



Virginia Association of Counties

ACHIEVEMENT AWARDS



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2025.** Please include this submission form as the first page of your electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

PROGRAM INFORMATION

County: Floyd County

Program Title: Floyd EMS - Making Quality Emergency Care a Reality in a Hospital and Medical Desert

Program Category: Health and Human Services, Organizational D.

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: Linda S. Millsaps

Title: County Administrator

Signature: *Linda S. Millsaps*

Floyd EMS – Making Quality Emergency Care a Reality in a Hospital and Medical Desert

Executive Summary

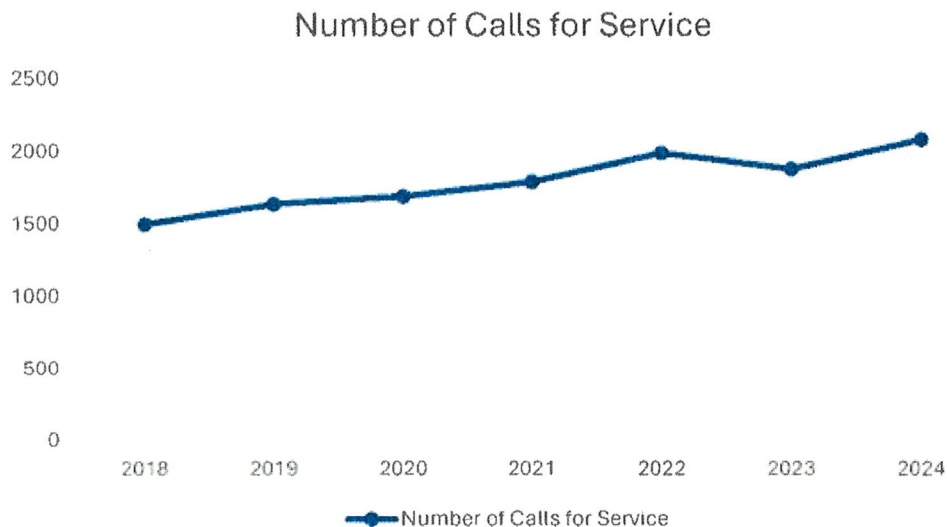
Floyd County does not have a single hospital or urgent care.. Much of the county meets the definition of a “hospital desert,” being over 30 minutes from the closest hospital. This lack of acute local care creates an even greater need for strong, high-quality emergency medical services. Not unlike other communities, an aging population and a lack of qualified volunteers caused the county to shift from using primarily volunteer rescue to paid EMS staff to cover emergency calls. Even with that transition, in 2021, there was not a single emergency ambulance available in the community 27% of the time.

Through a series of strategic decisions, financial investments, and hard choices, the county now has 100% coverage 24/7/365 days a year. Our volunteer and paid staff all completed more than 40 hours of specialized training on the unique challenges of remote medicine. Our Operational Medical Director (OMD), a part of a for-profit hospital system, is highly engaged, frequently viewing real-time EKGs on his phone and performing quality assurance on all critical calls. All paid and volunteer staff are under the command of a single County Operations Manager, as is the cadet training program for youth in the community. In 2024, EMS ran 2,080 calls with just two trucks, but a staff that is more than 75% paramedics. Previous employees are coming back, drawn by our innovative program. Significantly more critical care is delivered on location, dramatically improving the opportunity for success. County reimbursement from third parties increased by more than 50%, which helped fund continued quality and quantity improvements. We believe this innovative approach can be replicated. There is much we can share and look forward to it by way of earning this award.

Narrative

In the early 2020's Floyd County found itself in a situation know as a "medical desert". A medical desert is defined as, "where people lack adequate access to six key healthcare services: (1) pharmacies, (2) primary care providers, (3) hospitals, (4) hospital beds, (5) trauma centers, and (6) low-cost health centers ("Mapping Health Care Deserts", GoodRx Whitepaper, September 2021). Even more concerning is that Floyd also qualifies for the subset known as a "hospital desert," where "most people have to drive more than 30 minutes to reach the closest hospital". In the case of Floyd, the situation is particularly acute as the county does not have a single hospital or urgent care.

As the graph below indicates, during that same time, the facilities were dwindling, calls for EMS/Rescue Service were increasing. Between 2018 and 2025, our medical-related calls for service increased by 39.04%



In the early 2020's the leadership of Floyd County began to examine the situation, think strategically, and make key investments of time, money, resources, and expertise to build a strong critical care EMS program. Over time, the Board of Supervisors, EMS and Public Safety

staff, and the County Administrator identified and addressed four (4) critical problems that had to be addressed to overcome some of the challenges being faced by our community. Through innovation, cooperation and model practices the county has been able to improve the situation dramatically. In 2024, EMS ran 2,080 calls with just two trucks, but a staff that is more than 75% full paramedics. Significantly more critical care is delivered on location, dramatically improving the opportunity for success. County reimbursement from third parties increased by more than 50%, which helped fund continued quality and quantity improvements. What follows is the description of how our innovative little community found a good path forward, with the goal of sharing this strategy with other rural communities, too many of which are also medical and hospital deserts.

