

EITEM AGENDA / AGENDA ITEM: 3

Cyd-bwyllgor Iechyd a Gofal y Canolbarth / Mid Wales Joint Committee for Health and Care			
Dyddiad y Cyfarfod: Date of Meeting:	28 th September 2020		
Eitem ar yr Agenda: Title of Report:	Rural Health and Care Wales Work Programme 2020/21 - Update report		
Arweinydd: Lead:	Peter Skitt, County Director and Commissioner Ceredigion and Programme Director for the Mid Wales Joint Committee		
Pwrpas yr adroddiad: Purpose of the Report:	To receive an update report on the Rural Health and Care Wales Work Programme for 2020/21, including future funding arrangements.	Ar gyfer cytundeb For Agreement	✓
		Ar gyfer trafodaeth For Discussion	
		Ar gyfer gwybodaeth For Information	✓
<u>Crynodeb / Summary</u>			
<p>This report provides an update of progress made by RHCW in achieving its agreed Work Programme for 2020/21.</p> <p>In addition, this Agenda item seeks to confirm funding arrangements for RHCW post March 2021. The three Health Boards operating across Mid Wales (BCUHB, PTHB, HDdUHB) have agreed funding for Rural Health and Care Wales (RHCW) until 31st March 2021, with BCUHB confirming recurrent funding of £37,500 per annum thereafter. Long term funding arrangements and reassurance of continuity is required for RHCW in order that it achieves its work programme targets, its aims and objectives.</p>			
<u>Argymhelliad / Recommendation</u>			
<p>For information - the MWJC is asked to receive the update on achievements against the RHCW Work Programme 2020/21.</p> <p>For agreement - the MWJC is asked to agree future arrangements and funding for RHCW post March 2021.</p>			



IECHYD A GOFAL GWLEDIG CYMRU
RURAL HEALTH AND CARE WALES

RHCW Progress Report September 2020

Since the last meeting of the MWJC, the world has witnessed the Covid-19 pandemic and this has impacted on the everyday lives of billions of people, with particular implications for the health and care sector. The work of Rural Health and Care Wales has likewise been affected, with, initially, the focus moving from the RHCW Work Programme to assist with the implications of the Covid-19 pandemic for a short time in the spring / early summer of 2020. Whilst RHCW staff did redeploy their efforts to coronavirus work for a period of time (March – June 2020), staff have since returned to focus on the work of RHCW, but this has resulted in some necessary adjustments to the targets set in the Work Programme, as has changes to projects and working arrangements in associated organisations.

The following report provides an overview of developments and achievements by RHCW in relation to the RHCW Work Programme for 2020/21.

1. **Aim 1: Health, Wellbeing and Prevention**

- *Improve the health and wellbeing of the Mid Wales population*

The implementation phase of the “**On your Bike**” project was in progress when corona hit and thus the project was initially put on hold, as per all the other EU grants that Ceredigion County Council were administering. However, this project directly supports outdoor physical activity, which aligns with recommendations made during the coronavirus pandemic and as such efforts have been made to hasten the contractual aspect of siting the bikes which is causing the current delay. As this is something that Ceredigion County Council is leading on (the contracts will be between Cynnal y Cardi and the town Councils), RHCW has been unable to undertake any further work on this project, aside from maintaining contact with and reporting to the funders. With the working restrictions in place due to coronavirus, getting the contracts signed is taking much longer than anticipated however, a virtual meeting was held with Cynnal y Cardi on 15th September 2020 and we have been reassured that contracts are now ready to be signed and hopefully installation can commence in the near future. Additional steps may need to be taken when it comes to installation, such as ensuring the bikes are sited 2 meters apart, installing hand sanitizing stations nearby etc.

RHCW conducted a **Social Prescribing pilot project** in 2018/19 working in partnership with Public Health Wales and Aberystwyth University (WARU), linking with the North Ceredigion GP Cluster. We are pleased to note that the North Ceredigion Cluster has, since its involvement with the pilot, taken steps to employ a link worker to deliver social prescribing solutions to its patients. This is a great

reflection on the pilot project, with benefits witnessed that have led to a change in direct delivery.

Whilst no actual meeting of the **Green Health in Practice Network** (Mid Wales) has been convened since the Social and Green Health Summit held on 21st January 2020, due to waiting for outcomes to be published, RHCW has remained active in administering services to the group. RHCW continues to provide information, advice and funding opportunity information to network members and remains engaged with other partners supporting the green and social prescribing agenda across Wales.

RHCW met with the Greener Aberystwyth Group on 11th August 2020 to discuss a pilot project to encourage “**Wellbeing Walks**” through the production and distribution of leaflets outlining walks and green areas for public use, linked to Primary Care sites (GP surgeries etc.), clinics and Bronglais hospital; the ultimate aim being to encourage outdoor activity to improve health and wellbeing. Discussions are at an early stage.

RHCW remains an active member of the **Social Prescribing Research Network** in Wales and has attended virtual meetings during the corona pandemic (last meeting held on 11th June 2020), with a proposed national event to be held in November 2020.

2. Aim 2: Care Closer to Home

- *create a sustainable health and social care system for the population of Mid Wales*

Due to the need to consult and work closely with community groups, the EU funded **Cardi Care** project was put on hold however we are currently in the process of revising the project plan and budget to meet the new timescales and hope to recommence activities in the next two weeks. One meeting was held with Solva Care trustees, acting as project mentors, on 19th February 2020 and the post of Cardi Care Co-ordinator will be advertised once the revised budget has been approved by Cynnal y Cardi; project funding has to end August 2021, therefore the project has to be re-designed.

A virtual meeting was held with the **National Centre for Population Health and Wellbeing Research** (NCPHWR) on 17th June 2020 and a number of potential collaborative projects were discussed – some already currently in operation and others at grant application stage. One study that commenced on the 1st June 2020 is looking to compare the prevalence of musculoskeletal disorders in rural and urban areas, their severity and access to care, and then mapping this for Wales and Scotland. We are meeting with the project lead on 22nd September 2020. The second project is a newly submitted grant application that is looking at Safe Active Spaces (SAS) for older people, with the intent of enabling older people to live well and proactively manage age related complaints whilst retaining social connections in their communities. RHCW is supporting this application and hopes to ensure inclusion of the Mid Wales region in the research and findings should the application be successful. NCPHWR is very keen to work closely with RHCW to ensure rural representation in their research projects moving forward and AP has been invited to attend a NCPHWR Board meeting in the autumn.

A question was raised by a member of the RHCW Steering Group on 27th November 2018 regarding amber ambulance waiting times in rural versus urban areas of Wales and whether there was any discrepancy. A proposal to research this was then presented to the Mid Wales Joint Committee for Health and Social Care's (MWJC) Management Board on 14th January 2019 when it was agreed for the research to be conducted. The finished report on "**How do response times for amber Ambulance calls compare in Rural versus Urban areas of Wales?**" is attached to this report as **Appendix 1**. Jason Killens, Chief Executive WAST, and Dr Nigel Rees, Head of Research & Innovation WAST, were sent draft copies of the report for comment prior to circulation and whilst no comments or editions have been received, we have been asked to note that the report "*does not contain any comment from WAST with regard to factual accuracy etc.*". The information used in the report was found in publicly available documents that are referenced at the end of the report itself.

The proposed research on **community hospitals** and benchmarking criteria, targeted for June 2020, has unfortunately been delayed due to the coronavirus pandemic but is rescheduled to commence in the Autumn, subject to future continuation of RHCW.

3. Aim 3: Rural Health and Care Workforce

- *Create a flexible and sustainable rural health and care workforce for the delivery of high quality services which support the healthcare needs of rural communities across Mid Wales*

A review of the **Education and Training** provision for health and care professionals in rural areas of Wales is being conducted and is due for completion by 30th September 2020. This has proven to be a hefty piece of work, however will provide a thorough analysis, albeit that it is a constantly evolving landscape.

Research on the **Recruitment and Retention** of health and care professionals to rural areas has been completed in draft format. The report will be finalised by the end of September 2020 and this will be published as another instalment of the RHCW Research Booklet series. Copies will be circulated to members of the RHCW Management and Steering Groups and MWJC. Data has been collated on health and care vacancies across Mid Wales over the last two years and this data is included within the report.

Angharad Jones, Development Officer with RHCW, has, since April 2020, been working one day a week to support the development of the **nursing degree** at Aberystwyth University (employed in this capacity by AU) and the work that she has undertaken for RHCW supports this important role and the future provision of nurse training in Mid Wales. Angharad is also continuing with her PhD, looking at the recruitment and retention challenges for nurses in rural areas, due to complete in January 2021. It is with some sadness that I confirm that Angharad has been (verbally) offered a substantive role with the University in order to develop the nursing courses at Aberystwyth University and I would like to personally thank Angharad for her unstinting work with RHCW and wish her all the best for the future. Angharad will be leaving her role as Development Officer with RHCW on the 12th October 2020.

