Building Resilience for Independent Blood Centers

July 2026

Blood Centers of America

Mission : To strengthen and enhance members' operations through innovative, cooperative, interdependent activities. A network of 60+, not-for-profit, Independent Community Blood Centers representing ~ 60% of the American blood supply.

- Annualized commercial business ~$1B Plus
- Approximately 150+ key industry supply chain contracts
- National contracts for national blood contracting
- Involved with co-development for driving operational efficiencies

Key Preparedness Events

- Implemented Third Party Logistics (3PL) for critical supplies (30-45 DIOH)
- Disaster Task Force member
    - Coordinating the transport of blood products during any disruption (weather, mass casualty, cyber, etc.) in patient care
- During COVID-19 served as national operational center of collaboration, communication and coordination for all independent CCP collectors
- Resource Sharing and accounting/inventory management

Blood Centers 40 of America

Donor Sustainability

BCA: The Donor Base Is Aging

Key Takeaway

Donors 60+

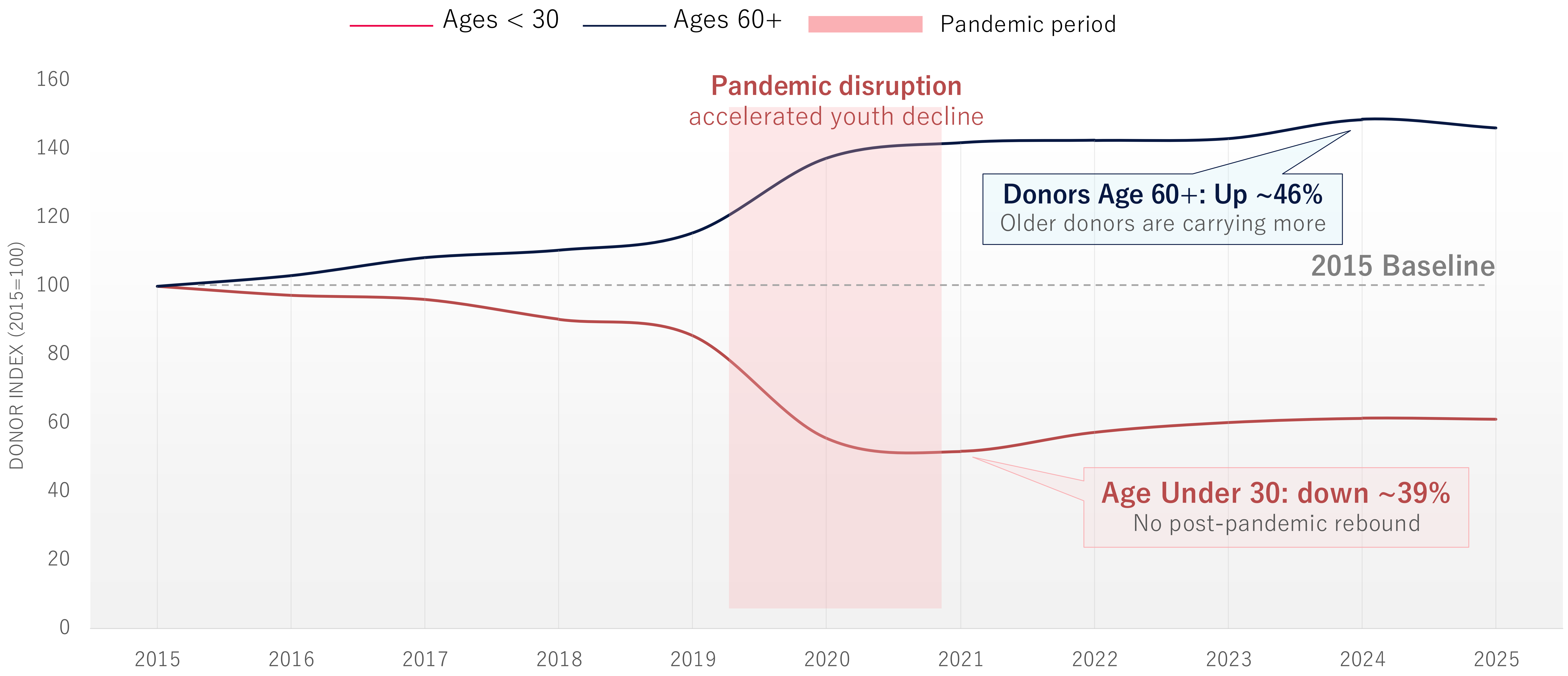
▲ 46%
since 2015

Donors < 30

▼ 39%
since 2015

The donor base is aging faster than it is being renewed

Under-30 Donors Have Declined While 60+ Donors Have Grown



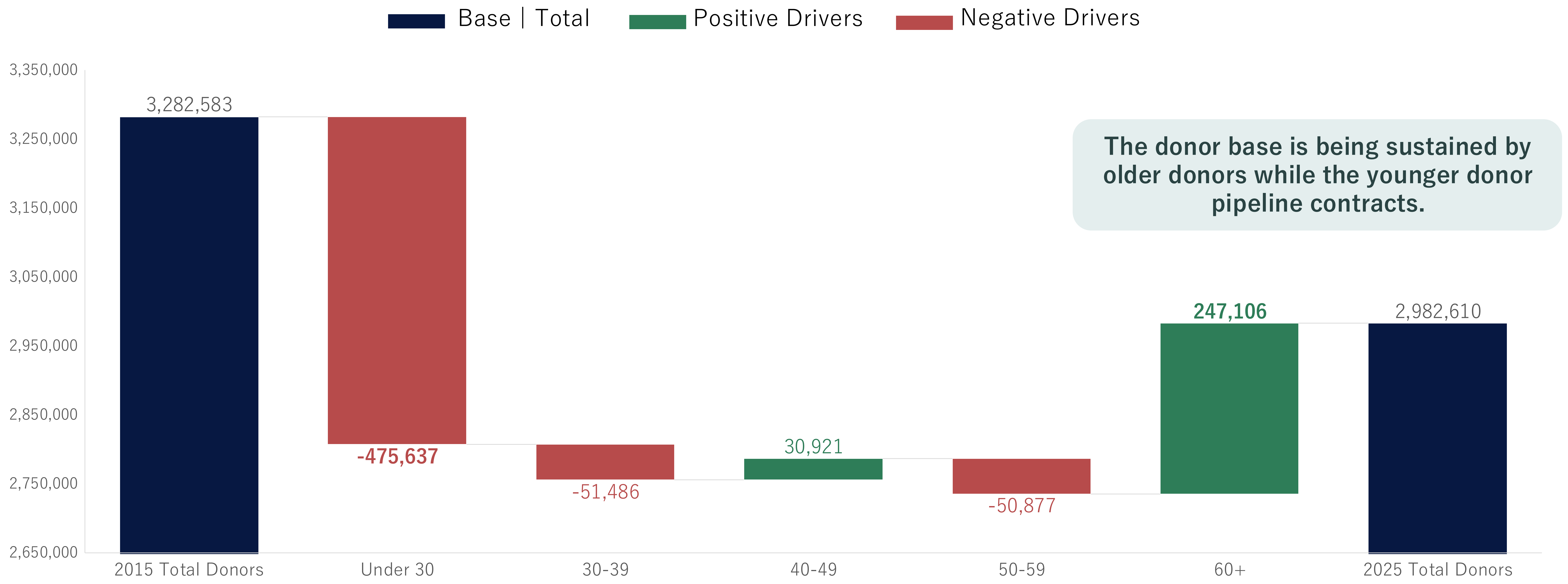
Source: BCA *GOLD*

*Data represents ~90% of Active Gold centers in the database

BCA: The Donor Base Is Shrinking — and Shifting Older

A 476K decline in under-30 donors was only partially offset by growth among donors 60+.

Under-30 Donor Loss Drove Most of the 2015–2025 Decline



Source: BCA *GOLD*

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BCA: Type O Donors Are Shifting Older

