NHS
Blood and Transplant

Health of the Donor Base

Board discussion paper
1st April 2025

Executive summary

Growing and diversifying our Donor Base and Registers is one of our five strategic priorities and requires a whole system effort. Following the Health of the Donor Base paper presented to Board in November, an action was taken to provide the Board with more comprehensive information in the next 6 months on targets and plans.

This paper is the first instalment, and it outlines strategic interventions and tactical actions required to deliver growth, reduce health inequalities and improve resilience. It covers all of our Donor Base and Registers at a high level, seeking to highlight the impact that medical advances, as well as changes in the UK population make-up and attitudes, will have. The paper then dives deeper into the whole blood donor base.

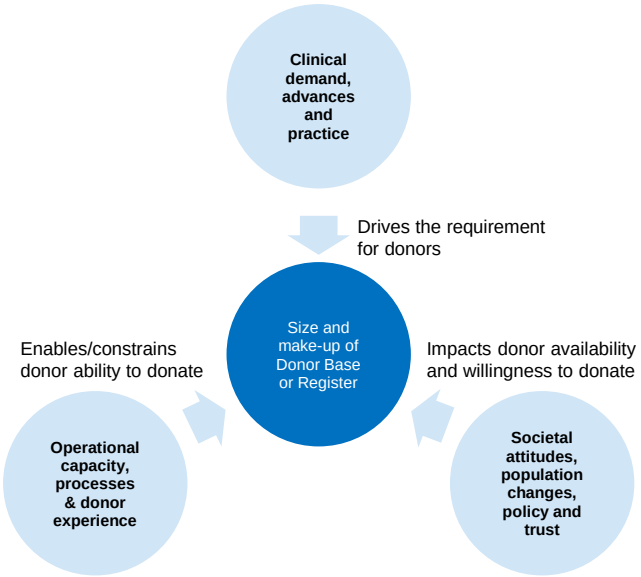
All of our Donor base and Registers need to grow to some extent to meet demand, although some far more than others:

- **Whole blood** - we need to grow the number of both Oneg and Ro donors in order to support the increasing demand for Ro type, as well as attract younger donors to future proof the base.
- **Plasma** - we need to support large scale growth to reach 35% self-sufficiency in the next 5-7 years.
- **Platelets** - we need to achieve greater levels of diversification as it affects our ability to supply HLA-selected patients.
- **Stem cells** – we need to shift the composition of our Register to more younger donors on the FIT panel to improve patient outcomes.
- **Organs/Tissues** – we need c70% of the population to register an opt-in decision (c20 million extra opt-in registrations).

Many factors impact the health of our Donor base and Registers, so, to support the necessary growth, we will need to consider not just how we carefully target our recruitment activity but also how we mobilise and retain customers by delivering a good end-to-end donor experience. That relies on all of us working together, ensuring that donors know what is expected of them, that they are able to find suitable appointments and they are enabled to donate.

Our Donor base and Registers all need to grow and diversify, requiring a whole system approach

Our Donor base & Registers sit at the heart of the overall system



Clinical demand, population and policy changes are driving the need to grow and diversify our Donor base / Registers

Whole Blood: Overall demand expected to remain relatively stable over the next 5 years. Growth needed in Oneg and Ro blood groups to meet demand and build resilience. Ageing population could increase demand - younger donors required to secure the future. More complex matching requirements for patients as well as for specific products.

Platelets: Small scale growth required although increases in transplants could mean more need for HLA/HPA matched platelets. Greater diversification needed and more A- donors to be switched. Resilience needed to prevent holiday alerts.

Plasma: Large scale growth needed to deliver agreed levels of self-sufficiency (35% in the next 5-7 years). Switching is primary method of successfully acquiring donors.

Organs/Tissues: Transplant need has increased by over 1/3 since 2020 due to growing prevalence of organ failure. Expect demand to continue to rise, especially for kidneys. Large scale growth in opt in registrations required to support demand. The law change has increased inertia/apathy. Under-representation of black and Asian heritage donors.

Stem cells: Increased demand due to transplantation advances enabling broader range of conditions and older patients to be treated. Shift in composition needed to create younger FIT panel. Need to recruit 30k p.a. to enable reduction in eligibility criteria to 30 yrs.

Note: Appendix A contains a high-level overview of each Donor base / Register

Evidence shows societal change and policy impact clinical demand and the willingness of donors to donate

Diversification

ONS projections see UK population rising to 72.5million by mid 2032. Migration is projected to be the only source of population growth so we may see more people with haemoglobinopathies.

18% of England & Wales' population are Black and ethnically diverse and those identifying as "Black", "Black British", "Black Welsh", "Caribbean" or "African" have increased to 1.5 million in 2021.

→ We must reflect changing society or could struggle to match donors to patient needs

Ageing population

Between mid-2022 and mid-2032, the number of people at state pension age is projected to increase by 1.7 million from an estimated 12.0 million to 13.7 million people (13.8% increase); this takes into account the planned increases in State Pension age to 67 for both sexes.

(ONS figures)

→ We must continue to recruit younger donors to replace those aged out to meet demand

Altruism / charitable giving

Volunteering rates and civic participation are in decline, however 75% of the UK population support charities in some way (through volunteering, fundraising, sponsorship or donation).

94% of Gen Z respondents would consider volunteering, compared with 74% of Baby Boomers. Over a third say they would be more likely to volunteer if flexible hours were offered.

→ We need to consider how we support flexibility, particularly for younger audiences.

Trust in the NHS

Public satisfaction with the NHS shows just 24% saying they were satisfied with the NHS in 2023.

The Black British Voices project found that 87% of respondents reported that they expect to receive substandard levels of healthcare because of their race, with only 7% of respondents feeling that Black people in Britain receive fair treatment from healthcare professionals.

→ We must consider how we demonstrate trustworthiness

Deemed Consent

Since the law change, we've seen the consent rate for organ donation fall from 69% (2020/21) to 61% (2024/25). Family support for donation is 90% when the patient's decision is known, but for 50% of cases no decision is known, and only 49% of families support donation.

The law has also increased inertia with many willing to donate believing they do not need to take any action.

→ We must consider how we engage citizens to continue signing the Register

We have mobilised strategic interventions to tackle clinical demand, operations and societal attitudes

1. **Clinical Demand - Blood:** Improved management of demand enabled by the newly formed joint blood stocks oversight group (NHSBT, NHSE, DHSC).

2. **Operations - Blood, Plasma and Platelets:** A transformed donor experience enabled by programmes and projects with committed funding:

    - Appointments that are available and convenient for donors - Donor Network Design Project and Future Proofing Blood Programme
    - Taking work off-session to maximise capacity for successful donation – Donor and Session Platform Programme, Post Donation Testing Project
    - Improved personalised engagement with donors – Optimising application of the Marketing Automation tool and re-tendering of the Contact Centre contract.

3. **Operations - Plasma:** Building a new donor base to support UK self-sufficiency enabled by Plasma programme committed funding.

4. **Policy – Stem Cells**: Change of policy to broaden eligibility criteria and re-branding to Stem Cell Register.

5. **Societal attitudes - all products:** A different conversation with the public about donation as called for in the 10-year plan submission supported by better use of strategic partnerships. Critically important for organ donation where the growth required in the register is significant.

Key insights:

- These strategic shifts will take multiple years to deliver.
- Additional tactical interventions driven by Donor Experience are required to support demand.