RHCW attended two **career events** in March 2020 to promote and encourage young people to consider careers in health and care (Powys 04/03/20; Ceredigion 10/03/20). [Work Programme target achieved].

The research work on the **pay and terms of employment within the care sector**, scheduled for completion by June 2020, was put on hold due to the coronavirus pandemic. However, this work was recently commissioned by the Welsh Government and a report published on 10th September 2020 by the Welsh Institute of Health and Social Care, University of South Wales (Review of Evidence of Variation in Terms and Conditions for Social Care Employment Contracts in Wales, Wallace S., Garthwaite T. and Llewellyn M., 2020). The intention is therefore that this publication is reviewed to extract key messages and any rural specific implications and this overview is distributed to members of the RHCW Management and Steering Groups and MWJC board members, along with a copy of the review report.

The contracted work that RHCW was selected to deliver for the North Wales Workforce Board (NWWB), looking at **innovative ways to deliver care across the North Wales region**, was completed by April 2020, as far as the written report is concerned. This report is not as yet in public circulation but will be in the public domain once it has been translated to the Welsh language. The report contains some very interesting findings and recommendations regarding innovative models for delivering care in the future that are particularly pertinent in the wake of Covid-19 and the impact on the care sector. The recommendations from the report can equally apply to all areas of Wales. The report will be circulated to the MWJC and RHCW Management and Steering Group members once it is made publicly available. The second part of the contract, the development of a **data collection tool** to assess the cost and delivery of care, is underway via online surveys that will be distributed to care providers across the North Wales regions (BCUHB area). This final part of the work was due to be submitted by the end of July 2020, with deadlines having to have been extended due to the pandemic situation and now likely to be completed by end of September 2020.

The **infographic on roles within Primary Care** was another piece of work that was put on hold due to coronavirus but will be completed by the end of October 2020.

4. Aim 4: Hospital Based Care and Treatment

- *Create a sustainable and accessible Hospital Based Care and Treatment service for the population of Mid Wales, with robust outreach services and clinical networks*

After meeting with the Hywel Dda UHB Executive Board on 29th January 2020, RHCW shared its consultation findings on the **Bronglais Digital Project** with the Director of Partnerships and Corporate Services, HDdUHB; the report outlined stakeholders' views on having a more interactive website and other digital platforms for primary and secondary care in the region. Since then, a new website has been launched by HDdUHB, with RHCW asked to hold its plans for the Digital project until the site was launched, as modifications may be required to the proposed project.

Now that the new website has been launched, the Bronglais Digital Project will require revision and further thought.

5. Aim 5: Communications, Involvement and Engagement

- *ensure there is a continuous and effective communication, involvement and engagement with the population of Mid Wales, staff and partners*

A Paper was presented to the RHCW Management and Steering Groups at a meeting held on 27th July 2020, proposing a new format for the agreed RHCW Conference, so that it is a virtual event held over two days.

The proposals that the RHCW Management and Steering Groups were asked to consider and approve are outlined below:

- A two-day virtual RHCW Conference to be held in November 2020 (10th & 11th)
- The event is “free” to attend however requires pre-registration
- An official Opening for both days via live stream or pre-recorded message
- Two Plenary speakers per day plus a selection of Presentations (exact number will depend on response to the call for papers)
- Plenary Presentations to last 30 minutes, option for questions if “live”
- Other Presentations to last 20 minutes
- Call for Papers and Posters to be sent out mid-August 2020, closing date 18th September 2020
- Conference title tbc, but themes to include:
 - The impact and implications of Covid-19 on rural health and care
 - Novel ways of delivering health and care services in rural areas
 - Rural Population Health, Well-being and Care
 - The role of Rural Communities in Health and Care
 - Telehealth / Telemedicine and the remote delivery of health and care services in rural areas
 - Social / Green Prescribing
 - Recruitment, Retention and New Roles in Rural Areas
 - Education, Training and Development in Rural Areas
- A poster competition will be conducted on-line, with entrants to submit digital posters that will be voted on by people that have registered to attend the Conference (on-line survey)
- All presentations and posters will be available to view on the website after the event
- Feedback and evaluations to be conducted via email after the event
- Cost to stage the virtual Conference will be minimal

The virtual format was approved and the Call for Papers and Posters sent out in early August, with a closing date for submissions of 18th September 2020. A further meeting of the RHCW Management and Steering Groups is being held on 29th September 2020 to finalise details of the Conference, with the agenda to be developed based on submissions received. The platform to be used for the Conference will be trialed beforehand, with Zoom proposed by some Management

Group members, in addition to the original proposal to use Microsoft Teams. Other platforms under consideration include Cisco Webex.

6. RHCW specific work

The **future governance and funding for RHCW** was seeking resolution prior to the coronavirus pandemic and presentations had been made to two health boards for permanent funding after September 2020 (PTHB and HDdUHB), with the meeting with BCUHB cancelled due to Covid-19. As the end of confirmed funding for RHCW was 30th September 2020, Mr Jack Evershed, Chair of RHCW, wrote to the three Health Board Chairs in Mid Wales in July 2020 to ask for confirmation of ongoing funding post this date. A letter dated 24th July was received from Mark Polin OBE, Chair BCUHB, confirming recurrent funding for RHCW to the sum of £37,500 per annum. An email was subsequently received from Mr Steve Moore, Chief Executive for HDdUHB, on 27th July 2020 confirming funding for RHCW until 31st March 2021, followed up by an email from Maria Battle, Chair HDdUHB, on 1st September 2020. A third confirmation of funding to 31st March 2021 was received by email from Vivienne Harpwood, Chair PTHB on 3rd September 2020.

The future funding for RHCW was raised at the PDEG meeting held on 7th September, with funding therefore confirmed until 31st March 2021; the intention being that a more detailed discussion will be held to discuss recurrent / permanent funding and governance for RHCW prior to the next PDEG meeting.

A draft **5-year strategic plan** for RHCW has been developed and was previously circulated to members and the MWJC.

Due to the coronavirus pandemic that commenced in March 2020, the majority of conferences, events and meetings that RHCW was due to attend have been cancelled or postponed, albeit some have continued virtually (e.g. Regional Learning and Skills Health and Care Sub group meeting 3rd June 2020 / August 2020; Social Prescribing Research network meeting held 11th June 2020 / Sept. 2020).

Future events where RHCW will be represented include attendance at the Health and Care Research Wales conference on 7th October 2020 and presenting at the Policy Forum for Wales seminar “Health and Social Care Quality in Wales – governance and transparency, workforce development and the next steps for inspection, regulation and legislation” on 15th October 2020.

Aside from supporting a grant submission for a research project on with the National Centre for Population Health, no further grant or funding applications have been submitted, with further clarification and reassurance required on the future of RHCW in the first instance.



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RURAL HEALTH AND CARE WALES

How do response times for amber Ambulance calls compare in Rural versus Urban areas of Wales?

- a report by RHCW, June 2020

1. Introduction

This report explores the Welsh Ambulance Services NHS Trusts' (WAST) amber response times in rural areas as compared to urban areas of Wales.

The reason for compiling the report stems from a query originally raised by a member of the Rural Health and Care Wales (RHCW) Steering Group on 27th November 2018, which was then presented to the Mid Wales Joint Committee for Health and Social Care's (MWJC) Management Board on 14th January 2019.

At the MWJC Management Board meeting, it was agreed that RHCW should research the situation and revert to the Board with the findings. This report chronicles the desk-top review of publicly available data, literature and reports that was undertaken in order to analyse the amber ambulance response times in rural versus urban areas of Wales and the resultant conclusions.

In addition to answering the question that was raised, this report also seeks to:

- Outline the services provided by WAST
- Highlight usage of the services provided by WAST
- Explain the Clinical Response Model
- Provide a definition of rural and urban Wales for the purpose of this report
- Examine amber ambulance response times between rural and urban areas
- Explore challenges to service delivery

2. Background

The professional conveyance of critically sick or injured people to hospitals or medical treatment centres in times of emergency has long been an established route to receive support, and a global workforce and professional service has evolved around this concept, primarily in the form of ambulance services.

Since 1998, the Welsh Ambulance Services NHS Trust (WAST) has been tasked with providing emergency treatment to the people of Wales, and, since its inception and following various service reviews, WAST has developed into "one of the most clinically advanced ambulance services in the world" (WAST, 2020a)



Fig. 1: Welsh Ambulance Services NHS Trust logo

Receiving care and treatment in times of medical emergencies is vital in order to preserve life and to ensure improved health outcomes after the event (e.g. trauma, illness etc.). Indeed, WAST responds to more than 250,000 calls annually, with over 50,000 (20%) of these classified as urgent (WAST, 2020a). However, providing timely responses of appropriate emergency care can be contentious and ensuring a continuous, seamless service can be challenging, particularly in times of economic austerity, where meeting public expectation in light of an increase in demand is compounded by capacity and resource issues (Amber Review, 2018; McClelland, 2013). Nevertheless, the Welsh public still expects to receive a quality service and sensationalising media headlines highlighting alleged shortfalls do little to instil public confidence or boost emergency service staff morale.

