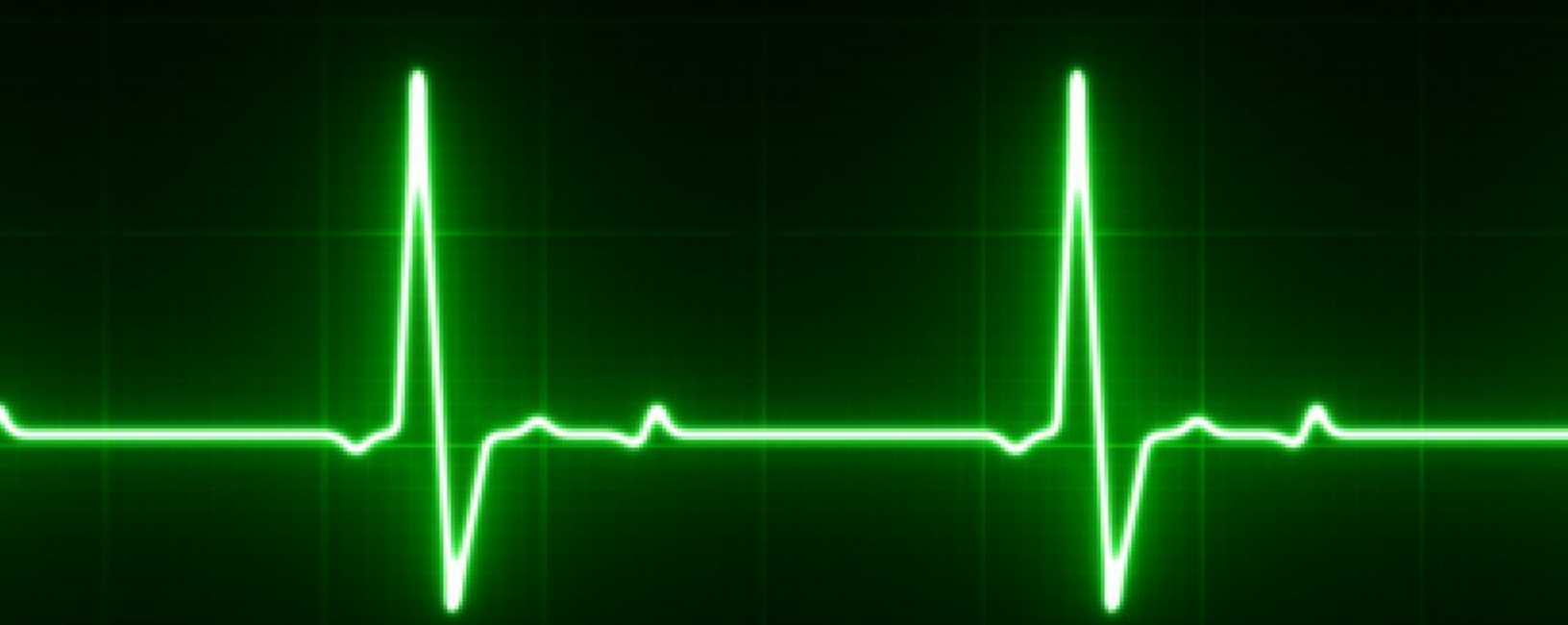
EXECUTIVE SUMMARY

TAKING THE PULSE

EMS Collaboration Opportunities in Jefferson County



WISCONSIN POLICY FORUM

EXECUTIVE SUMMARY

Emergency Medical Services (EMS) first became part of the national medical scene in the 1970s. Today, the availability of quality, timely emergency medical response and paramedic care has become a normal expectation for most Americans. Less visible is the fact that EMS systems were built on operating practices that have begun to weaken in light of growing calls for service, a changing workforce, the need to accommodate new medical practices and technologies, and fierce municipal financial constraints.

This study was launched early in 2020 to examine the state of EMS in Jefferson County. The onset of a global pandemic two months into the study made it even more timely and necessary. Like other communities across Wisconsin, Jefferson County's municipal service providers are facing emerging challenges from increased service demands and reliance on staffing models that may not be sustainable. In addition to analyzing these challenges, the analysis explores how enhanced service sharing and collaboration among the county's EMS agencies might allow them to confront their mutual challenges more effectively and perhaps at a lower cost than efforts to do so alone.

Emergency medical services – ranging from basic first response to advanced paramedic care – are provided by 13 distinct agencies in Jefferson County. Eleven of the 13 actively participated in the study through a survey, group meetings, and individual interviews. Where possible, we included publicly available information for the two that did not participate.

