60 minutes improved from 75.5% to 78.4%;
- Responses to emergencies within the highly rural Island Boards improved;
- Significant reduction in number of scheduled care cancelled journeys;
- Increase of 0.8% of emergency incidents treated at scene;
- Significant internal redesign of scheduled care service with the introduction of mobile technology within all patient transport services;
- Evaluation of a more consistent alternative care referral pathways for frail and elderly fallers developed in partnership;
- Joint approach with NHS Highland for paramedic delivered health checks as part of the wider anticipatory care programme which helps maintain paramedic skill levels in remote areas as well as boosting primary care resources;
- Development with NHS 24 of new clinical content to support implementation of a Single Clinical Triage Tool;
- Opening of Scottish Ambulance Academy and development of BSc in Paramedic Practice;
- Investment in clinical advisors within Ambulance Control Centres to enhance clinical support and decision making; and
- Implementation of formal professional-to-professional advice line within NHS Borders and NHS Lothian with plans to roll out nationally

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The Review identifies the following key challenges:

Response time against Category B and one hour GP urgent calls has fallen;
Overall emergency demand has increased particularly in Category B;
Implementing new rest break arrangements; and
Managing attendance levels which continue to be lower than the national average and agreed targets.

Northern Ireland

The Northern Ireland Ambulance Service (NIAS) has a similar structure and scope of service provision as English ambulance services. It does however act as a one nation service although the population of Northern Ireland is the smallest of the home nations. It does not focus on clinical performance indicators instead focusing on the time-based standards previously used in England.

As a regional ambulance service NIAS operates from one Emergency Ambulance Control (EAC) Centre based at Ambulance Headquarters in Belfast. NIAS has an operational area of approximately 5,450 square miles and is serviced by a fleet of over 300 ambulance vehicles.

NIAS responds to the needs of a population in Northern Ireland in excess of 1.7 million people in the pre-hospital environment. It directly employs over 1,100 staff, across 57 ambulance stations/deployment points, two Ambulance Control Centres (Emergency and Non-Emergency), a Regional Training Centre and Headquarters.

NIAS reports its performance for 2011/12 as follows:

During 2011/12 the Northern Ireland Ambulance Service received 142,026 emergency calls and 35,386 Doctors Urgent calls from across Northern Ireland.

An emergency ambulance attended and delivered care to the patient for 132,447 emergency incidents, arriving within 8 minutes for 82,787 of those calls requiring an ambulance.

International Countries (non UK)

In the significant majority of ambulance services throughout the developed world the geographical scope of organisations are coterminous with municipalities rather than states or countries. This is also true for fire and police services, for public health services, and for the providers of public amenities.

One consequence of this is that service managers from one organisation are more likely to be in the same position of decision making and authority when in meetings with managers from other emergency or health service providers. Another factor to consider is that there tend to be variations in culture on a regional or perhaps even a

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smaller scale, and this has implications for how staff identify with an organisation and subsequently how they are best managed.

Much of the debate internationally has been on the benefits of merging emergency services. There is little evidence to support the merger of emergency services, despite this being a common model in the USA. It tends to result in unhelpful over-resourcing of at least some emergency calls and, whilst not addressed in the discussion above, frequently results in the fire division asset-stripping the ambulance service.

Certainly one of the most recent and major mergers of New York City's formerly 'third service' ambulance division with its fire department resulted in *increased* EMS response times and ongoing industrial relations problems with its paramedics and fire fighters.

In Melbourne, Australia the dispatch centres of Police, Fire and Ambulance were emerged and outsourced to the private sector for a period of time: again this proved to be dysfunctional and a more traditional model has been re-adopted.

However, none of this is to suggest that the fire service could not contribute to the provision of an emergency medical service. In the UK the majority of fire engines carry an automated external defibrillator (AED) with at least one fire-fighter trained and able to use it. Both have been paid for through public funding, but neither is likely to be put to good use. The fire service's case for this equipment is to treat cardiac arrest in fires or at road traffic accidents if they arrive before the ambulance service although in reality (it has been argued by some) such patients do not have the type of heart dysrhythmia that responds to an AED.

So a case could be made for putting the Fire Service's defibrillator to good use, if the fire service were to be routinely dispatched to cardiac arrest calls in urban and sub-urban areas where there are staffed fire stations. Their response time may be faster than the ambulance service's and more likely to fall within the five minute window for successful treatment. Such an arrangement for example can be found outside the USA, for example in Melbourne, Australia, where it has been running successfully for years.

It is not unreasonable to suggest that for most 999 calls with a genuine medical problem clinical, caution demands a face to face examination of a patient before the difficult decision can be made to refer them to a non-emergency health practitioner or to discharge them from NHS care altogether. This is demonstrated by the relatively high proportion of 999 calls that are transferred to NHS Direct which are transferred back to the ambulance service for an emergency response - ultimately most of these patients do not have a time-critical problem.

In the current clinical response model of EMS delivery, around 42% of calls are categorised as 'life threatening' or Red 1 calls. The remaining calls fall into the non-life threatening nor serious, or 'Green' calls category. Green calls do, however, often

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require some form of transport to hospital or another healthcare provider. The system also acts as a safety net for calls categorised as low priority but under further clinical triage are upgraded to Red 1 calls.

The phenomenon of numbers of ambulances queuing outside Emergency Departments unable to offload their patients for extended periods of time is seen in a number of countries in addition to the UK, including Australia, Canada, New Zealand and the USA.

Only two interventions seem to be effective. One is to have a unit situated next to the emergency department staffed by GPs on a 24-hour basis, so that appropriate patients can be triaged to them at the door of the ED. The other strategy, likely to be more successful, is for the ambulance service to bring a lower proportion of their 999 cases to ED because they have either treated and discharged them in the field or referred them to more appropriate NHS services.

In terms of performance targets, different countries seem to have varying response times but compliance standards are not always available so it is difficult to make comparisons. The 8 minute target is used most generally despite the limitations of clinical evidence to support this target. However, in some countries there have been attempts to move away from this including work in Canada suggesting a move to a 5 minute target (for 90% of people) could increase lives saved and also suggesting measuring survival outcome in hospital discharge rather than Return of Spontaneous Circulation (ROSC).

Signs of ROSC include breathing (more than an occasional gasp), coughing, or movement and for healthcare personnel, signs of ROSC may also include evidence of a palpable pulse or a measurable blood pressure. Data is collected on ROSC at the time of the event and until admission and transfer of care to medical staff at the receiving hospital.

Survival to hospital discharge is measured at the point at which the patient is discharged from acute care. Using this measure would indicate survival to discharge, including a possible rehabilitation period in a local hospital before long-term care and home care.

It is as stated difficult to make robust international performance and benchmarking comparisons. One of the main challenges is around timing (when measurements start and end) and how accurate and comparative these are. Despite these limitations there do however appear to be a number of jurisdictions where response standards are poorer than in Wales, for example in Australia.

The main and perhaps most important issue to emerge on benchmarking is that it is widely recognised that sole reliance on response times is restrictive and a poor reflection of ambulance service work.

Few ambulance services around the world provide non-emergency patient transport

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services in the same manner as in the UK. Often services outside the UK will provide semi-planned transfers, discharges and admissions, but not the full range of outpatient and day patient transport services. The functional split within the UK Ambulance Service in the 1980s allowed each service to develop separately, and opened PTS to competitive tendering exercises.

Key Points

There is limited comparative evidence on most effective strategic and organisational models for the planning and delivery of ambulance services. There has been a general international direction of travel to increasing the organisational size of ambulance services (which generally comprise EMS) while much debate has focused on co-location of emergency services.

There is limited useful comparative information available to compare performance, quality of care, efficiency and effectiveness. The WAST project to ensure more regular and accurate benchmarking needs to be widened to include other comparison measures.

Given the common challenges faced further comparative and collaborative research across the UK and internationally should be supported and encouraged.

Part 2 – Review Findings

The Vision for Welsh Ambulance Services

Whilst the focus of the Review was welcomed by many stakeholders, it was generally felt that rather than just look at the ambulance service in isolation, there is a need for Wales to take a whole system view of unscheduled care within which ambulance services need to be located.

A large number of stakeholders concluded that it was important to make some decisions about what we want from an ambulance service in Wales. The following questions were posed:

- Do we want an emergency service?
- Do we want a 999 emergency transport service?
- Do we want a mobile medical service?
- Do we want a transport service (scoop and run)?
- Do we want a taxi service or a clinical service?

There was a general consensus that EMS should be a clinical rather than transportation service and this supported the view that it had to be considered as part of the wider unscheduled care system, both in terms of the services it provided and the development and organisation of the workforce.

Key Points

Articulating and agreeing a clear vision for ambulance services is the key to any other recommendations and future developments.

The vision for EMS Services is a clinical service that is a fundamental and embedded component of the unscheduled care system. PCS services should be locally responsive, cost effective and provided on clear eligibility and accessibility criteria.

Structure of Ambulance Services in Wales

Current NHS Wales Structure

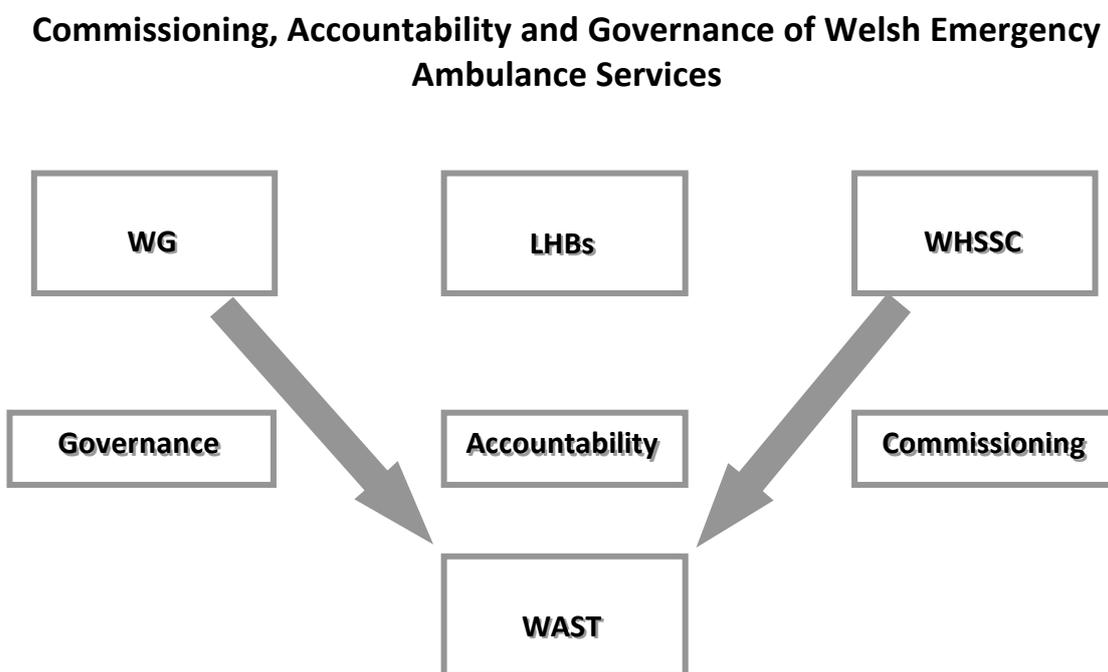
Prior to 2009, the NHS structure in Wales was characterised by a division of responsibilities between LHBs as commissioners of health services and NHS Trusts as providers of such services.

Following the restructure of NHS Wales in 2009, seven LHBs - responsible for securing and improving services for their population in their area in a specified area of Wales – and three NHS Trusts – responsible for providing goods or services for the purposes of the NHS – were established, replacing the previous structure of 22 LHBs and seven Trusts.

Current Ambulance Services Structure

The planning of emergency ambulance services is currently driven by Welsh Government policy and WAST are accountable to the Minister for Health and Social Services for a suite of key service standards which are set out in the Welsh Government's Annual Quality Framework.

Figure 5 Current Commissioning, Accountability and Governance Arrangements



Strategic commissioning of services was previously the responsibility of Health Commission Wales (HCW) which was superseded by WHSSC in 2010 and commissioned services from WAST on behalf of LHBs. Commissioning in healthcare is a very well recognised process of assessing the needs of the population and putting in place

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services to meet those needs. It is a proactive and strategic process that has the potential to fundamentally redesign and change the way services are offered to patients.

Existing performance management arrangements are twofold: WAST is performance managed by both WHSSC and the Welsh Government, which holds bi-monthly performance meetings with the WAST Director of Service Delivery and a 6 monthly meeting at Director General and Chief Executive level.

The planned patient care service element of the Trust's business is funded and managed via individual SLAs with seven LHBs which are all different although operate under an overarching, national SLA. NHSDW are funded from within the Trust's budget allocation.

Previous Reviews Findings on Ambulance Service Structure

The WAO *Ambulance Services in Wales* Review (2006) suggested that national commissioning should be maintained and supplemented with more advanced relationships between services at a local level. There is no evidence to suggest that this has been achieved at a local level despite the appointment of Heads of Service Delivery by WAST.

