6th European Conference on Donor Health and Management

10-12 september 2025 | **Wijk aan Zee** | **The Netherlands**

This conference is organized by

Sanquin

eba EUROPEAN BLOOD ALLIANCE

Welcome

We are delighted to welcome you to the 6th European Conference on Donor Health and Management (ECDHM) at beautiful Hotel Het Hoge Duin in the charming seaside town of Wijk aan Zee!

This year's theme, "Sustainability in Donations", invites us to take an inspiring journey: from looking back at donor health and management through history, to tackling today's challenges, and imagining the possibilities that lie ahead. Since our very first gathering in The Hague back in 2014, ECDHM has grown tremendously. Along the way, we have shared countless valuable moments with colleagues and friends - old and new alike. We are especially thrilled to bring ECDHM back to the Netherlands to celebrate a decade of remarkable progress. Together, we have deepened our understanding, improved our practices, and paved the way for healthier and more engaged donors.

Now, more than ever, it is crucial to embrace sustainability so that donors remain both healthy and motivated to continue giving the "Gift of Life". As Wim de Kort - our first Conference Chair in 2014 and keynote speaker in 2025 - put it: "Donors deserve it!"
Let's make this an unforgettable event filled with learning, sharing, and inspiration. And just for fun - if this conference were a song, which one would it be?

With warm regards,
Katja van den Hurk & Eva-Maria Merz
Hosts of the 6th ECDHM on behalf of Sanquin, in collaboration with the European Blood Alliance (EBA)

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11:30	Opening & Welcome, Keynote Lecture "Giving Blood is in our Blood: From Bloodletting to Artificial Blood", and AI Hackathon [1] Professor of Donor Behaviour, Sanquin, VU University [2] Professor of Donor Health, Sanquin, University of Amsterdam [3] Emeritus Professor of Donor Health Care [4] CEO Sanquin Blood Supply Foundation [5] Executive Director European Blood Alliance [6] Assistant Professor, Tilburg University	Hoge Duin Zaal	Eva-Maria Merz[1] Katja van den Hurk[2] Wim de Kort[3] Ivo van Schaik[4] Peter O'Leary[5] Lisanne Huis in 't Veld[6]	
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	Special session 3: Transitioning from family replacement and (hidden) paid donations to 100% VNRDB - experiences in four different countries	Room 140	Martin Smid Ketevan Shermadini Daumantas Gutauskas Ananda Gunasekera Nigar Ertuğrul Örüç Lakshman Edirisinghe	Martin Smid
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09:00	Welcome	Hoge Duin Zaal		
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ECDHM

6th European Conference on Donor Health and Management

Presentation Program
Wednesday September 10th

09:00

PhD Course

Room 130

PhD Course	Marloes Metaal Judita Rudokaite Jean-Baptiste Thibert Besarta Vaseli

09:00

ADRP Panel Discussion

Room 140

Enhancing the Blood Donor Experience: Global Best Practices for Donor Retention	Claude Leboeuf Pina Theresa Harris Andrew Jennifer Wilson

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Posterwalk & -pitches Donor Health:

Monitoring Donor Health & Safety

Hoge Duin Zaal

Early Identification of Thrombosis in Donors with Post-Donation Arm Symptoms: Learning Points	Niubel Diaz Padilla
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Implementation of Severity Grading for All Blood Donor Complications at NHS Blood and Transplant	Shruthi Narayan
Suspected Chlorhexidine Reaction Audit: What We Found and What We Did Next	Shruthi Narayan
Building a Picture of Testosterone Injecting in Blood Donors, UK 2021 to 2024	Katherine Daly
Complimentary A1C Wellness Screening for Blood Donors	Theresa Pina
Health Promotion for Blood Donors: A Scoping Review	Linda Marx

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Posterwalk & -pitches Donor Management:

Donor Experience & Motivation

Panoramazaal

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Improving Blood Donation Experiences to Boost the Blood Supply and Sustainability of the Donor Base	Nicole Priddee
Under the Loyalty Umbrella: Towards a Loyal Donor	Monique Wigman
Personality Characteristics of Blood Donors	Janina Sommermeyer
Pink Blood Cells: A National Analysis of the Reasons Why Women in Their 30s Stop Giving Blood	Donata Forioso
Study of the Life Cycle of Blood and Plasma Donors: Segmentation into Stages, Their Transitions, Forecast of Future State and Explainability of Factors	Jordi Gual
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Mission Market: A New Approach to Donor Recognition and Sustainability	Tara Scott
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Oral session Donor Health:

Predicting and Preventing Adverse Donation Outcomes

Hoge Duin Zaal

14.30	Blood donation frequency and disease risk in England: 10-year follow-up of the INTERVAL trial	Yaning Wu
14:45	Predicting Vasovagal Reactions During Blood Donation Using Video-Based Physiological Signal Extraction and Machine Learning	Judita Rudokaite
15:00	Expected outcomes of stratified post-donation testing in whole blood donation in England: A discrete event simulation modeling study	Louis Kim
15:15	Evaluating donor perceptions of Post-Donation Testing (PDT) strategies relative to current policy in England	Richard Mills
15:30	Implementation of Individual Donor Risk assessment (IDRA) in the Irish Blood Transfusion Service	Ellen Mc Sweeney
15:45	Developing a Sustainable International Blood Donor Registry: Essential Monitoring for Long-Term Donor Health	Elina Nürenberg-Goloub

14:15

Oral session Donor Management:

Give Blood, Bring a Buddy, Get a Badge: New Ways of Donor Engagement

Room 140

14.30	Adaptive and resilient digital systems for sustainable donor engagement and retention	Paula Gal
14:45	#BloodDonation: How European Blood Banks Use Social Media to Reach Donors and Non-Donors	Alexandra Ciaușescu
15:00	Financial Incentives Hiding in Plain Sight: A Cross-Country Comparative Analysis of Blood Donation Incentives in the US, the UK and across ISBT Experts.	Eamonn Ferguson
15:15	New blood buddies: How does 'donating with a friend' impact the donation experience and retention of first-time donors?	Kathleen Chell
15:30	Sustainable Donor Retention: Empirical Insights into the Role of Perceived Donation Conditions and Non-Monetary Recognition in Long-Term Commitment to Blood Donation	Irina Kohler
15:45	Developing a Sustainable International Blood Donor Registry: Essential Monitoring for Long-Term Donor Health	Cecilia Jutell

Adaptive and resilient digital systems for sustainable donor engagement and retention

Background: Donor retention remains a critical challenge for blood collection organizations worldwide. While recruitment strategies are essential, ensuring a positive donor experience and providing exceptional customer service are key factors in encouraging repeat donations. Blood centers across the globe are implementing innovative approaches to enhance donor satisfaction, streamline processes, and build lasting relationships with their donor base.

Aims: This panel, featuring experts from ADRP: The Association for Blood Donor Professionals, will explore best practices in donor experience and customer service initiatives that have successfully improved donor retention. Panelists will share insights from diverse regions, discussing how different cultural, logistical, and operational factors shape donor engagement strategies.

Methods: The panel will showcase case studies and data-driven approaches from leading blood collection organizations. Key topics will include personalized donor engagement, technology-driven enhancements, recognition programs, staff training, and post-donation follow-ups. Additionally, panelists will highlight the impact of digital tools, mobile applications, and AI-driven communication in fostering donor loyalty.

Results: Organizations that have implemented targeted donor experience initiatives have reported increased return donation rates, improved donor satisfaction scores, and stronger community relationships. Success stories will demonstrate how investing in customer service - such as reducing wait times, enhancing donor communication, and providing tailored appreciation programs - has led to measurable improvements in donor retention.

Conclusion: The donor experience is a crucial component of a sustainable blood supply. By prioritizing service excellence and leveraging innovative engagement strategies, blood collection organizations can build a loyal donor base and ensure a consistent, safe, and sufficient blood supply. This panel will provide actionable insights and best practices that attendees can adapt to enhance donor retention within their own organizations.

ADRP Panel Discussion- Enhancing the Blood Donor Experience: Global Best Practices for Donor Retention

Presenting author:

Claude Leboeuf

Author information:

Theresa Pina
Gulf Coast Regional Blood Center

Claude Leboeuf
Héma-Québe

Andrew Harris
Welsh Blood Service

Jennifer Wilson
Scottish National Blood Transfusion Service

Blood donation frequency and cardiovascular disease risk in England: 10-year follow-up of the INTERVAL trial

Yaning Wu, John Danesh, Emanuele Di Angelantonio, Adam Butterworth, Willem H. Ouwehand, David J. Roberts, Jonathan Mant & Lois G. Kim

Background
Understanding whole blood donation's health impacts is crucial to maintaining robust blood supplies given these impacts' knock-on effects on donor recruitment and retention. Laboratory studies imply that regular whole blood donation may reduce cardiovascular disease (CVD) risk by lowering serum iron and blood viscosity, but observational studies in Western donor populations have produced conflicting results. Published evidence is limited by the "healthy donor effect", a selection bias arising from the increased propensity of healthier individuals to donate more frequently. Therefore, studies of randomised donation frequency are needed to elucidate the effect of regular donation on CVD.

Aims
This study aims to quantify the causal effect of donation frequency on CVD risk using data from the INTERVAL trial and its extension study, which randomised consenting blood donors in England to increased versus status quo donation frequencies over two and four years respectively.

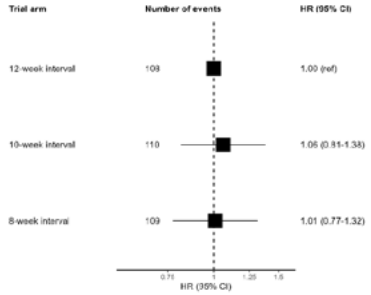
Methods
We conducted sex-specific analyses using data from 44,974 INTERVAL participants (22,311 male and 22,663 female donors) randomised to donate every 8, 10, or 12 weeks (male donors) and every 12, 14, or 16 weeks (female donors). 23,072 donors participated exclusively in the main INTERVAL trial, accruing two years of randomised donation frequency, while 21,902 donors participated in both the main trial and the extension study, accruing four years of randomised frequency. We defined an exposure of randomisation arm and captured the outcome, incident cardiovascular disease (including unstable angina, myocardial infarction, stroke, and transient ischaemic attack) following trial enrolment, through linked hospital and death records. We conducted intention-to-treat analyses by fitting Fine-Gray subdistribution hazards models to assess the effect of randomisation to increased two- and four-year donation frequency on CVD while adjusting for competing risks of non-CVD mortality.

Results
During a total of 226,360 and 232,039 person-years of follow-up for male and female donors respectively (mean 10.1 and 10.2 years per donor), 640 and 168 CVD events were recorded. We found no evidence for CVD risk differences between main trial participants randomised to increased and status quo donation frequencies (p-trend = 0.95 and 0.34 respectively), though we observed a suggestive trend in point estimates towards higher risk in more frequent female donors. Similarly, we found no evidence for differences in CVD risk between extension study participants randomised to increased and status quo donation frequencies over four years (p-trend = 0.64 and 0.45 respectively), though contrary to main trial findings, we observed a suggestive trend in point estimates towards lower risk in more frequent donors of both sexes (Figure [1]).

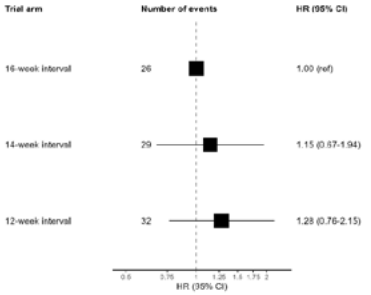
Conclusion
Our findings suggest that there is insufficient evidence for a protective effect of increased short-term donation frequency on long-term CVD risk. Future studies may use causal inference methods to assess the impact of longer-term differences in donation behaviour on CVD. Building evidence on donation's health implications can support blood services in designing policies to sustain blood supplies while stewarding donor wellbeing.

Figure1: Intention-to-treat analyses of two- and four-year randomised donation frequency and CVD risk in INTERVAL participants

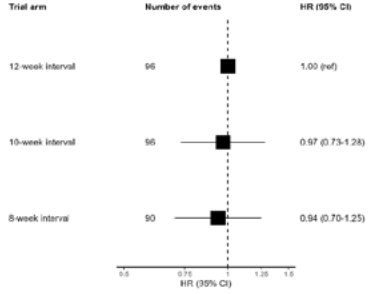
Two-year donation frequency
Male donors



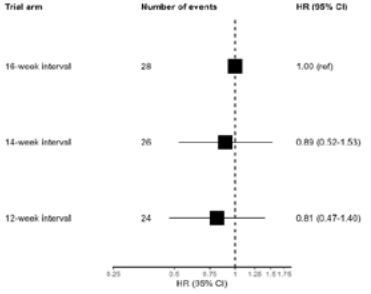
Two-year donation frequency
Female donors



Four-year donation frequency
Male donors



Four-year donation frequency
Female donors



HR: hazard ratio. CI: confidence interval.

Predicting Vasovagal Reactions During Blood Donation Using Video-Based Physiological Signal Extraction and Machine Learning

Judita Rudokaite, L. L. Sharon Ong, Itir Onal Ertugrul, Mart P. Janssen & Elisabeth M. J. Huis in 't Veld

Background

Vasovagal reactions (VVR) are common adverse reactions during blood donation, characterized by symptoms such as dizziness, sweating, and fainting. While generally benign, VVR can lead to distress, reduced donor return rates, and avoidance of medical procedures. Physiological markers such as heart rate (HR), heart rate variability (HRV), and breathing patterns have been linked to VVR risk, but traditional measurement methods require physical sensors, limiting practical application. Advances in computer vision and machine learning (ML) offer non-invasive approaches to monitoring physiological responses, enabling real-time VVR risk assessment before or during donation.

Aims

This study aims to develop a video-based ML model for predicting VVR risk in blood donors using extracted HR and breathing features from facial video recordings.

Methods

A total of 305 blood donors were recruited at blood collection centers in the Netherlands, categorized into three groups: (1) control donors (≥5 donations, no VVR history), (2) sensitive donors (≥5 donations, prior VVR), and (3) first-time donors. RGB videos were recorded at seven time points before, during and after donation, and self-reported VVR symptoms were collected using the Blood Donation Reactions Inventory. A total of 1,943 video segments were analyzed.

Physiological signals were extracted using a multi-step pipeline involving MediaPipe Face Mesh for face detection, principal component analysis for HR signal extraction, and a Butterworth bandpass filter for noise reduction. HR and breathing rate were estimated using peak detection, and multiple statistical and entropy-based features were extracted from this time series data. Several ML models, including Random Forest, XGBoost, Neural Networks, Extra Trees, Bagging, and CatBoost, were trained using stratified nested cross-validation. Performance was evaluated using precision, recall, F1-score, ROC-AUC, AUC-PR, and Matthews correlation coefficient (MCC)

Results

VVR scores were imbalanced, with most donors reporting low VVR scores (mean = 10.21, SD = 3.06), therefore SMOTE techniques were applied on the training set to balance the dataset. The dataset was split into low (≤11) and high (>11) VVR groups. Extra Trees and CatBoost models achieved the highest performance, with Extra Trees yielding an F1-score of 0.76, AUC-PR of 0.69, and MCC of 0.53, while CatBoost achieved an F1-score of 0.75, AUC-PR of 0.74, and MCC of 0.49. Neural networks also demonstrated similar performance (F1 = 0.74, AUC-PR = 0.75, MCC = 0.47). Feature importance analysis demonstrated that the breathing-related metrics such as mean rate were the key predictors of VVR.

Conclusion

This study demonstrates the feasibility of using video-based physiological signal extraction and ML for non-invasive prediction of VVR risk in blood donors. The findings suggest that HRV and especially breathing patterns might be promising indicators of VVR risk, which could be implemented in the future interventions e.g. AINAR-game aiming to help people to reduce their fear of needles and risk of experiencing VVRs.

Expected outcomes of stratified post-donation testing in whole blood donation in England: A discrete event simulation modeling study

Lois Kim, Hongchao Qi, Angela Wood, Stephen Kaptoge, Amy McMahon, Susan Mehenny ,Nathalie Kingston, Willem Ouwehand, John Danesh, David Roberts & Emanuele Di Angelantonio

Background
In England, blood donors with low hemoglobin concentration are deferred following on-session testing to prevent donations below regulatory thresholds, thereby protecting donors' health and blood supply quality. However, deferrals are costly, time-consuming and may discourage donors. Post-donation testing (PDT), where hemoglobin levels are measured after donation, offer potential alternatives as used in some European countries.

Study Design and Method
We compared four PDT strategies to the current approach: (A) no on-session testing, (B) on-session testing if low hemoglobin at previous visit, (C) on-session testing if low/medium hemoglobin at previous visit, all with delayed reinvitation if low hemoglobin at previous donation, and (D) on-session testing if low/medium hemoglobin at previous visit without delayed reinvitations.

We employed discrete event simulation modeling, informed by data collected from 16,941 donors returning under the current strategy in England, to simulate and compare total donations, under-threshold donations, and deferrals for each strategy over 18 months.

Results
Strategy A eliminated deferrals but led to increased under-threshold donations compared to the current strategy in men (6.5% vs. 2.3%) and women (11.8% vs. 4.5%).

Strategies B–D reduced deferrals rates for men (1.0%–3.7% vs. 5.5%) and women (2.2%–6.3% vs. 8.9%) but showed slightly higher under-threshold donations in men (3.0%–5.1% vs. 2.3%) and women (5.3%–8.8% vs. 4.5%). Strategies with more on-session testing had lower under-threshold donations.

Discussion
PDT strategies incorporating on-session testing for low/medium hemoglobin at previous visits could reduce deferrals while maintaining a low proportion of under-threshold donations, thereby balancing donor safety with operational efficiency.

Evaluating donor perceptions of Post-Donation Testing (PDT) strategies relative to current policy in England

Richard Mills, Orestis Kopsacheilis, Lois Kim, Hongchao Qi, Emanuele Di Angelantonio, Angela Wood, Barbara Masser & Eamonn Ferguson

Background

Temporary deferral due to low Haemoglobin (Hb) presents a significant challenge to blood services and donors, occurring in around 4-9% of visits [1-2]). Studies show such deferrals reduce return rates and increase operational costs [3-8]. One approach to lower Hb deferrals is Post-Donation Testing (PDT), where Hb is measured after donation, instead of before, with a sample taken during donation. Several European countries (e.g., Belgium, Denmark, France) use this policy. While PDT improves operational efficiency by reducing deferrals and costs, it may also increase the risk of under-threshold donations. As such, a comprehensive research programme aimed at understanding donors' knowledge of the policy and their acceptance (i.e., their perceived acceptability of the policy change for themselves, first-time and repeat donors) of it is crucial to ensure its successful implementation.

Aims

This research aims to (1) gauge donors' knowledge of the proposed PDT strategy, (2) assess their acceptance of it relative to current practice, (3) identify which policy attributes (e.g., safety, deferrals, total donations) donors find most important, and (4) examine how different ways of framing PDT information influence donor decision-making [9].

Methods

Two interconnected work packages (WPs) form the core of this study. WP1 involves an online survey with the general public (including non-donors and donors via Prolific) and NHSBT donors in England (N=1,408: 704 public; 704 donors). Respondents are randomly assigned to one of two policy descriptions (detailed vs. simplified) to assess differences in knowledge and acceptability. They then rank various policy attributes in terms of importance. All materials received PPIE feedback (donor advisory group, and academic expert sample). WP2 involves a Discrete Choice Experiment (DCE) with a new sample (N=2,816: 1,408 public; 1,408 NHSBT donors) to quantify how the various attributes identified from WP1 are weighted by participants when deciding whether to donate under the new PDT policy. Participants are randomised to different informational frames (e.g., neutral vs. emotive wording, qualitative vs. quantitative data).

Results

Data collection is scheduled for April (WP1) and May 2025 (WP2) (preregistered on OSF). The results from WP1 will focus on knowledge gaps, as well as acceptability ratings, with a particular focus on prior experiences with low Hb deferrals and how these shape perceptions. The DCE results (WP2) will highlight which aspects of PDT most strongly influence donor preferences and whether more emotive or more detailed framing substantially alters these preferences.

Conclusion

These work packages will gauge donor sentiment towards moving to a PDT approach within NHSBT and determine the most effective ways for the organisation to communicate it. This is, to our knowledge, the first work that directly investigates the preferences of donors to inform policy-making through a novel methodological design. The insights from this research will also help inform a clinical trial planned by the University of Cambridge and NHSBT (a third work package, WP3).

Implementation of Individual Donor Risk assessment (IDRA) in the Irish Blood Transfusion Service

Ellen McSweeney, Ibrahim Magzoub & Niamh O' Flaherty

Background

Prior to November 2022, gay and bisexual men who have sex with men gbMSM) were deferred from donating blood in Ireland for 4 months after their last oral or anal sexual contact with other men. This was perceived by some to be discriminatory; a poll of the general population had shown that nearly 70% of responders thought that gbMSM should be allowed to donate blood.

Aims

The IBTS recognised the need to be a more inclusive organisation and to increase and diversify the donor pool to meet the needs of Ireland's changing population. It was aware that these aims had to be achieved whilst balancing inclusivity with blood safety and the sustainability of the blood supply.

Methods

In 2020, the IBTS appointed a Social Behaviours Review Group (SBRG) to review blood donor eligibility and deferral criteria relating to sexual and other behaviours. This group recommended that Individual Donor Risk Assessment (IDRA) should be introduced. The questions asked of donors should be gender-neutral and donors' eligibility should be based on their individual sexual behaviours rather than the behaviours of a risk group as a whole. The questions would include questions about new sexual partners, multiple sexual partners, anal sex and chemsex. A risk assessment was carried out to assess the impact of introducing IDRA. A HIV modelling method used estimated that the residual risk for HIV though increased would still be less than 1 in 1 million donations. A survey of donors concluded that the IDRA questions were acceptable to 97% of the donating population, but that there could be a loss of 4 % of donors, 1 % due to the risk activity and 3% due to discomfort with the new questions.

