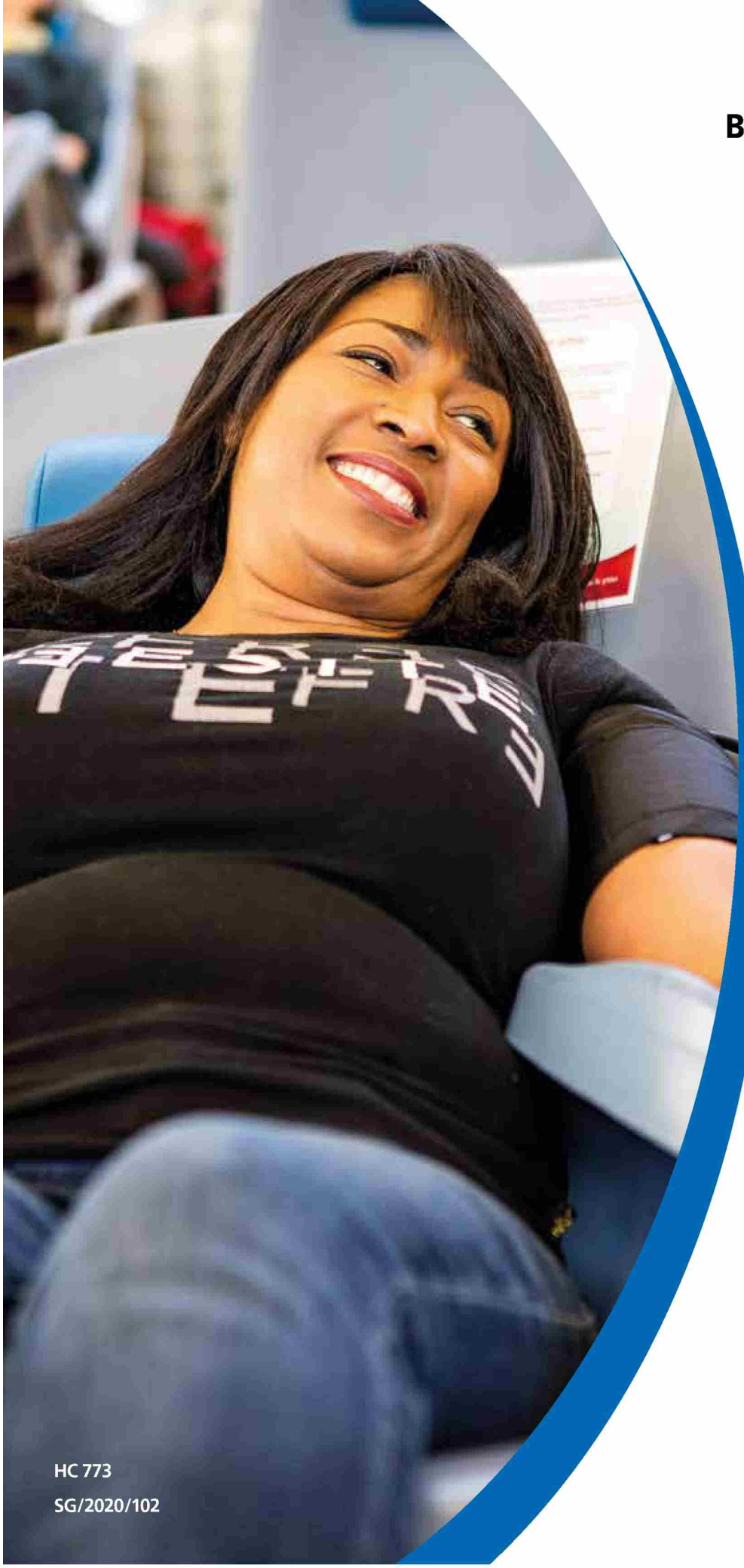


NHS
Blood and Transplant

2019/20
Annual Report and Accounts

HC 773
SG/2020/102

NHS Blood and Transplant

Annual Report and Accounts 2019/20

Presented to Parliament pursuant to Paragraph 6(3) of Schedule 15 of the National Health Service Act 2006
Laid before the Scottish Parliament by the Scottish Ministers in pursuance of section 88 of the Scotland Act 1998
Ordered by the House of Commons to be printed 17 September 2020

HC 773

SG/2020/102

This publication is available at: www.gov.uk/official-documents.

Any enquiries related to this publication should be sent to us at Finance Director, NHS Blood and Transplant, 500 North Bristol Park, Filton, BS34 7QH.

ISBN 978-1-5286-2141-0

CCS0920201056

Printed on paper containing 75% recycled fibre content minimum

Printed in the UK by the APS Group on behalf of the Controller of Her Majesty's Stationery Office

Contents

Introduction from the Chair 6

Overview **8**

Our performance **12**

Chief Executive's review 12

Performance report 22

Our accountability **38**

Our people 39

Our governance and accountability structure (including the Directors' report and the statement of Accounting Officer's responsibilities) 52

Corporate governance statement 57

Parliamentary accountability 64

Our finances **68**

Financial statements 69

Notes to the Accounts 74

Glossary **95**

"We stand for helping people do something extraordinary, saving and improving the lives of others."

Introduction from the Chair

I have been the chair of NHS Blood and Transplant (NHSBT) since 2017. The dedication of our colleagues and donors to save and improve lives is inspirational.

Stability and progress

The Board and I are pleased with the comprehensive improvements in our approach to governance and risk over the last year. I am further pleased that I can also report a sense of stability and good progress.

The Board has closely monitored a fundamental review of our governance and risk management processes which have been overseen by our Governance and Audit Committee.

As a result of this review we will be making some significant changes to our governance arrangements to streamline our approach and give much greater clarity and focus to the Board's oversight role. These changes align with the changes to NHSBT's operating model announced by the Chief Executive and, taken together, I am confident that they strengthen our governance and provide much clearer accountability for the key issues facing our organisation.

Managing risk to retain trust

We are making a real step change in our approach to managing risk. This includes working with the Executive to clarify our strategic risks and we are also restructuring our risk management system and processes. Whilst adding capacity to our risk management function, the Governance and Audit Committee is now undertaking regular in-depth reviews of our strategic risks, providing greater objective challenge to the plans for mitigating and managing them.

There is no doubt that NHS Blood and Transplant operates in an area of significant risk. The moving testimony of those impacted by the infected blood scandal of the 70s and 80s is a grim reminder of those risks and the need to be constantly vigilant in upholding the safety of donors, patients and our staff.

Despite these challenges, our organisation has an excellent record in managing risk and we can say with great confidence that our blood supply and our approach to organ donation are amongst the safest in the world.

But we are keenly aware that a hard-earned reputation is quickly lost if things go wrong. That is why the Board has placed such great emphasis on governance and risk over the last year and will continue to do so in the year ahead. We must be assured that we can retain the complete trust and total confidence of the public, our donors and recipients as well as our Government sponsors, and our customers across the NHS.

This is particularly important at a time when we are implementing the most significant change to organ donation law for a generation. The introduction of 'deemed consent' places an even greater need for us to give the public confidence that their donation decision and the views of their family will be respected, and that we are highly competent and capable of always acting in the public interest.

To help achieve this aim the Board will continue to provide robust objective challenge to the organisation and our approach will be given extra focus through the changes we have made.

One of our most significant priorities for NHSBT in the year ahead will be to improve the diversity, inclusion and treatment of all our workforce in order to make our organisation a much better place to work in for everyone. This is particularly important following the recent publication of our report on the treatment of some of our Black and Asian staff at our Colindale Centre. The issues and problems highlighted in the report are completely unacceptable to us and we are working exceptionally at pace to take action on these challenges. Further to this we are also strongly committed to improving the diversity of our donor base in order to improve the equality of our clinical outcomes for all patients, especially those from a Black or Asian background.

The Board are indebted to the hard working and dedicated staff of our organisation and, of course, to our donors without whom saving and improving lives would not be possible.

NHSBT at its best

The COVID-19 pandemic has tested the NHS like never before, and our organisation has responded magnificently. Blood stocks have remained strong, and our staff and donors have been kept safe. Whilst there was an inevitable fall in transplant numbers, many of our specialist nurses turned their skills to supporting colleagues in Intensive Care Units across the country.

We have supported the national response by providing sophisticated testing equipment and participating in a number of national testing programmes. We have utilised the skills and empathy of colleagues all too familiar with providing end of life care and support to establish a bereavement advice line.

And perhaps most significant of all is the huge effort that has gone in to develop a programme of collecting convalescent plasma, which has the potential to help treat patients suffering from COVID-19 by transfusing them with the antibody rich plasma collected from donors who have recovered from the disease. We do not yet know the outcome of clinical trials, but we are optimistic, and we stand ready to provide large scale collection which could save the lives of hundreds, if not thousands of patients in the future.

All of this hard work and sustained effort is an example of NHS Blood and Transplant at its very best.

Millie Banerjee
Chair

Overview

Introduction

We are NHS Blood and Transplant. We stand for hope. We stand for life. We stand for helping people do something extraordinary, saving and improving the lives of others. As an essential part of the NHS we take pride in playing our part to make the most of absolutely every donation – from blood and organs to tissues and stem cells. Every day, when we break new scientific ground, when we connect with donors and families, when we help to save a life, we bring the values of caring, expert and quality to our roles. The donors who make our work possible do so selflessly, giving life and changing life for the better. It is because of them, and the people who need their life-saving and life-enhancing donations, that we strive to be the best in all we do.

Highlights of our year

A new approach to organ donation

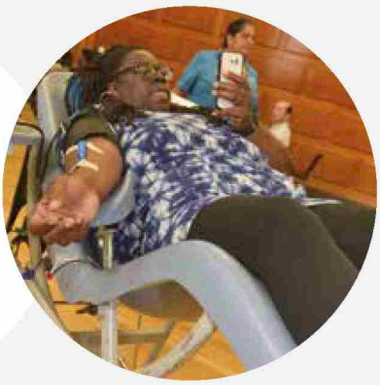
We have been working hard to support legislation change across the UK and make sure that we are ready to implement new 'deemed consent' legislation for organ donation in England. Training programmes have helped to prepare our staff and we are making sure that everyone knows about the law change and what it means for them.

The Organ Donor Register was 25 years old this year – and marked the occasion by reaching a big milestone with 25million people now signed up as donors.

Leading the way on gene therapy

Gene therapies are new techniques that introduce or remove genetic material to or from cells to treat or prevent disease. In the future, this technique may allow doctors to treat a disorder by inserting a gene into a patient's cells instead of using drugs or surgery. Our Clinical Biotechnology Centre (CBC) is at the forefront of the development and adoption of these exciting new clinical therapies. To keep pace with demand we are investing £8.7m in new facilities at our Filton site. The investment has been approved by the Department of Health and Social Care and it supports the Government strategy for establishing the UK as a global hub for manufacturing advanced cell and gene therapies.

FIRST RESPONDERS
Lifeblood of the emergency services



Collecting the right blood to meet patient needs

We collected sufficient blood to issue 1,376,000 units of red cells in the year vs 1,417,000 in the previous year. Blood stocks have been strong throughout the year, but we always need to make sure that we are collecting the right type of blood to meet patient needs. We particularly need donations from donors with the O negative blood type as this can be used safely for any patient – particularly in accident and emergency situations. Our First Responders campaign has helped make sure our O negative donors understand just how precious their donations are, leading to our highest O neg donor base in five years with 112,800 donors donating in the last 12 months.

We have been recruiting more Black donors who are more likely to have the Ro blood needed to treat people with sickle cell disease. A shortage of supply of Ro blood from Black donors means patients experience less effective treatment with substitute O negative blood. The number of Ro donors increased by 9.5% in the last year – but we still need more to meet the needs of all patients every time. We have completed a major project to better understand the end-to-end donor journey and experience in order to help us close the gap between supply and demand in the years to come.

COVID-19 response

The impact of COVID-19 hit NHSBT in the last 3 weeks of March 2020. Our response plan included four key priorities:

The safety and wellbeing of our colleagues and donors: We have worked to update our policies (aligned with emerging guidance), train staff, and introduce new safety measures across our operations. These include triage at donation sessions, social distancing, appropriate PPE and increased cleaning of our facilities, as well as a shift to home working for around 30% of our staff. We have risk assessed vulnerable colleagues (including Black and Minority Ethnic colleagues for whom we recognise a disproportionate risk) to allow them to continue working safely. Recognising the increased level of stress and anxiety created by this unprecedented situation, we have also increased the level of mental health and wellbeing support to leaders, managers and staff.

The continuity of supply for our life-saving products and services: In March we saw overall demand for blood reduce by nearly 40% (measured by the actual 7 day average demand which dropped to 16,500 units against the forecast 7 day rolling demand of 26,200 units for the last few days in March), but that reduction was different by blood group, as elective operations were cancelled in the NHS. We maintained blood stocks and service levels.

We have stabilised our stocks at a new higher level (around 8 days of supply) to recognise the increased risk of demand and collection variations. We are working to address several actual and anticipated challenges (for example sourcing larger venues to allow for distancing) in returning our supply to pre-COVID levels.

We saw a significant reduction in organ donation and transplant activity as COVID-19 placed pressure on Intensive Therapy Units (ITUs). In response, over 250 of our specialist nurses volunteered to return to the clinical frontline. This support ranged from direct care to patients in ITUs, PICUs and Nightingale Hospitals to family bereavement care. We continued to support those transplant units still in operation to provide organs for those in the most urgent need.

Support for the NHS government response: We are leading a major programme to collect convalescent plasma from people who have recovered from COVID-19, providing plasma for trials and working to scale our collection capacity should the trials prove successful.

We have supported many pillars of the Government's testing programme. For example, we released one of our two high-throughput Nucleic Acid Technology (NAT) testing machines for national swab testing and took on NAT testing for the Welsh Blood Service so that they could free up and lend their machine. We have also provided thousands of samples to Public Health England (PHE) studies to help understand rates of exposure in the community at different times.

We worked with charities and the NHS to set up a bereavement helpline and our therapeutic apheresis teams have delivered additional unplanned support to several acute NHS Trusts.

Building our donor base for the future: We have seen a significant increase in new donor registrations: up 24% in April. This upswell in pride and support for the NHS offers a unique opportunity to strengthen and diversify our donor base for the future. Unfortunately, we originally found ourselves having to stop all communications and recruitment activity due to an inability to process the increase in registrations. We will shortly be launching a new digital service, designed specifically to capture and manage new donor interest.

A year at a glance

Blood Supply:

1,376,000
red blood cells issued
vs
1,417,000
prior year.

Since 2009/10 issues are
↓33%

Over **807,000**
blood donors regularly donating of which
112,800
are O negative and
24,200
are Ro donors

Organ and Tissue Donation and Transplantation:

1,582
people donated their organs after death

1,000
people made living donations

NHS Organ Donor Register exceeded
25,000,000
registrants in the year

A year at a glance

Clinical Services:

Tissues 7,452

products issued – including skin for the treatment of burns, heart valves for bypass surgery, tendons for sports injury and many other clinical indications

Therapeutic Apheresis Services treated **1,896** adult and child patients, compared with **1,734** last year. 9% increase ↑

Stem cells

49 cord blood units issued

503 cord blood units banked

In Diagnostics RCI performed **78,459** investigations

and H&I performed **250,772** clinical tests

Meeting customer needs:

97% of our Hospital customers were satisfied or better

We met our customer requests for blood products (excluding Ro)

98.4% on time and in full.

Including Ro and Ro Kell we met requests **96.4%** on time and in full

Financially sound:

Cash balance £50.5m.

at the end of March 2019/20 that we can continue to invest in our services and the renewal of our ICT systems

£22.6m capital cash allocation

£14.8m of this on property

(see assets under construction page 87)

Our performance

Chief Executive's review

Betsy Bassis

This is my second review as Chief Executive of NHS Blood and Transplant. It has been a pleasure and an enormous privilege to lead such an extraordinary organisation over the last year.

I began my tenure with the unenviable task of reporting on several unexpected challenges that had befallen the organisation, including a prolonged period of low blood stock levels and the need to declare a constructive loss on the Core Systems Modernisation IT programme. These and other failures of governance and risk management led to a limited opinion from our Internal Auditors in 2018-19.

We have spent the last year addressing the root cause of these issues by undertaking a fundamental review of our Operating Model in the context of our rapidly changing external environment. As part of this work, we made some changes to our organisational structure and, as a result, the senior leadership team. In parallel, we have invested time and effort in leadership and organisational development, and on strengthening our governance and risk management.

There is more work to do, but I am pleased with the early results. Blood stocks have remained healthy throughout the year; we have improved IT performance and reduced our risk through a series of successfully deployed IT fixes; and we have developed not only a robust blood tech strategy but also a new blood donor engagement strategy which, together, will guide our plans for the future. Perhaps most importantly, I have seen a marked increase in collaboration and collective endeavour across the organisation, something that I think has held us in great stead when rising to the challenges posed by the current emergency on COVID-19.

As we look to the future, one of our key priorities is to improve the diversity and inclusion of our workforce to make NHSBT a better place to work for everyone, and the diversity of our donor base to improve the equality of clinical outcomes for patients. Whilst significant effort has gone into improving our performance against these objectives over the past few years, we know from quantitative evidence (e.g. Workforce Race Equality Standard data) and qualitative feedback (including an independent organisational diagnostic) that there is significant work to do on both fronts. We are therefore in the process of recruiting a Chief Diversity and Inclusion Officer who will work with me and the wider Executive Team to develop and deliver a strategy that will accelerate our progress in this mission critical area.

Safety first

The safety of our donors, colleagues and the patients we serve continues to be at the forefront of everything we do. The ongoing Infected Blood Inquiry has brought a sobering focus to the vital importance of putting safety first. We are a core participant in the Inquiry, which is examining the use of infected blood and blood products used by the NHS during the 1970s and 80s. Although NHSBT was only established in 2005, our predecessor bodies existed during the period in question and we continue to cooperate fully with all information requests from the Inquiry. The Inquiry has welcomed our decision to waive legal protected privilege to ensure that all relevant material is available to them. We hope that this will help to provide truth and closure to those who have been so tragically affected by this issue. We wish to reassure everyone that the modern safety standards we work to are rigorous, and our blood supply is now one of the safest in the world.

One safety measure that changed this past year was the restriction on using UK plasma for recipients born after 1995. This measure was originally put in place to protect patients from exposure to the human form of 'Mad Cow' disease (variant CJD), but the independent Advisory Committee on the Safety of Blood, Tissues and Organs (SaBTO) concluded this year that the risk was negligible given the other measures we have in place. The Department of Health and Social Care agreed and instructed us to stop further imports of plasma for transfusion, which we have now done by replacing those volumes with UK-sourced plasma. We estimated that this will save the NHS around £3.2m per year.

A scientific revolution

We are in the midst of an exciting revolution in healthcare with ongoing innovations in stem cell treatments, new blood products and organ perfusion technologies designed to improve clinical outcomes and patient care. NHSBT has long been recognised for its unique expertise in these areas as well as its cutting-edge research and development. I am pleased to say that we are investing in new facilities to ensure that we continue to stay at the forefront, supporting our core products and services as well as the UK's wider life sciences sector.

Over the last few years there has been a significant increase in the development and adoption of clinical therapies that require gene therapy products. The demand on NHSBT's Clinical Biotechnology Centre (CBC) has, as a result, outstripped its manufacturing capacity at our current facility in Langford. Thanks to a capital grant from the Department of Health and Social Care, we have now begun work on a £8.7m investment in new facilities at our Filton site. This proposal supports the Government strategy for establishing the UK as a global hub for manufacturing advanced cell and gene therapies.

A new era for organ donation

The last decade has seen a dramatic increase in organ donation and transplantation. Since 2009, the number of deceased organ donors has risen 67% from 959 (2009/10) to 1,600 (2018/19); the number of transplants from these donors has increased 49% from 2,660 to 3,951 over the same period.

This dramatic achievement is a result of a sustained focus by NHS Blood and Transplant on making organ donation a normal part of end-of-life care across the NHS. These efforts have been led by our national Specialist Nursing team, with great collaboration from local clinicians, hospital donation committees and a strong and active stakeholder community.

The next chapter for organ donation will see huge changes to the legal framework in which we operate. New legislation in Wales, England and Scotland is transforming the way organ donation works by replacing the current 'opt in' model with a 'deemed consent' approach. Our challenge is to implement this legislation effectively and seize this once-in-a-generation opportunity to save and improve more lives by normalising organ donation within society. If successful, we should see consent/authorisation rates increase and more organs available for transplantation.

Of course, the work doesn't stop there. We must also work with the transplant community to understand why – pre-COVID – the numbers of transplants were falling despite record numbers of potential donors. The answers are not straightforward, but we will shortly publish a new organ donation and transplantation strategy which will explore how new perfusion technologies and transplant practices might work alongside the new deemed consent legislation to reduce transplant waiting lists and improve outcomes

Responding to COVID-19

The arrival of COVID-19 in Q4 of this year has brought unprecedented change for us all. In the period of a few short weeks, we saw:

- A dramatic drop in blood demand and organ donation and transplants;
- Over 170 colleagues redeployed to support critical care colleagues in hospital Intensive Therapy Units;
- Social distancing and other increased safety measures on session and in our manufacturing, logistics and lab operations;
- Extended donor session hours to support a significant increase in collections for convalescent plasma; and
- A shift to home working for one third of our workforce, enabled by videoconferencing and other digital collaboration tools.

Throughout this emergency response, we have been guided by four key priorities:

- The safety and wellbeing of our colleagues and donors;
- Continuity of supply;
- Support to the wider national response; and
- Building our donor base for the future.

I am incredibly proud of how our organisation has risen to the challenges, both personal and professional, from this global pandemic. We have truly witnessed NHSBT at its best. As we start to come out of the acute phase of the initial emergency response, we are now turning our head to recovery and how NHSBT responds to and influences the 'new normal' in the post COVID-19 world.

I would like to thank people across NHSBT for their hard work and commitment during what was, at times, a challenging year, but one for which we should all be proud. I know colleagues would also want me to extend our collective thanks to our amazing donors, without whom we would not be able to deliver on our mission to save and improve lives.

GRO-C

Betsy Bassis
Chief Executive and Accounting Officer

Saving and improving lives

NHS Blood and Transplant (NHSBT) is a Special Health Authority in England and Wales and is also accountable to the Scottish and Northern Ireland Health Departments for providing UK-wide services in support of Organ Donation and Transplantation.

Our mission

Our mission is to save and improve lives. We do this by providing a safe and sustainable supply of blood components, organs, stem cells, tissues and related diagnostic services to the National Health Service.

Our Strategic Ambition

Our aspiration is to save and improve even more lives in the years ahead. We will do this by:

- Improving clinical outcomes, by gearing people, processes and systems around patient needs;
- Improving the experience of donors, colleagues and customers through user-centred design and a focus on diversity and inclusion;
- Enhancing agility by clarifying accountabilities and delegating decision making;
- Removing duplication to reduce the cost of complexity and to maximise synergies and valuable resources;
- Embracing innovation through horizon scanning, investment in R&D, digital and new technology, and a culture of curiosity and learning; and
- Optimising the transfusion and transplantation systems through data insight and working proactively with our NHS colleagues.