Deep dive into the Whole Blood Donor base

Key Messages:

- **Overall demand** is expected to remain relatively stable over the next 5 years
- Significant growth required for **Ro blood group** to meet demand and reduce health inequalities
- Growth in **O- blood group** is required to substitute for un-met Ro demand and improve resilience
- **Younger** donor base is required to secure the future
- **Strategic interventions** to improve appointment availability and reduce cancellations are included in our transformation portfolio and are critical to longer-term success
- Multiple new **tactical interventions** for 2025/26 identified, supported by up to £1.5m in-year investment

Structure of the Whole Blood Deep dive section

1. Trends

Long term trends in the whole blood Donor base

2. Projected growth

Projected growth to 2030 for blood product Donor base

3. Approach

Our approach to meeting targets

4. Tactical Interventions

Tactical interventions to deliver growth

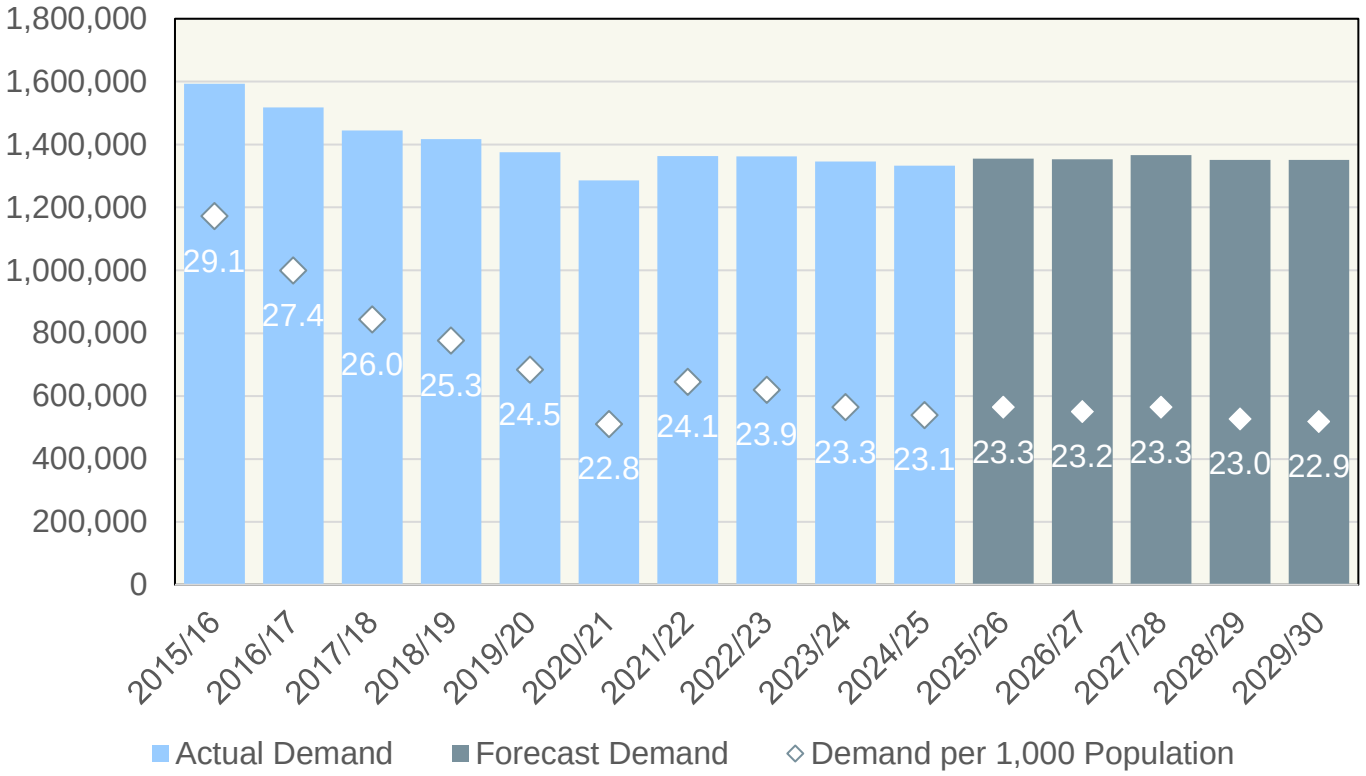
5. Dependencies

Dependencies on the strategic interventions to achieve targets

1.
Trends

Overall red cell demand has now stabilised after several years of decline

Overall Annual Red Cell Demand and Demand per 1,000 Population



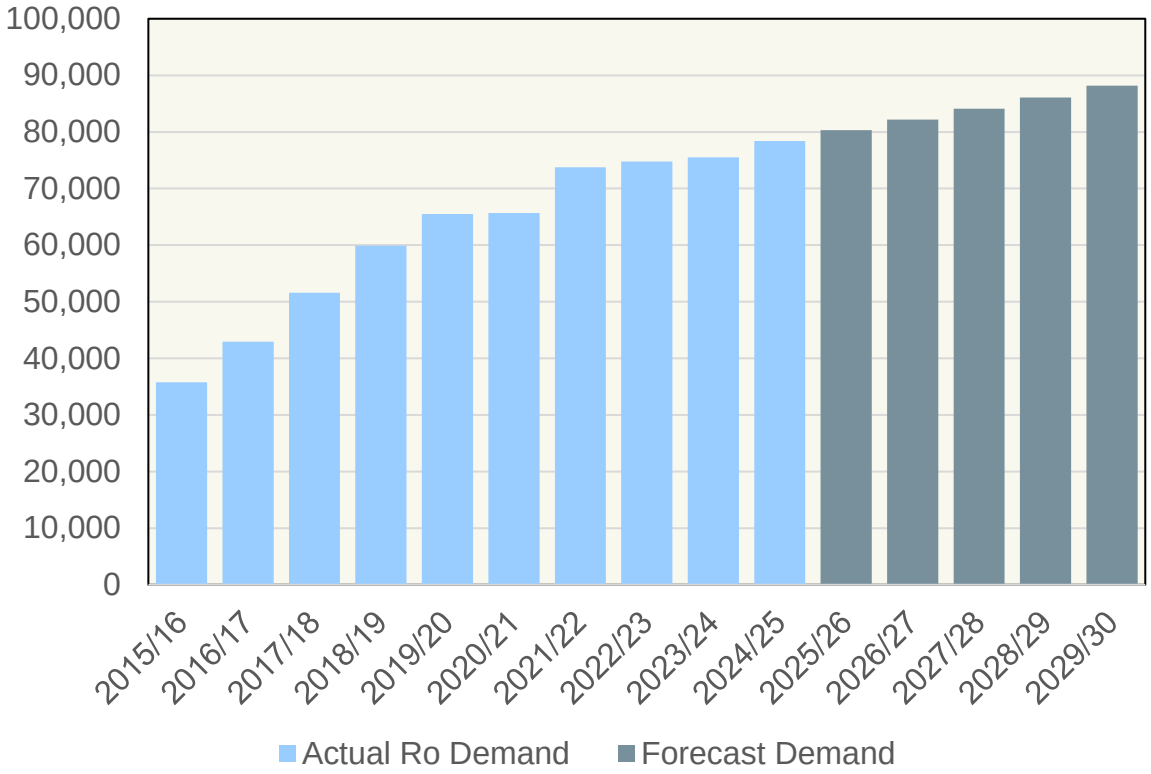
Key insights:

- After several years of year-on-year declining demand, overall red cell demand has now stabilised at c.1.35m per year.
- Demand per 1,000 population has also stabilised, as schemes to reduce blood usage are offset by rises in haematological conditions requiring transfusion.

