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# **Emergency Medical Services: Policies Across the States**

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## Introduction

Emergency medical services (EMS) are a crucial component of the health care system in the United States. In 2022 alone, there were over 53 million instances that required the presence of EMS.<sup>1</sup> Nearly 80 percent of these instances involved patients being treated and transported as part of a 911 response.<sup>2</sup> Despite their importance, EMS are not always accessible, especially in rural areas. A recent study found that at least 4.5 million people in the United States live in an "ambulance desert"—that is, somewhere more than a 25-minute drive from an ambulance station. More than half of these people lived in rural counties.<sup>3</sup> Consequently, rural residents who call for EMS assistance wait substantially longer before reaching a hospital.<sup>4</sup> One study estimated that, nationwide, the average EMS response time for rural areas is more than double the average response time for urban areas.<sup>5</sup>

EMS agencies are having trouble recruiting and retaining workers—a persistent problem for many health care occupations but one that is particularly acute in rural areas. The federal Health Resources and Services Administration estimates the EMS workforce would need to increase by over 40,000 full-time employees by 2030 to meet the country's EMS demands, but the field is facing labor shortages.<sup>6</sup> Furthermore, many EMS systems rely on volunteers, especially those that operate in rural areas.<sup>7</sup> A study published in 2020 found approximately 13 percent of the workforce sampled reported working in a volunteer capacity and, of those, 74 percent reported working in rural communities.<sup>8</sup> EMS agencies are finding it difficult to recruit paid staff, let alone volunteers, especially in rural areas.

Another factor in the struggle to provide EMS care to rural areas is low population density.

<sup>1.</sup> Data include EMS activations in all fifty states as well as four U.S. territories. National Highway Traffic Safety Administration Office of EMS, National Emergency Medical Services Information System (NEMSIS), <u>2022 National EMS Data Report</u> (Oct. 2023): 3, https://nemsis.org.

<sup>2.</sup> National Highway Traffic Safety Administration Office of EMS, 2022 National EMS Data Report, 3.

<sup>3.</sup> This estimate is conservative, given the fact that only 41 states provided data to the study. Yvonne Jonk, Carly Milkowski, Zachariah Croll, and Karen Pearson, <u>Ambulance Deserts: Geographic Disparities in the Provision of Ambulance Services</u> (Portland, ME: Maine Rural Health Research Center, University of Southern Maine, May 2023): https://mrhrc.org.

<sup>4.</sup> Abdullah Alruwaili and Ahmed Ramdan M. Alanazy, "<u>Prehospital Time Interval for Urban and Rural Emergency Medical Services: A Systematic Literature Review</u>," *Healthcare* 10, no. 12 (Nov. 2022): https://www.mdpi.com.

<sup>5.</sup> Howard K. Mell et al., "Emergency Medical Services Response Times in Rural, Suburban, and Urban Areas," JAMA Surgery 152, no. 10 (Oct. 2017): https://www.ncbi.nlm.nih.gov.

<sup>6.</sup> Health Resources and Services Administration, National Center for Health Workforce Analysis, <u>Allied Health Workforce</u> <u>Projections, 2016–2030: Emergency Medical Technicians and Paramedics</u> (Rockville, MD: U.S. Dept. of Health and Human Services): https://www.hrsa.gov; National Association of Emergency Medical Technicians, 2023 National Survey: EMS Economic and Operational Models Executive Summary, (2023): 5, https://naemt.org.

<sup>7.</sup> National Advisory Committee on Rural Health and Human Services, <u>Access to Emergency Medical Services in Rural Communities: Policy Brief and Recommendations to the Secretary</u>, (Nov. 2022): 6, 15–16, https://www.hrsa.gov; Davis G. Patterson, Susan M. Skillman, and Meredith Fordyce, "<u>Prehospital Emergency Medical Services Personnel in Rural Areas: Results from</u> <u>a Survey in Nine States</u>," *Final Report* no. 149 (Seattle, WA: WWAMI Rural Health Research Center, Aug. 2015): https://www. ruralhealthresearch.org.

<sup>8.</sup> Rebecca Cash et al., "Comparison of Volunteer and Paid EMS Professionals in the United States," *Prehospital Emergency Care* 25, no. 2 (May 1, 2020): https://www.tandfonline.com.

Rural EMS providers incur many of the same fixed and "standby" costs as urban providers—for example, the cost of purchasing and maintaining an ambulance or paying personnel to be ready to respond to emergencies at any time. Rural providers, however, generally transport fewer patients, which is the primary service for which EMS agencies are reimbursed. As a result, these providers incur comparable costs but recoup less money.<sup>9</sup> Further exacerbating this problem is the high rate of rural hospital closures in recent years, which means rural providers may need to transport patients over even greater distances than before.<sup>10</sup>

Finally, rural EMS providers serve an increasingly aging population that requires more medical care. While only 15 percent of the U.S. population lives in rural areas, about 22 percent of older Americans live in rural areas.<sup>11</sup> In 2022, nearly half of people who called 911 and had patient contact with EMS were age 61 or older.<sup>12</sup> As there are fewer hospitals and more people needing care, travel times to available hospitals become longer, and there are fewer EMS professionals available to provide that emergency care.

Against this backdrop, states have begun to enact policies to bolster EMS, particularly in rural areas. This publication first discusses the role of the federal government in providing EMS and Wisconsin law pertaining to EMS. It then reviews two main policy approaches undertaken by other states to help alleviate EMS inaccessibility: (1) recruitment and retainment of more personnel, by taking such actions as expanding employment benefits and offering education and financial incentives; and (2) improving financing and use of system resources, by supplementing governmental coverage of ambulance services, redefining EMS as an essential service, and awarding grants for equipment and training.<sup>13</sup> Note that this publication focuses on the provision of ground ambulance services as there are significantly fewer air EMS transports than ground ambulance transports.<sup>14</sup>

<sup>9.</sup> A. Clinton MacKinney, *Characteristics and Challenges of Rural Ambulance Agencies—A Brief Review and Policy Considerations* (Iowa City, IA: Rural Policy Research Institute, University of Iowa, Jan. 2021): 2–4, https://rupri.org; National Advisory Committee on Rural Health and Human Services, *Access to Emergency Medical Services in Rural Communities*, 4–5.

<sup>10.</sup> Over the last 20 years, at least 105 rural hospitals have completely closed, while another 87 have experienced "converted closures" in which they close inpatient services but continue to provide other health services. Katherine E. M. Miller et al., "<u>The Effect of Rural Hospital Closures on Emergency Medical Service Response and Transport Times</u>," *Health Services Research* 55, no. 2 (Apr. 2020); Todd Brenton Smith et al., "<u>The Impact of Rural Hospital Closures on Emergency Medical</u> <u>Services Transport Times</u>," *Online Journal of Rural Nursing and Healthcare* 22, no. 1 (May 16, 2022), https://rnojournal.binghamton.edu; "<u>Rural Hospital Closures</u>," University of North Carolina, Cecil G. Sheps Center for Health Services Research, accessed June 10, 2024, https://www.shepscenter.unc.edu.

<sup>11.</sup> Steven A. Cohen and Mary L. Greaney, "<u>Aging in Rural Communities</u>" *Current Epidemiology Reports* 10, no. 1 (Nov. 9, 2022), https://www.ncbi.nlm.nih.gov.

