

# Pre-Hospital Blood Program Economics



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# Framing the Issue...

**VMSC ANNOUNCES LIFESAVING PRE-HOSPITAL BLOOD TO NORTH PENN AND INDIAN VALLEY, PA!**

**EVERY MINUTE DELAY IN TRANSFUSION INCREASES MORTALITY BY 2%!**

**WHOLE BLOOD IN THE PREHOSPITAL SETTING IS A PROVEN LIFESAVING INTERVENTION AND SHOULD BE WIDELY ADOPTED.**  
— AMERICAN COLLEGE OF SURGEONS

**LESS THAN 1% OF EMS AGENCIES IN NATION CAN GIVE BLOOD.**

- Among the FIRST EMS agencies in Pennsylvania to administer whole blood, and the FIRST in Montgomery, Bucks, or Philadelphia Counties.
- Pennsylvania ALS Protocol 6095 (2024) now allows trained paramedics to provide whole blood in the field.
- Partnering with Jefferson Health & the American Red Cross to redefine pre-hospital emergency care.

**OTHER SUCCESSFUL PROGRAMS REPORT A 30% REDUCTION IN TRAUMA DEATHS AFTER IMPLEMENTING WHOLE BLOOD TRANSFUSIONS.**

**40% of trauma deaths are due to uncontrolled bleeding—this stops NOW.**

Not Just for Trauma—Whole Blood Saves Lives in Many Emergencies

- ✓ GI bleeding (upper/lower)
- ✓ Obstetric hemorrhage
- ✓ Medical emergencies (ruptured aneurysms, coagulopathy-related hemorrhage)

According to the Journal of Trauma and Acute Care Surgery, patients who receive whole blood have a 4x higher survival rate than those who receive only IV fluids.

**WHOLE BLOOD SAVES LIVES BEFORE THE ER**

Unused blood is rotated back to hospital blood banks to eliminate waste.

- Lifesaving intervention
- *Growing* evidence base
- Strong desire for implementation
- **Weak funding model**



# 2025 “Flash Poll”



**Sent to 50 agencies**

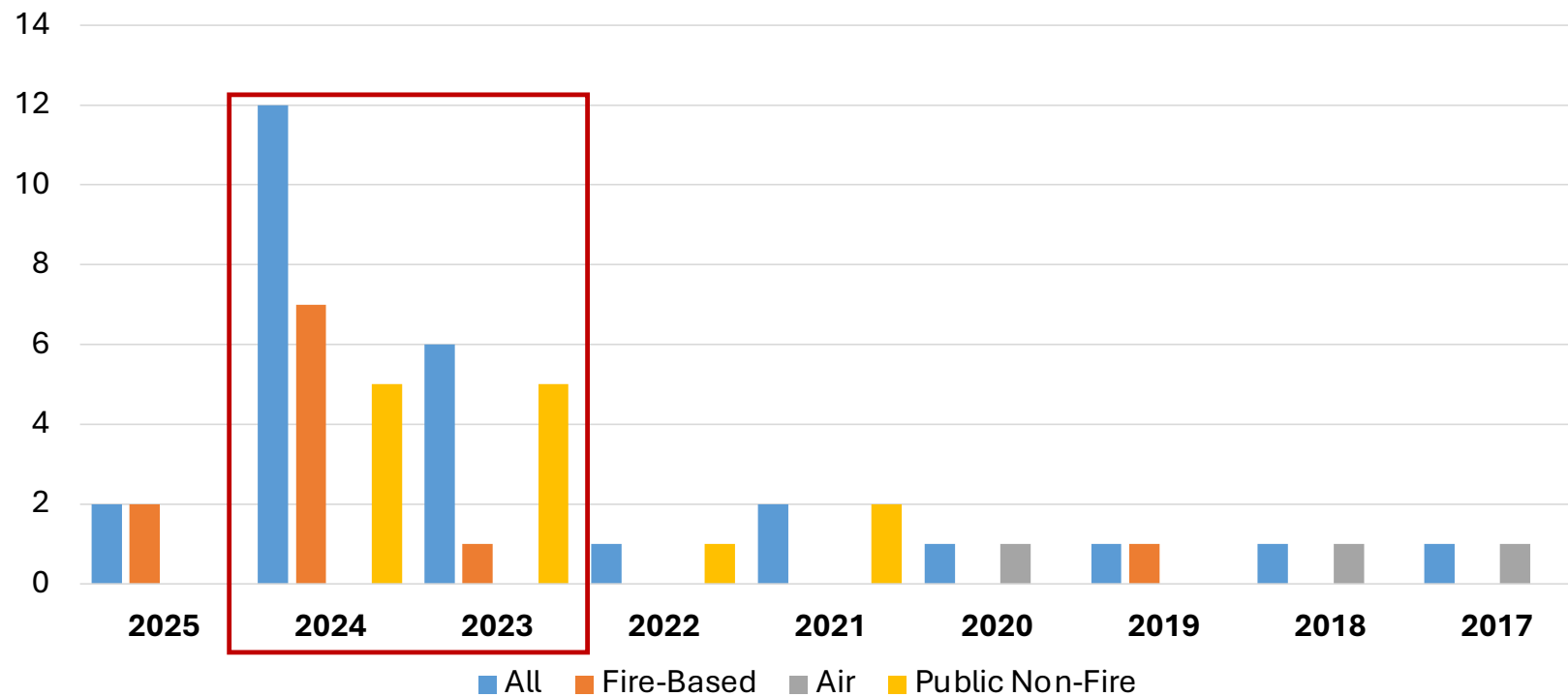
## EMS Agencies with Pre-Hospital Blood Programs