Our corporate strategy

Our evolving business model

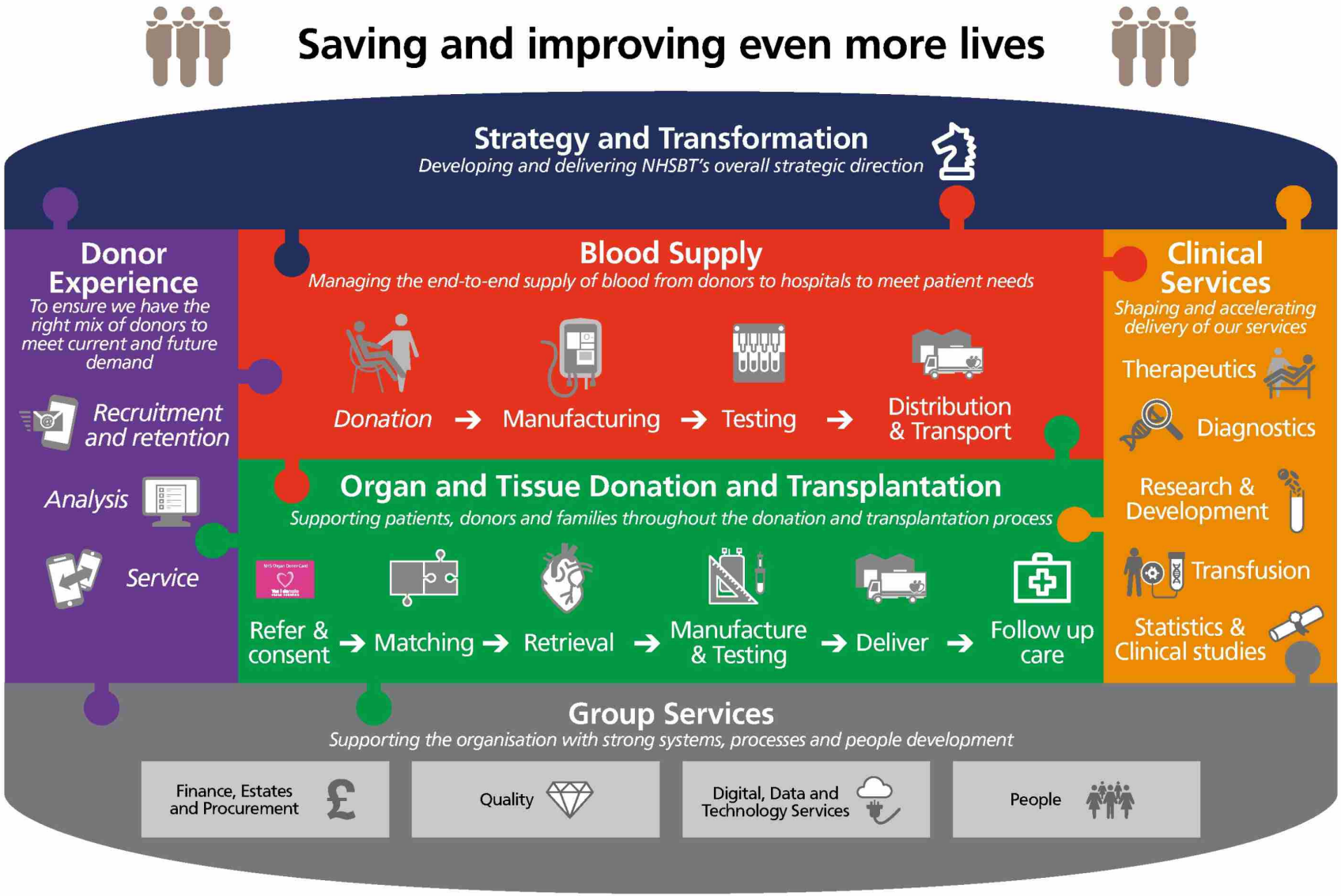
NHSBT has a proud track record of operational delivery. But to **save and improve even more lives**, we must hold tight to the things that have made us great, not least our values of **caring**, **expert** and **quality**, and be prepared to challenge the status quo and to adapt to the changing world in which we operate.

In the last year we have made significant changes to our organisational model to ensure that we remain fit for purpose and fully prepared for the challenges ahead.

The key changes have been:

New directorate	Change	Impact
Donor Experience 	Combined the teams responsible for the recruitment and retention of our donors (Marketing, Communications and Donor Relationship Services) into a new Donor Experience directorate.	We have created a single point of accountability for ensuring that the right mix and volume of donors are available to meet patient needs – today and in the future. We will build a clearer view of existing and potential donors, including their motivations and behaviours. We will use this to modernise and improve the donor experience.
Blood Supply 	Brought together blood collections, Manufacturing, Testing, Hospital Services and logistics into an end-to-end Blood Supply directorate.	This team is responsible for ensuring the safe, reliable and efficient supply of blood components and products to meet hospital demand. The new team has clear accountability of the end-to-end blood supply chain, giving integrated management from donor collections through to hospital deliveries.
Organ and Tissue Donation and Transplantation 	Combined responsibility for Organ Donation and Transplantation (ODT) and Tissue and Eye Services (TES) under a single directorate.	To better coordinate our efforts in respect of deceased donors, their families and the transplant and surgical community, and to increase the number and quality of tissues and organs available for transplant.
Clinical Services 	We have expanded the scope of the Clinical Services directorate to include our Diagnostic and Therapeutic Services teams.	In bringing these clinical and scientific teams together, we seek to strengthen our ties with clinical decision-makers in hospitals and to accelerate innovation in what and how we deliver. This team will provide clinical and scientific leadership to internal operational teams and, externally, to the transfusion and transplantation community. As a national provider, we have a responsibility to take the lead in optimising the end-to-end system and improving patient outcomes.
Strategy and Transformation 	We are creating a Strategy and Transformation team, with a new Director of Strategy and Transformation.	Will oversee the development and delivery of our overall strategic direction as an organisation. This team will oversee the development and delivery of our overall strategic direction and associated transformation programme as an organisation. The team facilitates ongoing dialogue about the big strategic questions, risks and opportunities facing the organisation, to maximise the contribution we make to saving and improving lives. In bringing our diversity and inclusion work into this directorate, we will transform our culture and ways of working that will ultimately help us maximise our impact on patient outcomes.

An evolving operating model



Our challenges

In the year we have reviewed how we manage risks. In addition to bottom-up risk identification throughout the organisation we have identified eleven strategic level risks:

Strategic Risk Description	Further mitigation planned	Accountable Director
Failure to supply the requested amounts of blood and blood components.	Embed organisational changes. Create clear accountabilities via Blood Operations Leadership Team (BOLT) for all sub-risks.	Director of Blood Supply
Failure to collect the right amounts of blood and blood components.	Work is underway to re-imagine the donor journey.	Director of Blood Supply and Director of Donor Experience
Grant funding for organ donation and retrieval may be reduced.	Engagement with DHSC and other UK governments.	Director of Organ and Tissue Donation and Transplantation
Failure to anticipate or foresee changes in demand (e.g. from environmental or competition) for our products and services.	Gather intelligence from our R&D experts, from advisory groups and from international peers.	Chief Medical Officer and Director of Clinical Services
Patients or donors are harmed by us.	Learning from all incidents.	Chief Medical Officer and Director of Clinical Services
IT systems will fail.	Significant investment planned in ICT and cyber.	Chief Digital Information Officer
NHSBT data may not be accessible, may be inaccurate or may be released inappropriately.	Embed the information asset owner role and accountabilities via an annual return and continued compliance activity by IG and IS teams.	Chief Digital Information Officer
Reputational risk from any incident that causes a loss of public confidence and impacts on donors volunteering.	Active media presence to represent us and mitigate any potential negative messages or stories.	Director of Donor Experience
We may not be able to recruit staff with the skills qualifications and experience to meet our needs.	Workforce planning and targeted recruitment events.	People Director
We may lose a facility which prevents us from providing products and services or causes delays to treatment or patient harm.	Increase number of trained critical incident managers.	Director of Quality
Strategic supplier failure to provide product/ services at the expected level due to: supplier failure, poor performance, legislation/ regulation changes, or poor contract specification.	Regular contract and deep dive reviews to quantify risks. Procurement strategies designed to mitigate risks.	Director of Finance

For more about how we manage risks see page 59.

Since the start of 2020 we have seen a new emerging strategic risk. COVID-19 has the potential to impact on many of the risks we identify above. We have been working to ensure the resilience in our stocks, collections, workforce and our supplier base to ensure patients can continue to receive our life-saving products and services throughout. We have also been working with DHSC and NHS England to support the national response.

Risks are also managed at an operational level. For example, during the year some issues were identified with clean rooms which could have resulted in the suspension of services and a delay in planned projects. The additional risk was identified and reported, and actions were agreed to mitigate the risk to an acceptable level. The actions were progressed over the following five months, and the risk was reviewed, and the scores reduced accordingly. Another example was an IT Telephony system which we thought could fail due to several causes and could have resulted in delays to services or products to hospital customers. There were generic controls in place (such as the Business Continuity System and IT Infrastructure Resilience) but it was felt more could be done to reduce the impact should the systems be lost. A number of mitigating actions were agreed. Over the course of approximately eighteen months the actions were implemented. They involved improved supplier support, supplier relationships, procurement, continuity, succession planning, training and staff retention. After the actions were completed an acceptable target score was reached. These and all other identified operational risks continue to be monitored.

Our approach to working in partnership

NHS Blood and Transplant operates in a complex environment and improving the experience of donors and positive outcomes for patients cannot be achieved in isolation. We are a collaborative organisation and we depend upon deep strategic relationships with our partners to work towards shared strategic goals.

Our patients – we provide life-saving patient care through our Therapeutic Apheresis Service. Specialists treatments remove harmful, disease-forming proteins, chemicals, or cells from patients' blood. We treat over 1,200 adults and children every year from eight dedicated therapeutic units across the country.

Our donors – without our donors NHS Blood and Transplant could not function. We communicate regularly with over 800,000 registered blood donors about their donation and how the blood they provide is used. We provide ongoing support to the families of those whose loved ones have donated their organs to save and improve the lives of others.

Collabo

Customer focused

Caring Exp

Communicating

Lead

Government – We are accountable to the four Health Departments in the UK for the delivery of organ donation and transplantation, and to the English Health Department for providing a blood service.

Our regulators – we are responsible for the safety of our donors, patients and our workforce and operate in a highly regulated environment. The Care Quality Commission (CQC) monitors, inspects and regulates our services to make sure they meet fundamental standards of quality and care. The Medicines and Healthcare Products Regulation Agency (MHRA) is responsible for the regulation of medical devices and medicines used in healthcare and the regulation of blood establishments. The Human Tissue Authority regulates the removal, storage and use of tissue and cells and organs for transplantation. As specialists, our clinicians and scientists also advise the policy making bodies in the UK (e.g. SaBTO the UK-advisory body for Blood), in Europe and internationally on the safe use of all of our products and services.

NHS Commissioners – NHSBT recovers its costs of producing blood products by charging a price (based on full cost without profit). Hospital Trusts pay for the blood they use. Our pricing is negotiated annually with our commissioners through the National Commissioning Group for Blood (NCG). Our Commissioners have agreed that during the early months of 2020/21, due to the significant demand changes as a result of COVID-19 Trusts will pay a fixed price based on their planned blood demand for that period. In turn the hospitals income is protected by block contract arrangements for this exceptional period. (see page 36)

NHS customers – we supply blood products, solid organs, tissue and stem cells to hospital trusts and other NHS bodies. We also supply private hospitals. We communicate closely on demand and supply issues to ensure that hospitals can meet the needs of their patients. We want to build stronger and deeper relationships with our customers, so we work together on shared strategic aims.

Our people – NHS Blood and Transplant has a highly engaged and dedicated workforce committed to saving and improving lives. Our colleagues work from many different sites across the UK and it is vital that we communicate openly and regularly through a range of appropriate channels to suit the needs and circumstances of each team.

Our communities – we recognise that we have not always been effective at engaging Black and Minority Ethnic (BAME) Communities in donation. We are increasingly working at a grass roots levels with community groups who are best placed to share the message. Last year our community investment scheme provided over £200,000 to 26 BAME and faith organisations to help explain the changes to organ donation law.

rating

Performing

ert Quality

Innovating

ing

The public – we always need new donors to replace those who can no longer donate blood and we need more donors with certain blood types than others to match changing patient needs. We need more organ and stem cell donors too. We run ongoing donor recruitment campaigns to explain the benefits of donation. Last year we also ran a high-profile campaign to explain changes to organ donation law and ensure everyone knows what it means for them.

Our Trade Unions – we enjoy a robust and constructive partnership with our Trade Unions. This is essential, particularly during a time of considerable change in our organisation.

Our peers – we work with bodies who provide similar products and services to us across the world. We benchmark our productivity, learn best practice and procure key products in collaboration with them.

Scientific and research organisations – we work collaboratively on a range of research projects with academic and research organisations providing leading-edge expertise in blood, organ and stem cells. We have extensive laboratory facilities and clean rooms, and good manufacturing processes which play an important role in research programmes.

NHS clinical community – NHSBT plays a unique role in transplant and transfusion medicine and we are well placed to encourage collaboration and best practice sharing in these fields.

Our charity partners and patient groups – we rely on the support of a wide range of charity partners to help promote all forms of donation. We have established blood and organ campaign forums to bring our partners together to share campaigning ideas and best practice.

Performance report

Our objectives, operational review and KPIs

We set ourselves strategic targets and measure our performance against these for each division as shown below.

Blood Supply

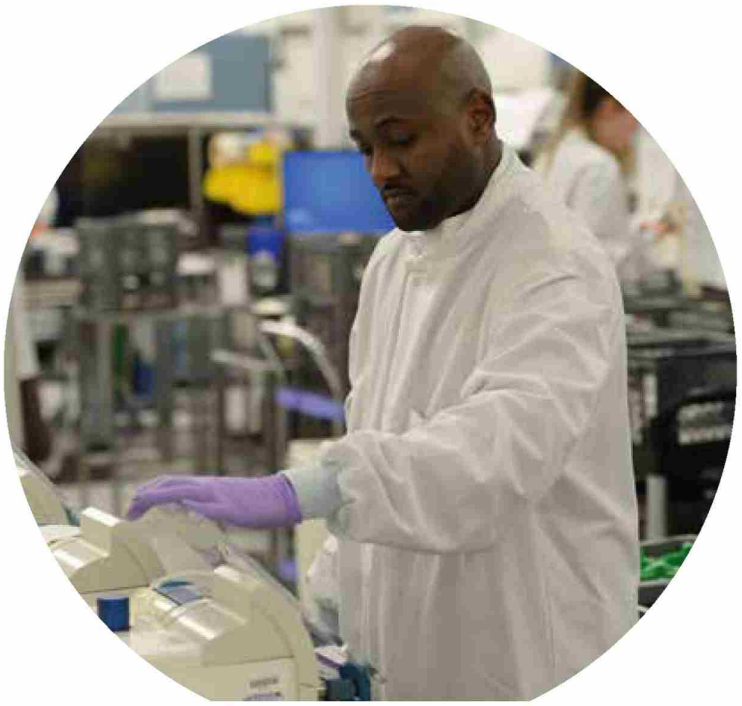
STRATEGIC OBJECTIVE:

To ensure for all patients, including patients with complex needs, that the right blood components are available at the right time, and are supplied via an integrated, cost efficient and best-in-class supply chain and service.

KEY PERFORMANCE INDICATORS:

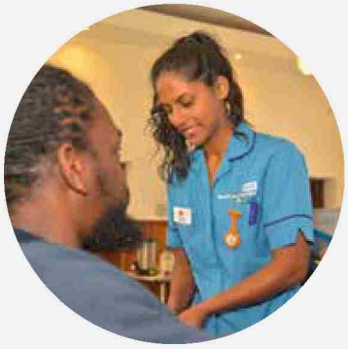
PILLAR/ THEME	BLOOD STRATEGIC TARGET	Target	Actual
Blood Donation and Donor Experience	Blood Donors Donating in Last 12 Months – All Groups	827,000	807,805
	O Negative Blood Donors Donating in Last 12 Months	116,000	112,789
	Ro Blood Donors Donating in Last 12 Months	23,675	24,208
Supply Chain Operations	Red Cell Blood Stocks Alert < 4.5 days YTD	0	5
	Platelet Stocks Alert < 1 day YTD	0	8
	Blood Supply Critical & Major Regulatory Non – Compliance	0	2
	Percentage of product supplied meeting customer requirements on time and in full (OTIF) excluding Ro YTD	98.00%	98.43%

Note: the KPIs and strategic targets are due to be refreshed in 2020/21 as part of developing the new strategy for Blood Supply.



Operational Review

In 2019/20 we have stabilised red cell stock levels and enhanced performance across Blood Supply through more coordinated supply chain leadership, continuous operational improvement activity, a focus on customer and donor experience, and delivery of transformational change projects. This has been achieved against a challenging backdrop of reducing overall demand for red cells (leading to reduced income and increased cost pressures) and simultaneously increasing demand for universal O negative red cells and Ro (Kell negative) type red cells, which is placing a strain on our donor base.



Kaitlyn beat the odds to defeat cancer

Kaitlyn beat stage 4 cancer thanks to blood donors. She was diagnosed with neuroblastoma aged only three and given just a 30% chance of survival. However, she survived thanks to treatment which included 20 transfusions of blood and platelets. Kaitlyn is now eight and doing well.

Kaitlyn's mum said; *"For families like mine, I say thank you to those that give. She's here today because of people we will never meet. The transfusions made the world of difference."*

Kate now donates herself and has the Ro subtype often needed to help Black patients with sickle cell disease.

Red blood cells

Through 2019/20 we improved our performance against red cell stock targets. In 2018/19, stocks fell below safe levels (3 days for two or more consecutive days) 13 times but in 2019/20 stocks did not fall below this safe level. We achieved better control by having a joint management committee the Blood Operational Leadership Team (BOLT) and by working to maintain stocks above a higher (4.5 day) alert target.

Treating sickle cell anaemia

Overall demand for blood is declining so we need to reduce our collections and costs accordingly. However, demand for Ro (particularly Ro Kell negative) red cells and O neg red cells is rising. This means we need donors with different blood types to donate at different rates, and we need a different mix of donors to meet patient needs.

Ro Kell neg demand is growing as more patients with sickle cell anaemia are being offered more regular blood exchanges. Ro Kell neg blood is more prevalent among the Black population. In 2020/21, we expect demand to have doubled when compared with 2014/15 and to continue growing by between 5%-8% per year for at least the following three years. As we are currently unable to meet all demand because we do not have enough Ro donors, we issue a clinically acceptable alternative (usually O neg red cells) for almost half of the Ro requests we receive. During 2019/20, we have increased our efforts to attract more Black people to give blood to improve our Ro blood supply, by engaging with the Sickle Cell Society, developing relationships with Black faith organisations and creating more opportunities for donation in areas of London with high Black populations. These initiatives have helped to grow our Ro Kell neg donor base at the same rate as demand (10%) so the gap between growing demand and supply has not worsened. To close the gap and meet all the demand we know that we need a step change in the recruitment and retention of Black Ro donors. To help us do this we have worked with external consultants McKinsey to help us re-imagine the end-to-end donor experience. There is no silver bullet to close the gap between supply and demand, but we are now working on a long-term programme to address three key issues:

- A donor experience which can feel disconnected and uninspiring to target audiences;
- Communication which can be confusing, lacking empathy and inconsistent; and
- A lack of opportunities for people who are unable to donate to contribute to the cause of blood donation.

The universal blood type

O negative blood is often called the 'universal blood type' because people of any blood type can receive it. This makes it vitally important in an emergency or when a patient's blood type is unknown. Approximately 7% of the UK population have O neg blood, but hospital orders for O neg over the past 18-month period have been growing and now represent approximately 13% of total red cell demand. Additionally, we issue O neg red cells as a clinically acceptable substitute component (often for unmet Ro demand), meaning that actual issues of O neg are now typically 14-15% of total red cell issues, more than double the population prevalence. In response to the growing demand for O neg red cells, we introduced the 'First Responders' programme, to raise awareness among our community of O neg donors of the universality of their blood type. We offer them priority access to donation appointments through the online donor app and a dedicated contact line to our national call centre. Since launching this programme in late September O neg collection has increased, allowing us to improve stocks, despite ongoing high demand. The O neg donor base is at its highest level in the last five years with 112,800 O neg donors donating over the last 12 months.

Platelets

Our platelet stocks fell below our target level on 8 occasions. Three of these related to one incident where bacterial screening failed over a weekend and batches of platelets had to be discarded. A root cause analysis was carried out and all identified actions have been implemented. The performance in year was a marked improvement on previous years evidenced by only 2 customer letters being issued stating platelets stocks may not be available until later the same day, whereas in previous years general stock warning letters were issued once every one or two months.

Danielle – "donors are my hidden heroes"

Danielle, 24, has suffered numerous hospitalisations due to sickle cell disease.

She needs eight units of blood every six weeks to try and reduce the risk of serious complications and painful crisis episodes. Danielle developed multiple complications including necrosis of the kidney.

"For me, blood transfusions are literally the difference between life and death," she said.

"The people that give blood are my hidden heroes."

In 2019/20, we have maintained and improved our already high levels of service to our hospital customers and donors. Our On Time, In Full (OTIF) performance (excluding Ro requests) remains at a record high of 98.4%. The percentage of hospitals scoring us 9 or 10 out of 10 for Overall Hospital Satisfaction is 77%, while the percentage of donors giving us this score for Overall Donor Satisfaction is also at the highest on record at 78.4%.

UK-sourced plasma

We are on track to move to a single UK-sourced plasma supply from April 2020 and stop importing plasma for transfusion. This will save the NHS around £3.2m per year. Following the Minister of Health and Social Care's acceptance of the SaBTO recommendation to allow transfusion of UK-sourced plasma to recipients born after 1995, we have been working across the supply chain to transition to 100% UK-source plasma from April 2020. We have started to increase whole blood donations from male donors and increase the production of UK plasma to be ready to replace the currently imported plasma. We have been in close communication with hospital customers and customers from other UK Blood Services in readiness for the switch.

Session solutions

We have been working to deliver a Session Solution project. This project will equip our blood collection teams with the software, hardware and connectivity to ensure they can do their job more easily and with less manual process steps. Following the immediate COVID-19 response there will be a re-planning exercise and we hope to have completed testing, live trials and the full rollout of Session Solution to all blood collection teams by June 2021.

High levels of productivity

We continue to deliver high levels of processing and testing productivity, ensuring best value for money for our hospital customers. Our processing productivity over 2019/20 improved by around 0.5% when compared with the previous year, reaching 11,238 units processed per person per year. This was very close to top quartile performance among European Blood Alliance (EBA) Blood Establishments. Our testing productivity this year is among the EBA top quartile performers at 34,570 units tested per person per year. But our collection productivity is ranked average in the EBA at 1,340 units per person per year. Achieving a step-change in collection productivity performance has been challenging over recent years. This is because we need to balance the competing pressures of removing collection capacity in line with declining overall demand, whilst ensuring enough donation opportunities for more O neg and Ro (Kell neg) donors. Introduction of safer Hb testing in session has also had a negative impact on productivity as more donors are deferred now than when we used previous testing techniques.

Our Logistics Review Programme (LRP) is on track to achieve total forecast savings of approximately £3.8m per year, whilst maintaining existing service level agreements for both our internal and external customers. In the first quarter of 2019/20, we consolidated our Warehousing Operations, reducing from seven warehouse sites to just three. In 2019/20, we also reduced unplanned transport costs between Stock Holding Units by around 40% by improving our stock management algorithms and other operational initiatives. In the latter part of the year, we completed a National Rota Review consultation, which from 2020/21 will enable us to optimise our transport operation through both more efficient deployment of our driver workforce and use of third-party suppliers.

There were two incidents of major regulatory non-compliance in Blood Supply in the year (see governance statement page 59).

Our response to COVID-19

We entered 20/21 having activated our Pandemic Plan in response to the challenges of the COVID-19 outbreak. The pandemic has impacted on hospital ordering, donor attendance and our consumables supply chain. We recognise the impact will be felt for some time and are working to deliver all four key objectives during the response (see page 15).

Stocks of all components have been maintained at a healthy level. The cancellation of non-urgent procedures and most transplants saw demand for red cells fall by nearly 40% (measured by the actual 7 day average demand which dropped to 16,500 units against the forecast 7 day rolling demand of 26,200 units for the last few days in March), while collections fell by 20% (due to a combination of staff, venue and donor behaviour factors). We continue to monitor supply and demand through our Integrated Supply Planning process, updating our forecasts promptly and taking mitigating actions as required. We are also modelling demand scenarios to understand what could happen to stock as demand behaviours change and hospital activity returns to normal.

We have taken steps to ensure the safety of our staff and donors on blood sessions and are working closely with our suppliers to ensure sufficient consumables are available. During March 2020, we:

- Introduced a triage process before entry into blood sessions, where we screen donors for symptoms of COVID-19;
- Enforced greater spacing between areas of activity, to ensure greater distance between donors;
- Increased the frequency of our cleaning processes in sessions and provided hand-gel for donors; and
- Provided PPE in line with PHE requirements.

We have also started collection of Convalescent Plasma from recovered COVID-19 patients for potential therapeutic use for those acutely ill with the virus. This is being done as part of clinical trials to test the effectiveness of this treatment

Organ and Tissue Donation and Transplantation (OTDT)

STRATEGIC OBJECTIVES:

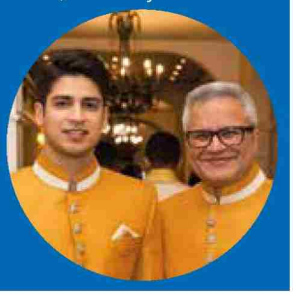
- **To match world class performance in organ donation and transplantation.**
- **To be recognised by the NHS as the preferred provider of high quality, ethically sourced and cost-effective tissue allografts in England, Wales and Northern Ireland.**

"My father was a very giving person. He did charity work and the Hindu act of Sewa, of service to God, was very important to him.