<sup>12.</sup> National Highway Traffic Safety Administration Office of EMS, 2022 National EMS Data Report, 4.

<sup>13.</sup> Note that many of the programs and policies in this publication have been implemented within the last three or so years, which means data on their efficacy are scant.

<sup>14.</sup> Since 2022, approximately 850,000 transports occurred by air, whereas 96.6 million occurred by ground. In Wisconsin alone in this time period, there were just under 12,000 air transports and 1.3 million ground transports. (See National Emergency Medical Services Information System, "<u>EMS Data Cube</u>"; Jessie Przybylski (open records specialist, Division of Public Health, Wis. Dept. of Health Services), email message to the author, Sept. 4, 2024.)

## Role of federal government in EMS

The federal government requires each state to establish a highway safety program that meets federal standards for emergency care, including those for "emergency services."<sup>15</sup> Prior to the 1960s, however, there was little to no coordination or regulation of prehospital emergency medical care in the United States. In 1966, the National Academy of Sciences published a report stating there was a "diversity of standards" in ambulance services and that, in most instances, "the vehicles are unsuitable for active care during transportation, equipment and supplies are incomplete, and the attendants are not properly trained."<sup>16</sup> This report, along with key legislation passed in 1966, helped establish more federal authority over and regulation of EMS.<sup>17</sup>

Under this new authority, the federal government focused on two key roles in the provision of EMS: funding services and devising uniform standards for EMS education, certification, and licensure. The federal government initially provided direct funding to EMS systems across the country.<sup>18</sup> Federal funding for EMS then shifted to broader pools of preventive health and health services block grants that states could allocate themselves; this, however, resulted in fewer funds being provided to EMS.<sup>19</sup> By the late 1990s, the only major source of direct federal funding became the Ambulance Fee Schedule (AFS), covered as a benefit under Medicare Part B.<sup>20</sup> This fee structure dictates how and when ambulance services are reimbursed.

The AFS reimburses ground ambulance services for eligible Medicare recipients through a formula that incorporates the services rendered, the mileage travelled to provide the services, and other relevant adjustments, such as the rurality of the area.<sup>21</sup> Key to reimbursement is transportation—Medicare, which accounts for a good portion of EMS transports, will cover only ambulances services that transport the patient to the nearest appropriate medical facility.<sup>22</sup> For example, EMS could treat a patient, but then the patient could refuse or may not require transport, which means the ambulance service would not be reimbursed for the costs of maintaining readiness to respond to the emergency, traveling to the scene, and providing some on-site care. Alternatively, given the formula's emphasis on transport over services, two transports of equal distance could be

<sup>15.</sup> Highway Safety Act, Pub. L. No. 89-564, § 402, 80 Stat. 731, 731 (1966).

<sup>16.</sup> Committees on Trauma and Shock, Accidental Death and Disability: The Neglected Disease of Modern Society, (Washington, D.C.: National Academy of Sciences, Sept. 1966): 14, https://nap.nationalacademies.org.

<sup>17.</sup> Highway Safety Act; National Traffic and Motor Vehicle Safety Act of 1966, Pub. L. No. 89-563, § 104, 80 Stat. 718, 720 (1966).

<sup>18.</sup> Emergency Medical Services Systems Act of 1973, Pub. L. No. <u>93-154</u>, 87 Stat. 594–605 (1973).

<sup>19.</sup> Omnibus Budget Reconciliation Act of 1981, Pub. L. No. 97-35, §§ 1901 to 1906, 95 Stat. 535-541 (1981).

<sup>20.</sup> Balanced Budget Act of 1997, Pub. L. No. 105-33, § 4531 and 4532, 111 Stat. 450-454 (1997).

<sup>21. 42</sup> C.F.R. § <u>414.610</u>. For more information about base and mileage rates by zip code, see "<u>Ambulance Fee Schedule & ZIP Code Files</u>," Centers for Medicare and Medicaid Services, last modified Sept. 10, 2024, https://www.cms.gov.

<sup>22. &</sup>quot;Ambulance Services," Centers for Medicare and Medicaid Services, accessed Sept. 19, 2024, https://www.medicare.gov.

reimbursed at a similar rate despite potentially requiring different levels of patient care. To help address the transport issue, the federal government established a pilot program in 2020 that allowed EMS providers to initiate and facilitate treatment with a qualified health care partner, either on-site or via telehealth, when responding to 911 calls from Medicare Fee-for-Service beneficiaries. The program ended two years early due to lower than expected participation and interventions.<sup>23</sup>

Also in the 1990s, the federal government began to work towards defining a more coordinated and integrated system for EMS education, certification, and licensure.<sup>24</sup> The National Highway Traffic Safety Administration (NHTSA) now publishes a national EMS scope of practice and education standards to guide states in developing EMS-related regulations and to encourage uniformity among such regulations.<sup>25</sup> NHTSA defines four levels of EMS certification based on these standards: Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), and Paramedic.<sup>26</sup> The knowledge, skills, and requirements for certification for each level builds upon those required for previous levels. States, accordingly, expand the scope of practice and the actions different licensure levels are permitted to engage in with higher certification levels.

Although the federal government promulgates these standards, states are not required to adopt them, and there is no national licensure for EMS. As such, states devise their own criteria for licensure; there is, however, uniformity because most states rely on a private nonprofit to conduct testing and certification.<sup>27</sup> The National Registry of Emergency Medical Technicians (NREMT) adheres to the four licensing levels outlined by the federal government, and most states use at least three of the NREMT certification levels when defining their licensure requirements and education curricula.<sup>28</sup> NREMT requires recertification every two years for all EMS levels, and most states also require periodic license renewal, often requiring continuing education or refresher training to

<sup>23. &</sup>quot;<u>Emergency Triage, Treat, and Transport (ET3) Model</u>," Centers for Medicare and Medicaid Services, accessed June 10, 2024, https://www.cms.gov.

<sup>24.</sup> National Highway Traffic Safety Administration, *National EMS Scope of Practice Model* (Washington, D.C.: U.S. Dept. of Transportation, Feb. 2007): 7, https://www.ems.gov.

<sup>25.</sup> National Highway Traffic Safety Administration, *National EMS Scope of Practice Model 2019: Including Change Notices* <u>1.0 and 2.0</u> (Washington, D.C.: U.S. Dept. of Transportation, Aug. 2019), https://www.ems.gov; National Highway Traffic Safety Administration, *National Emergency Medical Services Education Standards* (Washington, D.C.: U.S. Dept. of Transportation, Dec. 9, 2021), https://www.ems.gov.

<sup>26.</sup> National Highway Traffic Safety Administration, *National EMS Scope of Practice Model 2019*, 18–23. See also the <u>table</u> on page 14 of the *National EMS Education Standards* for a side-by-side comparison of the four certification levels.

<sup>27.</sup> For more details on how EMS is structured across the country, see the "EMS Organizations" section in National Association of State EMS Officials, <u>2020 National Emergency Medical Services Assessment</u> (May 2020): 1–45, https://nasemso.org. See <u>page eight</u> of the National EMS Scope of Practice Model 2019 for more information about the difference between certification and licensure.