It has historically been considered that a timely ambulance response to the scene of a call is the benchmark for the provision of quality services (Pons et al, 2005). However, a new Clinical Response Model (CRM) was approved by the Welsh Government in 2015 which saw the development of a new way of measuring the effectiveness of delivery of ambulance services, focussing on the quality of the provision of appropriate care, which may not correlate to the fastest response times, albeit that time targets continue for red category calls.

Following implementation of the new CRM system, the Emergency Ambulance Services Committee commissioned a review of the model by Public and Corporate Economic Consultants [PACEC] and the Medical Care Research Unity at the University of Sheffield. The review identified a need to further revise the call categories, in particular the calls that fell into the amber category of responses, as it was identified that these were significant in number, raising concerns regarding the potentially long waits that could be experienced by some patients (Irwin, Rooke & Turner, 2017).



Fig. 2: Difference in ambulance vehicles over time (WAST Facebook Post, 2020b)

“NHS Wales: A&E record low performance as ambulance service struggles”
(Clarke, 2019)

“Woman died after ‘unacceptable’ five-hour ambulance wait”
(Anon: BBC News, 2019)

“Woman with broken foot dies after waiting six hours for ambulance on freezing pavement”
(Drury, 2019)

Response times remain of concern to some Welsh residents, especially those who live in rural areas, where connectivity and poor road networks can potentially impact the ability of ambulances and their crews to respond to an urgent call in a timely manner. As a result, the perception that rural areas could fare worse than their urban counterparts in terms of response times is a strong and perpetuating concern.

2.i Rural Health concerns on a global platform

Welsh rural residents are not alone in this belief. Rural areas globally highlight the association of positive health outcomes with timely emergency responses that enable the provision of appropriate treatment without significant delay (Mathiesen, Bjørshal, Kvaløy & Søreide, 2018; Aftyka, Rybojad & Rudnicka-Drozak, 2014; Yeap, Morrison, Apodaca, Egan & Jansen, 2014; Jennings, Cameron, Walker, Bernard and Smith, 2006).

Aftyka, Rybojad and Rudnicka-Drozak (2014) expand on this, highlighting that living in sparsely populated rural areas poses a risk in terms of delays in receiving treatment from emergency ambulance crews. Low survival rates in instances of out of hospital cardiac arrests were also reported. Timely responses and access to appropriate emergency treatment in relation to events such as cardiac arrests, heart attacks and traumas occurring in rural areas was an area of research focused upon by researchers (Grossman et al, 1997; Yeap, Morrison, Apodaca, Egan and Jansen, 2014; Masuda et al, 2018).

Timely ambulance responses and receipt of prompt emergency treatment is but one in a suite of worries that exist for rural areas, where daily challenges are observed. Rural residents and healthcare providers continuously attempt to address and safeguard their rural health provisions, but access to services, transportation, recruitment and retention of a health / care workforce, loneliness and personal and professional isolation as well as other issues remain as ongoing factors.

3. The Welsh Ambulance Services NHS Trust (WAST)

WAST provides a range of services to the people of Wales, which surmounts to around 3 million people (and rising) over an area of 20,640 kilometres of varied landscapes (WAST 2020a). WAST operates a 24/7 service, 365 days of the year.

Whilst many people believe that WAST is only responsible for the provision of emergency services, it does however manage an array of care provisions, for example:

- Emergency Ambulance Response
- Non-Emergency Patient Transport Services (NEPTS)
- Patient Experience and Community Involvement
- Research and Development
- Community First Responders
- Hazardous Area Response Teams
- NHS Direct Wales/111

(WAST: A Long Term Strategic Framework for Ambulance Services in Wales – Engagement Document, 2017)

a. Emergency Medical Response – 999 and Emergency Ambulances
(WAST, 2020c)

WAST provides a number of services in times of emergency situations which are delivered by crews of highly skilled professionals. These services range from ambulances, rapid response vehicles, volunteer first responders, specialist teams and, in some instances in urban areas, paramedics on bikes.

These services operate from 90 ambulance stations positioned around Wales, with ambulances themselves being state of the art rapid response vehicles, housing a range of equipment.

WAST responds to over 1,000 emergency calls a day from across the country and the trained crews are able to advise, treat, stabilise and, if required, take people to the most appropriate hospital for their condition in order to receive further health interventions.

b. Urgent Care Service
(WAST, 2020d)

The Urgent Care Service (UCS) supports emergency crews by providing ambulances to calls where an urgent planned conveyance for treatment is required. This referral can be from a GP or other healthcare professional, but it can also be from a Paramedic attending a call from a Rapid Response Vehicle. UCSs are crewed by Urgent Care Assistants who must undertake and complete a specific in-house training programme provided by WAST.

c. Non-Emergency Patient Transport Service
(WAST, 2020e)

Non-Emergency Patient Transport Service (NEPTS) is a service that transports non-urgent patients to hospital, should they be unable to make their own way there; this is so that they can receive outpatient health input/treatment. WAST describes this service as an important engagement with communities and it provides a different perspective of the services that they deliver.

NEPTS provides transport for:

- Outpatient appointments
- Dialysis and oncology treatment
- Day centre and psycho-geriatric clinics
- Admission and discharges, including inter-hospital transfers

d. 111 Wales
(WAST, 2020f)

111 Wales is a relatively new telephone signposting service that provides advice on health treatment options for people who are unsure as to how to manage their presenting conditions. Health inputs are now available from a wide range of community-based services, such as GPs, Pharmacies, Dentists, Opticians, Nurses and/or Minor Injuries Departments or Integrated Care Hubs, and 111 Wales helps

patients to navigate through the options available to them to make the best use of resources.

Being able to provide appropriate advice ensures that unscheduled/unplanned care services, such as emergency ambulances or A+E departments, are not inundated with patients whose health needs may be better addressed elsewhere in a timelier manner, thus freeing up those professionals' time and resources for patients in most need.

The service, which is accessed by dialling 111, is currently only open to residents of Swansea Bay, Powys, Hywel Dda and Aneurin Bevan health board areas. The service is available 24/7, 365 days of the year.

e. NHS Direct Wales
(WAST, 2020g)

WAST has been managing NHS Direct Wales since 2007, a service that provides health advice and information for the residents of Wales. Historically, when members of the public are unwell, their first point of contact has generally either been emergency services or their GP surgery; the NHS Direct Wales provision helps to free up these providers to focus on patients who are in critical need by proffering health advice and, if appropriate, signposting to other services that appropriate health professionals can provide.

The NHS Direct Wales service can be used by members of the public in two ways - the telephone provision is available by dialling 0845 46 47 or the public can go online and read the information from NHS Direct Wales' dedicated webpages on the internet.

The telephone service is manned by trained Call Handlers who connect callers to a suitable Advisor, who may be a nurse, dentist or someone providing health information. The Advisor can assist the caller by helping them choose an appropriate service for their health need (although this still may be attending their GP surgery or A+E department for some callers).

The website www.nhsdirect.wales.nhs.uk provides a range of information, from an A-Z health encyclopaedia, symptom checker, vaccination and travel advice, how to live well and pregnancy information to being able to find local services through a search facility for users. In addition, there are specific pages for the young people of Wales, called "The Room".

f. Emergency Preparedness, Resilience and Response
(WAST, 2020h)

Emergency situations can involve small to large scale incidents, from a minor road traffic collision with walking wounded casualties to an act of terrorism or large scale chemical spill incident with numerous critical casualties. Whilst such large incidents may be few in number, nevertheless WAST needs to be able to respond appropriately if/when such an incident occurs. As such, WAST employs a Resilience Team that consists of regionally responsive managerial and professional colleagues. The team oversees WAST's compliance regarding their obligations under the Civil

Contingencies Act (2004) and ensures appropriate emergency preparedness, resilience and response of the service in times of critical need.