Agencies	#
Fire	11
Public, Non-Fire	12
Air	4
<b>Total</b>	<b>27</b>

# 2025 “Flash Poll”



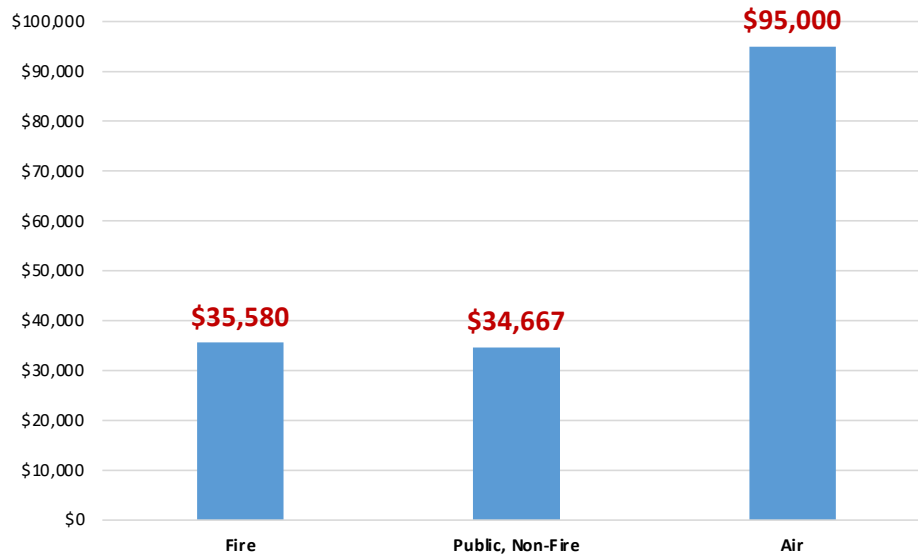
Year Program Started



# 2025 “Flash Poll”



Average Annual Expense



Average Annual Expense	Average	Range	
		Low	High
Fire	\$35,580	\$13,000	\$60,000
Public, Non-Fire	\$34,667	\$2,000	\$100,000
Air	\$95,000	\$75,000	\$120,000
Average Annual Expense	\$55,082		

# 2025 “Flash Poll”

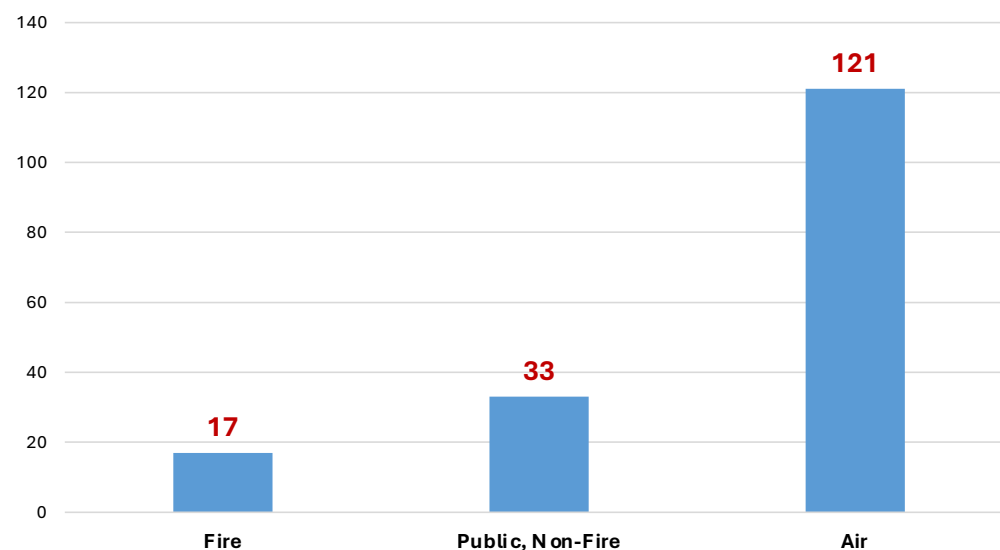


Average Patients Tx Last 12 Months		Range	
		Low	High
Fire	17	0	59
Public, Non-Fire	33	0	130
Air	121	20	239
<b>Overall</b>	<b>171</b>		