"When the specialist nurse approached us about organ donation, we had already made our decision. There was no hesitation. We knew that helping others in need was exactly what my father would have wanted.

"we knew he would not have wanted his organs to go to waste, and as a family we take comfort from knowing he helped others."

Shivum Kakkad, Bharat's son



KEY PERFORMANCE INDICATORS:

OTDT STRATEGIC TARGET – Organs	Target	Actual
Overall consent/authorisation rate (%)	80%	68%
Number of deceased donors	1,740	1,582
Number of deceased donor transplants	4,956	3,764
NHSBT (only) cost per transplant (k)	16.62	19.08
% adults in England who have had a conversation about organ donation	51%	41%

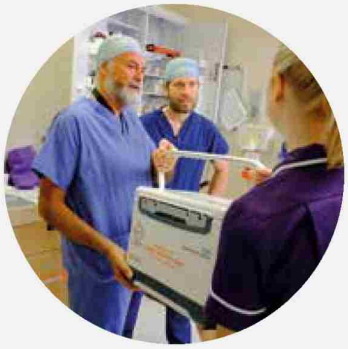
Note: the number of donors, transplants and the average cost of transplants has been negatively impacted by COVID-19. These targets were also ambitious stretch targets set in the 2020 strategy.

OTDT STRATEGIC TARGET – Tissues	Target	Actual
Tissue and Eye Services (TES) Sales Income £000	15,094	15,040
TES On Time in Full (OTIF)	98.0%	99.5%

Note: the number of elective operations using Tissues products reduced in March 2020 so the income performance against target has been negatively impacted by COVID-19.

Operational Review

We are hugely grateful to the 2,217 people and families who consented to solid organ donation during 2019/20 – 1,582 of whom proceeded to donation.



In 2013 we set ourselves the ambitious target of 26 deceased donors per million population ("pmp"), as part of our Taking Organ Transplantation to 2020 (TOT2020) strategy. By December 2019 we achieved 25 deceased donors pmp, but the impact of COVID-19 means we ended 2019/20 at 24 pmp. Since the Organ Donation Task Force was established in 2008, the overall increase in deceased donation now stands at 96%.

There were 9 fewer BAME donors during 2019/20 (112 vs 121 in 2018/19). However, an additional 41 BAME patients received a deceased donor transplant (1,010 vs 969). This 4% increase is partly attributable to the impact of our new Kidney Offering Scheme, which was delivered in September 2019.

Faizan – "My life is on hold"

Faizan, or Fez as he likes to be known, was born with renal failure and is waiting for his third kidney transplant. Fez had his first organ transplant at the age of just three from an anonymous donor. When that failed at the age of 14, he was on dialysis for 18 months and in 2000, he received a kidney from his father, who is still fit and well following the operation. That kidney worked until Fez was in his second year at university when it started to fail again. He is now 33 and back on the organ transplant list. He has been waiting for a kidney for the last two-and-a-half years. He is managing his condition using nocturnal dialysis where he is hooked up to the machine at night.

Fez said: "It feels like my life is on hold. I can't hold down a proper job as one week I am great and then next I am ill. People don't realise how many young people are on the organ transplant list. It is not just older people, it can happen to anyone at any age. My third donation will be more complicated than the previous two. It will need to be a really good match, which means it needs to come from my own community. I am not hopeful I'm afraid as the Asian community has the lowest number of donors on the register."

We are also very grateful to the 969 living donors in the 11 months to February 2020, a 1% increase compared to the same period last year. We will now see a decrease in living donation due to the suspension of the UK's living donation programmes in response to COVID-19.

During 2019/20, 3,764 deceased donor transplants were undertaken – a 5% decrease compared to 2018/19, again partly attributable to COVID-19. This equates to 57 transplants per million population and means we will fall far short (-24%) of the ambitious target of 74 pmp, which was set as part of our 2020 strategy.

Around one million new opt-in registrants were added to the Organ Donor Register during 2019/20, broadly in line with last year. During the same period 0.8 million people opted out across the UK, in line with expectations as the implementation of new laws in England and Scotland gathered pace.

During 2019/20, we continued to support preparations for these new laws in England and Scotland and to complete the ODT Hub Programme (having successfully transformed and enhanced existing donation and transplantation processes). In addition to the Kidney Offering Scheme, important developments including a new Pancreas Offering Scheme and tools to better control organ offering were delivered.

In response to the developing COVID-19 situation, we have worked with colleagues across the UK to maintain organ donation and transplantation where safe to do so. The COVID-19 pandemic and the related response reduced numbers of donors throughout March and, while the UK was previously on-track for a record year for deceased donation, we ended the year with 18 fewer deceased donors than last year.

Hilaria – a new kidney changed her life

Hilaria became unwell at the age of 35 after suffering a miscarriage. Her condition quickly deteriorated to septicaemia, then multiple organ failure. Remarkably the same circumstances occurred again two years later. She was later diagnosed with kidney disease. She was told that a kidney transplant was the only way her condition would improve, though a shortage of donors from the Black community meant that she had a long wait. She was advised she could be on the transplant list for up to ten years.

Hilaria received a transplant after a six-year wait. She said: *"I look back at the kind of person I was, and I look at what I became afterwards. I was a shadow of myself. When I got the call it was like a miracle. I could not believe I'd got the kidney. I just wanted to burst into song, and sing!"*

In 2020, we will publish our new Organ Donation and Transplantation strategy for the UK. Having nearly doubled deceased donation since 2008, our challenge will be to make further advances in meeting patient need. We will now also need to consider the impact of COVID-19. Central to our strategy will be to make the most of the changes in law surrounding consent in England and authorisation in Scotland. We will also be aiming to extend the life of organs, tackle barriers to accepting organ offers in transplant centres and whatever else we can do to increase the use of donated organs for transplantation. The implementation of this strategy will require collaboration across the NHS.

Max and Keira

"Max and Keira's Law is an ongoing human reminder of the selfless generosity of all organ donors and their families, including, of course, Keira and the Ball family, who saved Max's life. What more can one person do for another than save their life. Keira's name and memory lives on forever. Max's name in the law is symbolic of the suffering, courage and 'rebirth' of all organ donor recipients, but it is also important to remember those patients for whom the wait is just too long or who become too ill for surgery, as well as those patients who suffer complications post-transplant."

Emma Johnson (Max's mum)

In addition to the awareness campaign about the change in organ donation law on the 20 May 2020 in England, we will also be implementing operational changes and training to ensure NHS staff involved in organ donation and transplantation are prepared. This will ensure that all colleagues act in compliance with the law and to ensure enough capacity is in place to deliver the expected increase in organ donation.

Tissue and Eye Services

"As a family we are so thankful that someone chose to donate their cornea.

"It has simply allowed my daughter a chance to keep the light perception she has to help her in life.

"Words can't express how thankful I am."

Lynda Rhodes, mum of Angharad, aged 16

During 2019/20, Tissue and Eye Services (TES) have seen an overall growth in year-on-year sales income of 1.7% (see note 2).

We have seen growth of 1.1% (£63k) in cornea income and 26.9% (£728k) serum eyedrops income. The income for bone tendons and skin is down by 9.1% (£527k), largely due to a fall in demand for our skin products during this period.

During the year there were 3 serious incidents in ODT and one in Tissues (see page 58 for more information).

Clinical Services

STRATEGIC OBJECTIVES:

- **The Stem Cell Donation and Transplantation Teams (SCDT) aim to maximise the number of patients offered a potentially curative stem cell transplant by providing an effective, affordable and financially sustainable supply of well-matched unrelated donor stem cells.**
- **The Cellular and Molecular Therapies teams (CMT) aim to establish NHSBT as the preferred provider of cell therapies to the NHS, and of innovative cellular and DNA-based therapies for academic and commercial organisations.**
- **The Red Cell Immunohaematology teams (RCI)[1] aim to provide an innovative, integrated, technologically enabled service saving patients' lives by ensuring they have access to precisely matched blood when needed.**
- **The Histocompatibility and Immunogenetics teams (H&I)[2] aim to maintain our position as the UK's largest provider through delivering an innovative, integrated and technologically enabled service which will save more patients' lives by ensuring they have access to precisely matched blood, stem cells and organs when needed.**
- **The Therapeutic Apheresis teams (TAS)[3] aim to become the NHS preferred provider of high quality, cost effective services.**

KEY PERFORMANCE INDICATORS:

CLINICAL STRATEGIC TARGET	Target	Actual
Sales Income £000 YTD	67,128	66,575
SCDT – Banked Cords TNC > 140	624	503
SCDT – Cord Blood Demand	32	49
BBMR Demand	240	193

Note the income vs target performance has been negatively impacted by COVID-19.

1. See glossary page 96
2. See glossary page 95
3. See glossary page 96

Operational Review

Activity in Clinical Services during 2019/20 has focused on delivering more high-quality products and services for NHS patients. The Clinical Services strategic business units (SBU's) aim to be preferred national suppliers to the NHS, ensuring an ethical not-for-profit supply from within the NHS. Growth in activity in the year will be fed back to the NHS and patients through keeping future prices as low as possible and investment to develop new and improved therapies.

Therapeutic and Apheresis Service

Our Therapeutic Apheresis Service teams treated 1,896 patients compared to 1,734 treated in 2018/19, a rise of 9%, with patient satisfaction at 92% and above plan of 90%.

NHS Cord Blood Bank

The NHS Cord Blood Bank, maintained by the Stem Cell Donation and Transplantation (SCDT) function, has been built to ensure equity of access for patients to suitably matched un-related stem cells. We focus on patients whose ethnicity is under-represented on the other panels. By March 2020 we had 18,534 units in the bank, just under our target of 18,741. Clinical practice is evolving and clinicians sometimes use 'haplo-identical' options where a suitable unrelated donation is not available. Despite this, UK transplant centre use of cord blood increased by 23% and unrelated donors by 1.75% during FY19/20 over the previous year. The NHS Cord Blood bank issued 49 units for patients in the year, and although this was an increase from the 44 issued last year, most of the units (34) were sent to non-UK customers with provision to the UK remaining in line with the previous year. During 2019/20 we have worked closely with the clinical community to understand how demand might change over the next five years and produced an updated Cord Blood strategy. NHSBT remains committed to maintaining this unrelated stem-cell bank. NHSBT is also supporting clinical trials that seek to expand the use of cord blood for both stem cell transplants and other advanced cell therapies. Going forward the costs of the blood bank will reduce as the bank transitions from growing to maintaining stock levels.

Stem Cell Donation and Transplantation

SCDT also manages the British Bone Marrow Registry (BBMR). Activity was also lower than plan with 193 units issued to patients versus a target of 240 (and 217 last year). Whilst export provisions came in just over plan, UK-to-UK provision has dropped. This drop is in line with the experience of other UK Aligned Registry partners with an 11% increase in imported adult stem cell provisions. Actions are planned to optimise the BBMR (see glossary page 95) registry to meet patients' needs more often from the UK.

Diagnostic Services

In Diagnostic Services we saw a mixed picture in terms of sample referral volumes. In Histocompatibility and Immunogenetics (H&I) HLA typing by Next Generation Sequencing (NGS) was implemented for all transplant patients in a phased rollout during the year. This resulted in all patients being typed to high resolution at first referral, facilitating quicker identification of suitable donors for patients requiring transplants. Alongside this benefit for patients there was a fall in testing activity of 18% due to a downturn, predominantly in stem cell referral volumes. A reduction was expected due to the implementation of NGS which removed the need for additional high-resolution testing for patients, but the fall in referrals was greater than planned for. The reduction in referrals appears to be linked to the increased prevalence of NGS among global donor registries and the impact of 'haplo-identical' transplantation (using a partially matched family donor) in certain stem cell transplant units, reducing the number of potential donors being typed. Activity in our Red Cell Immunohematology (RCI) laboratories rose by 4% with growth across their portfolio of services. In both areas, service to customers measured by sample turnaround time was better than plan. The International Blood Group Reference Laboratory provided increased molecular diagnostics support to NHS patients with referral volumes growing by 39% year-on-year, which includes the ever expanding Fetal RHD Screening programme (see glossary page 95).

The activity changes described above resulted in three of our six SBU's increasing their income over the last year. Our Cellular and Molecular Therapies Service (CMT) grew by 6% with increases seen across routine services, advanced cell therapies and the Clinical Biotechnology Centre. The CMT laboratory in Filton completed readiness for the RESTORE clinical trial, manufacturing red cells from adult stem cells under GMP. CMT manufactured Mesenchymal Stromal Cells (MSC) from NHSBT umbilical cord tissue for the REALIST Clinical trial to treat patients in intensive care with acute respiratory distress syndrome (ARDS). The phase 1 dose escalation trial was completed successfully and MSCs are now being supplied for the phase 2a trial that has been repurposed solely for COVID-19 patients with ARDS.

Red Cell Immunohematology (RCI) increased by 4% with growth across their portfolio of services. Therapeutic Apheresis (TAS) income rose by 1.5% with growth in Plasma Exchange and Red Cell Exchange procedures, however, the material growth seen in previous years from rising Extracorporeal Photopheresis activity has started to stabilise.

Two of our SBU's saw income reduce year-on-year. Histocompatibility and Immunogenetics (H&I) income fell by 7% due to a downturn in solid organ and stem cell referral volumes (as mentioned above). Whilst sales income was up by 4%, overall Stem Cell Donation and Transplantation (SCDT) income fell by 3% due to a reduction in non-recurring Department of Health and Social Care (DHSC) programme funding.

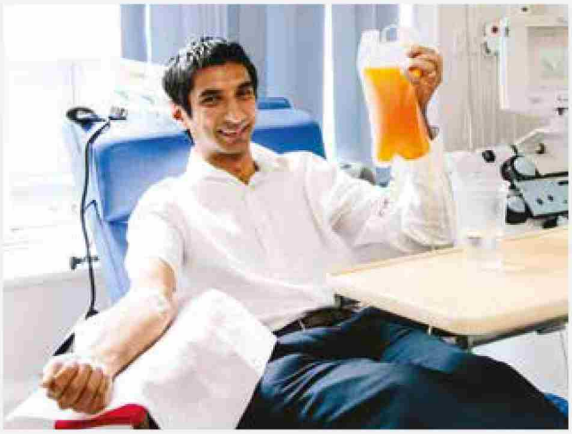
Overall, the combined impact across our SBU's resulted in growth of £0.3m for Clinical Services, with income reaching £66.6m in 2019/20, including both invoiced sales and DHSC funding in support of stem cell donation / cord blood banking.

In Clinical Services we received two 'major' regulatory non-compliances (compared with two reported in DTS during 2018/19) and one Serious Incident in International Blood Group Reference Laboratory (IBGRL) (compared to two in 2018/19). See page 58 for more information. Our customer satisfaction scores were above target in all services.

Clinical Service projects

The Clinical Services Directorate is leading a major project to replace the Clinical Biotechnology Centre in Bristol and house it within an extension to our Filton Centre. The planned investment will require around £8.7m of capital funding and will increase the capacity of NHSBT to manufacture small batches of plasmids. These plasmids are used in early stage clinical trials by the emerging stem cell / advanced therapies industry in the UK. The project was approved by the NHSBT Board and DHSC during 2019 and ground works have now commenced. This project represents a major investment in the UK's capabilities in regenerative medicine as described in the Industrial Life Sciences Strategy .

The Clinical Directorate is also leading a major programme (up to a value of £100m to the end of April 2021) on behalf of the Department of Health and Social Care to collect the antibody rich plasma of people who have recovered from COVID-19, for transfusion into people who are struggling to develop their own immune response. The aim is to scale the end-to-end supply chain capacity up to 7500 units of Convalescent Plasma per week to fully maximise the collection potential in the event of a sizeable second wave of coronavirus. The volume of plasma collected is dependent on the supply of donors with COVID-19 antibodies.



Research and Development

We continue to deliver innovative translational research, clinical trials and development projects which inform international best practice in transfusion, transplantation and regenerative medicine. The evidence that was generated by our scientists and clinicians during 2019/20 is helping to improve outcomes for the patients who rely upon our products and services.

An external review of our R&D Programme carried out in June 2019 found that significant advances and improvements have been delivered by our sustained investment in research and development. Our current R&D Strategy has driven a transition from largely investigator-driven research to one that is more relevant to the organisational strategy.

During 2019/20 we:

- Worked in partnership with the Bart's Health NHS Trust as well as the London Air Ambulance to show that it is feasible to deliver a novel 'whole blood' component to trauma victims. This work has the potential to improve survival rates for these patients;
- Initiated an organisation wide randomised-controlled trial of interventions which aim to reduce the number of donor faints. The trial is one of the largest ever conducted in the UK and is testing four different strategies to determine which is the most cost-effective;
- Developed a universal platform for genotyping our blood donors which allows a complete profile of their blood groups to be determined in a single test. This platform is now going through an extensive accreditation process;
- Worked in partnership with the National Blood Transfusion Committee (NBTC) to develop the next 5-year strategy for Transfusion in the UK. This Transfusion 2024 strategy calls for improved use of data in transfusion, increased genotyping of donors and the development of new blood components;
- Worked with the Universities of Newcastle and Nottingham to improve our understanding of the barriers to and facilitators of blood and organ donation for BAME communities. The results of these studies are informing the design of more effective BAME engagement strategies;
- Published the results of our research in over 200 scientific papers in international journals.

Group Services

Our group services are Quality, People, Finance and Information and Communication Technology (ICT). The Quality activity is reflected in the governance statement page 56. The People activity is reflected on pages 39-50. The Financial review is at page 36. The ICT review is on page 34.

STRATEGIC OBJECTIVES:

- **Providing systems and controls that underpin our commitment to safety and availability of our products and services and to compliance with all appropriate rules, regulations and legislation in our operations.**
- **Preparing for EU Exit in 2019/20.**
- **Developing and delivering the significant programme of work required to renew, protect and improve the performance of our IT infrastructure, including the need to transfer the hosting of our data centres, further improving cyber security and ensuring Pulse (our key Blood Collection, Manufacturing and Distribution record system) is able to operate safely for at least the next five years.**
- **Developing the relevant workforce models with the skills, capabilities and diversity required to deliver our strategies, in particular in blood donation, advanced cell therapies and for our nursing staff across NHSBT.**
- **Delivering on key estates projects with priority on delivering the new Barnsley Centre, the CBC extension at Filton and reviewing the capacity and adequacy of our London estate.**

Review

2019/20 saw significant improvements to performance and user experience as a result of increased investment in critical infrastructure. A new strategy for replacing our end-of-life infrastructure was agreed and a new Call Centre Management Platform and Core Network/Telephony improvements were implemented.

A strategic review of the future Blood Supply Technology recommended that we retain and evolve our existing platforms, and good progress continues to be made in modernising the architecture and approach to managing these applications. New hardware has been purchased and new support and development contracts have been awarded. A new solution which will improve internet access on blood donation sessions and provide real time access to donor and appointment information is ready to implement when resources are released from COVID-19 response activities. Work on new architecture roadmaps and technology strategies for other parts of the organisation were also started during 2019/20, including a review of the architecture in OTDT.

We have created a new Cyber Security Team and have a programme of work to improve our planning and response to cyber threats. This has included investment in cyber threat intelligence technology and will continue to progress through 2020/21.

2019/20 saw the start of the evolution of the ICT operating model to meet the challenges and aspirations set by NHSBT and to build strong relationships with other directorates. Key roles were introduced and critical gaps have been filled with permanent recruitment. Ways of working have also been updated. This work continues under the new Chief Digital Information Officer.

The end of 2019/20 saw ICT begin its delivery of a series of rapid improvements and new services in response to COVID-19, including the Convalescent Plasma trial registration process, National Bereavement Helpline call management system, supporting Public Health England with COVID-19 testing and comprehensive support for the rapid move to remote working.

In 2020/21 ICT was renamed Digital, Data and Technology Services (DDTS) to reflect the evolving ways of working within the directorate and the nature of its role within the organisation.

Learning from compliments, comments and complaints

Our complaints procedures are in line with best practice published by the Parliamentary and Health Ombudsman. We aim to provide excellent customer satisfaction where 61-71% of our customers rate our service as 9 or 10 out of 10. We encourage compliments and complaints from hospitals, blood donors, from organ donor families and from our TAS Patients. We make it easy to give us feedback and we review every complaint and our lessons learned from them as part of our clinical governance in our CARE committees (see page 57). If our customers are not satisfied with how their complaints are resolved they can complain to the Parliamentary and Health Ombudsman. In 2019/20 there were two requests for information made through the Ombudsman; we met these requests and had no complaints (nil 2018/19).

Customer	Compliments		Complaints	
	2019/20	2018/19	2019/20	2018/19
Hospitals	283	282	908	882
Blood donors	13,209	6,843	8,197	13,516
Organ donor families, public, transplant recipients, hospitals	132	107	93	45
TAS patients	214	212	6	6

In our half-year satisfaction survey 97% of our hospital transfusion customers were satisfied or very satisfied with our products and services.

78.4% of our blood donors (74.9% 2018/19) scored us nine or ten out of ten for overall satisfaction. The improvement in donor experience was achieved through bolstering our front-line operational teams and keeping a manageable balance between returning donors and new donors (who require more attention from the team and are more likely to be unable to give blood on the first visit).

The increase in organ donation complaints is attributed to organ donation legislation change complaints. This correlates with increased public awareness following television advertising in January 2020 and the public announcement of the implementation date.

In Therapeutic Apheresis Services (TAS) we deliver over 9,000 procedures directly to more than 1,600 adult and child patients. In 2019 92% of our patients rated our overall service 9 or 10 out of 10.

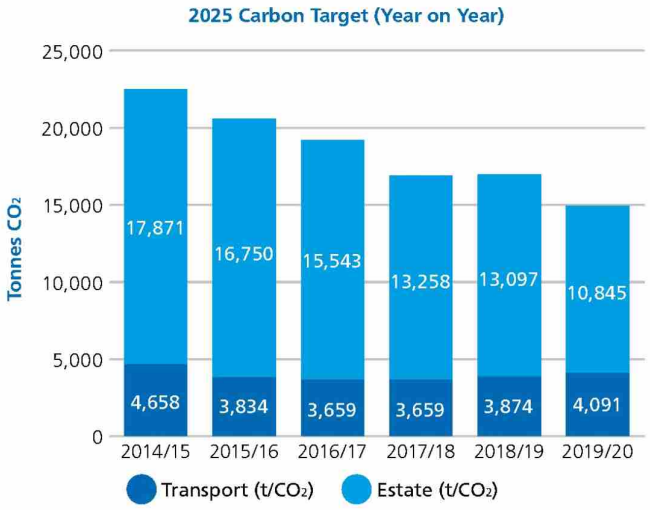
Our approach to sustainability

NHSBT's 2015-2025 Sustainability Strategy includes the following objectives:

- 50% cut in carbon emissions;
- Zero waste to landfill (excluding clinical waste);
- A resilient business;
- A sustainable supply chain; and
- Sustainability embedded into organisational culture.

The Finance Director has Board level responsibility for this and a Sustainable Development Group (SDG) drives the programme and reviews performance and risks.

To date, we have achieved a 39.3% CO_2 saving against the 2014/15 baseline. In 2020/21 we will open our new Barnsley Centre (built to modern environmental standards including solar panels) and close our Leeds and Sheffield sites which will significantly improve our emissions levels. This will get us closer to our 50% target which we still anticipate meeting by 2025.



The above graph measures our direct CO_2 impact. Quarter 4 figures for 2019-20 are estimated. Figures do not include our supply chain CO_2.

Projects currently underway to improve this performance are:

- Our logistics team are upgrading the fleet from EURO V standard to EURO VI compliant vehicles in 2020/21. This will also ensure that the NHSBT fleet will be compliant with the various Clean Air Zones (CAZ) acts being implemented across the country.
- A trial of a fully electric "blue light" delivery vehicle has been commenced at Tooting. Performance and operational data gained from the trial will be used to inform our strategy for further use of electric vehicles within NHSBT.

