

GREENE COUNTY GOVERNMENT



KEVIN C. MORRISON, MAYOR

204 N. Cutler Street, Suite 206 Greeneville, TN 37745

Office Phone: 423-798-1766 Fax: 423-798-1771

Email: kmorrison@greenecountyttn.gov

SAFE STREETS FOR ALL GRANT – ACTION PLAN

Date: 06/23/2025

Submitted by: Office of the County Mayor

County: Greene County, Tennessee

Project Title: Real-Time Ultrasound Application in Prehospital Blood Transfusion and Hemodynamic Monitoring

Executive Summary

As Mayor of Greene County, I recognize the urgent need to reduce preventable deaths on our roads, especially in rural zones where response times are longest. Our plan leverages two high-impact strategies:

1. Implementing a **prehospital whole blood transfusion program**.
2. Equipping EMS teams with **portable ultrasound (POCUS)** for trauma triage and diagnostics.

This initiative aligns with the Safe Streets and Roads for All (SS4A) goals by addressing trauma care disparities and improving survival outcomes for roadway crash victims across our county.

Local Trauma & Road Safety Metrics

Metric	Value	Source
Percent of Trauma Deaths Occurring Prehospital	61%	TN Dept. of Health Trauma Registry
Average EMS Response Time (Rural Zones)	14 minutes	Greene County/Greeneville EMS
Distance to Nearest Level I Trauma Center	Up to 50 miles (Johnson City Med Center)	Google/Apple Maps Routing
Population Without Hospital Access in 30 Minutes	~12,500 residents	UT Health Data (2023)
Top 3 Roadway Fatality Corridors	US-11E, TN-70, TN-107	TDOT Safety Reports
Rural Roadway Crash Fatality Rate	20.2 per 100,000	CDC WONDER (2022)

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Vision & Goals

Vision: To save lives by delivering blood and diagnostic ultrasound capabilities to trauma patients *before* they reach the hospital.

Goals:

- Enable prehospital transfusions and POCUS usage on all ALS units within 6 months.
- Prioritize deployment in rural corridors (US-11E, TN-70, TN-107).
- Achieve a 15% reduction in trauma-related fatalities by year two.

Implementation Plan

Phase 1: Planning (Months 1–2)

- Finalize **clinical protocols** for blood and ultrasound use in field.

Phase 2: Training & Acquisition (Months 3–6)

- Purchase blood coolers, rapid transfusion kits, and ultrasound devices.
- Deliver **certified trauma training** for EMS:
 - Blood handling & transfusion
 - Ultrasound (FAST exam, cardiac, and abdominal protocols)
- Set up **inventory and QA tracking systems**.

Phase 3: Deployment & Public Engagement (Months 7–12)

- Conduct public safety awareness campaign

Equity Considerations

- The program is designed to **bridge care gaps** in underserved rural areas.
- Focus on corridors with high rates of **crashes involving limited hospital access**.

Evaluation & Impact Measurement

- Trauma survival rates (prehospital vs. hospital)
- Time to first transfusion and diagnosis

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- POCUS FAST exam accuracy rates
- Shock index before and after blood administration
- Rate of adverse effects
- Time to hospital discharge (versus other patients of similar injury who did not receive blood)
- 30-day mortality rates

Sustainability

- Long-term support via EMS operational budget and regional trauma partnerships.
- Exploration of **state-level rural EMS grants and hospital/blood bank co-funding** for replenishing blood supply.

Conclusion

With this action plan, Greene County is prepared to lead the way in rural trauma innovation. We are confident that with SS4A support, we can transform emergency care delivery and dramatically reduce preventable deaths on our roads.

Most respectfully,

A handwritten signature in blue ink that reads "Kevin C. Morrison".

Kevin C. Morrison
Greene County Mayor