

# The Reliability of Wisconsin's 911 Ambulance Response



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WISCONSIN OFFICE OF  
**Rural Health**

# The Reliability of Wisconsin's 911 Ambulance Response

## Executive Summary

In the fall of 2022, the Wisconsin Office of Rural Health conducted an assessment of the reliability<sup>1</sup> of the state's 911 ambulance response. A survey was sent to all EMS agencies that provide emergency ambulance services and 216 EMS Service Directors responded (60% of those invited to participate). Responses revealed that the ambulance response system in many communities is under severe strain and in critical need of immediate intervention. The primary issues affecting reliability were identified as inadequate staffing and a lack of financial resources to address staffing and other operational needs.

### KEY FINDINGS:

- **The strain on reliability is a state-wide issue.** Staffing and funding challenges are being experienced by agencies in every region, by agencies in rural and urban areas, and by agencies utilizing both volunteer and paid staff.
  - EMS agencies in rural areas and those that utilize a volunteer staffing model have the greatest risk of reliability issues.
- **Many EMS agencies lack adequate numbers of personnel to staff their ambulances,** increasing the risk of being unable to respond to 911 calls. In the past 12 months:
  - 41% of EMS agencies reported that they had periods in their schedule where they did not have adequate staffing to respond to a request for an ambulance response.
  - 78% had responded to another agency's request for mutual aid due to a lack of staffing at the first EMS agency.
  - 41% are operating with six or fewer staff members providing 80% of staffing hours.
- **Many EMS agencies lack financial resources to meet their operational needs.**
  - 29% lack funding to pay their projected expenses in 2023.
  - 38% of services anticipate seeking additional funding in the next year such as with a referendum.
  - The most frequently cited funding challenges included insufficient reimbursement from CMS, limits on municipal funding, lack of sustainable funding, and increased costs due to increasing call volume and inflation.

<sup>1</sup> EMS system reliability is the ability to provide an ambulance response to a 911 request for service 24 hours per day.

# Introduction

Emergency Medical Services (EMS) are a critical component of healthcare that provide immediate medical attention to people in emergency situations. Wisconsin’s EMS ambulance service providers respond to 911 requests for emergency healthcare outside of healthcare facilities and are tasked with providing high-quality patient treatment and transport.

Recently, there have been anecdotal reports of local EMS agencies being unable to respond to requests for service 24/7/365 (24 hours per day, seven days per week, 365 days per year). Additionally, there have been reports of agencies in significant financial and operational distress, leading to concerns for their future ability to respond to calls. To get a better understanding of what is happening and why, the Wisconsin Office of Rural Health sent a survey to all EMS agencies in the state that provide 911 transport as their primary service.

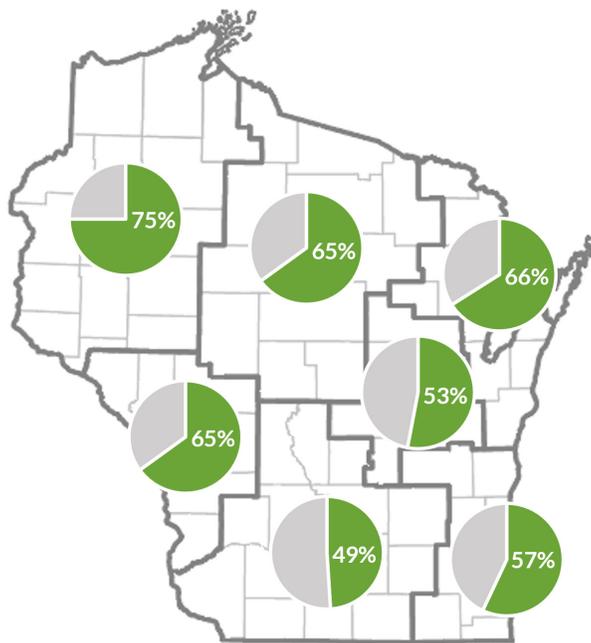
The survey sought to assess the ability of EMS agencies to respond to calls for service and gave Service Directors the opportunity to share their experience and expertise.