Current State

For the most part, EMS providers in Jefferson County operate independently and without county-wide consistency, employing staffing and operational models that meet their perceived needs and objectives.

EMS department staffing and operating models

Community	Staffing	Type
Jefferson Fire/EMS	Combination, mostly POP	EMS
Western Lakes FD	Combination full-time, part-time, POP and POC	Combined Fire/EMS
Lake Mills EMS	POC	EMS
Watertown FD	Career	Combined Fire/EMS
Palmyra PSD	Combination, mostly full-time	Combined Fire/EMS/law enforcement
Waterloo FD	POC	Combined Fire/EMS
Johnson Creek Fire/EMS	Combination, mostly POP	Combined Fire/EMS
Whitewater FD	Combination, mostly POP and POC	Combined, EMS operates separately
Ryan Brothers Ambulance	Career	EMS
Cambridge Area EMS	Combination, mostly full-time	EMS
Ixonia Fire/EMS	POC	Combined Fire/EMS

The adjacent table shows the different service and/or organizational models used by the EMS agencies in Jefferson County. Five are combined fire/EMS agencies (and one is a combined police/fire/EMS agency). Several others focus exclusively on EMS response and one (Ryan Brothers Ambulance) is a for-profit company that provides EMS under contract for several communities.

These departments include both "career" departments that use mostly full-time personnel who staff shifts at stations on a 24/7 basis as well as departments that rely mostly on paid-on-call (POC) staff who are called in to respond to emergency medical incidents when they arise. Some also use paid-on-premise (POP) staff who are hourly part-time workers but are assigned to regular shifts.

Specific findings from our analysis of service models and operational data from the various providers include the following:

- Wages vary widely across the several providers that use POC and POP staff and several report challenges in recruiting and retaining those personnel.
- EMS provider locations are dispersed fairly evenly across the county, with all but three licensed to provide advanced life support (ALS) services. Nevertheless, there are differences in ALS capacity and responsiveness in different parts of the county.
- Medical direction is provided by six different medical directors, which may result in inconsistent protocols and standards of care and which may impede efforts to cross-credential personnel to work in different departments if such a strategy is desired.
- EMS dispatch is fragmented across the county. Consequently, mutual aid efforts may not be as effective as they could be and data collection is not standardized.
- Average response times reported from individual providers vary, which is understandable given the different operational and service models employed. Nevertheless, it appears that strategies to improve response times in some areas of the county may be merited.

Between 2016 and 2019, nearly all EMS providers in the study experienced call volume increases, with most growing by more than 10%. Given projections of continued population growth –particularly among those age 65 and above – increases in call volumes likely will continue.

EMS calls for service, 2016 to 2019

Community	Calls for Service (2019)	% Change in Calls 2016-19	Calls per 1,000 population	Average No. Calls per Day
Jefferson	1,236	9%	117	3.4
Whitewater*	1,701	12%	90	4.7
Watertown*	2,092	26%	80	5.7
Lake Mills EMS	655	5%	71	1.8
Johnson Creek	414	1%	71	1.1
Palmyra	203	42%	69	0.6
RBA	1,246	17%	68	3.4
Western Lakes	245	22%	58	0.2
Cambridge EMS	170	-17%	33	0.5

* Whitewater and Watertown include calls for their full service areas, and not just those within Jefferson County.

Future Challenges

Our analysis of EMS services in Jefferson County does not raise immediate red flags. Departments have been able to reasonably accommodate growing call volumes thus far. Station locations are distributed evenly across the region and most are able to provide an advanced level of response. While response coordination could be improved, current support through mutual aid is working relatively well.

However, some challenges and opportunities for improvement have surfaced. While not severe at this time, they may intensify in the future and they may limit the ability of the county's providers to keep pace with the expectations of citizens and to improve service for the region as a whole.

- *Staffing:* The ability for those using POC and POP models to attract, recruit, and retain staff has been challenging for some time. Causes include low wages, odd work hours, and high training costs. In fact, some officials expressed concern that with the loss of even one or two additional POC or POP staff they may be unable to respond to calls at certain times of day.

- *Consistency in Quality of Care:* Response times differ among the providers and may not be satisfactory in all communities. Medical direction is provided by physicians from six different entities, which means there may be inconsistencies in training expectations and protocols. Finally, there are inconsistencies across the board regarding skill maintenance.