Results of Implementation

IDRA was introduced in the IBTS in November 2022. The questions regarding new and multiple sexual partners, anal sex, and chemsex are acceptable to Irish donors, and have not resulted in a loss of donors. The deferral of donors on clinic for these questions is very low. A monitoring committee has been established to review the rate of donors with positive viral and syphilis markers and review any cases of Transfusion Transmitted Infections (TTIs). The number of cases of syphilis identified has increased. No NAT-only infections in donors have been identified. There have been no reported cases of TTIs since IDRA was introduced. Non-compliance has been identified in some donors who have tested positive for syphilis or other viral markers. The critical importance of compliance with donor selection guidelines has been emphasised.

Conclusion

The IBTS successfully introduced IDRA in November 2022. The questions have been acceptable to donors and have not resulted in a loss of donors. No known TTIs have occurred. Non-compliance has been identified in some donors who have tested positive. The IBTS is partaking in a compliance study with the UK Blood Services.

Developing a Sustainable International Blood Donor Registry: Essential Monitoring for Long-Term Donor Health

Elina Nürenberg-Goloub, Ibrahim Magzoub & Niamh O' Flaherty

Background

Blood donation is critical to modern healthcare, but the long-term impact on donors is still largely unknown. The World Health Organisation emphasises donor health by controlling donation safety, long-term monitoring of mental and physical health and supporting voluntary, unpaid donations. Current research points to several uncertainties related to donor health, including the consequences of iron deficiency, the potential risk of certain cancers, the cardiovascular effects of high-frequency donation, the impact on mental health and donors' perception of physiological changes. To increase donors' confidence and willingness to donate regularly, we need to show that we care about their health and wellbeing beyond the blood donation service, even if they decide to stop donating for any personal reasons.

Aims

This project aims to implement a Blood Donor Registry to monitor donor health longitudinally for a minimum of 30 years, addressing critical knowledge gaps while providing evidence for sustainable donor management strategies that preserve donor health and motivation.

Methods

The established Blood Donor and Recipient Long-Term Outcome Study (LOS) has successfully implemented a registry to capture the long-term effects of blood products and medication that affects the blood - like iron and erythropoietin. The study provides the foundation for a complementary donor-focused system. The donor registry development follows a structured, iterative process guided by European Medicines Agency Guidelines. Core assessment variables specific to donor health were identified by clinical experts and refined through stakeholder collaboration with donation societies. The framework employs SNOMED clinical terminology for interoperability according to FAIR principles, with GDPR compliance and ethical committee approval. The system design ensures accessibility from any device, enabling implementation without additional infrastructure.

Results

The established framework (figure[1]) delivers a comprehensive registry architecture that includes: (1) a digital web-based platform accessible across devices; (2) structured data collection covering donation frequency, iron status, cardiovascular parameters, and quality of life measures; (3) automated follow-up system for longitudinal monitoring; (4) customized reporting functionality for benchmarking against regional and national averages; and (5) a transparent governance structure integrating stakeholders. Through regular contact, the registry raises awareness of blood donations while demonstrating active health monitoring to strengthen donor confidence in the donation process.

Conclusion

The Blood Donor Registry addresses the sustainability pillar of modern transfusion medicine by enabling blood services to identify potential risks to donors earlier and provide optimized care. Implementation will support evidence-based donation intervals, improved donor retention through demonstrable commitment to donor wellbeing, and development of international standards for sustainable donation practices.

Figure1: LOS Donor Registry

Adaptive and resilient digital systems for sustainable donor engagement and retention

Paula Gal

Background

The relationship between blood banks and donors is essential for maintaining a stable blood supply, which saves lives. However, challenges in donor recruitment, retention, and engagement persist worldwide. Traditional donor management systems often lack the adaptability needed to ensure effective engagement and coordination during emergencies, unexpected events, or changing contexts. This results in difficulties not only in quickly mobilizing donors during crises but also in building long-term donor commitment. Therefore, developing adaptive and resilient digital systems for continuous donor engagement is crucial to enhance recruitment efforts and respond efficiently to various situations.

Aims

This study aims to highlight the importance of developing adaptive, robust, and customizable digital systems to enhance the connection between blood banks and donors. It focuses on improving recruitment, retention, and engagement through technology that adapts to evolving donor behavior, technological advancements, and emergencies. Additionally, it emphasizes the need for reliable communication channels to ensure swift responses to donor needs and trends.

Methods and Results

A digital platform was co-designed by the author, who have a strong background in technology development, in close collaboration with blood banks from Romania. Initiated in 2020 the project continues to be implemented in real-world settings, and is actively used by the donors to manage their donation activity, offering valuable insights. The platform integrates various modules; however, this study presents two practical scenarios where the system's adaptability was critical, with data collected directly by the platform. The two real-world scenarios illustrate opposite challenges: one involving low donor numbers during emergencies when blood is urgently needed, and the other involving an overwhelming influx of donors exceeding the capacity of blood banks.

Challenge 1: During emergencies, donor availability is often limited, and blood banks must act quickly to gather sufficient resources. Efficient communication systems are essential to ensure donors are informed effectively.

Implemented tool: Blood emergencies alerts and targeted donors notification system.

Results obtained: Faster donor mobilization and improved communication efficiency. The notification system achieved a conversion rate of 5% - 6%, effectively mobilizing donors during emergencies.

Challenge 2: Periods of high donor influx can overwhelm blood banks, making efficient management and alignment with hospital needs essential.

Implemented tool: Appointment mechanism that allows donors to schedule donations based on the specific needs of hospitals, ensuring a controlled and efficient flow of donations.

Results obtained: Improved operational efficiency - enhanced coordination between donors and blood banks ensured that donation flow matched hospital demand, reducing wastage and shortage. The appointment adherence rate was around 60-70%, indicating that a significant portion of scheduled appointments were successfully completed, contributing to better resource management and hospital demand coverage.

Also, donors appreciated the increased transparency of blood needs. Donor satisfaction remained consistently high over the 2020-2025 period, with an average score of 4.8/5.

Conclusion

The goal is to ensure adaptable, sustainable, and effective donor engagement. Blood banks need resilient systems to manage emergencies, high donor influx, and track performance for continuous improvement.

#BloodDonation: How European Blood Banks Use Social Media to Reach Donors and Non-Donors

Alexandra Ciaușescu, Eva-Maria Merz, Rene Bekkers & Arjen de Wit

Background

Ensuring a sustainable, sufficient, and representative donor pool requires reaching beyond traditional communication channels and approaches. Social media has become a key space for socialization, influencing attitudes, behaviours, and even identities. While blood establishments increasingly rely on social media as a communication channel, existing research remains fragmented, often focusing on a single platform, country, or recruitment and retention strategies only. A comprehensive understanding of how European blood banks leverage social media to engage both donors and non-donors is still lacking.

Aims

This study aims to address this fragmentation by providing a comprehensive overview of how European blood establishments operate within the social-media ecosystem. We explore (1) the objectives blood banks seek to achieve through social media, (2) the strategies they employ to achieve these objectives, (3) the types of content they share, and (4) if and how they measure the effectiveness of their digital presence.

Methods

Between May and June 2023, we conducted 22 semi-structured interviews with communication and marketing specialists from 13 blood establishments across 11 European countries. The interviews were recorded and transcribed verbatim. We applied thematic content analysis following a twofold approach that combined deductive coding based on the four research questions and inductive coding to capture emerging themes and codes.

Results

The objectives blood banks aim to achieve can be grouped into three clusters: (i) donor recruitment and retention, (ii) increasing knowledge and awareness about blood donation and (iii) de-clinicalizing the donation process (i.e. presenting it as a normal day-to-day activity rather than a medical procedure). To achieve these objectives, blood banks use diverse strategies including collaborations with influencers, paid online advertising, audience targeting, and the use of micro-content (i.e. short and easy to consume content). The content shared also spans on a broad spectrum, from memes to information about changes in policy and stories of donors and patients. Regarding measurement, while tracking in-platform engagement (e.g., likes, views, shares) is straightforward, measuring actual blood donation behaviour resulting from social media campaigns remains challenging. However, in the interviews the practitioners named the content types that tend to perform well and the ones that are typically less efficient. Finally, we observed new trends in social media usage, including data-driven communication decisions, the adoption of new platforms (e.g., Snapchat), and formats (e.g., podcasts), along with emerging challenges like misinformation and privacy concerns.

Conclusion

The study maps out how European blood banks use social media by focusing on four key areas of social media communication: objectives, strategies, content and measurement. In doing so it offers a comprehensive overview of a rather fragmented research field and further establishes a direct link between academic research and practical experiences of communication specialists working in European blood establishments. Such alignment could significantly enhance the impact of academic research and enable organizations to develop more efficient and effective communication strategies to ensure sustainable, sufficient and representative donor pools.

Financial Incentives Hiding in Plain Sight: A Cross-Country Comparative Analysis of Blood Donation Incentives in the US, the UK and across ISBT Experts

Eamonn Ferguson, Richard Mills, Barbara Masser, Eva-Maria Merz, Emanuele Di Angelantonio, Angela Wood & Susan Brailsford

Background

Voluntary Non-Remunerated Blood Donation (VNRBD) is the model for a safe, sufficient and reliable blood system. WHO guidelines for a VNRBD system state that 'incentives' must not be (i) coercive or (ii) monetary (or convertible to money). This aligns with Titmuss's argument that VNRBD enhances safety by reducing 'dishonest' reporting and avoids undermining the 'altruistic' nature of the donation. Yet, 'high-value' incentives (cash or or cash-equivalent – luxury holidays, cars) and time-limited offers are common in the US. Surprisingly, there is no empirical work on how these incentives are perceived as being financial or coercive, morally acceptable, or their impact on the safety and supply of blood.

Aims

To explore the extent to which incentives for donation are seen as financial or coercive, and their perceived impact on the blood supply and safety, across US and UK participants and ISBT experts.

Methods

A sizeable online experiment with quota samples in the US (n = 1034) and UK (n = 1028) where donors, non-donors and ISBT experts (n =34) rated 20 commonly used incentives (Figure[1]). Participants either saw the WHO definition of a VNRBD or not. Participants categorised incentives as financial (yes, no) and coercive (yes, no) with questions about morality, as well as the perceived impact on the blood supply and safety.

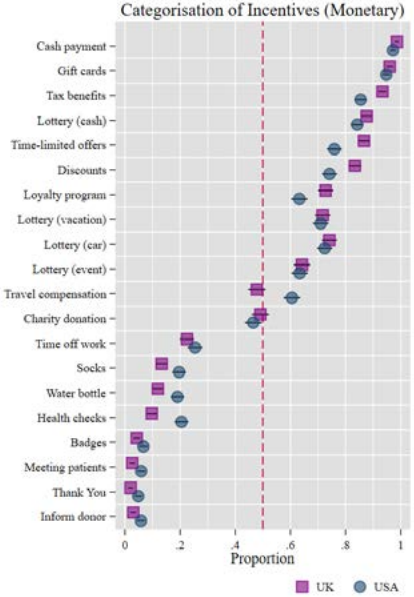
Results

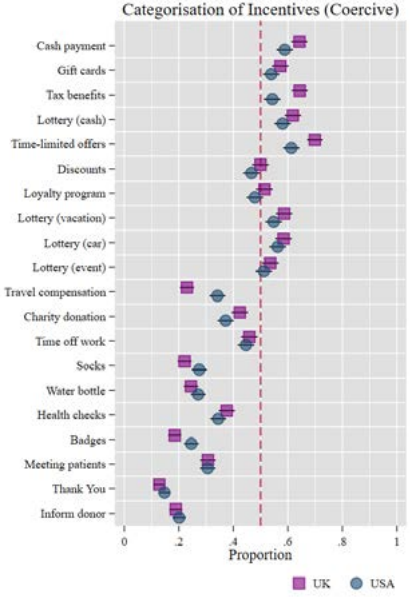
Figure[1] shows across the US and UK, a clear differentiation between financial (categorised by >50% as financial), non-financial (<45% categorising as financial) and tipping-point incentives (45-49%). Tipping-point incentives have a financial structure but are seen as non-financial. There are two tipping-point incentives: charity donations and travel expenses. In the former, sometimes called double-altruism, the blood service donates a small sum of money to a charity of the donor's choice as a thank you for donating; the latter covers reasonable travel expenses.
No incentive is regarded as coercion-free. The WHO definition or donor status did not influence patterns.
Of the experts, 58-97% categorised the same incentives as financial, with all others non-financial (3-35%). 36-64% saw financial incentives as coercive, and 6-35% saw non-financial incentives as coercive.
In terms of Titmuss's concerns, financial incentives boost willingness to donate (except UK donors), increase the perception that others will donate, and reduce shortage risks. However, they are seen to compromise safety. Experts, however, believe financial incentives will not increase numbers, deter donors, compromise safety, and fail to address shortages. All groups find financial incentives morally less acceptable.

Conclusion

Many incentives offered in the US are perceived by the public and experts as financial and coercive, which makes it problematic to define these donors as VNRBDs. A clear moral paradox exists: people see financial incentives as effective but less morally acceptable. Titmuss's concerns are more endorsed by experts than the public. Double altruism should be considered. The broader implications for incentivising blood and plasma donation within a voluntary system will be discussed.

Figure1: ECDHM incentives





New blood buddies: How does 'donating with a friend' impact the donation experience and retention of first-time donors?

Kathleen Chell, Kristen Baker, Marijke Welvaert, Barbara Masser, Sarah Fitzgerald, Amanda Thijsen & Lachie Toms

Background

Donating blood with others (i.e., as a social activity) can increase awareness of donation, provide social support and encouragement, and improve social relationships. Simply knowing other people who donate blood is shown to positively influence intentions to donate blood. Although donating with a friend (or 'donation buddy' system) is often recommended as a strategy to improve the recruitment and retention of new donors, this strategy has not been empirically tested.

Aims

- To determine whether donating with a friend can improve the retention of new donors and shorten time to return.
- To understand the donation experience of new donors when donating with a friend.

Methods

Australian Red Cross Lifeblood (Lifeblood) launched the 'Donate with a Friend' (DwF) appointment booking option in the Lifeblood app on the 20 February 2023. It allows donors to book a donation appointment with one other person. This evaluation involved identifying all donors who first donated between 20 February 2023 and 20 August 2023 and had at least one DwF donation by 20 February 2024. DwF new donors were compared to a randomly selected matched control group based on age, gender, first donation date and location. Routinely collected data on donation behaviour was extracted from Lifeblood's database for both groups. Retention rate was measured by the proportion of new donors who returned to donate within 6-12 months of their first donation. In addition, n=49 DwF new donors completed a feedback survey.

Results

DwF new donors who first donated with a friend (n=705) returned for a second donation at a similar rate (52.1%) as controls (52.3%). Further, while DwF new donors who first donated with a friend returned sooner (98 days, SD=65.5) than control donors (n=1,912; M=104, SD=67.7), this difference was not statistically significant. In contrast, those who first donated individually but returned to donate with a friend (n=981) did so quicker (M = 93 days, SD = 61.9) than controls ($p < .001$).

According to the survey, the top two motivations for donating with a friend were to make the donation experience more social (59.2%) and to try a new activity with their donation buddy (55.3%). When donating with a friend, 80.5% felt more supported during the donation, 87.5% felt more committed to attending the appointment, and 71.4% felt less nervous about donating. Almost all survey participants were satisfied (17%) or very satisfied (78.7%) with the overall experience of donating with a friend and are likely (22.4%) or very likely (71.4%) to donate with a friend again.

Conclusion

Donating with a friend as a first donation experience did not improve retention rates of new donors. However, donating individually first and returning for a friend appointment resulted in the shortest time to return. The novelty and social aspects of donating with a friend should be promoted to first-time donors to improve frequency of donation.

Sustainable Donor Retention: Empirical Insights into the Role of Perceived Donation Conditions and Non-Monetary Recognition in Long-Term Commitment to Blood Donation

Irina Kohler, Andreas Opitz, Martin Oesterer & Pascal Wendler

Background

Ensuring a sustainable donor pool requires effective donor recognition strategies that foster long-term engagement beyond financial incentives. Prior research has highlighted the role of non-monetary incentives in donor motivation, yet empirical evidence remains scarce regarding their long-term effectiveness in enhancing donor retention. This study examines whether perceived donation conditions (e.g., organization of the donation setting) and the perceived value of non-monetary recognition influence donation intention.

Aims

1. Assess the impact of perceived donation conditions on donor retention.
2. Evaluate the perceived value of non-monetary donor recognition and its role in long-term donor commitment.
3. Investigate determinants of donor loyalty beyond material incentives.

Methods

A quantitative study surveyed 1,008 blood donors (valid: 767, response rate: 76.1%) across multiple donation sites. Data collection was conducted between December 2023 and February 2024. The study applied a structured questionnaire assessing donor perceptions of organizational conditions, non-monetary recognition, and sustainability awareness.

Results

Findings suggest that long-term donor retention is primarily driven by perceived donation conditions rather than material incentives. While non-monetary donor recognition plays a role, its impact on repeat donation intentions is weaker than previously assumed:

1. Satisfaction with perceived donation conditions emerged as the strongest predictor of donor retention. A significant positive correlation was found between satisfaction with the donation process (e.g., organizational framework, scheduling, and accessibility) and repeat donation intentions ($r = 0.381$, $p < 0.001$).
2. The perceived value of non-monetary donor recognition (e.g., appreciation gifts) was positively associated with repeat donation intentions, but with a smaller effect size ($r = 0.220$, $p < 0.001$).
3. Regression analyses explained 21.8% of the variance in repeat donation likelihood ($R^2 = 0.218$, $p < 0.001$). Key predictors:

- Organizational conditions ($B = 0.266$, $p < 0.001$) had the strongest positive impact
- Sustainability awareness ($B = 0.075$, $p = 0.015$) showed a modest impact, indicating that donors with a sustainability mindset may be more likely to continue donating when aligned with ethical donor engagement strategies.
- Unexpectedly, donors preferring fewer but higher-value gifts showed lower repeat donation intentions ($B = -0.090$, $p = 0.017$). This counterintuitive finding, consistent with the Shifting Motivation Hypothesis, suggests that material-focused recognition may weaken intrinsic donor motivation by shifting the perception of donation as an altruistic act to a transactional exchange, reducing long-term commitment.

4. Kruskal-Wallis tests revealed no significant differences between first-time and experienced donors ($\chi^2 = 2.48$, $p = 0.115$) or gender ($\chi^2 = 1.92$, $p = 0.167$) in recognition perception. This indicates that donor appreciation is perceived similarly across demographic groups, reinforcing the universal importance of structural donation conditions over tailored incentive models.

Conclusion

This study provides empirical evidence that sustainable donor retention fundamentally depends on a well-managed donation experience. While non-monetary recognition strategies play a supporting role, donor commitment is primarily driven by organizational excellence, and alignment with sustainability-oriented donor values.

Saving Lives During Working Hours – A Sustainable Approach to Expanding the Blood Donor Pool

Cecilia Jutell

Background

A stable and diverse blood donor pool is essential for a safe and sufficient blood supply. However, recruiting and retaining donors - especially young males - remains a challenge. The most common barriers are lack of time and forgetfulness to donate (Öhrner C, Kvist M, Blom Wiberg K, Diedrich B. Why do young men lapse from blood donation? Vox Sang 2019;114(6):566-575). Addressing these two issues is key to building a resilient and sustainable donor pool.

Aims

Save Lives During Working Hours removes logistical barriers by encouraging employers to support blood donation during work hours. By integrating donation into the workday and bringing mobile units closer to workplaces, donation becomes routine and socially reinforced. This ensures a steady blood supply and strengthens long-term donor engagement.

Methods

- Employer Engagement - Encouraging policies that allow employees to donate during work hours, positioning donation as a core part of corporate social responsibility (CSR).
- On-Site Access - Deploying mobile blood collection units near workplaces for convenience.

Social Incentives - Fostering a culture of donation by emphasizing the social aspects- colleagues donating together strengthens commitment and normalizes the practice.

- Targeting Young Male Donors – Workplace campaigns effectively engage this group, fostering lifelong donor habits. We intentionally place our mobile units close to workplaces with high numbers of young men, for example tech companies and construction industry.
- Employer Reminders - When workplaces remind employees about donation opportunities and provide flexibility, the main barriers- lack of time and forgetfulness- are eliminated.
- Social Events - Employers promote blood donation through initiatives like “Breakfast at the Blood Donation Center”, an engaging way to attract donors during off-peak hours.
- Long-Term Loyalty - Using a CRM system, we engage with workplaces through newsletters and calls. We also highlight the workplace’s commitment on social media. This helps to keep their engagement alive.
- Leveraging Social Media - Platforms like LinkedIn help raise awareness. Companies that join Save Lives During Working Hours showcase their involvement, reinforcing blood donation as a CSR initiative.

This organic storytelling inspires other organizations and normalizes workplace blood donation.

- Donor Portal - The “My Blood Donation” service allows donors to track personal statistics and register their employer, fostering engagement through light gamification and recognition of both personal and workplace contributions.

Results

Workplaces implementing this initiative foster long-term donor loyalty. Employees report higher motivation when donation is convenient, social, and employer-supported. Companies enhance their CSR profiles, contribute to public health, and improve emergency preparedness. Increased social media engagement has further inspired participation. Currently, almost 1, 100 employers in Sweden offer blood donation as an employee benefit, with numbers steadily increasing, highlighting the growing awareness of blood donation in society.

Conclusion

Save Lives During Working Hours is a scalable and effective model for expanding the donor pool. By aligning with sustainability goals, this initiative fosters long-term donor commitment, strengthens crisis preparedness, and enhances corporate responsibility. Through employer engagement, improved accessibility, social incentives, and digital storytelling, we aim to inspire similar initiatives globally, ensuring a sustainable and reliable blood supply.