The survey was sent to 361 EMS agencies in Fall 2022 and 216 Service Directors submitted responses (60%). Responses were received from a majority of agencies in all regions of the state, except one. See Appendix for more information about survey methods, representativeness of responses, and respondent characteristics.

## A NOTE ABOUT THE REPORT

Many quotes from responding Service Directors are included in the report. Efforts were made to utilize comments that reflected sentiments from numerous respondents, not just one. Efforts were also made to remove all potentially identifying information from the quotes.

Response by WARDS Elite Region\*



\*Wisconsin Ambulance Run Data System

# Ambulance Availability

EMS system reliability is the ability to provide an ambulance response to a 911 request for service 24 hours per day. This requires ensuring a crew of at least two emergency medical responders 24/7/365, which requires 17,520 hours of annual staffing coverage. Ambulance service providers are at risk of being unable to respond to 911 calls when they don't have enough providers to staff an ambulance, when they rely on a small number of providers to cover most of their calls, and/or when their assistance to nearby EMS agencies removes them from their community.

## STAFFING THE FIRST AMBULANCE

When there are not enough providers to cover the staffing of an ambulance, the ambulance is considered unavailable, and the agency cannot respond to 911 calls. An agency could have many scheduling gaps throughout a year without missing a call, however, the risk of being unable to respond to a call is one most communities would rather not take. While 59% of agencies reported no gaps in availability of ambulance service, **41%** reported they experienced periods when a legal crew was not available on one or more days in the past 12 months.

**41%** of EMS agencies reported gaps in ambulance availability on one or more days in the past 12 months

Among EMS agencies using a volunteer staffing model, **63%** reported service gaps, compared to 15% of agencies using a paid staffing model. Agencies that rely on volunteers reported struggling with coverage due to the lack of staff on site and competing priorities, i.e., paid jobs.

*"We are in crisis mode trying to protect the people of our town. We are doing our best, but my crew members work during the day."*

But it's not just volunteer agencies that struggle with coverage. Agencies with paid staff pointed out that

they are only able to provide coverage by paying large amounts of overtime.

*"Though our service strives (successfully) to maintain 24/7/365 coverage, it doesn't come without conflict or exorbitant costs...we have had to pay extreme overtime costs and bonuses to compensate our personnel for maintaining adequate coverage."*

## STAFFING ADDITIONAL AMBULANCES

**48%** of agencies have more than one ambulance and some are struggling to staff those additional ambulances. Many Service Directors expressed their concerns about being able to respond to calls that come in while the first ambulance is out in the community.

*"We haven't had gaps in coverage of the first ambulance, but we have come close. However, second calls are difficult to cover and the second emergency is just as important as the first."*

*"We have given up over 40 calls this year because the first ambulance is busy and we are not able to completely staff the second. We would be hard pressed Monday thru Friday to staff a serious call for EMS service while the first unit is out."*

## SMALL ACTIVE ROSTER

Staffing an ambulance 100% of the time requires approximately seven full-time equivalent employees using traditional 24-hour shifts. Although most EMS agencies have staff rosters with seemingly more than enough staff to cover shifts, a large proportion of agencies are only utilizing a few of those roster members to cover the majority of their calls. This puts the agency at risk of ambulance service outages if one of those “core staff” gets sick, sustains an injury, goes on vacation, etc.

**41% of EMS agencies rely on 6 or fewer staff to respond to 80% or more of calls**

Of those who responded to the survey, **41%** of EMS agencies rely on six or fewer staff to cover the 80% or more of their calls, including **21%** that rely on 2-3 staff to cover the majority of scheduled shifts. Over half (**55%**) of rural agencies rely on six or fewer staff (compared to only 17% of urban agencies) and **62%** of volunteer agencies rely on six or fewer staff (compared to 16% of paid agencies).