## Average Expense per Patient

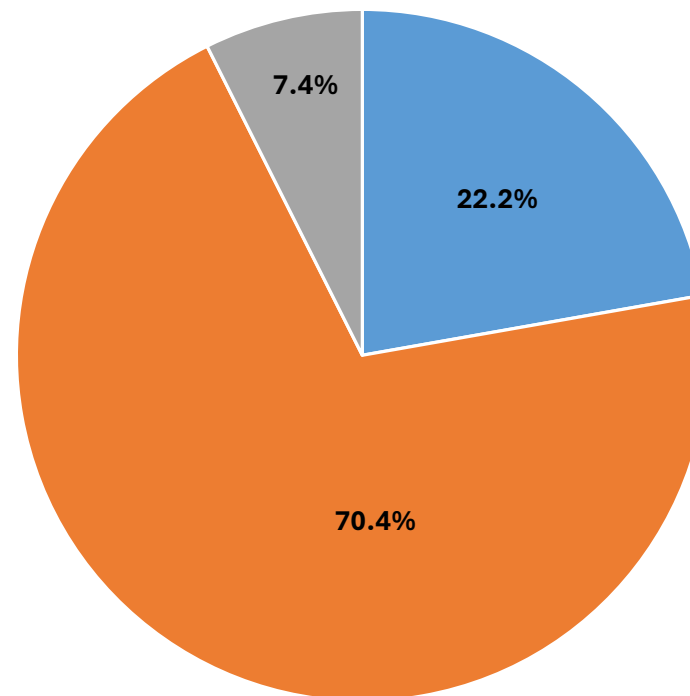
Fire	\$2,092.94
Public, Non-Fire	\$1,050.52
Air	\$ 785.12
<b>Overall</b>	<b>\$1,631.65</b>