<sup>28.</sup> See the NREMT's "Utilizations of National EMS Certification" <u>report</u> selection for a comparison of the levels states use across the country. For more information about NREMT, see "<u>About the National Registry</u>," National Registry of Emergency Medical Technicians, https://www.nremt.org.

be eligible.<sup>29</sup> NREMT certification serves as a verification that EMS personnel have the proper knowledge and competency to safely and effectively work at their certified level.

### EMS in Wisconsin

As in most states, the provision of EMS in Wisconsin is left to local governments. Each municipality (i.e., town, village, or city) in Wisconsin may operate and maintain or contract with another organization to provide ambulance services to residents.<sup>30</sup> Municipalities and counties have the option to establish a joint emergency services district and consolidate the provision of EMS with other local governments.<sup>31</sup> A county may also provide ambulance services.<sup>32</sup> The actual provision of EMS is done through an EMS agency, which can be a governmental, nonprofit, private, or volunteer-based entity. Wisconsin currently recognizes 864 EMS agencies.<sup>33</sup>

Wisconsin law generally provides requirements and related guidance on EMS under Wis. Stat. ch. 256 and Wis. Admin. Code DHS ch. 110. These chapters authorize the Department of Health Services (DHS) to oversee EMS and to set the overarching statewide curricula and scope of practice for EMS personnel.<sup>34</sup> DHS, in consultation with the Wisconsin EMS Advisory Board and the Physician Advisory Committee, reviews the scope of practice annually and publishes it online each year by March 31.<sup>35</sup> In addition to the four NREMT certification levels, Wisconsin licenses an EMT-Intermediate level as well as provides a few endorsement options for EMS practitioner licenses.<sup>36</sup>

The majority of Wisconsin's counties (55 out of 72) have at least one ambulance desert.<sup>37</sup> Currently, there are 720 EMS stations associated with ambulance service providers—70 fewer than were identified in 2021.<sup>38</sup> Although only about 0.4 percent of the state's overall population lives in an ambulance desert, about 66 percent of those living in an ambulance desert reside in one of Wisconsin's rural counties.<sup>39</sup>

 <sup>&</sup>quot;<u>Recertification</u>," National Registry of Emergency Medical Technicians, accessed June 4, 2024, https://nremt.org.
Wis. Stat. §§ <u>60.565</u>, <u>61.64</u>, and <u>62.133</u>.

<sup>31.</sup> Wis. Stat. § 66.0301 (2).

<sup>32.</sup> Wis. Stat. § <u>59.54 (1)</u>.

<sup>33. &</sup>quot;EMS Agencies," National Emergency Medical Services Information System, NEMSIS V3 State Data Set: Wisconsin, last updated July 15, 2024, https://nemsis.org.

<sup>34. &</sup>quot;EMS Training Curricula," Wis. Dept. of Health Services, last updated Sept. 4, 2024, https://www.dhs.wisconsin.gov; Wis. Dept. of Health Services, 2024 Wisconsin EMS Scope of Practice, (Madison, WI: Wis. Dept. of Health Services, Mar. 2024): https://www.dhs.wisconsin.gov.

<sup>35.</sup> See note following Wis. Admin. Code DHS §  $\underline{110.12}$ .

<sup>36.</sup> Wis. Stat. § 256.01 (7); Wis. Admin. Code DHS § 110.088.

<sup>37.</sup> Jonk, Milkowski, Croll, and Pearson, Ambulance Deserts, 13.

<sup>38.</sup> Note that this is the number of ambulance stations that ambulance service providers have identified to the Wis. Dept. of Health Services, and not all of the stations identified will have an ambulance permanently at that location. For example, a fire department may identify five fire stations, but it routinely staffs an ambulance at only three of them. Mark Mandler (EMS section manager, Office of Preparedness and Emergency Health Care, Wis. Dept. of Health Services), email message to the author, July 5, 2024; Jonk, Milkowski, Croll, and Pearson, *Ambulance Deserts*, 15–16.

<sup>39.</sup> Jonk, Milkowski, Croll, and Pearson, Ambulance Deserts, 24.

The prevalence of ambulance deserts across the state exemplifies the larger, nationwide issues the EMS system is facing. The next section explains some of these systemic issues in more detail and provides examples of policy programs in other states designed to improve the provision of EMS.

## Recruiting and retaining personnel

Wisconsin, like many other states, is struggling to provide EMS because of workforce shortages. The Wisconsin Office of Rural Health found that, in 2022, 41 percent of EMS agencies surveyed reported having periods in their schedules in which they did not have an adequate number of staff to respond to requests for ambulance services.<sup>40</sup> This was exacerbated in agencies that rely on volunteers—63 percent of volunteer-based agencies reported service gaps, whereas only 15 percent of agencies with a paid staffing model reported gaps.<sup>41</sup> Summarized below are other states' efforts to address personnel shortages through policies pertaining to benefits, education, eligibility, mental health, and financial incentives.

#### Benefits

Better pay and benefits are often factors for EMS personnel leaving the profession, particularly for paramedics.<sup>42</sup> As such, one tactic for addressing EMS workforce retention is expanding employment benefits for people working in the field in an effort to incentivize workers to remain in EMS. West Virginia, for example, established its Emergency Medical Services Retirement System (EMSRS) in 2007.<sup>43</sup> EMSRS is jointly funded by employee and employer contributions for a total combined contribution of 18 percent of the employee's monthly salary. The final retirement benefit is calculated on the basis of the employee's final average salary, years of credited service, and the benefit percentage. These retirement benefits are not automatic—an employee must apply to receive them. The program is widespread in the state: EMSRS currently has over 800 active members and 160 retirees.<sup>44</sup>

A law passed in South Dakota during the 2023 legislative session added EMS personnel

<sup>40.</sup> Wis. Office of Rural Health, *The Reliability of Wisconsin's 911 Ambulance Response* (Madison, WI: University of Wisconsin–Madison, Mar. 2023): 2, https://worh.org.

<sup>41.</sup> Wis. Office of Rural Health, The Reliability of Wisconsin's 911 Ambulance Response, 2.

<sup>42.</sup> Gary Blau and Susan A. Chapman, "Why Do Emergency Medical Services (EMS) Professionals Leave EMS?," Prehospital and Disaster Medicine 31, no. S1 (Dec. 28, 2016), https://www.cambridge.org; Rebecca E. Cash, Remle P. Crowe, Riddhima Agarwal, Severo A. Rodriguez, and Ashish R. Panchal, "Exiting the Emergency Medical Services Profession and Characteristics Associated with Intent to Return to Practice," Prehospital Emergency Care 22, no. 1 (June 28, 2017), https://www.tandfonline.com; Madison K. Rivard, Rebecca E. Cash, Kiersten C. Woodyard, Remle P. Crowe, and Ashish R. Panchal, "Intentions and Motivations for Exiting the Emergency Medical Services Profession Differ Between Emergency Medical Technicians and Paramedics," Journal of Allied Health 49, no. 1 (Apr. 2020), https://www.researchgate.net.

<sup>43.</sup> W. Va. Code § 16-5V, created by 2007 W. Va. HB 2717.