Key Takeaway

Under 30

▼ 12.3 pp

36.9% → 24.3%

Donors 60+

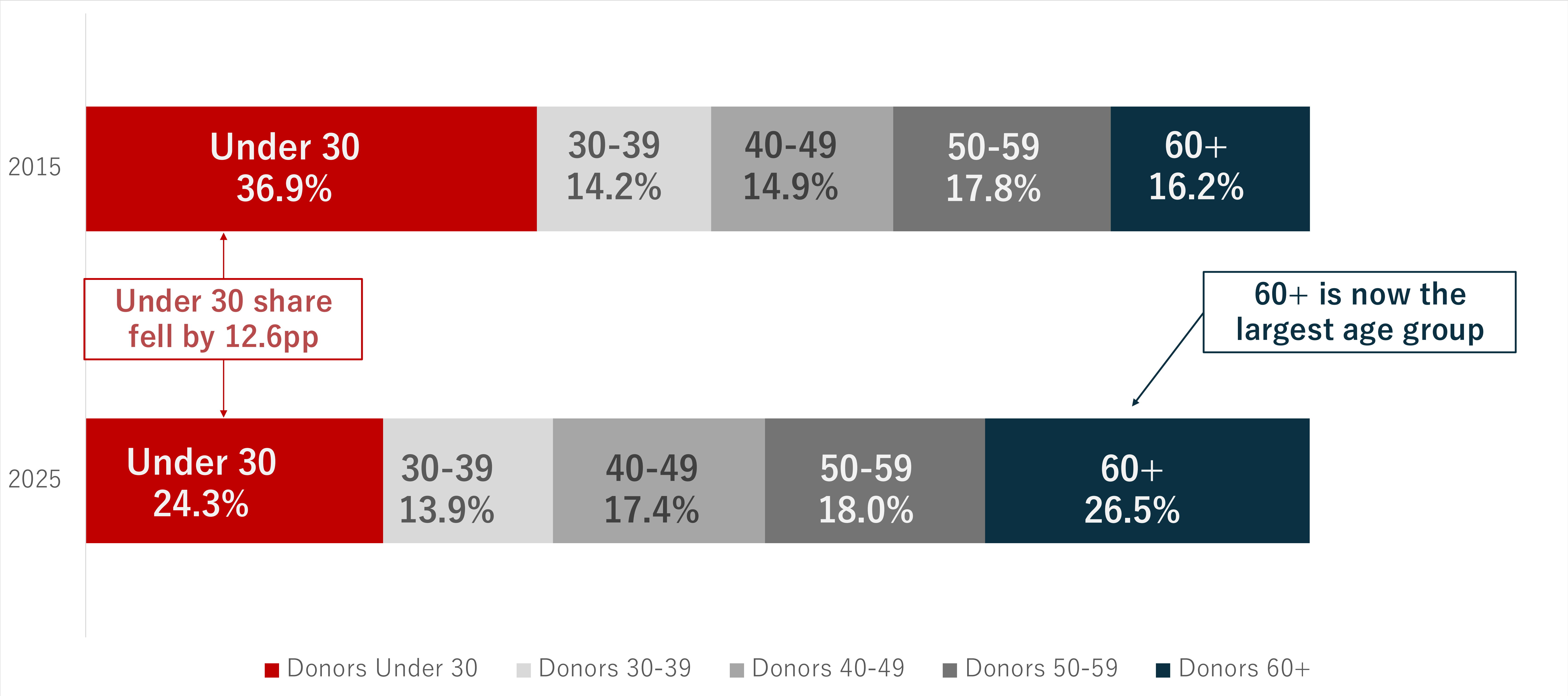
▲ 10.3 pp

16.2% → 26.5%

The Type O donor base is becoming more reliant on older donors

Type O Donor Share by Age Group

Age composition of Type O donors, 2015 vs. 2025



Source: BCA *GOLD*

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BCA: Why Headcount Replacement Is Not Enough