Problem 1- Outdated Services

For quite some time, EMS services have been outdated in Floyd. Based significantly on a fifty (50) year old model of volunteers converging on the scene, conducting triage, and driving with lights and sirens to the nearest hospital, our system has been stagnant despite the pre-hospital care industry making significant strides over the last decade. As the demographic changes in Floyd, and our community grows older, so do the call volume and patient acuity. These changes reshape the needs EMS must meet to provide a high-quality service. As the community experiences growth in various facets, emergency services too must grow. Historically this EMS growth has been limited due to a variety of factors such as a shortage of EMS providers, limited awareness and understanding of EMS needs, a general resistance to change, and a lack of planning to support the future evolution of the services.

Solution: Operational Medical Director and a new partnership with Lewis-Gale Regional

Working with the County Administrator, the Director of Public Safety, and the Chief of EMS, the Floyd County Board of Supervisors agreed to hire an actively practicing MD to serve as our Operational Medical Director. The strategy was to provide and support a high degree of medical oversight to EMS agencies that base their operations in Floyd County. After several interviews, Dr. John Patterson was hired to fill the position. Dr. Patterson has a long history of EMS support in rural communities (to see the video of his recent remarks to the Floyd County Board of Supervisors Regular meeting, go to: <https://youtu.be/M-fwHyTazrw>). He is also the Chief of Staff of our nearest emergency room and a cardiac surgeon, which is helpful given that a significant number of our high-stress calls are heart-related issues. In doing so, a level of care was established that exceeded the standards set by the Virginia Office of Emergency Medical Services. For example, all volunteers must complete 40 hours of training and pass a practicum. Dr. Patterson assisted in creating new avenues for education, not only for EMS providers but for our local officials. This brought more awareness to EMS needs and increased conversations regarding the future of the services in Floyd County. Additionally, with Dr. Patterson's guidance, we were able to expand the services provided to bring higher-level care to the patient's doorstep. We can now send EKG in real time to Dr. Patterson, who can offer These systematic improvements take the specific needs of Floyd County into account as new programs are developed. Key to this successful strategy was the development of a partnership with Lewis-Gale and their CEO, Lauren Dudley, who has been a strong supporter and has made many of their key decisions with an eye towards the needs of Floyd County. While we continue to learn from Lauren and Dr. Patterson, we are confident we are working using the

best possible technologies and practices. Our results show more positive outcomes as a result.

Problem 2- Geography

Geography is one of the biggest problems that EMS crews face in Floyd County. The county is 381.8 square miles. We have one of the largest portions of gravel and dirt roads in the Commonwealth. As such, residents and first responders have a long and challenging distance to travel to access hospitals. Many of our roads are made of various materials, some paved and some gravel, and all varying in condition. Floyd County has some of the most rural and remote areas in the region. Despite all of this, we do not have any type of emergency care centers housed within the County. All these factors contribute to preventing quick access to emergency medical attention. In 2024, 51 percent of 911 calls (total time on task) took between 90 minutes and 3 hours. Considering these factors, it has become increasingly important to bring the highest level of emergency care possible to the patient. To do so, training departments must be supported to develop critical thinking, clinical understanding, and the psychomotor skills required to safely provide such high-level interventions. Logistics must be prioritized to ensure adequate staffing. Intermediate leadership positions ensure access to specialty medications and equipment, as well as providing on-scene assistance and coordination with EMS providers and other entities involved, such as Fire departments, air transport services or hospital specialty centers, for example.

Solution: Customized Critical Care Training and Equipment that allows more treatment on site

NRV Critical Care is a regional initiative piloted by local Board-Certified Emergency Physicians. After much brainstorming and discussion, the county staff decided that joining a regional approach and adding some customization would be the most practical way to address some of the needs that have been outlined. The largest commitment to the program is training providers to function in a way that prioritizes patient outcomes while maintaining safety for patients and EMS providers. Paramedics who practice at this level are hand-selected based on experience, merit, and commitment to excellence. These paramedics participate in high-fidelity training simulations frequently in the form of annual in-services and quarterly training updates with practice sessions. They utilize higher-level protocols to treat critically ill patients using specialized equipment more commonly found in hospital Emergency Rooms. Implementation of this service provides improved outcomes to the specific subset of patients deemed as critically ill in the pre-hospital environment. Despite customization changes made specifically for application in Floyd County, the program retains its functions as a multi-locality effort, allowing for increased interoperability of mutual aid programs. This change in approach was augmented by the county's purchase of a medical side-by-side, specifically designed to allow transport from a remote location, in the woods, on a festival ground, up a deeply pitted dirt road, to an awaiting ambulance. VDEM grant funds were used for the purchase. While geography continues to be a challenge, and always will be, we believe Floyd is positioned as well as we can be, but we will continue to explore other opportunities.