Financial review

Going concern

We have a rolling five-year planning process and plans are regularly refreshed using assumptions about product demand, prices, cash reserves, funding from the four UK Health Departments, operating costs and the projected cost and benefits of our investment programme. We are able to adjust prices based on our expected costs and demand and our funding from the UK Health Departments is based on expected activity levels. This provides flexibility and allows the NHSBT Board to have a reasonable expectation that we will generate adequate income and cash resources, to meet our expected costs, over the coming five-year period. So, we continue to adopt the going concern basis in the preparation of these financial statements.

The reduced demand for blood following COVID-19, which prompted elective operations to be cancelled, would normally have significantly reduced our income in 2020/21. We have cash reserves to manage a period of reduced demand, but we are adopting a 'block contract' approach, consistent with the broader NHS during the COVID-19 crisis. This means we are fixing income to levels that would have applied prior to COVID-19. So, the NHSBT Board does not consider COVID-19 presents a material risk to the going concern basis on which these accounts are prepared.

Trading performance

In these published accounts we are required to present our financial performance on a **Net Expenditure** basis and show programme funding in the general reserve. However, we manage NHSBT's financial performance on an **Income and Expenditure basis**. **Note 2** shows the Income and Expenditure as presented in our management accounts and reconciles this to the Net Expenditure basis shown in the Statement of Financial Activities. On an Income and expenditure basis NHSBT generated a surplus of £6.1m in 2019/20 compared to a budgeted deficit of £11.3m and a surplus of £12.7m in 2018/19.

The improvement of £17.4m compared to budget was mostly as a result of lower spending on transformation projects of £10.1m with much of this due to the timing of project spends in Blood Supply and Group Services.

Income from blood components was £268.8m in 2019/20. This was 2.3% higher than the £262.9m reported in 2018/19 reflecting the net impact of higher prices offset by lower demand. With operating costs 3.1% higher than in 2018/19, and a similar level of transformation spend (non-recurring revenue investments), Blood reported a surplus of £17.8m versus £20m in the previous year. In Blood (and our specialist services) prices are set to recover both operating costs and planned levels of non-recurring revenue investments. Due to the estimations involved in forecasting demand, costs and the timing of large non-recurring revenue investments NHSBT has generated surpluses that have resulted in the accumulation of significant cash reserves over recent years. NHSBT ended the year with £50.5m of cash (see note 13 in the financial statements) with £40m of this attributable to Blood. These reserves will be used to fund transformation, including improving the ICT infrastructure and renewing the Pulse blood management system.

Organ Donation and Transplantation is funded by the four UK Health Departments. Funding for normal operating expenditure in 2019/20 was broadly the same as the previous year. We received additional funding from DHSC to support the implementation of deemed consent legislation in England, with the expenditure on this project is shown under transformation costs in note 2. Operating costs increased by 7.4% due to the full year effect of stepped capacity increases in the national organ retrieval service and the number of specialist nurses. After including transformation costs, a deficit of £10.2m for ODT is reported (£7.5m deficit in 2018/19). ODT reports a persistent deficit because funding is only provided for the direct additional costs of organ donation and transplant and does not cover the allocated costs of the NHSBT group services functions. This results in ODT being cross-subsidised by blood and specialist services prices by around £9m pa.

Our specialist services (Diagnostics, Tissues, Stem Cells and Therapeutic Apheresis) continued to progress well. Income totalled £81.6m in the year compared to £81.1m for 2018/19 with both figures including around £4.2m of programme funding from DHSC in support of the NHS Cord Blood Bank and the British Bone Marrow Registry. Within this underlying income growth was seen in TAS (+1.5%), Stem Cells (+1.5%) and Tissues (+1.7%). This resulted in an overall deficit of £1.6m for these services versus a surplus of £216k last year. The deficit position is primarily driven by a persistent deficit position in Tissues (that will require price increases in 2021/22 to correct). It also reflects a deterioration in Diagnostics income (-0.7%) as a result of lower organ and stem cell investigations in H&I during 2019/20. Post COVID-19 we anticipate that demand will recover to previous levels later in 2020/21, and hence price correction at this stage is not anticipated.

Capital spend

We had £22.6m of capital cash allocated (£9.0m in 2018/19) and received £18.5m of this from the DHSC in the year with the remaining £4.1m being received in April 2020. Capital projects included construction of a new site at Barnsley and a new Clinical Biotechnology Centre at Filton.

Property revaluation and other revaluation movements

Of our £206m property assets (land, building and assets under construction), £180m has been valued by the Valuation Office. The remaining £26m includes: assets under construction (£22.2m); additions to owned and finance leased properties* since the last full valuation (£0.4m); and cumulative additions to operating leased assets* (£3.4m), which are all valued at historic cost (* as determined under IAS17). The Valuation Office professionally re-values properties*, with an onsite inspection, every 5 years, in line with our accounting policy and the Treasury's FReM guidance. The last full valuation was in March 2019. A desktop revaluation has been performed by the Valuation Office as at 31 March 2020. Additions to the properties since the 2019 on-site inspection are added on to the desktop valuation to arrive at the final valuation at March 2020.

The Valuation Office have advised us that since their desktop valuation, the outbreak of COVID-19 (declared by the World Health Organisation as a "Global Pandemic" on 11 March 2020) has impacted global financial markets. For specialised assets, there is no diminution identified in the public sector's ongoing requirement for these operational assets, nor reduction in their ongoing remaining economic service potential, as a result of the incidence of COVID-19, so any variation in value as at 31 March 2020 is regarded as being within normal valuation tolerances. The basis of valuation of non-specialised in-use assets is current value in existing use, comparable market evidence and early commentary suggest a downward movement in value. It is, however, too early in the District Valuer's professional judgement to accurately evidence the impact. As such the opinion at the date of valuation, based on the information then available, and the assessed impact, are judged by the District Valuer to be valued within normal tolerances.

Net assets

The Statement of Financial Position shows that net assets have increased to £291.3m at 31 March 2020 from £266.1m at 31 March 2019. The most significant elements of this movement are explained below.

Non-current assets increased to £229m, from £212m, due to increased capital spend (including Barnsley) in the year.

Trade receivables have increased from £36.2m at 31 March 2019 to £41.9m at March 2020 with £6.9m being due from DHSC (largely capital funding – see above) in March 2020.

Trade and other payables are up from £23.6m in March 2019 to £41.8m in March 2020 with accruals and deferred income (see note 14) being £18m higher than the prior year. This includes £8.7m owed to DHSC for capital charges in 2019/20 and £2m of accruals related to COVID-19 response including additional transport support, additional consumables (including PPE) and additional test kits. We also have £6.1m worth of deferred income relating to funding provided for projects in Organ Donation including implementation of the deemed consent legislation.

Cash has increased from £28.4m to £50.5m. This has been driven by the surplus and the movements on working capital described above.

NHSBT is the corporate trustee for NHSBT Trust Funds. The total net assets of the trust funds as at 31 March 2019 were £0.161m (compared to £0.341m in March 2018). The 2018/19 Trust Fund Accounts were published in January 2020 and are available at https://www.nhsbt.nhs.uk/who-we-are/transparency/accounts/trust-fund-accounts/. Although the Trust Fund assets are controlled by NHSBT, consolidated accounts are not produced as the Trust Fund is not financially material to NHSBT.

The accounts are also available on the Charities Commission website.

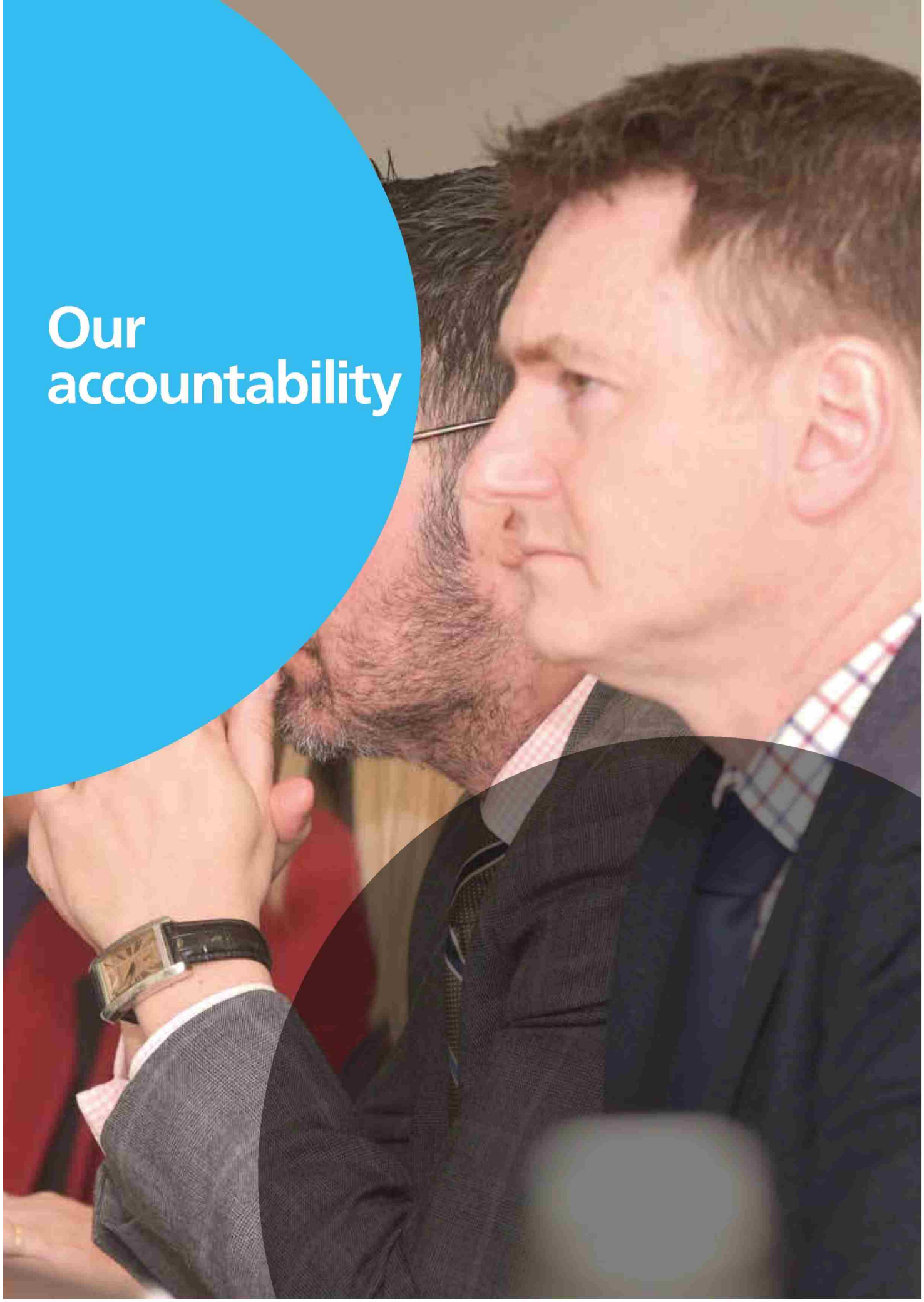
We are awaiting DHSC guidance regarding treatment of the Flowers v East of England Ambulance Trust Appeal. This case is currently being appealed. The case relates to the working time directive and Agenda for Change (AFC) calculations of leave pay, specifically whether regular overtime should be included in the calculation of holiday pay. The outcome may require recalculation of holiday pay and increased payments for several years in arrears. It will impact all NHS trusts using the AFC holiday pay method. A value cannot be determined before a final judgement is reached and the national method is revised. There are no other significant contingent liabilities to report as at 31 March 2020. For full details refer to note 18 contingent liabilities in the financial statements.

I hereby sign the performance report pages 12 to 37.

GRO-C

Chief Executive and Accounting Officer,
2 September 2020.

Our accountability



Accountability report – Our people

Every day our people work tirelessly at the heart of the NHS, showing dedication and a determination to make a difference. We are proud of our people. Because of what they do we want to attract the best talent, nurture, develop, engage and motivate them so our people can continue to save and improve more lives. In this section we describe what we do to achieve that.

Our people and rewards

Gender	Headcount
Female	4,043
Male	1,825
Grand Total	**5,868**

Ethnicity	Headcount
A White	4,707
B Mixed	113
C Asian or Asian British	413
D Black or Black British	287
E Other Ethnic Groups	71
F Not Stated	277
Grand Total	**5,868**

Age Range	Headcount
Under 25	263
Age 25 – 34	1,109
Age 35 – 44	1,317
Age 45 – 54	1,686
Age 55 and Over	1,493
Grand Total	**5,868**

Disabled	Headcount
No	366
Not Declared	17
Prefer Not To Answer	1
Unspecified	5,356
Yes	128
Grand Total	**5,868**

Note: Headcount above is the total number of people employed at NHSBT. Whole-time equivalent below adjusts for part-time workers showing people as a proportion of a whole-time equivalent employee.

Staff Numbers and Costs

The table below shows a breakdown of staff numbers and costs and distinguishes between staff permanently employed and other staff engaged on the objectives of NHSBT, such as agency staff. This exact information is also disclosed in note 4 of the financial statements.

This is subject to audit.

			31 March 2020	31 March 2019
	Permanent £000	Other £000	Total £000	Total £000
Salaries and wages	166,477	12,042	178,519	167,704
Social security costs	16,266	681	16,947	15,740
Employer contributions to NHS Pensions Agency	21,461	899	22,360	21,071
Notional cost of NHS Pension increase	9,776	–	9,776	–
Total	**213,980**	**13,622**	**227,602**	**204,515**

On 1 April 2019, the employer contribution rate for the NHS Pension Scheme increased by 6.3%. The additional cost, funded directly by DHSC, was £9,776k for the year.

Whole-time Equivalents	Permanent Number	Other Number	Total Number
Period ended 31 March 2020	4,540	231	4,771
Period ended 31 March 2019	4,412	260	4,672

Pay multiples

Reporting bodies are required to disclose the relationship between the remuneration of the highest paid director in their organisation and the median remuneration of their workforce. The banded remuneration of the highest paid director (both including contractors and excluding contractors) in 2019/20 is shown in the table below, together with the remuneration ratios compared to the midpoint of the banded remuneration of the highest paid director's pay. This shows the pay multiple excluding contractors is 6.8 compared to 6.7 last year due to the highest paid director's pay increasing slightly more than the median remuneration for employees. From January 2019 to December 2019 we engaged an Interim Director of ICT while a permanent recruitment was completed. The contract rate was fixed throughout the period so the ratio of 10.5 dropped to 10.1 as the median pay increased.

	2019/20	2018/19
Highest director banded remuneration (including contractors)	£300k to £305k	£300k to £305k
Highest director banded remuneration (excluding contractors)	£200k to £205k	£190k to £195k
Lowest banded remuneration	£0k to £5k	£0k to £5k
Median remuneration	£29,966	£28,828
Remuneration ratio (including contractors)	10.1	10.5
Remuneration ratio (excluding contractors)	6.8	6.7

In 2019/20, 0 (2018/19, 0) employees received remuneration in excess of the highest-paid director.

Total remuneration includes salary, non-consolidated performance-related pay and benefits-in-kind. It does not include severance payments, employer pension contributions and the cash equivalent transfer value of pensions.

This is subject to audit.

Sickness absence data

Sickness absence data is reported on a calendar year basis to facilitate aggregation of information on a consistent basis nationally.

During the period January 2019 to December 2019 the total number of whole-time equivalent days lost to sickness absence was 43,265 days (2018 40,872 days). This equates to an average of 9.1 days per whole-time equivalent (2018 8.8 days) and a sickness absence rate of 2.5% (2018 2.4%).

Our pension schemes

Most of our employees are members of the NHS Pension Scheme which is an unfunded, defined benefit scheme. We are not able to identify the shares of the underlying assets and liabilities related to our organisation and so the scheme is accounted for as a defined contribution scheme. See Accounting policy 1.11.

Early retirements and redundancies

During 2019/20 there were 14 payments for early retirements and/or redundancies from NHSBT. The sum of £529,000 has been paid out in 2019/20 in respect of these redundancies and/or early retirements (2018/19 57 early retirements and/or redundancies and payments of £1,323,000).

There is currently no provision held for redundancy costs, the historic provision having been utilised or reversed unused during 2018/19 and no further provision has been made for redundancy costs this year.

The total charge of £374,000 for early retirements and redundancies is included within other staff-related costs in note 5 (2018/19 £911,000).

The table below discloses the number and value by cost band of compensation packages paid during 2019/20.

Exit Package cost band	Number of compulsory redundancies	Cost of compulsory redundancies (£000s)	Number of other departures agreed	Cost of other departures agreed (£000s)	Total number of exit packages	Total cost of exit packages (£000s)	Number of departures where special payments made	Cost of special payment included in exit package
Less than £10,000	2	9	–	–	2	9	–	–
£10,001 – £25,000	4	78	–	–	4	78	–	–
£25,001 – £50,000	4	123	–	–	4	123	–	–
£50,001 – £100,000	3	206	–	–	3	206	–	–
£100,001 – £150,000	1	113	–	–	1	113	–	–
£150,001 – £200,000	–	–	–	–	–	–	–	–
Totals for 2019/20	**14**	**529**	**–**	**–**	**14**	**529**	**–**	**–**
Totals for 2018/19	**36**	**851**	**21**	**472**	**57**	**1,323**	**–**	**–**

Redundancy and other departure costs have been paid in accordance with the national NHS redundancy terms and conditions and within the provisions of the NHS Pension Scheme where appropriate. Exit costs in this table are disclosed for in full in the year of departure on a cash basis. Ill-health retirement costs are met by NHS pension scheme and are not included in the table.

This is subject to audit.

Ill-health retirement

3 individuals retired early on ill-health grounds in the year generating additional pension liabilities of £86,933.00 (2018/19 5 individuals £214,975.48). These costs are met by the NHS Pension Scheme.

The Remuneration Committee and senior manager rewards

Membership and purpose of the Committee is shown on page 54. The Chief Executive and Director of People also attend but excuse themselves when their remuneration is being discussed.

In deciding the remuneration of the Chief Executive and Executive Directors the committee follows all relevant DHSC guidance and the Executive Senior Management (ESM) Framework and any cost-of-living pay increases are paid in line with DHSC Remuneration Committee recommendations. Remuneration for Non-Executive Board Members is set by the Secretary of State for Health.

All senior managers are appraised annually, and their performance is assessed against personal and corporate objectives. The element of remuneration based on performance for relevant senior staff is as defined by the DHSC ALB Executive and Senior Manager Pay Framework, and associated guidance issued by DHSC.

Senior management contract information

Contract details for those in senior positions with responsibility for directing or controlling major activities in NHSBT are reported below. The start date is the date of commencement of continuous NHS service for pension purposes.

Betsy Bassis, Chief Executive. NHS Start date 4 March 2019, appointed 4 March 2019. Accounting Officer from 29 March 2019. Full-time permanent appointment with three months' notice of termination by the employee, and six months' notice period by NHSBT.

Dr Gail Miflin, Chief Medical Officer and Director of Clinical Services. NHS start date 1 August 1991, appointed 1 June 2016. Permanent full-time post with three months' notice by the employee, and three months' notice period by NHSBT.

Greg Methven, Director of Blood Supply. NHS start date 6 February 2017, appointed 6 February 2017. Permanent full-time post with three months' notice by the employee, and six months' notice period by NHSBT.

Rob Bradburn, Director of Finance. NHS start date 8 April 2008, appointed 8 April 2008. Permanent full-time post with three months' notice of termination by the employee, and six months' notice period by NHSBT.

Anthony Clarkson, Director of Organ and Tissue Donation and Transplantation. NHS start date 16 September 1991. Appointed to the role 11 February 2019 having previously covered the role on an interim basis since 1 August 2018. Full-time permanent appointment with three months' notice of termination by the employee, and six months' notice period by NHSBT.

Ian Bateman, Director of Quality. NHS start date 22 July 2002. NHSBT start date 21 September 2009. Appointed to the Executive Team 1 January 2014. Permanent full-time post with three months' notice by the employee, and six months' notice period by NHSBT.

Mike Stredder, Director of Donor Experience. NHS start date 29 June 2015, appointed 29 June 2015. Permanent full-time post with three months' notice by the employee, and six months' notice period by NHSBT.

Katherine Robinson, Director of People. NHS start date 25 July 1994 appointed to the Executive team on 1 July 2017. Permanent full-time post with three months' notice of termination by the employee, and six months' notice period by NHSBT.

Officers appointed during the year 2019/20:

Wendy Clark, Chief Digital Information Officer. NHS start date 10 Sept 2018, appointed 6 January 2020. Permanent full-time post with three months' notice of termination by the employee, and six months' notice period by NHSBT.

Leavers in the year:

Sally Johnson, Interim Chief Executive. NHS start date 23 July 1990, appointed 1 August 2018. Full-time permanent appointment with three months' notice of termination by the employee, and six months' notice period by NHSBT.

Sally Johnson was the permanent NHSBT Director of Organ Donation and Transplantation prior to taking on the role of Interim Chief Executive during 30 July 2018 to 29 April 2019. Sally Johnson retired from NHSBT on 29 April 2019.

Brian Henry, Interim Technology Director. Appointed 3 January 2019 full-time assignment engaged as a contractor with one months' notice of termination by the contractor and one month's notice period by NHSBT. Contract ended 31 December 2019.

Ceri Rose, Interim Director of Marketing and Communications. NHS start date 30 January 2014, appointed 21 May 2018. Full-time permanent employee with twelve weeks' notice of termination by the employee, and one week's notice for every year of service up to a maximum of twelve weeks and a minimum of four from NHSBT. Ceri Rose resigned and left NHSBT on 6 January 2020.

Huw Williams, Director of Diagnostic and Therapeutic Services. NHS start date 4 February 2013, appointed 4 February 2013. Permanent full-time post with three months' notice by the employee, and six months' notice period by NHSBT. Huw Williams resigned and left NHSBT on 31 January 2020.

The remuneration and pension benefits of the most senior officials of NHSBT are shown in the tables on pages 43 and 44. The tables on pages 43 and 44 are subject to audit.