Average Blood Administration Patients Last 12 Months  
Per Agency

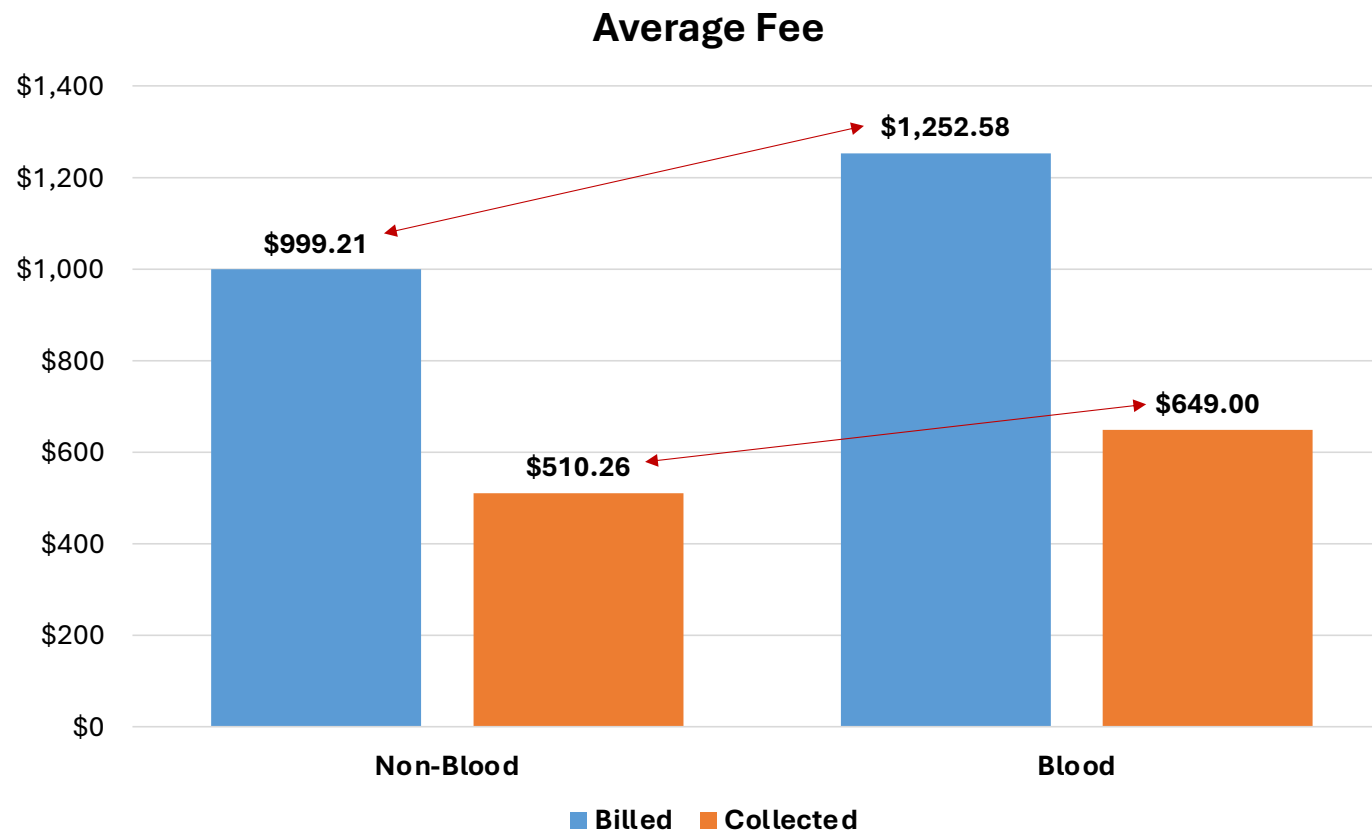


# 2025 “Flash Poll”

Billing Differently for Blood vs. Non-Blood



# 2025 “Flash Poll”

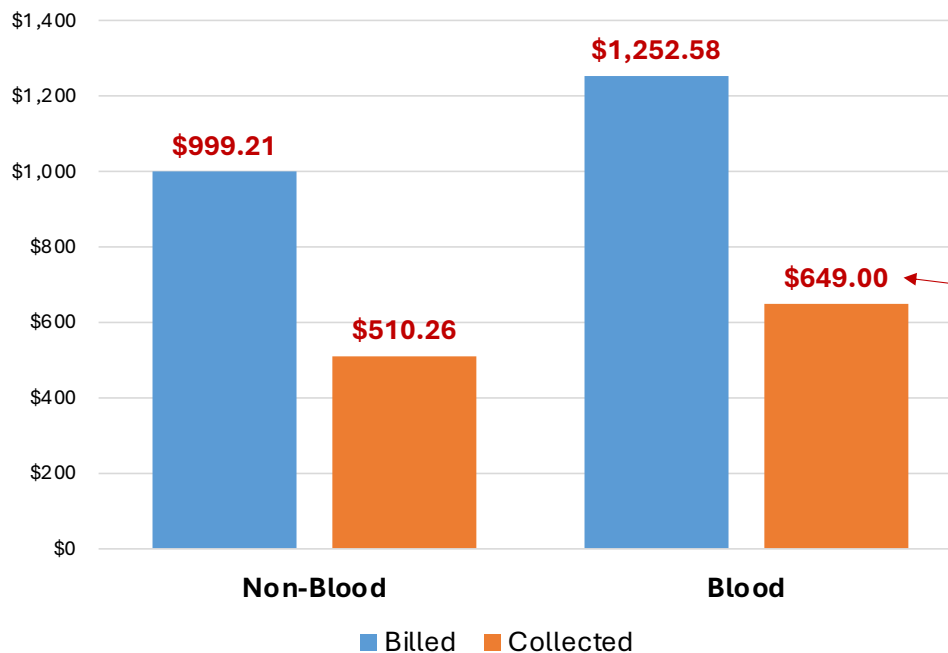




# 2025 “Flash Poll”



Average Fee



Average Expense per Patient

Fire	\$2,092.94
Public, Non-Fire	\$1,050.52
Air	\$ 785.12
Overall	\$1,631.65

# CMS AFS Change...

DEPARTMENT



This document is scheduled to be published in the Federal Register on 12/09/2024 and available online at <https://federalregister.gov/d/2024-25382>, and on <https://govinfo.gov>

**Centers for Medicare & Medicaid Services**

**42 CFR Parts 401, 405, 410, 411, 414, 423, 424, 425, 427, 428, and 491**

**[CMS-1807-F and CMS-4201-F5]**

**RIN 0938-AV33 and 0938-AU96**

**Medicare and Medicaid Programs; CY 2025 Payment Policies under the Physician Fee Schedule and Other Changes to Part B Payment and Coverage Policies; Medicare Shared Savings Program Requirements; Medicare Prescription Drug Inflation Rebate Program; and Medicare Overpayments**

**AGENCY:** Centers for Medicare & Medicaid Services (CMS), Health and Human Services (HHS).

**ACTION:** Final rule.



# CMS AFS Change...

“By September 2023, more than 121 EMS systems in the United States were using blood products in the form of either WBT, packed red blood cells (PRBCs), plasma, or a combination of PRBCs and plasma. Seventy percent of these systems were using WBT. As of March 2024, 147 EMS systems (1.2 percent of the EMS systems in the United States) carry whole blood products, with 200 or more systems anticipated to provide some form of blood product transfusion by the end of 2024.