ECDHM

6th European Conference on Donor Health and Management

Presentation Program
Thursday September 11th

10:30

Oral session Donor health:

Improving Iron Management in Blood Donors

Room 140

10.30	FinDonor - study in retrospect: a decade of improving iron balance of blood donors	Johanna Castrén
10:45	Daily and seasonal variation in haemoglobin and ferritin levels of Dutch blood donors across sex and age groups	Sophie Wehrens
11:00	Impact of ferritin-guided donation interval policies in the Netherlands and France	Jean-Baptiste Thibert
11:15	Validation of a tool to recognise heavy menstrual bleeding in female blood and plasma donors	Su Someh
11:30	Preventing iron deficiency in whole-blood donors by ferritin prediction model guided donation frequencies	Mart Pothast
11:45	Comparison of haemoglobin estimation by HemoCue® 301 to Sysmex XN in pre-donation Hb assessment to help manage Hb deferrals	Ibrahim Magzoub

10:30

Oral session Donor Management:

From Deferred to Devoted: Creative Journeys to Donor Loyalty

Hoge Duin Zaal

10.30	Your Impact Wrapped: How End-of-Year Impact Recaps and Goal-Setting Influence Donor Retention.	Stephan Fally
10:45	“The ‘We care about you’ vibe was the best part”: Creating an intervention to retain temporarily deferred donors at one US blood collection organization	Shana Hughes
11:00	From pixels to purpose: augmented reality as a game-changer for blood donation in catalonia	Pilar Córdoba
11:15	Campaign Case Study & Lessons Learned: Revitalizing a International Plasma Awareness Week	Ilana Ostrin
11:30	Cultivating Donor Growth: Strategies for Expanding the Dutch Plasma Donor Pool	Raquel das Dores Cruz & Evi van Bon
11:45	Strategies to Motivate Blood Donor Recruitment in Short-term and Long-term Crisis Situations	Inna Vilshanivska

12:30

Posterwalk & -pitches Donor Health:

Managing Donor Programs and Health Data

Hoge Duin Zaal

Assessing the Touchpoints of the Donor Medicine Team Within NHS Blood and Transplant to Help Improve All Aspects of the Donor Journey	Andrew Fletcher
Trends in Plasma Donors and Donations in the Netherlands 2015–2024	Femmeke Prinsze
Integrated Risk Management: Purpose of Establishing a Quality, Risk & Compliance Department	Cindy Menzen
Estimating the Impact of a Donation Frequency Policy for New Whole-Blood Donors	Mart Pothast
Blood Donors' Experiences on Receiving Genetic Risk Information from Biobank	Elina Koskinen
Expanding Genomic Sequencing in a Blood Donation Context: What Do Donors Think?	Jennie Haw
Nutritional Awareness and Sustainability in Blood Donation: Promoting Donor Health and Satisfaction	Melissa Völter
Nutritional Awareness and Sustainability in Blood Donation: Optimising Post-Donation Refreshment to Meet Donor and Staff Needs	Klara Greffin
The Scottish Way - Collection Foot Print Strategy	Andrew Reid

12:30

Posterwalk & -pitches Donor Management:

Innovation & Ethics in Blood Collection

Panoramazaal

Digital Transformation of the Blood Service: Innovative App by the Blood Service	J. Siikonen Anne Lind
Digital Strategies for Blood Donor Engagement: Maximizing Impact and Efficiency	Pilar Córdoba
Evaluating the Usage of a Blood Donation App for Digitalization and Donor Communication	Dieter Forsthuber
Engaging the Next Generation Through 'Operation Aorta' in Minecraft	Marloes Metaal
Internationalization of the Blood Collection Process: Multilingual Approval, Acceptance, and Query Processes	Alexandra Mayrhofer
Evaluating a 'Time Off Work' Incentive for Blood Service Employees Donating Outside of Work Hours	Kathleen Chell
Guiding Donor Principles	Monique Wigman
Knowledge of Plasma in Background Population	Laura Ostergaard
Can Blood Donors Be Considered as Natural Donors for Others' SoHO? The Hidden Side of Common Ethical Pillars	Jean-Baptiste Thibert
Transfusionist-Led Innovations: Balancing Global Disparities in Plasma Donation, Remuneration, and Quality Standards	Jean-Baptiste Thibert

13:30

Special session 1

Room 130

Creating meeting points for dialogue between science, art and stakeholders in blood and plasma donation	Louisanne van Hooff

13:30

Special session 2

Hoge Duin Zaal

Sustainable Volunteer Management in Blood Donation Services	Lena Kunz

13:30

Special session 3

Room 140

Transitioning from family replacement and (hidden) paid donations to 100% VNRDB - experiences in four different countries	Martin Smid

15:30

All Workshops

Workshop 1: IPFA	15:30		Room 160
The plasma journey - Understanding the dynamics that link the demand for plasma to secure PDMP supply			
Workshop 2: Hackathon	Walk-in		Room 140
Judita Rudokaité Paula Gal Alexandra Ciausescu Pilar Cordoba Tejero Data Science Students		Lisanne Huis in 't Veld & Lucas Jansen	
Workshop 3: Lamboo			Reception
Pendel in groups - start at the reception	15.30	Group 1	Heliomare
	16:05	Group 2	Heliomare
	16:40	Group 3	Heliomare
	17:15	Group 4	Heliomare
Workshop 4: Sponsordemos			Panoramazaal
Walk-in			

FinDonor - study in retrospect: a decade of improving iron balance of blood donors

Johanna Castrén, Mikko Arvas

Background
FinDonor study was started by Finnish Red Cross Blood Service (FRCBS) in 2015 to evaluate donor health of Finnish blood donors with focus on donor hemoglobin (Hb) and iron deficiency (ID). Critically, we found that ~21% of Finnish premenopausal blood donors at that time had low iron stores (ferritin < 15 ng/ml).

Aims
In response to this FRCBS made changes on general donor education and donation interval recommendations (only once per year) and post donation iron supplementation (doubled dose - 40 tablets of 50 mg iron) for the highest ID donor group (women 18-25 years). In this study we summarize the impact of the FinDonor study on donor health.

Methods
Impact was assessed by reviewing literature, operational records and donation behaviour of FinDonor participants in subsequent 5 years after FinDonor enrollment.

Results
Low Hb deferrals in Finnish 18-25-year-old women dropped from 10% in 2015, before FinDonor study, to 3% in 2023. Recent four country comparison of different donor iron management strategies based on data from 2021 suggested that low Hb deferral rates in Finnish pre-menopausal women were the lowest in the comparison. Modelling of Finnish and Dutch general population and regular blood donor population ferritin measurements suggested, that among premenopausal women of these four populations, Finnish regular blood donors had the lowest prevalence of ID. This result is likely caused by FRCBS iron supplement policy.
In FinDonor enrollment data we found no association between self-estimated health and ferritin levels. To explore if ferritin at enrollment donation of FinDonor affected subsequent donation behavior we counted whole blood donations in the following five years. Median annual count of donations was 0.8 for premenopausal, 1.6 for post-menopausal and 1.8 for men, including the 4 % of donors with no donations after enrollment. We found a negative correlation between enrollment ferritin and count of following blood donations among men (-0.3 - -0.2 95 % CI) and postmenopausal women (-0.3 - -0.1 95 % CI) and no correlation among pre-menopausal women. Meaning that the lower a person's ferritin in enrollment was, the more they donated afterwards. Donation activity is the most important factor explaining ferritin variation in FinDonor enrollment data, which explains this seemingly paradoxical result.

Conclusion
Analysis of FinDonor study a decade after initiation shows decreased proportion of deferred pre-menopausal female donors due to too low Hb. This result cannot be solely attributed to changes in donation interval recommendations and iron supplement policies. Increased awareness of iron stores within FRCBS and Finnish society likely contributed also. However, the relationship between enrollment ferritin levels and subsequent donation activity highlights the complexity of using ferritin in routine blood service operations, likely due to variability in individual iron metabolism. Based on FinDonor long-term results we argue that targeted post donation iron supplementation, donation interval recommendations, and general donor education on risks of ID can have a positive impact on donor health without implementing ferritin testing schemes to donation protocols.

Daily and seasonal variation in haemoglobin and ferritin levels of Dutch blood donors across sex and age groups

Sophie Wehrens, Amber Meulenbeld, Mart Pothast, Femmeke J. Prinsze, Mart Janssen, Katja van den Hurk, Orestis Kopsacheilis, Lois Kim, Hongchao Qi, Emanuele Di Angelantonio, Angela Wood, Barbara Masser & Eamonn Ferguson

Background
Haemoglobin (Hb) and, more recently, ferritin are used to assess donor eligibility worldwide. Concentrations in blood, however, do not only vary between but also within individuals, for example depending on time of year or day. This variation is often not considered in clinical practice but may be of relevance particularly for those individuals whose Hb/ferritin levels are around the deferral cut-off. One explanation for daily variation may be that many processes in the body show intrinsic circadian rhythms.

Aims
The aim of the current study was to further characterise the Hb and ferritin variation across the day and year in a large nationwide sample of Dutch male and female blood donors and to assess whether this pattern differs by age.

Methods
We included 397,074 capillary Hb (cHb) and 229,397 plasma ferritin measurements, collected at the new donor examination at Sanquin between 8:00h and 21:00h, in donors 18-76 years of age. Ferritin was log-transformed. Cosinor rhythms with periods of 24 hours and 12 months were fitted to the data for males and females separately. Peak time, mesor and amplitude were determined. Both groups were also separated in individuals under and above 60 years of age, as a tipping point for haematological and circadian change as well as females below and over 45 years, as a proxy for the onset of menopause.

Results
A clear 24h cosinor rhythm in cHb levels of blood donors was observed with an estimated peak time around 10:30h. The daily amplitude was significantly larger for males (95% CI 0.116-0.126 mmol/L) than for females (95% CI 0.084-0.092 mmol/L), but females above 45 years of age had an amplitude more similar to males (95% CI 0.099-0.113 mmol/L). No significant differences in the peak times were observed between sexes or age groups. This daily rhythm in Hb was preserved when data were stratified by month and levels were on average higher in winter (peak month December) than in summer. The yearly amplitude was larger in males (95% CI 0.032-0.041 mmol/L) than in females (95% CI 0.017-0.022 mmol/L). Furthermore, plasma ferritin levels in donors showed variations across the day and year. Although no evident 24h or yearly rhythm was observed as for cHb, ferritin levels also increased in autumn/winter.

Conclusion
We observed a clear daily and yearly rhythm in Hb, but not ferritin levels, with larger amplitudes in male than in female Dutch blood donors and in post- than in premenopausal females. Age and sex did not significantly affect cHb peak times. Due to the observational nature of these data we cannot derive conclusions about underlying mechanisms. In addition, rhythm parameters, e.g. period, are based on assumptions and different parameters may fit the daily variation better, especially for ferritin. These analyses will provide deeper insight into the interpretation of cHb and ferritin measurements at blood banks and may fuel further research into underlying mechanisms.

Impact of ferritin-guided donation interval policies in the Netherlands and France

Jean-Baptiste Thibert, Lucile Malard, Amber Meulenbeld, Elodie Pouchol, Mart Janssen, Syria Laperche & Katja van den Hurk

Background

Many blood establishments have hemoglobin (Hb) measurement policies to prevent anemia in blood donors. However, despite evidence of iron deficiency (ID) in donors with normal Hb levels, only few blood establishments have implemented iron management strategies. Recently, both The Netherlands (NL) and France implemented ferritin-guided donation interval policies, albeit in different ways.

Baseline data of the FIND'EM study in NL and FERRIDON study in France show that, before these policies, prevalence of ID was similar for women in NL and France (24.2% vs 20.5%) whereas prevalence was much higher among men in NL than in France (25.0% vs 7.0%). Regarding anemia, prevalence in France was higher than in NL for women (12.2% vs 6.5%) and for men (4.4% vs 3.1%).

Aims

To study the impact of ferritin-guided donation interval policies in NL and France on iron outcomes and donor return.

Methods

In NL, ferritin is measured at the first donation and every 5th donation (Meulenbeld 2024), whereas in France, ferritin is measured for every donor belonging to one of four pre-defined at-risk groups based on gender, age, donation interval, previous Hb and MCH (Fillet 2021). Donors with ferritin <15 ng/mL are deferred for 12 months in NL and 6 months in France, and those with low ferritin (15-30 ng/mL) are deferred for 6 months only in NL. All whole blood donations in a set period before and after implementation were included and mean Hb levels was assessed, ID rate after implementation, post-deferral return rates and ferritin levels.

Results

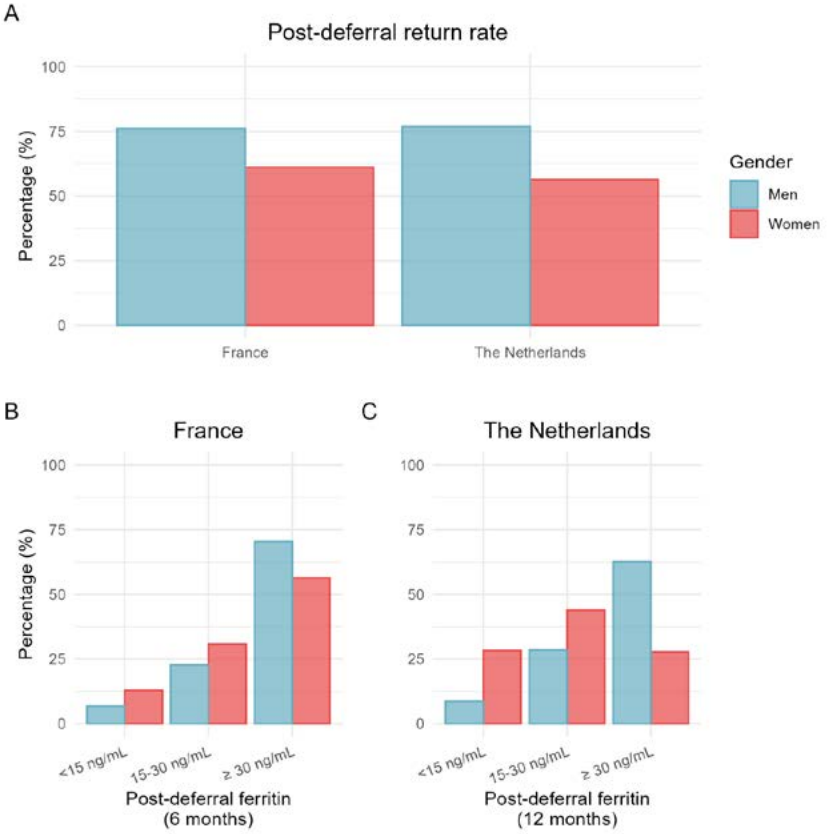
Despite differences in prevention strategies, similar proportions of ID were detected after implementation: 4.4% in NL and 4.2% in France among women and 1.3% in NL and 0.8% in France among men. The mean Hb level increased by 0.09 g/dL in NL and 0.16 g/dL in France among women and 0.16 g/dL in NL and 0.15 g/dL in France among men after implementation.

Although the deferral period was twice as long in NL, post-deferral return percentages were similar in the two countries (Figure1A). Postdeferral ID rates were substantially higher in NL, especially for women (Figure1BC). The proportion of donors with postdeferral ferritin ≥ 30 ng/mL was substantially higher in France than in NL (Figure[1BC]).

Conclusion

Although different policies were implemented in NL and in France, similar proportions of ID and improvements in mean Hb were detected. However, the risk-group-based strategy adopted in France does not allow us to identify donors with ID outside the risk groups, unlike the Dutch strategy. Given the longer deferral period, the higher rate of post-deferral ID in NL is unexpected and requires further investigation. Moreover, due to lacking standardization of ferritin measurements, these comparisons need to be cautiously interpreted. Given these results, NL and France might further improve their policies to promote a sustainable blood supply, by balancing donor health protection and availability.

Figure [1AB]: Comparison of post-deferral return rates (A) and post-deferral ferritin levels in France (B) and The Netherlands (C) after implementation of ferritin-guided donation intervals



Validation of a tool to recognise heavy menstrual bleeding in female blood and plasma donors

Su Someh, Suzanne List, Yara Dixon & Katja van den Hurk

Background

Premenopausal female blood and plasma donors are at an increased risk of iron deficiency anemia due to the combined impact of menstrual blood loss and regular donations. Especially adolescents are at risk, as the prevalence of heavy menstrual bleeding (HMB) is approximated at 40% in this group. In the large majority of blood and plasma collection practices, the menstrual cycle and menstruation severity of female donors is not taken into account, even though haemoglobin and ferritin levels are known to be lower in premenopausal women, especially during the menstruation phase. Furthermore, our Donor InSight data has shown Hb and ferritin levels to be significantly lower with higher amounts of blood lost per menstruation. This was assessed using the validated pictorial blood assessment chart (PBAC), which is reliable, but cumbersome and lengthy. For every day of the menstruation, each used menstrual product needs to be counted and scored on saturation level (light/moderate/heavy). Therefore, the PBAC is not suitable for blood and plasma collection services, as the PBAC is completed during a menstrual cycle and donor health checks should be kept brief and efficient. A new questionnaire, the HMB symptom-checker, is a concise and user-friendly tool, which might recognise HMB in six brief questions and could therefore be more suitable for blood and plasma collection practices.

Aims

We compared two methods to recognise HMB in female blood and plasma donors, aiming to determine the validity and reliability of the HMB symptom-checker in comparison to the validated PBAC method.

Methods

On March 13, online questionnaires were distributed by email to Dutch female blood and plasma donors aged between 18 and 50 years old. The first questionnaire asked about their age, use of contraception, iron intake, last recorded Hb value, self-reported menstruation severity and duration, expected date of their next menstruation, and the HMB symptom-checker. Before the expected start of their menstruation, donors received the second questionnaire, the PBAC, per email. Data from the PBAC will be used to assess sensitivity and specificity and to perform ROC analysis for the new method.

Preliminary Results

Preliminary results on the first questionnaire with 1227 responses indicate that women self-reported to menstruate lightly (20%), moderately (58%) or heavily (22%). In the HMB symptom-checker 60% of the women selected at least one item, the distribution per item is shown in Table [1].

Conclusion

In September, we expect to report on the validity and reliability of the HMB symptom-checker compared to the PBAC, specifically in terms of sensitivity, specificity and AUC. These results will provide insights into the prevalence of HMB in our donor population and into the potential of improving blood and plasma collection practices by taking the menstrual cycle and menstruation severity into account. A next step would be to assess the added value of asking female menstruating donors to complete the short HMB symptom-checker to help recognise HMB and adapt their donation frequency accordingly in order to protect their health and improve donor retention. improve their policies to promote a sustainable blood supply, by balancing donor health protection and availability.

Figure [1AB]: HMB symptom-checker item selection frequency by 1227 respondents [preliminary data]

HMB symptom-checker items	Selection frequency (N = 1227)
Menstruation longer than 7 days	130 (11%)
Changing pads or tampons every 2 hours or more often	304 (26%)
Losing blood clots the size of a €1 euro coin	321 (27%)
Frequent leakage	305 (26%)
Feeling lethargic, dizzy and/or pale	445 (37%)
Unable to go to school, work, sports, friends	143 (12%)

Preventing iron deficiency in whole-blood donors by ferritin prediction model guided donation frequencies

Mart Pothast, Yared Paalvast & Mart P. Janssen

Background
In the Netherlands, ferritin levels in whole-blood donors are measured at every fifth donation. It was shown that deferring donors with ferritin levels below 30 ng/mL for 6 months and below 15 ng/mL for 12 months, reduces on-site hemoglobin (Hb) deferral and decreases the prevalence of iron-deficiency. In our earlier publication (Paalvast et al. 2022) it was already established that the reduction of ferritin levels after blood donation can be predicted from a donor's ferritin level before any donation. These predictions of ferritin levels can be used to derive individualized donation frequencies that will prevent donors from becoming iron deficient and therefore prevent future deferrals.

Aims
To update and improve the previous ferritin level predictions and to establish a proactive strategy that uses predicted ferritin levels for new donors to derive initial donation frequencies.

Methods
The improved model consists of a set of differential equations that describe the loss and recovery of Hb and ferritin after blood donation. The input of the model is the donor's Hb and ferritin levels before any donation, the time between donations, the amount of blood lost at a donation and the donor's height and weight. The model is fitted using a hierarchical probabilistic framework that allows making predictions on both individual and population levels. Data from the FIND+ study (300 new donors with ferritin levels measured at every donation) was used to tune the model which was next validated on regular donation data from new blood donors starting from 2021 onwards.

Results
For the validation dataset, 72% of all ferritin predictions fall within the 95% confidence interval of the measurement variability. The performance is better for males (79%) than for females (69%). The currently allowed maximum donation frequency is larger in 49% of the donor population than the predicted donation frequency to keep donors' ferritin levels above 15 ng/mL. Predicted ferritin levels show that 14.2% (23.6%) of all successful donations in the validation dataset are made with ferritin levels below 15 ng/mL (30 ng/mL). These donations will be prevented if the individual donation frequencies are applied.

Conclusion
We propose to apply a maximum donation frequency for new donors that is derived from model predicted decline of ferritin levels after repeat whole-blood donations. This new policy should prevent donors from becoming iron deficient after subsequent blood donations. Such a proactive strategy will prevent donors that are likely to have low ferritin levels from donating and will reduce the need to defer donors for prolonged periods of time.

Comparison of haemoglobin estimation by HemoCue® 301 to Sysmex XN in pre-donation Hb assessment to help manage Hb deferrals

Ibrahim Magzoub, Nomusa Mashigo & Ellen McSweeney

Background

Blood establishments test donors' haemoglobin levels to avoid taking blood donations from donors at risk of becoming anaemic. Blood donor Hb testing and cut-off limits are defined in the 2004 EU Commission Directive.

The minimum Hb level is 12.5g/dL and 13.5g/dL for female donors & male donors respectively. Failing to meet the cut-off of this pre-donation Hb assessment invariably leads to a temporary deferral of potential donors.

The Irish Blood Transfusion Service introduced the HemoCue® 301 point-of-care in May 2022. This change led to a marked decrease in the Hb deferral rate, resulting in some changes in the testing algorithm after validation the new system against a haematology analyser. However, in July 2024 there was a notable increase in Hb deferrals, which called for an audit and eventual amendment of our pre-donation Hb testing system.

Aims

The initial validation in May-July 2022 was undertaken to confirm the correlation between the HemoCue® 301 and Sysmex XN analyser, thereby leading to less deferrals.

We undertook the audit in October-November 2024 to assess root cause analysis after noticing a sharp but steady increase in Hb deferrals from July 2024.

Methods

For both the validation and audit, donors with a capillary Hb level below the cut-off pre-donation requirement were progressed to a venous sample which was tested on the HemoCue® 301 and Sysmex XN. These venous sample results were compared to for correlation.