1. Trends

However, demand for Ro type red cells has grown by c.220% over this same period and is forecast to continue increasing

Ro Type Red Cell Demand (Monthly) – Last 10 Years



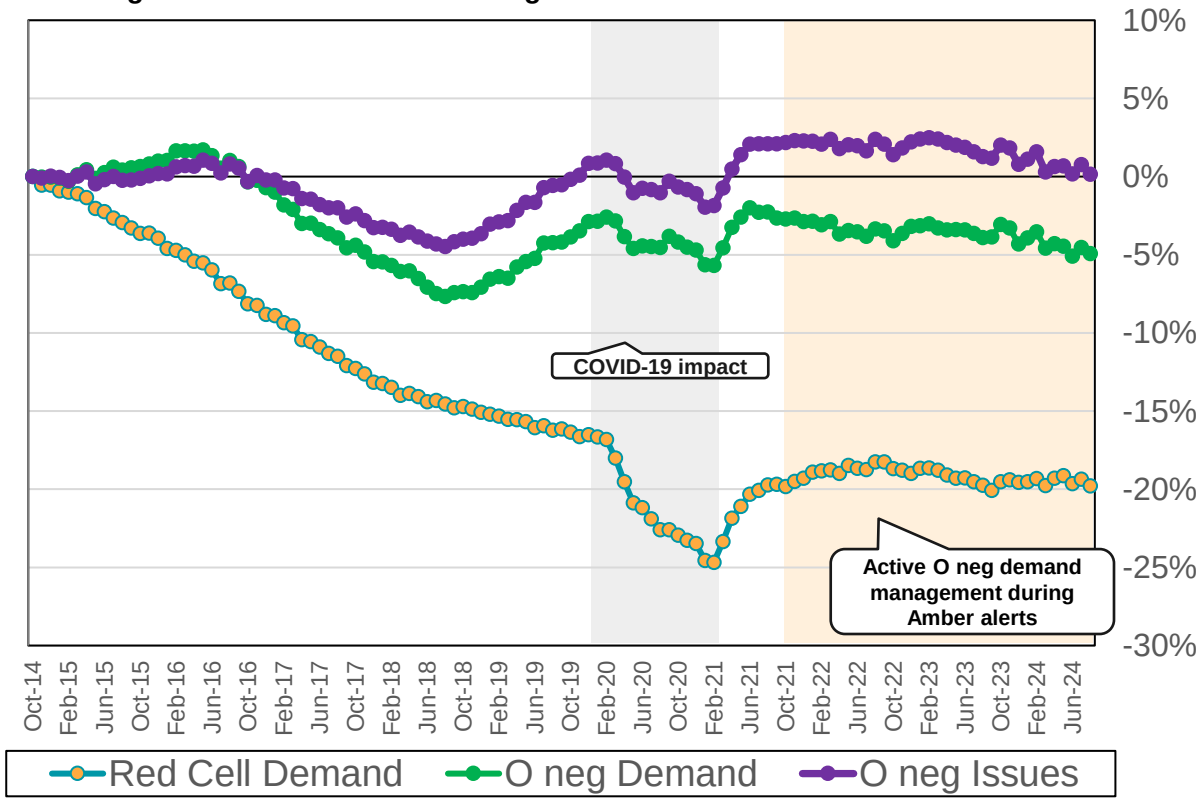
Key insights:

- Ro type red cells are more prevalent among people with Black African and Caribbean heritage (45% prevalence vs 1% non-Black heritage).
- Demand has grown due to:
  - Increases in Black Heritage patients requiring regular transfusions to manage haematological conditions (e.g. sickle cell).
  - More automated exchange treatments, which are more effective but require more blood than manual exchanges.
- We can only meet c. 55% of Ro demand with Ro blood. Substitutions (mainly O neg) are issued for the remainder.

1. Trends

We now issue the same volume of O neg as ten years ago, despite a c.20% decrease in overall red cell demand

% Change in Blood Demand and O neg Issues – Last 10 Years



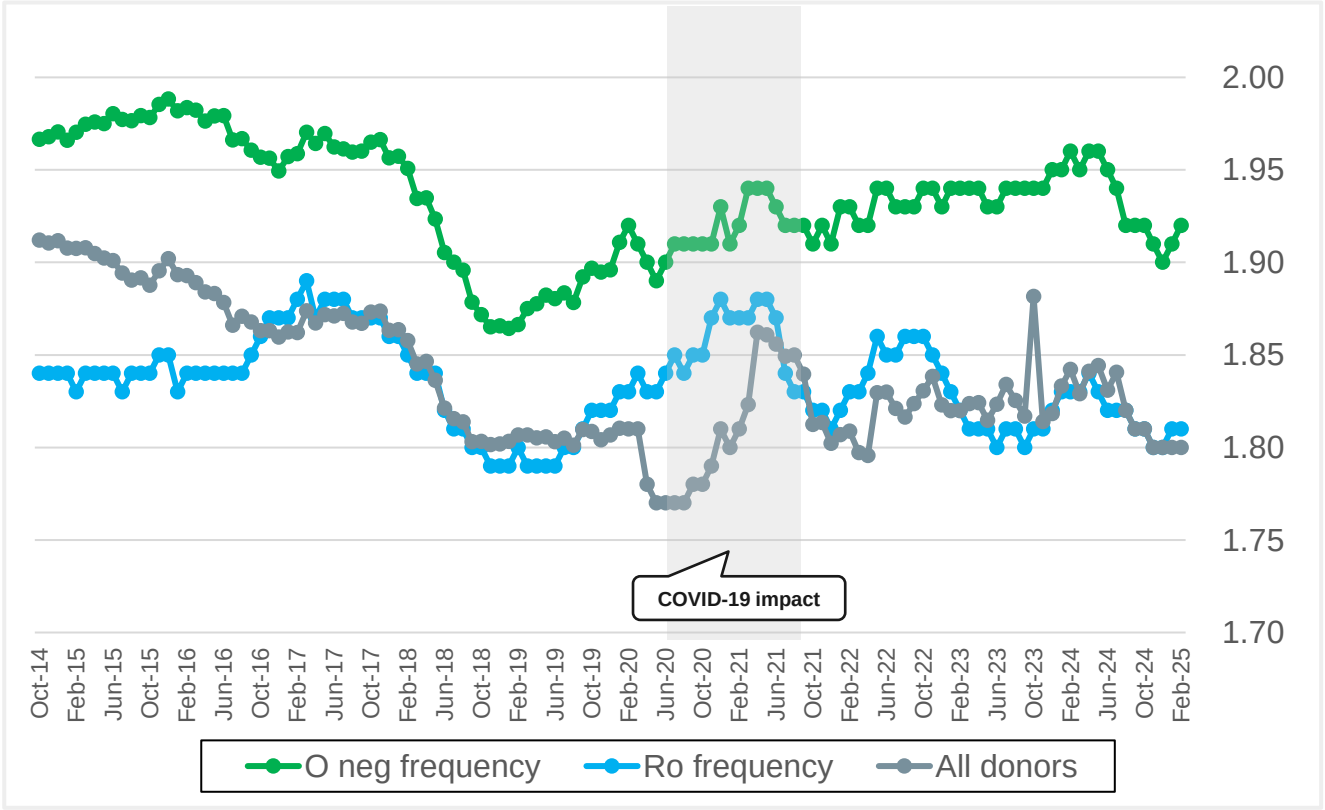
Key insights:

- Active management of O neg demand over recent years – including two amber alerts – has stabilised the rising trend in underlying demand.
- However, over the past ten years, total red cells issues has declined by 20%, but the total volume of O neg has not decreased. This means c.15% of blood issued is now O neg (vs 7% prevalence in the population).
- This is driven by increasing demand for this universal type and substitutions for un-met Ro demand (visible in the gap between the green and purple lines).