The independently commissioned *Lightfoot* Review suggested that WAST and LHBs would benefit from developing a jointly owned financial and strategic plan for ambulance services. Although WAST and LHBs have engaged at a superficial level over finance, there is little evidence of engagement at a strategic level over ambulance service planning fit to respond to local needs.

The *Lightfoot* Review also recommended that the Welsh Government should work in conjunction with LHBs to develop and agree the future planning and delivery arrangements for WAST, ensuring a clarity and focus upon outcomes and performance. This was superseded by the establishment of WHSSC in 2010 although this work was not taken forward as part of the delivery and commissioning arrangements between LHBs and WAST.

The establishment of the new LHB structure in 2009 was cited as an opportunity for improving performance management structures by the *Lightfoot* Review which suggested the existing Welsh Government performance management arrangements were unclear in respect of how WAST was held to account for delivery of services. The Review suggested the LHB re-structure presented an opportunity for the appointment of a nominated LHB to act as lead commissioner and performance manager for WAST.

The same Review also concluded that the commissioning arrangements for WAST did not facilitate clear lines of accountability between the organisation and its commissioners for the delivery of EMS.

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The WAO *Follow-up Review of Ambulance Services in Wales* (2008) also stated that the overlap between the respective performance management responsibility of the Welsh Government and the principal commissioning role of WHSSC (then HCW) made it more difficult to stimulate improvement in performance.

Stakeholder and Focus Group Findings on Structure of Welsh Ambulance Services

Commissioning

Stakeholders felt that there was little evidence of sound commissioning practices or accountability and performance management of the Trust's contractual delivery lacked ownership and co-ordination.

It was felt that LHBs had insufficient input at planning and budget allocation stages which resulted in delayed agreements over elements of the Trust's budget creating difficulties with delivering consistent and well thought out unscheduled care services.

The commissioning of the *Lightfoot* Review in 2009 was cited by some as requiring a fully costed joint planning approach but this level of joint financial planning has not been achieved despite the clear and significant opportunities associated with more integrated commissioning of the Trust's unscheduled care services.

There was general feeling that the commissioning arrangements through WHSCC were not effective and the absence of any meaningful SLAs between WAST and the LHBs did not support effective performance.

Accountability

Within the current accountability and governance structures it was stated that there was a significant lack of accountability to the LHBs that WAST serve. It was also felt that the accountability to WHSCC was not transparent.

The governance framework (WAST to Welsh Government and the Board to the Minister) was well understood and seen as a well accepted model of governance. However it was felt that the individuals involved are the key to making this effective and there was a feeling that the Board members at WAST were not as engaged and informed as they could be.

It was felt by some stakeholders that WAST needed to be more transparent and accountable to the public on a range of measures, in a similar approach to that adopted by the fire services' all-Wales Dwelling Fire Response Charter (see page 62 for further detail).

A range of stakeholders thought the accountability arrangements for PCS and NHSDW were not transparent. A number of stakeholders felt accountability arrangements could be improved through SLAs, effective commissioning

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arrangements (patients should be at the heart of this framework) and clear lines of accountability within the organisation.

Structure

Stakeholders felt that the decisions on structures should follow a decision about what ambulance services should be delivered in Wales. It was felt that “form must follow function” and that until the strategic issues concerning what Wales actually wants from an ambulance service have been agreed, that structure should not be decided.

Notwithstanding the importance of agreeing what Wales requires from an ambulance service, all those interviewed had views about the current structure and the different parts of WAST.

Stakeholders put forward a number of other opinions and suggestions for the future structuring of ambulance services. These included:

- WAST being structured in line with LHBs with a national oversight being achieved through the creation of a Ministerial Board;
- WAST being established as a regional structure aligned to other emergency services;
- WAST remaining as a national all Wales organisation but embedded within one LHB and operate as a division within this organisation, serving the whole of Wales (it was felt this would remove the management overhead to the service being delivered);
- EMS operated as a national body with a Chief Operating Officer reporting to the Minister and PTS split and integrated into the LHBs; and
- There was a general view that the headquarters needs to be Cardiff based.

Some thought that the three core parts of WAST (EMS, PCS and NHSDW) were not regarded as a good fit and it was suggested that these services may be better delivered through an alternative structural model; others viewed NHSDW as a poor fit with both EMS and PCS;

One suggestion was for NHSDW to become a local service and the resources invested locally within each LHB to create an improved Out of Hours service linking it with A&E triage based on clinical support teams; and that EMS and PCS should be integrated into the LHBs, enabling paramedics to be integrated into the Minor Injuries Unit and result in a different model.

Finally, it was also felt that control centres need to be reduced to a maximum of two and that they could cover the whole pathway and have direct patient accountability. It was believed this could be achieved through the integration of NHSDW into the control centres and engaging GPs through the Out of Hours service for effective triage.

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Many reiterated the need for agreement to be reached on the core functions of WAST before considering issues concerning structure and accountabilities. Notwithstanding the importance that form follows function, it was generally felt that the current structure was not effective and that there was a serious lack of clinical support within the organisation.

Some felt there were too many layers in the structure resulting in a lengthy decision making process, a general lack of empowerment, low motivation levels, high sickness levels and poor internal communications.

There were general views across one of the focus groups that the governance and accountability arrangements were too complicated and that more transparency was required. Some group members suggested there was too much Welsh Government interference in the way the Trust is operated.

There were also concerns expressed about the range of services delivered by WAST, with suggestions that the EMS and PCS services were too much for the organisation to deliver.

A range of suggestions were made by focus group members for a change in structure including support for aligning with the fire service, maintaining a national body but delivering ambulance services locally, aligning with LHBs and forming new regional organisations based on the South Wales Programme and other service change plans.

Key Points

There is a fundamental problem with the current accountability and governance arrangements for ambulance services in Wales which are multiple, complex and lacking in clarity and transparency. This needs to be addressed to create arrangements which are simple, clear and aligned to the agreed vision for service delivery.

Current arrangements require strategic commissioning but the mechanics and levers for achieving this, such as service specifications, service level agreements and contract management, are not being used. Moreover, there is limited capacity and capability to undertake effective commissioning within NHS Wales.

There are a number of structural options which could address the current problems and these all have advantages and disadvantages. Options should be assessed against a series of core guiding principles to ensure form follows function. There is no 'magic bullet' that will resolve the structural difficulties but it is important to clearly decide on the most suitable model, co-create the development of the details of the model, implement and allow the arrangements to mature.

Funding of Welsh Ambulance Services

Introduction

The efficacy of current funding mechanisms together with some consideration of the sufficiency of current funding was primarily considered although the latter, together with analysis of the effective allocation of existing resources, has been an important area for previous reviews.

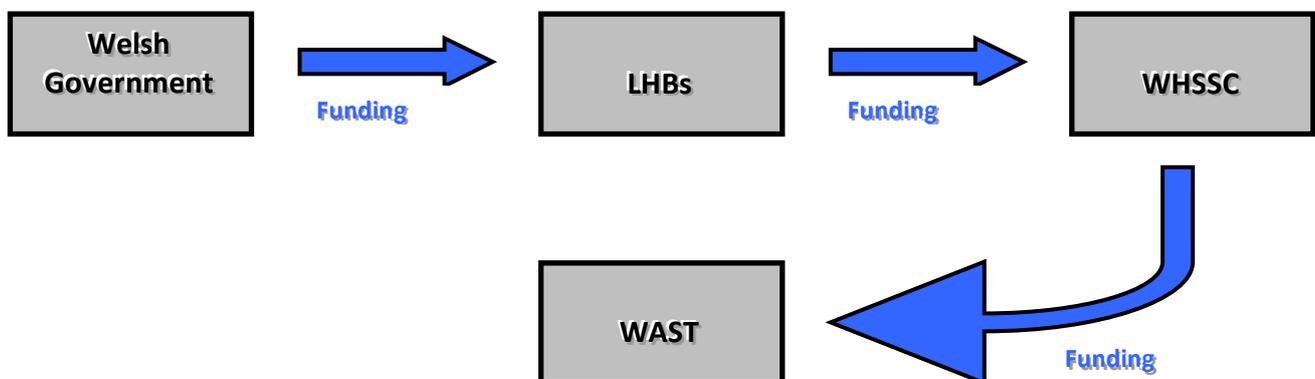
Current Funding Mechanisms

The structural arrangements for funding have remained consistent since 1998 with WAST's unscheduled care services financed through the Welsh Health Specialist Services Committee (WHSSC) – previously Health Commission Wales (HCW).

WHSSC receives this annual funding allocation directly from the seven LHBs from within their discretionary budget allowances, which is provided to them on an annual basis by the Welsh Government. The Welsh Government does not fund WAST directly.

The PCS element of the Trust's business is funded via individual SLA with LHBs, which are all different although operate under an overarching, national SLA.

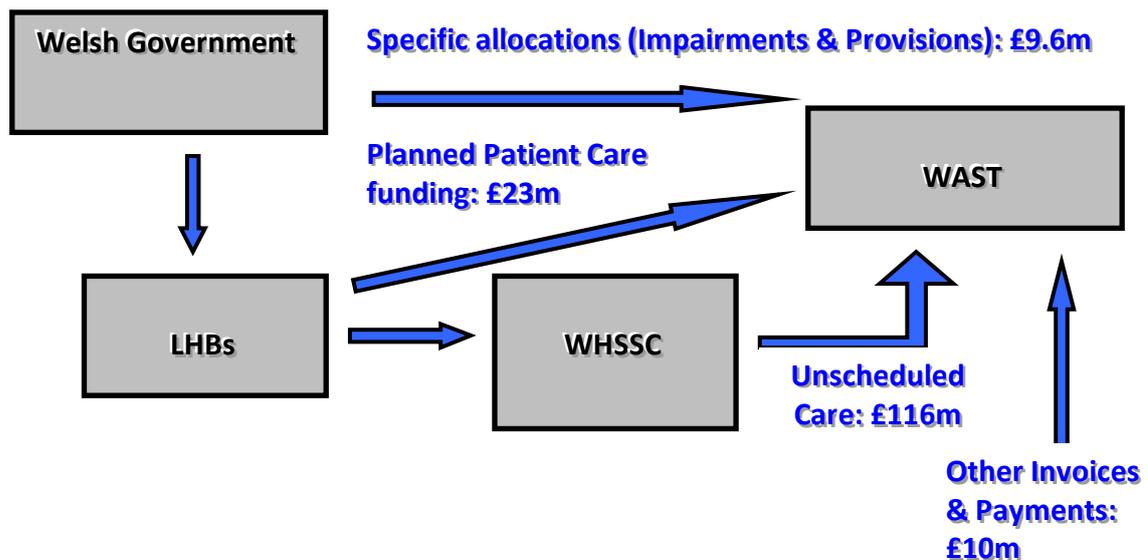
Figure 6 Unscheduled Care Services Funding Mechanism



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The financial contract between WHSSC and WAST is a basic arrangement. The contract is 'rolled over' on an annual basis with an inflationary 'uplift' applied. There is also an 'inflator/deflator' mechanism built into the contract which requires the Trust to absorb any new activity (demand) of 15% or less on an annual basis before any additional resources are applied by WHSSC.

Figure 7 WAST Budget Allocations 2012/13



The Trust received £158.6million from WHSSC for 2012/13, based on the number of calls, attendances and incidents undertaken. WAST also receives funding from a number of other sources including the Welsh Government for capital programmes, meaning there is currently no one organisation responsible for funding the fully loaded cost of providing the EMS service.

In view of concerns about the efficacy of funding arrangements, WAST and HCW jointly commissioned the *Lightfoot* (2009) Review to understand the adequacy of funding and whether it was sufficient to meet national performance targets. At the same time, the 2009 Review aimed to establish whether there were opportunities for WAST to improve the efficiency of its operations.

Previous Reviews Findings on Funding Mechanisms

The *Lightfoot* Review suggested funding arrangements have been unclear in the past and require clarification in the new NHS structure, so that the link between funding and service delivery can be made transparent. The Review also stated that WAST had sufficient overall revenue and staff resources but questioned how efficiently resources were deployed.

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The 2009 Review recommended that WAST should complete a review of the fully loaded cost of providing EMS and PCS in order to establish a sound basis for establishing the funding requirements and the contract currency for the two services. It appears that this has not been followed up by WAST.

The Review recommended that WAST and the LHBs should develop a fully costed plan to implement the actions required to deliver the new delivery model and should establish a joint programme management framework to oversee the implementation of the plan. This does not appear to have been fully acted upon.

The report also pointed to the potential for efficiencies from modernisation and matching resources to demand, but that this, the Review stated, required capital investment, particularly to develop a modern and integrated communications infrastructure.

The *Lightfoot* Review also recommended the Trust should develop robust business cases for all capital investments, including performance gains and revenue savings over a reasonable and achievable timescale and that these should be assessed by Welsh Government. This has been somewhat achieved with a capital assessment process in place although there are still outstanding capital issues notably in the replacement of the Computer Aided Dispatch (CAD) system – the method of dispatching emergency ambulance vehicles by computer.

The *Lighthfoot* Review suggested the majority of ambulance trusts in England either have introduced or are currently planning to introduce the current generation of CAD systems and it is on these systems that CAD providers are currently focusing their development efforts. WAST currently operates with an outdated CAD system that has been superseded by a more up to date system from the CAD provider.