Results

In the 2022 validation, 1095 donors were below the cut-off requirement for donation, while in the 2024 audit 548 donors failed the capillary test and were thus progressed for venous sample assessment. For the 2022 audit, the mean venous HemoCue Hb was higher by 0.5-0.7g/dL, with ±79% of the donors passing the venous POC test but found to have a low Hb on FBC. Conversely, the results from the 2024 audit showed the mean difference was 0.15-0.27g/dL, with ±57% of donors who failed the venous POC test at the new higher cut-off having an Hb within acceptable range for donating on FBC.

Conclusion

In our initial validation in 2022, higher Hb readings for venous samples with the HemoCue® 301 resulted in a change of practice in our blood establishment, whereby the required venous Hb was increased to 13g/dL & 14g/dL for females and males respectively if donors did not meet capillary test. This increased the Hb deferral rate from 1.89% to 3.32%.

The 2024 audit findings encouraged our blood service to return our venous Hb cut-off levels to the original 12.5g/dL and 13g/dL for females and males respectively, decreasing our deferral rates from ±7% to 3.5%

Management of Hb deferrals by blood services is essential as these deferrals results in loss of time and cost for blood establishments, as well as possible loss of donors who may never return to donating even when the deferral time has lapsed.

Your Impact Wrapped: How End-of-Year Impact Recaps and Goal-Setting Influence Donor Retention

Stephan Fally, Pascal Güntürkün, Nils Wlömert & Martin Schreier

Background

Blood collection agencies aim to maintain a stable pool of regular donors. Our research introduces a novel approach to enhance donor retention: an end-of-year impact recap, which provides donors with a personalized summary of their donation activities in the past year. Inspired by "Spotify Wrapped", this strategy is gaining widespread popularity, including among charitable organizations such as the World Food Program. We also investigate whether suggesting specific donation goals for the upcoming year amplifies the recap's effectiveness. Our research extends work on immediate impact information (e.g., Shehu et al. 2024) by examining how end-of-period impact summaries and externally set goals influence short- and long-term donor behavior.

Aims

We study whether (1) a personalized end-of-year impact recap and (2) externally set donation goals affect blood donation behavior in the upcoming calendar year. Our focal target group includes donors who gave blood between 1 and 3 times in 2022 and had received impact information for all donations. We further explore individual differences in the effectiveness of the intervention.

Methods

We partnered with the Austrian Red Cross to test this intervention in a large-scale field experiment (N=14,145). We tested a 2x3 between-participants design as part of an e-mail campaign at the end of 2022. We manipulated (1) whether donors received a personalized impact recap (absent vs. present), and (2) whether and to what extent the charity nudged its donors towards achieving an individual donation goal for 2023 (no goal vs. maintenance goal [=come as often as in 2022] vs. attainment goal [come one more time than in 2022]). We tracked donations over one year after the treatment. Our main variables of interest are (1) days until the donor's first return to attempt to donate, (2) whether a donor returns to attempt to donate, and (3) the number of donation attempts.

Results

We find that providing donors with personalized impact recap significantly increased short-term retention rates in January by 2% ($p = .002$). However, overall retention rates and the number of donations in the year after the treatment did not significantly differ between conditions, suggesting temporal shifting of donations. These results are robust to different modeling strategies, model specifications, and the inclusion of control variables.

We are currently exploring whether this effect differs between donor groups and across donation goals to provide more nuanced recommendations on optimal "impact recap-goal"-combination for each individual donor.

Conclusion

Impact recaps at the end of a given time period (e.g., end of the year) seem to be an effective strategy to increase donor retention rates in the short term. This may be especially helpful in case of anticipated blood supply shortages, as it is regularly the case for blood collection agencies during flu or vacation season.

"The 'We care about you' vibe was the best part": Creating an intervention to retain temporarily deferred donors at one US blood collection organization

Shana Hughes, Suzanne M Joiner

Background
Only around 3% of the US population donates blood annually, making effective management of the donor pool essential if supply is to meet demand for blood. Though expanding and diversifying the donor pool should be urgently pursued, this may necessitate novel strategies or long-term engagement with communities. In the meantime, re-activating or maintaining donation practice among previous donors can more immediately support the blood supply. In particular, temporarily deferred donors who lapse after deferral represent an important but potentially avoidable loss to the donor pool. We report on an effort by a large US blood collection organization (BCO) to retain such donors.

Aims
The overarching research objective is to determine whether timely BCO outreach to donors in the wake of a temporary deferral reduces the deterrent effect of that deferral on future donations. Subsidiary aims include: 1) Exploring temporarily deferred donors' experiences and perceptions of deferral, and preferences regarding post-deferral BCO messaging; 2) Synthesizing formative data, social theory, and organizational marketing expertise to create an intervention for temporarily deferred donors in our BCO; 3) Implementing and documenting the intervention's impact.

Methods
This pilot study, grounded in the Critical Ecological Model of Blood Donation and Behavior (CEM), includes three phases: formative, translational, and deployment/testing. This abstract focuses on the first two phases. Formative data are gathered through group discussions with donors who recently experienced temporary deferral; groups are stratified by donor career stage ("newer" vs. "seasoned"), and relative age ("younger" vs. "older"). Purposive sampling creates a diverse sample in terms of deferral reason, US state of residence, gender and race/ethnicity. Discussions are held online, video recorded and transcribed by Microsoft Teams. Framework analysis (to rapidly extract donor messaging preferences) and more in-depth interpretive thematic analysis are conducted. In the translational phase, comparing rapid qualitative findings with the CEM and implementation science frameworks (e.g., Behavior Change Wheel) produces revised intervention content and recommendations that become the new basis for collaboration by team members.

Findings
Our cross-functional team has now (March 2025) completed two of the three study phases. Fourteen discussion groups (see Table[1] for participant characteristics) produced donor feedback on four post-deferral message prototypes. Reception varied, but younger and newer donors tended to gravitate toward peer-based, rather than clinical/informational messages. Participants were skeptical of "one size fits all" messaging. We report, and consider the basis for, donors' strongly negative and split reactions to several specific elements in the messaging, as well as components built into the prototypes from theory (e.g., relationships, meaning) and the literature (e.g., offering prosocial alternatives to donation). Operationally-based insights were crucial to prototype acceptability. Through multiple iterations, the team incorporated donor preferences to produce a final version of intervention content, ready for deployment.

Conclusion
By attending to both scientific and practical/operational aspects, our team has designed a tailored, data-informed, theory-based intervention that aims to retain deferred donors. Deployment over the next year will produce quantitative data on impact.

Table [1]: Characteristics of participants in online group discussions

Group by Donor Type	# PPTS (# Groups)	Gender (F / M)	Geographic Region	Deferral Reasons
Newer Younger (NYD)	8 (4)	F 5 / M 3	West (4), Mountain (3), Northeast (1)	Low hemoglobin (3), Blood pressure (2), Pulse (3)
Newer Older (NOD)	7 (2)	F 3 / M 4	Southwest (3), West (2), Mountain (2), South (1),	Blood pressure (2), Pregnancy (1), Low hemoglobin (1), Propecia (1), Timing after last donation (1), Unsuccessful Draw (1)
Seasoned Younger (SYD)	6 (4)	F 4 / M 2	West (3), SW (1), South (1), Northeast (1)	Vaccination (1), Low hemoglobin (3), Blood pressure (2)
Seasoned Older (SOD)	11 (4)	F 4 / M 7	Southwest (4), West (2), Mountain (2), South (1), Northeast (1),	Low hemoglobin (3), Blood pressure (2), Timing after last donation (2), Pulse (1), Cancer (1), HBsAG Reactive (1), Travel (1)
Total	**32 (14)**	**F 16 / M 16**	**Top 3: W (11); SW (8); MT (7)**	**Top 3: Low Hb; BP; Pulse**

From pixels to purpose: augmented reality as a game-changer for blood donation in Catalonia

Pilar Córdoba, Sara Vallés, Laura González, Joan Ramon Grifol & Anna Millan

Introduction

January is a critical period for blood donation, marked by a significant decline in donor participation. In an era of information overload, capturing public attention and fostering a sense of community has become increasingly challenging. To address this issue, an innovative campaign was developed, integrating technology and cultural symbols to create a lasting impact and encourage sustained participation in blood donation efforts.

Objectives

The primary goal of this initiative was to redefine blood donation as a collective responsibility rather than an individual act. By incorporating augmented reality (AR), the campaign aimed to strengthen donors' sense of belonging and commitment, merging cultural heritage with modern technology to enhance engagement. Additionally, it sought to demonstrate how digital innovation can drive real-world action, surpassing the limitations of traditional communication methods.

Methodology

The campaign was built around the concept of unity, under the slogan "Together, we make a difference." At its core was an interactive augmented reality installation that evolved with each blood donation, visually constructing a human tower a powerful symbol of Catalan culture. This dynamic representation emphasized the collective strength behind every individual contribution. To maximize its reach, the experience was designed to be accessible via mobile devices and strategically placed in high-traffic locations across Catalonia. A comprehensive multichannel communication strategy was implemented. The project was integrated into the blood donation appointment website to centralize engagement. Street marketing activations were carried out, featuring AR-enabled totems in key public areas. Direct outreach was conducted through newsletters targeting registered donors. A structured social media strategy encouraged peer-to-peer sharing and community involvement. Media partnerships amplified awareness of the initiative, while collaboration with associations aligned with the project's values helped spread the message, positioning them as communication ambassadors.

Results

The initiative was well received, with municipalities actively supporting the project and facilitating its deployment in Catalonia's four major cities. The campaign led to a 56% increase in social media interactions, with engagement rates rising from 4.4 to 6.9. Blood donations increased by 30% compared to an average week during the campaign's active promotion. Additionally, the human tower metaphor strengthened the emotional connection of participants, reinforcing their sense of belonging and cultural identity.

Conclusions

Augmented reality proved to be a powerful tool for fostering an omnichannel conversation around blood donation. By visually demonstrating the collective impact of individual contributions, AR reinforced a culture of collaboration and shared responsibility. Moreover, this initiative positioned our organization as an innovative and donor-centric one, leveraging technology to enhance the donation experience and strengthen community ties. Beyond its immediate success in boosting participation, the campaign underscored the potential of digital strategies in building long-term donor commitment. The integration of cultural heritage with modern technology created a unique and memorable experience that resonated deeply with the public, increasing both emotional engagement and participation rates. This initiative demonstrated an embracing innovation and cultural relevance, blood donation efforts can transcend traditional limitations and creates a lasting impact beyond the campaign period.

Campaign Case Study & Lessons Learned: Revitalizing a International Plasma Awareness Week

Ilana Ostrin, Rachel Liebe

Background

Each October, International Plasma Awareness Week (IPAW) is a global initiative aimed at raising awareness about the critical role of plasma donation in saving lives. The campaign, spearheaded by the Plasma Protein Therapeutics Association (PPTA), has traditionally focused on educational outreach through media, social platforms, and community engagement. However, for over the past decade, the campaign featured dated graphics and visuals, and a copy/paste approach each year, without much re-envisioning for new audiences and current communications strategies and needs. In 2024, the PPTA team and members recognized there was an opportunity to enhance the IPAW campaign and its reach and effectiveness by revising and expanding the existing strategy.

Aims

The primary aim of the revised IPAW campaign was to boost its visibility and engagement by leveraging a new, more modern look, as well as a new comprehensive, multi-platform media and digital strategy. Key objectives included increasing broadcast media coverage, enhancing and expanding web presence, amplifying and broadening social media interaction, and reaching new audiences, particularly college campuses and students.

Methods

National and regional media broadcasts were expanded to include television and radio. Digitally, a new website, www.plasmaweek.org, was launched as the central hub for the campaign, offering resources including educational materials and downloadable and customizable assets for audiences around the world. Social media efforts were intensified with a calculated and strategic social media campaign, with PPTA, its members, and patient group partners actively engaging during the campaign using the hashtag #IPAW2024. Additionally, targeted paid social ads and microsite features, such as targeted pop-ups and designated content paths were employed to drive interaction and clicks, while targeted outreach on college campuses sought to engage student demographics.

Results

The revised IPAW campaign saw growth across all areas of media and digital engagement. The total media outreach for IPAW 2024 reached a global audience of 3.945 million, including TV, radio, online platforms, and media coverage expanded by over 43%, reaching an audience of 1,072,329 in 2024, compared to 748,500 in 2023. Television and radio broadcasts increased from 13 in 2023 to 40 in 2024. Web traffic to www.plasmaweek.org resulted in over 4,000 visitors and an average stay of 1.5 minutes per user. Social media efforts led to a 18582% increase in organic impressions, a 174% rise in engagement, and a 73% growth in new followers across PPTA's platforms. Paid social ads resulted in an 186% increase in clicks. Lastly, media outreach to college campuses alone resulted in 1,000 clicks to the microsite.

Summary/Conclusion

The revised and improved IPAW 2024 campaign achieved substantial increases in media reach, digital engagement, and social media interaction. Further research is needed to understand any correlations between the increases in IPAW engagements and any increases in plasma donation. The campaign's ability to engage diverse audiences, particularly younger individuals through targeted college campus outreach, represents a successful foundation for future campaigns, with the goal of increasing plasma donations globally.

Cultivating Donor Growth: Strategies for Expanding the Dutch Plasma Donor Pool

Raquel das Dores Cruz & Evi van Bon

Background

Sanquin, the Dutch organization responsible for blood supply, currently maintains two separate donor pools: one for whole blood and one for blood plasma. Historically, Sanquin's primary focus has been on whole blood, which shaped all internal processes to prioritize whole blood collection and donor pool cultivation. This focus on whole blood resulted in various constraints that make realizing a universal donor pool on the short term difficult. However, on the long term a universal donor pool is still preferred. Meanwhile, the local demand for plasma-based medicine continues to grow and requires action now. Therefore, Sanquin has specifically focused on expanding the plasma donor pool and to increase the number of plasma donations. This effort is driven by the underlying goal of sustainably increasing the level of self-sufficiency in plasma-based medicine in the Netherlands.

Aims

This presentation aims to share effective best practices in expanding the plasma donor pool without negatively impacting the whole blood pool. Specifically, it will discuss five implemented practices in the Netherlands. For each practice the deployment strategy, challenges faced and solutions, and key outcomes (including practical data) will be discussed. This presentation offers valuable information that can help other blood banks strategize to expand their own (plasma) donor pool and, in turn, sustainably increase their self-sufficiency.

Methods

1. Recruiting current whole blood donors: Informing donors about plasma and subsequently encouraging them to switch from the whole blood donor pool to the plasma donor pool. Donors are selected based on blood type and registered donation location.
2. Presenting new donors with a choice early on: Asking suitable new donors at the beginning of their donor journey to become plasma donors instead of starting as a whole blood donor and later switching to plasma.
3. Re-enlisting lapsed whole blood donors: Asking suitable lapsed donors to become plasma donors instead of reintegrating as whole blood donors.
4. Discover plasma initiative: Inviting current whole blood donors to try a plasma donation when they visit the location for a whole blood donation. When donors are asked, they are informed about the need for plasma and the changes in the process compared to whole blood. Afterwards, they are given appropriate information to encourage them to switch to the plasma donor pool.
5. Cultivating a plasma-focused culture: Promoting awareness and importance of plasma both within and outside the organization. This results in more donors being interested in joining the plasma donor pool, as well as employees better understanding and being able to explain the need for plasma donations.

Results & conclusion

Sanquin observed a significant increase of 22.9% in our plasma donor pool in 2024, while the whole blood donor pool only minimally decreased with 2.7%. Additionally, plasma has become a top priority within the organization's culture, as evidenced by increased plasma awareness and a greater willingness to increase the plasma donations among employees. Consequently, the discussed practices have gained more traction and are more effective even now.

Strategies to Motivate Blood Donor Recruitment in Short-term and Long-term Crisis Situations

Inna Vilshanivska, Olena Nesterenko & Peretiatko Dmytro

Background

The ongoing Russian-Ukrainian war has underscored the critical need for a sustainable and dependable blood supply system during extended wartime. The war has significantly impacted donors and the blood supply in Ukraine. Since the beginning of the conflict, the number of donors has increased, but constant shelling and evacuation of the population create difficulties with logistics and blood storage. According to the Ministry of Health of Ukraine, in the first months of the full-scale invasion, the number of blood donors surged by approximately 40%, demonstrating the population's solidarity. However, ongoing attacks on infrastructure and mass evacuations continue to disrupt blood donation efforts. The Ministry of Health's national campaign with the motto "Your Blood Can Fight" is a powerful example of how patriotic messaging can be used to motivate donation during emergencies but the dramatic impact of war highlights the vital need for alternative strategies for blood donor recruitment. However, due to national security requirements, access to information on blood supplies and logistics is limited. As such, we reviewed international best practices to develop effective strategies for recruiting and retaining donors in times of crisis.

Objective

This study aims to evaluate international practices alongside national initiatives in Ukraine, including the "Strategy for the Development of Voluntary Unpaid Blood Donation by 2028", to identify optimal approaches for donor recruitment and retention, and ensuring a consistent blood supply during prolonged emergencies, such as war.

Methods

The research methodology involves a comprehensive review of the literature on donor behavior during crises/disasters: natural disasters, the COVID-19 pandemic, armed conflicts, or wartime. For peer-reviewed articles, a systematic literature search was conducted in March 2025 in PubMed (MEDLINE), Web of Science, ResearchGate, Scopus, Embase, and Wiley Online Library databases. The search strategy included terms such as "donor behavior," "crisis," "disaster," "pandemic," "war," "blood donation," and "motivation." A reverse search of citations of relevant review articles was also conducted. A total of 114 articles were reviewed that assessed blood donor behavior during crisis situations. Of these, 50 articles met the inclusion criteria: disaster, interventions, outcomes of interventions, and donor motivation. These 50 articles were analyzed using thematic analysis to identify key donor engagement strategies.

Results

The analysis identified these four strategies as crucial for enhancing donor engagement effectiveness:

- Targeted Campaigns: Initiatives like “Your Blood Can Fight,” which invoke a patriotic sentiment to motivate participation.
- Community Trust: Partnering with local organizations promotes a consistent donor base.
- Flexible Logistics: Employing mobile collection units and offering extended donation hours proved to mitigate logistical challenges.
- Long-term Motivation: Recognition programs for donors sustain participation even after crises have passed.

Conclusion

The Russian-Ukrainian war underscores the necessity for adaptable and diverse strategies to maintain a reliable blood supply during crises. Integrating global insights with national frameworks, like the “Strategy for the Development of Voluntary Unpaid Blood Donation ” can greatly enhance donor engagement efforts. These initiatives are relevant for other nations facing similar challenges, highlighting the significance of flexible, sustainable, and community-focused solutions.are more effective even now.

Special Session 1

Creating meeting points for dialogue between science, art, and stakeholders in blood and plasma donation

Motivation & summary: In this special session we focus on how we as researchers produce and disseminate scientific knowledge on the topic of blood and plasma donation, and why a change in the way we do this is needed to increase sustainability in donation awareness, motivation, availability and access to all needed blood products for patients.

Research on donation of blood and blood products mainly exists within academic circles, creating a distance between researchers, various stakeholders and the public. Science communication traditionally follows a top-down model with experts transferring findings and knowledge to a passive audience, reinforcing a structural divide between academia stakeholders, and society at large. This existing structure carries the risk of neglecting and excluding valuable insights and experiences from donors, patients, and other stakeholders, affecting the applicability of scientific findings for blood and plasma donation practice.

We propose a shift in the culture of scientific research and communication. Moving beyond conventional dissemination formats like papers and conferences to 'meeting points', enables a more inclusive and reciprocal exchange of knowledge, ensuring that donors and the broader public are and feel seen, heard, and actively involved. This enhances the societal relevance of our research and strengthens the (potential) donor community, making the donation system more resilient and sustainable.

This session explores three 'meeting points' to exchange knowledge on blood, plasma, and donation beyond traditional scientific settings: a museum exhibition, a cooperative educational game, and art-based film interventions. By presenting these three approaches our session aims to inspire others on how inclusive and creative research methods and communication can contribute to more sustainable and socially responsive research practices as well as a sustainable blood donation system.

Special session

Authors:

Louisanne van Hooff[1,2]

Alexandra Ciaușescu[1,2]

Yara Dixon[1,3]

Eamonn Ferguson[4,5]

Eva-Maria Merz[1,2]

Author's affiliations:

[1] Sanquin Blood Supply Foundation, Department of Research & Lab Services, Donor Studies Group, Amsterdam, the Netherlands.

[2] Vrije Universiteit, Department of Sociology, Amsterdam, the Netherlands.

[3] Amsterdam UMC, Department of Pediatric Hematology, Amsterdam, the Netherlands.

[4] School of Psychology, University of Nottingham, Nottinghamshire, United Kingdom.

[5] National Institute for Health and Care Research Blood and Transplant Research Unit in Donor Health and Behaviour, Department of Public Health and Primary Care, University of Cambridge, Cambridge, United Kingdom.

The art of communication: exchanging knowledge and engaging with blood product stakeholders through a museum exhibition

Background: Multiple European countries lack diversity in their donor pool. Simultaneously, (potential) donors of color are often unaware of why donor diversity is critical for blood-product dependent patients with diverse backgrounds. Limited awareness of blood conditions that disproportionately affect people of color, such as sickle cell disease (SCD), is partly due to their historical underrepresentation in research. Additionally, scientific findings on blood diseases and therapies are poorly communicated beyond academia.

Art can serve as a powerful communication tool, engaging broader audiences in ways that scientific texts often cannot. Also, it allows public reactions to inform and inspire the scientific realm.

Aims: To engage underrepresented audiences in scientific research communication, we created a non-traditional space for exchanging knowledge, experiences and perspectives between blood product stakeholders[1].

Methods: In 2024, we co-created the exhibition 'You Can Never Feel My Pain' with Open Space Contemporary Art Museum (OSCAM) in Amsterdam Southeast, a district with a high cultural diversity and strong Black community. This exhibition highlighted living with SCD, the (lack of) therapeutic options, and the dire need for more diverse blood donors.

During the runtime, we organized three interactive panel discussions where a total of around 60 visitors shared their perspectives with each other and the panelists. Visitors could also share thoughts on prompted cards addressed to donors, healthcare providers, researchers or SCD-patients (see Figure[1]). These formats created new opportunities for engagement through both spoken and written expression.