1.
Trends

Our O neg donor base has been donating very frequently to support this high demand

Average annual donation frequency of active donor base

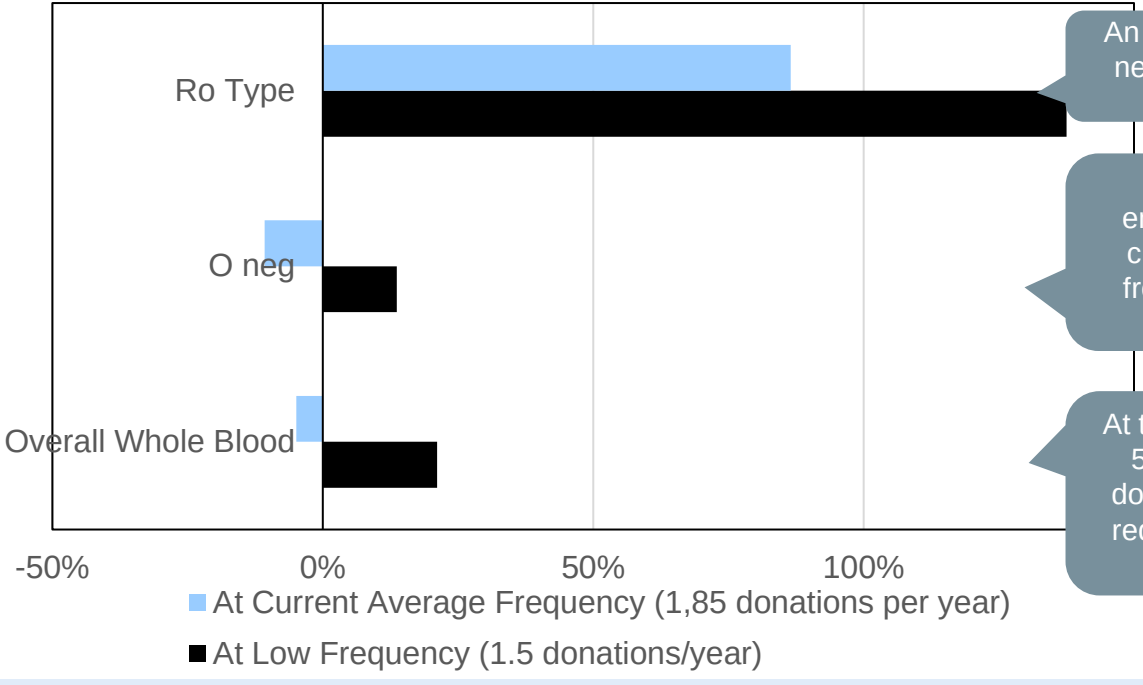


Key insights:

- Currently our active O neg donors donate c.1.92 times p.a. and our Ro donors donate 1.81 times per year vs c.1.8 for the remainder of the donor base.
- This is because we mobilise them more frequently through additional marketing activity and allow them priority access to appointment slots.

1. Trends

Number of donors needed depends on expected frequency to donate - substantially more Ro donors are needed



An increase of between 79-129% more Ro donors are needed (between 21.2k to 34.3k more than today) to meet all Ro demand with Ro supply.

If we could meet all Ro demand, we would have enough O neg donors today to meet demand at the current average donation frequency. If we reduced frequency to 1.5 donations / year we would need to increase the base by 14% (15.3k more donors).

At the overall level, we could reduce the base by up to 5% with the correct blood group mix at the current donation frequency or increase the base by 21% at a reduced frequency (between 40.4k fewer and 164.8k more donors than today)

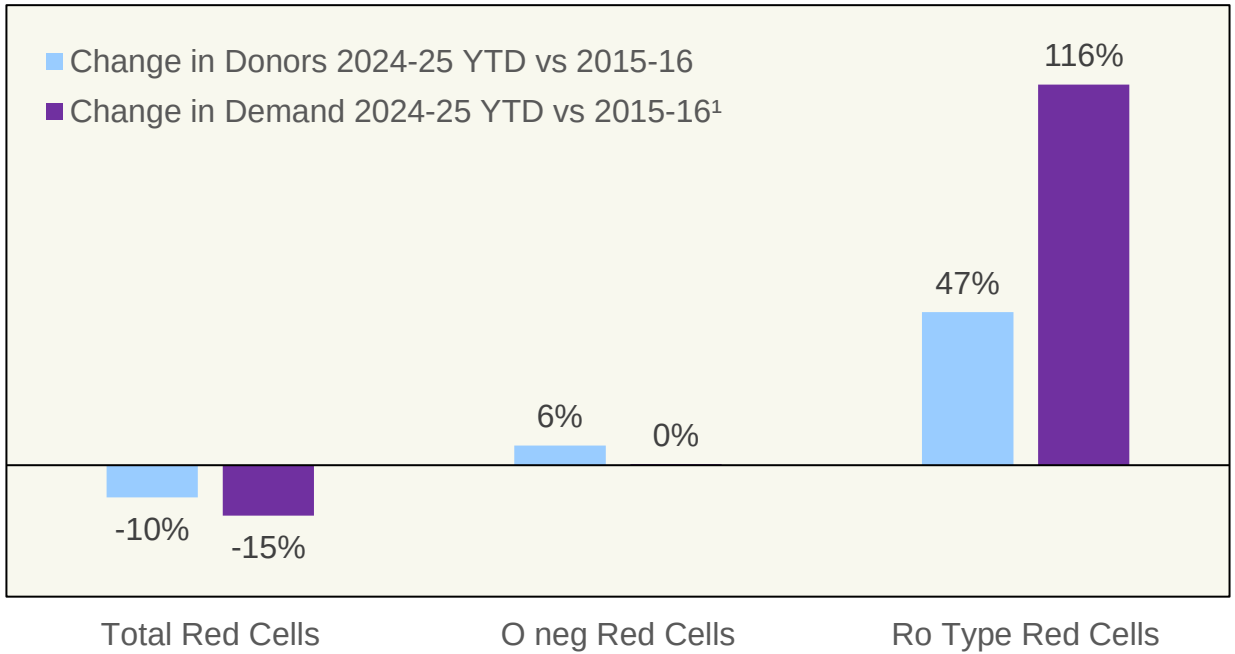
Key insights:

- A lower donation frequency would mean a larger and more resilient base of donors donating less often.
- If we could meet all Ro demand with Ro supply, the O neg donor base growth required would be smaller than if we continue to rely on substitutions.
- Meeting 100% of Ro demand within the next 5 years would require significant investment.

1.
Trends

We have delivered growth in the O neg and Ro bases in recent years, but not as quickly as Ro demand has risen

% change in Blood Demand and Active Donors 2024-25 YTD vs 2015-16



Key insights:

- **Total Red Cells**: the overall donor base has decreased by 10% since 2015-16, however overall demand has fallen by more, at 15%.
- Despite the overall donor base decline, we have:
  - Grown our **O neg** donor numbers by 6%.
  - Grown our **Ro type** donor numbers by 47%. (This growth however has been outpaced by a demand increase of 116% over the same period.)
- If we could meet all Ro demand with Ro blood, we would already have enough Oneg donors.