Average response times for EMS agencies in Jefferson County*

	Time from Dispatch to Turnout	Travel Time from Station to Incident	Total Time from Dispatch to Incident
Shift Staffing			
Watertown	1.4 min	3.6 min	5.0 min
Whitewater	NA	NA	6 min
RBA	1.4 min	5 min	6.4 min
Jefferson	2 min	4 min	6 min
Johnson Creek	3.5 min	8-11 min	11.5-14.5 min
Cambridge EMS	2.7-3 min	0-10 min	58% are 2.7-8 min
Western Lakes	1.4 min	4.6 min	6 min
Palmyra	2 min	3 min	5 min
Fort Atkinson FD	3 min	7 min	10 min
Paid on Call			
Lake Mills EMS*	4.7 min	6 min	10.7 min
Ixonia*	7.5 min	4 min	11.5 min
Waterloo*	5.6 min	3 min	8.6 min

*Ixonia, Waterloo, and Lake Mills EMS data were provided by the county dispatch office and reflect average response times for 2020. All other response times listed are for 2019.

- *Present and Future Coverage:* Shrinking rosters may make it difficult for agencies to send out a second or third ambulance when multiple calls come in. Also, some departments may be unable to send mutual aid during busy times, thus prolonging response times in circumstances when such aid is needed.

- *Fragmented Dispatch:* Multiple dispatch centers in the area may pose an obstacle to enhanced service sharing efforts involving "closest unit responds" or joint response frameworks. The fragmentation prevents uniform data collection and also may impede optimal mutual aid response times.

- *Mutual Aid:* There are times when a department seeking mutual aid may not reach out to the closest available neighboring provider. Instead, calls for mutual aid may be based on the strength of relationships between various providers or communities as opposed to geographical proximity.

Finally, some EMS providers appear reluctant to pursue collaborative strategies to address common challenges – not because they lack a cooperative spirit, but because they believe their challenges are manageable and that, consequently, there is no need to seek greater partnership with their neighbors. While we are in no position to dispute that assessment based on current circumstances, we suggest that growing EMS call volumes, intensifying staffing and financial challenges, and quality of care concerns may soon be cause for reconsideration. We also note that municipal administrators in the county appear eager to pursue a range of service sharing opportunities and could play a leading role with regard to future EMS collaboration.

Options for Greater Collaboration

EMS providers in Jefferson County could consider various forms of enhanced collaboration to help address key service provision challenges outlined above. Those options range from small-scale activities that could be implemented relatively easily on a consensus basis to larger service sharing arrangements that may require intergovernmental agreements among individual municipalities and/or the county. None are mutually exclusive, though they could be pursued as a progression from smaller-scale initiatives designed to create a stronger framework for collaboration to more in-depth service sharing initiatives that could be pursued over the longer term.

- **Small-scale service sharing steps** include joint training, quality management, case management, dispatch, and advocacy, either among groups of providers or in a uniform fashion across the county. Some of these steps could be initiated simply through establishment of regular joint meetings among the county's EMS leaders and enhancement of recent efforts to promote greater coordination among its medical directors. Fully and optimally implementing them, however, likely would require the hiring of a limited number of new staff whose costs could be shared and who could be housed in municipal agencies or perhaps in county government.

- A higher level of **sub-regional collaboration** would involve the spread and expansion of formal service sharing agreements among groups of neighboring jurisdictions. Such agreements would be an improvement over current informal mutual aid agreements by laying out specific commitments and forms of cooperation, including guidelines for how multiple communities would respond to calls and provide various forms of back-up. They also would standardize operational protocols among different agencies when jointly responding to medical emergencies. Sub-regional collaboration does not need to preclude the small-scale options cited above but would actually be made easier because of them.

- The most ambitious approach would be to **consolidate some administrative control for EMS at the county level**. A model in which Jefferson County coordinated countywide EMS standards and protocols, training, medical direction, and dispatching – while also providing financial support to raise the pay of part-time staff and support enhanced staff capacity – would be a comprehensive strategy for addressing the challenges identified in this report. Of course, this also would be the most expensive approach and would necessitate a willingness among the individual agencies to relinquish some of their own administrative control.

Conclusion

Overall, our examination of EMS capabilities and challenges in Jefferson County finds that greater collaboration among existing providers – and potential involvement by county government – could be useful mechanisms for addressing common challenges and preparing for the future. Each of the sets of collaboration options outlined above would further efforts to produce consistent and higher quality service. While some could be added at no cost or with minimal expense, others would require considerable new investment.

Consequently, elected leaders could opt to start small – perhaps with a mix of small-scale and sub-regional collaborations. Conversely, given the importance of EMS to the region's well-being, they may see the value of immediately moving toward countywide enhancement and consistency.