As a result, although the system will be maintained, it will not benefit from the enhancements that will be applied to the later system and over time the performance of the current system will lag behind. Consequently the system will have to be upgraded or replaced in the near future if WAST is to maintain a level of performance that is comparable with other Trusts.

The *ORH Review of Control Services* (2012) also stated effective use of resources can lead to better performance. The report suggested substantial performance improvements could be obtained by WAST through strengthening the management of the Control function, reviewing its capacity for ensuring a robust audit, compliance, training and mentoring processes for call-takers and improving control room layouts. This report made further recommendations in respect of efficiencies for management of staff and resources which are featured under the Organisation and Management section on page 49.

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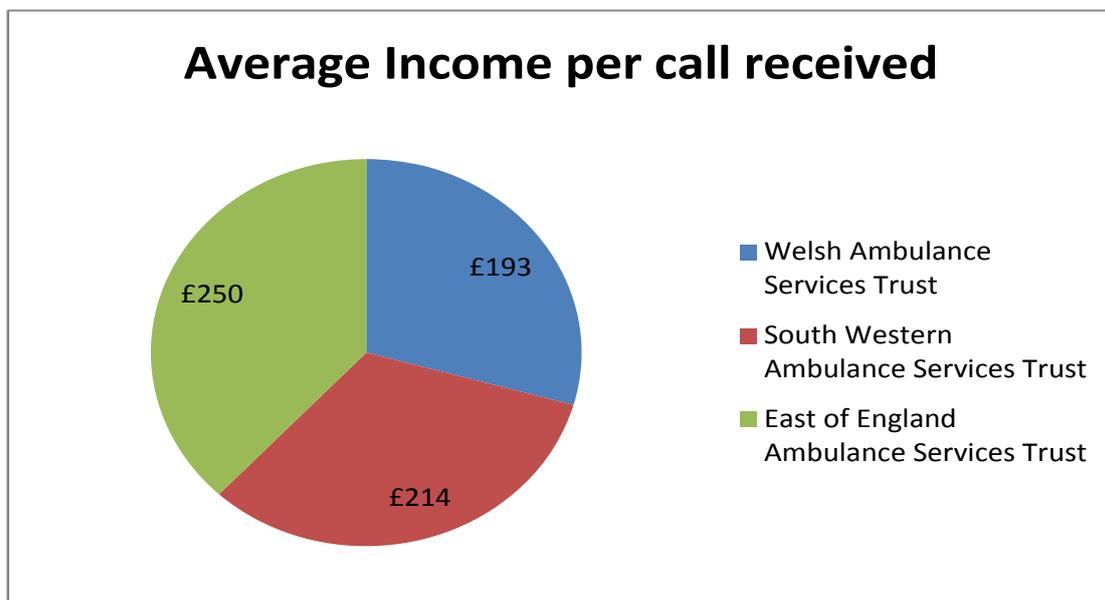
The *Lightfoot* Review carried out a comparative analysis of the funding allocated to WAST and similar Ambulance Trusts in England and reported that WAST received 9% less income per call than South Western Ambulance Service and 22% less than East of England Ambulance Service (2007/08 data).

It also reported that WAST received 8% more EMS calls than South Western Ambulance Service but 14% fewer calls than East of England Ambulance Service, and dividing the EMS income by the number of calls gave the following figures:

- WAST - £195 per call
- South Western Ambulance Service - £209 per call
- East of England Ambulance Service - £250 per call

The Review suggested making comparisons of the efficiency of an ambulance Trust is difficult because of the range and mix of resources available to each organisation. It carried out additional studies to consider a range of additional measures, in order to gain a full understanding of other factors that affect the ambulance service, as well as the efficiency with which the service is operated.

Fig 8 Average Income per Call Received (2007/08)



Within the additional analysis, WAST scored highest in the 'number of incidents responded to per member of front line staff' and the 'measurement of income per member of frontline staff'. The Review concluded that this reflected inefficiency in the way WAST rostered staff, with high levels of overtime and low levels of relief, and recommended running the service with fewer frontline staff.

Stakeholder and Focus Group Findings on Funding Mechanisms

There was a strong consensus that funding of ambulance services need to match aims and objectives for their delivery and reflect decisions about the future structure and model of ambulance service delivery in Wales.

Generally it was felt that the Trust receives sufficient funding to deliver effective unscheduled care services, although there were some who felt that funding was insufficient particularly to achieve the 8 minute target. Efficiencies were suggested in areas such as staff rostering, demand management and reducing lost ambulance hours to fully capitalise on the available resources, which it was felt would result in considerable resources being released.

Key Points

There is a fundamental problem with current funding mechanisms which are not clearly linked to the development of service specifications or SLAs, nor to the performance management of ambulance services. Current arrangements lack clarity and transparency and future funding mechanisms need to address this.

Any funding formula needs to reflect the vision and objectives for the delivery of ambulance services. Currently, the achievement of the 8 minute performance target is a key driver for funding and an agreed vision for a clinical EMS model, with patient outcomes at the heart, would require funding to be appropriately allocated to meet that vision, and to assess whether there is sufficient funding.

The fundamental structural , organisational and system problems experienced by WAST make it difficult to establish whether current funding is sufficient or used as effectively and efficiently as it might be.

In common with the rest of the NHS estate in Wales there are challenges with ensuring the appropriate level of capital funding for example to replace the CAD that need to be addressed.

The Trust's current funding mechanisms were seen by stakeholders as complex, unclear and unnecessarily time consuming. It was suggested that the added value of previously funding WAST through WHSCC was unclear and it was felt that the current system was not transparent. The funding formula, based on a rollover of the previous years allocation was thought to be out of date and there was a view that an appropriate commissioning framework needed to be introduced.

A number of stakeholders felt any future commissioning and funding framework would need to be based on future needs, incorporating issues such as deprivation, rurality, age of the population and future demand projections. It was suggested there were opportunities for SLAs to be put in place with each Health Board alongside effective performance management arrangements.

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The one year funding cycle was not seen to be effective in supporting an organisation that is seeking to implement long-term structural change, as it encourages short term thinking and it was suggested that a three or five year funding cycle may be more appropriate.

A number of members of the focus groups also suggested that existing funding was not allocated fairly on a regional basis, suggesting that although the South East deals with 68% of activity, it was not allocated 68% of resources.

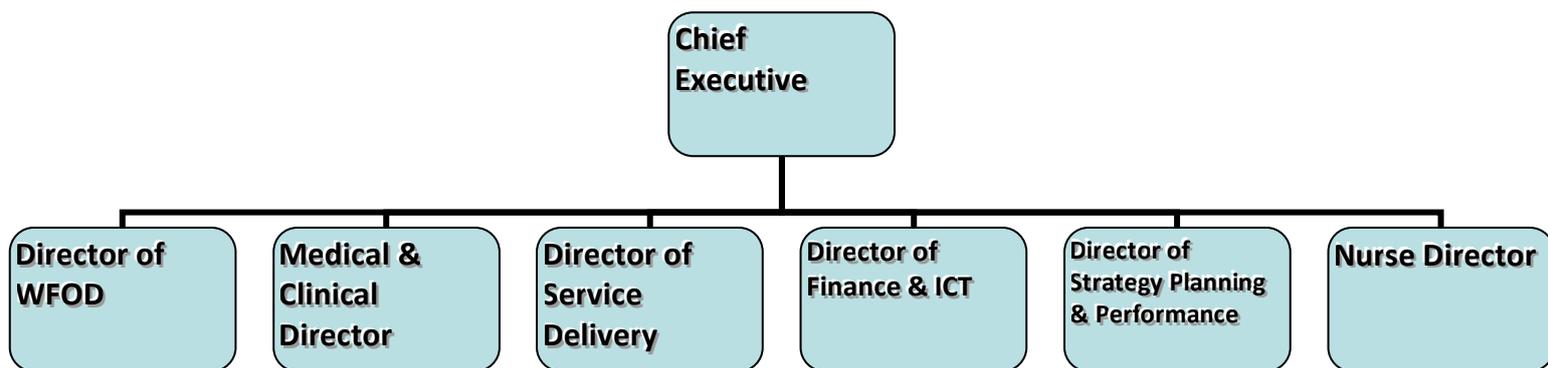
The need for any future funding mechanisms to consider the impact of service change was discussed, particularly in the context of the increased travel times for ambulance staff and resources. A number of focus group members expressed a lack of confidence that an increase in funding will make a difference to operations, indicating they were not convinced management would effectively manage the additional resources.

Organisation and Management of Ambulance Services in Wales

Current Welsh Ambulance Services Organisation and Management Mechanism

WAST delivers EMS, PCS and Health Courier Services and hosts NHSDW. The organisation is overseen by an Executive Board, illustrated in figure 7, which is directly accountable to the Chair, Stuart Fletcher.

Figure 9 Welsh Ambulance Services NHS Trust Executive Structure



The Trust Board formally comprises 13 members, all of whom have voting rights inclusive of a Chairman, seven Non Executive Directors, a Chief Executive and four Executive Directors.

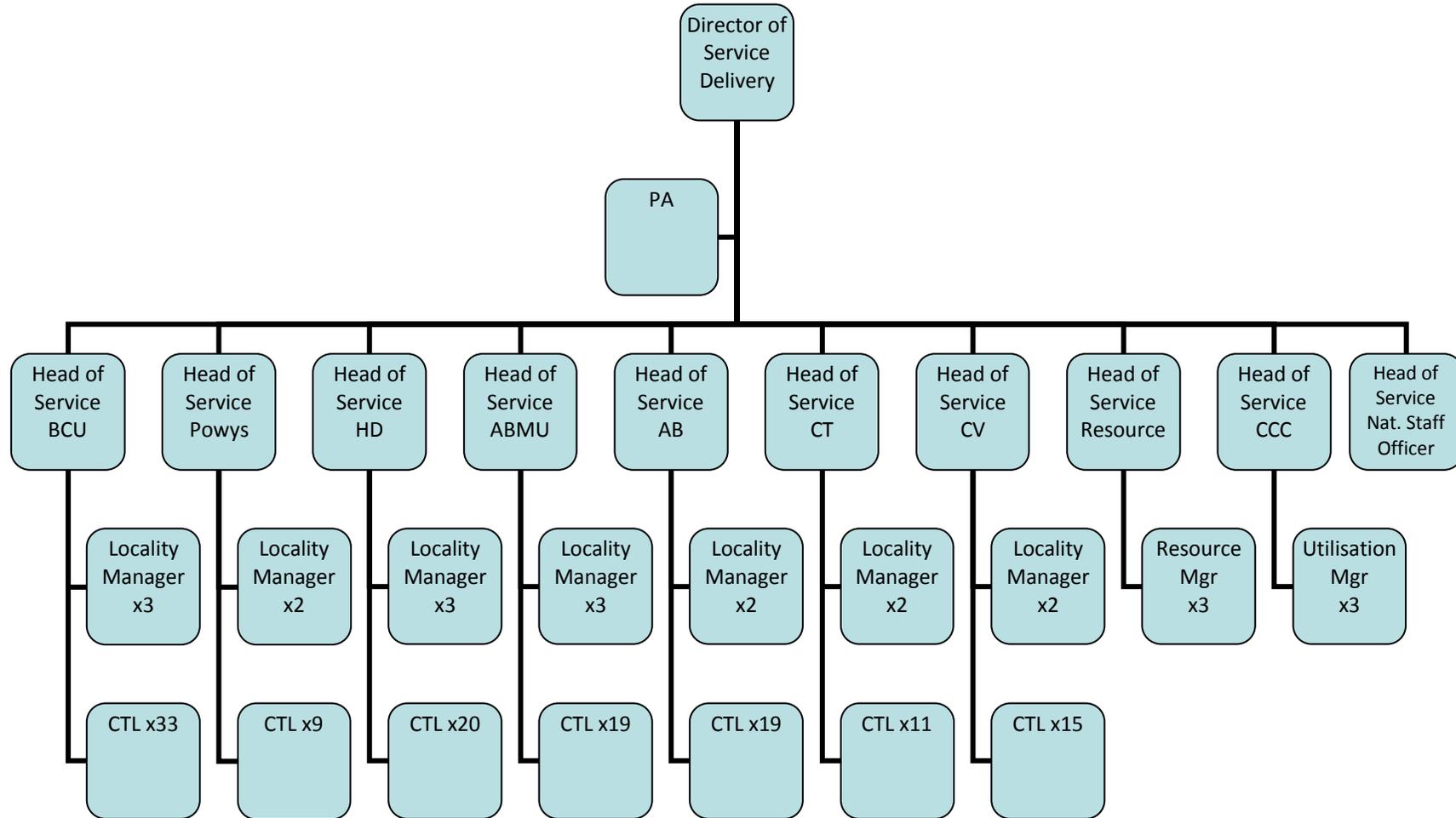
The Board's role is to:

- Set the policy and strategic direction of the Trust;
- Manage the Risk;
- Manage its people and resources;
- Establish governance systems to enable it to effectively measure progress and performance, and to make sure this is achieved; and
- Work in partnership with key stakeholders, both internal and external.

The non-Executive Directors role involves monitoring the Trust's overall strategy and performance and liaising widely with Executive Directors and other key staff.