[1] Blood issued used for O neg red cells (i.e. demand + substitutions)

Early evidence shows Brixton is delivering increased Ro collection – targeted investment has helped diversification

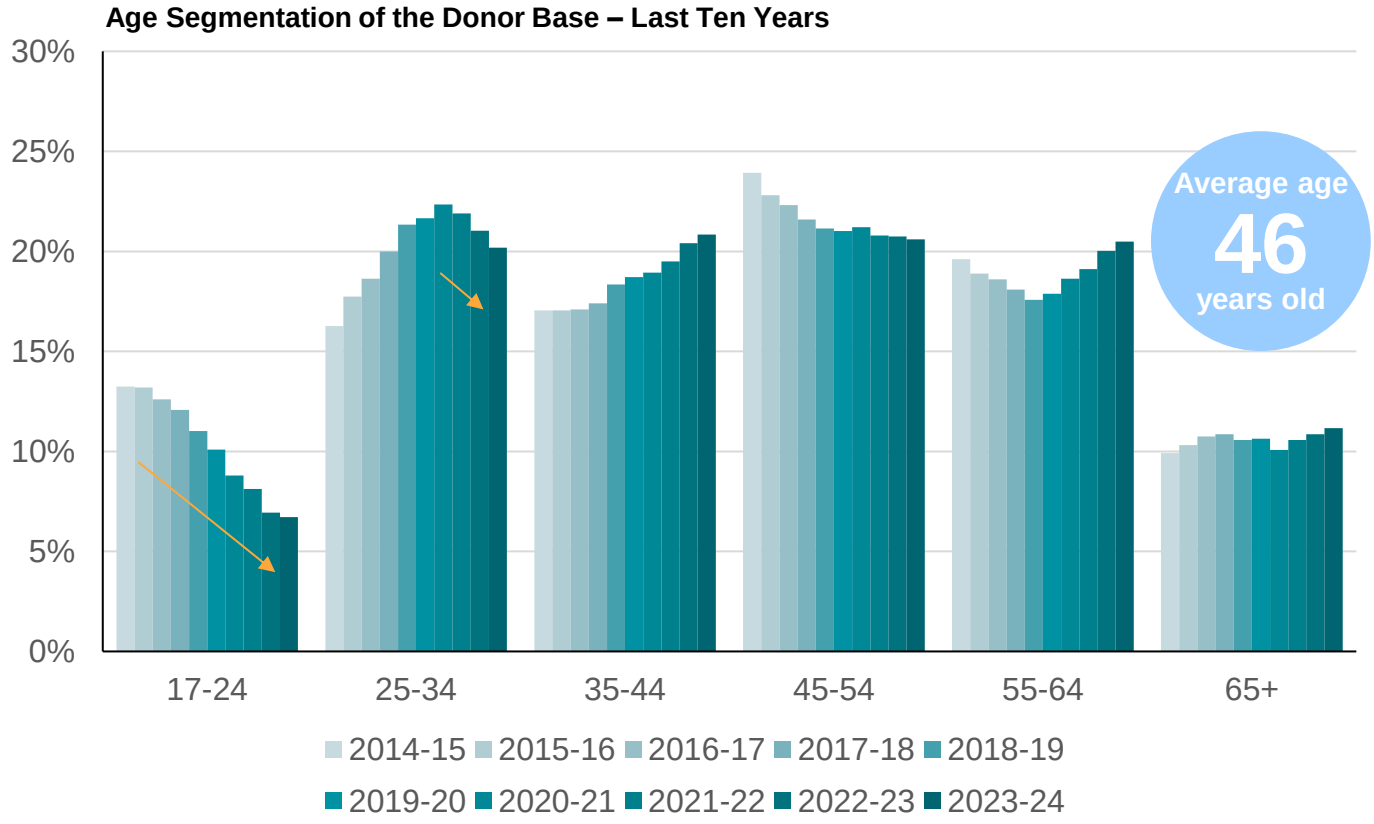
Our new Brixton Donor Centre is special: located in a densely populated area with a large Black heritage community, key public transport links and high-footfall.

It was also designed in partnership with the local community and has so far delivered:

- Approx 400 donations per week (and growing)
- Over 10% from Black Heritage donors (vs 1% national)
- Over 30% new donors (vs 12% national)
- A younger average age of 36 years (10 years younger than our total base average)

1.
Trends

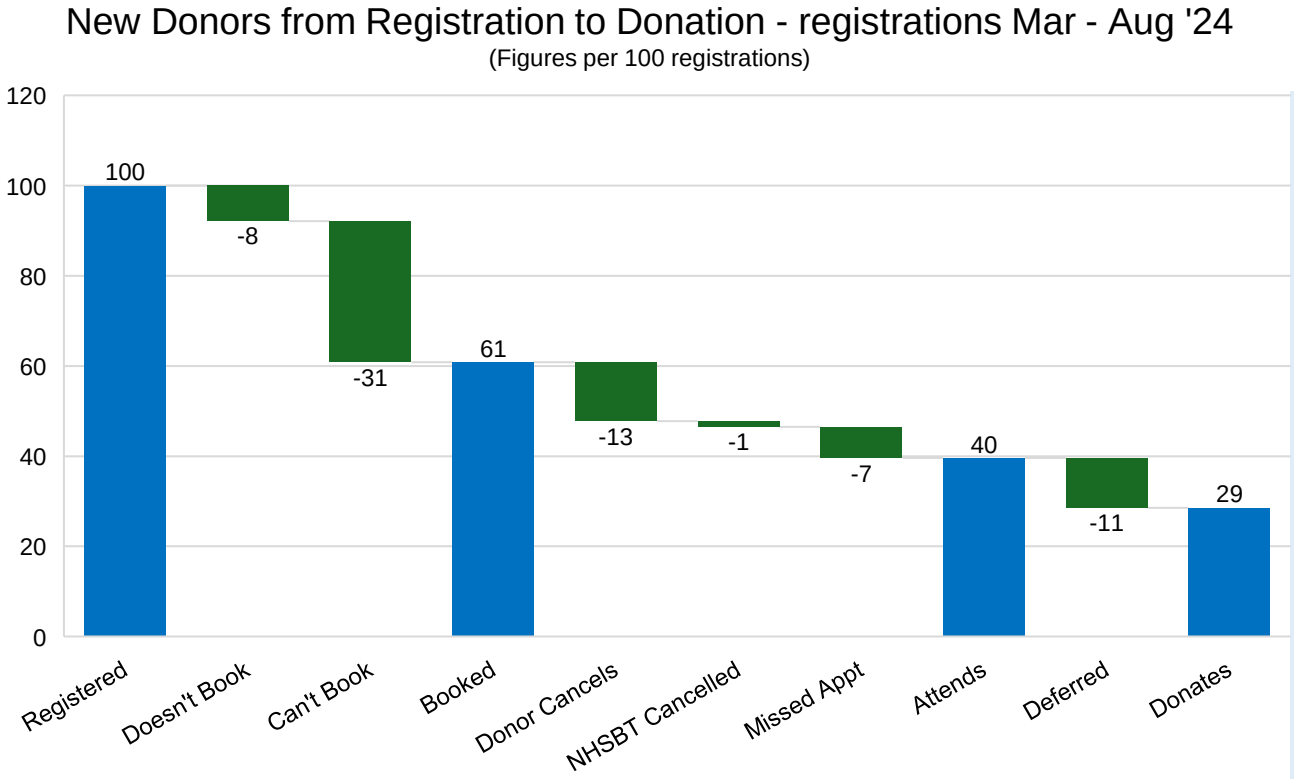
As well as diversifying the ethnicity of the base, we need more younger donors to secure the donor base of the future



Key insights:

- At 46 years old, the average donor is 1.5 years older than 10 years ago.
- We have observed year-on-year declines in the proportion of 17-24 years olds donating for the past decade.
- The proportion of 25-34 year olds has also been declining since 2020.