Key Takeaway

Whole Blood

1.8x higher frequency **60+** vs. **Under 25**

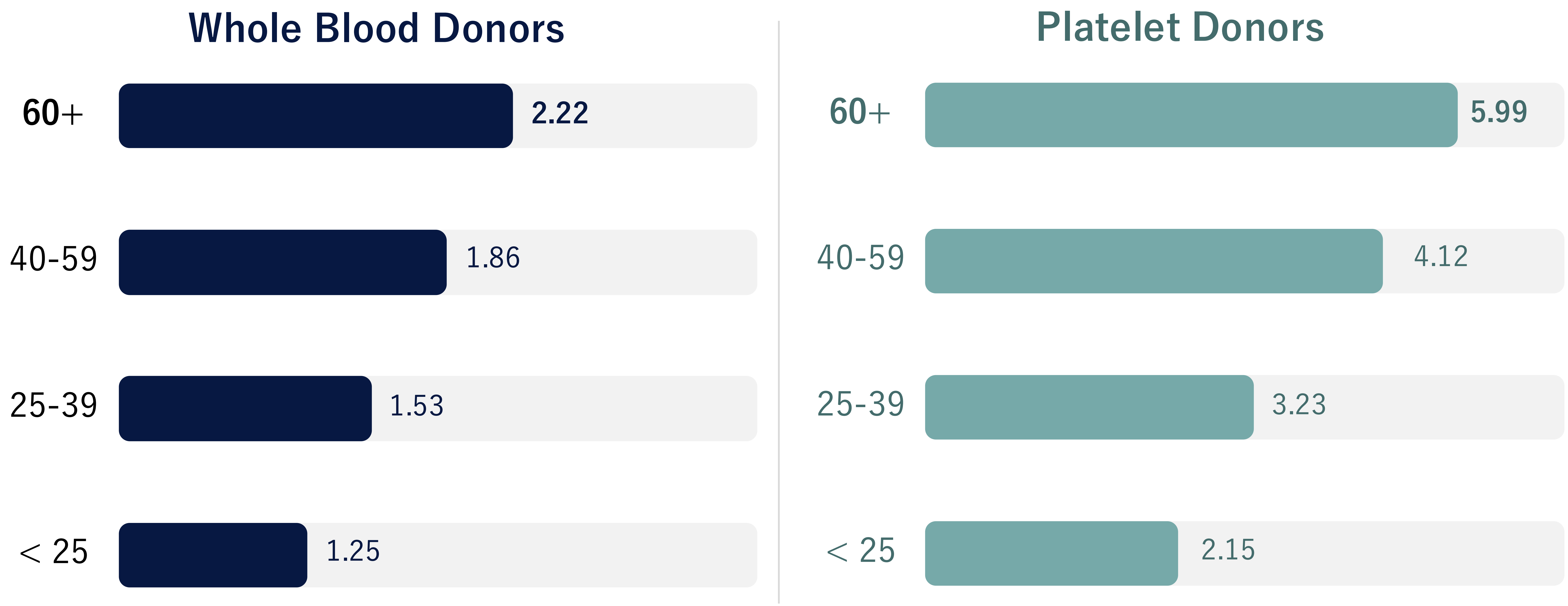
Platelets

2.8x higher frequency **60+** vs. **Under 25**

Replacing older donors one-for-one may not replace the same collection capacity

Average Donations Per by Age Group, 2025

Donations types shown separately because eligibility intervals differ



💡💡 **Note:** Platelet and WB frequencies are not directly comparable; eligibility windows differ by donation types 💡💡

Source: BCA *GOLD*

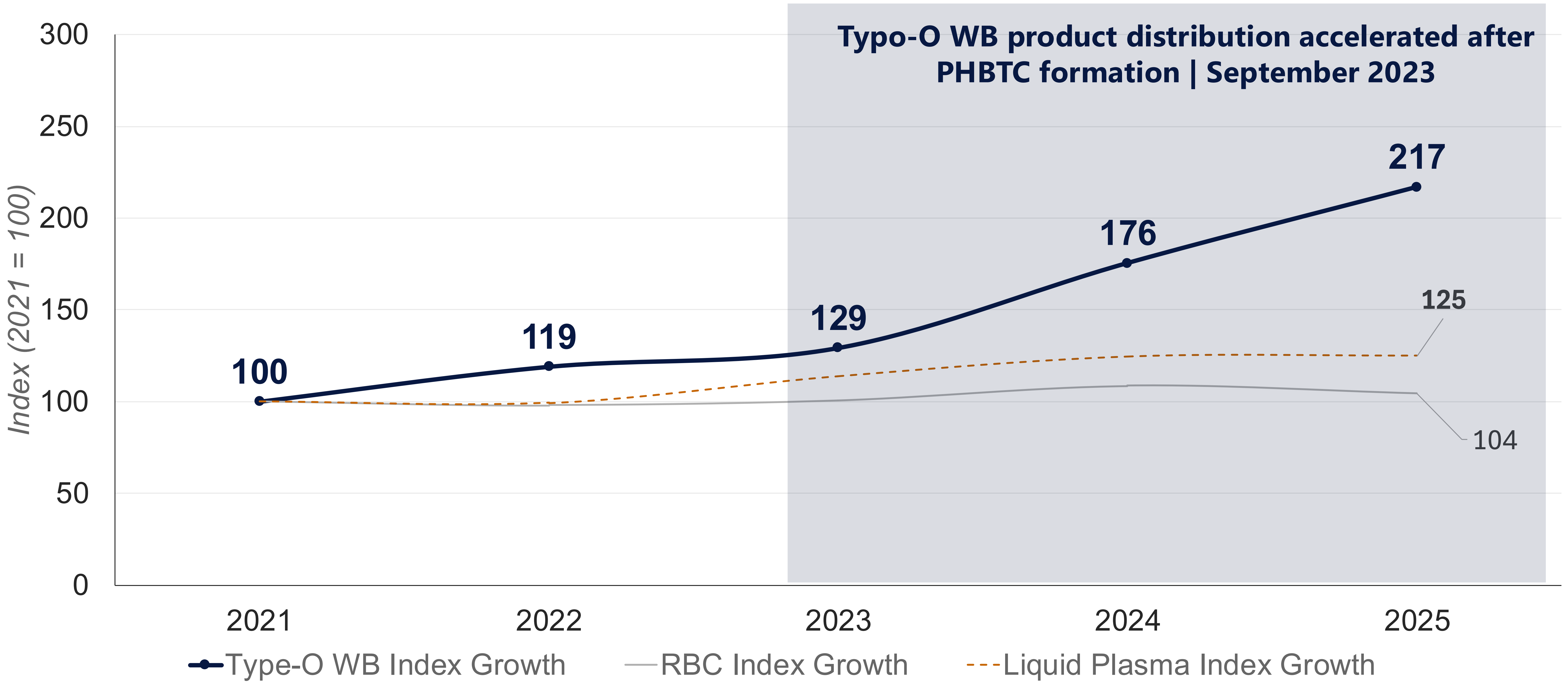
*Data represents ~90% of Active Gold centers in the database