Remuneration and Pension Entitlement of Senior Managers

a) Remuneration

	Year to 31 March 2020					Year to 31 March 2019				
Name and title	Salary In £5k bands £000	Performance pay and bonuses In £5k bands £000	Non-Cash Benefits To nearest £00	All Pension Related Benefits Bands of £2.5k £000	Total In £5k bands £000	Salary In £5k bands £000	Performance pay and bonuses In £5k bands £000	Non-Cash Benefits To nearest £00	All Pension Related Benefits Bands of £2.5k £000	Total In £5k bands £000
Ms B Bassis (Chief Executive)[1]	170–175	–	–	35–37.5	205–210	10–15	–	–	–	10–15
Ms M Banerjee (Chair)	60–65	–	–	–	60–65	60–65	–	–	–	60–65
Lord Oates (NED)[2]	5–10	–	–	–	5–10	5–10	–	–	–	5–10
Prof P Vyas (NED)	5–10	–	–	–	5–10	5–10	–	–	–	5–10
Mr K Rigg (NED)	5–10	–	–	–	5–10	5–10	–	–	–	5–10
Mr C St John (NED)	5–10	–	–	–	5–10	5–10	–	–	–	5–10
Mr J Monroe (NED)	5–10	–	–	–	5–10	5–10	–	–	–	5–10
Mr P White (NED)	10–15	–	–	–	10–15	0–5	–	–	–	0–5
Ms H Fridell (NED)	5–10	–	–	–	5–10	0–5	–	–	–	0–5
Ms L Fullwood (NED)	–	–	–	–	–	5–10				5–10
Mr R Griffin (NED)	–	–	–	–	–	5–10	–	–	–	5–10
Dr Gail Miflin (Chief Medical Officer and Director of Clinical Services)	200–205	–	–	57.5–60	260–265	190–195	–	1	130–132.5	320–325
Mr G Methven (Director of Blood Supply)	130–135	–	–	30–32.5	160–165	130–135	–	1	27.5–30	155–160
Mr R Bradburn (Director of Finance)	145–150	–	63	65–67.5	215–220	140–145	–	65	22.5–25	170–175
Mr A Clarkson (Director of Organ and Tissue Donation and Transplantation)	135–140	–	38	210–212.5	350–355	70–75	–	16	85–87.5	155–160
Mr I Bateman (Director of Quality)	110–115	–	25	10–12.5	120–125	110–115	–	13	10–12.5	120–125
Mr M Stredder (Director of Donor Experience)	130–135	–	–	32.5–35	160–165	125–130	–	–	30–32.5	155–160
Mrs K Robinson (People Director)	120–125	–	32	20–22.5	145–150	115–120	–	19	42.5–45	160–165
Ms W Clark (Chief Digital Information Officer)[3]	30–35	–	–	7.5–10	40–45					
Mr H Williams (Director of Diagnostics and Therapeutic Services)[4]	225–230	–	–	20–22.5	245–250	125–130	5–10	–	27.5–30	160–165
Mrs C Rose (Interim Director of Marketing and Communications)[5]	70–75	–	1	32.5–35	105–110	90–95	–	–	20–22.5	115–120
Ms S Johnson (Interim Chief Executive)[6]	10–15	–	–	–	10–15	155–160	5–10	–	207.5–210	370–375
Mr B Henry (Interim Technology Director)[7]	225–230	–	–	–	225–230	70–75	–	–	–	70–75

NED = Non-Executive Director. Performance pay and bonuses relates to pay earned in the previous year. Non-cash benefits were in relation to the provision of cars and reimbursement of business mileage and are stated in round £100's not £1000's

[1] Betsy Bassis – prior year salary part year from 4 March 2019
[2] Lord Oates – left on 29 February 2020. Full year salary £5-10k
[3] Ms W Clark – appointed as Chief Digital Information Officer on 6 January 2020. Full year salary (£5k bands) is £145-150
[4] Dr H Williams – left on 31 January 2020. Full year salary (£5k bands) is £125-130. 2019/20 renumeration includes a redundancy package
[5] Mrs C Rose – left on 6 January 2020. Full year salary (£5k bands) is £90-£95
[6] Ms S Johnson – left and retired on 29 April 2019. Full year salary (£5k bands) is £165-170
[7] Mr B Henry – left on 31 December 2019. Engaged full-time as a contractor. Full year salary (£5k bands) is £300-305.

b) Pension Benefits

Name and title	Real increase/ (decrease) in pension at pension age (bands of £2,500) £000	Real increase in lump sum at pension age (bands of £2,500) £000	Total accrued pension at pension age at 31 March 2020 (bands of £5,000) £000	Lump sum at pension age related to accrued pension at 31 March 2020 (bands of £5,000) £000	Cash Equivalent Transfer Value at 31 March 2020 £000	Cash Equivalent Transfer Value at 31 March 2019 £000	Real increase in Cash Equivalent Transfer Value £000
Ms B Bassis (Chief Executive)	2.5–5	–	0–5	–	40	3	12
Dr G Miflin (Chief Medical Officer and Director of Clinical Services)	2.5–5	0–2.5	55–60	125–130	1,098	991	59
Mr G Methven (Director of Blood Supply)	2.5–5	–	5–10	–	98	63	13
Mr R Bradburn (Director of Finance)	2–5.5	–	30–35	–	541	448	62
Mr A Clarkson (Director of Organ and Tissue Donation and Transplantation)	10–12.5	22.5–25	45–50	115–120	852	641	175
Mr I Bateman (Director of Quality)	0–2.5	2.5–5	20–25	70–75	578	526	25
Mr M Stredder (Director of Donor Experience)	2.5–5	–	10–15	–	148	111	15
Mrs K Robinson (People Director)	0–2.5	-2.5–0	35–40	80–85	620	573	15
Ms W Clark (Chief Digital Information Officer)[1]	0–2.5	–	0–5	–	51	18	3
Dr H Williams (Director of Diagnostic and Therapeutic Service)[2]	0–2.5	–	15–20	–	281	234	18
Mrs C Rose (Interim Director of Marketing & Communications)[3]	0–2.5	–	10–15	–	102	74	11
Ms S Johnson (Interim Chief Executive)[4]	–	–	–	–	–	1,681	–
Mr B Henry (Interim Technology Director)[5]	–	–	–	–	–	–	–

[1] Ms W Clark – appointed as Chief Digital Information Officer on 6 January 2020
[2] Dr H Williams – left on 31 January 2020
[3] Mrs C Rose – left on 6 January 2020
[4] Ms S Johnson – left and retired on 29 April 2019, as a result there are no current year values, real increases or lump sum in year
[5] Mr B Henry – left on 31 December 2019 – Engaged full-time as a contractor therefore is not signed up to the NHSBT pension scheme.

Pension table figures explained

The total accrued pension figures are the benefits of all their years membership of the scheme, not just their service in a senior capacity.

The Cash Equivalent Transfer Value (CETV) figure is a cash value placed on the pension benefits and is the amount available to transfer to an alternative plan if a member leaves the scheme. The value reflects contributions paid by the employee and employer, inflation, the scheme benefits, and any benefits transferred in from other schemes or additional years of pension purchased by the member. CETV's are calculated within the guidelines and framework prescribed by the Institute and Faculty of Actuaries.

The real increase in CETV is approximating the increase funded by the employer. The calculation of this figure removes the increase due to inflation and contributions paid by the employee.

Off-payroll engagements and their tax arrangements

HM Treasury require all public-sector bodies to report on their high value off-payroll engagements. These are arrangements whereby individuals are paid through their own companies (and so are responsible for their own tax and NI arrangements) and are not classed as employees.

The table below identifies all off-payroll engagements as of 31 March 2020, for more than £245 per day and that last longer than six months:

	Number
Number of existing engagements as of 31 March 2020	5
Of which, the number that have existed:	
for less than one year at the time of reporting	2
for between one and two years at the time of reporting	2
for between 2 and 3 years at the time of reporting	1
for between 3 and 4 years at the time of reporting	0
for 4 or more years at the time of reporting	0

All existing off-payroll engagements have been subject to a risk-based assessment as to whether assurance is required that the individual is paying the right amount of tax and, where necessary, that assurance has been sought.

The table below identifies all new off-payroll engagements, or those that reached six-month duration, between 1 April 2019 and 31 March 2020, for more than £245 per day and that last longer than six months:

	Number
Number of new engagements or those that reached 6 months duration during the time period	6
Of which number for whom:	
Assessed as caught by IR35	5
Assessed as not caught by IR35	1
Engaged directly (via PSC) and are on the payroll	0
Of engagements reassessed for consistency/ assurance purposes during the year	0
Of engagements that saw a change to IR35 status following the consistency review	0

The table below identifies off-payroll engagements of Board members and/or senior officials with significant financial responsibility between 1 April 2019 and 31 March 2020:

	Number
The number of off-payroll engagements of board members and/or senior officials with significant financial responsibility, during the financial year	1
The total number of individuals on payroll and off-payroll that have been deemed 'Board members, and/or, senior officials with significant financial responsibility', during the financial year.	21

An Interim Technology Director was engaged while a permanent Director was recruited.

Our approach to diversity and inclusion in our workforce

Diversity and Inclusion is a priority in everything we do. We want a culture in which all colleagues and donors are valued. We want our organisation, particularly our frontline services, to reflect the communities we serve. We are creating a greater sense of belonging for all employees through celebrating diversity and uniqueness.

An important priority for us is to achieve the best outcomes for people from different ethnic backgrounds. We employ 888 Black, Asian and Minority Ethnic (BAME) colleagues, which is 15% of our workforce, an increase of 0.7% since last year. This means we better reflect this community and broadly reflects the UK BAME population. However, we are not equally diverse across all our Directorates, our centres or pay bands. NHSBT is also less diverse than the wider NHS, where BAME representation is around 20%.

We aim to fairly and consistently reflect the communities we serve across our organisation and to achieve this aim in the year we and our volunteer networks have:

CORPORATE	Held 'Let's Talk' sessions to talk about culture and inform positive action plans across the organisation.
	Held regular Equality and Diversity Steering Groups. This is a cross organisational forum to review the activity and ensure the engagement of all leadership teams in this agenda.
	Improved the quality of employee data by providing self-service access and encouraging updating and disclosure.
BAME NETWORK	Held open days in Birmingham where our BAME colleagues are underrepresented – Taken part in the NHS England's Workforce Race Equality Standard (WRES) Expert Programme.
	Identified BAME candidates ready for career progression through a Talent Share exercise.
	Supported BAME colleagues to be on interview panels for senior leadership appointments.
	Worked with the Business in the Community charity to improve race equality across the organisation.
	Supported 10 BAME colleagues to take part in a Cross-Sector Mentoring Programme.
	Supported BAME colleagues to take part in the NHS Leadership Stepping Up Programme.
LGBT+ NETWORK	Completed second year of the Stonewall Diversity Champions Programme.[6]
	Taken part in the Stonewall Workplace Equality Index ranking 337 of 503 organisations, an improvement on last year with plans to further improve.
	Helped assess the feasibility of individualised risk assessments in blood donation for men who have sex with men with Stonewall and the Terrence Higgins Trust.
	Lobbied for changes (expected in August 2020) to allow trans donors to be treated with dignity and respect in recording their true gender.
	Launched an external webpage to engage the LGBT+ community on how they can donate their blood, tissue, organ and stem cells and build trust and engagement.
WOMEN'S NETWORK	Delivered a cross-centre programme to mark Ada Lovelace Day.
	Surveyed over 800 colleagues to inform the Women's Network strategy under the themes of Supporting, Developing, Empowering, Nurturing and Recognising women in the workplace.
DISABILITY NETWORK	Published a Disability Awareness Factsheet.
	Applied the Disability Confident criteria during recruitment. We also check for special requirements and make changes to venues where access is unsuitable and arrange for someone to accompany candidates where necessary.
	Worked on the Business Disability Forum Self-Assessment Survey.
	Published our Disability Communication Guide – vital in developing relationships between disabled and non-disabled colleagues.
	Carried out workplace adjustments to ensure that the needs of disabled colleagues and those with long-term health conditions are accommodated.

6 Stonewall is a lesbian, gay, bisexual and transgender (LGBT) rights charity.

Our policies and procedures ensure that our managers:

- give full and fair consideration to applications for employment made by disabled persons, having regard to their particular aptitudes and abilities;
- continue the employment of, and arrange appropriate training for, colleagues who have become disabled persons during their employment; and
- support the training, career development and promotion of disabled persons employed by NHSBT.

Pay gap

Our latest gender pay gap reporting is as at 31 March 2019 when NHSBT employed 5,870 staff members (including 12 directors) of whom 4045 were female (of which five are directors) and 1825 were male (of which seven are directors).

NHSBT's overall ratio of male to female employees is approximately 32:68, which is broadly in line with the ratio in the wider NHS. However, the ratio of male to female employees is reversed for higher banded roles, at Band 8c and above.

We publish our gender pay gap (GPG) figures each year on our website, in line with government requirements.

Our mean GPG shows women's pay is 7.6% lower than men's. This compares well to the Office for National Statistics mean GPG figure for the public sector, which was 17.3% (October 2019). NHSBT therefore compares favourably with the wider public sector and other NHS Arm's Length Bodies.

Our mean gender pay gap was the same as in the previous year report. Our median figure 5.6% (also showing women's pay is lower than males) had increased slightly on prior year by 0.2%. We are developing our action plan to reduce our GPG further over the coming year.

A key area of difference has been the bonuses our medical colleagues receive. Colleagues are required to apply to the clinical excellence awards, an external body, for their own bonuses evidencing reasons for awards. We have been working with female clinicians to encourage and support applications. We have seen a reduction in the average (mean) bonus pay gap by a further 6.64%. However, a 26.3% gap, where men are paid more bonuses than women, remains in the year to March 2019.

Supporting and engaging our people

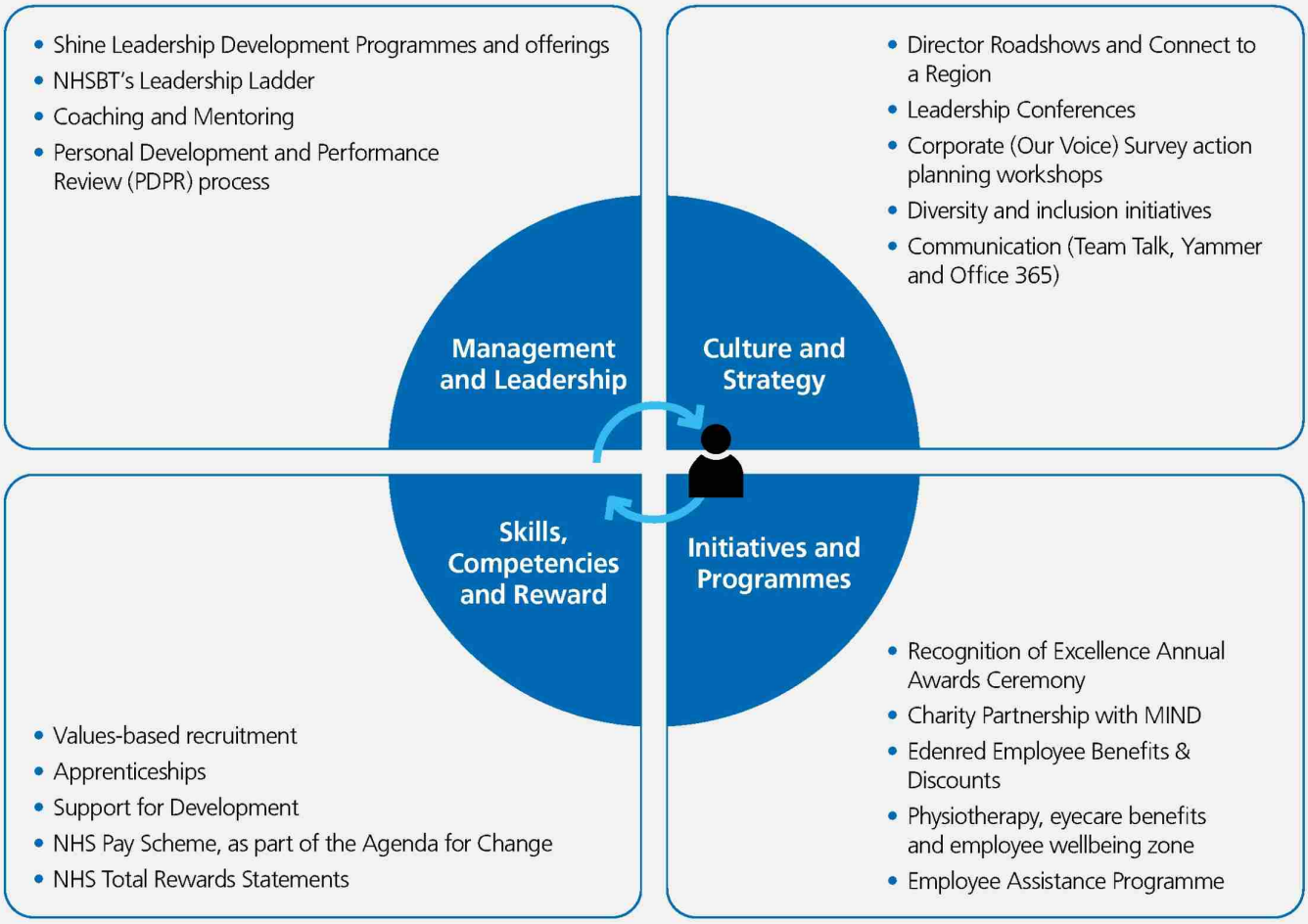
NHSBT has a highly engaged workforce who are committed to saving and improving lives. We communicate with and engage our colleagues in many different ways to ensure they have a voice and are able to play a full role in shaping our organisation.

We recognise our employees through a variety of schemes including Recognition of Excellence and Loyal Service. We hold a yearly Award Ceremony to celebrate our colleagues' achievements in Patient Care, Continuous Improvement, Championing Inclusivity, Excellence in a Business Continuity Response, Health, Safety and Wellbeing and our Charity Support. We also celebrate professional development achievements.

We provide an award-winning comprehensive learning and development framework 'SHINE' for all colleagues including personal skills development, scientific training and management and leadership development.

We have an online structured learning tool for all leaders and managers both current and aspiring, called the Leadership Ladder. We play a key part in the DHSC Healthcare Sector leadership programme and the DHSC Talent board. Coaching and mentoring is encouraged across NHSBT and we now have 10 fully qualified executive level coaches. Colleagues are encouraged to have personal development plans, and this remains an essential part of our appraisal process.

Apprenticeships form an essential part of the way we minimise skills gaps and support and develop our people. Our current apprentices are entry-level recruits joining NHSBT as well as existing employees enhancing their skills in 24 different programmes/levels. In 2020/21 we will be able to offer a variety of additional apprenticeships for our science and blood collection functions.



Trade Union relationships

NHSBT has a robust Partnership Framework with Trade Union colleagues underpinning a productive and effective approach to partnership working. The Executive Team meets with the national representatives annually to share plans for the year ahead. This demonstrates our open and transparent approach and allows for earlier discussion of some strategies.

NHSBT enables 96.24 whole-time equivalent Trade Union representatives to carry out national consultation/partnership working duties. These representatives collectively spent 9731 hours on these duties this year, reflecting the scale of change consultation within NHSBT and the geographic spread of employees. Please see below for details of Union Officials:

Relevant Union Officials	
No. of employees who were relevant union officials during the relevant period	**Full-time equivalent employee number**
111	96.24

Percentage of time spent on facility time	
Percentage of time	**Number of employees**
0%	14
1–50%	88
51–99%	3
100%	6

Percentage of pay bill spent on facility time	
Description	**£000**
Total of cost facility time	397
Total pay bill*	217,826
Percentage of the total pay bill spent on facility time	0.18%

Paid Trade Union activities	
Time spent on Trade Union activities as a percentage of the total paid facility time hours	9%

*Excluding notional pension (see Note 4)

Health, Safety and Wellbeing

We are committed to the Health, Safety and Wellbeing (HSW) of our colleagues. Health and safety is covered in our Accountability report (pages 61).

Our HSW five-year plan is now in the second year with good progress on the four themes:

Leadership

Implementation of a human factors approach to incidents and observation of safety activities helps provide visible leadership. Best practice is identified with other blood operators. Risk and incidents in our electronic HSW system (datix) were amended to reflect the new organisational structures.

Prevention Culture

London and Southeast collection teams carry out well-received peer-to-peer safety observations. Manager monthly inspections are required as part of our occupational safety system.

Wellbeing

We increased our mental health and wellbeing champions in 2019/20 to 150. People Directorate, Manufacturing, Blood Collection teams and laboratories in Filton all completed health needs assessments, identifying wellbeing needs for their colleagues.

Our Occupational Health partner now provides access to an on-line tool called Optimise for colleagues to assess their own health needs. An increase in reported work-related stress is being managed with risk assessments for individuals.

Communications

Successful campaigns raised awareness of accident near miss reporting, menopause support and how managers can support colleagues with their mental health.

Our HSW team supported our response to COVID-19 throughout March 2020, providing advice and risk assessment support to frontline operations to ensure colleagues feel supported. HSW planning has been extended into the new financial year to help maintain compliance and reduce the burden on managers.

Winners: Patient Spotlight

Winner: Employee of the Year

Winners: Inclusivity

Winner: People's Choice

Winner: Health, Safety and wellbeing

Accountability report – Our governance and accountability structure

Directors' report

Chair

Millie Banerjee
Chair

Millie Banerjee has had a long and varied career in both the private and public sectors. She has extensive experience in corporate governance, having held a number of non-executive appointments in the public and private sectors. Currently she is also the Chair of the South West London Integrated Care System.

Non-Executive Directors

Lord Oates

Lord (Jonny) Oates was Deputy Director of Communications in 10 Downing Street and then Chief of Staff to the Deputy Prime Minister, Rt Hon Nick Clegg MP, (2010-2015). (left in February 2020).

Professor Paresh Vyas

Professor Vyas is a Professor of Haematology at Oxford University, he runs a research laboratory at the Weatherall Institute of Molecular Medicine. (Chair of the Research and Development Committee).

Keith Rigg

Keith was a Consultant Transplant Surgeon at Nottingham University Hospitals NHS Trust. He is a former President of the British Transplantation Society.

Charles St John

Charles was a Partner at private equity investment firms Cognetas and Electra. He is also a Non-Executive Director of Anesco, Capstone Fostercare, Van Elle and Whiteline.

Jeremy Monroe

Jeremy was most recently a Partner and Vice President in IBM's consulting and systems integration business (GBS), and previously a Partner in PricewaterhouseCoopers. He took up post in 2013.

Piers White – MBE

Piers has held a number of executive roles in financial services including Barclays UK and Flemings. He was awarded an MBE for public service in 2009.

Helen Fridell

Helen is the Transformation Director, Customer Experience at Cisco. She is on the UK Gambling Commission Digital Advisory Panel and participates in the Mentoring for Growth programme.

Our Board

Our Board brings a diversity of skill, experience and approach, which underpins our decision-making. Our Board's purpose is founded on independence and diverse thinking, and using that to set strategy and constructively challenge the organisation to perform at its best.

Board Members serving during the period 1 April 2019 to 31 March 2020:

Chief Executive

Betsy Bassis

Chief Executive

Betsy has extensive experience leading complex, customer-facing organisations across the private and public sectors. Before joining NHSBT in March 2019, she was the Chief Operating Officer at the Department for Environment, Food and Rural Affairs. Betsy spent 12 years at Centrica/British Gas in a range of senior roles, including Strategy Director for British Gas. She is a non-executive director of the housing association London and Quadrant where she also chairs the Customer Experience Committee.

Executive Directors

Dr Gail Miflin

Chief Medical Officer and Director of Clinical Services

Gail joined in 2010 and became a Director in 2016. Previously she was a Consultant Haematologist at hospitals and NHS Trusts, specialising in treating patients with red cell disorders.

Greg Methven

Director of Manufacturing and Logistics

Greg has had senior roles within ICI and Akzo Nobel. He was latterly Chief Operating Officer of McBride Plc, Europe's leading supplier of private label household and personal care products.

Rob Bradburn

Director of Finance

Qualified Chartered Accountant, Rob joined in April 2008 with 20+ years senior financial management experience. Formerly he was Global Vice-President Finance & Planning, Foods at Quest International.

Anthony Clarkson

Director of Organ Donation and Transplantation

A Registered Nurse with over 25 years' NHS experience Anthony is a transformational leader who has held a number of leadership roles including in Blood Donation, Tissue and Eye Service and ODT.

Non-Voting Members

Ian Bateman

Director of Quality

Ian joined in 2009 and became a Director in 2015. He has over 25 years of experience in senior national and international Quality and Regulatory Compliance roles in both public and private sectors.

Katherine Robinson

Director of People

Katherine joined NHSBT in 2007 as the Deputy Director of People having previously worked at several acute trusts along the South Coast. Katherine became a Director in 2017.

Mike Stredder

Interim Director of Donor Experience

Mike joined in June 2015. He has experience in operations, transformation, and customer and patient care with major healthcare organisations and retailers including Lloyds Pharmacy, Alliance Boots and M&S.

Wendy Clark

Chief Digital Information Officer

Wendy is an experienced digital technology leader and CIO with a track record of delivering transformation. Wendy has worked across the private and public sectors and multiple industries. Before joining NHSBT in January 2020, she was Executive Director of Product Development at NHS Digital and prior to that CIO for a National Security Agency.

Leavers

Lord Jonny Oates

Non-Executive Director

Served on the Board to 29 Feb 2020.

Huw Williams

Director of Diagnostic and Therapeutic Services

Served on the Board from 4 February 2013 to 31 January 2020.

Ceri Rose

Interim Director of Marketing and Communication

Served on the Board from 21 May 2018 to 6 January 2020.

Details of the remuneration of senior managers of NHSBT can be found in the Remuneration and Staff Report at pages 43-44.