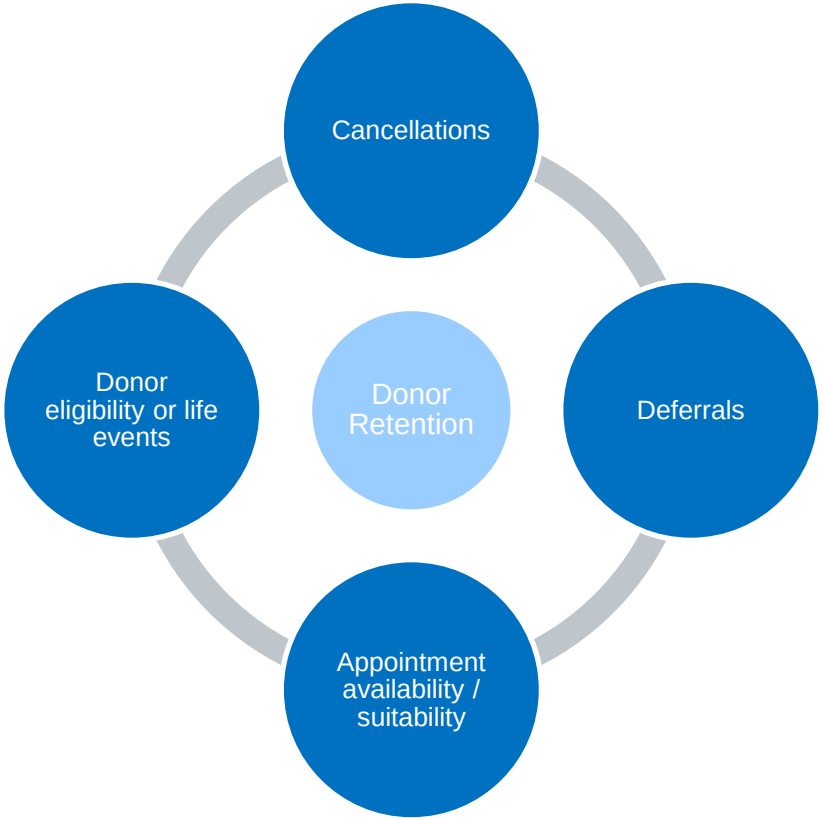
We will also need to reduce barriers to donation: for every 100 donors who register to donate, only 27 go on to donate blood



Key insights:

- 31% of registrants attempt to find an appointment, but don't go on to book one. We need to make it easier for donors to find convenient appointments as we see a drop off for venue choice then appointment days/times.
- We need to reduce deferrals as only ¾ of donors that attend the session are able to donate, and deferrals means they are less likely to return.

Blood product Donor base retention



Key insights:

Donor Retention is affected by many different factors – there is no simple cause and effect. We are not currently mature in terms of how we define and measure retention – work is underway to build on this.

Cancellations: In the last 12 months there have been c199k cancellations, of which 57% have been short notice.

Deferrals: In the 12 months to end Jan ’25 there have been 315k deferrals.

Appointments: 45% of existing donors and 53% of new donors cite lack of availability as their top reason for not booking, followed by no suitable venues (new – 52%, existing 44%), then suitable days and times.

Donor eligibility / life events: Donors can become ‘inactive’ due to cancellations through ineligibility (54% of which are due to illness), or life events (57% due to work or personal commitments, and needing to find alternative date), or because they have been unable to attend a mobile session in their area. They may still consider themselves an ‘active’ donor.

2. Projected growth

Blood product Donor base projected growth

CPT Feb 2025 Demand. Ro Demand taper from 56-60%, front load Oneg growth "modest" frequency reduction							*Estimate. Demand not available*
		24/25 CURRENT	**25/26**	**26/27**	**27/28**	**28/29**	**29/30**
Whole Blood:							
DonorBase	Oneg*	111,824	118,776	120,661	121,733	122,051	123,640
	Ro*	26,655	28,941	30,313	32,041	34,211	34,404
	WB Other	652,591	656,436	658,037	660,408	662,651	664,549
	Total	**791,070**	**804,153**	**809,010**	**814,183**	**818,913**	**822,594**
Source Plasma:							
DonorBase		**10,941**	**15,000**	**19,000**	**27,000**	**37,000**	**47,000**
Platelets (Plateletapheresis):							
DonorBase		**14,417**	**14,859**	**15,149**	**15,440**	**15,730**	**16,025**
TOTAL DONOR BASE			**834,012**	**843,159**	**856,623**	**871,643**	**885,619**
NEW RESERVE BASE			40,000	60,000	10,000	10,000	10,000
GRAND TOTAL			**874,012**	**943,159**	**966,623**	**991,643**	**1,015,619**

The current donor base is felt to have insufficient resilience especially in O- and Ro groups to meet demand going forwards. Demand for A- is essential for platelets and is another core group we intend to grow, however it is not called out specifically here.

These donor base projections have been built on the demand figures expected for the next 5 years, but we have assumed we will stretch to meet **60% Ro demand by 2029/30**.

In order to provide additional resilience, we have also added an **additional buffer for Ro and O- donors**, as well as proposed the creation of a **'Reserve ready' donor base** (that has been typed and primed) which will be built cumulatively over the 5 year period.

2. Projected growth

Blood product Donor base recruitment

		25/26	26/27	27/28	28/29	29/30
Whole Blood:						
Recruitment Required (NEW DONORS DONATING)	Oneg	20,811	22,495	23,401	20,482	20,828
	Ro	7,362	6,884	7,502	8,529	7,516
	WB Other	114,830	113,173	117,408	119,270	119,297
	TOTAL WB	*143,003*	*142,551*	*148,311*	*148,282*	*147,640*
	PFM	**17,204**	**20,220**	**26,491**	**33,648**	**39,166**
	PLT	**3,478**	**3,419**	**3,481**	**3,541**	**3,607**
	TOTAL CD	*20,682*	*23,639*	*29,972*	*37,190*	*42,774*
	Grand Total	**163,685**	**166,190**	**178,283**	**185,472**	**190,414**

This chart shows the recruitment required to support the donor base growth outlined that will enable us to meet forecasted demand over the next 5 years.

Attrition has been factored into the calculations for recruitment required based on recent historical trends.

It also includes an assumption that **80% of Plasma for Medicines (PfM) donors switch** from Blood.

Note: all figures are dependent on supporting acquisition and mobilisation appropriately and putting in place measures to ensure we grow and protect the donor base (including Reserves). This is not limited to budgets for comms, but wider structural alignment around switching, capacity etc.

3.
Approach

Ways to create WHB resilence (in volume)

Reducing frequency

By reducing donation frequency over time we ask less of our donors, who are then able to step up if we reach a crisis state.

Care needs to be taken to ensure that donors don't become inactive through us changing their habitual behaviour.

Requires a stepped reduction over time and clear management of donors (who may resist)

Increased recruitment

By increasing efforts to recruit new donors, specifically O- and Ro groups, we will ensure that we are able to reduce our ask of them.

Recruitment efforts should centre around likely areas and through the use of activity such as Boots partnership and community outreach.

Requires increased typing to identify and recruit core groups

Building 'Reserves'

By recruiting a 'Reserve ready' pool of potential donors, that are potentially close to DC's (where there is current capacity), we can call on them in hour of need.

These potential donors need to be typed and primed to respond, and supported with retention activity.

Requires careful management so potential donors understand not needed until called in crisis

Note: this slide covers how to build resilience in terms of size and shape of the donor base but this cannot be done in isolation and has to be supported with the necessary capacity in the system.

DX new tactical interventions – 2025/26

Oneg and Ro growth & retention

Younger donor growth & retention

Overall growth of WHB Donor base

Acquisition

- Place based approach for Paid / Owned / Earned marketing using mix of messaging – increased footprint on top of BAU scoped activity* (extn)
- Blood typing with partners – initial Boots typing kit pilot in Brixton/Birmingham before roll out approach broader*
- Additional events to be supported by volunteers
- Partner acquisition incl. Our Future Health
- Fast tracking to drive conversion - Priority appointment booking through NCC
- ‘Reserve ready’ strategy with typing/comms
- Group bookings

Mobilisation

- Improved appointment grid functionality to manage donor bookings
- New donor sessions*
- Implementation of new ‘Donor Readiness’ digital experience, potentially include Hb guidance
- Comms to reactivate Hb deferred donors
- Partnership activity – Donate Breaks (extn)
- Service & needle insertion training – ethnic groups*
- Loyalty initiatives*
- Process / comms to manage frequency of donors

* Potential B&G Investment funding from FY25/26 £1.5m placeholder (Extn) = extension of successful intervention from 2024/25

Dependencies to hit donor base growth

Capacity

Operational improvements, Future Proofing Blood and Donor and Session Platform

Reinstate capacity where we've got large volumes of lapsed Oneg donors.

