

NHSBT Board**Demographic Health of the Donor Base**29th March 2022**Status: Official****1. Background and Purpose to the Paper**

Our first strategic priority is to grow and diversify our donor base. We have arrived at that priority due to obvious supply gaps and risks. As we set out on our 5-year business plan it is the right moment to summarise the demographic health of our active transfusion donor base as a baseline today.

We have summarised the size and average donation frequency to show recent total collections in Appendix A, and what is required for longer-term objectives. We have also summarised demographic diversity for age, sex, and ethnicity to show the current inclusivity of our operations in Appendix B. Further detail on age cohorts has been summarised in Appendix C.

We have identified areas where the donor base is healthy in respect to the future requirement, as well as where it is not as healthy as we would like it to be.

This paper aims to provide clarity on the situation today, confidence that we have identified what needs to change, and our initial targets from the new Business Plan. Further assurance on our plans to deliver the change will be incorporated into future papers.

We would like to ask the Board to discuss the content and identify any further external factors that might pose risk to our plans. Further suggestions on opportunities are welcome.

2. Whole Blood Donor Base2.1 The situation today:

Over the last two decades, NHSBT undertook a planned decline in the donor base as red cell collection requirements decreased. Lower recruitment and a reliance on retention increased the average age as a result.

Prior to 2008, regular WB donors were retired from their donation career on their 70th birthday. The Age Discrimination Act 2006 and public complaints about ageism received by the government and all UK blood services led to a joint review. Active and healthy donors can now continue to donate with no age limit. New donors can donate up to their 66th birthday, and previously donating donors (but not in the last 2 years) up to their 70th.

Our older donors continue to show excellent loyalty. Many donors continue donating into their 70s. While there is a show reduction in each cohorts' contribution from 50 years onward, this has been offset by the extension in age restrictions.

2.2 Areas of concern

Our donor base size at the end of 2021 was 793k donors and an average frequency of 1.80 donations in 12 months. Due to the difficulty in providing resilient supply in recent months, we know we currently ask too much of our active donors.

While the wider UK population has improved in health over the last 20 years, and many over 50s have adopted lower disease risk lifestyles, most recent data shows that population health and life expectancy trends have started to reverse due to the pandemic and other underlying trends. This, as well as the fact that health inequalities within the population has worsened, will mean the risk to collections from older donors is likely to increase, especially those of Black heritage.

While we have maintained the proportion of donors who are under 35 years, further detail shows there has been an unhealthy fall in donors under 20. This is largely due to fewer collection venues close to school, college and universities. Fewer marketing events during the pandemic also reduced recruitment. Our younger donors are the future and further investment is needed to reverse this trend.

3. Priority Blood Types (ONeg and Ro) Donor Bases

3.1 The situation today:

With the collection requirement of ONeg blood being almost twice the natural prevalence within the public, NHSBT has prioritised the retention of our ONeg donors for many decades. This has resulted in a very engaged donor base with a much more mature profile than others.

In comparison, NHS BT only started its focus on retaining Ro donors from 2014. In 2017 NHSBT increased its investment into recruitment of this subtype with its first major campaign calling for new donors of Black heritage to give blood. The donor base has a much younger profile as a result, and the high diversity of new BME donors show the success of recent recruitment efforts.

3.2 Areas of concern

O Neg donors' frequency is higher than the average as we have relied on a smaller donor pool in recent years. Like the overall donor base, this has put resilience at risk especially with the additional demands from substitution for Ro blood. Pressure on blood stock leads us to limit new donors shutting off the source for new ONeg donors, worsening the situation.

The Ro Donor base continues to grow to meet higher collection requirements but is not yet large enough or growing quickly enough. We will need to maintain the high average frequency for these priority donors, continuing to ask more from them, to maximise collections while demand remains unfulfilled.