BCA: Pre-Hospital Blood (PHB) Relevant Product Distribution Growth

Based on reported distribution data from **31 member organizations**, representing approximately **~70% of total product distribution** among the membership.

Indexed distribution trend for PHB relevant products

Baseline Index (2021) = 100



Post-PHBTC Formation

Type-O WB product distribution growth **increased another +88 index points** from 2023–2025

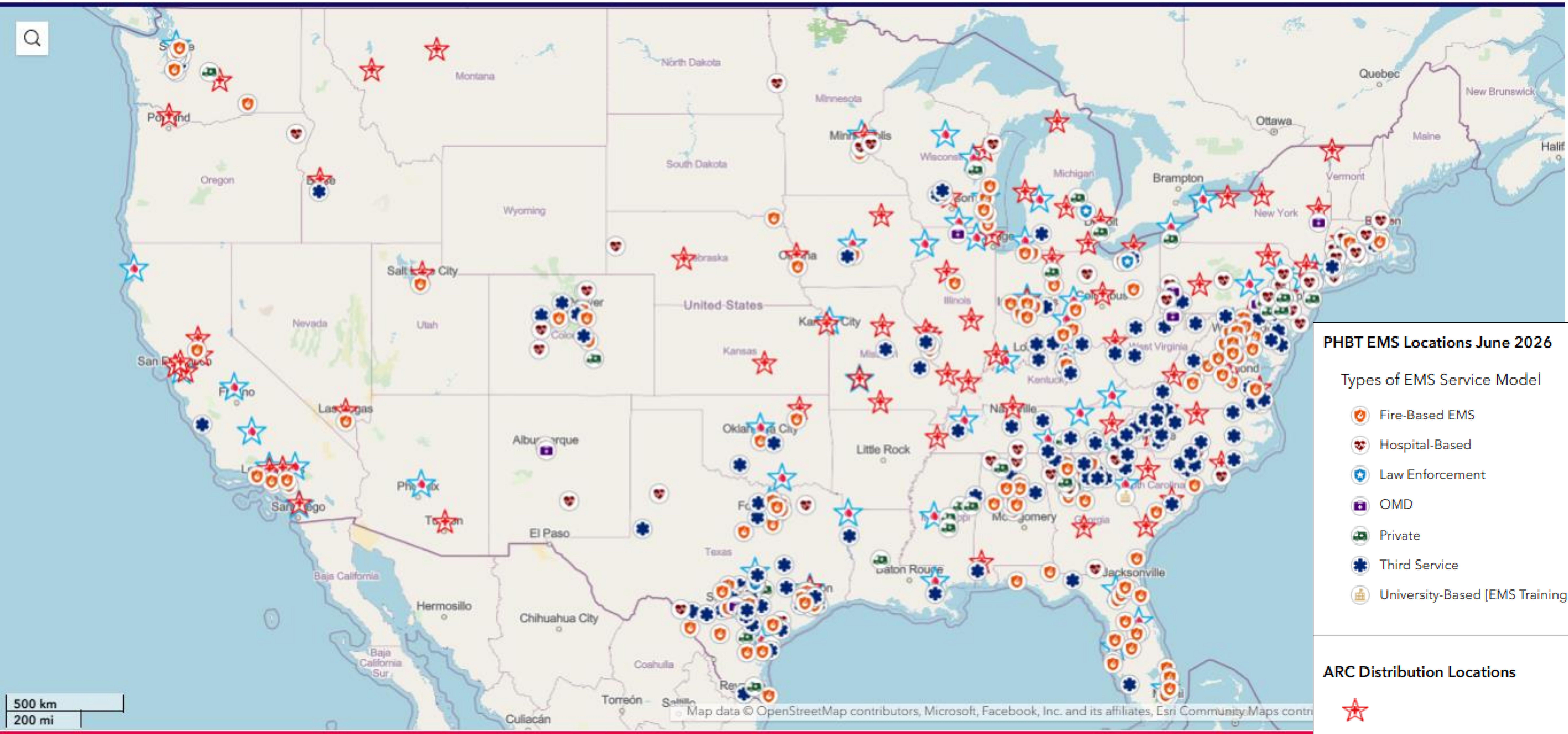
+117% (30.1K → 65.3K)
(annualized w/ 100% participation)
Type O WB distribution
2021-2025