Problem 3- Medications

Early in 2024, all Virginia EMS agencies were notified of significant changes to medication documentation regarding the drug chain of custody. Essentially, the Drug Enforcement Agency changed the rules that EMS agencies have been using for years to improve documentation and decrease the amount of drug diversions. These changes caused the Virginia Board of Pharmacy to implement updates and, in a trickle-down effect, forced EMS agencies to become solely liable for the medications that we carry and administer. In previous systems, our local EMS Council worked with hospitals to provide agencies with pre-stocked medication boxes. These new regulations pushed this system into the past, and each agency or locality was burdened with significant system changes, high implementation costs, and a short timeline for completion.

Solution: Pharmacy Innovations that Support our Remote Location

In response to the new regulations, Floyd County was forced to find new ways to have medications available on ambulances. Leadership teams from EMS and our local government visited other localities to discuss best practices and to get ideas for creating a resolution for Floyd. There appeared to be several different approaches, but it became increasingly clear that the best approach for Floyd would be to house a pharmacy program entirely within the EMS department. This was a radical change from the past, where the focus was primarily on transport and not care in the field.

Some specifics that led down this path were the need for staff to operate the pharmacy and the certification requirements to do so. The term pharmacy is a general term used to describe a room or building that houses prescription medications before being prepared for administration. The specific certification acquired for this application is called Controlled

Substance Registration (CSR) from the Virginia Board of Pharmacy. A CSR allows the holder to purchase, stock, and prepare or administer prescription medications to include Controlled Substances. In addition to this, a Drug Enforcement Agency License must be obtained to purchase Controlled Substances.

A suitable location was selected in an already established EMS building. Updates were made, such as security, temperature control, etc. A policy was created in conjunction with the supervising physician to guide staff members tasked with operating the pharmacy. Considerable time was spent creating an inventory system with multiple audit points built in to ensure the integrity of the system. With this work came an opportunity to assess, through current and historical data, the medication-specific needs of the community. Once the assessment information is available, a more specific medication kit could be prepared, where previously a generic kit was carried without these considerations.

Pharmacy staff members take medications and seal them into prepared kits. These kits are placed on ambulances to be utilized. Once they have been used or expired, they return to the pharmacy for restocking or to be reclaimed into inventory. The system makes for quick and easy access to medications used to treat a range of emergency conditions. Over several months, multiple trial runs were utilized to assess the efficiency of various parts of the process. Eliminating single points of failure was prioritized as the system was becoming active. Currently, three Lieutenant staff members operate the Pharmacy, keeping 10 prepped medication boxes available for each level of service. Each ambulance always carries two prepped boxes to mitigate back-to-back calls for service, limited medication supply, damage to medication packaging, etc. This was a high-change, high-risk solution for such a small

community. But we have seen substantial improvements in the outcomes and our staff's ability to save a life.

Problem 4- Support Infrastructure: Building, Equipment, Finances and Volunteers.

While we were able to address many of our challenges internally, making future advances required greater involvement by the community. Floyd Volunteer Rescue, known as the squad, had been in existence for 50 years. This was a much beloved organization, created by a grassroots movement and supported for decades through bake sales and committed volunteers. Unfortunately, Floyd Volunteer Rescue's ability to assist declined significantly as the volunteer base eroded and our County became more of a bedroom community, with more than 72% of our workforce, the traditional base of volunteer services, commuting to work outside the county. Fortunately, their legacy left behind a series of three stations and ten vehicles,

Solution: Develop a new infrastructure for EMS, volunteers, assets, and finances

Once approached by Rescue leadership, the county and the squad began discussions about closing the rescue function of the squad and transferring their physical assets to Floyd County. After five months of negotiations, led by the County Administrator and EMS Chief, with the support and knowledge of the board of Supervisors, the three rescue stations were transferred to the county, as was all the remaining equipment. The squad continues to hold its financial assets and is in the process of transforming its organization into a scholarship organization. This has been a success, and the county is grateful for their gifts.

To help provide the financial infrastructure needed, the county shifted to a third-party billing agency (while Floyd does not bill residents, we will bill insurance and out-of-county users). Even after taking their 6% fee, revenues have increased by more than 50%.