Participant observation was conducted during the panel discussions. Both the fieldnotes of the observations and the cards were analyzed using a coding and categorization technique (thematic analysis).

[1] 'Blood product stakeholders' refers to individuals and groups involved in blood and plasma donation, transfusion, and sickle cell disease care.

Abstract 1

Authors:

Louisanne van Hooff[1,2]

Alexandra Ciaușescu[1,2]

Eva-Maria Merz[1,2]

Author's affiliations:

[1] Sanquin Blood Supply Foundation, Department of Research & Lab Services, Donor Studies Group, Amsterdam, the Netherlands.

[2] Vrije Universiteit, Department of Sociology, Amsterdam, the Netherlands.

[3] Amsterdam UMC, Department of Pediatric Hematology, Amsterdam, the Netherlands.

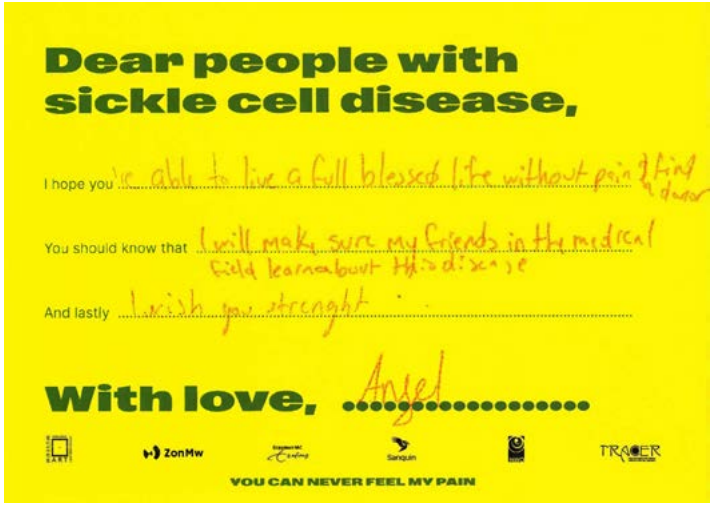
Results: Thematic analysis identified 31 codes across 10 subthemes. These subthemes were categorized along two main themes: engagement strategies and audience characteristics, mostly identified from the fieldnotes, and take-home messages to stakeholders, mostly identified from the cards.

Analysis of the fieldnotes revealed that especially the first panel discussion attracted researchers and medical experts, SCD-patients and advocates, and curious passersby. The discussion content mostly highlighted visitors' perspectives on donation and advocacy, and healthcare and research.

Analysis of 65 written cards highlighted personal and emotional support messages and well wishes to patients (44 cards), donors (8 cards) and healthcare providers (4 cards), and also showed messages on awareness, knowledge and advocacy for blood product donation and research. Only 1 of the 9 cards addressed to researchers, contained a substantive message.

Conclusion: This study demonstrates that integrating art into scientific communication may effectively engage underrepresented audiences and make space for dialogue on SCD and blood donation. By creating an interactive exhibition with participatory formats, we enabled diverse stakeholders to exchange perspectives in meaningful ways. However, in the prompted cards, a communication gap between visitors and researchers remained.

The identified (sub)themes provide valuable insights for researchers, policymakers, and advocacy groups to improve donor recruitment and public engagement with science.
Additionally, our findings highlight the need for inclusive communication beyond traditional academic platforms.



Figure[1]: One of the cards addressed to SCD-patients on which a visitor shared their thoughts

Game on: Exploring public interaction with educational installations about blood products donation

Background: Voluntary blood product donations are essential for sustaining healthcare systems, yet many European countries face critical shortages of plasma and increasing demand for plasma-derived medicinal products (PDMPs). Additionally, current donor pools lack sufficient ethnic diversity, complicating efforts to provide optimally matched blood products for all patients. A major barrier to donation is lack of awareness, meaning many individuals don't donatebecause they are unaware of the need for donors or unfamiliar with what blood and plasma donation entails.

Aims: To address this issue, we developed two innovative and interactive educational installations designed to increase awareness, knowledge, and social engagement about blood and plasma donation. We investigate how the public engages and interacts with the two installations.

Methods: The first installation features a column with a screen resembling a slot machine. Users can press a button to receive randomized facts about blood product donation and donor or patient stories. The second installation is a collaborative game, where two participants sit at an interactive table and each squeeze a blood drop mimicking the act of donating blood.
Synchronized squeezing propels a car toward a donation centre on the screen. During their journey the players are exposed to facts, reflective prompts, and discussion-inviting questions about blood product donation.

We are currently deploying the installations in naturalistic settings, such as fairs and events where the Dutch blood bank participates to inform and recruit potential donors. We are systematically collecting observations on how the public interacts with the installation during these events (e.g. behaviour patterns, speech, displayed emotions, etc.). Additionally, we gather and analyse data directly generated by the installations, such as declared donation intentions pre- and post-interaction in the collaborative game or engagement metrics for the content displayed by the slotmachine column.

Results: During the session, we will present preliminary results as we are still in the process of collecting data. A first round of observations and data collection has been realized in March 2025 and a second round will be done in April 2025.

Abstract 2

Authors:

Alexandra Ciaușescu[1,2]

Eva-Maria Merz[1,2]

Author's affiliations:

[1] Sanquin Blood Supply Foundation, Department of Research & Lab Services, Donor Studies Group, Amsterdam, the Netherlands.

[2] Vrije Universiteit, Department of Sociology, Amsterdam, the Netherlands.

Continuation Abstract 2

Conclusion: This study will provide valuable insights into the impact and feasibility of these educational installations. The findings can guide future decisions about scaling and deploying these installations or similar initiatives in broader contexts to enhance public understanding and engagement with blood product donation.

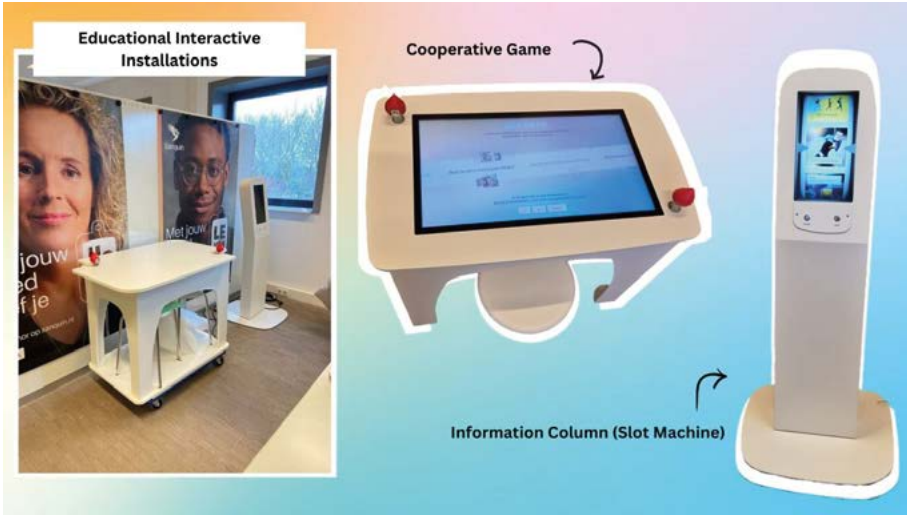


Figure2: Image of the two installations

Art-based film interventions: Co-developing script and evaluation of co-produced films to encourage ethnic minority donors

Background: Blood services must consider innovative ways to encourage more Black people to donate. We argue that an art-based co-design approach that focuses on a narrative message-free story arc that engages emotion offers an alternative innovative approach. We initially co- develop and evaluate four narrative script ideas, followed by an evaluation of the resultant films relative to a paid media-targeted Marvel Studios'/NHSBT collaboration. We also explore generalisability to a wider audience from their target audiences.

Aims: To evaluate the efficacy of co-design arts-based film to encourage ethnic minority donors.

Methods: The co-design process (needs identification (n=42 Black people), workshops (n=12: Black people - professional actors/artists and lay people) and narrative refinement (n = 1) produced four film ideas (Comedy, Reciprocity, Donor-Recipient, and Sliding Doors). We report three experiments. Experiment 1 details an evaluation of four co-designed narrative scripts relative to a 'give blood, save lives' slogan (N = 345 Black people, 481 White people).
The resultant four films were evaluated in experiment 2 (N=44: Black people in the target community and experiment 3 (N=1,237: Black = 599, White = 638), relative to a Marvel Black-Panther/NHSBT film. All evaluations were in terms of campaign behavioural efficacy (e.g., willingness to donate, encourage others to donate) and affect.

Results: Experiment 1 showed that the co-designed films, especially donor-recipient and sliding doors, were evaluated more positive in the Black community with this effect mediated by enhanced positive affect. The White population showed a preference for the slogan.
Experiment 2 shows that the community groups rated the films very positively, with over 90% stating that they would be convinced to donate blood. Experiment 3 shows the results from the community films generalise to the general population, with the Black Panther film also rated positively in the general population. Three community films and the Black Panther film were rated equally positively.

Abstract 3

Authors:

Eamonn Ferguson[1,2]

Abiola Okubanjo[3]

Natasha Acheampong[1]

Altaf Kazi[4]

Nadine Eaton[5]

Emanuele Di Angelantonio[2,6,7,8,9]

Angela Wood[2,6,7,8,10]

Barbara Masser[2,11,12]

Richard Mills[1,2]

Author's affiliations:

[1] *School of Psychology, University of Nottingham, Nottinghamshire, United Kingdom.*
[2] *National Institute for Health and Care Research Blood and Transplant Research Unit in Donor Health and Behaviour, Department of Public Health and Primary Care, University of Cambridge, Cambridge, United Kingdom.*
[3] *Action on Blood, London, United Kingdom.*
[4] *National Health Services Blood and Transplant, United Kingdom, Donor Experience Services.*
[5] *NHS Blood and Transplant, Marketing, Transfusions.*
[6] *Dept of Public Health Primary Care, University of Cambridge, UK.*
[7] *British Heart Foundation Centre of Research Excellence, University of Cambridge, UK.*
[8] *Health Data Research UK Cambridge, Welcome Genome Campus and University of Cambridge, UK.*

Conclusion: The results highlight the power of arts-based co-designed approaches (both locally co-produced community films and franchise collaborations) in encouraging Black and non-Black donors both within their target audiences and, importantly, to generalise to a wider population outside of their target audience.installations. The findings can guide future decisions about scaling and deploying these installations or similar initiatives in broader contexts to enhance public understanding and engagement with blood product donation.

Continuation Abstract 3

[9] Health Data Science Research Centre, Human Technopole, Milan, Italy.
[10] Cambridge Centre of Artificial Intelligence in Medicine, Cambridge, UK.
[11] Clinical Services and Research, Australian, Red Cross Lifeblood, Melbourne, Australia.
[12] School of Psychology, University of Queensland, Australia.

Special Session 2

Sustainable Volunteer Management in Blood Donation Services

1) Motivation of the topic

This year's ECDHM theme 'Sustainability in Donations' offers a broad framework to explore economic, ecological and social aspects of blood donation volunteering, a topic that lends itself to discuss current challenges and future possibilities to ensure a sustainable blood supply. While academic and management-oriented literature alike tends to focus on the management, health and characteristics of blood donors and the donation process itself, the management of so-called blood donation volunteers, i.e. people that voluntarily give their time to support the donation process by tending to admission, catering and other important needs of blood donors, are highly understudied. As volunteers are a central resource of most nonprofit organizations (Schubert et al., 2023), blood donation volunteers constitute a key element of blood donation services such as the German Red Cross (GRC). Specifically, in the highly competitive field of volunteer-driven organizations, where the number of organizations is ever growing and there is a persisting struggle to recruit adequate numbers of volunteers (Schubert et al., 2023), a sustainable volunteer management strategy is vital.

Therefore, this research group aims to gain empirical insights into the volunteer management of blood donation services, develop best practices, assess how volunteering trends such as episodic volunteering influence these practices and overarchingly uncover factors that determine effective volunteering. From this, we can derive an effective framework of volunteer management which will benefit the GRC as well as other NPOs.

2) Contextualization and summary of the abstracts

The Engagement 2030 research group consists of two members of the GRC as well as researchers from the University of Hamburg (UHH), enabling us to uncover gaps in academic research and assess practical needs. As data is sparse, the group aims to establish a robust data foundation to gain a comprehensive understanding of the size, structure and sociodemographic profile of volunteers as well as the various types of engagement in blood donation. As the research in this area is still in its infancy, the following topics will be addressed:

(1) missing data on volunteer management in blood donation services,
(2) the current state of research regarding retention and recruitment of volunteers
(3) a current best practice of volunteer management.

Special session

Author:

Lena Kristin Kunz
German Red Cross Blood Donation Service North-East (GRC)

Sigrun Leipnitz

Alexander Rödl

Sarah Fenske

Silke Boenigk

Annemieke de Fijter

A group member from the GRC will present the first topic, thus giving valuable practical insights, while UHH members will present the second one, providing a research-focused perspective. Current best practices and challenges will be introduced by a representative of Sanquin, a Dutch not-for-profit blood donation service and scientific research institution. Integrating academic findings with best practice examples, we set the groundwork for future research and contribute to an overarching framework for sustainable volunteer management systems in this area of civic engagement.

Missing Data: Who are the Volunteers supporting Blood Donation Services?

Abstract 1

Author:

Lena Kristin Kunz

Sigrun Leipnitz

Background: In Germany, approximately 30 million volunteers comprise the third sector, shaping civic engagement with varying objectives, ranging from climate activism to sport, cultural and social engagement (Simonson et al., 2022). This heterogeneity in objectives extends to the form of engagement (e.g., continuous or episodic volunteering) as well as to the individual characteristics (e.g., demographics, motives, social norms) of volunteers (Meyer et al., 2022). In face of a changing landscape of volunteering (Cnaan et al., 2022) and the prevalence of volunteering inequalities (Southby et al., 2019), an elaborate understanding of the volunteers and managerial structures are needed to derive adequate processes and strategies for recruitment and retention of volunteers through an inclusive and sustainable volunteer management system (e.g., Piatak & Carman, 2023).

Expanding engagement research in the field of blood donation services is specifically relevant, as to date, research on volunteers supporting blood donation events is scarce, despite their significant contribution. Volunteers engaged in blood donation services at the German Red Cross (GRC) Blood Donation Service pose the backbone of successful blood donation events. Whereas medical staff is responsible for the service quality, volunteers contribute to the positive experiences of blood donors at blood donation events through supporting structures and interpersonal contact. Further, they play a crucial role in marketing and communication prior to blood donation events.

Since no data is available on who these volunteers are and what motives drive continuous engagement in the field of blood donation services, this project is designed to bridge this gap and additionally shed light on the current volunteer management system at the GRC.

Aims: A sustainable and inclusive volunteer management requires an elaborate understanding of the volunteers and underlying organizational structures. Therefore, we aim to understand the volunteer management system of the GRC - Blood Donation Service and additionally identify how many and who the active volunteers are.

Methods: A mixed-method approach aims to shed light on how the GRC - Blood Donation Service manages active volunteers and who they are. To that end, structured interviews are conducted to identify existing processes regarding the management of volunteers. Further, data is collected to quantify how many volunteers actively support blood donor events and questionnaires are distributed to gain insight into demographic characteristics and motivational profiles of volunteers.

Results: The results reveal a multifaceted volunteer management between different stakeholders within the GRC. Additionally, findings provide first insights in the number of active volunteers in blood donation services provided by the GRC and their demographic and individual characteristics.

Conclusion: Based on the findings of this project, future research objectives root on a general understanding of the population of active volunteers in blood donor events and their management at the GRC. Moreover, the identified structures provide an overview of relevant stakeholders in the process of volunteer management, highlighting opportunities for adjusting current practices to a more sustainable and inclusive volunteer management system.

Exploring Volunteer Management in Blood Donation: Current Research Gaps and Future Directions

Abstract 2

Authors:

Alexander Rödl

Sarah Fenske

Silke Boenigk

Background: As many nonprofit organizations are highly reliable on volunteers, the management of these volunteers has become a growing field of interest for nonprofit organizations and academic researchers alike. While multiple studies emphasize the importance of an effective volunteer management process in nonprofit organizations in general (Chiu et al., 2023; El-Amin, 2023; Piatak & Carman, 2023), we find a wide research gap in the context of blood donation volunteers, especially in the areas of volunteer recruitment and retention.

For organizations that depend on the work of volunteers, a successful recruitment strategy is one of the main requirements to build organizational sustainability (El-Amin, 2023). Hager & Brudney (2011) suggest that researchers tend to emphasize the individual perspective, focusing on personal motives rather than recruitment as a process, reflecting the organizational perspective. This research gap poses the starting point for studies on the recruitment of volunteers in blood donation services.

Effective volunteer retention practices are equally important as they can potentially minimize the need of recruitment (Wymer & Starnes, 2001). Until now, research on volunteer retention primarily focused on preserving the effect of training. According to Cuskelly et al. (2006), training and development have a stronger effect on volunteer commitment than value motives. Moreover, research focused on transferring findings of for-profit Human Resource Management (HRM) strategies to the management of volunteers (Alfes et al., 2016). Therefore, the Engagement 2030 research group will identify effective volunteer training tools, incorporating research findings and successful HRM strategies to recruit and retain volunteers.

Aims: The research aims are derived from German Red Cross (GRC) needs and existing literature: As the GRC faces a decreasing number of people engaging at their blood donation events, the initial areas of interest are volunteer recruitment and retention. The discussion at the ECDHM 2025 will focus on the current research regarding volunteer management, the challenges in recruiting and retaining volunteers and future research fields.

Methods: To assess the current state of research and data, we will first conduct a systematic literature review on volunteer retention and recruitment. Then, filling the gaps identified in this analysis, we will collect data on blood donation volunteers at the GRC and, as “segmenting volunteers is needed and is a best practice in volunteer management” (El-Amin, 2023, p. 103), we will carry out such a segmentation. When these gaps in data are filled, we can finally deduce recruitment and retention strategies.

Results: We expect the data on blood donation volunteers at the GRC to reflect a diverse landscape in terms of sociodemographic factors, tasks and motives. A distinct segmentation enables us to deduce specific recruitment and retention strategies for each segment of people.

Conclusion: Based on the findings of this project, future research objectives root on a general understanding of the population of active volunteers in blood donor events and their management at the GRC. Moreover, the identified structures provide an overview of relevant stakeholders in the process of volunteer management, highlighting opportunities for adjusting current practices to a more sustainable and inclusive volunteer management system.

Volunteer Management in Blood Donation Services: Learning from Sanquin

Abstract 3

Authors:

Annemieke de Fijter

Sarah Fenske

Alexander Rödl

Silke Boenigk

Background: Similar to the German Red Cross - Blood Donation Service, where blood donation volunteers constitute a key resource to maintain sustainable blood supply, Sanquin – the Dutch equivalent conducting blood donation services and research on a not-for-profit basis – works with hundreds of volunteers at their donor centers. The tasks of volunteers range from welcoming donors and offering drinks and snacks to providing informational materials and referring questions to appropriate blood bank employees.

The management of these volunteers plays an important role and will continue to be relevant with an increasing number of competing nonprofit organizations and new volunteering trends, such as episodic volunteering, arising. While academic research has identified multiple models of volunteer management – from Naylor's (1967) first attempt to list seven critical components of volunteer development to Boyce's (1971) much-cited seven-step ISOTURE framework and more recent approaches such as volunteer engageability (Arnon et al., 2022) – in practice, many organizations struggle to manage volunteers effectively (Schubert et al., 2023).

Therefore, the Engagement 2030 research group considers it vital to incorporate best practice examples, such as Sanquin, and academic research to develop sustainable volunteer management practices in the field of blood donation.

Aims: We aim to provide practice-centred insights into the management of blood donation volunteers, which is essential for an organization to be sustainable. Specifically, we seek to gain insights into concrete volunteer management strategies and their effectiveness. The findings will not only be applicable to other blood donation services but volunteer-driven NPOs in general.

Methods: The presentation of best practices at Sanquin constitutes a case study, which allows us to gain practical, in-depth knowledge about the specific processes and strategies used by Sanquin in managing its large number of volunteers. By focusing on a single organization, this methodology provides a comprehensive view of how volunteer management works within a real-world nonprofit context, making the findings highly relevant to similar organizations facing the same challenges. The case study method enables us to explore a variety of factors such as recruitment, training and retention and helps identify both the challenges Sanquin faces and the strategies they have developed to address these challenges.

Results: A case study of Sanquin will highlight the disparity between academic frameworks and actual volunteer management practices implemented in blood donation services – while academic frameworks may appear sound in theory, the reality presents numerous challenges, such as limited resources and emerging trends (e.g. episodic volunteering), that volunteer-driven organizations must navigate and adapt to in order to survive. Therefore, the management of blood donation volunteers is often less structured and more reliant on experience and improvisation. ntion strategies for each segment of people.

Conclusion: Practical insights highlight the importance of adapting volunteer management strategies in blood donation services, addressing persistent challenges associated with tranfering academic findings into practice. Best practices at Sanquin contribute to a valuable understanding of inclusive and sustainable volunteer management systems that offer the potential for other NPOs in the field of blood donation services and other fields of engagement.

Special Session 3

Session Introduction

According to the World Health organization (WHO) and International Red Cross Societies Guidance and recently in the European Union new regulations on Substances of Human Origin (SoHO), voluntary non remunerated blood donations from safe donor populations are the best guarantee for safe and sustainable blood supply.

Many countries depend on family replacement and (hidden) paid donations. The main question for these countries is how to achieve a transition from these systems into a system with 100%VNRDB.

A number of countries have changed or have started a change from a system with replacement and paid donations towards 100% VNRBD's. And although the desired endpoint of 100% VNRBD is the same, the starting point for each country will be different.
In this session we will learn about the experiences of four different countries, one in the EU (Lithuania), two in connection with the EU (Turkey and Georgia) and one country in Asia with limited resources. What needed to be done and how, what were main challenges and what has been achieved in the transition to and maintaining the desired 100% VNRDB.