Board Member Interests are surveyed annually. A full register of interests is available from the NHSBT website, please use link:

http://www.nhsbt.nhs.uk/who-we-are/transparency/accounts/board-expenses-and-interests/

Our existing governance structure

Our governance and accountability structure for 2019/20 is summarised below:

Committee	Role	Membership and (attendance)
The Board	Oversees the strategic direction and the delivery of objectives and ensures that the core purpose and values of the organisation are upheld. The Board is led by the Chair and comprises Non-Executive Directors (NEDs) and Executive Directors, including the Chief Executive, Chief Medical Officer and Director of Clinical Services and Finance Director.	**Non Executive** Millie Banerjee (Chair) (6/6) Helen Fridell (5/6)* Jeremy Monroe (6/6) Lord Jonny Oates (4/5) Keith Rigg (5/6) Charles St John (6/6) Professor Paresh Vyas (5/6) Piers White (6/6) **Executive** Betsy Bassis (6/6) Rob Bradburn (6/6) Anthony Clarkson (6/6) Greg Methven (6/6) Dr Gail Miflin (6/6) Huw Williams 2/5)
Remuneration Committee	Oversees remuneration and contractual arrangements for the Chief Executive and NHSBT Directors. The committee considers the NHS Very Senior Manager Pay Framework and other relevant guidance and best practice. The Committee also advise the Board on termination and severance arrangements in relation to the Executive.	Lord Jonny Oates (Chair) (3/3) Millie Banerjee (3/3) Betsy Bassis (3/3) Helen Fridell (2/3)* Jeremy Monroe (3/3) Katherine Robinson (3/3)
Trust Fund Committee	Oversees NHSBT's charitable funds which are used to support staff welfare and small research and development projects. NHSBT is the corporate trustee of the Trust Fund. The Board of NHSBT acts on behalf of the corporate trustee and Board members are not individual trustees.	Charles St John (Chair) (4/4) Rob Bradburn (3/4) Dr Gail Miflin (3/4) Katherine Robinson (4/4)
Finance Committee	Responsible for scrutinising NHSBT financial and planning reports, making recommendations to the NHSBT Board on financial performance, planning and pricing issues and providing assurance that these are being managed effectively.	Charles St John (Chair) (5/5) Jeremy Monroe (4/5) Prof. Paresh Vyas (4/5) Rob Bradburn (5/5) Dr Gail Miflin (3/5) – *Deputy on Dec 19 & Feb 20* Katherine Robinson (1/5) – *Deputy in Feb 20*
Governance and Audit Committee (GAC)	Provides the Board assurance that governance, risk management and internal control processes across all clinical and non–clinical activities are effective. The GAC receives reports following an annual workplan aligned to NHSBTs Assurance Framework. The reports to GAC are from Directors and Managers and Internal and External Auditors. The internal auditors are PWC provided via the Health Group Internal Audit Service. The GAC also approves the Annual Report and Accounts on behalf of the Board and reviews the work and findings of the Comptroller and Auditor General.	Piers White (Chair) (5/5) Keith Rigg (5/5) Jonny Oates (2/4) (left February 2020) Jeremy Monroe (1/1)

Committee	Role	Membership and (attendance)
National Administrations Committee	Reviews the adequacy of the arrangements to deliver the organ donation policies for all four UK Health Departments. It also provides support and direction to the development of NHSBT's governance arrangements for managing the interests of all four UK Health Departments.	Millie Banerjee (3/3) (Chair) Anthony Clarkson (2/3) Jeremy Monroe (2/3) Helen Fridell (2/3) Ian Bateman (3/3) Keith Rigg (3/3) Ceri Rose (3/3) John Forsythe (3/3)
Research and Development Committee	Provides strategic advice to the Board on the NHSBT research programme. It approves and allocates available funding for research projects within the delegated financial limits of NHSBT. It receives annual reports and monitors progress on funded projects and commissions research from external sources where appropriate. It also seeks assurance that appropriate arrangements are in place for staff development, research governance, agreements with academic and commercial collaborators, and protection of Intellectual Property. It further receives and considers the Annual Report of Research that is required by the DHSC.	Paresh Vyas (Chair) 2/2 Dr Gail Miflin 2/2 Jeremy Monroe 2/2 Harvey Klein 2/2 Ellen van der Schoot 2/2 Jonas Wadstrom 2/2 Greg Methven 2/2 Huw Williams 2/2 Rob Bradburn 2/2 Anthony Clarkson 1/2 Piers White 1/1(Only recently joined in time for the last meeting) Mike Stredder 0/2
Transplantation Policy Review Committee	Reviews and concludes on the policies from ODT on behalf of the Board. The Committee receives proposals form the Solid Organ Advisory Groups, the Donation Advisory Group and the Retrieval Consultation Group for how organ donor selection, organ donor management, patient selection and organ allocation could be run. The Committee ensures that policies meet legal, regulatory and ethical requirements. These policies can have considerable impact on patients awaiting transplantation.	Jeremy Monroe (Chair (2/2) Millie Banerjee (2/2) Marius Berman (1/2) John Casey (2/2) Anthony Clarkson (2/2) Ian Currie (1/2) John Forsythe (2/2) Peter Friend (1/2) Dale Gardiner (1/2) Victoria Gauden (1/2) John Isaac (1/2) Derek Manas (1/2) Lisa Mumford (2/2) Jayan Parameshwar (1/2) Gabriel Oniscu (1/2) John Richardson (1/2) David Roberts (1/2) Douglas Thorburn (1/2) Andre Vercueil (1/2) Chris Watson (2/2) Stephen Wigmore (1/2)

*Ms Fridell has been on maternity leave during this reporting year

Changes to our governance and accountability structure

We have developed a new Board and Executive governance committee structure based on 'good governance' principles. These will be implemented in 2020/21.

Statement of Accounting Officer's responsibility

Under the National Health Service Act 2006, the Secretary of State for Health and Social Care has directed NHS Blood and Transplant to prepare a statement of accounts for each financial year in the form and on the basis set out in the Accounts Direction. The accounts are prepared on an accruals basis and must give a true and fair view of the state of affairs of NHS Blood and Transplant and of its income and expenditure, Statement of Financial Position and cash flows for the financial year.

In preparing the accounts, the Accounting Officer is required to comply with the requirements of the Government Financial Reporting Manual and in particular to:

- observe the Accounts Direction issued by the Secretary of State for Health and Social Care, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis;
- make judgements and estimates on a reasonable basis;
- state whether applicable accounting standards as set out in the Government Financial Reporting Manual have been followed, and disclose and explain any material departures in the accounts;
- prepare the accounts on a going concern basis; and
- confirm that the Annual Report and Accounts as a whole is fair, balanced and understandable and take personal responsibility for the Annual Report and Accounts and the judgements required for determining that it is fair, balanced and understandable.

The Principal Accounting Officer of DHSC has designated the Chief Executive as Accounting Officer of NHS Blood and Transplant. The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which the Accounting Officer is answerable, for keeping proper records and for safeguarding NHS Blood and Transplant's assets, are set out in Managing Public Money published by the HM Treasury.

As the Accounting Officer, I have taken all the steps that I ought to have taken to make myself aware of any relevant audit information and to establish that NHS Blood and Transplant's auditors are aware of that information. So far as I am aware, there is no relevant audit information of which the auditors are unaware.

Corporate governance report – governance statement

Board and Accounting Officer scope of responsibility

The NHSBT Board must have appropriate governance arrangements in place to confirm that NHSBT is operating in accordance with the law, applicable regulations and that risks to the delivery of strategic objectives are managed. The Accounting Officer is responsible for maintaining a system of internal control to deliver the agreed aims and objectives. The Accounting Officer is personally responsible for safeguarding public funds and NHSBT's assets.

NHSBT's accountabilities to the Department of Health and Social Care and the devolved Governments

We are a Special Health Authority in England and Wales that was established by Statutory Instrument in 2005. Our statutory duties are described in our Directions that are published by the Secretary of State for Health and Social Care and the National Assembly for Wales.

Our relationship with the Department of Health and Social Care (DHSC) and our accountabilities to them are described in a 'Framework Document'. Our accountabilities to the Welsh Government, and to the Scottish and Northern Irish Health Departments relating to organ donation and transplantation are set out in Board arrangements and Income Generation Agreements.

Duties of the Secretary of State for Health and Social Care

We must comply with the duties of the Secretary of State in the Health and Social Care Act 2012. A key duty is to "to reduce inequalities between the people of England with respect to the benefits that may be obtained by them from the health service" when providing our products and services. All our strategies for Blood, Organs and Stem Cells include objectives to improve rates of donation from Black and minority ethnic communities to improve the probability that patients from these communities can receive matching blood transfusions, organs and bone marrow transplants. We continue to work to reduce remaining health inequalities.

The governance framework

Following our review of governance structures the assurance processes, set out in our Board Assurance Framework will be reviewed by the Governance and Audit Committee (GAC). This is scheduled for November 2020. The framework was last reviewed in November 2018. The framework was reviewed against best practice guidance (including 'Corporate Governance in Central Government Departments'). The key assurance strands are described further below.

Board arrangements

Information on our Board and its Committees is set out from page 52.

Strategic management and reporting

The Board approves a strategy for each of our 'businesses' which include the objectives and targets we aim to achieve. Our Executive Team and Board receive a monthly 'Board report' which shows performance against these objectives. The report also includes trend data, progress on strategic projects and a summary of key issues for attention. The content of this report is reviewed periodically to ensure that it provides sufficient information and assurance to the Board. There is also a more detailed quarterly performance review for each Director with the Chief Executive.

Clinical governance

The Chief Medical Officer and Director of Clinical Services has responsibility for all aspects of clinical governance and effectiveness across NHSBT and reports regularly to the Executive Team, GAC and the Board on all matters of clinical governance. The Director's report covers clinical risks, clinical audits, outcomes, incidents including serious incidents (SIs) and Never Events (see definition below), clinical complaints/commendations and clinical claims.

To oversee clinical governance there is a Clinical Audit, Risk and Effectiveness Committee (CARE). This meets bi-monthly and receives reports from CARE groups embedded within each of the operational directorates. Each operational Senior Management Team meeting also has a standing clinical governance agenda item as do the Quarterly Performance reviews by Directorate.

Clinical governance activity includes:

- Data collection and reporting on infectious diseases and transmission in collaboration with Public Health England;
- Data collection and reporting on severe transfusion complications;
- Data collection and monitoring of organ data to ensure equity of access to transplantation, optimise the use of available organs and monitor the outcomes of transplantation;
- Working with other health professionals, DHSC and specialist advisory groups to set organ allocation policy (for approval by the NHSBT Transplantation Policy Review Committee); and
- Working with other health professionals, DHSC and specialist advisory groups (including the Joint Professional Advisory Committee which oversees guidelines for all four UK Blood Services) to set policy for blood, stem cells and tissues.

Never Events/Serious Incidents

There were no Never Events within NHSBT during the year. The NHS Never Event list is defined by NHS Improvement as being 'serious, largely preventable patient safety incidents that should not occur if the available preventable measures have been implemented by the Healthcare provider'.

Serious Incidents (SIs) are adverse events, where the consequences to patients, families and carers, staff, donors, visitors or other organisations are very significant, or the potential for learning is so great, or potential for reputational damage is high enough, that a heightened level of response is justified and warrants the use of additional resources. During 2019/20 a total of five incidents were identified as being SIs versus three in 2018/19. The five incidents related to:

- 2 Samples for Fetal D Genotyping which were switched during processing in our International Blood Group Reference Laboratory (Clinical Services – IBGRL) (Managed as 1 incident).
- Recipients being unexpectedly excluded from the Liver Matching Run (OTDT).
- A live kidney matching run was performed while a recipient was incorrectly suspended (OTDT).
- Pre-cut corneal tissue was reported to be thicker than it should and resulted in cases of primary graft failure (Tissues OTDT).
- A further live kidney matching run was performed while a recipient was incorrectly suspended (OTDT).

Each incident was formally investigated and reported to the relevant Director who oversaw the completion of the action plan. Each incident was also reviewed at CARE to ensure organisational learning and minimise the risk of a similar incident occurring in other parts of NHSBT.

Product safety, regulation and quality assurance

Our products and services must comply with various regulations and pieces of legislation which include the Blood Safety and Quality Regulations, Consumer Protection Act, The European Organ Donation Directive (EUODD), the Human Tissue Act 2004, the EU Tissues and Cells Directive and the Health and Social Care Act 2012.

We also follow the Guidelines for Blood Transfusion in the UK and safety advice from Safety of Blood, Tissues and Organs (SaBTO).

We are regulated and inspected by several regulatory bodies including the Medicines Healthcare products Regulatory Agency (MHRA), the Human Tissue Authority (HTA), and the Care Quality Commission (CQC).

NHSBT has repeated its review of the DHSC guidance published in December 2013 *Protecting and promoting patients' interests. Licence exemptions: guidance for providers* and determined that, due to increased demand for our apheresis-based therapies, we require a licence from Monitor (now part of NHS Improvement (NHSI)) under the Health and Social Care Act 2012.

We also work to a number of professional standards and accreditations, including the requirements for quality and competence in an international standard that specifies the quality management system requirements particular to medical laboratories (ISO 15189). We are therefore inspected regularly by several accreditation bodies such as the United Kingdom Accreditation Service (UKAS) and the Joint Accreditation Committee (JACIE).

NHSBT's reagent products must be CE marked as medical devices, denoting they have been made to appropriate EU standards.

Quality Management System (QMS)

We operate a single, comprehensive quality management system (QMS) with detailed process documents and compliance records held in an electronic system (QPulse). The records ensure continued, demonstrable compliance with our regulatory requirements, licences and accreditations. Our processes also ensure that staff are adequately trained and competent. We operate a robust process of self-inspection (see below) and a risk-based quality system which provides assurance that controls are in place and risks are managed within the critical operational areas of NHSBT.

Self-inspections of NHSBT facilities are programmed on a 2-yearly cycle, cover all regulated activities at our licensed sites and include:

- Internal Quality Audit, undertaken by a team of approved auditors independent of the site or activity being inspected. They provide assurance on effective closure of external inspection findings and identify areas for regulatory and quality improvement.

- Risk-based process audits which are scheduled throughout the year and are focussed on critical processes and their improvement. The focus of risk-based process audits is agreed with each directorate leadership team based on previous quality incidents, audit findings and directorate risks.
- Ad-hoc audits that are commissioned at the discretion of Senior Management, often in response to individual adverse events, trends or changes to our operational configuration.

The NHSBT Director of Quality reports directly to the Chief Executive and delivers assurance to Board, GAC and Executive Team meetings through:

- A quarterly Management Quality Review (MQR) Report to the Executive Team and GAC;
- An annual summary report to the Board; and
- Monthly reporting of supporting key operational KPIs, designed to monitor that key processes remain in control, via the Board Performance Report.

Our Quality activity and reporting is regularly reviewed to identify improvements. During the year improvements have been made to improve trend analysis in our management quality reports and to review our KPIs.

Non-compliance with regulatory requirements

NHSBT aims to have no 'critical' and no 'major' non-compliances identified during any external regulatory inspections. During 2019/20, there were 29 external regulatory and accreditation inspections of NHSBT's facilities. There were no critical non-compliances. However, there were five major non-compliances raised, three from an MHRA inspection in Birmingham (two in Blood Supply, one in Clinical Services), one from an Investigational Medicinal Product inspection at the Clinical Biotechnology Centre (Clinical Services) and one from a national BSI Business Continuity inspection (Group Services). In 2018/19 there were no critical and two major non-compliances. All recommendations raised in the inspections concerned have or are being addressed.

To January 2020, there was good progress in reducing the number of overdue events within the quality management system. An overdue event is, for example, when a policy or procedure has exceeded its review date and not been reviewed by the owner; or when an element of a corrective and preventive action plan goes past its due date. During Quarter 4 there was an increase in overdues within the system and so there will be a focused effort to reduce these post the immediate COVID-19 response.

Risk management and control

During the year our strategic risks (page 18) have been reassessed and the Directorate level and organisation level risks are being aligned under these. Risks have been discussed with each Executive and Non-Executive Director and reviewed collectively at the Executive Team and the GAC.

Our Risk Management Manual requires all colleagues to identify and report new risks for potential inclusion on the risk register. Risk leads then assess the likelihood and consequence using a 5 x 5 risk matrix. High-scoring net risks are reviewed by Senior Management Teams and grouped into key Strategic Risks. The Executive Team, GAC and Board are updated on changes to key Strategic risks via regular reports.

Risks are managed by risk owners and each Senior Management Team. GAC oversees the risk management processes and receives risk presentations at each meeting, focussing on a particular strategic risk and how it is measured, managed and mitigated.

Collaborative risk workshops have been held with Blood Supply and Donor Experience. Workshops will be held with other directorates in the coming year.

A corporate risk portal has been created giving better visibility of all aspects of risk, and risk training is being developed for rollout in the year ahead.

Business continuity

Many of our products and services are unique and critical to the wider health community and patients. It is essential that we have robust business continuity arrangements to prevent disruption of our supplies. The Quality Director took on accountability for business continuity during the year, the aims this year have included:

- Continued development of the business continuity management system;
- Integrating it within the quality management systems to provide document control, corrective and preventive actions and the auditing of arrangements;
- Continued certification of the blood supply chain to ISO22301
- Engagement with the broader Health and Civil Contingencies communities to ensure a consistent and effective response to major incidents;
- Tailored training packages for all staff ranging from mandatory general awareness training through to detailed training for those with key responsibility in our incident response processes.

From early February 2020 full business continuity pandemic plans were evoked in response to COVID-19.

Information governance and security

NHSBT holds details of nearly 10 million blood donor records (active, inactive and archived) and manages an Organ Donor Register with around 25 million registrants. The Information Governance Committee (IGC) oversees the work to protect our information assets. The Chief Medical Officer and Director of Clinical Services is accountable for Information Governance and the Chief Digital Information Officer is accountable for Information Security. Each identified information asset has an accountable Information Asset Owner and the Information Governance and Security Teams support these Owners and test the compliance of their management of the assets to all relevant legislation and NHS best practice.

To 31 March 2020 there was one incident reported to the Information Commissioners Office in 2019/20 (3 in 2018/19). The investigation with the ICO is ongoing and NHSBT continues to support their investigation.

There were 463 other data incidents reported to IGC in 2019/20 (241 – 2018/19). Most involved mishandling of paper documents, nearly all of which were subsequently recovered. Analysis revealed a higher number of Blood Donor Health Check forms (DHC) being mislaid. The lessons from these incidents and trends were learned and processes have been reviewed in the local teams and rolled out nationally to address this.

There were no reportable cyber security incidents in the period. We have improved our cyber security capabilities, performing 256 threat intelligence assessments and reviewing trends in 279 cyber security alerts in the period. One data leak prevention alert resulted in an internal investigation and processes were improved to prevent repeat and ensure that NHSBT Information Assets remain safe.

Whistle Blowing policy and Freedom to Speak up Guardian

This year we have introduced a Freedom to Speak up Guardian. This, and our Whistle Blowing policy, provides clear guidance and routes for employees to raise concerns of possible danger, professional misconduct, unlawful conduct, or financial malpractice that might affect patients, donors, colleagues or NHSBT. 32 cases were reported and investigated to March 2020; all cases have been resolved or have action plans in progress. The guardian reports regularly on cases to the Executive team and has direct access to the GAC should any issues require escalation.

Counter Fraud policy

The Anti-Fraud, Bribery and Corruption policy explains how staff must conduct business and report suspected fraud. We also have a risk-based counter fraud action plan. We plan preventative and detective work in areas of risk and investigate any suspected cases raised with our Local Counter Fraud Specialists. We report on our plans and actual work undertaken to GAC and they also receive our self-assessment against the NHS and Cabinet Office counter fraud standards. During 2019/20 three cases have been reviewed. The first was related to false appointments and resulted in disciplinary action, the second was an allegation against a supplier which is under review, and the third was an ongoing police prosecution case from the prior year where a false claim was made that a charity had provided funds to NHSBT.

Our supply chain ethics and sustainability

We are committed to upholding human rights, anti-corruption, anti-slavery and anti-bribery policies within NHSBT and our supply chain. We expect suppliers to comply with a code of conduct and our Modern Slavery policy (Supply Chain). As part of tendering suppliers demonstrate how they meet these expectations. Grievance procedures are set out within terms and conditions for workers to raise concerns.

NHSBT is working towards a sustainable supply chain for all significant goods and services purchased and uses the certification process of ISO14001 and assessment process of ISO20400 to drive continuous improvement within this area. We apply sustainability performance indicators relevant to contracts including ones for reducing CO_2 and reducing waste. Contract reviews are carried out on an ongoing basis across the supplier base to ensure performance of the contract against these indicators.

Health and Safety

The table below shows the Health and Safety incidents, by new directorate and level for the last 3 years, with definitions of each level shown.

	18/19				19/20			
Level	**HSE Rep**	**Lost time**	**Serious Acc**	**Minor/ Near Miss**	**HSE Rep**	**Lost time**	**Serious Acc**	**Minor/ Near Miss**
Blood Supply	16	5	150	1,121	17	9	83	1,078
Clinical Services	1	0	15	71	1	2	10	75
OTDT	0	0	17	96	0	3	12	91
Donor Experience	0	1	0	8	0	0	0	1
Group Services	0	1	3	74	1	0	1	97
Total	17	7	185	1,370	19	14	106	1,342

HSE Reportable (HSE Rep) – over 7 day lost time injuries or specified injuries reported to the Health and Safety Executive (HSE) e.g. fractures or injuries requiring an over 24 hours stay in hospital.

Lost Time – over 3 but less than 8 day lost time injuries.

Serious Accident (Serious Acc) – injuries or near miss incidents graded as serious by Health Safety & Wellbeing (HSW) Department based on their severity and likelihood of reoccurrence.

Minor/Near Miss – minor injuries or all other near miss incidents where no injury to staff.

The table above shows full year figures for 2019/20 and the prior year. The number of HSE reported and Lost Time Accidents increased in 2019/2020. A review of trends shows Colindale and Tooting together contribute to nearly half of these accidents, just over a third are in the North and the remaining are in the West. Directorate action plans are in place and trials of peer-to-peer observations in the East are being evaluated. We are pleased that the trend in serious accidents is down in all areas. Reporting of Minor and Near Miss incidents is being encouraged and this has reversed the decline in these in line with our monthly targets. COVID-19 appears to be affecting reporting in Blood Supply with a decrease of over one third in March. There have been decreases in other areas, possibly relating to increased homeworking.

Good progress has been made to migrate the health and safety management system to the international standard for HSW (ISO45001). No major non-conformances were found by our external auditors during six surveillance audits and three system audits, with our three year re-certification to the Occupational H&S Assessment Series (OHSAS18001) standard achieved.

We have a national Health Safety and Wellbeing five-year plan to continuously improve our practices and keep our colleagues safe.

Control weaknesses identified during Internal Audit reviews

Our internal audit service is provided by Price Waterhouse Coopers (PWC) via the Health Group Internal Audit Service (HGIAS) of the DHSC. Our Head of Internal Audit, and the supporting audit resources, are provided directly by PWC.

Definition of the assurance opinions used by PWC:

Rating	Definition
Substantial	In my opinion, the framework of governance, risk management and control is adequate and effective.
Moderate	In my opinion, some improvements are required to enhance the adequacy and effectiveness of the framework of governance, risk management and control.
Limited	In my opinion, there are significant weaknesses in the framework of governance, risk management and control such that it could be or could become inadequate and ineffective.
Unsatisfactory	In my opinion, there are fundamental weaknesses in the framework of governance, risk management and control such that it is inadequate and ineffective or is likely to fail.

The programme of work agreed by the GAC covered 15 work areas during 2019/20, including two audits deferred from 2018/19. Two planned audits have been deferred to 2020/21. Of the 13 audits completed in the period 2 were advisory reports and one was a follow-up for which no opinion is given. Of the remaining 10 reports:

- 2 reports received a "substantial" assurance opinion;
- 7 received a "moderate" assurance opinion; and
- 1 received a "limited" assurance opinion.

The limited assurance report issued to date was on cyber security. The report identified that more resource needs to be deployed to improve the organisations cyber resilience and the policies are too complex.

Two audits: The Board Effectiveness and ICT – technology risks were deferred from the programme and will be considered in the planning of the 2020/21 audit programme.

GAC monitors the completion of all medium and high outstanding audit recommendations. At March 2020 GAC were informed that there were no overdue medium or high recommendations. The GAC have been informed that two more challenging recommendations have been carried over into 2020/21.

The Internal Audit opinion in 2018/19 was limited and as proposed we have undertaken a fundamental review of governance and risk management to address the weaknesses identified. We are in the process of delivering changes to ensure controls remain effective, so this year the Internal Audit Opinion (below) is Moderate. We will continue to complete our changes and aim to achieve a substantial opinion in 2020/21.

Internal Audit – opinion of the Head of Internal Audit

In 2019/20 Internal Audit has provided assurance over NHS Blood and Transplant's (NHSBT's) core business activities with individual reviews performed across operational, financial and other risk areas; all informed by the organisation's risk assessment and our independent view on NHSBT's risk profile.

Our opinion is based solely on our assessment of whether the controls in place support the achievement of management's objectives as set out in our 2019/20 Internal Audit Plan and Individual Assignment Reports. "In accordance with the requirements of the UK Public Sector Internal Audit Standards, I am required to provide the Accounting Officer with my annual opinion of the overall adequacy and effectiveness of the organisation's risk management, control and governance processes."