In 2012, the Trust restructured its management team beneath Board level, moving from a regionally managed approach to the appointment of a Head of Service for each integrated LHB region, in addition to Heads of Service for Resource, Care Coordination Services and a National Staff Officer. Figure 8 overleaf illustrates the WAST Service Delivery Structure.

Figure 10 WAST Service Delivery Directorate



Delivering the Clinical Strategy

The Trust appointed a full time Medical Director in 2011, to lead the Medical and Clinical Directorate and WAST's wider clinical strategy detailed in the *Working Together for Success* document. The strategy aims to 'ensure patients' experience of care and outcomes are the best the Trust can provide', and WAST implemented a clinical response model to drive the delivery of this goal.

The Medical Director is supported by a network of clinical and non-clinical staff across the service delivery and clinical directorates, with additional support from a part time Nurse Director as part of WAST's clinical governance arrangements.

As part of the clinical response model, a 'Clinical Contact Centre' strategy was developed in 2012 and located at its Vantage Point House Headquarters in the South East Region. The Contact Centre is staffed by multi-disciplinary clinical teams made up of call takers, nurses, paramedics and GPs who support control room staff by managing incoming demand through application of clinical critical thinking.

The Clinical Contact Centre is supplemented by clinical assessments undertaken by Advanced Paramedic Practitioners (APPs) at the scene on a 'see and treat' basis. This clinical leadership approach aims to 'foster a culture of clinical leadership and excellence through professionalism across the organisation'.

Specialist and Advanced Paramedic Practitioners are now known as Advanced Practitioners (APs) and Trainee Advanced Practitioners (TAPs) and WAST currently employ **19** Advanced Practitioners and **10** Trainee Advanced Practitioner. Both are able to deliver a range of advanced clinical services which can assess, diagnose, refer and treat patients definitively at scene or signpost them to the most appropriate place for their care.

Previous Reviews Findings on Organisation and Management

Previous Reviews of WAST have focused on specific and detailed organisational and management issues at an operational level. This review is focussed on the strategic aspects, but some common and vital operational findings do arise and have been considered as part of the review.

The 2008 internal Review of WAST's emergency response service indicated that the Trust's corporate governance had improved although clinical governance needed further improvement. The Review suggested the Trust should maintain its progress towards integrating clinical and corporate governance, embed and disseminate key policies and develop clinical governance structures to support new models of service.

The *ORH Capacity Review* (2012) identified that management of Control Room functions should be stronger and more consistent across Wales. Performance management is uneven and ineffective at present and urgently requires

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improvement, with a common system of reporting against key performance indicators, and regular feed back to staff. An effective performance management system was also identified as a key area for improvement in earlier Reviews.

Another common issue raised across the range of reports is poor communication between management and operational staff. The requirement for a clear and effective communications strategy which made roles and responsibilities clear and aid policy and strategic developments featured in the *WAO Review of Ambulance Services in Wales* (2006).

The *ORH Review* also highlighted the importance of addressing and mitigating current and projected increases in demand on ambulance services by increasing staffing capacity. It was felt that the South East area is most in need of additional staff numbers although recruitment across other regions was also required

The *Lightfoot Review* also suggested there was a shortage of staff in certain areas which prevented WAST from undertaking sufficient ongoing professional training. The Review estimated that the cost of additional staff required if WAST were to operate with no reliance on overtime to cover shifts would be in the region of £8.5million.

This overreliance on overtime was identified as a weakness by the *Lightfoot Review* which suggested it did not provide a robust mechanism for managing rosters or represent an appropriate HR policy. The Review identified that it would be imprudent to continue to rely on such high levels of overtime.

The *WAO Follow-up Review of Ambulance Services in Wales* (2008) also suggested staff rosters were inconsistent and resulted in a lack of capacity at peak times, indicating rosters should be based around the needs of patients.

The level of relief built into planning was identified as a weakness by the *Lightfoot Review* which stressed the importance of building relief into resource planning to cover factors such as leave, sickness, training and other planned and unplanned absence. The Review set out that WAST would benefit significantly from increasing its relief factor from a current rate of 28% to the Department of Health's recommended relief factor of 35% to cover issues such as sickness and training.

Sickness absence issues and their longstanding and ongoing impact on operational efficiency were also identified by ORH and the *WAO Review of Ambulance Services* (2006). The recommendation for more robust management of sickness absence is a common theme across the breadth of the reports considered. WAST's sickness absence levels remain the highest of all NHS Wales organisations at 7.23% (December 2012) against an all Wales average of 5.42%.

The *WAO Follow-up Review of Ambulance Services in Wales* (2008) report set out the importance of clarifying roles and responsibilities for executive and non-executive

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Board members with more emphasis suggested for active roles for non-executives. There is little evidence to suggest that non-executives roles have become more clear or central to the Trust's delivery of services.

Stakeholder and Focus Group Findings on Organisation and Management

Concerns were expressed, specifically by some frontline staff, during focus groups about the visibility and leadership skills of both the senior Executive team and the Board. Some focus group members also suggested senior staff were not engaging at appropriate levels across Wales.

It was felt by some stakeholders that senior management focused on current operational issues rather than develop the organisation in a strategic manner.

Further, a number of frontline staff felt the organisation's structure contained too many management tiers, stating that this organisational structure reduced accountability and encouraged inefficiencies in operations and decision making.

There was a general feeling that there is a lack of clinical governance and support within the organisation. An element of focus group members felt that the senior team operate very much in their own silos and are too far removed from those delivering the service. It was also stated by an element of staff at a focus group that staff morale was at rock bottom and anecdotal evidence of bullying was mentioned on a number of occasions.

It was felt by some stakeholders that WAST should be led by an individual with medical and/or paramedic experience and it was suggested that consideration should be given to creating a Chief Ambulance Officer to be housed within Welsh Government.

An element of representatives at focus groups felt there is a general culture of fear amongst sections of the organisation. Concerns were expressed by some stakeholders that staff do not feel empowered or comfortable with making decisions as they feel there is little or no support from management.

Other stakeholders perceived the organisational culture as negative and suggested there was no positive experience of change which resulted in a resistance to it. WAST was seen as a military style organisation by sections of WAST staff.

It was felt by some stakeholders that the current structure, policies and strategies are not appropriate for a modern ambulance service and a section of focus group members felt there were not enough human and vehicle resources – qualified paramedics, ambulances, uniform, essential kit or NHSDW call centre staff.

A proportion of staff said they do not feel part of an all Wales organisation as a result of the different procedures in operation across parts of Wales. There were

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also concerns raised about the senior management structure which was deemed inefficient in some quarters.

Air Ambulance Services

Recommendations and analysis of the strengths and opportunities for greater use of the air ambulance service was not considered as part of this strategic review in view of the emerging Emergency Medical Retrieval Service (EMRS) work programme for Wales. The charitable status of Wales Air Ambulance / Ambiwylans Awyr Cymru was also factored into these considerations.

The EMRS is in use in Scotland and involves the deployment of a medical team from a specialist centre to a smaller healthcare facility with limited on site resources. The aim of the service is to resuscitate and transfer critically ill patients directly to definitive care.

Given the transfer times of less than 30 minutes across Wales a service of this kind could offer alternative solutions for both rural and specialist health services. However, the Welsh Government has advised that Wales Air Ambulance / Ambiwylans Awyr Cymru has never previously sought capital funding and it would not be appropriate to make recommendations on an issue that is not within the scope of the Terms of Reference.

Key points

Previous reviews and actions have placed significant focus on changes to the detail of organisation and management of ambulance services. In particular the organisation has experienced a number of changes at the most senior management levels. However, despite this many of the problems previously identified remain.

This suggests a much more fundamental problem with the organisation itself and how the system it currently, and has previously, operated within has impacted on it. This is a difficult and not always tangible issue which does, however, need to be clearly addressed.

A clinical model for the delivery of EMS requires the up skilling of paramedics as part of the unscheduled care workforce. This should be achieved by more detailed workforce planning conducted with key partners in the NHS and Higher Education.

There is a general consensus that up skilled paramedics should develop greater levels of autonomy and clinical decision making. This requires the development of pathways and protocols to support this that recognise the wider nature of risk management and partnership working with regulatory organisations in the development of the paramedic profession. It also requires a high level of clinical understanding, support and leadership from within the ambulance service and from other clinicians working in unscheduled and primary care.

Performance

The WAO's forthcoming report on unscheduled care includes a comprehensive study of demand on NHS Wales' urgent and emergency care services. In view of this work, and because this strategic review was not tasked with analysing demand in its Terms of Reference, a detailed analysis of this issue has not been provided.

However, it is important to reference the impact of demand because of the implications a significant increase in activity can have on performance.

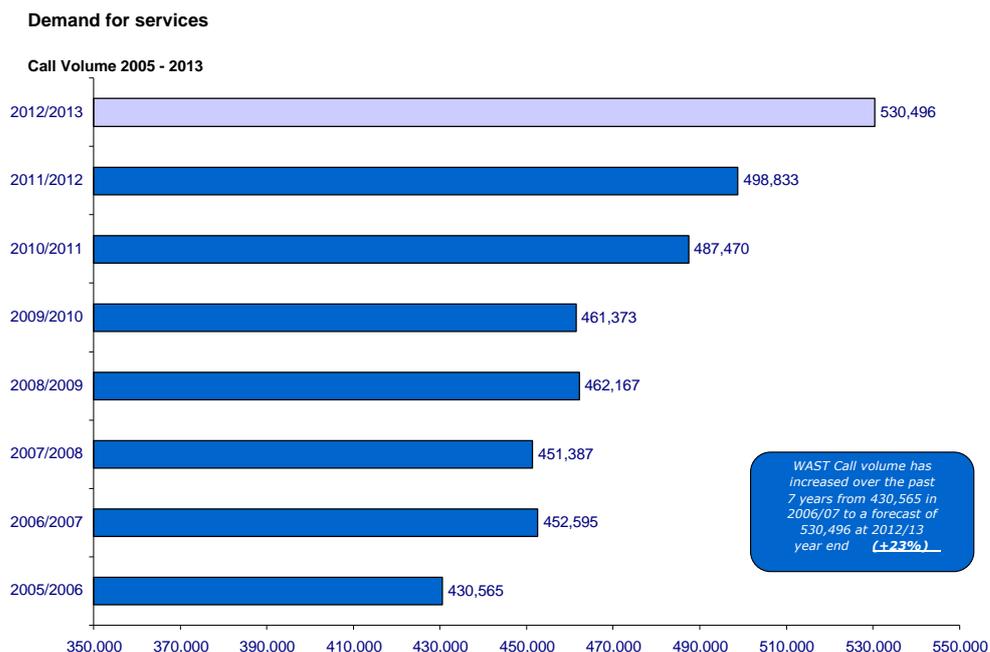
Current Demand on Ambulance Services

In common with other unscheduled care services, WAST has faced rising levels of demand over recent years, resulting in increased pressure and the potential for diminished patient experience and safety. For information on the reasons for increasing demand on unscheduled care services please see the 'current and emerging challenges' section on page 24.

Call volumes to WAST have increased significantly in the past ten years. This increase has been caused by a range of factors additional to the 'standard' increasing pressure referred to above. Call volumes increase significantly during weekends, public holidays and during sporting weekends.

Call volumes have risen by 68% between 2001/02 and 2012/13 and there has been a 29.6% increase in calls categorised as life threatening between 2005/06 and 2012/13. The increase in call volume demand is illustrated in chart 1 which shows an increase in calls from 430,565 to 530,496 over the past 7 years:

Chart 1 **Call Volumes 2005/06 – 2012/13** (Source: Welsh Ambulance Services NHS Trust)



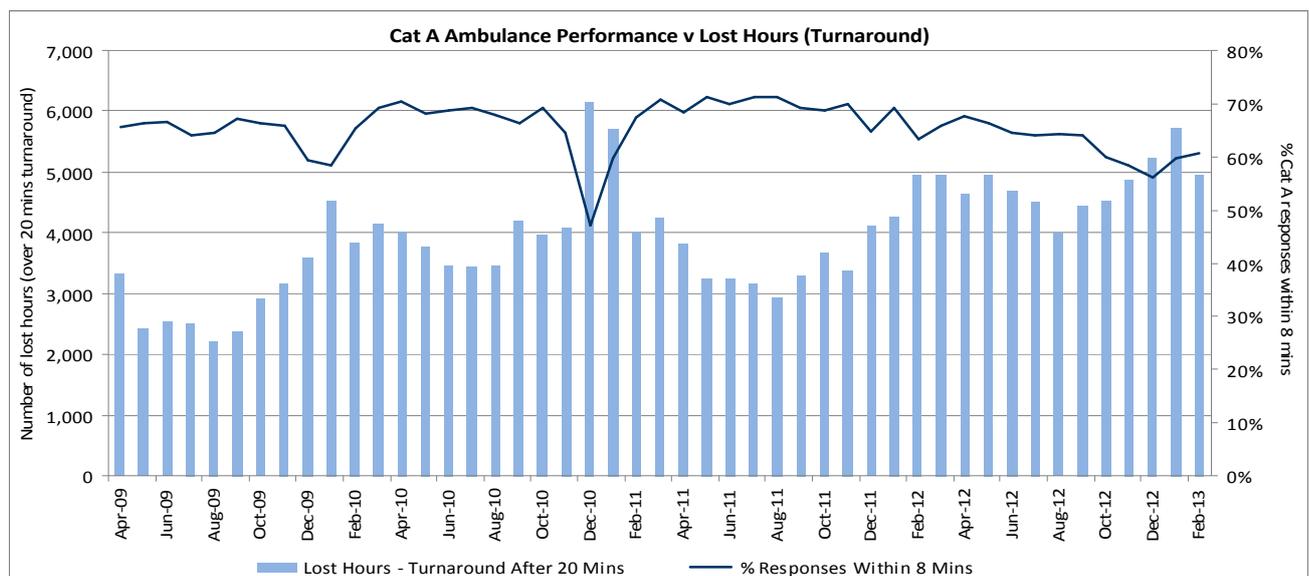
Overview of Current Performance

The Welsh Government’s Annual Quality Framework 2012/13 requires WAST to achieve a range of national standards and targets which demonstrates the quality of service delivered to patients in Wales.