<sup>44. &</sup>quot;Emergency Medical Services Retirement System (EMSRS)," W. Va. Consolidated Public Retirement Board, accessed July 10, 2024, https://www.wvretirement.com.

to a class of public safety workers who are eligible for the South Dakota Retirement System (SDRS).<sup>45</sup> As Class B public safety workers, career EMS personnel with credited service of at least 25 years are eligible for lifetime income of at least 50 percent of their final average compensation. SDRS also offers a proportional lifetime income for members who participate for fewer than 25 years. Class B members contribute 8 percent of their salary, which is matched by their employer, and members are vested in the program with a right to receive retirement after three years of contributory service.<sup>46</sup>

Some states have gone beyond retirement benefits in an attempt to attract more EMS workers. Utah established a state insurance program specifically for volunteer EMS personnel. The program was created in 2022 to provide health insurance to volunteer EMS personnel who meet certain criteria, including serving within a certain class of county, responding on 20 percent or more of calls, and being ineligible for insurance through a family member or employer.<sup>47</sup> It was expanded in 2024 to include dental benefits and to cover volunteers serving in smaller and less populated areas.<sup>48</sup> Arizona opted to put a referendum to voters to allow first responders, which include EMS professionals under state law, to receive a death benefit if they are killed in the line of duty.<sup>49</sup>

#### Education incentives

Training and education for EMS personnel places a financial burden on providers, which can, in turn, reduce the number of personnel in the workforce. Each level of EMS certification requires more training and education. States also generally require continuing education or "refresher training" as a condition for license renewal. In Wisconsin, for example, the hours required for renewal range from 16 for EMRs to 60 for paramedics.<sup>50</sup> Volunteer EMS personnel are less likely to possess higher levels of education and EMS certification, and these personnel comprise a larger portion of the workforce in rural areas.<sup>51</sup> Training can also be difficult to access—a survey by the Wisconsin Office of Rural Health found that 73 percent of rural EMS agencies reported having to drive over 30 minutes to the nearest training center, and several agencies mentioned having to travel 50 to 75 miles each way.<sup>52</sup>

In response to this issue, a broad range of education incentives have been implemented

<sup>45.</sup> S.D. Codified Laws § 3-12C-101 (19), created by 2023 S.D. HB 1007.

<sup>46. &</sup>quot;About SDRS," S. Dak. Retirement System, accessed July 11, 2024, https://www.sd.gov.

<sup>47.</sup> Utah Code Ann. § 53-2d-703, created by 2022 Utah HB 289. Note that the statute containing the program has been renumbered since its creation in 2022.

<sup>48. 2024</sup> Utah HB 217.

<sup>49. 2023</sup> Ariz. SCR 1006.

<sup>50.</sup> Wis. Admin. Code DHS § 110.07 (1) (c).

<sup>51.</sup> Cash et al., "Comparison of Volunteer and Paid EMS Professionals"; Susan Chapman, Remle Crowe, and Melissa Bentley, "<u>Recruitment and Retention of New Emergency Medical Technician (EMT)–Basics and Paramedics</u>," *Prehospital and Disaster Medicine* 31, no. S1 (Dec. 2016), https://pubmed.ncbi.nlm.nih.gov; Patterson, Skillman, and Fordyce, "Prehospital Emergency Medical Services Personnel in Rural Areas."

<sup>52.</sup> Wis. Office of Rural Health, The Reliability of Wisconsin's 911 Ambulance Response, 4.

across the country. Some states are encouraging younger people to become EMS personnel by funding programs that provide EMS education to high school students. Louisiana, for example, offers a high school EMS education program as part of the state's Jump Start career and technical education program.<sup>53</sup> High school students age 16 or older may become certified through the program at the two lowest levels of EMS personnel certification (i.e., EMR and EMT).<sup>54</sup> Similarly, Minnesota created an annual grant of \$500,000 for the years 2024 and 2025 for school districts to offer high school student courses in EMS education.<sup>55</sup>

In addition to funding EMS training in schools, states have funded scholarship programs with the goal of encouraging new people to enter the profession. Kentucky established the Healthcare Workforce Investment Fund in 2023 to provide training scholarships to students enrolled in programs leading to health care credentials in areas with a workforce need, including EMS and related roles, and health care program incentives.<sup>56</sup> The same year, New Hampshire allocated funds for a new program to cover tuition and fees for one course per semester taken by eligible first responders, which include EMS personnel.<sup>57</sup> Minnesota created a temporary scholarship program beginning in fall 2024 for Minnesota residents completing a paramedic diploma or degree at an eligible paramedic program. This program provides \$2,500 per term for up to two terms.<sup>58</sup> Lastly, Texas reappropriated COVID-19 funds for EMS education, recruitment, and retention. Its bill created EMS scholarships ranging from \$2,000 to \$8,000, depending on how long the student commits to serving in an EMS role after completing training and certification.<sup>59</sup>

A third policy to help defray education costs is providing reimbursement to current EMS workers for their training expenses. For example, Minnesota, New Jersey, and Illinois have programs that either allocate state funds or require a local government to allocate funds for this purpose. Minnesota is attempting to address the educational needs of volunteer EMS personnel by providing education reimbursement for both initial and refresher courses to ambulance services that are using volunteer staff.<sup>60</sup> New Jersey has

<sup>53.</sup> Bureau of Emergency Medical Services, *High School EMS Education Program Manual*, rev. ed. (Baton Rouge, LA: La. Dept. of Health, July 1, 2022); La. Admin. Code tit. <u>28, part 163</u>.

<sup>54.</sup> Funding for the Jump Start programs vary. See the La. Dept. of Education "2023–2024 Jump Start Funding Guidance" for more information.

<sup>55.</sup> Created by 2023 Minn. HF 2497.

<sup>56.</sup> Ky. Rev. Stat. Ann. §§ <u>164.0403</u> and <u>164.0404</u>, created by <u>2023 Ky. HB 200; "Healthcare Workforce Investment Fund,"</u> Ky. Council on Postsecondary Education, accessed May 29, 2024, https://cpe.ky.gov.

<sup>57.</sup> N.H. Rev. Stat. Ann. § <u>188-F:70</u>, created by <u>2023 N.H. HB 2</u>; "<u>Law Enforcement Officers, Firefighters, and Emergency Medical Technicians Career Development, Recruitment, and Retention Program</u>," Community College System of New Hampshire, accessed May 29, 2024, https://www.ccsnh.edu.

<sup>58.</sup> Created by <u>2023 Minn. HF 2073;</u> "<u>Minnesota Paramedic Scholarship</u>," Minn. Office of Higher Education, accessed May 29, 2024, https://www.ohe.state.mn.us.

<sup>59. 2021</sup> Tex. SB 8; "EMS Careers and Scholarships," Tex. Dept. of State Health Services, accessed May 29, 2024, https:// www.dshs.texas.gov. See the Tex. Dept. of State Health Services <u>Playbook: Senate Bill 8 Emergency Medical Services (EMS)</u> <u>Workforce Recruitment and Retention</u> for more information.