*“One agency in our county has the same person running every single ambulance call they get. The minute she quits, that agency will fold up; a neighboring provider will have to come in and pick up the slack. **Nobody can take on any more calls, and we are all operating at max capacity.**”*

*“I try to fill in as many shifts as I can and my average on call time is over 200 hours every 2 weeks. I also have a 75 year old woman putting in an average of 120-150 hours every 2 weeks which is a lot for her but we are trying to keep our ambulance a float and doing what we can.”*

## RESPONDING TO OTHER'S CALLS

When an ambulance is unavailable, 911 calls are rerouted to neighboring communities. Other EMS agencies are then tasked with responding, making that ambulance unavailable in its home community, where a 911 call may come in while it is away on the call.

**78% of EMS agencies provided an ambulance response for a neighboring agency in the past 12 months due to the neighboring agency being unable to staff their primary ambulance**

Service Directors from all over the state expressed concerns about their increasing dependence on other agencies to respond to their calls. On top of the staffing issues mentioned above, agencies are seeing increased call volumes, which puts added strain on their already-thin resources.

*“We are providing mutual aid multiple times each day. We will exceed 1,300 mutual aid calls where we responded to our neighboring services this year. Our team is tired, and our own volumes continue to go up and it is getting tougher to maintain this level because it has been nonstop since 2020.”*

# Reliability Challenges

Simply put, the reliability of ambulance service response depends on people and funding. Service Directors identified the issues below as the top challenges they experience when it comes to reliability.

## STAFFING ISSUES

**Reliance on non-obligated staff, i.e. volunteers** – EMS agencies have trouble covering the schedule with staff that can choose when they work, and can't be required to cover certain shifts. These staff often have full-time jobs and are not available for large portions of each day.

*"The volunteer commitment is no longer a sustainable solution to EMS staffing. We have more volunteers than before but have less hours committed by each volunteer annually. We beg our volunteers to cover more hours, but many get frustrated and quit if we push them too hard."*

**51% of EMS agencies have crew rosters with 75% or more volunteers**

**Dwindling provider pool** – Service Directors throughout the state reported challenges with recruiting new volunteers into the agency. The most often-cited reasons were an economy that requires people to maintain full-time (paid) jobs and the large burden of responsibility placed on emergency medical providers who receive no or very little compensation.

*"Despite the numbers above, we are finding it more and more difficult to staff our ambulances. Without our full-time paid staff, it would be impossible. Volunteers are nearly impossible to find and even finding paid staff is difficult at best. At least 1 of our staff is at or above retirement age. The next 5 years are not looking good."*

**Aging provider pool** – A common theme among comments from Service Directors was the age, and aging, of their crew members and the concern that there are not enough providers to replace them as they retire.

*"We are able to provide coverage at this time but staff are all aging and no new staff want to join the service. In the coming future I don't know if we will be able to staff our ambulance as staff gets older and leave the service."*

**Training challenges** – The most frequently-mentioned challenges associated with obtaining the training required for licensure were:

- **Distance** – **73%** of rural agencies reported having to drive over 30 minutes to the nearest training center and several agencies mentioned having to drive 50-75 miles, each way.
- **Availability of classes** – Rural agencies frequently cited frustrations with cancelled classes when the class size is too small and volunteer agencies struggle with classes that are only available during the day (which are normal working hours).

## Reliability Challenges, continued

*“We need better access to quality in-person training resources. Our closest regional training center is 50 miles from our station. That is a hurdle we can overcome but if the course does not meet minimum class size and is cancelled, we often struggle to find alternatives. Not all students are capable of online learning coursework – some lack reliable internet access at home and others don’t thrive in the online learning environment.”*

### FUNDING ISSUES

While EMS is a critical component of the healthcare system, Wisconsin’s EMS providers are distinguished from the general healthcare system in that EMS is a function of local government (municipal or county). EMS is provided to the public directly by government-employed medical providers or by government-contracted medical providers. In contrast, the remaining healthcare system is a function of privately-owned entities.

This impacts their funding – of the agencies that responded to our survey, **90%** are receiving at least some, if not all, funding from their municipality. This makes revenue for EMS agencies dependent on the ability of local government to carve money out of already-stressed budgets serving a multitude of needs. One of the few tools for municipal leaders to find more revenue is to levy taxes on local properties. However, the ability to levy taxes is presently limited to annual increases of 2% absent a local referendum.