My opinion is based on the outcomes of the work that Internal Audit has conducted throughout the course of the reporting year. There have been no undue limitations on the scope of Internal Audit work and the appropriate level of resource has been in place to enable the function to satisfactorily complete the work planned. Therefore, in summary, my overall opinion is that I can give Moderate assurance to the Accounting Officer that NHSBT has had adequate and effective systems of control, governance and risk management in place for the reporting year 2019/20.

Review of effectiveness

As the Accounting Officer I place reliance on the internal system of control. These include, but weren't limited to:

- oversight by the Board and its sub-committees including the Governance and Audit Committee;
- the work and opinions provided by PWC our internal auditors;
- clinical assurance provided by our CARE committees and clinical auditing process;
- quality assurance provided by our internal quality team and external regulators;
- senior managers within the organisation, who had responsibility for the development and maintenance of the system of internal control, to
- regular reporting to the Executive Team on performance and risk management.

Our systems of internal control lead me to believe that we continue to provide safe products to patients and control our finances effectively. In 2018/19, we received a number of limited assurance audit reports relating to the way we oversee the organisation's business and change risks. In 2019/20 we have undertaken a thorough Governance and Risk review and re-organised our operating model to make us ready for the future and to clarify accountabilities. We have made some key recruitments including a new permanent Chief Digital Information Officer. We have also received a limited assurance report on cyber security. In the remainder of the year and in 2020/21 we need to embed the new governance and structures and deliver on our cyber security and broader ICT investment plans to ensure our controls remain effective.

In the last weeks of the year we were in emergency response mode as COVID-19 hit the UK. During this period, out of necessity and to comply with the social distancing requirements, some stock counts were not completed, and others were not witnessed. Some quality assurance work was also carried out remotely. As soon as practicable, normal procedures will resume and a review will be commissioned from Internal Audit to assess the impact on the control environment during this period.

Accountability report – Parliamentary accountability and audit report

Basis for accounts preparation

These accounts for the year ending 31 March 2020 have been prepared as directed by the Secretary of State for Health and Social Care in accordance with section 232 (Schedule 15, Paragraph 3) of the National Health Service Act 2006, and in a format as instructed by the DHSC with the approval of Treasury.

External audit

The Comptroller and Auditor General (C&AG) is appointed by statute to audit NHSBT and report to Parliament on the truth and fairness of the annual financial statements and regularity of income and expenditure. The cost of audit work performed is £98k (£88k 2018/19). There were no payments to the C&AG for non-audit work during 2019/20 and 2018/19.

Regularity of Expenditure: losses and special payments

This is subject to audit.

Losses and special payments are items that Parliament would not have contemplated when it agreed funds for the health service or passed legislation. By their nature they are items that ideally should not arise. They are therefore subject to special control procedures compared with the generality of payments. They are divided into different categories, which govern the way each individual case is handled.

Losses and special payments are charged to the relevant functional headings, including losses which would have been made good through insurance cover had NHSBT not been bearing its own risk (with insurance premiums then being included as normal revenue expenditure).

	31 March 2020		31 March 2019	
Losses Statement	**No. Cases**	**£000**	**No. Cases**	**£000**
Cash losses	6	–	8	1
Bookkeeping losses	1	–	–	–
Exchange rate fluctuations	3	–	–	–
Losses of pay, allowance and superannuation benefits	40	27	33	54
Losses of accountable stores	97	147	111	282
Claims waived or abandoned	9	8	2	13
Fruitless payments	1	13	–	–
Constructive losses	–	–	1	26,178
Total	**157**	**195**	**155**	**26,528**

	31 March 2020		31 March 2019	
Special Payments	**No. Cases**	**£000**	**No. Cases**	**£000**
Contractual payments	–	–	–	–
Compensation payments	29	89	30	115
Ex gratia payments	9	10	5	13
Total	**38**	**99**	**35**	**128**

The losses reported in 2018/19 above include a constructive loss (per HM treasury managing Public Money definitions) generated by the CSM programme being halted.

Expenditure on consultancy

Consultancy expenditure during 2019/20 is £567k (2018/19 £nil).

Remote contingent liabilities

This is subject to audit.

There are no known material remote contingent liabilities. For disclosable contingent liabilities see note 18 in the financial statements.

Notation of gifts

NHS Blood and Transplant made no political or charitable donations or gifts during the current financial year, or previous financial periods.

Fees and charges

This is subject to audit.

We have a statutory duty to set prices to breakeven year-on-year. Accumulated cash balances have arisen from prior year surpluses which will be used to fund essential IT investments. Most of our income is from prices set to recover our costs. We set the prices of our products annually with the National Commissioning Group (for Blood), on behalf of the NHS. Prices are national, and set per unit, calculated using forecast sales volumes for the coming year. Prices include the full cost of providing products and services to the NHS (including a return on the cost of capital employed).

As prices are set using forecast volumes we review the actual volume of sales in year. We can keep the income generated by actuals plus 2%. Any income above this is usually repaid to the NHS customers in a rebate in year. In 2019/20 a £5.6m rebate was calculated using month 10 activity data. It was, exceptionally, agreed with DHSC that this would not be repaid to customers. In March due to COVID-19 we also saw a rapid reduction in demand for our blood products. We have recalculated the rebate due to be £3.9m based on full-year data. As confirmed by DHSC and agreed by NCG this rebate will not be paid. Note 2 shows the contribution per business unit and is subject to audit.

I hereby sign the Accountability Report from pages 38 to 65

GRO-C

Betsy Bassis
Chief Executive and Accounting Officer
2 September 2020

The Certificate and Report of the Comptroller and Auditor General to the Houses of Parliament

Opinion on financial statements

I certify that I have audited the financial statements of NHS Blood and Transplant for the year ended 31 March 2020 under the National Health Service Act 2006. The financial statements comprise: the Statements of Comprehensive Net Expenditure, Financial Position, Cash Flows, Changes in Taxpayers' Equity; and the related notes, including the significant accounting policies. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the 'Our accountability' report that is described in that report as having been audited.

In my opinion

- the financial statements give a true and fair view of the state of NHS Blood and Transplant's affairs as at 31 March 2020 and of the net operating expenditure for the year then ended; and
- the financial statements have been properly prepared in accordance with the National Health Service Act 2006 and Secretary of State directions issued thereunder.

Emphasis of matter – material uncertainty relating to valuation of land and buildings

I draw attention to the disclosures made in Note 9 to the financial statements, which describe the effects of a material valuation uncertainty on the professional revaluations of land and building assets arising from the impacts of COVID-19 on land markets and building costs. My opinion is not modified in respect of this matter.

Opinion on regularity

In my opinion, in all material respects the income and expenditure recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Basis of opinions

I conducted my audit in accordance with International Standards on Auditing (ISAs) (UK) and Practice Note 10 'Audit of Financial Statements of Public Sector Entities in the United Kingdom'. My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of my certificate. Those standards require me and my staff to comply with the Financial Reporting Council's Revised Ethical Standard 2016. I am independent of NHS Blood and Transplant in accordance with the ethical requirements that are relevant to my audit and the financial statements in the UK. My staff and I have fulfilled our other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Conclusions relating to going concern

I have nothing to report in respect of the following matters in relation to which the ISAs (UK) require me to report to you where:

- NHS Blood and Transplant's use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- NHS Blood and Transplant have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about NHS Blood and Transplant's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Responsibilities of the Accounting Officer for the financial statements

As explained more fully in the Statement of Accounting Officer's Responsibilities, the Accounting Officer is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

Auditor's responsibilities for the audit of the financial statements

My responsibility is to audit, certify and report on the financial statements in accordance with the National Health Service Act 2006.

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK), I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of NHS Blood and Transplant's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Conclude on the appropriateness of NHS Blood and Transplant's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on NHS Blood and Transplant's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my report. However, future events or conditions may cause NHS Blood and Transplant to cease to continue as a going concern.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the income and expenditure reported in the financial statements have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

Other Information

The Accounting Officer is responsible for the other information. The other information comprises information included in the annual report, but does not include the parts of the 'Our accountability' report described in that report as having been audited, the financial statements and my auditor's report thereon. My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon. In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

Opinion on other matters

In my opinion:

- the parts of the 'Our accountability' report to be audited have been properly prepared in accordance with Secretary of State directions made under the National Health Service Act 2006;
- in the light of the knowledge and understanding of NHS Blood and Transplant and its environment obtained in the course of the audit, I have not identified any material misstatements in the 'Our performance' report or the 'Our accountability' report; and
- the information given in the 'Our performance' report and 'Our accountability' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which I report by exception

- I have nothing to report in respect of the following matters which I report to you if, in my opinion:
- adequate accounting records have not been kept or returns adequate for my audit have not been received from branches not visited by my staff; or
- the financial statements and the parts of the 'Our accountability' report to be audited are not in agreement with the accounting records and returns; or
- I have not received all of the information and explanations I require for my audit; or
- the Governance Statement does not reflect compliance with HM Treasury's guidance.

Report

I have no observations to make on these financial statements.

Gareth Davies
Comptroller and Auditor General

Date 10 September 2020

National Audit Office,
157-197 Buckingham Palace Road,
Victoria,
London
SW1W 9SP.

Our finances

Statement of comprehensive net expenditure for the year ended 31 March 2020

	Note	2019/20 £000	2018/19 £000
Gross Income			
Income from sale of goods and services	2 & 3	340,699	333,282
Other operating income	2 & 3	27,693	24,885
		368,392	**358,167**
Expenditure			
Staff costs*	4	(227,602)	(204,515)
Operating expenses	5	(190,821)	(182,498)
Depreciation, amortisation & impairment charges	9 &10	(9,933)	(12,187)
Other operating expenditure	6	(25,074)	(24,513)
		(453,430)	**(423,713)**
Net operating expenditure before interest		**(85,038)**	**(65,546)**
Finance expense		(381)	(408)
Net operating expenditure after interest	2	**(85,419)**	**(65,954)**
Other comprehensive expenditure. Will not be reclassified to income and expenditure:			
Net gain on revaluation of Property, Plant and Equipment	9&10	5,519	13,757
Total comprehensive net expenditure		**(79,900)**	**(52,197)**

*Staff costs include £9,776k for the notional cost of NHS Pension uplift funded directly by DHSC.

Notes 1 to 22 form part of these accounts.

All income and expenditure is derived from continuing operations.

Statement of financial position as at 31 March 2020

	Note	31 March 2020 £000	31 March 2019 £000
Non-current assets			
Property, plant and equipment	9	225,962	208,494
Intangible assets	10	3,579	3,407
Financial assets	12	77	491
Total non-current assets		**229,618**	**212,392**
Current assets			
Inventories	11	20,122	21,817
Trade and other receivables	12	41,854	36,244
Cash and cash equivalents	13	50,549	28,444
Total current assets		**112,525**	**86,505**
Current liabilities			
Trade and other payables	14	(41,836)	(23,664)
Provisions for liabilities and charges	15	(464)	(350)
Other liabilities	16	(230)	(186)
Total current liabilities		**(42,530)**	**(24,200)**
Total assets less current liabilities		**299,613**	**274,697**
Non-current liabilities			
Provisions for liabilities and charges	15	(409)	(437)
Financial liabilities	16	(7,935)	(8,164)
Total non-current liabilities		**(8,344)**	**(8,601)**
Total assets less employed		**291,269**	**266,096**
Financed by			
General fund		199,504	176,661
Revaluation reserve		91,765	89,435
Total taxpayers' equity		**291,269**	**266,096**

Notes 1 to 22 form part of these accounts.

The financial statements on pages 69 to 94 were approved by the Governance and Audit Committee with the powers within the NHSBT Standing Orders and are signed by the Accounting Officer, Betsy Basis.

GRO-C

Betsy Basis
Date: 2 September 2020
Accounting Officer

Statement of changes in taxpayers' equity for the year ended 31 March 2020

	Note	General Fund £000	Revaluation Reserve £000	Total Reserves £000
Balance at 1 April 2019		176,661	89,435	**266,096**
Changes in taxpayers' equity for 2019/20				
Net expenditure for the financial period*		(85,419)	–	**(85,419)**
Net gain on revaluation of property, plant and equipment	9 &10	–	5,519	**5,519**
Transfer between reserves		3,189	(3,189)	**0**
Total recognised income and expense for 2019/20		**(82,230)**	**2,330**	**(79,900)**
IFRS15 adjustment		(2)	–	**(2)**
Revenue Grant from DHSC		72,699	–	**72,699**
Notional funding for pension increase**		9,776	–	**9,776**
Capital Grant from DHSC		22,600	–	**22,600**
Balance at 31 March 2020		**199,504**	**91,765**	**291,269**

*Net expenditure includes £9,776k for the notional cost of NHS Pension uplift funded directly by DHSC.
**Included above is £9,776k notional funding for the pension uplift .

Statement of changes in taxpayers' equity for the year ended 31 March 2019

	Note	General Fund £000	Revaluation Reserve £000	Total Reserves £000
Balance at 1 April 2018		160,046	80,054	240,100
Changes in taxpayers' equity for 2018/19				
Net expenditure for the financial period		(65,954)	–	(65,954)
Net gain on revaluation of property, plant and equipment	9 &10	–	13,757	13,757
Transfer between reserves		4,376	(4,376)	–
Total recognised income and expense for 2018/19		**(61,578)**	**9,381**	**(52,197)**
IFRS 15 adjustment		(8)		(8)
Revenue Grant from DHSC		69,201	–	69,201
Capital Grant from DHSC		9,000	–	9,000
Balance at 31 March 2019		**176,661**	**89,435**	**266,096**

Information on reserves

General fund

The general fund represents the net assets invested in NHSBT (stated at historical cost less accumulated depreciation at that date), the surplus or deficit generated from activities and grant-in-aid funding provided.

Revaluation reserve

The revaluation reserve represents increases in asset values arising from revaluations, except where, and to the extent that, they reverse impairments previously recognised in operating expenses, in which case they are recognised in operating income. Subsequent downward movements in asset valuations are charged to the revaluation reserve to the extent that a previous gain was recognised unless the downward movement represents a clear consumption of economic benefit or a reduction in service potential.

Statement of cash flows for the year ended 31 March 2020

	Note	2019/20 £000	2018/19 £000
Cash flows from operating activities			
Net operating costs*		(85,038)	(65,546)
Adjustments for non-cash transactions**	17	19,955	11,907
(Increase)/ decrease in trade and other receivables		(5,195)	(869)
(Increase)/ decrease in inventories		1,694	(6,786)
Increase/ (decrease) in trade and other payables		18,170	(1,850)
Increase/ (decrease) in capital creditors (not in SoCNE)		345	(97)
Provisions utilised	15	(124)	(541)
Movement in financial lease liabilities		–	4,406
Net cash (used in) operating activities		**(50,193)**	**(59,376)**
Cash flows from investing activities			
Purchase of plant, property & equipment		(21,291)	(12,789)
Purchase of intangible assets		(1,156)	(521)
Proceeds from disposal of non-current assets		–	–
Net cash (used in) investing activities		**(22,447)**	**(13,310)**
Cash flows from financing activities			
Grant from DHSC		95,299	78,201
Capital element paid in respect of finance leases	16	(185)	(166)
Interest paid in respect of finance leases		(369)	(384)
Net cash generated from financing activities		**94,745**	**77,651**
Increase in cash and cash equivalents		22,105	4,965
Cash and cash equivalents at 01 April		28,444	23,479
Cash and cash equivalents at 31 March	13	**50,549**	**28,444**

*Net operating costs include £9,776k for the notional cost of NHS Pension uplift funded directly by DHSC.
**Adjustments for non-cash transactions include £9,776k notional funding for the pension uplift. Only cash received grant-in-aid has been reported to management in year.

Notes to the Accounts

Note 1 Accounting policies and other information

1.1 Basis of preparation

The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as adapted and interpreted by the 2019/20 Government Financial Reporting Manual (FReM) issued by HM Treasury. The accounting policies contained in the FReM comply with IFRS to the extent that they are meaningful and appropriate to the public sector context as determined by HM Treasury, which is advised by the Financial Reporting Advisory Board. Where the FReM permits a choice of accounting policy, the accounting policy that is judged to be most appropriate to the particular circumstances of the NHS body for the purpose of giving a true and fair view has been selected. The particular policies adopted are described below. These have been applied consistently in dealing with items considered material in relation to the accounts.

1.1.1 Accounting convention

These accounts have been prepared under the historical cost convention, modified to account for the revaluation of property, plant and equipment, intangible assets, inventories and certain financial assets and financial liabilities.

1.1.2 Going concern

The organisation's annual report and accounts have been prepared on a going concern basis. Public sector bodies are assumed to be going concerns where the continued provision of a service in the future is anticipated, as evidenced by inclusion of financial provision for the service in published document.

1.2 Critical judgements and key sources of estimation uncertainty

In the application of NHSBT's accounting policies, management is required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from those estimates. The estimates and underlying assumptions are continually reviewed.

Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period; or in the period of the revision and future periods if the revision affects both current and future periods.

1.2.1 Critical judgements in applying accounting policies

The following are the judgements, apart from those involving estimations (see below) that management has made in the process of applying NHSBT's accounting policies and that have the most significant effect on the amounts recognised in the financial statements:

Charities consolidation

Management consider NHS Blood and Transplant Trust Funds, of which NHSBT is the corporate trustee, to have an immaterial impact on the group results. Therefore, these accounts do not include a consolidated position under the requirements of IFRS10.

1.2.2 Sources of estimation uncertainty

The following are assumptions about the future and other major sources of estimation uncertainty that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

- Property valuations – the global COVID-19 pandemic has generated some uncertainty in the valuation assumptions. The professional valuer considers these to be within normal tolerances as at 31 March 2020
- Stocks – The global COVID-19 pandemic has impacted ability to undertake physical stock counts. Where reliable systems data exists, that has been used. For stock types reliant on physical count, the proportional change by stock type at counted locations has been applied to missing locations
- Use of depreciated replacement cost to value land and buildings (see accounting policy note 1.6)
- Use of amortised cost as a proxy for fair value for intangible assets (see accounting policy note 1.7)
- The estimation assumptions used in the calculation of provisions for liabilities and charges (see accounting policy note 1.13)
- Measurement of the accrual for employee leave liability. We apply the average number of days carried forward per employee to the average weekly basic pay bill for the year.

1.3 Revenue from contracts with customers

Income is recognised to the extent that it is probable that the economic benefits will flow to NHSBT and the income can be reliably measured.

Where income is derived from contracts with customers, it is accounted for under IFRS 15.

Revenue in respect of goods/services provided is recognised when (or as) performance obligations are satisfied by transferring promised goods/services to the customer and is measured at the amount of the transaction price allocated to those performance obligations. At the year end, NHSBT invoices for all income relating to performance obligations satisfied in that year.

Where NHSBT's entitlement to consideration for those goods or services is unconditional a contract receivable will be recognised. Where entitlement to consideration is conditional on a further factor other than the passage of time, a contract asset will be recognised. Where consideration received or receivable relates to a performance obligation that is to be satisfied in a future period, the income is deferred and recognised as a contract liability.

Revenue from NHS contracts

The main source of income for NHSBT is contracts with NHS Trusts primarily for the supply of blood and components and diagnostic and therapeutic services. Products and services are accrued in month and billed in the month following delivery with the exception of blood and components where customers are billed a monthly contract value adjusted for activity monthly in arrears.

The customer in these contracts is the Trust and the customer benefits as products/services are provided. These are essentially separate performance obligations that are substantially the same and have a similar pattern of transfer. At the year end, NHSBT invoices for all income relating to activity delivered in that year. Revenue is recognised to the extent that collection of consideration is probable.

Revenue from project contracts

NHSBT receives income from contracts for projects e.g. Research and development; Clinical trials. The customers being mostly Universities and commercial entities. Where project contracts fall under IFRS 15, revenue is recognised as and when performance obligations are satisfied. For some contracts, it is assessed that the revenue project constitutes one performance obligation over the course of the multi-year contract. In these cases, it is assessed that NHSBT's interim performance does not create an asset with alternative use for NHSBT, and NHSBT has an enforceable right to payment for the performance completed to date. It is therefore considered that the performance obligation is satisfied over time, and NHSBT recognises revenue each year over the course of the contract.

1.3.1 Revenue grants and other contributions to expenditure

Government grants are grants from government bodies other than income from NHS trusts for the provision of services. NHSBT receives programme funding from DHSC for the provision of transplant services. Such grants are taken directly to the General Fund and not counted as income. They are shown in note 2 to these accounts.

1.3.2 Other income

Income from the sale of non-current assets is recognised only when all material conditions of sale have been met and is measured as the sums due under the sale contract.

The value of the benefit received when accessing funds from the Government's apprenticeship service is recognised as income at the point of receipt of the training service. Where these funds are paid directly to an accredited training provider, the corresponding notional expense is also recognised at the point of recognition for the benefit.

1.4 Value added tax

Most of the activities of NHSBT are outside the scope of value added tax (VAT) and, in general, output tax does not apply and input tax on purchases is not recoverable. Irrecoverable VAT is charged to the relevant expenditure category or included in the capitalised purchase cost of fixed assets. Where output tax is charged or input VAT is recoverable, the amounts are stated net of VAT.

1.5 Capital charges

An annual charge, reflecting the cost of capital utilised by NHSBT, is payable to the Department of Health and Social Care (DHSC). The charge is calculated at the real rate set by the Secretary of State with the consent of HM Treasury (currently 3.5%) on the average relevant net assets of NHSBT. Relevant net assets are calculated as the value of all assets less all liabilities, except for:

- Donated assets
- Average daily cash balances held with the Government Banking Service (GBS) and National Loans Fund (NLF) deposits (excluding cash balances held in GBS accounts that relate to a short term working capital facility)

The average relevant net assets are calculated as a simple average of opening and closing relevant net assets. In accordance with the requirements laid down by the Department of Health and Social Care, the charge for the year is calculated on the actual average relevant net assets as set out in the "pre-audit" version of the annual accounts. The charge thus calculated is not revised should any adjustment to net assets occur as a result the audit of the annual accounts.

The notional charges are taken directly to the General Fund and shown in note 2. Cash payment to DHSC in respect of the previous financial year is included in operating expenses.

1.6 Property, plant & equipment

1.6.1 Recognition

Property, Plant & Equipment is capitalised where:

- it is held for use in delivering services or for administrative purposes
- it is probable that future economic benefits will flow to, or service potential be provided to, NHSBT
- it is expected to be used for more than one financial year
- the cost of the item can be measured reliably
- the item has a cost of at least £5,000; or
- collectively, a number of items have a cost of at least £5,000 and individually cost of more than £250, where the assets are functionally interdependent, have broadly simultaneous purchase dates, are anticipated to have similar disposal dates and are under single managerial control
- form part of the initial setting-up cost of a new building, irrespective of their individual or collective cost.

Where a large asset, for example a building, includes a number of components with significantly different asset lives, e.g. plant and equipment, then these components are treated as separate assets and depreciated over their own useful lives.

1.6.2 Measurement

All property, plant and equipment assets are measured initially at cost, representing the cost directly attributable to acquiring or constructing the asset and bringing it to the location and condition necessary for it to be capable of operating in the manner intended by management.

Assets that are held for their service potential; and are in use are measured at their fair value in existing use.

Revaluations of property, plant and equipment are performed with sufficient regularity to ensure that carrying values are not materially different from those that would be determined at the end of the reporting period. Current values in existing use are determined as follows:

- Land and non-specialised buildings – market value for existing use
- Specialised buildings – depreciated replacement cost on a modern equivalent asset basis.

Properties in the course of construction are carried at cost, less any impairment loss. Assets under construction costs are accumulated until the asset is completed and ready to be brought into service when the asset is transferred to the relevant asset class and depreciation commences. Costs include professional fees but not borrowing costs, which are recognised as expenses immediately, as allowed by IAS 23 for assets held at fair value.

1.6.3 Subsequent expenditure

Depreciation

Items of property, plant and equipment are depreciated over their remaining useful lives in a manner consistent with the consumption of economic or service delivery benefits. Freehold land is considered to have an infinite life and is not depreciated.

Property, plant and equipment which has been reclassified as 'held for sale' cease to be depreciated upon the reclassification. Assets in the course of construction are not depreciated.

Assets (other than land) held under finance leases are depreciated over the shorter of the lease term and the estimated useful life, unless NHSBT expects to acquire the asset at the end of the lease term, in which case the asset is depreciated in the same manner as for owned assets.

Depreciation is charged on a straight line basis over the estimated useful life of the asset as follows:

Freehold Buildings	Up to 109 years
Plant and machinery	3 to 20 years
Information technology	3 to 27 years
Transport	10 years

The estimated useful lives of property and intangible assets, and residual values are reviewed each year end, with the effect of any changes recognised on a prospective basis.