+25% (98.4K → 123.0K)
(annualized w/ 100% participation)
Liq. Plasma product distribution
2021-2025

+4% (5.2M → 5.5M)
(annualized w/ 100% participation)
RBC product distribution
2021-2025

Source: BCA *GOLD*

PHBTC Interactive EMS Map



PHBT EMS Locations June 2026

Types of EMS Service Model

- Fire-Based EMS
- Hospital-Based
- Law Enforcement
- OMD
- Private
- Third Service
- University-Based [EMS Training Academy]

ARC Distribution Locations

BCA Center Headquarters

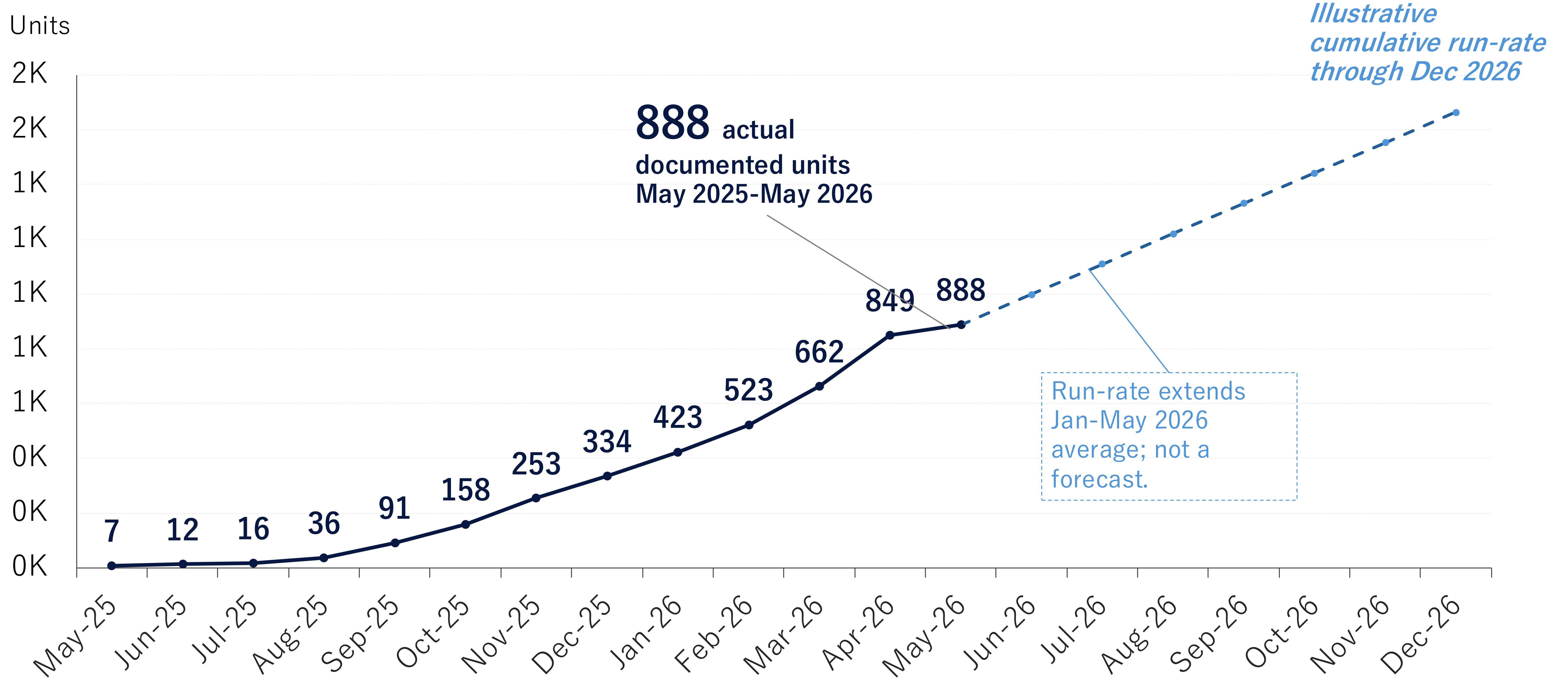
Blood Centers of America

DOCUMENTED PRE-HOSPITAL BLOOD (PHB) TRANSFUSION ACTIVITY

Documented PHB transfusions are building in 2026, with participation still expanding