In order to ensure their preparedness, the team provides advice on mass public events and runs training exercises in addition to managing the Specialist Operations Response Team and the Hazardous Area Response Team.

g. Research and Development

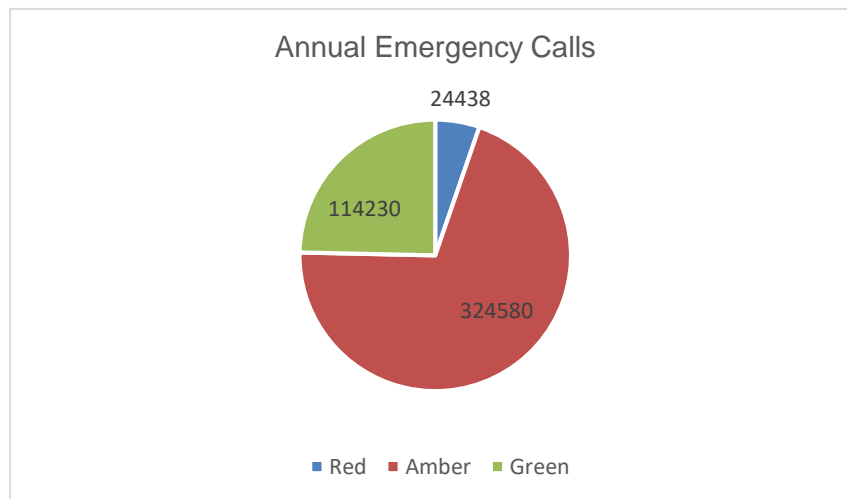
(WAST, 2020i)

There is little doubt that healthcare and treatments have changed significantly over the years, with the important role that health research has played in championing and providing an evidence base for these developments being recognised across all fields of healthcare.

WAST too has a research focus within its services, as it is keen to keep abreast of the changing nature of healthcare delivery and be at the forefront of the provision of innovative services. Supported by Health and Care Research Wales, WAST's Research and Development team currently oversees numerous research projects, ensuring that any research conducted is of a high quality and complies with the required ethical frameworks.

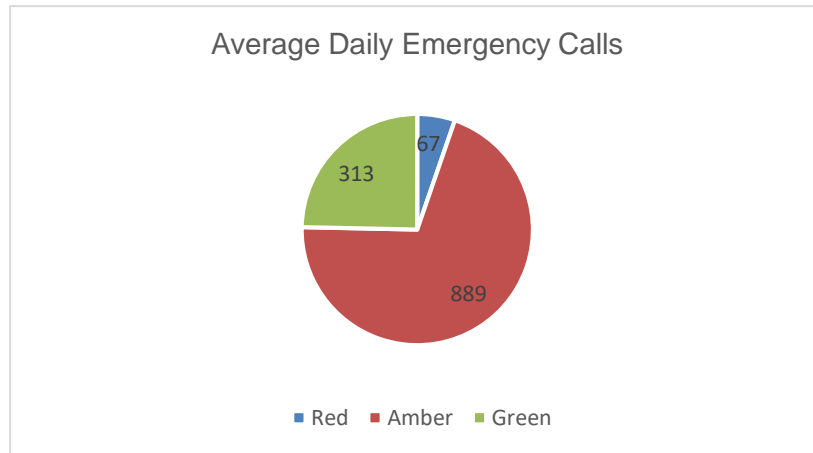
4. WAST in Numbers

a. Annual Emergency Ambulance Calls *(April 2018 – March 2019)*



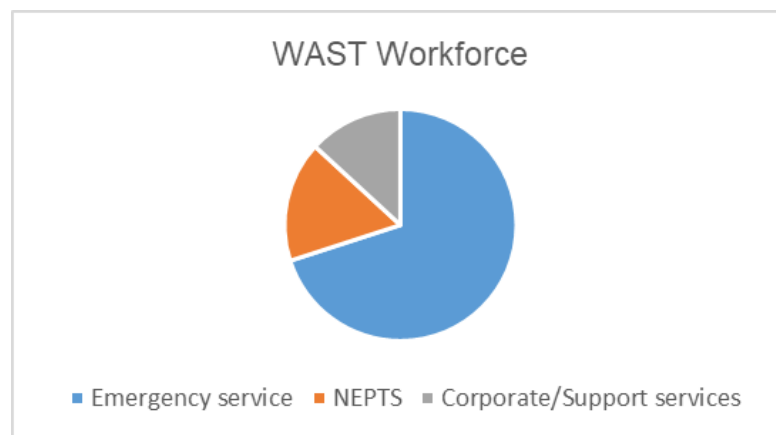
- 463,248 emergency ambulance calls made
- 24,438 of these calls were categorised as 'red' calls
- 324,580 were categorised as 'amber'
- 114,230 were categorised as 'green'

b. Average Daily Number of Emergency Ambulance Calls (April 2018 – March 2019)



- There were on average 1269 calls per day
- 67 of these calls were 'red' calls
- 889 were 'amber'
- 313 were 'green'

c. WAST workforce (2018)



- 3357 staff were employed by WAST in 2018
- 70% of the workforce worked within WAST's emergency services
- Approximately 640 staff worked in NEPTS
- Approximately 500 staff worked in corporate and support services
- Over a 1,000 volunteers, including Community First Responders and Volunteer Car Drivers

d. WAST services (2019)

- 260 community engagement events were organised by WAST in 2019
- 19,291 First Responder attendances were recorded (for all calls classifications)

- 4,367,243 visits were made to NHS Direct Wales website
- 301,640 calls made to NHS Direct Wales
- 787,666 NEPTS journeys were made

e. WAST infrastructure and logistics (date)

- 90 ambulance stations (2020k)
- 3 contact centres (2020k)
- 3 regional offices (2020k)
- 5 vehicle workshops (2020k)
- 715 vehicles (2020j) (see also Fig.3)
- £167m funding in 2017/18

(WAST, 2020j; WAST, 2020k; Welsh Government, 2019; Statistics for Wales, 2019; Emergency Ambulance Services Committee, 2020; Mills & Whitehead: *The Amber Review*, 2018; WAST: *A Long Term Strategic Framework for Ambulance Services in Wales – Engagement Document*, 2017).

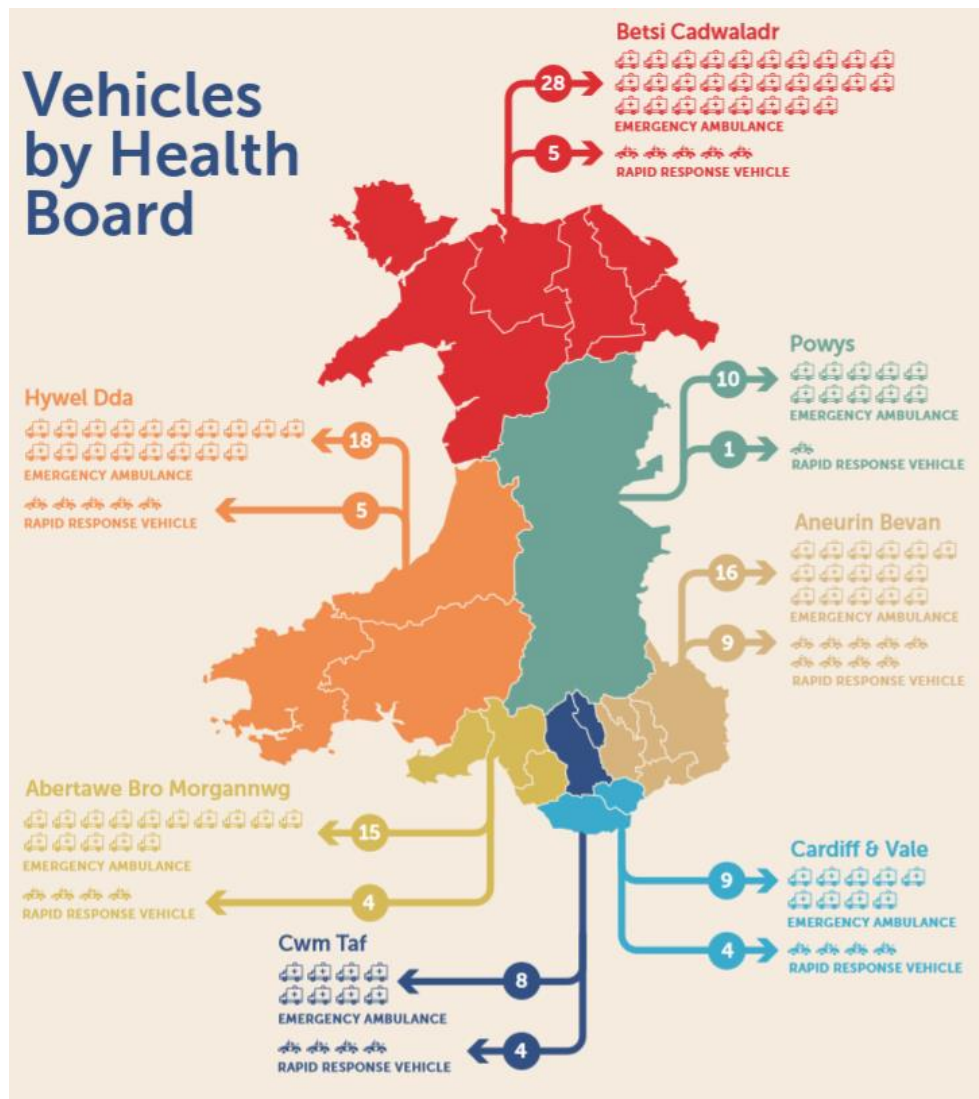


Fig 3: WAST vehicles by Health Board (Amber Review, 2018)

5. WAST's Clinical Response Model (CRM)

In 2015, WAST implemented a new system of response to calls, which was a significant move away from the traditional first-come-first-served and the A, B and C call classification models. Following the McClelland Review (2013), it was felt that a new way of measuring the quality of the service provided was needed that focused on quality instead of being driven by time target performances, where quality outcomes at times were overlooked.