Special session

Author:

W Martin Smid

Sanquin Blood Supply and University of Groningen, Academic Institute IDTM

Author information:

Ketevan Shermadini[1],[2]

Vladimer Getia[1]

Sophio Dolbardze[1]

Lela Kvachantiradze[1]

Ekaterine Adamia[1]

Author's affiliations:

[1] *National Center for Disease Control and Public Health, Tbilisi, Georgia*

[2] *T. Tsertsvadze Infectious Disease, AIDS and Clinical Immunology Research Center*

VNRBD in Georgia experience, challenges and opportunities

Background: Country of Georgia undergoes fundamental reforms in blood safety. Association Agreement signed in 2014 with European Union to harmonize national legislation with EU acquis, the National Hepatitis C elimination program promoting widescale reforms in health systems, the EU twinning project "Strengthening blood safety in Georgia" contributed to significant changes, among them development and adoption of the new law.
The law mandates establishment of the centralized and consolidated blood safety system, with non-profit status of Blood Establishments (BEs), implementation of standardized quality requirements and prohibits payment for donation by April 1, 2026, with the aim of achieving self-sufficiency based on the voluntary non-remunerated blood donors (VNRBD).

Methods: Retrospective Data from the National Blood Donor Registry and the State Safe Blood Program reports were analysed to see trends in remunerated vs. relative vs. voluntary non-remunerated blood donations during last years.

Results: As of December 31, 2024, 22 blood establishments are operating in the Country, excluding one plasma collection center, which is not involved in the State Safe Blood Program. More than half of the BEs are located at hospitals. Commercial BEs started transformation to non-profit organizations to fulfill requirements of the new law, currently 15 (68%) BEs out of 22 have non-profit status. 4 big BEs have mobile drives and opened several fixed collection centers, but most blood is still collected at BE facility itself.

There were a total of 94 300 donations from 68 938 blood donors in 2024 in Georgia. Nearly half of the blood (47%) is collected in the Capital Tbilisi. 74 % (69 652) donations were from male donors, 26 % (24 648) from female donors, the median age was 34 years (interquartile range: 26–43).

Overall 36% (34 270) were paid donations 18% (16 779) were relative and 46% (43 251) were non-remunerated donations. But among donors, 13 926 (21%) were paid donors, 15 472 (23%) were relative donors and 37 449 (56%) were VNRBDs. Paid donors donate more than 2 times often than VNRBDs. Among all donors in 2024, 42.4% (28 343) were first time and 57.6% (38 503) had ≥2 donations.

Abstract 1

Presenting author:

Ketevan Shermadini
National Center for Disease Control and Public Health, Tbilisi, Georgia

Author information:

Ketevan Shermadini[1],[2]

Vladimer Getia[1]

Sophio Dolbardze[1]

Lela Kvachantiradze[1]

Ekaterine Adamia[1]

Daumantas Gutauskas[3]

Author's affiliations:

[1] *National Center for Disease Control and Public Health, Tbilisi, Georgia*
[2] *T. Tsertsvadze Infectious Disease, AIDS and Clinical Immunology Research Center*
[3] *National Blood Center of Lithuania*

The percent of paid donations decreased in 2015-2024 years from 61% to 36%, while percent of voluntary non-remunerated donations increased from 25% to 46%, with slight decrease during Covid-19 period, relative donations remain stable in the range of 15%- 18%.

Within the framework of the state Safe blood program and state program of Health Promotion the informational-educational and recruitment campaigns are underway in line with the communication strategy developed within the EU Twinning project, aimed at transitioning to the VNRBD system and supporting the country in the transition period. Interventions include promotion of the VNRBD through media advocacy, social media campaigns through "I am a Donor" Facebook page; Events dedicated to World Blood Donor Day, blood drives in different organizations and communities carried out in capital and the regions. But number of such campaigns are still very low.

The most common reason for refraining from donation, according surveys conducted among general population, was lack of adequate information and motivation about the need and importance of donation, the current state of health and fear of the procedure.

Conclusion: The actions during the last years supported increase in VNRBD but transition to full non-remunerated donations remain challenge.

Lack of VNRBD popularization campaigns and awareness among general population, deeply rooted public perception that one should be paid to donate blood, fear and distrust to the commercial BEs, seems to be an important factor;

Efforts and commitments should be focused on the implementation of new blood safety legislation, centralization and consolidation of BEs, and new mechanisms for donor motivation and encouragement in order to retain donors as regular VNRBD, thus maintaining adequate blood supply.

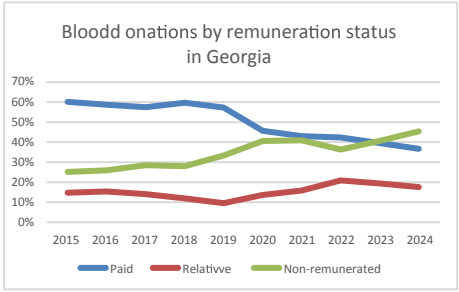


Table: Blood donation by remuneration status in Georgia

Voluntary Non-Renumerated Blood Donation in Lithuania

Abstract 2

Author:

Daumantas Gutauskas
National Blood Center of Lithuania

Background: Regular and voluntary blood donation plays a crucial role in ensuring blood safety, fostering community engagement and promoting solidarity. It is a noble and essential act that contributes to saving numerous lives. Individuals who donate blood without financial incentives are more likely to provide accurate health and lifestyle information, thereby enhancing the safety and reliability of the blood supply.

Aims: In Lithuania, the Ministry of Health, in accordance with the recommendations of the World Health Organization (WHO) and the directives of the European Union, approved a program for the promotion of voluntary blood donation in 2015. This initiative aimed to encourage blood donation without financial incentives while ensuring the highest standards of donor safety and care.

Methods: As part of these efforts, the National Blood Center (NBC) introduced an enhancement to blood donation accessibility by establishing the first modern blood donation center, located within a shopping mall. This facility exclusively accepted voluntary blood donors, reinforcing the principle of non-remunerated blood donation.
To further incentivize public participation in voluntary blood donation, mobile blood collection campaigns are regularly organized in corporate settings, educational institutions, and other organizations. Additionally, the National Blood Center conducts annual voluntary blood donation tours across Lithuania, engaging with communities and raising awareness on the importance of blood donation.
To recognize and honor dedicated blood donors, annual awards ceremonies are held. Donors who have contributed more than 40 times receive the Honorary Blood Donor title and a distinguished medal. As an enhancement to their recognition, these individuals are also eligible for a second-degree state pension, acknowledging their invaluable contribution to public health.
Furthermore, various partners and sponsors actively support voluntary blood donation initiatives by providing incentives such as complimentary gifts, refreshments, dietary supplements, entertainment vouchers, and other rewards.

Results: To sustain and expand the voluntary blood donor base, strategic awareness campaigns are implemented across multiple platforms. Among the most notable initiatives was a Halloween-themed campaign, featuring a vampire with the slogan: "We want blood!" This campaign successfully captured public attention and reinforced the significance of blood donation.

Conclusion: Through these enhancements and incentives, Lithuania successfully achieved 100% voluntary blood donation by 2018. In recent years, blood donation has gained increasing popularity, and the number of donors has continued to grow steadily. The year 2024 marked a record-breaking achievement, with around 77,000 blood donations collected.

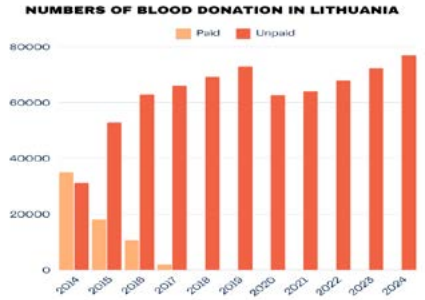


Table: Numbers of Blood Donations in Lithuania

A Road Way to Achieve 100% VNRBD in a Resource Restricted Setting

Abstract 3

Authors:

Ananda Gunasekera
Chief Operating Officer, Asian Association of Transfusion Medicine & former Director NBTS, Sri Lanka

Lakshman Edirisinghe
Director, National Blood Transfusion Service, Sri Lanka

Background: Sri Lanka has been recognized by the World Health Organization (WHO) as one of the few countries in the world to achieve 100% VNRBD.

This achievement was reached in 2014 through a dedicated nationwide campaign spanning several years across different levels of government and administrative operations.

Aims: To emphasize the key principles to follow to achieve 100% VNRBD in the Developing World & the Methods Used to maintain this achievement.

Methods:

1. Government Policy: Establishment of Free Education, Free Health and Women empowerment as a policy by the Government.
2. Strong Centrally Coordinated National Blood Transfusion Service: The NBTS of Sri Lanka plays a crucial role in coordinating blood collection, processing, and distribution across the country.
3. Effective Awareness Campaigns: Public awareness programs and collaborations with schools, workplaces, and religious organizations encourage voluntary donations.
4. Community Engagement: Religious and social organizations actively participate in blood donation drives, reinforcing the culture of altruism.
5. Monitoring Methods Several Monitoring methods are used at the level of Hospital Based Blood Banks, Cluster (regional) blood banks and the National Level. (These methods will be described in the presentation using graphic pictures)

Results: Statistics will be presented in graphic tables and pictures to show the economic background, administrative achievements & the pathway to achieve 100% VNRBD.

Conclusion: Many believe that economic factors play the key role in achieving 100%VNRBD in a given country. However there are other major policies that a country can adopt in order to achieve this feat even in resource restricted settings.

Optional: This presentation will be done in two segments.

1. The challenges faced until the achievement of 100% VNRBD by the former Director of NBTS.

2. The effective administrative methods used to maintain 100% VNRBD since achievement by the present Director of NBTS.

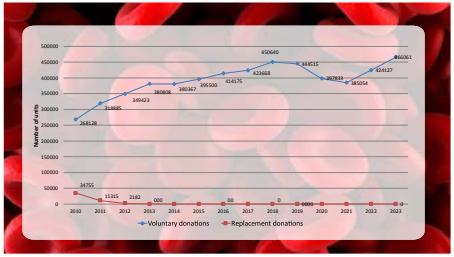


Table: Blood Donation in Sri Lanka 2010-2023

Building a voluntary non-remunerated blood donor database in Turkey

Abstract 4

Author:

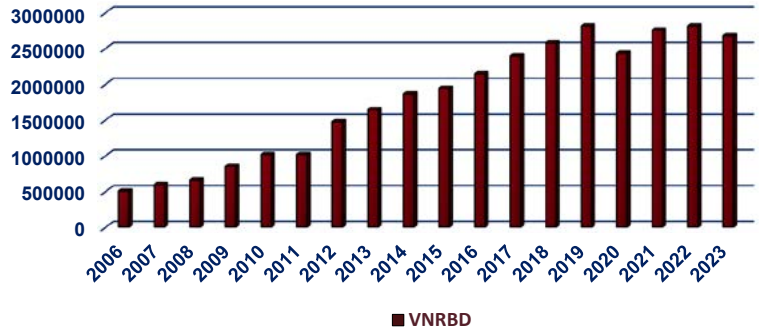
Nigar Ertuğrul Örüç
Consultant on Blood Banking and Transfusion Medicine, Ankara, Türkiye

Background: A safe and adequate blood supply for transfusion is an essential component of every country's national health care policy and infrastructure. Encouragement and recruitment of voluntary non-remunerated blood donors (VNRBD) are vital missions.

Aims: To achieve self-sufficiency in blood and blood components through VNRBD at the national level.

Methods: New Law on Blood and Blood Products1 of Türkiye was enacted to ensure national self-sufficiency in blood and blood components through VNRBD. This Law marked a transition from a decentralized system to a centralized one. As a result most of the hospital blood banks were closed, and the Turkish Red Crescent (TRC) was assigned the responsibility of supplying the country's blood needs2. In 2006, an international movement, Project Club-25, was adopted as *"Target-25"* (Hedef-25) by TRC to recruit young donors up to 25 by raising consciousness to donate. TRC carried out blood donation campaigns and training activities in educational institutions affiliated with the Ministry of National Education (MoNE) for *"Attracting Blood Donors of the Future"*, since 2006. Annually, on World Blood Donor Day, *a Medal Delivery Ceremony* is held throughout the regions to honor blood donors. *"One B lood One Sapling Afforestation"* project was conducted between the Ministry of Forestry and TRC in 2014-2019. *"Turkish Blood Donation League"* project was implemented with the slogan: *"Are you a fan? "To Kindness, Gentlemanship, Friendship, Blood Donation?"*. Between 2014–2016 an EU Project on *"Recruitment of Future Blood Donors"* was conducted. An effective coordination is established between the Ministry of Health (MoH), MoNE and TRC. In 2020, *"Mobile Blood Donation Application"* was developed and in 2023 *"We Love Kindness"* project was initiated and a loyal blood donor pool was created for patients with thalassemia in Adana Province by TRC.

Results: Numerous initiatives have been implemented countrywide to encourage voluntary non remunerated blood donation. These efforts have focused on raising awareness, fostering a culture of altruism, and improving accessibility for donors. The EU project included review and revision of existing curricula and textbooks relevant to promoting blood donation at schools, and corresponding materials on the importance of blood donation were created including educational materials for students and teachers. Blood Donation Clubs were established in 500 pilot schools. Personnel of MoH and TRC were trained on blood donation recruitment. Cascade training was conducted for personnel of transfusion centers and school principals in 81 provinces. Information seminars were delivered to students and teachers and family members of students. Animation films on blood donation were produced and broadcasted on the national TV channels. Computer games targeting different age groups were developed and distributed to the pilot schools. Media spots were produced and broadcasted in TV and Radio channels. Billboard posters and brochures were prepared and distributed to 81 provinces for raising public awareness. Advertisements about the project and the importance of VNRD were displayed on national and local newspapers, on online news, and broadcasted on national TV channels. Visibility kits to recruit future blood donors are prepared and distributed throughout the project activities. Awareness and knowledge level of students and their teachers/parents on the importance of blood donation are increased. Altogether, these interventions contributed to a sharply progressive increase in the number of VNRBD, rising from 7.1 per 1,000 population in 2006 to 31 per 1,000 population in 2023 (excluding replacement donors), along with a steady rise in the number of regular donors over the past 20 years3 (Figure[1]).



Figure[1]: VNRBD to Turkish Red Crescent in years

Conclusion: Gradual transition from decentralized system with family replacement donation to centralized system with VNRDB, based on legislation and recruitment and retention programs at national level in collaboration with involved stakeholders, public relations activities, and educating potential donors all contributed to the acquisition and retaining VNRBD.

6th European Conference on Donor Health and Management

Presentation Program
Friday September 12th

10:35

Oral session Donor Health:

Improving Plasma Donation Practices Globally

Hoge Duin Zaal

10.35	Plasma Collection in The Netherlands	Annemieke de Fijter
10:50	Plasma donor journey from conception to application	Michele Barth
11:05	Knowledge of plasma among Danish blood donors policies in the Netherlands and France	Lisbet Schonau
11:20	Plasmarathon - A campaign to recruit plasma donors from sports clubs	Marie-Ange Moureaux
11:35	Plasma donation for fractionation with or without a prior in-person interview in experienced donors: Assessing safety for donors	Bitten Aagaard
11:55	Are US Source Plasma Donors Healthy? A Cross-Sectional Examination of Donation Frequencies, Health Effects, and Reasons for Lapsing	Michelle Fransen

10:35

Oral session Donor Management:

Breaking Barriers & Building Belonging in Blood Donation

Room 140

10.35	Distribution of Non-White Donor Ethnicities in an Irish Donor Population	Moira Keogh
10:50	The impact of relaxing blood donation deferral policies for men who have sex with men on blood safety and volume: a systematic review of modelling studies	Luce Mosselmans
11:05	“There’s always that little bit of stress at the beginning of whether you have to out yourself for the millionth of time”: a qualitative study of the experiences of Two-Spirit, trans, nonbinary, and other gender-diverse donors in the blood donor centre	Jennie Haw
11:20	Addressing systemic barriers to donation for diverse South Asian communities	Kelly Holloway
11:35	Introduction of Malaria Testing at the IBTS: A step towards a more diverse and sustainable blood supply	Dearbhla Butler
11:55	Worldviews and Blood Donation: A Systematic Review of Motivational Dynamics	Teemu Pauha & Anne Birgitta Pessi

13:30

Special session 1

Hoge Duin Zaal

Inclusive Blood Donation: Understanding Behaviour, Barriers, and Motivators in Minority Donor Populations	Sigrun Leipnitz

13:30

Special session 2

Room 140

Marketing Insights for Blood Donor Engagement - Key Findings from ADRP's Annual Survey	Theresa Pina

Plasma Collection in The Netherlands

Annemieke de Fijter, Evi van Bon, Raquel das Dorres Cruz, Renny de Graaf, Karin van Daal, Jeroen Bakker & Mirjam Reimers

Background
In the Netherlands, the collection of blood products is regulated by law, which task is carried out by 1 BE, namely the Sanquin Foundation. The Sanquin Foundation consists of 37 hybrid donor centers (22 also collect platelets), 1 plasma only center, 1 whole blood only center and 50 mobile collection centers. In the hybrid centers, all blood products are collected, including whole blood, plasma and platelets. In terms of plasma, we collect approximately 110,000 liters of fractionation plasma and 300,000 liters of sourced plasma on an annual basis.
There are 1 or more hybrid collection locations in each province, depending on the number of donors. For a mobile collection location, the donor base must be large enough that it must be possible to visit at least 4 times a year. An exception in the Netherlands is the city of Utrecht, where a hybrid location, a plasma only location and a whole blood only location are located. Utrecht is often used to try out new developments related to plasma collection. To determine where our donor centers should be located in the country, we use demographic and geographical feature models, in which the development in the donor base and the donor potential can be predicted. At the moment, the Dutch donor base consists of 325,000 whole blood donors and 107,000 plasma donors.

Aims
The awareness and culture throughout the blood bank organization that the purpose of plasma collection is a priority similar to the donation of other blood components. And in addition, making strategic choices that can be used to organize the collection of plasma in an improved, cost-efficient and sustainable way where the donor and service for the donor are central.

Methods
In the Netherlands, the collection of plasma has been given a high priority, which is reflected in a plasma program. This programme reflects 4 aspects, namely the improvement of the plasma culture within our organisation, a healthy donor base, the recruitment and information of new donors and the establishment of efficient processes for the collection of plasma.

Results
Results of the 4 aspects of the plasma program will be detailed in September.

Conclusion
We are currently looking closely at the sustainable establishment of National hybrid donor centers on the basis of demographic and geographical characteristics so that the choice of a donor center in stability and growth in donor database is guaranteed in harmony with the present expensive investments in premises, infrastructure, technology and digitalization. With these hybrid donor centers, we can offer extended opening hours so that donors can easily schedule a plasma donation at a time that is appropriate. Awareness and culture programs offer improvements in plasma collection. And a plasma motivation program helps to bind the donor to active donorship.

Plasma donor journey from conception to application

Michele Barth

Background

As part of its "plasma ambition" to meet the need for increased volumes of plasma for fractionation, EFS is proposing an ambitious plan to achieve a 4-years target of 500K additional plasma apheresis.

After a 5-year program centered on the implementation of the blood donor journey and the promotion of the importance of the donor experience, the need to develop a version for plasma donors appeared to be the next logical step in a broader initiative to promote the donor experience.

Aims

- To develop plasma-specific loyalty and recruit new plasma donors, notably by simplifying the plasma donor pathway
- To understand the plasma donors' expectations to provide solutions tailored to their needs thanks to donor experience listening
- To define a new positioning strategy for plasma in external communications and marketing
- To involve internal teams and external partners: make them aware of the challenges of plasma donation, so that they can support and relay our messages

Methods

Over 6 months, the method behind our journey review approach: from donor to action. We started to describe the current journey, describing factually every step and every encounter the donor might face.

From this input, with a group composed of marketing, communication and the plasma collecting team, during 2 days of workshops, we analyzed every observation. We were able to score our communications, but also study the timings in and between steps and identify the moment where the donor might exit the journey. We pointed out 66 pain points and through 2 additional days of workshops, we identified the criticality level for each, built the donor journey target and identified the 96 needed actions to reach it.

Results

The first and main deliverable of this project is the roadmap, prioritized according to the severity of the associated pain point, but also spread out according to different time scales. For 2025, we have identified 16 national priority projects, some of which will be implemented out at regional level.

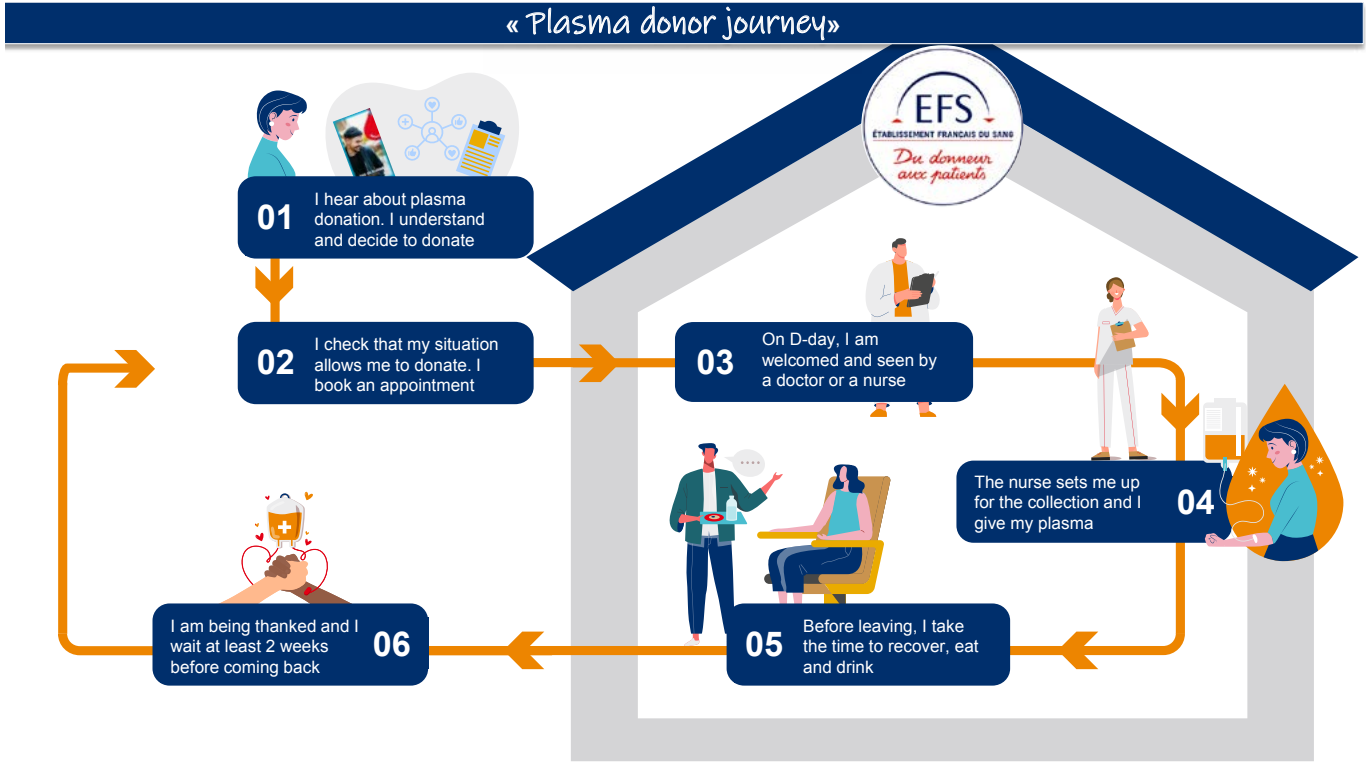
A national dashboard has been set up to manage and monitor the projects' progress, with key figures for plasma collection results, key donor feedback indicators and tracking of initiatives with a strong impact on the plasma donor journey.