<sup>60.</sup> Minn. Stat. § 144E.35; "EMS Education Reimbursement," Minn. Emergency Medical Services Regulatory Board, ac-

a similar EMS training fund designed to reimburse agencies for the training and testing of volunteer personnel.<sup>61</sup> As of January 2024, Illinois requires a fire protection district to reimburse all mandatory training expenses for EMS personnel employed by or under contract with the district.<sup>62</sup>

#### Eligibility

Another policy option to generate potentially more EMS personnel is to expand the population of people who might be eligible to fill these roles. Virginia has two programs to this effect. In one, the state permits EMS personnel to be a minimum of 16 years of age (as opposed to 18, as in many other states, including Wisconsin) and allows an EMS provider to have "associated personnel" who are under the age of 16.<sup>63</sup> These associated personnel are unable to participate in an EMS-related activity that may involve communicable diseases, hazardous chemicals, or other risk of serious injury.<sup>64</sup> Although someone age 16 or 17 may assist or observe on an EMS vehicle, the required staffers on EMS vehicles must be age 18 or older.<sup>65</sup>

Virginia also permits students in an approved EMS certification training program to "perform the clinical skills and functions of EMS personnel who are certified at the level of the course of instruction while participating in clinical and field internship training" in certain circumstances.<sup>66</sup> The student must have completed the relevant practical laboratory skills and be under the supervision of a physician, physician assistant, nurse practitioner, registered nurse, or an EMS provider certified at or above the level of that student's training program. Similarly, Tennessee allows ambulance services to use an "EMS apprentice" as an ambulance driver under certain conditions.<sup>67</sup> To drive an ambulance, the EMS apprentice must be accompanied by at least one EMT, engage only in patient care at the level of the apprentice's training, and become a fully licensed EMT or EMR within 12 months of their initial employment date.

Alternatively, some states have moved to expand credentialing reciprocity. This involves allowing someone who has already received a license through another state or entity or who has other medical licenses that require equivalent training to practice without being relicensed. Arizona, for example, allows for credentialing reciprocity for military members who completed training equivalent to national standards.<sup>68</sup> Wisconsin has

cessed May 29, 2024, https://mn.gov.

<sup>61.</sup> N.J. Stat. Ann. § 26:2K-57; N.J. Admin. Code §§ 8:40A-2.1 and 8:40A-2.2.

<sup>62. 70</sup> Ill. Comp. Stat. 705/16.08b, created by 2023 Ill. SB 1750.

<sup>63.</sup> Note that, while most states have a minimum age requirement for licensure, there is no minimum age required for certification by the NREMT. 12 Va. Admin. Code § 5-31-900; Wis. Admin. Code DHS § 110.06 (1) (a).

<sup>64. 12</sup> Va. Admin. Code § <u>5-31-900</u>.

<sup>65. 12</sup> Va. Admin. Code § <u>5-31-1200</u>.

<sup>66. 12</sup> Va. Admin. Code § <u>5-31-1170</u>.

<sup>67.</sup> Tenn. Code Ann. §§ 68-140-302 (17) and 68-140-333, created by 2021 Tenn. SB 1966.

<sup>68.</sup> Ariz. Rev. Stat. Ann. § 36.2202 A. 2.

some credentialing reciprocity for those licensed or certified in other states if the person applying for a Wisconsin EMS license meets certain criteria.<sup>69</sup> To qualify, an applicant must have proof of a current license or certificate from another state at or above the level for which they are applying, be able to complete the NREMT cognitive and psychomotor exam, and have proof of passing a CPR course within the last two years, among other requirements.

To address personnel shortages in sparsely populated areas, Illinois permits the EMS system medical director to make credentialing process exceptions to allow registered nurses, physician assistants, and advanced practice registered nurses to apply to volunteer to do the same work as EMTs in rural places with populations of 5,000 or fewer.<sup>70</sup> Wisconsin has a similar provision permitting physicians, physician assistants, or registered nurses to take the place of any EMS practitioner provided they are trained at that EMS level and have the approval of the service medical director of the EMS organization.<sup>71</sup>

Additionally, 24 states have entered into the United States Emergency Medical Services Compact.<sup>72</sup> This compact allows EMS personnel with a valid and unrestricted license in one member state a "privilege to practice" under authorized circumstances in other member states.<sup>73</sup> The privilege to practice under this compact is granted automatically to qualified EMS personnel so long as they obtain and maintain a license in their home state of practice. Wisconsin is not currently a member state in the EMS compact. Bills introduced during the 2021 legislative session proposed entry into the compact but were not enacted.<sup>74</sup>

#### Mental health support

Burnout and occupational stress among EMS personnel contribute to the shortage of workers.<sup>75</sup> One study found that 87.7 percent of participating EMS providers screened positive for burnout, and 41.5 percent reported mental health issues.<sup>76</sup> Among these mental health issues were depression, trauma and posttraumatic stress disorder, and suicidality.<sup>77</sup>

<sup>69.</sup> Wis. Admin. Code DHS § <u>110.066</u>; "<u>EMS: License Reciprocity in Wisconsin</u>," Wis. Dept. of Health Services, last updated June 19, 2023, https://www.dhs.wisconsin.gov.

<sup>70. &</sup>lt;u>210 Ill. Comp. Stat. 50/3.89</u>, created by <u>2021 Ill. HB 2864</u>.

<sup>71.</sup> Wis. Admin. Code DHS § 110.50 (2).

<sup>72. &</sup>quot;The United States Emergency Medical Services Compact," Interstate Commission for EMS Personnel Practice, accessed June 10, 2024, https://www.emscompact.gov.

<sup>73. &</sup>quot;<u>Multi-state Practice & FAQs</u>," Interstate Commission for EMS Personnel Practice, accessed June 10, 2024, https://www.emscompact.gov.

<sup>74.</sup> See 2021 Wis. AB 763 and its companion 2021 Wis. SB 736.

<sup>75.</sup> Ginny R. Kaplan, Tyler Frith, and Michael W. Hubble, "<u>Quantifying the Prevalence and Predictors of Burnout in Emergency Medical Services Personnel</u>," *Irish Journal of Medical Science* 193, no. 3 (June 2024), https://pubmed.ncbi.nlm.nih.gov; Reagan Rosenberger et al., "<u>Burnout Among EMS Professionals: Incidence, Assessment and Management</u>," *Journal of Emergency Medical Services* (Oct. 29, 2019), https://www.jems.com; David Wright, Kate Randolph, and Kim King, <u>EMS Burnout</u> <u>and Mental Health</u> (Washington, D.C.: National Association of EMS Physicians, Feb. 8, 2023), https://naemsp.org.

<sup>76.</sup> James Basting et al., "<u>Prevalence of Social Needs and Social Risks Among EMS Providers</u>," *Journal of Emergency Medical Services* (Oct. 23, 2023), https://www.jems.com.

<sup>77.</sup> Substance Abuse and Mental Health Services Administration, First Responders: Behavioral Health Concerns, Emergency

Against this backdrop, states have implemented mental health support programs in hopes of reducing these occupational harms and consequently increasing retention.