“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.”
(McClelland, 2013, p 62)

Therefore a move to use a specific set of indicators was implemented, which focused more on quality, appropriate care, patient outcomes and the overall experience.

Whilst a move away from timed responses for most calls was new territory for WAST to tread, the Amber Review (2018) highlighted that 92% of responders from their research felt that *“getting the best response for my condition even if this is not the quickest response”* (p.21) was a positive focus for WAST's services. This also concurred with another review that felt that the CRM was the right development move going forward (Public and Corporate Economic Consultant, 2017).

a. How the CRM works


1.	 999 call is made
2.	Once connected to the ambulance contact centre, a series of questions are asked, to decide the classification of the call. The call classification will then determine the type of WAST response allocated. Red: serious, life-threatening, imminent danger of death. 8 minutes response time remains Amber: serious and urgent but not life threatening Green: non-serious conditions
3.	If a Red call is classified, an emergency ambulance is dispatched immediately.
4.	For all other calls, more information will be needed in order to decide the call classification and what response is needed.
5.	An internationally used set of protocols called the “Medical Priority Dispatch System in Wales” helps the call handler to navigate through the data presented to them in a standardised way. The system will generate a dispatch code, made up of a set of letters and numbers.
6.	Once a code is generated, the Clinical Prioritisation Assessment Software Group allocates it as either a Red, Amber or Green category and will also decide the best (ideal) or next best (suitable) response to allocate for each individual code.
7.	These responses may include a clinical telephone assessment, a rapid response vehicle, an emergency ambulance being dispatched or a referral to another health resource.

Table 1: Amber Review, 2018

The Medical Priority Dispatch System has about 1,900 codes that can be generated from a caller's response to specific questions. 62% of these codes fall in the Amber category, with 14% accounting for Amber 1 codes, for conditions such as recent strokes or chest pains, and 48% for Amber 2 codes, for conditions such as falls and less recent strokes (Amber Review, 2018). This means that the Medical Priority Dispatch System doesn't generate a code for a specific health condition, as other factors may (or may not) be present in a person presenting a complaint for that condition, which may then influence the call classification. For example, all calls relating to the same illness or condition may well be categorised differently, depending on other factors present in the patient at the time of the call.

The call classification procedure is complex at best; whilst it is generally felt to be a reasonable means of assessing patient information in order to determine the nature of the presenting complaint, so that an appropriate response can be instigated, it is also noted in the Amber Review (2018) that a lack of public understanding regarding the need to prioritise calls has led to public friction. This can in part begin to explain the discontent expressed at times by members of the public regarding perceived lengthy ambulance response times. Nevertheless, WAST is not alone in focusing its services away from time target measurements. England is also using standards which strive to '*provide a more clinically appropriate response by targeting the right resource to the right patient*' (Turner et al. 2017, p 7) and Scotland's model focuses on '*providing the most appropriate response, based on clinical need*' (Scottish Ambulance Service, 2015, p 25).

6. Defining Rural and Urban Wales

This research was requested in order to identify the differences in response times to Amber ambulance calls in rural as compared to urban areas of Wales. In order to consider this, an understanding must first be gained as to the definition of "rural" versus its "urban" counterparts in Wales.

The characteristics that differentiate a hamlet from a village to a town to a city can be intricate to understand. Furthermore, people have their own personal definitions of what rural and urban areas are, which can differ from person to person.

Defining 'rural' is therefore a contentious issue, with classification, indices, taxonomies and measuring tools differing across the globe. Indeed, Hart, Larson and Lishner (2005) suggest that 'rural' is an elusive term, and can be subjective when relating to the imagery it conveys. Atiyeh, Gunn and Haynes (2010) concur, stating that rural definitions are rarely agreed, therefore making it difficult to explain the concept. Regardless of how rurality is ultimately defined, a worldwide consensus suggests that 'rural' shares common themes that can be agreed. As such, it is generally agreed that "rural" can relate to smaller, dispersed or isolated communities with low population density that have challenges relating to connectivity, transport, accessibility and availability of core quality health and care services (Atiyeh, Gunn and Haynes, 2010).

Similarly, "urban" definitions also suffer confusion when attempting to describe common, key elements. Stanculescu (2009) describes urban areas as having

inhabitants, economic agents, buildings and facilities; but again different taxonomies and measures to determine 'urban' are globally at odds, with Deuskar at the World Bank Blog (2015) highlighting that there is no standard international definition of 'urban', leaving countries to devise their own. However, the common elements normally used when determining 'urban' tend to include population size and density, type of economic activities and level of infrastructure (Deuskar, 2015), with the National Geographic (no date (n.d)) also suggesting that these areas are generally very well developed, with the majority of inhabitants having non-agricultural jobs.

a. Rural Mid Wales

The Mid-Wales region is defined by Rural Health and Care Wales (RHCW) as being the area between an arc that connects Barmouth in the North West across to Welshpool in the North East, and down to an opposite arc to the South, that connects Cardigan to the West, across to Llandovery and then onto Builth Wells in the East (see figure 3).

The three county areas that make up the Mid Wales region are Ceredigion, South Gwynedd (Meirionnydd) and North and Mid Powys (fig.3). The Health Boards covering this area are Betsi Cadwaladr University Health Board (BCUHB), Hywel Dda University Health Board (HDdUHB) and Powys Teaching Health Board (PTHB), although some of their geographic areas fall outside of the Mid Wales definition.

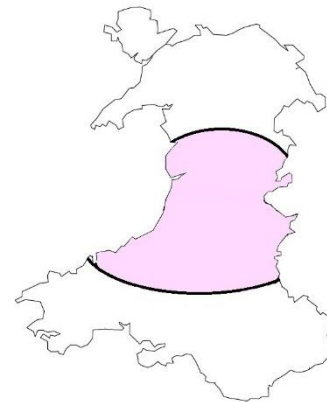


Fig 3: The Mid Wales

Whilst this definition focuses the work of RHCW to the specific rural region of Mid Wales, that is not to say that the remainder of Wales is therefore non-rural or urban. Indeed other parts of Wales are rural and remote in relation to their landscapes and topography.

Information provided by Bibby and Brindley (2013), on behalf of the Office for National Statistics, highlight the rural-urban classifications on all Wales basis (see fig.4), with the majority of Wales appearing in the yellow-green classifications (rural), with pockets of grey (urban) concentrated in north and south eastern areas. In conclusion, confirming a distinction between rural and urban areas of Wales is not straight forward, especially as some Health Boards have pockets of both rural and urban classifications within their areas.

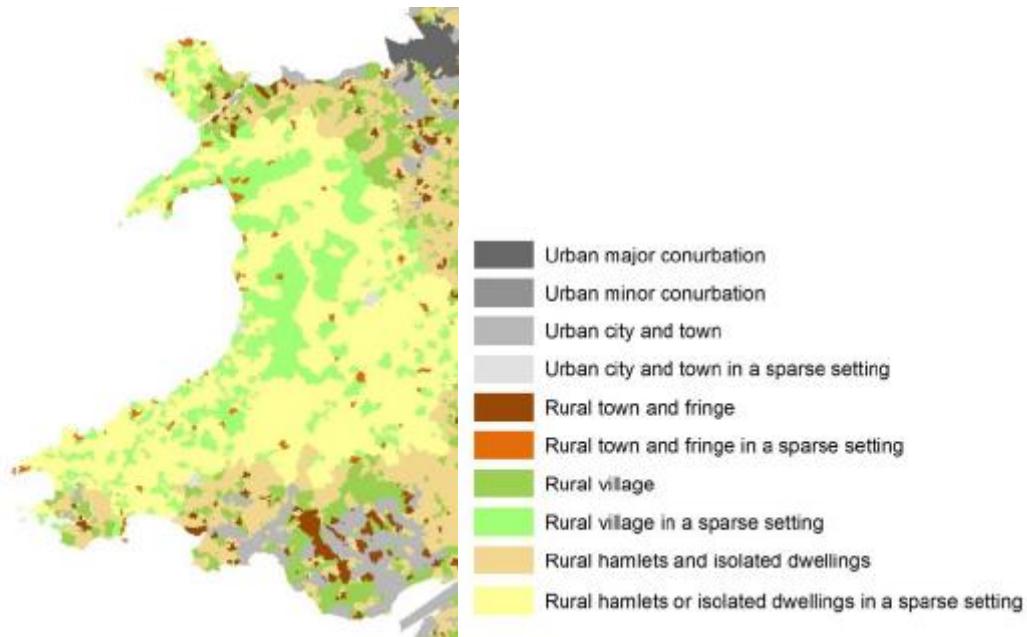


Fig 4: Wales 2011 Census Output Areas (Bibby and Brindley, 2013: Office for National Statistics)

b. WAST’s distinction between rural and urban areas

Another difficulty encountered in agreeing a definition of “rural” for the purpose of this report is the fact that WAST does not collate and differentiate its results via separate rural and urban classifications. All Wales performance data is recorded and broken down to Health Board localities (as per fig. 5).