BloodComm dataset covers May 2025-May 2026; illustrative run-rate extends Jan-May 2026 pace through year-end

Cumulative documented transfused units
Participating PHB agencies only



888 documented transfused units May 2025-May 2026

554 2026 YTD transfused units through May

1.7K illustrative cumulative run-rate through Dec 2026

64 participating PHB agencies included

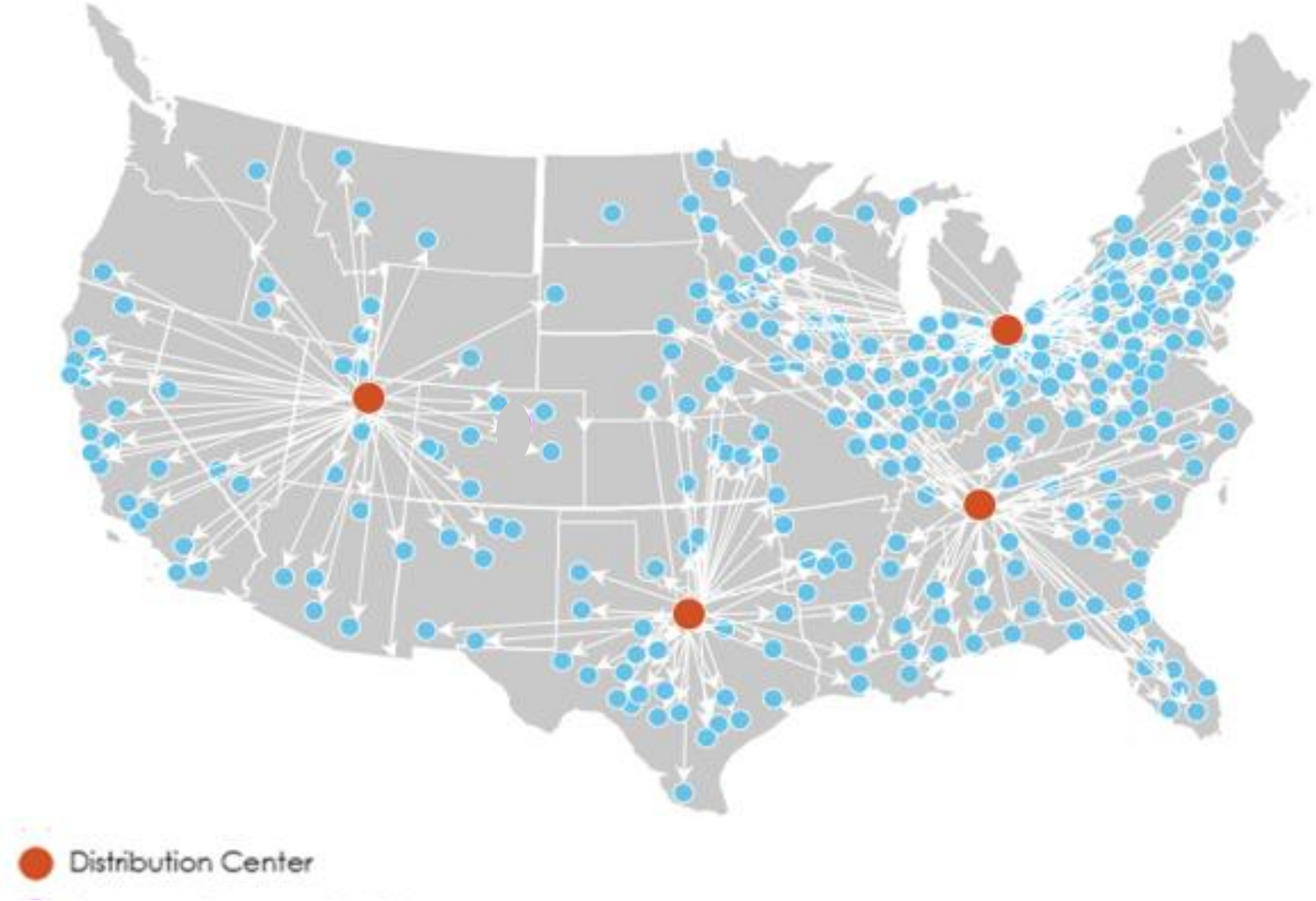
Thank you, **Delta Development Team** for your partnership

Dataset covering May 2025 – May 2026 | **Source:** BloodCOMM Resource Center

Supply Chain Preparedness

BCA 3PL: Supply Chain Risk Mitigation of Critical Supplies

- HemaSource continually maintains 30-45 days of critical medical plastics
- VMI gives BCA visibility to blood center inventory positions
- Contracted with other key suppliers to hold finished good for critical supplies