A few states, such as Virginia, have required EMS agencies to develop and provide mental health awareness training.<sup>78</sup> Utah has a similar requirement, although it broadened the availability of support services to first responders and their families, and the state provides onetime grants to assist agencies with implementing these services.<sup>79</sup> Other states, like New Hampshire, have imposed an EMS training requirement relating to mental health without requiring any state or local entity to provide such training.<sup>80</sup>

As yet another alternative policy to support the mental health of the EMS workforce, Maryland implemented a peer support program to provide emotional and moral support to members of fire, rescue, and EMS entities who have been involved in or exposed to emotionally traumatic experiences as part of their work.<sup>81</sup> The peer support team is composed of volunteer peers and licensed mental health professionals who work with first responders in both individual and group discussions following these events. Any communication with the peer support team is voluntary and confidential.<sup>82</sup> Wisconsin enacted a similar policy in the 2023–24 legislative session for public safety peer counseling. The new law directs the Department of Justice to establish and implement a program for both peer support and critical incident stress management (CISM) teams, including establishing guidance for training for membership on a team to provide these services.<sup>83</sup> The new law also created a privilege for a person receiving services from a peer support or CISM team to refuse disclosure of and to prevent another person from disclosing peer support or CISM team communications as well as a structure for establishing both peer support and CISM teams. It also grandfathered in existing teams.

#### **Financial incentives**

Some states have implemented tax credits and salary enhancements, including pay bonuses, in an effort to incentivize joining the EMS field or remaining in the field longer.

In terms of tax credits, Iowa has a \$250 tax credit for EMS and firefighter volunteers

Response, and Trauma (Rockville, MD: U.S. Dept. of Health and Human Services, May 2018): 4-5, https://sprc.org; Ginny K. Renkiewicz and Michael W. Hubble, "Secondary Traumatic Stress in Emergency Services Systems Project: Quantifying the Effect of Personal Trauma Profiles on Lifetime Prevalence of Suicidality in Emergency Medical Services Personnel," *Air Medical Journal* 41, no. 5 (2022), https://pubmed.ncbi.nlm.nih.gov; Ginny K. Renkiewicz and Michael W. Hubble, "Secondary Trauma Response in Emergency Services Systems (STRESS) Project: Quantifying and Predicting Vicarious Trauma in Emergency Medical Services Personnel," *British Paramedic Journal* 7, no. 4 (Mar. 1, 2023), https://pubmed.ncbi.nlm.nih.gov.

<sup>78.</sup> Va. Code Ann. § 32.1-111.5:1, created by 2018 Va. HB 1412.

<sup>79.</sup> Utah Code Ann. §§ <u>53-21-102</u> and <u>53-21-103</u>, created by <u>2022 Utah HB 23</u>; "<u>About the Mental Health Resources Grant</u>," Utah Dept. of Public Safety, accessed May 27, 2024, https://dps.utah.gov.

<sup>80.</sup> N.H. Rev. Stat. Ann. § 21-P:12-g, created by 2022 N.H. SB 357.

<sup>81.</sup> Md. Code Pub. Safety § <u>7-404</u>, created by <u>2022 Md. HB 581</u>. This provision was amended by <u>2023 Md. SB 527</u> to specify that the programs must be "evidence-based." Under this statute, a report on the program is due by October 1, 2024.

<sup>82. &</sup>quot;Critical Incident Stress Management (CISM) Team," Maryland Institute for Emergency Medical Services Systems, accessed July 11, 2024, https://www.miemss.org.

<sup>83.</sup> Wis. Stat. § 165.875, created by 2023 Wis. Act 220.

that is prorated on the basis of the number of months a volunteer serves per calendar year.<sup>84</sup> Volunteers receive a minimum tax credit of \$21 for one month of service and graduate up to the full \$250 for 12 months of service. The credit may be claimed for only one volunteer position even if the volunteer serves in multiple concurrent roles (e.g., as a volunteer firefighter and volunteer EMS personnel). Similarly, Nebraska implemented a \$250 income tax credit that becomes effective starting in the second taxable year after a volunteer emergency responder qualifies to be added to a list of active volunteers.<sup>85</sup> To determine if an emergency responder is "active," the state uses a point system. A person must accumulate at least 50 out of 100 possible points per year to be considered active. Points are awarded for responding to emergency calls, participating in training courses and drills, attending official meetings of the volunteer department or a mutual aid organization, completing a term in leadership, and participating in other activities related to emergency services, such as interactions with the public.<sup>86</sup>

A few states have recently enacted legislation to provide direct financial support to EMS personnel in the form of pay bonuses or salary supplements. For example, Tennessee implemented an annual training pay bonus of \$800 for eligible EMS personnel, effective January 1, 2024.<sup>87</sup> Some states, including Wisconsin, offer awards tied to length of service. In Wisconsin's Service Award Program, municipalities and the state contribute to a tax-deferred benefit program for volunteer firefighters, first responders, and EMS practitioners.<sup>88</sup> In 2021, almost 6,500 people participated in this program.<sup>89</sup> A volunteer must provide at least 10 years of service to qualify for the program.<sup>90</sup>

West Virginia created the Emergency Medical Services Salary Enhancement Fund "to support increasing salaries of emergency medical service workers and providing crisis response to encourage retention" among county EMS personnel.<sup>91</sup> Each county submits a questionnaire by September 1 of each year, then the Office of Emergency Medical Services distributes funds through a formula that takes into account need, levy limits, and issues in recruiting and retaining personnel. Ten percent of the available funds are divided equally among EMS regions in the state with the purpose of enhancing crisis responses services.<sup>92</sup>

<sup>84.</sup> Iowa Code § <u>422.12 2. c</u>.

<sup>85.</sup> Neb. Rev. Stat. §§ 77-3101 to 77-3106, created by 2016 Neb. LB 886.

<sup>86.</sup> Neb. Rev. Stat. § 77-3103.

<sup>87.</sup> Tenn. Code Ann. § 68-140-335, created by 2023 Tenn. HB 155.

<sup>88.</sup> Wis. Stat. § 16.25; Wis. Admin. Code Adm ch. 95.

<sup>89.</sup> Wis. Dept. of Administration, Program History 2022, https://doa.wi.gov.

<sup>90.</sup> Wis. Admin. Code Adm § <u>95.07</u>.

<sup>91.</sup> W. Va. Code § <u>16-4C-25</u>, created by <u>2023 W. Va. SB 737</u>. The first report on the fund is due to the legislature on July 1, 2024.

<sup>92.</sup> W. Va. Code R. § <u>64-116</u>.

## System financing and resources

As an alternative to directing finances toward individual EMS workers, some states have opted to appropriate more funds to the EMS system itself. This is usually done in one of three ways: supplementing governmental coverage of ambulance services, redefining EMS as an essential service, and awarding grants.

There has been a push for the federal government to reconsider the AFS and Medicare coverage of ambulance services. In the meantime, some states have chosen to supplement Medicaid coverage, a similar medical cost coverage program that is a joint federal and state program primarily run by states, to include reimbursement without requiring transportation of patients. By 2019, 14 states had begun supplementing Medicaid to reimburse treatment without transport on 911 calls.<sup>93</sup> Since 2019, several additional states, including Wisconsin, have added a Medicaid reimbursement program. Wisconsin created its Medicaid Supplemental Payment Programs in 2021 to support ambulance service providers by reimbursing services provided under Medicaid on a fee-for-service basis, although DHS indicates that implementation of these programs is waiting for federal Centers for Medicare and Medicaid Services approval.<sup>94</sup>

Given that Medicaid generally treats EMS as a transport service in terms of reimbursement, other entities shoulder the burden of costs, resulting in EMS being mainly financed through insurance, local governments, and grants.<sup>95</sup> One method of increasing the amount of money local governments can provide is to redefine EMS as "essential services." While there is not a uniform definition of "essential service," in general it is understood to be a service the government is required to provide to its citizens, although exact definitions as well as the entity required to provide essential services varies by state.<sup>96</sup> Wisconsin, for example, requires all municipalities to provide police and fire services,<sup>97</sup> but only towns have an explicit requirement to provide ambulance services. Towns are not, however, required to provide such services if the services are being provided by another person, such as a county.<sup>98</sup> Depending on state law, this designation can affect how governmental funding may be used for these services. As of January 2024, 15 states have designated EMS as essential in state statutes.<sup>99</sup>

<sup>93.</sup> Janet Coffman and Connie Kwong, "Left Behind in California: Comparing Community Paramedicine Policies Across States," Issue Brief (Sacramento, CA: California Health Care Foundation, Nov. 2019): 9, https://www.chcf.org.