4. Platelet and Plasma Donor Base

4.1 The situation today:

In 2009, with other vCJD risk reduction measures, NHSBT restricted collection of platelets to single donors by apheresis. Our Platelet donor base increased materially as a result. This measure was removed in 2013 and since then NHSBT has reduced the platelet donor base and frequency back to previous levels. New platelet donors are recruited from blood donation as summarised in Appendix D, and we will continue to do so

In February 2021 the ban on UK plasma for fractionation (in place since 1999) was lifted following a review by the Medicines and Healthcare Regulatory Agency (MHRA) and the Commission on Human Medicines (CHM). Plasma collection for medicines started in 11

sites in April 2021 building on the donor base created for Covid-19 convalescent plasma donation.

4.2 Areas of concern

Currently both platelet and plasma have majority male donor bases because of body mass restrictions and vein requirements by the machinery used. This is a concern as it restricts the recruitment audience and opportunity from the wider public and whole blood donor base.

After the latest centre closures, the residual active donor base number for Plasma is c4k and needs to be rebuilt locally. This will be less efficient if we only prioritise the recruitment of men.

5. Activity planned to address areas of concern

5.1 Activity to grow the Whole Blood donor base

To improve our reliance of supply we will lower frequency and grow our base. We will benchmark against the median of European donor base frequency of 1.6 and achieve a Whole Blood donor base size of over 900k as targeted in our Business Plan

We will do this by changing the way we manage our appointments and how we communicate to donors. This will require technology and capability investment to our donor systems and marketing technology (including Pulse) as well as new donor experiences to reduce operational impact on our supply chain. We will need to protect availability for new donors during times of stock build, especially for our priority types.

5.2 Activity to address the risk from the current age profile of our donors

We will continue to support our older donors due to their valuable contribution and regular donation habits. We will work with DHSC and wider health surveillance data to scan future trends in the relevant public segments and any increase in risk to our donors' health and ability to donate.

We will increase our proportion of our youngest donors back to 5% of the base. We will restart marketing activity with schools, colleges, and universities, including review of local venues. Planned changes to the collection footprint in London, but also towards more city locations elsewhere, will support the recruitment of younger donors.

5.3 Activity to Grow the ONeg, Ro and BME Donor Base

Increased recruitment generally will identify newer ONeg and Ro donors. We will increase the proportion of ONeg type within New Donors through off-session testing of enrolees, and for Ro when new testing is available. This will improve the efficiency of our acquisition of new donors and ensure we dedicate the right availability to these priority types.

We will continue to invest into the recruitment of donors of Black heritage for both Ro and future subtypes. To complement our on-going marketing activity, will we adapt our venue footprint in London to locations with a greater diversity in their local populations.

We will increase our Oneg donor base to 135k with a lower average frequency of 1.7. We will increase our Ro donor base to 48k but continue to support a frequency of up to 1.85. We will increase our BME% diversity of all New Donors to 15%.

We have confidence on meeting short-term objectives based on recent successful campaigns. Longer term growth will require materially different outcomes and required scrutiny on the radical changes needed.

5.4 Activity to increase the number of women donating Plasma and Platelets

New technology, which is gentler on the donors' veins during the draw and return phases of the platelet donation process is expected to be introduced in Summer 2022. New plasma machines are being validated which will increase yield from each procedure and be more inclusive to women and smaller men. Further work is needed to develop the right gender mix for maximising collection as a balance between yield and appointment fill rates.

We will re-build our Plasma donor base to 14,500k with a higher average frequency of 5.0, in line with international benchmarks and the current frequency of our platelet donor base.

We will improve the gender diversity of our plasma and platelet donors bases by widening our recruitment targeting to both men and women. We will invest into local review of donor panels and necessary business development activity to centres

5.5 Further activities to support all objectives

We will look internally and at other donor bases and registries as sources for engaged and committed prospective donors. We plan to build partnerships across the NHS to source additional data on prospective donors who know their blood types. Our investment into a single source of registration for all donors will support early education and signposting for each donor to the most suitable form of donation. New marketing technology, digital front-end development and improved management of consent data will be required.

6. Next Steps and Further Assurance

Our collection footprint in private board later today gives more detail to how we will change our footprint to support growing our base in London and new city locations. Macro-plans for our marketing for years 2-5 will be presented later in the year.

A paper on the 'health of our donor registries' will be presented in July's Board in a similar format. This will focus on donors registered for future donation opportunity in organs, tissues and stem cells.

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