The principal national performance target requires WAST to respond to 65% of all calls categorised as ‘life threatening’, known as Category A until December 2011 and now known as Red 1 or 2 calls, within eight minutes. A separate target for 60% of responses to the same category of call within eight minutes exists on a Unitary Authority basis. ‘Life threatening’ calls include cardiac arrest, stroke and heavy blood loss. In addition to increasing demand levels, WAST face a number of challenges to its ability to achieve these targets:

- Geographical challenges in rural and sparsely populated places, where it is extremely difficult to accurately predict the focus of demand;
- Difficulties during the winter months when inclement weather can cause dangerous driving conditions, resulting in reduced speed;
- Challenges with the topography of some areas resulting in limited access, making it difficult to achieve timely responses;
- Lengthy patient handover delays (or lost ambulance hours) at A&Es in Wales cause particular problems for ambulance vehicles to respond to other calls in the community as they are tied up for extended periods, particularly during times of peak demand. Lost ambulance hours are an international problem but are a significant issue in Wales and the impact of lost ambulance hours on performance in Wales is illustrated in Chart 2 below:

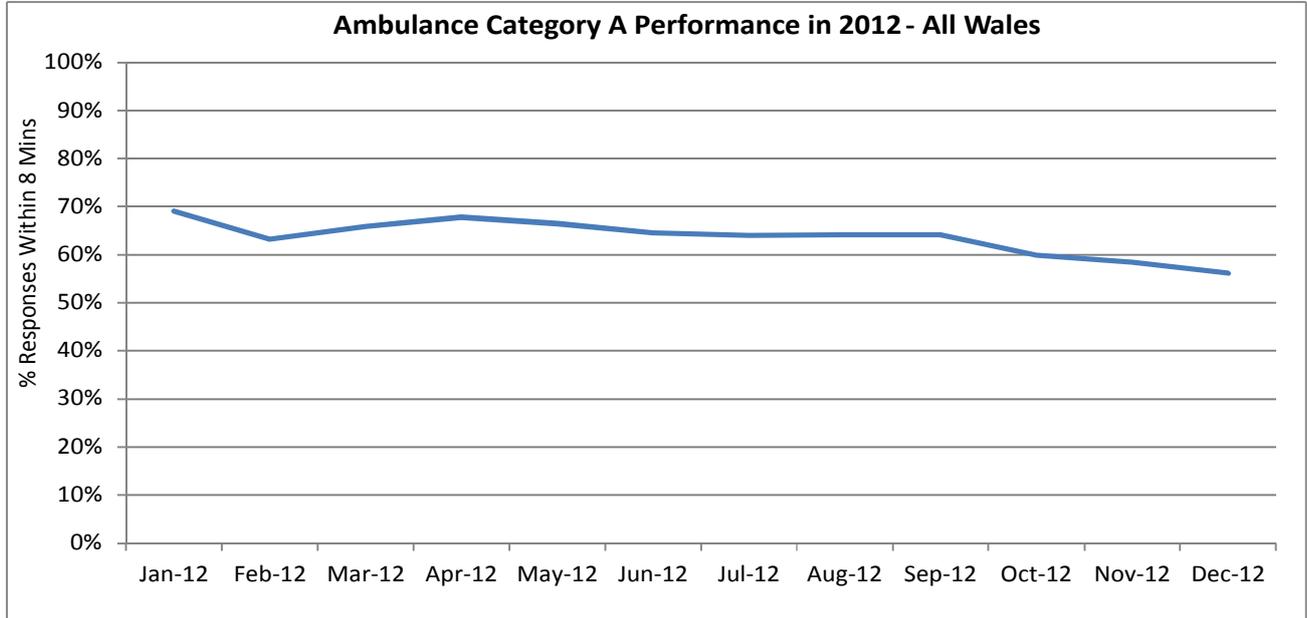
Chart 2 Category A Performance vs. Lost Ambulance Hours (Source: WAST)



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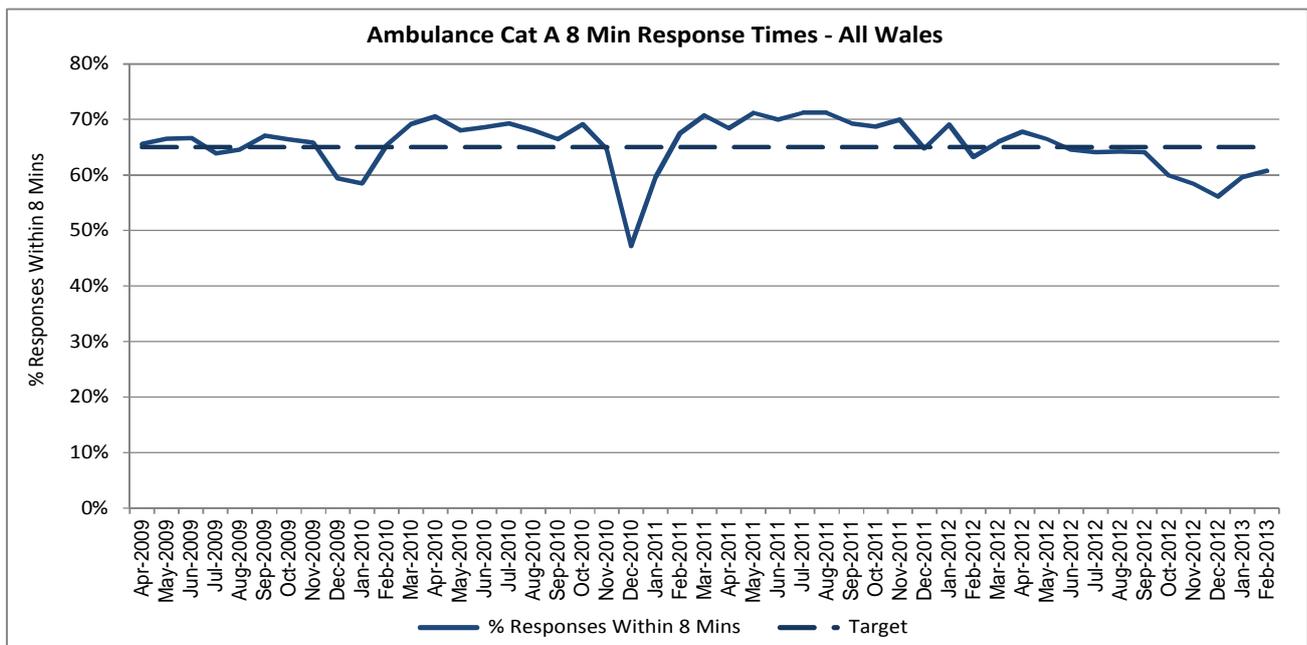
Performance against the eight minute target has deteriorated over 2012/13 as illustrated by chart 3.

Chart 3 WAST National A8 Performance (%) 2012/13 (Source: WAST)



This performance does not compare favourably with previous years as demonstrated by Chart 4 below.

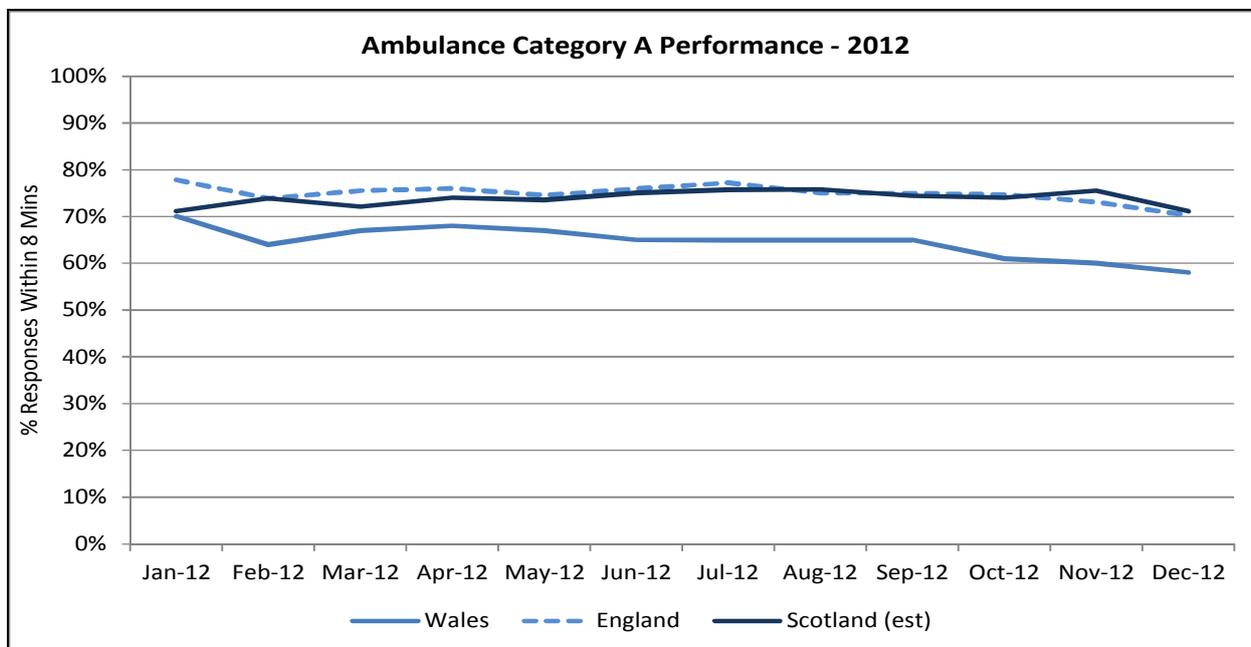
Chart 4 WAST National A8 Performance (%) 2009 – 2013 (Source: WAST)



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Performance in Wales does not compare favourably with England and Scotland either as illustrated by chart 5 below although it should be acknowledged that it is difficult to compare like with like with such a different level of resources at the command of ambulance service in each country.

Chart 5 **WAST Performance 2012** (Source: WAST)



WAST has also set itself a target of reaching 52% of patients categorised as suffering from cardiac arrest, with a defibrillator within four minutes. Between 2008-09 and 2011-12 the Trust had never met this target and the best annual performance was 35.6% in 2011-12. In November 2012 performance deteriorated to 25.8%.

Whilst the eight minute target has been viewed as the principal ambulance performance indicator there are a range of other standards which WAST has consistently failed to achieve. These include:

- For calls categorised as Green 1 and 2 the Welsh Government requires a paramedic to arrive at the scene within 30 minutes in 95% of cases. Between April 2012 and February 2013 performance has typically been around 80%.
- Calls classified as Green 3 do not receive a paramedic response. These calls are transferred to NHSDW for clinical telephone assessment and Welsh Government has set a target that the patient should receive this assessment within 10 minutes in 90% of cases. This target has not been met since March 2012.
- Urgent calls from GPs are the most common call received by the ambulance service in Wales. In such calls, the ambulance service uses a protocol known as *Card 35* which aims to ensure all calls from GPs are not treated with the

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same urgency. The ambulance call taker runs through a set of questions with the GP and together they decide upon an appropriate response time. The Welsh Government target requires WAST to comply with this agreed response time in 95% of cases. Between December 2011 and February 2013, WAST's best monthly performance was 69.7%.

Previous Reviews Findings on Performance

A number of the key reviews, including the *Ambulance Services in Wales* (2006) and *Lightfoot* Review identified the need for the ambulance service and LHBs to agree a range of measures and standards that can be used to benchmark performance against ambulance services around the UK. To date, there is little evidence of a robust system being put in place to achieve this.

The WAO *Ambulance Services in Wales Review* (2006) recommended that WAST should work with LHBs to improve the way they monitor their performance, through a robust, accurate and balanced system of measuring and reporting against key performance indicators. Although the Welsh Government revised the national reporting standards in 2011 there has been a lack of progress in regard to development of outcome measures to support the 65% national standard.

The same Review identified that rural areas of Wales pose their own unique challenges for delivering emergency ambulance services and suitable, regional strategies were required to address local issues, but which align with the national plan.

The *Lightfoot* Review identified that hospital delays have a significant impact on WAST's ability to meet its performance targets, suggesting that an additional 900 ambulance hours per week were needed in order to compensate for the delays in handing over patients at hospital. The number of lost ambulance hours accrued each week has remained constant since the release of the report with the latest available figures showing WAST 'lost' over 5000 hours waiting to handover patients at A&E in March 2013 alone.