In conclusion, for the purpose of this report, based on the fact that three Health Boards (Betsi Cadwaladr and Hywel Dda University Health Boards and Powys Teaching Health Board) are included within RHCW’s sphere of delivery, the data from these three Health Boards will be examined against data from Swansea Bay (previously Abertawe Bro Morgannwg), Cwm Taf Morgannwg (previously Cwm Taf), Aneurin Bevan and Cardiff and Vale University Health Boards, which incidentally are located in the south east greyer area of the map in figure 4, which denotes generally a more urban region.

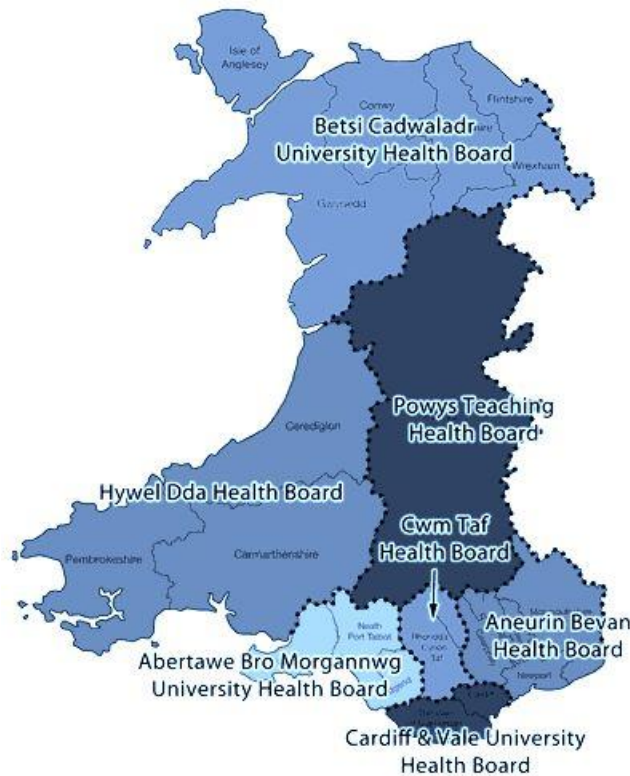


Fig 5: Map of the Health Boards in Wales (NHS Wales, n.d)

7. Examination of amber ambulance responses

WAST is required to make its performance data openly available to the public and it is accessible via their website or by accessing Stats Wales (Welsh Government) online pages here:

<https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Performance/Ambulance-Services>.

The information that is published includes the following:

- Emergency ambulance calls and responses to red calls, by Local Health Board (LHB) and year
- Ambulance Quality Indicators by LHB area and month
- Emergency ambulance calls and responses to red calls, by LHB and month
- Emergency responses: minute by minute performance for red calls by LHB and month
- Emergency responses: minute by minute performance for amber calls, by LHB and month

Whilst WAST has moved away from measuring their service against time targets for amber calls, they do still collate response time data. Conveniently, Statistics for Wales published a report in June 2019, presenting an analysis of the performance of the Ambulance Service in Wales for the financial year of 2018-19.

Statistics for Wales reported that 324,580 amber calls were received during 2018-19, which accounted for 70.1% of the overall calls received (see fig. 6); this figure being 1% higher than the number received the previous year, highlighting the increasing demand of the service.

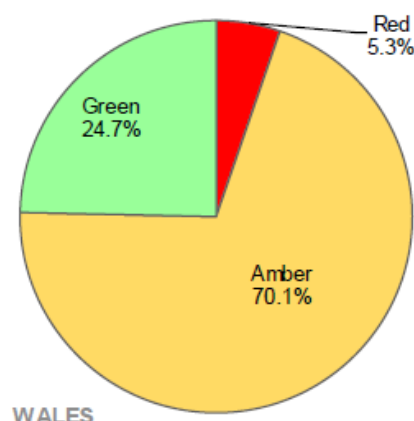


Fig 6: 999 calls received during 2018-19
(Statistics for Wales, 2019)

The breakdown of the calls received by each LHB are analysed by Statistics for Wales (2019) below:

Health Board	Number of Amber calls received
Betsi Cadwaladr	83,562
Powys	13,749
Hywel Dda	39,496
Abertawe Bro Morgannwg (now Swansea Bay)	54,276
Cwm Taf (now Cwm Taf Morgannwg)	29,970
Aneurin Bevan	57,240
Cardiff and Vale	46,287
WALES total	324,580

Table 2: Number of amber calls received during 2018-19

Area Description	Number of Amber calls received
Rural	136,807
Urban	187,773
WALES total	324,580

Table 3: Number of amber calls received during 2018-19- rural/urban

Health Board	Average number of Amber calls per day
Betsi Cadwaladr	229
Powys	38
Hywel Dda	108
Abertawe Bro Morgannwg (now Swansea Bay)	149
Cwm Taf (now Cwm Taf Morgannwg)	82
Aneurin Bevan	157
Cardiff and Vale	127
WALES total	890

Table 4: Average number of amber calls received per day during 2018-19

Area Description	Average number of Amber calls per day
Rural	375
Urban	515
<i>WALES total</i>	<i>890</i>

Table 5: Average number of amber calls received per day during 2018-19 – rural/urban

Although the rural definition incorporates all areas of BCUHB, HDdUHB and PTHB, and collectively their geographic areas cover a significant landmass of Wales, more amber calls were received from urban areas than from rural areas of Wales. This can be explained in part due to the larger population masses living in those urban communities compared with the sparse and lower densely populated areas of rural areas.

In relation to the response times of those calls, Statistics for Wales (2019) presents the following data:

Health Board	Number of responses at scene	Percentage of responses at the scene within						
		5 mins	10 mins	15 mins	20 mins	25 mins	30 mins	30+ mins
Betsi Cadwaladr	70,598	6.3	21.5	36.0	47.7	56.9	64.2	35.8
Powys	12,626	11.1	27.4	39.2	50.2	59.3	66.5	33.5
Hywel Dda	34,834	6.8	22.9	36.0	47.8	56.9	64.5	35.5
ABM (now Swansea Bay)	42,000	4.1	15.5	27.7	37.2	44.7	50.5	49.5
Cwm Taf	25,267	5.6	20.4	33.8	44.5	53.5	60.5	39.5
Aneurin Bevan	46,142	5.0	18.0	29.3	37.9	45.1	51.1	48.9
Cardiff and Vale	34,771	5.4	18.2	30.6	39.3	46.3	52.0	48.0
<i>WALES</i>	<i>266,238</i>	<i>5.8</i>	<i>19.9</i>	<i>32.8</i>	<i>43.1</i>	<i>51.3</i>	<i>58.0</i>	<i>42.0</i>

Table 6: Emergency responses to amber calls, by time band during 2018-19

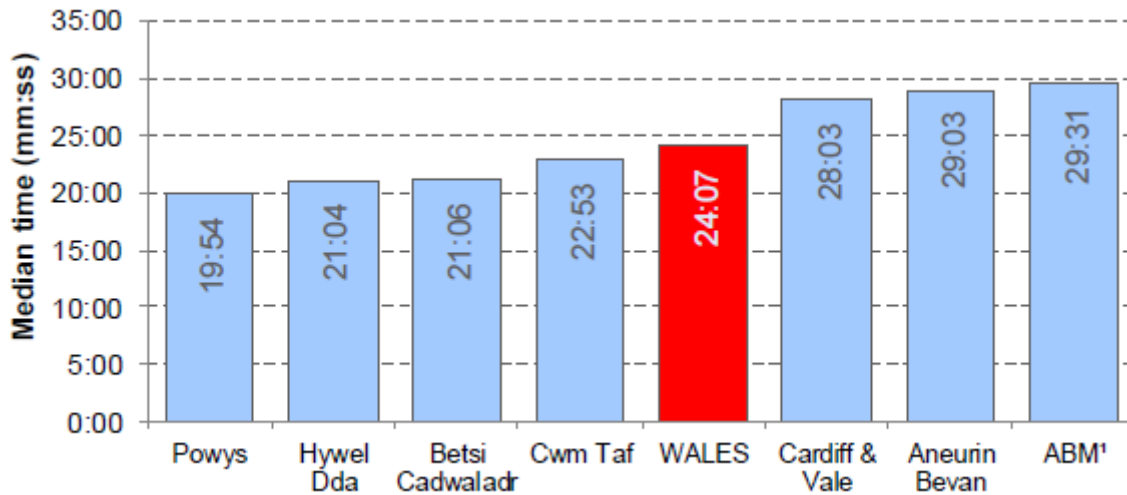


Fig 7. Median response time for amber calls in 2018-19
(Statistics for Wales, 2019)

The response times highlighted in Table 6, consistently show that for each time band up until 30 minutes, ambulances operating in the Health Boards defined as rural arrived at the scene quicker than those operating in urban areas. This however is the reverse when viewing response time arrivals after 30 minutes, where all of the urban Health Boards have quicker response times than the rural ones.