Targeted 2026 3PL Additions:

Manufacturer	Product Category	Target Addition Date
GVS	Blood bags	2026
Terumo BCT	Reveos/Imugard sets	2026
Cerus	PRT/IFC	LIVE

4 State-of-the-Art distribution centers regionally located with 1-2 day transit time to BCA members

HemaSource has invested in the infrastructure required to support significant incremental volume

Blood Centers of America

FK Risk Mitigation (95% U.S. Market Share)

BPUs

- Horatev & San German – 2 FDA licensed manufacturing sites significantly reducing risk
- FK manufacturing capabilities:
  - San German, PR: 7M BPUs
  - Horatev, CZ: 9M BPUs – Shift ROW production to Brazil/China
  - FK global BCP production- Brazil, China, Horatev, PR
    - 4 BPU manufacturing plants
- HemaSource 3PL - 45 DIOH in Bioflex/CompoSelect

Filter Manufacturing

- Bologna, Italy – Primary manufacturing site (currently sole site)

- San German, PR - FK received CAPEX approval for newly automated San German plant to be secondary manufacturer by end of 2027

Supply Chain Update: LTOWB - Blood Bags

Current Landscape:

Fresenius-Kabi: CPDA-1 non-LRS WB BPU- FK will discontinue all production of CPDA-1 BPU's by mid CY'27 due to shutting down of the Maricao PR plant

Short Term Solution:

TerumoBCT: TeruFlex CPDA-1 non-LRS is a short-term alternative solution ONLY

Long Term Solution:

BCA is currently working with a 3rd manufacturer; actual production timeline TBD

- CPDA-1 non-LRS WB BPU with 35-day WB shelf life.
    - 35-day, critical to support rural EMS programs due to logistics complexity

Supply Chain Headwinds: Rare Donor and Pre-Hospital Programs

Fresenius-Kabi/Baxter:

- Fresenius-Kabi the exclusive distributor and holds the IP on Glycerolyte (used for extending dating on RBC's up to 10 years)
- This product is used extensively in the Blood Center Rare Donor program and also with the military/Armed Services Blood Program to extend dating on RBC's
  - Product is being discontinued. Final production run in early June 2026
  - The global inventory of the 500 ml SKU will likely last another 12-18 months
  - There will be no more production of the 400ml SKU
  - SALF- Is a company in Italy that makes similar product (not commercially approved in the USA) that we are exploring through Haemonetics

Opportunity:

- BCA is exploring alternative technologies with 2 U.S. based companies that have viable solutions but that are not yet commercially available:
  - **Company A** – has IP for a next generation cryopreservation system enabling long term storage and no post thaw de-glycerization for packed red cells & no cell washing requirements
  - **Company B** – Uses a Non-DMSO freezing methodology which would allow for no de-glycerization or cell washing requirements

FDA FK Product Hold: 4 June – 9 June

FDA required FK to put a corporate hold on all BioFlex, Alyx, Amicus, & Intersol products

- Impacted only FK owned products – including ARC (included BCA/HemaSource 3PL FK consignment products). This had the ability to impact 95% of the blood industry in the USA
- BCA and AABB Disaster Task Force mobilized key stakeholders to strongly encourage FDA and FK to quickly resolve
  - HHS/OASH, Department of War (Regulatory), AHA, U.S. Public Health, & ASPR/BARDA
  - COL Owen Roberts – Commander Defense Health Agency/OPMED
  - COL Corley Commander ASBP (Armed Services Blood Program)
  - COL Oguntomilade Commander HHS/BARDA; Mary Homer, BARDA

After Action Review:

- Blood bags: Blood centers need to validate two alternative BPUs (primary & secondary) – ideally from 2 different mfg. locations
- Platelet apheresis: Consider dual technology and/or WB derived pooled program as a backup
- **All centers should maintain a minimum of 21+ DIOH for all critical supplies**

Future Preparedness Recommendations

Recommend 1-2 months blood on the shelf that can quickly be used for emergencies (including cybersecurity, natural disasters, mass tragedies)

- **Limitation today:** Currently no commercial pathways (RBC shelf life ~42 days & platelet 5-7 days)
- **New Technology:** Technology that cryo-preserves blood products (RBC, platelet) and can prep for transfusion at scale
- **Donor Sustainability Focus:** Continue to focus on recruiting younger donors to address the aging gap
- **Gap Consideration:** Walking blood bank could be a potential short-term solution if done through blood centers who already have trained personal & supply chain capabilities along with mobile (needs regulatory support)

“You miss 100% of the shots you don't take.”

\- **Wayne Gretzky**

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