The WAO's *Follow-up Review of Ambulance Services in Wales* (2008) suggested that LHBs should be more pro-active in tackling long patient handover delays which impinge on ambulance service performance.

Stakeholder and Focus Group Findings on Performance

Whilst some focus group members were of the view that time based targets were not appropriate, some thought that there was a role for time based targets as a measure of internal performance and improvement, and that these should not be made public. They felt the approach used by the Fire Service to monitor performance is effective as they have recently moved from a time-based response for emergencies to an approach based on outcomes and quality. This move came in

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response to a Welsh Government expectation that fire and rescue authorities will develop service standards for responding to dwelling fires in their area. An all-Wales Dwelling Fire Response Charter was developed to provide a framework by which all three fire and rescue authorities can communicate their specific commitments to their local communities.

The framework outlines the level of prevention, protection and response that communities can expect on dwelling fire risk and does not include time based targets, instead focusing on:

- Welsh Government performance indicators relating to fire deaths, injuries, accidental dwelling fires and home fire safety checks.
- Local performance indicators relating to operational competence levels of fire and rescue personnel.
- Local performance indicators relating to any serious injuries sustained by fire fighters at dwelling fires (under RIDDOR criteria).
- Local performance indicators relating to working time lost as a result of those injuries.
- Local performance indicators relating to response criteria (including response time) to dwelling fires.

Many stakeholders and focus groups believed that current targets were not regarded as effective and were not seen as clinically sensible, with a strong view that targets need to be outcome focused and shared with LHBs as part of an integrated pathway. Concerns were expressed by about the lack of an evidence base for an 8 minute target which was deemed to lack patient focus.

It was also suggested that consideration should be given to setting targets for key pathways, such as stroke and cardiac conditions, subject to more refined triage at the call handling stage.

The general view was that the current performance management framework within which WAST operates is resulting in some negative behaviour and is not assisted by the lack of consideration for outcome based measures such as patient survival.

The most consistent discussion topic from frontline staff was in relation to the disproportionate amount of focus placed on achievement of the eight minute target by management. Group members expressed concern that colleagues were complimented for achieving the target despite the eventual death of a patient but were reprimanded by managers for failing to achieve the target despite saving a patient's life.

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The following example was quoted by many stakeholders:

If an ambulance arrives within 9 minutes and the patient survives, they have failed the target; and

If an ambulance arrives within 7 minutes and the person dies, the target has been achieved.

In addition to the above, focus group members consistently pointed to the increase in demand as a factor in deteriorating performance. They felt failure to roster staff effectively to meet demand was also a contributing factor towards a failure to achieve the eight minute target.

Key Points

The eight minute target is currently the primary focus for performance management. This is a very limited way of judging and incentivising the performance of ambulance services.

Speed is particularly important for some conditions such as cardiac arrest but there is little clinical evidence for the blanket eight minute target.

A more intelligent suite of targets which incentivise change and provide a greater focus on patient experience and outcomes should be developed. These should form part of a suite of targets across the unscheduled care system

A clinical model for the ambulance service within the unscheduled care system requires the development of care pathways and protocols which facilitate the delivery of EMS within the unscheduled care system.

There is a lack of integrated data across the patient journey and specifically on outcomes, and this should be addressed to facilitate rigorous performance management across the system.

It was also felt that WAST was overused by the public and GPs in general. There were fears that the public appear to be relying on WAST when they are unable to get appointments at their local doctors and GPs are using WAST to transport patients to hospital when other options may be more appropriate. As a consequence of this conveyance levels are higher than they should be and WAST staff do not feel empowered to take decisions that will result in a patient not being transported to A&E.

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Some suggested more focus needs to be given to monitoring conveyance rates and the reasons for patients being transferred to hospital. As part of an effective performance management system, it was suggested by some that this could identify those who should have been treated elsewhere and take appropriate action to resolve poor practice among paramedics.

Many felt that improved access to an assessment and triage system through the primary and community care setting (i.e. GPs, Out of Hours and NHSDW) would reduce the demand on the ambulance service and improve performance.

A number of group members felt media scrutiny and political expectations were impinging on performance by increasing pressure on staff.



Part 3 - Key Conclusions and Recommendations

A New, Whole System Vision for Welsh Ambulance Services

The ambulance service and the wider NHS in Wales know they need to change.

The unscheduled care system needs to change how it identifies people at increased risk of a need for urgent or emergency care treatment, and to manage that risk with services, care and support at or close to home to prevent emergency hospital admissions where they are not needed.

The scale and pace of change will increase for NHS Wales over the coming years and this Review was undertaken in that context, with a focus on placing ambulance services within a whole system.

A new vision for Welsh ambulance services which is clearly defined, realistically achievable and aligned to the whole system direction of travel for unscheduled care services needs to be agreed as a first step. Everything else, including how services are planned, delivered and funded should flow from this vision.

A Robust, Clinical Model for Emergency Medical Services

WAST's current clinical strategy aims to build strong clinical leadership towards delivering a patient focused clinical service. This is a progressive and clear vision.

However, this clinical model cannot be delivered effectively unless efficiencies are made elsewhere allowing for the delivery of a streamlined EMS, which operates from a whole system perspective.

Realistic assessment of whether the current levels of clinical and nursing skills are able to provide an appropriate clinical response will also need to be made in building towards a truly clinical model.

Recommendation 1

Welsh Government and NHS Wales should agree that WAST Emergency Medical Services (EMS) be operated as a clinical service embedded in the unscheduled care system. This will need to be a key part of the service change agenda. Patient Care Services (PCS) should be locally responsive, cost effective and provided on clear eligibility and accessibility criteria.

Locally Provided and Cost Effective Patient Care Services

Careful consideration has been given to the findings of previous Reviews concerning aspects of PCS, specifically the *Griffiths Review of Non-Emergency Patient Transport in Wales* (2010) and the subsequent three-year national programme of non-emergency patient transport pilots.

Recommendations and conclusions made in this report should not preclude anything that will come out of the Griffiths Review which is due to report to the Minister for Health and Services with the outcome of the pilots in June 2013. However, the recommendation outlined below can be considered within a variety of organisational structures.

Ultimately the provision of PCS is a core part of service change proposals and it is important that these services are considered a high priority by whoever is responsible for their delivery, and to avoid the risk of being seen as marginal.

Further, in determining the future role for PCS, it is important to consider whether it fits with any changes to the way EMS are delivered and whether they should become a routine function of LHBs delivery of services.

Stakeholder views captured as part of the Review have indicated a clear preference for local delivery of PCS that would result in separation from EMS, allowing it to focus solely on the delivery of a clinical model.

This is also reflected in the international literature. In order to achieve this, PCS will need to be physically removed from the national emergency medical service and it is worth noting that there may be legal and workforce issues to contend with if this approach is taken.

Recommendation 2

Work should begin to disaggregate PCS from the EMS element of Welsh ambulance service delivery, with PCS becoming a routine function of Local Health Boards' (LHBs) business.

Consideration should be given to providing a form of national co-ordination to ensure the resilience and benchmarking of effective PCS across Wales.

NHS Direct Wales Should Continue to Provide Triage and Public Health Advice

NHSDW provides a 24 hour health advice and information telephone and web based service in addition to a nurse led clinical triage service for calls to 999 categorised as non-emergency nor urgent. The 'triage' and 'public health advice' are the principal elements of NHSDW's existing service.

Integration of NHSDW with EMS services enables a significant strategic advantage for the delivery of integrated urgent and emergency care services.

Paramedics and NHSDW nursing staff can work together within multi-disciplinary teams to provide patients with a wide range of clinical advice, guidance and treatment. Further, the nursing workforce play a pivotal role in identification of different needs of the public, provide evidence based support and information to enable self care as a result of telephone consultation or web-based services.

There are various options in terms of where the functions of NHSDW should sit. The Public Health "advice" function could be provided by a different organisation (for example Public Health Wales) or could build upon LHB developments in providing phone and web based advice.

However, there is emerging work regarding patient access to initial "telephone triage" support which may involve the establishment and integration of the 111 non-emergency number and Communications Hubs.

NHSDW and the services it offers are a core part of this emerging work and it would not be appropriate to make recommendations on its function within this evolving policy context.

It is important to note, though, that while the two main functional elements of NHSDW can theoretically be disaggregated, they are part of an overarching, integrated service and this presents challenges, particularly in terms of human resources and how to best use the skills of these staff in the future.

Further, and similarly to the future options for the delivery of PCS, any changes to the delivery of NHSDW functions are also dependent on the service delivery model for EMS.

Recommendation 3

The future delivery model for NHS Direct Wales (NHSDW) should be further considered within the context of the options for changes in structure and accountability for the ambulance service. The wider context of the development of the 111 non-emergency number and other advice services also needs to be considered.

Funding and Accountability Arrangements Must Change

There are compelling arguments for change based on stakeholder feedback, the available literature and analysis of a significant number of previous reviews, which itself is symptomatic of a need for change.

The existing funding mechanism is complex, opaque and time consuming, and does not allow Welsh ambulance services to match aims and objectives for their delivery.

Decisions are required about the future structure and model of ambulance service delivery in Wales.

The complexity of funding arrangements is exacerbated by weak commissioning arrangements with an apparent absence of service specification for national ambulance standards which set out the quality of service required.

There is also no evidence of development of SLAs or frameworks for required activity levels during any given financial year, resulting in a lack of direction to WAST regarding the shape of current and future services at a commissioning level.

Further, the apparent absence of commissioning arrangements has hindered accountability and governance structures.

Performance management arrangements also require fundamental improvement under a more robust commissioning structure with evidence suggesting there have been infrequent performance meetings held between WAST and WHSSC over the past three years, with no evidence of a planned timetable in place for meetings between the two organisations.

During the Review it has become clear that 'doing nothing' is not an option, with the evidence identified suggesting there are real problems around accountability, delivery and morale.

Any proposed structure should, therefore, be assessed against the following guiding principles, and whether it will:

Reflect current organisational responsibilities for the delivery of population based services;

Be based on and incentivise the delivery of a Clinical Model;

Have simple and transparent accountability;

Fit within delivery of a wider Unscheduled Care pathway;

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Place the management of financial risk in the most appropriate place;

Fit with wider strategies within Health and Wellbeing in Wales;

Be resilient, nationally and locally;

Facilitate a local focus by working with local partnerships; and

Provide enough recognisable change from the current arrangements;

Recommendation 4

The fundamental problem with the non-alignment of current accountability, funding and governance arrangements for ambulance services in Wales needs to be addressed.

There are also deep rooted problems with WAST itself and issues also persist in WAST's relationship with partners. Both of these issues need to be addressed.

Options for Changing the Strategic Model for Welsh Emergency Medical Services

A number of strategic models capable of delivering a robust, clinical model for EMS were considered, and three models have been identified as viable options.

International research suggests there is little evidence to support the merger of emergency services (see page 33) and the number of disadvantages associated with this strategic model outweighed advantages by some distance.

International research also suggests the general direction of travel is towards larger organisations of ambulance services, and both the Scottish and Northern Ireland ambulance services are nationally organised.

However, as previously alluded to, maintaining the current arrangements should not be viewed as a viable option in view of the longstanding problems with funding, accountability, governance and the culture within the organisation.

There are three distinct strategic models which would address these main challenges and all models have advantages and disadvantages that need to be considered against the guiding principles outlined on page 62.

OPTION 1: A “Special Health Board” Model

This model would involve retaining national service provision, delivered by a to-be-established Special Health Board, that would be funded and performance managed directly by the Welsh Government.

The Special Health Board could have a role in the process of national Government, but would not act as a Government department or part of one, and which accordingly operates to a greater or lesser extent at arm's length from Ministers.

In simple terms, this would mean ambulance services could be delivered by a national or regional public body, carrying out its day-to-day functions independently of Ministers, but for which Ministers are ultimately accountable.

This approach would see the dissolution of WAST in its current guise as a Trust and a provider of health services on behalf of LHBs and the establishment of a Special Health Board, a deliverer of services in its own right on a national basis with all the equal and comparable organisational arrangements held by the Health Boards.

In theory there would be parity in negotiations and transactions similar to the specialist tertiary services mechanisms currently in existence between LHBs for services such as cardiac and neurological surgery.

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This would alter the current commissioner / provider relationship, and although tertiary arrangements are not as mature as required it would represent a familiar ground to both LHBs and a new Special Health Board.

Essentially this option would seek to place ambulance services on the same footing as Health Boards with the same funding, performance and accountability mechanisms and expectations.

Advantages

- This model will retain a national organisation and will, therefore, be resilient and flexible in terms of logistical delivery and redeployment of resources to match changes in demand / situations.
- The direct reporting to Welsh Government will provide simple and transparent accountability that matches the way the funding is provided.
- Current arrangements for call management, control rooms and deployment would provide continuity of core services.
- Retaining a national organisation will be relatively quick and straightforward to implement.