- Reduction plan teams fully back online (there are 9.6k lapsed Oneg donors in geographical areas of reduction plan teams)
- Stabilise plus - W. Midlands.
- Southampton back online (1.4k Oneg lapsed on DC panel)

→ **1k additional slots per week against original BP assumptions**

New donors

Future Proofing Blood and Donor and Session Platform

Fewer new donor cancellations - c.27k over the last 12 months (12% of all new donor bookings). Significant reduction in new donor cancellations.

New donor sessions and donor readiness work to improve new donor conversion.

→ **500 additional new donor bookings per week**

Venue portfolio

Donor Network Design

Improve venue portfolio where we have known gaps that has limited donor opportunity to donate.

A new donor centre in Brighton.

A new mobile collection team in the Midlands.

N.B. Projected growth figures and the dependencies are based on demand and clinical behaviour as we currently understand it and will need to be monitored carefully going forwards.

Next Steps: On-going Board assurance and engagement

Strategic Initiatives

Board will be updated through:

- CEO Board report
- Half year and year-end business plan and portfolio updates
- Business case approvals in line with financial delegations

Blood Donor base

Board will be updated through:

- CEO Board report
- Monthly Performance report
- Half year and year-end business plan and portfolio updates
- Annual health of the donor base paper

Other Donor base / Registers

Board will be updated through:

- CEO Board report
- Monthly Performance report
- Half year and year-end business plan and portfolio updates
- Annual health of the donor base paper

Options for additional engagement:

- Board seminar: Strategic initiatives and remaining Donor base and Registers
- Series of board papers deep diving into each Donor base / Register

Appendix A: High-level overview of each Donor base / Register

Whole blood Donor base summary

NHS Blood and Transplant

What will affect Blood demand (5-10yrs)

Overall demand for blood is expected to remain largely stable over the next decade due to shifts in clinical demand, however ageing population may impact the need for increased demand.

However, within that demand we expect an increase in demand for Ro type blood in line with population changes, more complex matching requirements for patients as well as for specific products e.g. granulocytes study due to clinical advancements. Adopting new genotyping technology could in the future better match blood.

Factors that have affected our base this yr

We have been unable to attract enough donors into the available capacity. We've cancelled 147k donor appointments, 40% in advance, (April '24 - Jan '25), with 25% affecting new donors. Lost 100.7k in collections, & 1.4k-1.8k slots lost weekly (reduction plans).

Over-contacting donors, over 41k donors unsubscribed in Alert. Throttled appointments for new & returning donors - hard to donate.

Increasing donor deferrals, (largely driven by low Hb deferrals), standing at 16.6% in Feb 25 (+2.3% increase from Feb 24)

Current state of the Donor base

We have insufficient Oneg and Ro donors. Average donation frequency p.a. is 1.8, 1.91 for Oneg. c300k donors who have registered but never donated in last 3 years. Research shows not booking due to appointment availability and suitability.

In 2024 - 330.5k new donors registered with only 78k (23.7%) having been able to donate. 316k donors lapsed, 191.5k donors were reactivated from a lapsed state. This means we have lost 124.5k net from our existing active base. Ro - currently meet 55% of demand, which causes a knock-on effect on O negs donors.

The desired future state of the Donor base

Insufficient based on demand, with alerts in last 2 years. Build resilience by; growing donor base (especially younger and O- & Ro groups), reduce donation frequency, building a bigger pool of 'Reserve ready' donors to call on in need that have been typed and primed with comms.

'Active' donor base will be c823k plus 'Reserve ready' pool of c130k donors by 2029/30. Total base (incl. platelets/plasma) - 1.015m. This will be at a level of meeting 60% of Ro demand by 2029/30

What will get us there (Scoping of deliverables tbc)

Activity to acquire new donors (diverse & younger), especially in DC areas. Building new 'reserve ready' pool - typed and primed with comms. Typing through expansion of Boots partnership, events.
Recruiting donors from Our Future Health
Quicker path to donation and improving readiness prior to session – new donor clinics and Hb level testing supported by retired nurses and volunteers.
Reducing Hb deferrals – study on post donation testing approaches, pilot on acceptability and feasibility of targeted interventions to reduce deficiency, & comms to reactivate deferred donors.
Reducing NHSBT driven cancellations
Donor and Session Platform (DASP) to support donor management and more effective mobilisation
Improving appointment availability and suitability – Donor Network Design

Current base	Whole blood
Active base size	793,441
Under 40 yrs	295,170
Over 40 yrs	498,271
Male	367,835
Female	425,606
White	716,967
Black heritage	20,219
Other ethnic minorities	56,255
O neg	112,087
O pos	289,211
Ro	26,692
A neg	64,494
A pos	221,461
B neg	20,310
B pos	64,934
AB neg	4,879
AB pos	15,213

Plasma Donor base summary

NHS Blood and Transplant

What will affect Plasma demand (5-10yrs)

Through consultation with NHS England demand for IvIg is expected to grow by 2.52% p.a. To stay at current levels of 25% IvIg we are required to provide an additional 9k litres p.a. (equates to 1 x new 15 bed Plasma DC p.a). Increase cannot be delivered through Recovered plasma from WHB

Geo-political activity will impact the UK's ability to provide patients with IvIg specifically (75% IvIg imported from the US) - to increase domestic sustainability an increase in sourced plasma is required, with a geographic footprint to complement WHB collection rather than compete.

Factors that have affected our base this yr

Switching is the primary model to recruit to the plasma donor base, however, this approach was done in an ad hoc/ piecemeal way around each DC. There is learning to be taken from this with a clear, prescriptive, and agreed approach moving forward based on blood type and location.

Amber alert has challenged our ability to actively support sPfM with resource and chairs (Twickenham) focused on supporting blood.

We have not yet created a clear narrative for donors about how they can best support us based on their blood type and where they live.

Current state of the Donor base

With the combination of recovered plasma and source plasma collection, we currently collect enough for 25% self-sufficiency in immunoglobulins and 80% self-sufficiency in albumin.

The source plasma donor base has been built through a combination of switching whole blood donors (c. 80%) and recruiting new donors. Frequency is key to sPfM donation and differs from the need of a WB donor. Current frequency of regular sPfM donors is c.5 times in 12mths, a plasma donor can donate every two weeks. The current attrition rate for sPfM donors is c.50%.

The desired future state of the Donor base

The ambition agreed with NHSE is to grow self-sufficiency to 35% in the next 5-7 years. This will require an increase in source collection capability, with around 5k donors needed per DC , donating frequently to collect 9K/Ltres/pa.

With planned new sites coming on-stream we have assumed it requires 30% growth year on year for each new DC.

The above will need to be supported with a focus on education (about plasma), switching, retention, reducing attrition, reducing deferrals, donor experience, increased frequency and average volume collected to provide stability to each DC and its collection volume ability.

What will get us there (Scoping of deliverables tbc)

Effectively switching donors from blood (as it is more cost effective than direct recruitment into plasma) – agreed pathing for new donors coming in.

Improving how we recruit directly – increased education on plasma and co-branded sites, and build relationships with partners.

There needs to be a focus on retaining donors which is most cost effective that recruiting new donors. Whilst there is some learning in PfM, there is more to do across the organisation.

Understanding the donor demographic and advanced building of donor base ahead of new donor centres will be crucial.

Current base	Plasma
Active base size	10,848
Under 40 yrs	4.040
Over 40 yrs	6,808
Male	6,253
Female	4,595
White	9,630
Black heritage	191
Other ethnic minorities	1,027
O neg	181
O pos	5,109
Ro	74
A neg	274
A pos	3,774
B neg	64
B pos	878
AB neg	24
AB pos	540

Platelets Donor base summary

NHS Blood and Transplant

What will affect Platelets demand (5-10yrs)

Increased organ transplantation (if opt in increases) & stem cell transplant could mean more need for HLA/HPA matched platelets.