The issue of volunteerism remains a challenge. All previous rescue volunteers who are willing to sign up and participate in 40 hours of training are welcome and will be folded into the new organization. A new youth cadet program was formed, and we are hopeful that many of their students will one day become Floyd County EMTs, using the scholarship funds from the old rescue organization. An auxiliary was formed to allow those who want to help support EMS through non-medical volunteerism. Some of our newest staff members have come to us through the volunteer program. While lightly embraced by the community, we are hopeful that over time, more will see the value and opportunity created by this service. Once more volunteers are secured and trained, EMS will be able to play an even larger role in the community, staffing events and festivals with limited fees, training the community in first aid, and being an even greater presence in non-emergency settings.

Conclusion

Overall, Floyd County is very happy with what we have been able to accomplish. Our community enjoys a more effective emergency service than ever before. Young people are excited and are involved in our emergency service programs. The county is receiving financial support through third-party billing, that helps make all this work possible. Challenges remain, particularly with developing a robust volunteer base. But we are confident of our future success and believe things are better today because of strong leadership, innovation, foresight, and partnership. We look forward to what the future brings.

To whom it may concern,

I am writing on behalf of Floyd County EMS. As the Emergency Medical Physician / Operational Medical Director for Floyd County EMS, I can attest to the importance of the programs and steps they have taken to improve access to healthcare and improvement in patient outcomes. As OMD of Floyd County EMS and a number of rural EMS services, I support the projects Floyd County EMS has undertaken. It is well known patient outcomes suffer due to socioeconomic and geographical barriers in accessing healthcare in rural Virginia. This is compounded by the limitation in resources i.e. financial, staffing, and training for these areas. Floyd County EMS has done a remarkable job changing healthcare in Floyd County, by improving training, creating a functional EMS pharmacy, strategic deployment of resources and working to attract new staff for better coverage of the area. Further support of these initiatives is critical to this community's well-being. It is our intention to continue to expand on these successful initiatives to improve healthcare in Rural Virginia.

Thank you,



John Patterson, MD

OMD Floyd County EMS

Director of Cardiology LewisGale Montgomery

Chief of Staff LewisGale Montgomery

To whom it may concern,

I just wanted to take a brief minute to tell you how beneficial our family found the Junior Cadet program to be. My son and his friend recently took the program and enjoyed it a great deal. He and his friend regularly babysit and the course helped them both to feel far more prepared in the event of an emergency. As the mom of some of the kids they babysit, it put me at ease as well having seen the program and known what it is that those two were equipped with. I'm a paramedic for Floyd County as well and to see the young teens get excited about EMS was exciting for me. My son and his friend both would like to attend the basic EMT course and I believe it was greatly encouraging to them to see a little bit about what it would entail and helped to light a fire under my otherwise hesitant son. Thanks for the

excellent program!
Samantha Marcinek

June 28, 2025

Re: Letter of Support

To whom it may concern,

I joined Floyd EMS in July of 2024 as a Lieutenant. I came to Floyd from a 911 agency that was based in the city. We had very short transport times to our hospitals ranging 5 to 10 minutes. Most of the time you never really see much of a change in your patients' condition, as you handed them off to hospital staff so quickly. Floyd piqued my interest when I learned of their much longer transport times due to the rural community.

I also had learned that they were beginning to implement extreme growth in patient care in the form of skills and medication interventions. I took the leap and applied for an open Lieutenant position. Since joining Floyd I have had mountainous growth as a provider. The rigorous training and continuing education that I have been supplied with has given me tremendous growth and satisfaction. With the changes that Floyd EMS has made since I became part of the team last July, I am able to see how my interventions help my patients. There has been a significant increase in positive patient outcomes.

With our transport times being so long, the implementation of the critical care program has significantly reduced the time in which patients receive more critical life saving measures. Since our drug boxes are done in house now, we are stocked with the medications that Floyd needs based on the community and nature of the call, opposed to

a basic stocked box of general medication. Floyd EMS is now more than ever, tailored to provide for its community and its needs and the growth will continue to be tremendous.

Amber Huff, NRP

Lieutenant

Floyd County Emergency Medical Services

June 29, 2025

Re: Letter of Support

To whom it may concern,

I have worked for Floyd EMS a few different times over the years. I have seen a lot of changes over the years; I have seen good times and bad with this organization. I have seen good as well as bad leadership from top administration over the last 20 years. I chose to come back to a full-time position as a Lieutenant because of the positive changes with leadership over the last few years. Floyd EMS has become an aggressive agency working to be one of the best in the region. Floyd was ready to switch to their own pharmacy before the mandatory switch from WVEMS. They provide new medications as soon as possible when local protocols change.

The current leadership attempts to stay current and ahead of regional emergency practices. I feel that the current leadership is open to suggestions from staff and embrace change. The lack of volunteers in the county has been a challenge but this is definitely not a local issue, volunteerism is down across the country with all the training requirements along with the current economy.

These are the reasons that I chose to return to Floyd EMS in a full-time capacity. I look forward to being a part of future changes and being a part of helping the agency achieve goals.

Thank you,

Christopher Bullion

Lieutenant Floyd EMS

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