Other funding comes from billing for medical services, grant programs such as the EMS Funding Assistance Program, administered by the Wisconsin

Department of Health Services, and local community fundraisers.

In recent years, reimbursements from Medicare and Medicaid have increased and Wisconsin has increased funding to the Funding Assistance Program and implemented a one-time EMS Flex Grant program. All of these increases occurred prior to this survey being conducted and the responses collected reflect these additional funds.

Similar to the identified staffing issues, the funding issues Service Directors discussed are complex and interdependent. The most frequency cited issues were:

- Insufficient reimbursement from Medicare and Medicaid
- Levy limits on municipal funding
- Lack of sustainable funding (e.g., one-time grants, fundraisers)
- Increased costs due to increasing call volume and inflation

**Nearly 30%** of EMS agencies report that their current financial resources are not sufficient to cover next year’s projected costs and **38%** said they anticipate seeking new sources of funding, such as referendums, in the next twelve months. The implications of inadequate funding directly impact Wisconsin’s communities.

*“We continue to have to cut replacement equipment and training out of our budget to keep up with increased ongoing staff costs, and this is just current staff, there is no way to get more staff in our restricted budget.”*

## Reliability Challenges, continued

*“Unfortunately, the current funding mechanisms do not allow raising wages to meet the cost of inflation. Also, we are noting the incredible difficulty in maintaining funding to maintain our equipment. **Without changes to our funding mechanisms, we will be forced to reduce services.**”*

*“We will go out of service if things don’t change.”*

### Service Directors are Asking for Help

EMS providers care about the communities they serve and many are looking for ways to overcome the challenges they are experiencing. **Almost 90%** of the Service Directors that responded to the survey provided contact information and asked for help in addressing a specific reliability challenge. Consistent with the findings above, these requests centered around staff recruitment, training, and funding strategies.

## Future Reliability

Wisconsin’s EMS’ current reliability is exhibiting major strains and the future is looking tenuous. Unreliable EMS response can ultimately lead to failure to respond to an emergency at all, putting patient lives at risk. In the past year, ten (10) EMS agencies reported that the communities they serve requested an ambulance and an ambulance never arrived due to lack of availability of a staffed ambulance. This may just be the beginning of calls that go unanswered, as **69%** of agencies are worried that they will be unable to adequately staff their primary ambulances sometime in the next year.

*“We cannot continue as we are with casual staff that do not get full time pay and benefits-all of our staff need to maintain other full time employment-our run volume has increased to what will be near 1,000 runs in 2022 which has significantly risen over the past several years-a large burden on casual staff that only gets minimal call time and a set amount for an hourly wage on actual calls. **They are amazing, however there is a breaking point that will come.**”*

*“EMS is heading into an era of unsustainability. The wages are unable to compete even hardly with Culver’s as the reimbursement for EMS is so terrible for Medicare which is a huge chunk of our patients. Our agency needs funding (which is impossible to find), employees (also impossible to find) and improvement in training and resources. **As a rural ambulance service, we are highly relied upon by our community and the thought of losing our ambulance service in the next 2-4 years is frightening.**”*

**69% of EMS agencies are worried they will be unable to adequately staff their primary ambulances in the next year**

# RECOMMENDATIONS

In order to improve ambulance response reliability, the State of Wisconsin should consider the following recommendations:

## 1. Implement sustainable, recurring funding for EMS support

- a. Implement sustainable **recurring** funding sources for municipalities to fund EMS – There is a demonstrated need to develop sustainable recurring funding to ensure that communities can adequately fund their EMS agencies, including funding sufficient for the addition of paid staff. Services using paid staff are significantly more likely to maintain 24/7 availability.
- b. Implement sustainable recurring funding for Workforce Development – Create sufficient recurring funding to ensure that training centers can offer licensing and certification training in smaller class sizes and remote locations to serve the needs of all communities. Employer-funded training is needed to remove a barrier to entry into EMS occupations.
- c. Ensure sustainable recurring funding to the Department of Health Services' EMS Section in their efforts to assist EMS agencies throughout the state. This regulatory body provides oversight to the agencies and training centers, but at current staffing levels they can only address the most serious infractions – not smaller ones, nor proactively provide assistance to avoid infractions. Adding staffing here creates positions that can help struggling services, and build pathways to better operations and higher quality care.