Changing diversification may put more pressure on matching donors to patients unless the base reflects the growing diversification.

Universal Components Project **-** work on producing platelets that are ABO & RhD Universal. Could reduce component choice and alleviate pressure on donor collection. c.8-10 years until operational.

Factors that have affected our base this yr

The Amber alert has meant that resource has been focused on WHB and as a result any activity to support the platelets donor base takes longer. Issues with the WHB donor base impacts platelets as we rely on a switching model.

Current state of the Donor base

Insufficient A- and AB donors. Average donation - 4.58 times p.a., males donating more regularly. c85% males (supports higher yields), older (c70k – 40+ yrs), white. Attrition is c21% over the last 2 years. We meet.c82% of A- target. Regularly go into alert around bank holidays.

Split how we source platelets 50/50 between apheresis and recovery from whole blood donations (which is cheaper and easier) to ensure that we have matched platelets from apheresis for core needs, such as neonatal and organ recipients (25% of demand).

The desired future state of the Donor base

The current donor base does need to grow but not to a large extent over the next 5 years.

We need to increase recruitment into platelets regardless of age, but with greater consideration of diversification as it affects our ability to supply HLA-selected patients. The base needs more A- donors to be switched over from WHB in order to close the gap to the target and to prevent us over relying on the same pool of A- WHB donors time and again. More O- donors are also required to meet demand.

What will get us there (Scoping of deliverables tbc)

Appeal to a more diverse audience

Switching approach aligned across NHSBT to prevent current ‘fighting’ for donors

Expanding the recruitment footprint for platelet collection supported through the Donor Network Design work.

Current base	Platelets
Active base size	14,522
Under 40 yrs	4,319
Over 40 yrs	10,203
Male	12,399
Female	2,123
White	13,810
Black heritage	97
Other ethnic minorities	615
O neg	476
O pos	1,833
Ro	26
A neg	3,718
A pos	7,090
B neg	200
B pos	550
AB neg	332
AB pos	323

Organs & Tissue Register summary

NHS Blood and Transplant

What will affect Organ demand (5-10yrs)

Transplant need has increased by over a third since 2020, driven by the growing prevalence and inequalities of organ failure. Demand is expected to continue to rise, especially for kidney transplantation.

We need more donors from all backgrounds in order to close the disadvantage gap sooner by pooling all donations and sharing equitably. We expect to see an increase in numbers of transplants needed for black and Asian heritage groups who are under-represented in the donor pool.

Factors that have affected our base this yr

The law around deemed consent/opt out has increased inertia with many willing to donate believing they do not need to take any action.

Significant drop-in public support for organ donation; from 80% in 2018 to 72% in 2023 - partly due to decline in awareness and engagement after the law change, general perceptions of and trust in the NHS which correlates with consent rate, and the reduction in marketing budgets (down from £7m in 2020/21 to an annual marketing pot of £0.7m since 2022/23).

Current state of the Donor base

Total number of ODR opt-in registrations per yr falling from c.1m in 2019/20 to 740k in 2023/24; a drop of 29%. Current growth rate (3% p.a.) predominantly driven by partner data feeds such as the DVLA, NHS app, and passport renewals, and supported by campaigns.
Consent rate has fallen from 69% in 2020/21 to 61% in 2024/25.
c51% of adults aged 18+ yrs, & only 4% of those aged 0-17 yrs.
There are currently c2.7m opted out decisions recorded, which are relatively evenly split across sexes and under/over 40 years old.
Older and lower socio-economic groups under-represented on the ODR but over-represented in eligible deaths.

The desired future state of the Donor base

Deceased donation is under pressure, and the medically suitable pool is small. Our ambition is therefore to raise opt-ins on the Organ Donor Register to 70% of the population. This would result in c.15% more solid organ donors every year. This is because 9 in 10 families support organ donation support if their loved one registered, dropping to 5 in 10 with no registration.
We need 20 million more ODR registrations to achieve 70% population opt-in. But a step change is needed because, at a trend growth rate of c.0.75 million per year, it would take many years to achieve the goal.

What will get us there (Scoping of deliverables tbc)

Targeting key groups: >50 yrs, lower socio-economic groups, Black heritage and ethnic minorities - using media, appropriate corporate tie-ups and building on the work of Organ Donation Committees and Community Grants Programme partners.

Broad disruptive communication approach that gets the nation talking, making donation less taboo.

Create & extend partnerships i.e. Home Office, DWP and MoJ in order to integrate registration into their already existing digital services and to deliver ODR registrations at scale.
Improved website registration process.
Support our requests in the 10 year plan to make donation a mandatory part of the school curriculum, and rethink the opt out law to increase the number of people registering.

Current base	Organs & Tissues
Active base size (opt in)	28,346,440
Under 40 yrs	9,072,206
Over 40 yrs	19,274,234
Male	13,243,903*
Female	15,102,537*
White	Not included given it is not comprehensive and potentially biased
Black heritage	
Other ethnic minorities	

*** We have 99% of data so have extrapolated to give total figures.**

NHS Donor Stem Cell Registry summary

NHS Blood and Transplant

What will affect Stem cell demand (5-10yrs)

Demand for stem cell transplants in the UK has increased steadily at a rate of ~5% growth p.a. over the last two decades. The upward trend is attributed to advances in transplantation with reduced toxicity allowing a broader range of conditions to be treated and older patients, increasing the patient pool. We expect clinical trial advances in reducing the need for perfect HLA match will further broaden the ability for patients to find suitable donors further increasing the scope for transplantation. This has the potential to leverage demand from our stem cell panel.

Factors that have affected our base this yr

Since October, the British Bone Marrow Registry rebranded as the NHS Stem Cell Donor Registry and there was a major training push with the frontline blood donor session teams supported by funded Events Assistants (following a successful pilot), which has resulted in a big jump in monthly recruitment rates. This was assisted by the decision to broaden our recruitment criteria to include young Caucasian females once again. Overall elevation of the importance of stem cells in NHSBT has helped us achieve targets.

Current state of the Donor base

Only recruit donors 17-40yrs already registered for blood - they remain on our panel even if they are not active WHB donors. FIT panel <40 yrs are more likely to be selected.

Annual attrition rate of c.10k donors p.a, which will accelerate significantly in the next few years as a large number reach 61 yrs. (40% of female donors & 25% of male donors in 51-69 age bracket).

The desired future state of the Donor base

Need to grow the FIT panel of donors (i.e. those under 40) and increase diversification by growing recruitment of ethnic minority donors.

Younger donors (<40yrs) are c25% of the Register yet 80% of the provision. Need to recruit at least 30k p.a. Once we exceed recruitment rate we will reduce the upper age of our eligibility criteria from 40yrs down to 30yrs, to bring us in line with global demand (under 25) and Anthony Nolan charity.

What will get us there (Scoping of deliverables tbc)

Continuing to recruit effectively through WHB for the bulk of donations but supported with targeted campaigns using buccal swabs to increase diversification.

Pathing new donors in order to capture young donors.

Ongoing engagement post initial recruitment to ensure they make themselves available to donate, especially with black heritage and minority ethnic groups.

Continue to work with aligned Registry partners to achieve collective UK Stem Cell forum goals.

Current base	Stem cells
Active base size	400,418*

* Lapsed blood donors are still deemed 'active' for stem cells

Under 40 yrs	122,312**
Over 40 yrs	278,286

** FIT panel - these donors account for ~80% of provision

Male	210,620
Female	189,798

White	303,836***
Black heritage	8,801
Other ethnic minorities	67,132

*** From start of fiscal year – doesn't reflect TY recruitment