Disadvantages

- Whilst a national organisation might deliver logistical benefits, it has struggled to implement the change to a more clinically focused delivery model. There is currently a strategic shift towards retaining accountability for delivery of Health services within the NHS, and therefore placing accountability with WG seems to go against this, and the management of the financial risk would not be well-placed within WG.
- Unscheduled care pathways are being developed locally, and a national service may not have the local focus to be fully integrated within these.
- Retaining a national service may not deliver sufficient change, both real and perceived, in terms of improving working practices and culture, and the extent to which the Review is seen as worthwhile.
- A new Special Health Board would need to be created. WG don't necessarily have the planning and managing skills that would provide an effective relationship with an ambulance service.

OPTION 2: Commissioning Model

WAST is currently engaged as a provider with its partners and suppliers, although the arrangements are fundamentally flawed. There are no tangible contracts or SLAs in existence which ensure demand for services are understood, benchmarked and planned as part of partnerships with WHSSC and Health Boards.

Further, the current arrangements are blurred with an apparent absence of accountability for ensuring resources are matched to demand effectively, and there are limited performance management arrangements in place to act as a performance improvement enabler.

If the preferred model for the delivery of EMS is a commissioner/provider relationship with LHBs it is essential that any new arrangement is different to what has gone before thus ensuring effective use of resources that have a whole system health economic benefit.

This will involve working together at the highest level within each organisation to sustain and improve provision that meets the changing needs of both the population and the health economy. This will require commissioners and the provider to engage in regular, constructive performance discussions to ensure continuous service improvements.

Effective commissioning will move the emphasis from spending on services to investing in health and well-being outcomes. It is crucial that agreed objectives meet the needs of the whole health economy and are developed within an environment of clinical engagement.

Service delivery plans will need to be developed at an all Wales level in the first instance but with the flexibility to deliver local needs. The local delivery plans must work in conjunction with the national plan and have no detrimental impact to any individual partner or the all Wales plan.

To facilitate the system benefits as outlined, the following process would need to be in place:

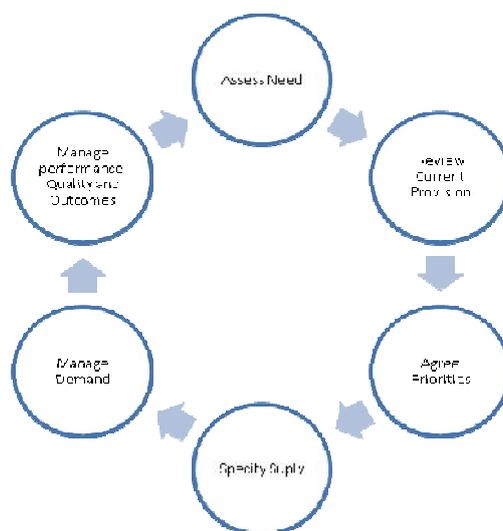
- Agree service model for EMS and NHSDW with all commissioners;
- Sign-up to the principle of a clinical ambulance service able to deliver an integral clinical service;
- Sign-up to LHB responsibility as both a commissioner and a provider;
- Agree a medium term service and financial framework that links to WG standards and targets;
- Recognises the 7 LHB strategic needs assessment;
- Agree tolerances around handover delays and financial consequences; and

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Commissioning must be directly with a LHB(s) as the current arrangement with WHSSC has proved unsuccessful, in part because WHSSC is so far removed from unscheduled care.

Figure 9 demonstrates the commissioning cycle required to optimise value for the whole health economy.

Figure 11 Optimal Commissioning Cycle



This model would need to ensure that funding, accountability and performance management are an integral part of the commissioning framework and various combinations of commissioners may be considered further under this option at a local, regional and national level.

Finally, implementing this option would mean WAST itself would no longer act as a Trust as defined by the NHS (Wales) Act 2009. A new organisation would be formed without accountabilities to government although retaining similar status to Trusts. The new organisation would essentially act as a type of Executive Agency which will remain within NHS Wales.

Advantages

- This model will have the benefits of delivering the service through a national organisation with the added benefits of creating a local focus and would be easiest to transition to.
- A strong commissioning framework will put in place simple and transparent accountability that should drive forward improved delivery in terms of performance and efficiencies.
- The local focus will fit with the development of Unscheduled Care pathways and partnership working.

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- Financial risk would be appropriately managed within the NHS. Having a stronger regional identity would highlight areas where performance needed to improve.
- Greater consistency and fairness in patient access to emergency ambulance services to Welsh patients.
- Better health outcomes for patients through empowering ambulance services to deliver high quality, clinically-effective, evidence-based services which deliver far more than a 'scoop and run' service for life threatened patients.
- Greater efficiencies in the delivery of ambulance services through the introduction of standardised frameworks and operating procedures.

Disadvantages

- There is currently a low supply of commissioning skills and experience within Wales and restricted levers to ensure effective commissioning.
- Whilst a national organisation might deliver logistical benefits, it has struggled to implement the change to a more clinically focused delivery model.
- There will potentially be increased transactional costs associated with the commissioning process.
- There is currently a strategic shift towards retaining accountability for delivery of health services within the NHS, and therefore placing accountability with Welsh Government seems to go against this, and the management of the financial risk would not be well-placed within Welsh Government.
- Retaining a national service may not deliver sufficient change, both real and perceived, in terms of improving working practices and culture, and the extent to which the Review is seen as worthwhile.

OPTION 3: Local Management and Delivery Model

This model would see the dissolution of WAST as a Trust and move EMS and PCS services from an all-Wales delivery model and place responsibility for them with the seven LHBs.

LHBs would have a statutory responsibility for planning, designing, developing and securing EMS and PCS services in addition to their existing responsibilities for primary, community and secondary care health services, including mental health and specialist tertiary services, for their local populations. This would also include taking a strategic approach to developing ambulance service workforce and estate matters.

The ambulance services provided by each LHB will need to meet local needs and be delivered within the national policy and framework set out by the Minister for Health and Social Services and the Welsh Government. This will include meeting the locally defined targets as set out by the Welsh Government. Ambulance services would be provided on the same basis as all other services as part of the routine funding and delivery functions of a LHB. A national co-ordination mechanism will need to be established:

- to provide a platform for identifying and articulating local priorities, challenges and best practice to eradicate any barriers that may be presented by cross border issues;
- To determine research priorities, facilitate research work and use findings to inform policy reform and new developments; and
- To mobilise financial and technical resources from all stakeholders and solicit their support in implementation, monitoring and evaluation processes.

Advantages

- This would be a significant change, both real and perceived, in terms of the way the ambulance service is delivered;
- There would be complete local focus and integration with development of unscheduled care pathways, through the clinical role that the ambulance service would provide.
- There would be no need for a separate Board, and all accountability would sit with the LHB within their role of providing a health service to their local population, and is therefore simple and transparent.
- There would be reduced transactional costs and levers for change would be consistent with those for the rest of the NHS Wales system.
- Perceived “competition” in terms of performance between LHBs may improve overall performance.

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- The ambulance workforce would be fully integrated within the LHB and therefore perceived entrenched poor culture and working practises would be dissipated.
- This model would facilitate better working with local partnerships and act as a driver for greater involvement for ambulance services to be involved with service development at a local level.

Disadvantages

- WAST would need to be dissolved, and its workforce reallocated to LHBs. This may have legal implications and would not be quick or straightforward to implement.
- There would be potentially reduced economies of scale or critical mass across an ambulance service which may lead to poor resilience and non-flexibility in terms of reallocating resources to suit delivery requirements, and create cross boundary issues.
- There would be potential for inconsistency in practice and delivery across LHBs.
- Provision of call taking control rooms and despatch functions would need to be fully examined to understand the implications in terms of both expertise and cost.
- Responsibility for delivery of NHSDW functions would need to be considered in the context of emerging work programmes, in regard to legality around workforce changes and in regard to the triage function currently provided.
- The role and clinical skills of the ambulance service may not be clearly understood by LHBs, particularly in relation to the skills, competences and clinical scope of practice.

It is important to note that there are a range of organisational permutations for both option 2 and 3. These options, and their advantages and disadvantages would need to be considered in more detail once a direction of travel has been determined.

Recommendation 5

Three main structural options should be considered for the future delivery of EMS: 'Strategic Health Board' Model, LHB Commissioning Model and the LHB Management and Delivery Model. Options should be assessed against a series of core guiding principles to ensure form follows function and a clear decision made on the future direction of travel.

A Robust, Clinical Model Requires a Highly Skilled and Committed Specialist Workforce

Fundamental changes are required to promote relevant training and education programmes to better equip staff to provide an enhanced range of clinical services. Developing and improving clinical competence among front line staff to allow increased treat and referral rates are paramount to the development of a robust clinical model.

Frontline staff need to be up skilled to have the clinical confidence to reduce the number of patients transported to hospital inappropriately, and ensure they are seen by the most appropriate clinician or service for their needs.

The clinical development within WAST has advanced over recent years through the Advanced Practitioner Paramedic (APP) role and the specialist care at a scene or at a patient's home it offers.

However, it has been difficult to attract candidates to study for the qualification and more needs to be done to design and deliver educational and training programmes in collaboration with higher education organisations.

Recommendation 6

Robust workforce planning should be put in place to deliver an up skilled and modernised EMS workforce enabling greater levels of autonomy and clinical decision making. This should be developed in partnership with the NHS, Higher Education Institutions and Regulatory Organisations.

Recommendation 7

Care Pathways and protocols should be further developed across the unscheduled care system to allow patients to be treated at the right time and in the right place and reduce unnecessary pressure on A&E. There are considerable benefits associated with alternative care pathways not least for patients and all parties should work together to accelerate their development as a priority.

Performance Measures Need to Go Beyond Speed Based Targets

A case can be made for a new all-Wales target for the time taken for an ambulance response in cases where a patient needs transport. There is no clinical evidence to suggest an eight minute response makes any difference to the outcome of the patient in all circumstances.

Further, the current target for 60/65% of responses means that there is an “allowable” 40/35% tolerance to responses that are outside of this target (not taking into account appropriateness of response). It is also important to understand the factors influencing performance against time targets, for instance rurality, and other influences within the unscheduled care system.

However, setting different targets by LHB is not tenable because of operational considerations, unless such targets are constructed on an all-Wales basis and reflect the logistical issues in responding to rural as opposed to urban areas (e.g. Scotland differentiates targets by LHB density).

There is evidence that a quicker response can make a big difference to patients with acute clinical conditions such as cardiac, stroke and trauma although future measures should also relate to the outcome of the patient’s care. International evidence suggests early access to emergency care for patients who have suffered cardiac arrest, known as the ‘Chain of Survival’, increases opportunity for survival.

The American Heart Association suggests that each of the following four links must be put into motion within the first few minutes of cardiac arrest to provide the best opportunity for survival

- Early Access to Emergency Care must be provided by calling 999;
- Early CPR should be started and maintained until EMS arrive; and
- Early Defibrillation is the only one that can re-start the heart function of a person with ventricular fibrillation (VF). If an automated external defibrillator (AED) is available, a trained operator should administer defibrillation as quickly as possible until EMS personnel arrive.

For the Chain to be effective, quick execution of each and every link is critical. With each minute that passes, the likelihood of survival decreases 7-10%.

WAST has set itself an internal target of reaching 52% of patients categorised as having suffered cardiac arrest with a defibrillator within four minutes. However, performance against this internal target has at times deteriorated to as low as 25%. Consideration should be given to supplementing a cardiac target with further in-hospital and post-hospital measures to reflect the whole patient pathway and provide essential patient outcome information.

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Further work should also be carried out on developing a suite of appropriate measures that are outcome-focused and reflect the clinical vision for ambulance services in Wales. This reflects the international direction of travel for measuring the quality of ambulance service delivery. Time critical conditions such as stroke and fractured neck of femur should be considered for pathway long outcome measures using *1000 Lives plus* methodology.

There is an opportunity to include incentive based targets – i.e. targets designed to act as a lever to incentivise secondary solutions, which act to improve performance across the system - such as a target around the proportion of ambulance responses that result in patients being transported to A&E.

A non-conveyance rate target would encourage cross unscheduled care organisation exploration of alternative pathways for more appropriate treatment to callers needs. It may also increase use of on-scene assessment in place of automatic conveyance to Emergency Departments.

Recommendation 8

The Welsh Government should consider moving from a primary focus on the eight minute response time standard to a more intelligent suite of targets and standards which work across the whole unscheduled care system. This should include a greater emphasis on patient outcomes and experience. The Welsh Government’s recently formed Measures Group could provide an opportunity to establish this suite of measures recognising the co-dependencies across the system.

Recommendation 9

Consideration should be given to developing speed based standards in areas where the clinical evidence demonstrates a clear impact on outcomes for example in formalising the standard for four minute responses to calls categorised as cardiac arrest and publishing it on a monthly basis to encourage improvement. Consideration should be given to developing a wider threshold analysis of the eight minute target.

Recommendation 10

Consideration should be given to introducing incentive based targets for example a non-conveyance or appropriate rate target to incentivise greater development and use of alternative pathways and reduction in inappropriate conveyance of patients to A&E.

Recommendation 11

More joined up and granular data is required across the patient journey through primary, community, acute and social care. This could also be taken forward by the Welsh Government Measures Group.