As an example of an on-going initiative to improve the plasma donor experience, a full day training courses have been set up for the 2,448 plasma collection staff, to improve knowledge of plasma, share local plasma goals and work on their posture and behavior towards donors. Through role-playing situations, we work on improving their pedagogy, their expression of gratitude, their thoughtfulness and their friendliness.

Conclusion

By setting the guideline and using the right tools, we are able to align our strategy in order to reach our target for the plasma collection. We have gain valuable insights into donors' behavior and perception, and make data-driven decisions. Our on-going challenge is to align the strategy between national and regional actions, to ensure consistency and a harmonized experience for donors across the territory.

Figure: Plasma Donor Journey



Knowledge of plasma among Danish blood donors

Lisbet Schonau, Laura Ostergaard & Christina Mikkelsen

Background
In June 2021, Danske Regioner (interest organization for the five health administrative regions of Denmark) decided that Denmark would become self-sufficient in blood plasma for plasma-derived medical products including immunoglobulin. Reaching this requires recruiting a higher amount of new plasma donors and that existing donors donate plasma more frequently.
In Denmark all blood donations are voluntary and non-remunerated as required by the law. All donors are organized by the national donor association 'Bloddonorerne Danmark' which is responsible for recruiting and acknowledgement of donors. Currently there are180,000 blood donors in Denmark. In 2023 they delivered about 45% of plasma needed for Ig self-sufficiency. Increased knowledge of the need for plasma donation, of the less restrictive donation deferral criteria in terms of medicine use for plasma donors, and of the use of plasma-derived medical products can be a driving force for more citizens to sign up as blood and plasma donors.

Aims
The study aimed at mapping the knowledge of plasma in the background population in Denmark and among Danish blood donors to identify areas of focus for an increased plasma donation.

Methods
An online survey was performed among a nationally representative sample of Danes between the ages of 18 and 65. The questionnaire was developed and administered by the analysis agency 'It's a Fact' on behalf of the Blood Donor Organization in Denmark was carried out via YouGov's nationally representative panel in the period 15 November – 18 November 2024.
The questions assessed knowledge of plasma, the use of plasma in the Danish health system and knowledge of diseases treated by medicine derived from plasma alongside other questions regarding blood donation in Denmark.

Results
A total of 1,000 responses were included, among them 91 active donors (9%) and 188 inactive donors (19%). 50 % of the active donors have donated plasma.
Of the active donors, only 28% were in doubt of having knowledge of plasma and the functions of plasma in the body using unaided questions compared to 42% in the general population.
When asked why they no longer donate, previous donors most frequently cite the donation deferral criteria connected to medications (30%) and illness (14%). Furthermore, 6 % also list travel deferral.
When listed statements about plasma, most active donor-respondents correctly stated that plasma is used in manufacturing of medicine (68%) and that it is the liquid part of the blood (59%) compared to 45% and 42% among the general population, respectively.

Conclusion
Danish Blood Donors are more knowledgeable about plasma and the use of plasma than the overall background population. But results still suggest uncertainty about what plasma is among Danish blood donors and the Danish population. More knowledge of plasma among existing blood donors could be relevant to keep a resilient blood donor system in Denmark and preparedness for future crises. There is a potential to recruit among previous donors who assume they are ineligible due to deferral criteria that only apply to whole blood donors and not plasma donors.

Plasmarathon - A campaign to recruit plasma donors from sports clubs

Marie-Ange Moureaux, Thomas Paulus, Ivan de Bouyalsky & Geneviève Mathy

Background

Blood department (SFS) of the Belgian Red Cross, like other European blood establishments, must increase plasma collection notably to meet growing demand on immunoglobulins and to reach a certain self-sufficiency level. To meet its needs, SFS launched a recruitment campaign aimed at sports clubs, called the 'Plasmarathon'. It ran from 15 July to 30 November 2024.

Aims

To raise awareness among new prospects and recruit new plasma donors, outside the usual channels, acting on community and solidarity values.
To aim people in good health.
To sustain growth and reach the target of 5,000 new plasma donors for 2024.

Methods

By taking part in the action, each club engage itself in informing its members and supporters about the requirements for plasma donations and in motivating them to give plasma.
The sport clubs earns one point for each plasma donation made in its name.
At the end of the campaign, these points are converted into vouchers for sports equipment with our partner: 1 point = €5 value voucher.

1. Recruiting the clubs (from 15/07/2024) Promotional & information campaign on social networks. Cooperation with sports federations, to ask them to share the campaign with all their members. Phone calls with all the sport clubs identified in the surrounding of our plasma collection centers.
2. Validation and management of registrations (from 20/08/2024): Registrations validation and management of the contact information of registered clubs.
3. Sharing a promotional pack and rewarding the club (ongoing). Each club receives a communication & visibility pack with posters & leaflets with a specific and personal registration link. 50 incentive points are awarded to each club that shares the campaign on his Social Networks.
4. Registration for plasma donations (from 20/08/2024 to 30/11/2024). Booking appointments on the Plasmarathon website or at one of our plasma donation centers. Points management in the appointment application.
5. Always-on and support for the campaign. Direct marketing actions: calls, challenging emails, sharing of testimonial videos.
6. Closing the campaign. Thanks e-mail and conversion of points won into vouchers for sport equipment.

Results

- 278 clubs reached
- 109 sports clubs from 25 different disciplines took part.
- 1,653 appointments made.
- 36 clubs reached more than 15 appointments, including 10 clubs with more than 30 appointments.
- 1,311 donations were made by 761 donors in our 18 donation centers.
- 76 brand new donors made up to 119 plasma donations.
- Greater impact on more rural sites.

Conclusion

Plasmarathon campaign met its recruitment objectives and had a positive contribution on donations in 2024.

Plasma donation for fractionation with or without a prior in-person interview in experienced donors: Assessing safety for donors

Bitten Aagaard, Maria Starup Hauge, Marianne Skak Raunkjær & Christina Lindgaard Stick

Background

Plasma-derived medicinal products (PDMPs) constitute life-saving treatments for a range of diseases, both chronic and acute. It requires a large amount of human plasma to meet the demand for PDMP. Many countries, including Denmark, rely on voluntary, non-remunerated plasma donors, yet self-sufficiency remains a challenge. Increasing domestic plasma collection could reduce dependency on international markets and enhance supply security. While expanding plasma donation efforts is crucial, donor safety must remain a top priority. Plasma donation is generally a safe procedure. Optimizing the donation process to improve efficiency while maintaining high safety standards is essential to ensure both donor well-being and the availability of lifesaving PDMPs.

Aims

This pilot project evaluates the safety of plasma donation for fractionation from regular donors without a prior in-person interview, provided that the pre-donation questionnaire contains no remarks.

Methods

This pilot project was conducted at a regional blood bank in North Jutland, Denmark, over a period of five months (June to October 2024). A total of 213 experienced plasma donors were assigned to either an intervention group (n = 104) or a control group (n = 109). Inclusion criteria were a completed questionnaire without remarks on the day of donation, age < 65 years, three uncomplicated donations within the last three months, and a minimum of ten prior donations. The control group followed standard procedures, including completion of a pre-donation questionnaire (legal requirement) and an in-person interview with experienced staff. In the intervention group, donors completed the pre-donation questionnaire, and if no issues were identified, proceeded directly to donation without a prior in-person interview. Written informed consent was obtained to access donor records afterward. Donor safety was assessed by evaluation of donor records for: adverse events, historical records compromising donation and post-donation information.

Results

Written informed consent was obtained from 99 donors, including 49 (49,5 %) from the intervention group and 50 (50,5 %) from in the control group. Three adverse events were recorded: two (4 %) in the intervention group (delayed bleeding at puncture site and infiltration) and one (2 %) in the control group (delayed bleeding at puncture site). In the intervention group, one donation was unsuccessful due to failed venipuncture, and one donation was reduced due to technical equipment issues. All donations in the control group were successfully completed. No post-donation information was reported.

Conclusion

This pilot project suggests that omitting the pre-donation in-person interview for experienced plasma donors with a pre-donation questionnaire without remarks does not appear to compromise donor safety. The incidence of adverse events was low and comparable between the intervention and control groups, with only minor adverse events reported. Findings indicate that streamlining the plasma donation process for experienced donors may be feasible and could enhance efficiency without negatively impacting donor well-being. However, further research with larger cohorts and extended follow-up is required to confirm these results and assess broader implications for donor and patient safety.

Are US Source Plasma Donors Healthy? A Cross-Sectional Examination of Donation Frequencies, Health Effects, and Reasons for Lapsing

Michelle Fransen, Mark Becker, James Lenart & Toby Simon

Background

Plasma-derived medicinal products (PDMPs) are essential, life-saving medicines manufactured from plasma donated by healthy human volunteers. PDMPs are used to treat a range of rare, serious, and chronic conditions, often genetic in origin. Approximately 70% of the Source Plasma (SP) used for PDMP manufacturing comes from United States (US). In the US, when donation screening requirements are met, SP donors can donate two donations, 48 hours apart, within a rolling seven-day period. Collection volumes are primarily based on the donor's weight. While there is no evidence that frequent SP donation poses a health risk, other countries have lower limits on donation volume and frequency. Considering the global need for SP and PDMPs, it is critical to maintain the health of frequent donors.

Aims

The hypothesis of this study is that US donation frequency does not impair donor self-reported functional health and well-being. Additionally, this study explores SP donors' self-reported reasons for a lapse in donating.

Methods

5608 SP donors from 14 US SP centers were enrolled in a cross-sectional study to assess self-reported health related quality of life (HRQoL) and well-being. By sex, donors were assigned to one of four groups, according to their frequency of SP donation in the 12 months before enrollment. The SF-36v2® Health Survey (SF-36v2) and a survey assessing the frequency of various health conditions that may be associated with impaired immune function over different time periods were used. 1448 SP donors who lapsed in donating during six months or greater during the study follow-up were asked to complete a survey.

Results

There were no statistically significant differences in SF-36v2 scores between any of the donor frequency groups, compared to new donors after controlling for potential confounding and accounting for multiple comparisons among males and females. Temporary conditions such as cough, cold, occasional fatigue, and sore throat were the most reported health conditions or symptoms, but there was no clear difference among sex or frequency groups. Most of the responses given for stopping SP donation were for convenience reasons (69.1%), including schedule conflicts (30.2%). Approximately 45.5% of the responses were due to concerns about health possibly related to plasmapheresis, which included reasons of having multiple deferrals (14.3%).

Conclusion

The self-reported data in this study support the hypothesis that compensated donations at US FDA permitted frequencies and volumes are consistent with maintaining donor health. Compared to the general population, SP donors have comparable or better self-reported health than the general population. The top factor reported by US SP donors to discontinue participation was convenience reasons. Self-reported health concerns were less frequent but present in all frequency groups.

Distribution of Non-White Donor Ethnicities in an Irish Donor Population

Moira Keogh, Louisa Shackleton, Dearbhla Butler, Mark Harrington, Paul McKinney, Kieran Morris, Ellen McSweeney, Barry Doyle & Andrew Godfrey

Background

Blood groups are inheritable characteristics and are strongly associated with ethnic background. A diverse donor base is desirable, as this can better meet a diverse patient cohort. In recent years Ireland has seen increased usage of RhD negative units, driven mainly by the expansion of haemoglobinopathy services, leading to a >20% increase in RhD negative blood usage year on year, predominately for patients of R0 phenotype. Whilst 6.5% of Ireland's population is of non-White or mixed ethnicity, as few as 1.8% of Irish blood donors identify as a non-White ethnicity. Recent changes to the IBTS acceptance criteria and the introduction of Malaria Antibody Testing has expanded blood donation to a much wider donor cohort. The IBTS began to capture donor ethnicity in May 2023. Using knowledge of antigen prevalence amongst ethnic cohorts, donor ethnicity is used to inform antigen phenotyping to 1) maximise antigen negative identification, and 2) identify rare donors that have a higher prevalence within certain ethnic cohorts. Donor ethnicity also informs which donors require HbS typing.

Aims

Identify the country of birth and ethnicity of the non-White donors and determine how this could impact donor recruitment and inform antigen typing algorithms. .

Methods

The self-reported ethnicity, alongside donor demographics, including country of birth, from all non-White and mixed-race donors bled in the IBTS from May 2023 to December 2024 was analysed. Ethnicity was self-identified using a pre-defined list. Donors who did not disclose their ethnicity were excluded from analysis.

Results

In total, 1573 donors of non-White ethnicity, from 113 countries attended blood donation clinics, with 5773 attempted donations in total. Table 1 shows a breakdown of the number of donation attempts by donor ethnicity; Donors of Asian ethnicity account for 46% of non-White donors, donors of Black ethnicity account for 18% of non-White donors, and donors of Arab ethnicity account for 13% of non-White donors.

The top 5 countries of birth represented within the non-White donor ethnicities were India (18%), Ireland (15%), Nigeria (5.9%), The Philippines (5.5%) and Algeria (4.7%). The percentage of donors from these countries, excluding Ireland, who donate relative to the population of donation aged people living in Ireland is; India (0.8%), Nigeria (1.1%), The Philippines (1.1%) and Algeria (8.3%).

Conclusion

Greater understanding of our available donors gives greater guidance for targeting recruitment and antigen phenotyping of donors. An interesting finding in this study is that Algerian donors are 3.5 times more like to donate than their Irish counterparts with 8.3% of Algerians aged 18-65 in Ireland donating in this period, Arab donors having an average of 4.27 attendances at donation clinics. Comparatively, 0.5% of Black ethnicity donors donated in this period, with an average of 1.56 attendances. This study highlights the need for targeted recruitment of Black donors, and greater understanding of the blood types associated with the high-return ethnicities and countries.

Table [1]: Donation statistics for self-declared non-White blood donors in an Irisch donor population

Ethnicity	Donations/ attendances (n)	Donors (n)	Proportion of total non-White donors (%)	Proportion of total non-White donor attendances (%)	Average number of non-White donor attendances
Any other Asian background	1842	369	23.46%	31.91%	4.99
Any other ethnicity	354	53	3.37%	6.31%	6.87
Any other mixed / multiple ethnic group	901	155	9.85%	15.61%	5.81
Arab	965	226	14.37%	16.72%	4.27
Black	476	306	19.45%	8.25%	1.56
Indian Sub-Continent	686	388	24.67%	11.88%	1.77
Japanese	85	7	0.45%	1.47%	12.14
Latinx	238	46	2.92%	4.12%	5.17
Unknown	216	23	1.46%	3.74%	9.39

The impact of relaxing blood donation deferral policies for men who have sex with men on blood safety and volume: a systematic review of modelling studies

Luce Mosselmans, Mart P. Janssen, Hendrik B. Feys, Emmy de Buck, Fritz Schiltz, Peter Vandenberghe, Philippe Vandekerckhove & Hans Van Remoortel

Background
Several countries have used modelling studies to alleviate donor deferral criteria for men who have sex with men (MSM) in recent years. This systematic review assesses the impact of easing MSM donor deferrals from modelling studies on blood safety and volume.

Methods
Four databases were searched for modelling studies estimating temporary MSM deferrals replacing permanent bans, shortening MSM deferral periods, or their complete removal. The GRADE methodology (Grades of Recommendation, Assessment, Development and Evaluation) was used to assess the certainty of evidence.

Results
Relaxing MSM donor policies led to (very) small increases in residual HIV transmission risk, for changing permanent MSM bans to temporary deferral periods (low to moderate-certainty evidence), shortening MSM deferrals (low to moderate-certainty evidence), and completely removing MSM deferral criteria (very low to moderate-certainty evidence). Relaxing MSM deferrals led to a medium to large increase in the relative HIV residual risk (up to a three-fold increase in risk), but the absolute increase in HIV-positive units was (very) small (less than 1 additional HIV unit per million donations). Despite small increases in risks, the modelled HIV residual risk remained very low in all plausible scenarios assessed, ranging between 0.05 and 1.1 HIV positive units per million donations. The increase in additional donors ranged from 0.04% to 2.1%.

Conclusion
Evidence indicates that modelled HIV residual risk estimates increase slightly with easing MSM donor deferrals criteria. However, differences in risk estimates between different policies as well as increase in blood volume are generally very small.

"There's always that little bit of stress at the beginning of whether you have to out yourself for the millionth of time": a qualitative study of the experiences of Two-Spirit, trans, nonbinary, and other gender-diverse donors in the blood donor centre

Jennie Haw, Don Lapierre & Terrie Butler-Foster

Background

Two Spirit, trans, nonbinary, and other gender-diverse (herein referred to as gender-diverse) donors are important contributors to blood collection agencies (BCAs) around the world. With countries around the world, such as Canada and the US, reporting a rise in the number of gender-diverse people, it is very likely that the number of gender-diverse donors will also increase. Longer-term sustainability of the blood donor pool requires attention to changing sociocultural context and demographic changes in the broader population to ensure that the donation experience is inclusive and donor retention is maintained. To guide BCAs on how best to support gender-diverse donors, it is necessary to understand their experiences of blood donation.

Aims

To explore gender-diverse donors' experiences of blood donation and identify points during the donation process that raise challenges for an inclusive donation experience.

Methods

This is a community-based participatory research guided by a community advisory group. An exploratory qualitative study was conducted with 85 gender-diverse blood and plasma donors in Canada. Semi-structured interviews explored a range of topics including experiences of donating, barriers and enablers to an inclusive and affirming donation process, and views on expanding gender options in donor screening. Participants had the option to be interviewed by a cisgender, nonbinary, or transgender study team member. Interviews were conducted from July-Oct. 2022, audio recorded, transcribed, and uploaded to NVivo. Thematic analysis was completed.

RESULTS: Participants described a range of experiences from "overall positive" to "very negative" and many described their donation experience as inconsistent, uncertain, and unpredictable. Participants experienced being made visible not by choice (i.e., being 'outed' in public spaces) and erasure (i.e., in computerized systems that were limited to sex or gender binary options). They practiced vigilance to facilitate their own safety during donation because of the potential to be outed. Most of the barriers to an inclusive donation experience occurred during registration and screening. These included being misgendered, limited to binary gender or sex options, being called by their legal name and not the name they use, and having to explain why they are taking hormones. Many participants explained that once they made it to the point of sitting in the chair to have the needle inserted and their blood drawn, they could relax.

Conclusions

Scholars argue that bureaucratic systems that neglect to include gender-diverse identities and bodies is a form of institutional erasure and can lead to inadequate healthcare and services for gender-divese people. Others suggest that in addition to erasure, gender-diverse people and bodies may be rendered hypervisible. Our results demonstrate that gender-diverse donors experience both erasure and hypervisibility and try to manage both in the donor centre. Results suggest that priority areas for change include addressing misgendering, using a donor's name-to-use, and ensuring questions about medication and hormone use are asked by staff in a culturally safe way and only if absolutely necessary.

Addressing systemic barriers to donation for diverse South Asian communities

Kelly Holloway, Poojan Joshi & Shruti Nadkarni

Background
Blood services are responsible for ensuring a reliable and sustainable blood supply. Currently, blood donors in Canada are primarily white, resulting in a donor base that does not represent Canada's diversity. Building a donor base that reflects this diversity is essential to ensuring everyone has reliable access to safe, high-quality blood and blood products. This research aims to support a sustainable, equitable blood service for Canada's diverse population, with a focus on South Asian communities. People of South Asian ancestry represent the largest racialized community in Canada and are underrepresented as blood donors in Canada.

Aims
To explore the prevalence of systemic barriers to donation for people of South Asian ancestry and obtain feedback on proposed recommendations and strategies to address barriers.

Methods
We conducted a qualitative study using a community-based participatory research framework. Participants were recruited through community partnerships and university student clubs. Data collection (October 2024 – February 2025) included in-person and online focus groups and interviews. Eligibility criteria included identifying as South Asian and being comfortable speaking in English. We explored participants' views and experiences with donation, perspectives on donation, systemic barriers to donation, feedback on proposed recommendations to address barriers, and recommendations on engaging with South Asian communities. Focus groups and interviews were audio-recorded, transcribed, and analyzed using a constructivist grounded theory methodology.

Results
We recruited 34 participants in Ontario (18 women and 16 men, most aged 18-44). Consistent with prior research1-2, key barriers included accessibility, language barriers, deferral criteria, and lack of awareness. Our study offers additional insights into these barriers. We found that community organizations facilitated participation in donation by approaching donation as a social initiative. At the same time, some participants highlighted how intersecting systemic barriers impacted their participation. Women often experienced deferrals due to anemia, and reported a lack of guidance on how to address this issue, pointing to deficiencies within Canada's healthcare system. International students were managing multiple priorities and facing inequitable policies impacting their residence status which limited access to healthcare. These factors hindered their ability and willingness to engage in social initiatives such as blood donation. Many participants expressed concerns about the rising anti-immigrant sentiment in Canada, which further created conditions of exclusion where social activities such as blood donation become more compromised. These findings illustrate the need for more equitable policies that address systemic inequities in Canada, as well as proactive efforts by blood operators to demonstrate that racialized communities are valued and integral to Canada's blood system.