<sup>94.</sup> Wis. Stat. § 49.45 (3) (em), created by 2021 Wis. Act 228; "Medicaid Supplemental Payment Programs for EMS Providers," Wis. Dept. of Health Services, last updated April 23, 2024, https://www.dhs.wisconsin.gov.

<sup>95.</sup> National Advisory Committee on Rural Health and Human Services, *Access to Emergency Medical Services*, 5, 14; MacKinney, *Characteristics and Challenges of Rural Ambulance Agencies*, 2-4.

<sup>96.</sup> Kelsie George, "State Policies Defining EMS as Essential," National Conference of State Legislatures, last updated April 25, 2024, https://www.ncsl.org.

<sup>97.</sup> Wis. Stat. §§ 60.55, 60.56, 61.65, 62.13, and 62.50.

<sup>98.</sup> Wis. Stat. § 60.565. Under Wis. Stat. §§ 59.54 (1), 61.64 and 62.133, counties, villages and second, third, and fourth class cities may purchase, equip, operate, and maintain ambulances or contract for an ambulance service.

<sup>99.</sup> George, "State Policies Defining EMS as Essential."

The third way many states bolster EMS is through grants, although the eligibility criteria for such funding varies among states. Maine recently took a broader approach by establishing its Emergency Medical Services Stabilization and Sustainability Program in 2023 with the intent of supporting entities "at immediate risk of failing" and bolstering the EMS system in the long term.<sup>100</sup> In contrast, some states tailor grants to specific types of EMS agencies, like West Virginia with its Rescue Squads Assistance Fund. This state financial aid is provided for nonprofit EMS agencies, and it covers a range of items for these organizations, including equipment, courses, and projects aimed at recruiting and retaining personnel.<sup>101</sup>

Some states, such as Wisconsin, focus the grants on providing equipment or training personnel. Wisconsin has its EMS Funding Assistance Program, which provides support for certain supplies and equipment as well as personnel training and licensure.<sup>102</sup> In 2023, the state expanded eligibility for these grants to emergency medical responder departments, which are EMS agencies that respond to emergencies to provide critical medical care but do not transport patients, making nontransporting agencies eligible for the first time in the 2025 state fiscal year grant cycle.<sup>103</sup> The emphasis on equipment can be useful as many EMS agencies have cited rising costs in these areas in recent years, which are not typically reimbursed under Medicare or many insurances.<sup>104</sup>

Another policy option for bolstering EMS focuses on combining already existing resources with minimal additional funding to reconfigure EMS and patient access to these services. One relatively new model, community paramedicine, focuses on using EMS personnel in expanded roles to help with preventive services in an effort to reduce the use of emergency services.<sup>105</sup> Under this model, licensed EMS personnel may serve patients with nonemergency or nonurgent medical needs (i.e., providing primary care services, follow-up care, and other services that might otherwise be unavailable).<sup>106</sup> These programs can reduce emergency department visits and provide an increase in the overall number of health care contacts.<sup>107</sup>

<sup>100.</sup> Me. Rev. Stat. tit. <u>32, § 98; 16-163-25 Me. Code R.;</u> "Emergency Medical Services Stabilization Program," Maine EMS, accessed July 31, 2024, https://www.maine.gov.

<sup>101.</sup> Va. Code Ann. § <u>32.1-111.12;</u> "<u>RSAF Grants Program</u>," Va. Dept. of Health, accessed July 31, 2024, https://www.vdh. virginia.gov.

<sup>102.</sup> Wis. Stat. § <u>256.12 (4)</u> and <u>(5); "EMS: Funding Assistance Program</u>," Wis. Dept. of Health Services, last updated Oct. 1, 2024, https://www.dhs.wisconsin.gov.

<sup>103. 2023</sup> Wis. Act 19.

<sup>104.</sup> National Association of Emergency Medical Technicians, 2023 National Survey, 4.

<sup>105.</sup> Although there is not a singular definition of the term "community paramedicine," the <u>International Roundtable on</u> <u>Community Paramedicine</u> is one of the most often cited sources for a definition. Note that the term "mobile integrated healthcare" (MIH) is often used interchangeably with community paramedicine, though MIH is often broader and includes care provided by any health care professional outside of a health care facility, not just EMS personnel. For additional information on community paramedicine, see "<u>Community Paramedicine</u>," Rural Health Information Hub, accessed June 6, 2024, https:// www.ruralhealthinfo.org.

<sup>106. &</sup>quot;Community Paramedicine," Rural Health Information Hub.

<sup>107.</sup> Kevin J. Bennett, Matt W. Yuen, and Melinda A. Merrell, "Community Paramedicine Applied in a Rural Community,"

By 2019, at least 17 states, including Wisconsin, had passed legislation authorizing and regulating community paramedicine, and another six had passed legislation creating pilot programs or working groups on community paramedicine.<sup>108</sup> Minnesota established one of the first statewide community paramedic programs in the country in 2011 and was the first state to provide Medicaid coverage for community paramedic services.<sup>109</sup> At least six other states reimburse these services through Medicaid.<sup>110</sup> As of 2022, at least 20 states require reimbursement from public or private payers for community paramedicine services.<sup>111</sup> Wisconsin does not require coverage of community paramedicine under either Medicaid or private insurance.

California is an example of a state that ultimately transitioned its community paramedicine pilot program into a permanent program because of its success. California established the pilot program from 2014 to 2020 with 14 pilot sites. This program was codified in statutes in 2021 and recently extended to 2031.<sup>112</sup> Under California's program, community paramedics provide short-term follow-up care for people with chronic conditions and case management for frequent emergency service users and collaborate with hospice nurses, among other services.<sup>113</sup> The program enrolled almost 16,000 patients from June 2015 to September 2022, over 4,000 of which were enrolled following the program becoming permanent in 2021, and nine of the sites remain in operation as of 2023.<sup>114</sup>

## Conclusion

Emergency medical services are essential to health care across the country, but provision of these services has become increasingly difficult, especially in rural areas of the country that struggle with low population density and an aging population. In response, states have been implementing a variety of policies to support EMS. Options surveyed in this

*The Journal of Rural Health* 34, no. S1 (Mar. 2017), https://onlinelibrary.wiley.com; Angela C. Martin and Peter O'Meara, "Perspectives from the Frontline of Two North American Community Paramedicine Programs: An Observational, Ethnographic Study," *Rural and Remote Health* 19, no. 1 (Feb. 2019); Vicki A. Nejtek et al., "A Pilot Mobile Integrated Healthcare Program for Frequent Utilizers of Emergency Department Services," *The American Journal of Emergency Medicine* 35, no. 11 (Nov. 2017); Lucas A. Myers et al., "Development and Implementation of a Community Paramedicine Program in Rural United States," Western Journal of Emergency Medicine 21, no. 5 (Aug. 2020), https://pmc.ncbi.nlm.nih.gov.