Figure 7 confirms that the three rural Health Boards also have faster median response times than their urban counterparts. Therefore, the concern raised regarding rural areas facing poorer response times for amber calls compared with urban areas does not appear to ring true. Whilst this is positive news for rural areas, it is also acknowledged that urban areas responded to 50,966 more amber calls than rural areas during the same time period, denoting the extra demand placed on their services, due to serving regions with greater population masses.

a. Ambulance Quality Indicators

Although time responses are collated, the CRM focuses WAST's services away from determining response times as a measure of the quality of its provisions for its amber calls. Instead, an intricate set of Ambulance Quality Indicators are used for all call classifications, arranged via a 5 Step Ambulance Care Pathway, which includes:

1. Help me to choose
2. Answer my call
3. Come and see me
4. Give me treatment
5. Take me to hospital

(Emergency Ambulance Services Committee, n.d)

'Help me to choose' outlines WAST's work in supporting the public to choose the correct service for their health needs, by providing access to information and the provision of appropriate advice. Whilst 111 Wales and NHS Direct (calls and online information) provide a worthwhile service in outlining the services available to the

public, the Amber Review (2018) highlighted that the calls to WAST have increased, denoting the rising demand placed on the service.

The Ambulance Quality Indicators for this first step in the pathway collate visits to the NHS Direct webpage, monitor calls to NHS Direct, compile the reasons why the public contact WAST and identify frequent callers. Such data can potentially help to devise preventative services and implement actions to address unmet needs, especially as comments from the Amber Review's interviews and focus groups suggest that people tend to call for an ambulance as a safeguard, when not knowing what else to do. Interestingly, the main reason for calling NHS Direct in 2019 was for dental problems (Emergency Ambulance Services Committee, 2020).

The public expect a prompt response when dialling 999 and the '*Answer my call*' step of the pathway looks at data relating to the number of calls received, the time taken to answer calls, how many calls were triaged/assessed, what the reasons were for calling the emergency services, how many re-contacts were made and how many calls were ended over the phone.

As identified in step 1, the number of calls made to the emergency services have increased, which means that the time taken to answer calls has also increased. This rise in demand places added pressure on call handler staff. During 2019, breathing problems and falls have been the main reasons for calling the emergency services. 8.7% of calls were ended following a WAST telephone assessment in 2019 (Emergency Ambulance Services Committee, 2020).

Step 3 '*Come and see me*' collates timed response data for red, amber and green calls, along with the number of vehicles at incidents and the number of first responders' attendance at a scene. As a result of the increase in demand, there has also been a corresponding rise in the number of ambulances being required to attend incidents. For 2019, the following data was recorded:

- Red calls resulting an emergency response
 - Rural = 9,965
 - Urban = 17,687
- Amber calls resulting an emergency response
 - Rural = 118,682
 - Urban = 146,088
- Green calls resulting a response
 - Rural = 13,693
 - Urban = 12,393

(Emergency Ambulance Services Committee, 2020)

'Give me treatment' (step 4) outlines the numbers of patients requiring treatment for various conditions. Cardiac arrest/resuscitation and suspected conditions, such as strokes, hip fractures, sepsis, heart attacks, febrile convulsions and hypoglycaemia, are particularly noted. In addition, this step includes data of when the ideal response arrived initially and subsequently for both amber and green responses.

The following data was recorded for 2019:

- Total number of amber incidents with a response = 234,093
- Total number of amber incidents where the ideal response was first on scene = 133,266, split in to:
 - Rural = 62,136
 - Urban = 71,130
- An ideal response was sent to 56.9% of all amber incidents that required a response

(Emergency Ambulance Services Committee, 2020)

Moreover, following assessment and appropriate treatment, 60,076 patients did not require going to a hospital, with 34,187 being treated at the scene and 25,889 being referred to alternative providers (Emergency Ambulance Services Committee, 2020).

The final step in the pathway is *'take me to hospital'*. Although more patients are not being taken to hospital as their episode of care is concluded through the positive input provided by calls handlers, advisors and ambulance crews attending the scene, still a number of patients do require hospital care. The Ambulance Quality Indicators in this step collate conveyance data (in all forms) and time targets for handover of care (explained further in 8.3) and from handover to clear (explained further in 8.4) to various hospital types, e.g. tier 1 - major A+E units; tier 2 – minor A+E units; tier 3 – major acute areas etc. In 2019, only 66.8% of patients required conveyance to hospital (Emergency Ambulance Services Committee, 2020).

8. Understanding WAST amber response times

Responding to any call undoubtedly involves having the resources to deploy when the need arises. Although the evidence confirms that rural areas had quicker response times from WAST than urban areas in the past year - which is reassuring for the rural residents who had concerns about this issue - the situation however, is not a competition. Every call received denotes that a human being, be it from a rural or urban area, is in need, which must not be forgotten.

The increasing demand placed on the service for all geographic areas is concerning, as the data has shown a 1.0% increase in demand from the previous year. Whilst rural landscapes and geographies may not feature as a prominent issue affecting WAST's resources, other issues such as workforce concerns, ambulances waiting too long outside hospitals to transfer patients, abuse and increased times in getting ambulances ready for the next incident, all impact upon the ability to respond timely to calls, which then reflects in the data collated and therefore may not present a true picture. This applies equally to both rural and urban areas. The Amber Review (2018) discusses some of these concerns.

In summary, in order for WAST to function, it must have the correct resources to meet demand. However, if WAST's resources are hampered in any way and the ever-present demand continues to increase, then the service is unable to respond

appropriately. This then has a knock-on effect on WAST's ability to respond to all calls in both rural and urban areas.

a. Shortfalls in workforce

WAST's workforce is made up of over 3,300 people (Welsh Government, 2019), who are all valued team members that contribute to the delivery of quality patient care across Wales.

The Amber Review (2018) explains that in order to ensure that WAST is able to function, a complex system of calculating 'planned' staff availability is made for each shift. When creating a work rota, compliance with specific regulations governing shift patterns and management, sickness levels, holiday leave and training days must be taken into account, which adds to the complexity of the process. In addition, the 'planned' staffing requirement may not always tally with the 'actual' staff available for each shift. The review highlighted that 143,677 hours were lost to the planned vs, actual staffing gap.

Moreover, out of all of NHS Wales' organisations, WAST consistently has the highest sickness rate (Welsh Government, 2018a), with numbers being higher in 2017-18 than in 2016-17, demonstrating a year on year rise. 88,095 hours were lost due to front line staff sickness (Amber Review, 2018; p.65), which inevitably had a detrimental impact on WAST's capacity to deliver its services.

The review also identified concern regarding the stresses staff often faced, which sadly included abuse from the public. Being the face of front line services can be challenging for staff to deal with, especially when public discontent, in varying forms and degrees of severity, is articulated and directed towards them. Media headlines highlight the rise of such incidents:

*“Ambulance staff face rise in physical and verbal sexual assaults”
(Campbell, 2018)*

*“Rise in attacks on Welsh Ambulance staff ‘unacceptable’”
(Lloyd, 2019)*

*“Footage shows vicious attack on paramedics as they tend to
him in back of ambulance”
(Bassey, 2019)*

Staff must be protected from emotional and physical harm when undertaking their daily work duties. The Amber Review (2018) states that WAST are working alongside trade union partners to address this and have taken steps to support and promote positive staff health, whilst also ensuring that episodes of harassment are not tolerated and appropriate action taken.

Although a high sickness absence rate is recorded, a vacancy rate of under 4% for WAST's EMS workforce is reported, and the overall increase of staff and production hours currently available is as a result of better workforce planning and timely recruitment (WAST, Integrated Medium Term Plan 2018/19-2020/21, 2018).

Whilst WAST acknowledges issues in staff availability planning, it continues to strive to improve its services and looks to implement findings from a Demand and Capacity Review, commissioned in 2016 (Amber Review, 2018).

b. Abuse of resources

In addition to the abuse of its staff, it is also disheartening to note the purposeful vandalism of WAST resources, - the images in figure 8 below were taken earlier this year in January 2020. In a social media post highlighting the damage, WAST states that it exists 'to help the people of Wales' during times of emergency; being the target of crime is difficult to comprehend.