Next Steps: Achieving the Vision

The scale of the challenges facing NHS Wales and the Welsh Government to create a high quality and robust clinical model for EMS in Wales will take time but is achievable. Embedding ambulance services as an integral part of the whole unscheduled care system will require clearly defined funding, accountability and governance lines, aligned with improved planning at a local and national level.

Further, considerations need to be made about the future role of PCS, whether it fits with any changes to the way EMS are delivered and whether they should become a routine function of Health Boards delivery of services.

It is important for the Minister to make a decision on the future strategic and structural route map for ambulance services to address the fundamental issues.

Making a timely decision is important, as is the involvement of key stakeholders in co-creating the details of the direction of travel. Once a decision is made about the future strategic and structural model for ambulance services, all stakeholders must work together and act quickly to agree how the vision can be achieved, to re-shape pre-hospital care and move towards enabling the delivery of high quality ambulance services in Wales.

It is likely that a work programme will need to be put in place immediately to shape the changes required to deliver the changes in structure and this will require robust management and clear timescales to ensure the pace of change is maintained and the desired improvements are achieved as quickly as possible.

Any decisions made about the strategic and structural delivery of ambulance services may result in a period of consultation and discussions about legal issues. A sub group of the National Urgent and Emergency Care Board may need to be established to oversee the implementation of a new strategic model, to consult on the Review findings and implement an associated action plan.

It is imperative that resilient, well defined and agreed arrangements are put in place to ensure continuity of clinically safe ambulance services during any transitional period. LHBs and WAST will need to show strong leadership at all levels and Welsh Government will need to clearly define its expectations of organisations and services throughout this period.

Recommendation 12

Consideration should be given to making a clear decision on the future structural model accompanied by a robust time-bound work plan for taking that forward. This should be taken forward and co-created with key stakeholders.

Conclusion

Ultimately, there are three components which need to be addressed to deliver high quality ambulance services.

Agreeing a clear vision for ambulance services is fundamental. Future developments resulting from this Review, including how services are planned, delivered and funded should flow from this vision. EMS should be a clinical service that is embedded within the wider unscheduled care system and delivered by staff with the appropriate clinical skills.

To deliver the vision, the most suitable structural model for ambulance services in Wales needs to be determined. While there is no 'magic bullet' that will resolve the current funding and accountability challenges, consideration should be given to how best to develop the structural model, working with key stakeholders. These new arrangements should then be allowed to mature

Finally, ambulance services need to play a key role in the shaping of future models of service delivery, and it is vital that they are considered as part of the wider context of any plans for service change for NHS Wales.

Appendix 1 – Terms of Reference

A Review of Welsh Ambulance Services

Terms of Reference

1. Background

1.1 On 7 November 2012 I announced my intention to commission a comprehensive review of the Welsh Ambulance Services Trust (WAST). This review will make recommendations to enable high quality, sustainable ambulance services.

2. Current position

2.1 The Welsh Ambulance Services Trust provides a national service for both emergency responses and non-emergency patient transport, and is responsible for the services provided by NHS Direct Wales.

2.2 The Trust is funded by Local Health Boards (LHBs) via the Welsh Health Specialised Service Committee (WHSSC) who agree service requirements for LHB areas. It is formally accountable for the delivery of services to the Welsh Government.

3. Areas of Focus within the Review

3.1 Relationships with Local Health Boards

The review will appraise the current arrangements whereby Health Boards, through WHSSC, provide funding to WAST to ensure Welsh Government standards and targets are met. The effectiveness of these arrangements will be assessed as will possible alternative funding models.

3.2 Organisational Structure

The review will appraise the current arrangements – an all Wales organisation providing all aspects of Ambulance Services and NHS Direct Wales. It will consider and assess alternative structural models. These options will take account of a number of factors including:

- Geography;
- Relationship between emergency and non-emergency services;
- Position of NHS Direct Wales; and
- Relationship with relevant NHS services provided by NHS Health Boards.

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3.3 Performance

It is assumed the Trust will continue to be accountable to the Welsh Government for its performance. The review will appraise the current Standards and targets which apply to the Ambulance Service and consider options for improvement.

4. Process

4.1 The Review will:

- Consider relevant previous external and internal reviews of the Welsh Ambulance Service Trust;
- Engage extensively with WAST staff;
- Engage with LHBS;
- Engage with relevant stakeholders; and
- Take account of relevant good practice in other health systems

5. Timeframes

5.1 It is intended the initial report will be completed within ten weeks and start in January 2013.

6. Chair Person

6.1 The review will be Chaired by Professor Siobhan McClelland. Professor McClelland is a respected academic with a strong interest in health matters in Wales.

7. Welsh Government Role

7.1 Welsh Government officials will facilitate and support Professor McClelland during the course of the review by:

- Providing supporting materials and background information;
- Providing contact details for stakeholders to be contacted during the scoping phase;
- Organising meetings as appropriate; and
- Organising the presentation of the results to the Minister, Welsh Government officials and key stakeholders;

7.2 Full details will be agreed with Professor McClelland prior to the beginning of the review.

8. Outputs

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8.1 The Report will be provided to the Minister for Health and Social Services and will make recommendations relating to the areas of focus in 3 above.

Appendix 2 – List of Previous Reviews and Other Reference Documents

Doc Number	Review Title/Date	Owner
1	Ambulance Services in Wales Review / 2006	WAO
2	Special Assurance Review / 2007	HIW
3	Review of WAST's Emergency response Service / May 2008	WAST CHAIR
4	Follow up Review – Ambulance Services in Wales / 24 June 2008	WAO
5	Ambulance Services in Wales – WAO Further Update to NAWAC / October 2008	NAWAC
6	Unscheduled Care – Patient Handovers at Hospital Emergency Departments / April 2009	WAO
7	NAW, Audit Committee, Ambulance Services in Wales Inquiry / July 2009	NAWAC
8	Lightfoot Efficiency Review / 2009	WAST/HCW
9	Procurement Review: Tender 0212 (Welsh Ambulance Services NHS Trust) / January 2012	WAO
10.1	ORH Reviews (2 separate reviews) / 01 November 2012 Review of Control	ORH / WAST

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Doc Number	Review Title/Date	Owner
10.2	Operational and Capacity review / 01 November 2012	ORH / WAST
11	NHS Direct Wales / 15 September 2009	WAO
12	The Griffiths' Review – Non Emergency Patient Transport in Wales – April 2010	Win Griffiths Chair ABMULHB

Appendix 3 – References Section

WAST Annual Report 2011/12 (2012)

NHS in Wales - Why We Are Changing the Structure (2009)

Together for Health (2012)

Designed to Improve Health and the Management of Chronic Conditions in Wales: An Integrated Model and Framework (2011)

Delivering Emergency Care Services (DECS) Strategy (2008)

Terms of Reference, Unscheduled Care Programme Board (2010)

Unscheduled Care: a Whole Systems Approach (2009)

Emergency Services Review: A comparative review of international Ambulance Service best practice (2009)

Department of Health 'Taking Healthcare to the Patient (2005)

National Ambulance Commissioners Group/NHS Confederation Briefing November (2012)

Transforming NHS Ambulance Services (2009)

Delivering safe, effective, person centred care: Scottish Ambulance Services Annual Report and Accounts 2011/12 (2012)

Working Together for Better Patient Care 2010-15 (2010)

NHS (Wales) Act 2009

Appendix 4 - List of Stakeholders

Name	Role	Organisation
Elwyn Price-Morris	CEO	WAST
Stuart Fletcher	Chair	WAST
	Director of Strategy, Planning and Performance	WAST
Sara Jones Aileen Evans	Nurse Director & Assistant Nurse Director Medical & Clinical Services Directorate Central & West Region	WAST
Paul Hughes	Medical Director	WAST
Sue Jenkins	Director of Service	WAST
Carl James	Director of Strategy and Delivery	WAST
David Sissling	Chief Executive NHS / Director General , Department of Health and Social Services	Welsh Government
Kevin Flynn	Director of Delivery, Department of Health and Social Services	Welsh Government
Andrew Goodall	Chief Executive	Aneurin Bevan HB
Paul Roberts	Chief Executive	Abertawe Bro Morgann UHB
Mary Burrows	Chief Executive	Betsi Cadwaladr UHB
Adam Cairns	Chief Executive	Cardiff & Vale UHB
Allison Williams	Chief Executive	Cwm Taf HB
Trevor Purt	Chief Executive	Hywel Dda HB
Andrew Cotto	Interim Chief Exec	Powys tHB
Simon Dean	Chief Executive	Velindre NHS Trust

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Name	Role	Organisation
Dr Alan Willson	Director of Research and Development and Joint Director	NLIAH
Bob Hudson	Chief Executive	Public Health Wales NHS Trust
Susan Thompson	Project Lead	Non Emergency Patient Transport Pilot Projects / Griffiths Review
Jan Williams	Chair	Wellbeing Best Practice & Innovation Board (sponsored by PHW)
Stuart Davies	Head	WHSCC
Dan Phillips		WHSCC
Stephen Harray		WHSCC
Dr Chris Jones	Chair	Cwm Taf
Andy Richards	Regional Campaigns & Communications Co-ordinator	UNITE Unite the Union, 19 High St, Swansea SA1 1LF
Dawn Bowden Darren Dupre	Head of Health Cymru	Health Cymru (UNISON) RCN Wales Ty Maeth, King George V Drive East Cardiff CF14 4XZ
Dr Richard Lewis	Welsh Secretary of BMA Cymru Wales	BMA
Adrian Hughes	Chief Executive	Retained Firefighters Union
Darren Millar	Health Lead	Conservative
Elin Jones	Health Lead	Plaid Cymru
Kirsty Williams	Health Lead	Liberal Democrats
Mark Drakeford	Health Lead	Labour
Peter Bradley,	Chief Executive, St. Johns, New Zealand	UK Ambulance expert and advisor to UK government
Pauline Howie,	Chief Executive	Scottish Ambulance Service
Ian Williamson		Health Dept, Scottish Government
Julie McIlroy	Dep. Performance Manager:	

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Name	Role	Organisation
Liam McIvor,	Chief Executive	Northern Ireland Ambulance Service
Anthony Marsh		West Midlands Ambulance Trust
Professor Matthew Cooke		DH Advisor
Robert Morton		National Ambulance Service, Ireland (Based in Kildare, Mid-Ireland)
Anthony Marsh	Chairman and Chief Executive of West Midlands Ambulance Service NHS Trust	- West Midlands Ambulance Service NHS Trust
Della Cannings QPM	Director and Chair of Yorkshire Ambulance Service NHS Trust	- Yorkshire Ambulance Service NHS Trust
Michael Dinan	Director and Director of Finance of London Ambulance Service NHS Trust	- London Ambulance - Service NHS Trust
Ken Wenman	Director and Chief Executive at South Western Ambulance Service NHS FT and Interim Chief Executive at Great Western Ambulance Service NHS Trust	- Great Western Ambulance Service NHS Trust
Hayden Newton	Director and Chief Executive at East of England Ambulance Service NHS Trust	- East of England Ambulance Service NHS Trust
Steve Irving	Temporary Lead and Executive Staff Officer of London Ambulance Service NHS Trust	- London Ambulance Service NHS Trust
Martyn Salter	Finance Manager at AACE	- AACE
Louise Wilson	Programme Manager at AACE	- AACE
Helen Medlock,	Chair	Ambulance Commissioning Group

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		(based in Kent)
Name	Role	Organisation
Steve Thomas CBE, CE		WLGA
Gabe Conlan and Phil Evans		Social Services
Stephen Allen		Cardiff and Vale of Glamorgan Community Health Council
Richard Smith	Mid and West Wales	Fire
Huw Jakeway	Fire & Rescue Service, South Wales	Fire
Simon Smith,	North Wales,	Fire
Jackie Roberts,	Chief Constable, Dyfed Powys Police & Chair JESG	Police
Mark Polin	Chief Constable - N Wales Police	Police
Carol Lamyman-Davies Andrea Matthews		CHCs
Sir Paul Williams OBE, DL	Trustee	WRVS - Women's Royal Voluntary Service
Graham Benefield		Welsh Voluntary Council in Wales
David Heyburn	Manager, Welsh Renal Clinical Network	Renal Network
Angela Hughes	Chief Executive	Welsh Air Ambulance
Peter Hollins	Chief Executive	British Heart Foundation
Keith Dunn	Chief Executive	St John
Peter Thomas	Aneurin Bevan HB	Medical clinician
Grant Robinson	Aneurin Bevan HB	Medical clinician
Mark Poulden	Abertawe Bro Morgannwg UHB	Medical clinician
Dr Sarah Spencer	Abertawe Bro Morgannwg UHB	Medical clinician
Aruni Sen	Betsi Cadwaladr UHB	Medical clinician

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Nigel Davies	Senior Service Manager	British Red Cross
Name	Role	Organisation
Charlotte Jones	Deputy Chair	General Practitioners Group
Brian Foley	Adviser	Community First Responder, Barry (Jane Hutt's Constituency)
Dr Pauline Griffiths		College of Human & Health Sciences
Frank Mansell	Patient Safety	NLIAH
Kate Chamberlain		HIW
Dave Thomas	Director of Health & Social Care	Wales Audit Office
Emma Logan		First Responder based at Welsh Government Office, Llandudno Junction
Donna Mead		University of South Wales