<sup>108.</sup> Coffman and Kwong, "Left Behind in California," 4–9; Wis. Stat. §§ 256.205 to 256.215; Wis. Admin. Code DHS § 110.395.

<sup>109.</sup> Minn. Stat. §§ <u>144E.28</u> 9, and <u>256B.0625</u> 60. and <u>60a.</u>, created by <u>2011 Minn. SF 119</u>; "<u>Community Paramedics (CP)</u>," Minn. Dept. of Health, accessed June 10, 2024, https://www.health.state.mn.us.

<sup>110.</sup> Coffman and Kwong, "Left Behind in California," 9.

<sup>111. &</sup>quot;Beyond 911: Expanding the Primary Care Role of First Responders through Community Paramedicine," National Conference of State Legislatures, last updated June 29, 2022, https://www.ncsl.org.

<sup>112. 2019</sup> Ca. AB 1544; 2023 Ca. AB 767.

<sup>113.</sup> Janet M. Coffman et al., *Evaluation of California's Community Paramedicine Pilot Program* (San Francisco, CA: Health Force Center at University of California San Francisco, Feb. 19, 2021), https://healthforce.ucsf.edu.

<sup>114.</sup> Janet M. Coffman and Lisel Blash, *Evaluation of AB 1544: Community Paramedicine and Triage to Alternate Destination* (San Francisco, CA: Health Force Center at University of California San Francisco, Oct. 2023): 17, https://healthforce. ucsf.edu.

publication include efforts to address workforce shortages through changes to benefits, education, eligibility, mental health, and financial incentives. Alternatively, some states have enacted policies that pertain to financing the EMS system itself through expanded governmental coverage of the services, redefining EMS as an essential service, and awarding grants.

Some policy options not covered in this publication may address health-related issues that extend far beyond EMS, such as expanding the use of technology and telemedicine to make health care easier to access and more affordable. Telemedicine is particularly useful for rural areas that have less access to EMS and hospital resources and has become much more common in the wake of the COVID-19 pandemic.<sup>115</sup> Along these lines, some states, including Wisconsin, have been working to improve access to and the affordability of high-speed Internet.<sup>116</sup>

As a society, it is important to take care of the people who take care of us. Ask anyone who has ever required emergency medical care for themselves or loved ones if EMS providers are essential, and, chances are, that person is sure to sing the praises of EMS. There may not be a panacea for all the difficulties facing the EMS system, but as long as Wisconsin continues to build upon its existing programs and looks to the policies of other states as models for new programs, the health of Wisconsinites should improve and the strain on Wisconsin's overall health care system should be reduced.

<sup>115.</sup> For additional information about the role of telehealth and telemedicine in rural areas, see "<u>Telehealth and Health</u> <u>Information Technology in Rural Healthcare</u>," Rural Health Information Hub, last updated Apr. 12, 2024.

<sup>116. &</sup>quot;Governor's Task Force on Broadband Access," Public Service Commission of Wisconsin, accessed Aug. 20, 2024, https://psc.wi.gov.

## Appendix 1. EMS certification levels and requirements

EMR	Emergency Medical Responder
EMT	Emergency Medical Technician
AEMT	Advanced Emergency Medical Technician
INT	EMT-Intermediate
PARA	Paramedic

#### Key to emergency medical responder and practitioner levels

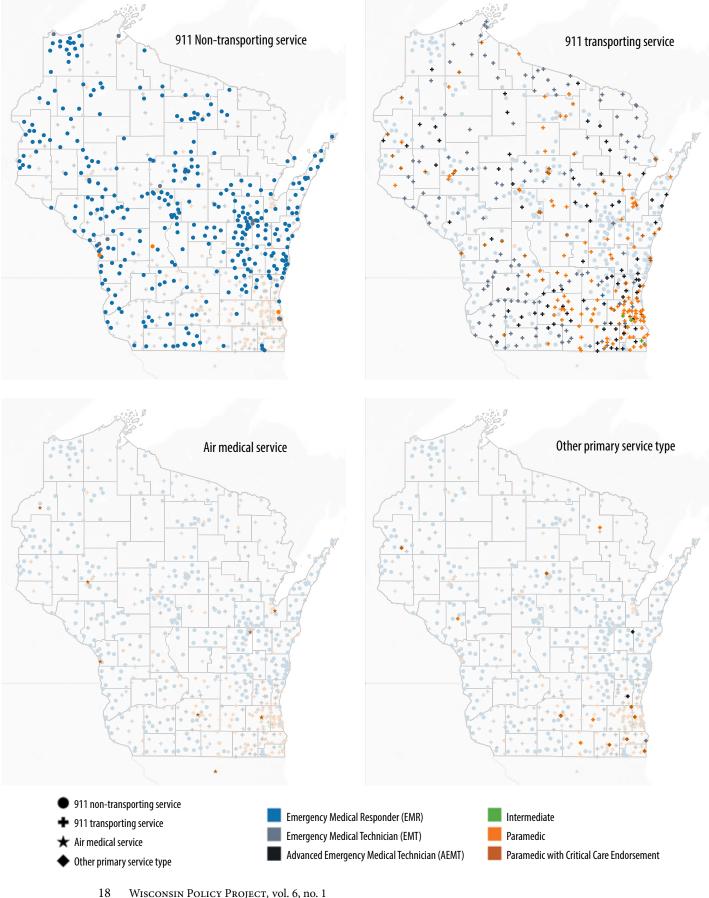
#### Table 1. Wisconsin emergency medical services personnel licensure levels

	EMR	EMT	AEMT	INT	PARA
Care	Basic life support in emergency situations	Basic patient care and life support in both emergency and nonemergency situations	Basic and some advanced patient care and life support in both emergency and nonemergency situations	Advanced patient care and life support in both emergency and nonemergency situations	Most advanced patient care and life support in both emergency and nonemergency situations
Transport		Basic medical transportation	Basic medical transportation	Specialty medical transportation	Specialty medical transportation
Other				Patient assessments	Patient assessments
Recertification training hours*	16	40	50	60	60

\*Wis. Admin. Code DHS § <u>110.07 (1) (c)</u>.

#### Table 2. Wisconsin emergency medical services personnel skill requirements

Skill area	EMR	EMT	AEMT	INT	PARA
Airway, ventilation, oxygenation	7	16	17	19	22
Cardiovascular, circulation	5	6	6	14	14
Splinting, spinal motion immobilization	5	7	7	7	8
Medication administration routes	2	7	9	11	11
Initiation, maintenance, fluids	0	0	5	5	6
Miscellaneous	3	6	6	6	6
Medications approved per protocol	0	7	11	17	25
Total required skills	22	49	61	79	92



## Appendix 2. Wisconsin emergency medical services maps

WISCONSIN POLICY PROJECT, vol. 6, no. 1