Fig 8: Target of crime: (WAST Facebook posts, 2020b)

When a resource is targeted in such a way, it means that until the damage is rectified, those vehicles are not operational or available to respond to calls when the need arises, this in itself having a direct impact on response times.

c. Ambulances waiting too long outside hospitals

The process of ambulance staff transferring patients to a hospital is called a 'handover of care', and in Wales a target has been set, which stipulates that 95% of patients must be handed over within 15 minutes of arrival at a hospital.

The Amber Review (2018) highlights that for the past two years this target has not been met. In April 2016, only 54% of handovers met this criteria, which fell further in March 2018 to 45%. The winter months appear to be a particular challenging time for compliance with the handover target, with the percentage falling during this time.

The ability to handover patients from the care of the ambulance crew to hospitals is governed by many factors and the Amber Review (2018) proposed the following as contributory factors:

- major incidents impacting on the demand in A+E and hospital wards
- reduced patient flow, both internal and external to a hospital environment, affecting the ability to transfer patients appropriately
- seasonal pressures
- hospital workforce issues
- reduced resources, such as lack of equipment and capacity in A+E departments

The review states that 122,266 hours were accredited to delayed handovers during 2016-18, with 107,324 hours reported for 2019 alone (Emergency Ambulance Services Committee, 2020).

Delivering on-going care to patients in an environment that is not designed to cater for such an eventuality can be challenging for ambulance crews, especially in relation to addressing nutritional, toileting or pressure area needs. Moreover, waiting outside hospitals to handover patients means that ambulances are unable to respond to any calls received during that time. This has a knock on impact on the ability of ambulances to respond in a timely manner to any call received during these times. Whilst WAST acknowledges the pressures that healthcare services face, they also recognise that there is a need to better collaborate on a whole hospital basis in order to address this.

d. Ambulances getting ready for the next incident

After transferring a patient to a hospital, the ambulance crew must prepare their vehicle for the next call. This process is termed as 'from handover to clear'. It is expected that crews take no more than 15 minutes to complete this process, which may include cleaning and/or re-stocking duties; it is also acknowledged that crews need sufficient time to emotionally recover following the completion of each call. However the Amber Report (2018) identified that 16,624 hours were lost from 'handover to clear' during 2016-2018, and they recommend that more needs to be done to understand the intricacies involved, so that unnecessary delays for patients waiting for ambulances is avoided.

9. Quality within Amber responses

In light of the increase in demand for WAST's services, delivering and ensuring quality provisions for all patients contacting them for emergency care is difficult to fully appreciate. The Clinical Response Model, the call classifications, the Medical Dispatch System and its numerous codes, the Clinical Prioritisation Assessment Software Group, WAST's changing workforce and the Ambulance Quality Indicators have been created in order to better target WAST's resources appropriately and to deliver a service fit for the people of Wales. Nevertheless, understanding fully the processes involved and the data captured is complex at best. It is worth noting that whilst the Ambulance Quality Indicators collate substantial data in intricate detail, only a small proportion is examined and shared within this report. Providing 'quality' and ensuring better patient experience have been a key focus for the changes to service provision driven by WAST over the last five years and making sure that the CRM is delivering this for amber calls is essential.

The Amber Review (2018) presents a detailed examination and analysis of the various aspects of amber service delivery in Wales and this valuable document has been referred to several times within this report. The review's synthesis and scrutiny of data concludes that in relation to amber calls:

- Some patients will have a poor experience whilst waiting for an ambulance, but having to wait 'a long time' can mean different things to different people;
- WAST's resources are not always available to meet demand;
- A lengthy response (which at times is experienced by some) is not related to patients being categorised incorrectly, but rather because of the hampering of WAST's resources;
- The majority of patients receive a prompt response;
- WAST are getting to the sickest people first;
- There does not appear to be a correlation between long waits and poor health outcomes for the majority of patients;
- Members of the public support the Clinical Response Model:
 - 92% felt that getting the best response for a condition, even if this was not the quickest response, was an important element of the CRM
 - 73% felt that an ambulance should only be dispatched if an assessment showed that it was required
 - 88% felt that it was important that ambulance services provide medical advice over the phone, which could avoid the need for an ambulance to be dispatched
 - 84% believed that ambulance crew should do as much as possible to avoid the need to take patients to hospital
 - 97% felt that it was important to measure the quality of treatment
- The Clinical Response Model is a valid and safe way of delivering quality services.

In addition, applying a rural lens to the data highlights that the differential between rural and urban response times for amber calls often favours rural areas – not the other way around, as perceived to be the case by some rural residents. This has been confirmed by considering the data supplied and comparing largely urban LHB areas with primarily rural ones.

The Amber Review concludes by making the following recommendations to further improve the services provided by WAST:

- Measures of quality and response time should continue to be published although they need to reflect the patient's whole episode of care;
- Measures should be developed in collaboration with patients;
- There should be a programme of engagement to ensure clarity on the role of emergency ambulance services and how calls are prioritised;
- NHS services in Wales must improve and simplify their offering of alternative services;
- There must be sufficient numbers of clinicians in the contact centres to ensure patients receive the most appropriate level of care;
- The ambulance service must ensure that planned resources are sufficient to meet expected demand;

- The ambulance service must deliver against its planned resource;
- Health Boards must take appropriate actions to ensure that lost hours for ambulances outside hospitals reduce, and
- The longest waits for patients in the community must be reduced.

(The Amber Review, 2018, p95)

6. Conclusion

This report explores amber ambulance response times in rural versus urban areas of Wales, seeking to identify whether there are any disparities or differences.

In undertaking the research, an overview of the Welsh Ambulance Service Trust has been provided which outlines the services it provides and details its usage on an all Wales, rural and urban basis. Furthermore, a basic understanding of WAST's Clinical Response Model has been provided, which acknowledges the challenges that are facing the Trust in current times.

Since its inception in 1998, WAST has evolved to become a world leading service, delivering advanced clinical patient care, whilst also being involved in community activities, supporting the transport of non-emergency patients to hospitals and clinics, providing current health advice via telephone and on-line platforms, preparing for large scale incidents (should they occur) and conducting research in order to be at the forefront of innovative future provisions. Changes have had to happen due to increases in demand and a changing environment, and changes will continually occur in the future as it evolves to meet demand. An example of this was the change in the way that emergency calls were classified, moving services away from the traditional first come, first served A, B, C traditional method in 2015 to the Clinical Response Model.

Change often raises concern however and there has been a growing perception that rural populations face longer ambulance response times compared with their urban counterparts for amber calls; this concern can be seen reflected in global literature (Mathiesen, Bjørshal, Kvaløy & Søreide, 2018; Aftyka, Rybojad & Rudnicka-Drozak, 2014; Yeap, Morrison, Apodaca, Egan & Jansen, 2014; Jennings, Cameron, Walker, Bernard and Smith, 2006) and was raised at a RHCW Steering Group meeting.

This report however has determined that for time bands of up to 30 minutes, ambulances operating in Health Board areas defined as "rural" within Wales arrived at the scene quicker than those in urban areas and consistently had faster median response times. Therefore, an analysis of WAST's response data for 2018-19 has demonstrated that rural areas are not disadvantaged with regards to their unique geography when waiting for ambulances classified as 'amber' - in fact, they receive a quicker service than their urban counterparts.

Receiving a quick service does not always equate to receiving an appropriate service however, which was the main reason that WAST moved away from time targets to focus on a new Clinical Response Model in 2015. Whilst it is recognised that rural areas do face certain disadvantages with regards to equitable access to health and care provision, every person contacting WAST for emergency care

should receive a high quality service, irrespective of their geographic location; WAST faces many challenges in its endeavours to do this. Ensuring an appropriately numbered and skilled workforce, the overall health of the workforce, public abuse of staff and of its physical resources, waiting too long outside hospitals to transfer patients and delays in handover to clear processes all hamper WAST's efforts in being able to respond effectively and timely to calls. Despite these challenges, the Amber Review (2018) concluded that the CRM is a valid and safe way of delivering quality and appropriate services within amber classified calls in Wales.

As with any health and care provision, WAST's services will undoubtedly evolve again over time, especially in light of ambitious transformation plans outlined in the Welsh Government's (2018b) strategic document 'A Healthier Wales: our Plan for Health and Social Care (2018)'. In addition, rural areas will continue to champion their localities to safeguard the delivery of health services to their populations. Whilst the model of future service delivery is unknown, this report has identified that, in current times at least, rural areas are reassured that their specific geography is not a barrier for receiving timely and appropriate care from the Welsh Ambulance Service NHS Trust.

10. References

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