Conclusion: Our study contributes to research on increasing donor diversity for blood supply sustainability. Our approach to understanding donation through the lens of systemic barriers allows us to identify the way the blood system is intertwined with other social systems, and the impact on how communities are able to access blood donation. Participants pointed to pragmatic changes that can be made in and beyond the blood service to make blood donation more accessible for South Asian communities.

Introduction of Malaria Testing at the IBTS: A step towards a more diverse and sustainable blood supply

Dearbhla Butler, Allison Waters, Dermot Coyne, Padraig Williams, Niamh O'Flaherty, Andrew Godfrey

Background:
Malaria is a mosquito-borne infectious disease caused by Plasmodium parasites. Malaria is endemic in in sub-Saharan Africa, it also occurs in parts of Oceania, Central and South America and Southeast Asia. Plasmodium parasites are primarily present in red cells and can be transfusion transmitted.
Malaria Antibody Testing (MAT) was introduced by the Irish Blood Transfusion Service (IBTS) in May 2023. Prior to the introduction of testing, the IBTS permanently deferred former residents of malaria endemic areas and those that previously had malaria infection. This strategy did not allow the IBTS to meet the needs of the increasingly diverse patient population, particularly the haemoglobinopathy patients where prevalence of the Ro phenotype is higher than in the Irish Donor population.
A sample-only collection policy was introduced on the first attendance. Donors are eligible to donate 42 days after a negative test.

Aims
To assess the effectiveness of MAT to qualify ethnically diverse donors for donation.

Methods
Samples were screened for Plasmodium antibodies using the Trinity Biotech Malaria assay. Reactive samples were repeated in duplicate and repeat reactive (RR) samples were referred to the Microbiological Services Laboratory, of the NHSBT in London for confirmatory testing.
Malaria test results from 2023 and 2024 were reviewed to determine the RR rate and the rate of confirmed positivity. The ethnicity of donors screened for malaria was analysed.

Results
A total of 1361 samples from donors who met the selection criteria were screened for malaria antibodies, 1264 donors tested negative. The majority of donors tested self-reported their ethnicity as White (46.6%), followed by Indian Sub-Continent (17.9%) and Black (8.5%) (Table [1]). 97 samples were RR for malaria antibodies (7.13%). Of these, one was PCR positive for P. ovale (0.07%), 82 were classified as past malaria infection (6.02%), 12 were inconclusive due to discordant serology at the reference laboratory (0.88%) and two were false positive (0.15%). The majority of donors that tested RR for malaria reported their ethnicity as Black (48.5%), followed by Indian Sub-Continent (20.2%). 44 donors tested RR for anti-HBcore (3.23%) with 11 of those samples being co-reactive for both Malaria and HBcore antibodies. The majority of HBcore RR samples were from donors that reported their ethnicity as Black (40.9%), followed by Indian Sub-Continent (20.5%).
1231 donors were eligible to donate based on negative Malaria and HBcore screening. Of these, 532 donors have attended to donate, giving a total of 1046 donations, with a mean of 1.97 donations per donor (range 1-14). The majority of donors that returned to donate following a negative MAT were White (60.0%), followed by Indian Sub-Continent (11.3%), 3.4% of returning donors reported their ethnicity as Black.

Conclusion
The introduction of MAT has successfully facilitated the recruitment of more ethnically diverse donors. However, high rates of malaria and HBcore antibody detection in these groups means more targeted recruitment is required to meet demand.

Table [1]: Ethnicity of Blood Donors Screened for Malaria, Repeat Reactive for Malaria and HBcore and Returning to Donate after a negative Malaria test

Ethnicity	Donors Screened		Malaria Antibody Repeat Reactive		Anti-HBcore Repeat Reactive		Donated after negative screening	
	n	%	n	%	n	%	n	%
Total	1361	100%	99	100%	44	100%	532	100%
White	634	46.6%	15	15.2%	2	4.5%	319	60.0%
Arab	73	5.4%	1	1.0%	1	2.3%	39	7.3%
Indian Sub-Continent	244	17.9%	20	20.2%	9	20.5%	60	11.3%
Any other Asian	113	8.3%	5	5.1%	8	18.2%	41	7.7%
Black	116	8.5%	48	48.5%	18*	40.9%	18	3.4%
Any other Ethnicity	32	2.4%	1	1.0%	1**	2.3%	20	3.8%
Mixed	41	3.0%	5	5.1%	3	6.8%	14	2.6%
Not disclosed	108	7.9%	5	5.1%	2	4.5%	21	3.9%

*Includes 10 Malaria Repeat Reactive Donors

**Malaria and HBcore Repeat Reactive

Worldviews and Blood Donation: A Systematic Review of Motivational Dynamics

Teemu Pauha & Anne Birgitta Pessi, John Danesh, Emanuele Di Angelantonio, Adam Butterworth, Willem H. Ouwehand, David J. Roberts, Jonathan Mant & Lois G. Kim

Background
Voluntary non-remunerated blood donation (VNRBD) is recognized by the World Health Organization as the most reliable source of safe blood. To secure an adequate pool of voluntary donors, it is crucial to understand the motivational dynamics of donation. Research has traditionally examined the influence of factors such as personal motives, attitudes, and values, notably altruism, on blood donation. What is often overlooked, however, is that these elements are embedded within broader worldviews that encompass ethical, epistemological, and ontological beliefs. Various religious teachings, for example, emphasize the principle of aiding those in need, while others may impose specific regulations or taboos related to blood. Additionally, perceptions of transfusion safety can be influenced by conspiracy theories, which undermine trust in the healthcare system.

Aims
This study aims to systematically review existing literature to analyze the influence of comprehensive worldviews, including religious and non-religious beliefs, on blood donation behaviors. The objective is to understand how different belief systems shape motivations and barriers to donating blood, thereby informing strategies to cultivate a robust donor pool.

Methods
Adhering to PRISMA guidelines for systematic reviews, an extensive literature search was conducted across databases such as PubMed, MEDLINE, and Scopus. The inclusion criteria targeted studies involving primary data on the relationship between worldview and the propensity for blood donation. Approximately 150 studies fulfilled the inclusion criteria.

Results
Despite numerous studies meeting the inclusion criteria, the concept of worldview is underexplored in the literature, as an overwhelming majority of studies focus narrowly on religiosity, while other kinds of worldviews are practically ignored. Furthermore, the operationalization of religiosity is very limited, typically being reduced to dichotomous (religious/non-religious) or categorical (Christian/Muslim/Hindu/...) variables, thus ignoring the multidimensional nature of religion and worldview. This limitation bears significance as we consider the mixed findings regarding the influence of religiosity on blood donation. Several studies report a positive correlation between religious beliefs and donation, but this association often disappears when controlling for potentially confounding variables. Notably, both donors and non-donors commonly justify their donation behavior with religious reasons.

Conclusion
While the relationship between worldview and blood donation has been investigated in numerous studies, the quality of these studies varies significantly, and especially the measures of religion have been poor. Other kinds of worldview (non-religious, political, spiritual, etc.) have been practically ignored. Accordingly, the study underscores the need for a more nuanced understanding of how various worldviews influence blood donation behaviors. Future research should employ multidimensional and person-centered approaches to more accurately capture the complex interplay between individual belief systems and donation motivations. Developing a deeper understanding of these dynamics is essential for creating effective strategies to manage and sustain the donor pool.

6th European Conference on Donor Health and Management

Program Friday
September 12th

Special Session 1

"Inclusive Blood Donation: Understanding Behaviour, Barriers, and Motivators in Minority Donor Populations"

Special session

Author:

Sigrun Leipnitz
German Red Cross Blood Service Baden-Württemberg Hesse and North-East

Yara Dixon

Besarta Vaseli

Antonia Leiße

Michel Clement

Edlira Shehu

Eva-Maria Merz

1) Motivation of the topic

Sustainable blood supply depends on a committed donor base. Practitioners and academics argue that such a donor base should not only consist of an adequate number of motivated donors, but should also be inclusive. Historically, restrictive policies have often excluded certain groups from blood donation, such as homosexual men or ethnic minorities. Improved testing methods and the introduction of individual risk assessments instead of blanket exclusions allow for a safer and more inclusive blood donation. A sustainable donor base that meets both the quantitative and qualitative requirements of the healthcare system and represents diverse populations should be the standard today. Unfortunately, this is not the case in many countries. Recruitment and retention of minority groups to build a diverse donor base remains a major challenge for many blood donation organizations. Therefore, we aim to understand the behaviour, motives and barriers, and persistent systemic restrictions of minority groups in the context of blood donation. Insights from the following research can help blood donation organizations to successfully engage diverse donor populations and foster inclusion.

2) Contextualization and summary of the abstracts

Fostering inclusive blood donation involves understanding the unique needs of underrepresented communities. While academic research addresses these issues, findings vary based on geographical, cultural, and socio-economic factors affecting donor behaviour. Therefore, the special session will begin with

1) Blood donation in the Global South and among ethnic minorities in the Global North: a scoping review.

While many studies investigate barriers faced by African Americans and Sub-Saharan African migrants, research on a broader population of individuals with a migration background remains limited. To address this gap, the second paper presents findings on

2) Barriers and motivators of blood donation among individuals with and without a migration background.

Apart from individuals with a migration background, we share insights on the prosocial behaviour of men who have sex with men (MSM). Research suggests MSM may have stronger altruistic values, potentially increasing their blood donation engagement. The third paper provides insights into this topic:

3) Examining prosocial tendencies in MSM: Potential impacts on blood donation following the 2023 reform.

Promoting inclusive blood donation practices is essential for sustainable blood donation. By sharing our insights, we highlight the diverse needs of underrepresented groups to improve donor recruitment and retention, and ultimately create a more effective blood donation system that benefits everyone.

Blood donation in the Global South and among ethnic minorities in the Global North: a scoping review

Background: Red blood cell transfusions are essential for managing hemoglobinopathies such as sickle cell disease. Yet, they carry a high risk of alloimmunization—especially in patients of African descent, due to antigen mismatches between Caucasian donors and non-Caucasian recipients. Addressing this issue requires targeted recruitment of specific donors, yet current efforts are limited, partly due to logistical and cultural challenges. Previous work mainly focused on understanding barriers among ethnic minorities in the Global North. In this scoping review, we focus on populations in the Global South and ethnic minorities in the Global North to gain a more comprehensive understanding of donor recruitment, matching, and patient outcomes.

Aims: This study aims to identify barriers and facilitators to blood donation in the Global South and among ethnic minorities in the Global North, while also exploring innovative solutions to overcome these barriers, enhance facilitators, and promote long-term donor retention in these communities.

Methods: Literature was retrieved from Ovid MEDLINE, Web of Science, Scopus, GlobalIndex Medicus, and Embase. Inclusion criteria were peer-reviewed studies on barriers, facilitators, knowledge, attitude, practices, and interventions for blood donation in the Global South and studies targeting these issues among ethnic minorities in Europe, USA, Australia, and New Zealand. English-language studies with full-text availability were included. Two reviewers screened and reviewed all studies along our inclusion criteria. Data extraction is ongoing. Currently, an overview of findings from Sub-Saharan Africa is available.

Results: A total of 345 studies (1974–2024) from 67 Global South countries and 57 studies on ethnic minorities in the Global North were included. Studies were categorized according to WHO regional classifications. Sub-Saharan Africa was further divided into East, West, Southern and Central Africa: East (23 studies: Ethiopia [20], Uganda [2], Tanzania [1]), West (20 studies: Nigeria [13], Ghana [3], Togo [2], Senegal [1]), Southern (7 studies: South Africa [5], Botswana [1], Namibia [1]) and Central Africa (3 studies: Cameroon [3]). Blood donation rates are generally low in Sub-Saharan Arica, with a practice average of 23.3%, despite adequate knowledge and positive attitudes. Older, educated men are most likely to donate. Key facilitators include altruism, civic duty, targeted information, staff

Abstract 1

Author:

Yara Dixon[1,2]
,
Eva-Maria Merz[1,3]

[1] Sanquin Research, Donor Behaviour Research, Amsterdam, the Netherlands
[2] Amsterdam UMC, Department of Pediatric Hematology, Amsterdam, the Netherlands
[3] Vrije Universiteit, Department of Sociology, Amsterdam, the Netherlands

hospitality and awareness of shortages, while incentives like antenatal registration play an exceptional role in West Africa. Barriers vary: East Africa faces misconceptions and limited donation site access, West Africa contends with fear of infections, religious beliefs, and privacy concerns, Southern Africa highlights skepticism about racial discrimination, while Central Africa points out time constraints.

Conclusion: Efforts to improve blood donation should address misconceptions and limited access, while promoting education, transparency, staff hospitality and targeted outreach to key groups, e.g., students and religious communities. A complete analysis of the whole dataset will be conducted in the coming weeks to further explore differences and inform targeted strategies for improving blood donation globally.

Region	Number of studies (%)
South Asia	76 (22)
Sub-Saharan Africa	70 (20)
Middle East/North Africa	62 (18)
Ethnic minorities in the Global North	58 (17)
Latin America/Caribbean	31 (9)
Southeast Asia	21 (6)
East Asia	20 (6)
Other	7 (2)

Table [1]: Distribution of studies by region, based on a total of included studies.

The Missing Donors: Barriers and Motivators of Blood Donation Among Individuals With and Without a Migration Background

Background: Ensuring a diverse and sufficient blood donor pool is essential for an inclusive healthcare system. However, certain donor groups, such as individuals with a migration background remain underrepresented. Moreover, demographic changes make the inclusion of underrepresented groups critical. In addition, some ethnic groups have unique blood characteristics crucial for treating conditions like sickle cell anemia. Expanding donor diversity is therefore not only a matter of supply but also of equity in healthcare access. Prior research has identified various barriers to blood donation, including language barriers, lack of information, mistrust in healthcare institutions, or past discrimination. However, most of these studies were conducted in the U.S. and Australia, primarily focusing on African Americans and Sub-Saharan African migrants, as they represent significant minority groups in these countries and are at higher risk for sickle cell disease. Research on the barriers and motivators affecting a broader range of individuals with a migration background and their descendents is still limited.

Aims: This study explores the barriers and motivators to blood donation among donor groups in Germany, with a particular focus on long-term and second-generation individuals with migration backgrounds.

Methods: We conducted a survey with 994 individuals—both blood donors and non- donors, with (N=469) and without (N=525) migration backgrounds—and compared reported barriers and specific motivators between the groups.

Results: We found no significant differences in donation intention between blood donors with (M=3.91) and without (M=4.02, p=.608) a migration background. However, non-donors with a migration background showed a higher donation intention (M=2.63) compared to non- donors without a migration background (M=2.09, $p < .001$), highlighting a crucial potential for recruiting new donors from this group. Non-donors with a migration background show stronger personal moral norms (M=3.90 vs. M=3.65, p=.013) and report higher values of familiarity with the topic blood

Abstract 2

Author:

Besarta Veseli[1]

Sigrun Leipnitz[2]

Michel Clement[1]

Edlira Shehu[3]

[1] University of Hamburg, Institute of Marketing, Hamburg, Germany
[2] German Red Cross Blood Service Baden-Württemberg Hesse and North-East
[3] University of Groningen, Department of Marketing, Groningen, the Netherlands

donation (M=4.08 vs. M=3.69, p=.005), yet they scored the lowest on donation knowledge. Crucially, individuals with a migration background report higher levels of past discrimination compared to those without migration background, both in general and specifically within medical institutions. In terms of motivators, non-donors with a migration background consider “the feeling of helping someone” the strongest motivator for blood donation, followed by incentives such as a paid day off, financial compensation, health checks, and extended opening hours. Among non-donors, health issues and fears are commonly reported as reasons for not donating, regardless of migration background. However, compared to non-donors without a migration background, those with a migration background more frequently report a lack of opportunity, a stressful lifestyle, and limited awareness of donation services.

Conclusion: Individuals with a migration background are willing to donate blood, yet barriers such as limited knowledge, mistrust in medical institutions, and unfamiliarity with donation services continue to hinder participation. Given their higher donation intention compared to non-donors without a migration background, targeted efforts to improve accessibility, build trust, and highlight altruistic motivation—alongside practical incentives like flexible hours and health checks—could help expand the donor pool. Creating a more inclusive blood donation system requires addressing the specific needs of underrepresented groups.Apart from individuals with a migration background, we share insights on the prosocial behaviour of men who have sex with men (MSM). Research suggests MSM may have stronger altruistic values, potentially increasing their blood donation engagement. The third paper provides insights into this topic:

3) Examining prosocial tendencies in MSM: Potential impacts on blood donation following the 2023 reform.

Promoting inclusive blood donation practices is essential for sustainable blood donation. By sharing our insights, we highlight the diverse needs of underrepresented groups to improve donor recruitment and retention, and ultimately create a more effective blood donation system that benefits everyone.

Examining prosocial tendencies in MSM: Potential impacts on blood donation following the 2023 reform

Background: Blood shortages have prompted legislative changes that now allow individuals previously excluded from blood donation to contribute. For example, the United States has permitted individuals who were previously ineligible due to residency in countries such as England and France during the 1980s and 1990s to donate blood. In Germany, a 2023 legislative reform lifted restrictions on blood donation for men who have sex with men (MSM), making eligibility independent of sexual orientation. This group had long been excluded due to an increased risk of HIV/AIDS, but to ensure both recipient safety and a stable blood supply, donation eligibility is now assessed based on individual behavioural risk factors (e.g., sexual practices), a policy also adopted by countries such as Northern Ireland and Canada. Marketing research suggests that homosexual individuals exhibit different consumption patterns compared to heterosexual individuals, though these differences diminish with age. In the context of prosocial behavior, research suggests that MSM report stronger altruistic values compared to heterosexual men, which serves as a key motivation for prosocial behaviour. This raises the question of whether permitting MSM to donate blood could help address blood supply shortages – especially, if homosexual men would be more prosocially engaged than heterosexual men.

Aims: We aim to analyze the prosocial behavior of MSM as a proxy for their blood donation behavior.

Methods: Using the German Socioeconomic Panel, we analyze MSM engagement in (i) money donations, (ii) in-kind support, (iii) voluntary work and (iv) caregiving as proxies for blood donation. We conducted proportion tests to examine differences between MSM and heterosexual men. Moreover, we perform propensity score matching (PSM) to account for selection effects. To explore a moderating effect of age, we estimated logit models to assess the interaction between age and sexual orientation.

Results: The findings indicate that a higher proportion of MSM engages in monetary donations and in-kind support compared to heterosexual men, both before and after PSM, although the average donation amounts do not differ substantially. We find no differences between the groups in the proportion of individuals engaging in voluntary work or caregiving. The results of the logistic regression analyses suggest that MSM are significantly more likely to engage in money donations (β= 1.06, p=.002), in-kind support (β= 1.36, p<.001), and caregiving (β= 1.57, p=.014). We find no substantial effect for voluntary work (β= -0.47, p=.31). These differences decrease with age, indicating that the influence of sexual orientation on prosocial behavior diminishes over time.

Conclusion: Notably, younger MSM exhibit stronger prosocial engagement, which NGOs could leverage by involving this group in broader donation and volunteer initiatives. Targeted outreach efforts could engage their prosocial commitment beyond blood donation.

Abstract 3

Author:

Antonia Leiße[1]

Michel Clement[1]

Author's affiliations:

[1] University of Hamburg, Institute of Marketing, Hamburg, Germany

Special Session 2

Marketing Insights for Blood Donor Engagement - Key Findings from ADRP's Annual Survey

Background: Effective marketing strategies are essential for maintaining a stable blood supply, yet blood donor professionals face ongoing challenges in donor recruitment and retention. To better understand industry trends and successful engagement strategies, ADRP: The Association for Blood Donor Professionals conducts an annual marketing survey among its members, gathering insights on outreach tactics, donor engagement, and the evolving landscape of blood donation marketing in the United States.

Aims: This panel aims to present key findings from ADRP's annual marketing survey, providing attendees with data-driven insights into donor recruitment and retention strategies. Additionally, panelists will share best practices and innovative approaches that have yielded positive results in their respective organizations. The session will equip blood donor professionals with actionable marketing techniques to optimize outreach efforts.

Methods: The ADRP annual marketing survey collects data from member centers across the U.S. and internationally, gathering quantitative insights on donor engagement tactics, digital marketing tactics, community outreach strategies, and budgets for each. The survey results are analyzed to identify common themes, emerging trends, and look at changes year over year.

Results: The panel presentation will share various key data points from ADRP's annual marketing survey, covering multiple aspects of donor engagement and marketing strategies in the U.S. and internationally. These data points will include:

- Participation Overview: The survey includes responses from organizations across multiple countries, offering a broad view of donor recruitment and engagement efforts.
- Donor Engagement: Data on where donors are donating—whether through mobile blood drive clinics or fixed site locations.
- Show Rates & Appointment Trends: Analysis of donor attendance based on appointment sources, helping to understand what outreach methods yield the best retention.

Special session

Presenting author:

Theresa Pina

Gulf Coast Regional Blood Center

Author:

Theresa Pina[1]

Claude LeBoeuf[2]

Andrew Harris[3]

Debbie McNaughton[4]

Author's affiliations:

[1] *Gulf Coast Regional Blood Center*

[2] *Héma-Québec*

[3] *Welsh Blood Service*

[4] *Scottish National Blood Transfusion Service*

- Donor Demographics: Breakdown of first-time donors, active donors, lapsed donors, and trends in donor return rates after deferral.
- Advertising Spend: Percentage of total advertising spend by category, paid advertising spend per donor registered, and media in-kind sponsorships, all analyzed by location and organization size.
- Social Media Use: Social media and other media platform usage, including paid advertising effectiveness.
- Donor Incentives: Types of incentives offered, including gift cards and in-kind incentives, value and total cost per donor registered, and trends in incentive programs such as loyalty stores and promotional offers.

Panelists will then discuss how these insights have influenced their marketing approaches and share real-world examples of successful campaigns that have increased donor participation.

Conclusion: By leveraging data from ADRP's annual marketing survey and real-world success stories, this panel will provide blood donor professionals with valuable strategies to enhance their marketing efforts. Attendees will leave with practical insights into how they can apply these best practices to improve donor engagement, build lasting relationships with their communities, and ultimately contribute to a more sustainable blood supply.

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Thank you