Today, nearly 60 percent of those 147 EMS systems carry low titer O+ whole blood, with the remainder utilizing other blood products. EMS systems that administer WBT and other blood products (PRBCs and plasma) generally utilize it for patients suffering hemorrhagic shock stemming from traumatic injury, though it may also be indicated in certain non-traumatic medical conditions such as hemorrhagic shock from a gastrointestinal bleed. Traditional EMS resuscitation protocol for massive hemorrhage from trauma and other medical conditions such as gastrointestinal bleeding consists of crystalloid fluids and blood component transfusions, which consist of a balanced portion of PRBCs, platelets, and fresh frozen plasma.

**We proposed in the CY 2025 PFS proposed rule (89 FR 62002 through 62004) to modify the definition of ALS2 at § 414.605 by adding the administration of low titer O+ whole blood transfusion to the current list of seven ALS2 procedures as a new number 8.”**

# CMS AFS Change...

	<b>National</b>	<b>RVU</b>	<b>Allowable</b>
A0427 - ALSE	\$ 278.98	1.9	\$ 530.06
A0433 - ALS2	\$ 278.98	2.75	\$ 767.20

## **Average Expense per Patient**

Fire	\$2,092.94
Public, Non-Fire	\$1,050.52
Air	\$ 785.12
<b>Overall</b>	<b>\$1,631.65</b>

# CMS AFS Change... But...

**“We believe that many ground ambulance transports providing WBT already qualify for ALS2 payment,** since patients requiring such transfusions are generally critically injured or ill and often suffering from cardio-respiratory failure and/or shock, and therefore are likely to receive one or more procedures currently listed as ALS procedures in the definition of ALS2, with endotracheal intubation, chest decompression, and/or placement of a central venous line or an intraosseous line the most probable to be seen in these circumstances.

Patients requiring WBT are typically suffering from hemorrhagic shock, for which the usual course of treatment includes airway stabilization, control of the hemorrhagic source, and stabilization of blood pressure using crystalloid infusion and the provision of WBT or other blood product treatments when available, but not necessarily the administration of advanced cardiac life support medications.

**Consequently, we do not believe it is likely that most patients who may require WBT would trigger the other pathway to qualify as ALS2, that is, the administration of at least three medications by intravenous push/bolus or by continuous infusion, excluding crystalloid, hypotonic, isotonic, and hypertonic solutions (Dextrose, Normal Saline, Ringer's Lactate).”**

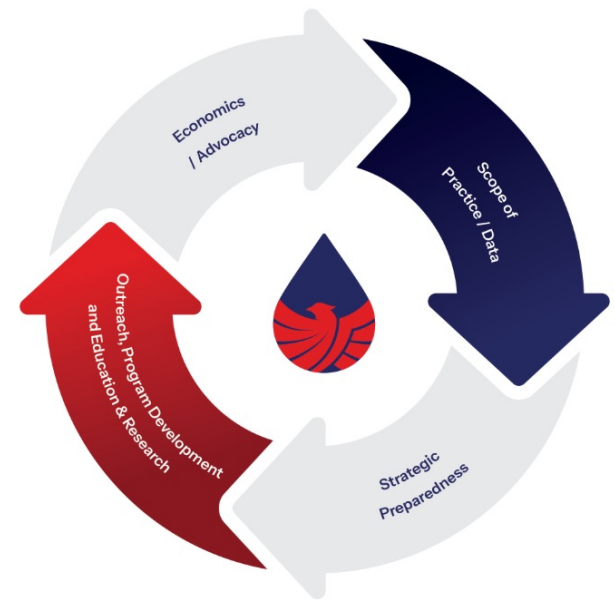
# Takeaways:

- **Continue to be patient advocates!**
- **Identify/conduct more evidence-based research on efficacy of pre-hospital blood administration**
  - Perhaps even the associated **cost savings?**
- **Advocate for reimbursement adequacy!**



PREHOSPITAL  
BLOOD TRANSFUSION  
COALITION

<https://prehospitaltransfusion.org/>





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