## 2. Make statutory changes to create accountability

- a. Remove inconsistency in the Wisconsin statutory requirements for local government where Towns “shall” provide ambulance coverage, as opposed to Villages and Cities that “may” provide for ambulance services. This currently produces a lack of consistent accountability for ensuring service in communities.
- b. Develop a system of accountability where municipalities are required to ensure reliable ambulance service in order to receive funding related to providing those services.

# Appendix - Methods

## ASSESSMENT TOOL

The survey was designed by the Office of Rural Health with feedback from subject-matter experts from Wisconsin Department of Health Services, Wisconsin EMS Association, Wisconsin State Fire Chiefs Association, and Wisconsin Regional Trauma Advisory Council.

## PARTICIPANT ELIGIBILITY

A list of all licensed EMS agencies was obtained from the Department of Health Services via a public data request in July 2022. Services from that list were invited to participate in the study if their primary type of service was listed as 911 transport. The final number of services that were invited to participate was 361. This included six agencies that are located out of state but provide 911 response in Wisconsin.

## SURVEY DISTRIBUTION

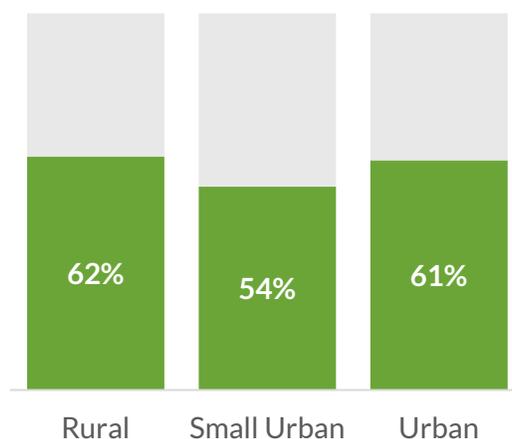
The survey was distributed electronically in Fall 2022. Two electronic reminders were sent as well as a postcard sent via US Post. In addition, regional coordinators from the Healthcare Emergency Readiness Coalitions were given lists of non-responding agencies and asked to encourage agencies in their regions to complete the survey.

## RURAL DEFINITION

EMS agencies were designated as “rural”, “small urban”, or “urban” using the [Municipal-level Urban-Rural Classification](#) system developed by the Wisconsin Office of Rural Health.

- **Rural** – Agencies in municipalities (cities, towns, or villages) with populations smaller than 9,999 and located more than 25 miles from a population center (defined as a municipality with a population over 50,000) were designated as “rural”.
- **Small Urban** – Agencies in municipalities with populations smaller than 9,999 and located within 25 miles of a population center or in municipalities with populations larger than 10,000 and located more than 25 miles from a population center were designated as “small urban”.
- **Urban** – All other agencies were designated as “urban”.

Survey response by rurality:



## EMS STAFFING MODELS

EMS agencies in Wisconsin use three general staffing models. These staffing models were used to interpret and understand responses to the survey.

- **Volunteer Model** – A volunteer is generally considered a medical provider that receives no monetary compensation or a minimal stipend per call. For the purpose of this report, services that reported that 75% or more of their roster is volunteer or paid-on-call were considered as operating under a “Volunteer” model.
- **Mixed Model** – EMS agencies using this model utilize a combination of volunteer and paid staff (part-time and full-time) to fill their rosters. In this report, services in this category reported rosters with 26%-74% volunteer staff.
- **Paid Model** – This staffing model includes paid part-time and paid full-time staff. Services in this category reported 75% or more paid part-time or paid full-time roster members.

Wisconsin’s EMS system has a long history of relying on volunteers to provide medical care to its residents . Currently, over 50% of agencies use a volunteer staffing model and the majority of those services (72%) are rural:



## Acknowledgement

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