Revaluation

All land and buildings are professionally revalued in accordance with IAS 16 every five years. Professional valuers undertake a desktop valuation for each of the interim years except for where cumulative additions since the last full valuation is greater than £2m and represent a greater than 20% increase in the net book value, in which case a full-on site valuation is carried out. The change in valuations are reflected in the accounts. A full valuation of NHSBT land and buildings was last carried out in March 2019.

The revaluation of NHSBT's land and buildings assets by the Valuation Office Agency includes measurement approaches used to arrive at the current value of in use assets. These approaches are for:

- Non – specialist operational assets – Existing Use Value (EUV)
- Specialist operational assets – Depreciated Replacement Cost (DRC). This is the current cost of replacing an asset with its modern equivalent asset less deductions for physical deterioration and all relevant forms of obsolescence and optimisation.

Equipment assets are indexed annually in accordance with the appropriate categories within the publicised Health Service Cost Index. The carrying value of existing assets at that date will be written off over their remaining useful lives. New fixtures and equipment are carried at depreciated historic cost, as this is not considered to be materially different from fair value.

An increase arising on revaluation is taken to the revaluation reserve except when it reverses an impairment for the same asset previously recognised in expenditure, in which case it is credited to expenditure to the extent of the decrease previously charged there. A revaluation decrease that does not result from a loss of economic value or service potential is recognised as an impairment charged to the revaluation reserve to the extent that there is a balance on the reserve for the asset, and thereafter to expenditure. Gains and losses recognised in the revaluation reserve are reported as other comprehensive income (expenditure) in the Statement of Comprehensive Net Expenditure.

Impairments

At each financial year end, NHSBT checks whether there is any indication that its property, plant and equipment have suffered an impairment loss. If there is indication of an impairment, the recoverable amount of the asset is estimated to determine whether there has been a loss and, if so, its amount.

In accordance with FReM, impairments that arise from a clear consumption of economic benefits or of service potential in the asset are charged to operating expenses. A compensating transfer is made from the revaluation reserve to the income and expenditure reserve of an amount equal to the lower of (i) the impairment charged to operating expenses; and (ii) the balance in the revaluation reserve attributable to that asset before the impairment.

An impairment that arises from a clear consumption of economic benefit or of service potential is reversed when, and to the extent that, the circumstances that gave rise to the loss is reversed. Reversals are recognised in operating expenditure to the extent that the asset is restored to the carrying amount it would have had if the impairment had never been recognised. Any remaining reversal is recognised in the revaluation reserve. Where, at the time of the original impairment, a transfer was made from the revaluation reserve to the income and expenditure reserve, an amount is transferred back to the revaluation reserve when the impairment reversal is recognised. Other impairments are treated as revaluation losses. Reversals of 'other impairments' are treated as revaluation gains

1.6.4 De-recognition

Assets intended for disposal are reclassified as 'held for sale' once all of the following criteria are met:

- the asset is available for immediate sale in its present condition subject only to terms which are usual and customary for such sales;
- the sale must be highly probable i.e.:
  - management are committed to a plan to sell the asset
  - an active programme has begun to find a buyer and complete the sale
  - the asset is being actively marketed at a reasonable price
  - the sale is expected to be completed within 12 months of the date of classification as 'held for sale' and
  - the actions needed to complete the plan indicate it is unlikely that the plan will be abandoned or significant changes made to it.

Following reclassification, the assets are measured at the lower of their existing carrying amount and their 'fair value less costs to sell'. Depreciation ceases to be charged. Assets are de-recognised when all material sale contract conditions have been met.

Property, plant and equipment which is to be scrapped or demolished does not qualify for recognition as 'held for sale' and instead is retained as an operational asset and the asset's useful life is adjusted. The asset is de-recognised when scrapping or demolition occurs.

1.7 Intangible Assets

1.7.1 Recognition

Intangible assets are non-monetary assets without physical substance which are capable of being sold separately from the rest of NHSBT's business or which arise from contractual or other legal rights. They are recognised only where it is probable that future economic benefits will flow, or service potential be provided, to NHSBT and where the cost of the asset can be measured reliably.

Intangible assets are capitalised when they have a cost of at least £5,000. Intangible assets acquired externally are initially recognised at cost.

Software which is integral to the operation of hardware, for example an operating system, is capitalised as part of the relevant item of property, plant and equipment. Software that is not integral to the operation of hardware, for example application software, is capitalised as an intangible asset.

1.7.2 Measurement

Intangible assets acquired are recognised initially at cost, comprising all directly attributable costs needed to create, produce and prepare the asset to the point that it is capable of operating in the manner intended by management.

The amount initially recognised for internally generated intangible assets is the sum of the expenditure incurred from the date when the criteria for recognition are initially met. Where no internally generated intangible asset can be recognised, the expenditure is charged to the Statement of Comprehensive Net Expenditure in the period in which it is incurred.

Following initial recognition, intangible assets are carried at current value in existing use by reference to an active market, or, where no active market exists, at the lower of amortised replacement cost (modern equivalent assets basis) and value in use where the asset is income generating.

Revaluations and impairments are treated in the same manner as for property, plant and equipment.

An intangible asset which is surplus with no plan to bring it back into use is valued at fair value under IFRS 13, if it does not meet the requirements of IFRS 5.

1.7.3 Amortisation

Intangible assets are amortised, on a straight-line basis, over the estimated lives of the assets.

1.7.4 Useful economic life of intangible assets

Useful lives reflect the total life of an asset and not the remaining life of an asset. The range of useful lives are shown in the table below:

Software licences	5 to 26 years

The estimated useful lives of property and intangible assets, and residual values are reviewed each year end, with the effect of any changes recognised on a prospective basis.

1.8 Inventories

Inventories are valued as follows:

- Raw materials and work in progress are valued on a weighted average cost basis
- Blood products are valued at the lower of cost, on a full recovery cost basis, or net realisable value, which represents the expected future selling price.

The carrying values of inventories are considered a proxy for fair value less costs to sell.

1.9 Cash and Cash Equivalents

Cash is cash in hand and deposits with any financial institution repayable without penalty on notice of not more than 24 hours. Cash equivalents are investments that mature in 3 months or less from the date of acquisition and that are readily convertible to known amounts of cash with insignificant risk of change in value.

In the Statement of Cash Flows, cash and cash equivalents are shown net of bank overdrafts that are repayable on demand and that form an integral part of NHSBT's cash management. Cash, bank and overdraft balances are recorded at current values.

1.10 Foreign exchange

NHSBT's functional currency and presentational currency is pounds sterling and figures are presented in thousands of pounds unless expressly stated otherwise. Transactions denominated in a foreign currency are translated into sterling at the spot exchange rate on the date of each transaction.

Exchange gains and losses on monetary items (arising on settlement of the transaction or on retranslation at the Statement of Financial Position date) are recognised in the Statement of Comprehensive Expenditure in the period in which they arise.

1.11 Expenditure on employee benefits

Short-term employee benefits

Salaries, wages and employment-related payments such as social security costs and the apprenticeship levy are recognised in the period in which the service is received from employees. The cost of annual leave earned but not taken by employees at the end of the period is recognised In the financial statements to the extent that employees are permitted to carry-forward leave into the following period.

Pension costs

NHS Pension Scheme

Past and present employees are covered by the provisions of the NHS Pensions Scheme. The scheme is an unfunded, defined benefit scheme that covers NHS employers, general practitioners and other bodies, allowed under the direction of Secretary of State, in England and Wales. The scheme is not designed to be run in a way that would enable employers to identify their share of the underlying assets and liabilities. Therefore, the scheme is accounted for as though it were a defined contribution scheme.

Employer's pension cost contributions are charged to operating expenses as and when they become due.

Additional pension liabilities arising from early retirements are not funded by the scheme except where the retirement is due to ill health. The full amount of the liability for the additional costs is charged to operating expenses at the time NHSBT commits itself to the retirement, regardless of the method of payment.

The schemes are subject to a full actuarial valuation every four years and an accounting valuation every year.

National Employment Savings Trust (NEST) Pension Scheme

NHSBT provides certain employees, who are not enrolled into the NHS Pension Scheme, with a pension from the defined contributions scheme which is managed by the National Employment Savings Trust (NEST). The cost to NHSBT is taken as equal to the contributions payable to the scheme for the accounting period.

1.12 Leases

Leases are classified as finance leases when substantially all the risks and rewards of ownership are transferred to the lessee. All other leases are classified as operating leases.

NHSBT as lessee

Property, plant and equipment held under finance leases are initially recognised, at the inception of the lease, at fair value or, if lower, at the present value of the minimum lease payments, with a matching liability for the lease obligation to the lessor. Subsequently, property, plant and equipment held under finance leases are revalued as described in 1.6.3 above. Lease payments are apportioned between finance charges and reduction of the lease obligation to achieve a constant rate on interest on the remaining balance of the liability. Finance charges are recognised

in calculating NHSBT's net operating cost.

Operating lease payments are recognised as an expense on a straight-line basis over the lease term. Lease incentives are recognised initially as a liability and subsequently as a reduction of rentals on a straight-line basis over the lease term.

Where a lease is for land and buildings, the land and building components are separated and individually assessed.

1.13 Provisions

Provisions are recognised when NHSBT has a present legal or constructive obligation as a result of a past event, it is probable that NHSBT will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the expenditure required to settle the obligation at the end of the reporting period, taking into account risks and uncertainties. Where a provision is measured using the cash flows estimated to settle the obligation, its carrying amount is the present value of those cash flows using HM Treasury's discount rates.

Clinical Risk Pooling

NHS Resolution (formerly NHS Litigation Authority) operates a risk pooling scheme under which NHSBT pays an annual contribution, which in return settles all clinical negligence claims. The contribution is charged to expenditure. Although NHS Resolution is administratively responsible for all clinical negligence cases, the legal liability remains with NHSBT. The value of provisions of NHSBT carried by NHS Resolution on behalf of NHSBT is disclosed at note 15 but is not recognised in NHSBT accounts.

Non-clinical Risk Pooling

NHSBT participates in the Property Expenses Scheme and the Liabilities to Third Parties Scheme. Both are risk pooling schemes under which NHSBT pays an annual contribution to NHS Resolution and, in return, receives assistance with the costs of claims arising. The annual membership contributions, and any 'excesses' payable in respect of particular claims are charged to operating expenses as and when they become due.

1.14 Financial Instruments

We only have non-current financial assets (prepayments and accrued income), current payables and receivables. There are no other financial instruments held in scope of IFRS 9. We do not carry out any hedge accounting transactions.

Financial assets

In accordance with IFRS 9 and FReM, NHSBT is required to recognise a loss allowance representing expected credit losses on trade receivables. NHSBT has applied the simplified approach, as required, and measured the loss allowance at an amount equal to lifetime expected credit losses.

1.15 Contingencies

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain events not wholly within the entity's control, or a present obligation that is not recognised because it is not probable that a payment will be required to settle the obligation or the amount of the obligation cannot be measured sufficiently reliably. A contingent liability is disclosed unless the possibility of a payment is remote.

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within the entity's control. A contingent asset is disclosed where an inflow of economic benefits is probable.

1.16 Accounting Standards that have been issued but have not yet been adopted

International Accounting Standard 8, accounting for policies, changes in accounting estimates and errors, requires disclosure in respect of new IFRSs, amendments and interpretations that are, or will be, applicable after the accounting period. There are a number of IFRSs, amendments and interpretations issued by the International Accounting Standards Board that are effective for Financial Statements after this accounting period.

The following have not been adopted early in these accounts:

- **IFRS 16 – Leases:** The change in the accounting treatment for leases has been deferred until 1 April 2021. The impact of IFRS 16 is dependent on the leases that NHSBT holds at the time of implementation. However, work has already commenced to the extent of identifying current leases and contracts containing a lease that are expected to be in place, at the time of transition to the new standard, and understanding the future accounting treatment of all leases, held as lessee, and their impact on the assets and liabilities in the Statement of Financial Position. This standard is expected to lead to a material increase in property assets resulting from assets currently disclosed in the operating lease note being valued and added to the assets of the organisation. There is also expected to be a material impact in the accounts for operating leases that are expected to be transferred to the Statement of Financial Position as a lease liability
- **IFRS 17 – Insurance Contracts:** This standard is effective for accounting periods beginning on or after 1 January 2021. A preliminary assessment indicates there will be no material changes as NHSBT does not enter into insurance contracts.

Note 2 Operating Segments

For the year 1 April 2019 to 31 March 2020	Total £000	Blood Components (incl R&D) £000	Diagnostics £000	Tissues £000	Organ Donation & Transplant £000	Therapeutic Apheresis Services £000	Stem Cells £000
Revenue							
Provision of Products and Services	**340,699**	268,887	30,864	15,040	–	11,223	14,685
Income from Scottish Parliament	**6,145**	–	–	–	6,145	–	–
Income from National Assembly for Wales	**3,526**	–	–	–	3,526	–	–
Income from Northern Ireland Assembly	**2,101**	–	–	–	2,101	–	–
Other Income	**15,922**	8,323	1,531	1	1,957	385	3,725
Programme Funding from the DHSC	**72,699**	–	–	–	68,537	–	4,162
Total Revenue	**441,092**	**277,210**	**32,395**	**15,041**	**82,266**	**11,608**	**22,572**
Expenditure							
Variable costs	**(57,199)**	(38,108)	(5,748)	(2,153)	(3,773)	(3,882)	(3,535)
Direct costs	**(215,503)**	(111,828)	(16,899)	(9,835)	(61,085)	(4,301)	(11,555)
Direct support costs	**(106,699)**	(79,282)	(7,343)	(3,169)	(9,714)	(1,306)	(5,885)
Movement in value of stocks	**(1,421)**	(881)	–	(540)	–	–	–
Other support costs	**(33,943)**	(20,388)	(2,364)	(1,241)	(7,387)	(773)	(1,790)
Total Expenditure	**(414,765)**	**(250,487)**	**(32,354)**	**(16,938)**	**(81,959)**	**(10,262)**	**(22,765)**
Operating surplus/(deficit) for the financial period	**26,327**	**26,723**	**41**	**(1,897)**	**307**	**1,346**	**(193)**
Transformation costs	(20,222)	(8,888)	(868)	–	(10,466)	–	–
Operating surplus for the financial period	**6,105**	**17,835**	**(827)**	**(1,897)**	**(10,159)**	**1,346**	**(193)**
Add: Notional cost of capital included in expenditure above	8,463						
Add: Notional cost of pension increase	(9,776)						
Less: Programme Funding from DHSC	(72,699)						
Less: Capital charges paid to the DHSC	(17,512)						
Net expenditure	**(85,419)**						

For the year 1 April 2018 to 31 March 2019 *Re-presented	Total	Blood Components (incl R&D)	Diagnostics	Tissues	Organ Donation & Transplant	Therapeutic Apheresis Services	Stem Cells
	£000	£000	£000	£000	£000	£000	£000
Revenue							
Provision of Products and Services	333,282	262,902	30,372	14,719	-	11,027	14,262
Income from Scottish Parliament	6,100	-	-	-	6,100	-	-
Income from National Assembly for Wales	3,500	-	-	-	3,500	-	-
Income from Northern Ireland Assembly	2,100	-	-	-	2,100	-	-
Other Income	13,185	6,853	2,016	-	241	366	3,709
Programme Funding from the DHSC	69,202	2,229	260	75	62,337	38	4,263
Total Revenue	**427,369**	**271,984**	**32,648**	**14,794**	**74,278**	**11,431**	**22,234**
Expenditure							
Variable costs	(60,564)	(40,780)	(6,194)	(2,047)	(3,685)	(4,169)	(3,689)
Direct costs	(208,033)	(107,198)	(18,105)	(9,612)	(57,399)	(3,750)	(11,969)
Direct support costs	(102,751)	(77,899)	(5,217)	(3,069)	(9,562)	(1,218)	(5,786)
Movement in value of stocks	3,972	4,125		(153)			
Other support costs	(32,358)	(21,141)	(2,164)	(1,126)	(5,635)	(682)	(1,610)
Total Expenditure	**(399,734)**	**(242,893)**	**(31,680)**	**(16,007)**	**(76,281)**	**(9,819)**	**(23,054)**
Operating surplus/ (deficit) for the financial period	**27,635**	**29,091**	**968**	**(1,213)**	**(2,003)**	**1,612**	**(820)**
Transformation costs	(14,905)	(9,051)	(330)	-	(5,524)	-	-
Operating surplus/(deficit) for the financial period	**12,730**	**20,040**	**638**	**(1,213)**	**(7,527)**	**1,612**	**(820)**
Add: Notional cost of capital included in expenditure above	7,958						
Less: Programme Funding from DHSC	(69,201)						
Less: Capital charges paid to the DHSC	(17,441)						
Net expenditure	**(65,954)**						

* Re-presented following a review of overhead allocations.

Segmental Reporting and Reconciliation of net operating expenditure to Programme Funding from the Department of Health and Social Care (DHSC)

We report our financial performance in operating units as follows:

Blood Supply provides blood and blood components, primarily to NHS hospitals and includes research and development activity.

Clinical Services includes:
Diagnostics which provides specialist laboratory services (Red Cell Immunohematology and Histocompatibility & Immunogenetics) and also reagents.

Stem Cells includes Cellular and Molecular Therapies, the British Bone Marrow Registry (BBMR) and the Cord Blood Bank (CBB).

Therapeutic Apheresis Services provide a range of therapeutic apheresis services (e.g. plasma exchange, photopheresis) direct to patients.

Organ and Tissue Donation and Transplantation includes:
Organ Donation and Transplantation is funded by DHSC, with contributions from the Devolved Health Administrations, to identify and refer potential organ donors and to increase actual donors so that more transplants are enabled.

Tissues retrieves and provides human tissue products.

All of the above aim to recover their costs through prices set annually via a national commissioning process except Organ Donation, CBB and BBMR which are funded by DHSC and the other UK Health Authorities.

Group Services include Finance, People, ICT and Quality. The costs of these services are allocated on the basis of activity in costing and pricing calculations.

In accordance with the Government Financial Management Reporting Manual issued by HM Treasury, the statement of comprehensive net expenditure does not include a charge for notional cost of capital. For the segmental reporting the notional cost of capital has been charged to the segments and then added back as part of the reconciliation to the statement of comprehensive net expenditure.

Note 3 Income

Income largely consists of revenue from contracts and service level agreements with customers, the majority of customers being NHS bodies. Contracts typically run for a period of 1, 2 or 3 years. In all cases, income is accounted for in the year in which performance obligations within the contract are met, as outlined in note 1.3.

NHSBT receives income from non-contractual supplies: this includes income from training and royalties as well as for ad-hoc supply of products or services. This income is likewise accounted for in the period in which the goods/services are provided.

Other revenue is largely grant-in-aid funding from the DHSC and other departmental health authorities in line with funding agreements for the financial year.

The following tables break down income streams by their nature and source.

3.1 Income by nature

	31 March 2020 £000	31 March 2019 £000
Blood and Components	277,210	269,755
Diagnostic and Therapeutic Services	32,395	32,388
Tissues	15,041	14,719
Stem cells	18,410	17,971
Organ Donation and Transplantation	13,728	11,941
Therapeutic Apheresis Services	11,608	11,393
Total Income from activities per SoCNE	**368,392**	**358,167**

3.2 Income by source

	31 March 2020 £000	31 March 2019 £000
Department of Health and Social Care	11,089	10,220
Other NHS bodies	319,602	312,355
Other Government bodies	15,957	15,521
Non-NHS	21,633	19,983
Trust Funds	111	88
Total Income from activities per SoCNE	**368,392**	**358,167**

£11,772k of the Other Government bodies income shown above is contractual income and grant funding from devolved administrations (2018/19 £11,700k).

3.3 Revenue grant-in-aid from DHSC

	31 March 2020 £000	31 March 2019 £000
Programme funding – Organ Donation and Transplantation	62,338	62,337
Programme funding – Organ Donation Deemed consent	6,199	–
Programme funding – Diagnostic and Therapeutic services	4,162	4,675
Programme funding – Blood and Components	–	2,189
Notional funding – pension cost increase	9,776	–
Total Revenue grant-in-aid from DHSC per SoCTE	**82,475**	**69,201**

DHSC grant-in-aid is recorded directly as a change in taxpayers' equity.

Note 4 Staff costs

	2019/20 Total £000	2018/19 Total £000
Salaries and wages	178,519	167,704
Social security costs	16,947	15,740
Employer contributions to NHS Pensions Agency	22,360	21,071
Notional cost of NHS Pension increase	9,776	–
Total	**227,602**	**204,515**

On 1 April 2019, the employer contribution rate for the NHS Pension scheme increased by 6.3%. The additional cost, funded directly by DHSC, was £9,776k for the year.

Note 4.1 Pension costs

Past and present employees are covered by the provisions of the two NHS Pensions Schemes. Details of the benefits payable and rules of the scheme can be found on the pension website at: https://www.nhsbsa.nhs.uk/nhs-pensions

Both are unfunded, defined benefit schemes that cover NHS employers, GP practices and other bodies, allowed under the direction of the Secretary of State, in England and Wales. They are not designed to be run in a way that would enable NHS bodies to identify their share of the underlying scheme assets and liabilities. Therefore, each scheme is accounted for as if it were a defined contribution scheme: the cost to the NHS body of participating in each scheme is taken as equal to the contributions payable to that scheme for the accounting period.

In order that the defined benefit obligations recognised in the financial statements do not differ materially from those that would be determined at the reporting date by a formal actuarial valuation, the FReM requires that "the period between formal valuations shall be four years, with approximate assessments in intervening years". An outline of these follows:

a) Accounting valuation

A valuation of the scheme liability is carried out annually by the scheme actuary (currently the Government Actuary's Department) as at the end of the reporting period. This utilises an actuarial assessment for the previous accounting period in conjunction with updated membership and financial data for the current reporting period and are accepted as providing suitably robust figures for financial reporting purposes. The valuation of the scheme liability as at 31 March 2020, is based on an assessment of liabilities at 31 March 2019, updated to 31 March 2020 with summary global member and accounting data. In undertaking this actuarial assessment, the methodology prescribed in IAS 19, relevant FReM interpretations, and the discount rate prescribed by HM Treasury have also been used.

The latest assessment of the liabilities of the scheme is contained in the report of the scheme actuary, which forms part of the annual NHS Pension Scheme Accounts. These accounts can be viewed on the NHS Pensions website and are published annually. Copies can also be obtained from The Stationery Office.

b) Full actuarial (funding) valuation

The purpose of this valuation is to assess the level of liability in respect of the benefits due under the schemes (taking into account its recent demographic experience), and to recommend contribution rates payable by employees and employers.

The last actuarial valuation undertaken for the NHS Pension Scheme was completed as at 31 March 2016. The results of this valuation set the employer contributions rate payable from April 2019 at 20.68% of pensionable pay from this date. In 2019/20 14.38% of this has been paid and accounted for by NHSBT and the balance has been charged directly to DHSC. The cost directly paid by DHSC is £9,776k and has been included in NHSBT accounts as a notional cost and notional funding.

The 2016 funding valuation was also expected to test the costs of the Scheme relative to the employer cost cap set following the 2012 valuation. Following a judgement from the Court of Appeal in December 2018 Government announced a pause to that part of the valuation process pending conclusion of the continuing legal process.

Members can purchase additional service in the NHS Scheme and contribute to Money Purchase Additional Voluntary Contributions run by the scheme's approved providers or by other free standing additional voluntary contributions providers.

Under the terms of the Pensions Act 2008 NHSBT is required to provide a pension scheme for employees not enrolled in the NHS Pension. Qualifying employees are enrolled in the National Employment Savings Trust (NEST) managed scheme.

NEST is a defined contribution scheme managed by a third-party organisation. It carries no possibility of actuarial gain or loss to the Trust and there are no financial liabilities other than payment of the employers' contribution. The minimum combined contribution for 2019/20 is 8% of earnings of which the employer must pay 3%. Employer contributions are charged directly to the Statement of Comprehensive Net Expenditure and paid to NEST monthly. At 31 March 2020 there were 131 employees enrolled in the NEST scheme (102 at 31 March 2019).

Note 5 Operating expenses

	2019/20 £000	2018/19 £000
Other staff related costs	12,183	11,996
Consumable supplies	64,884	61,107
Maintenance of buildings, plant and equipment	16,866	15,902
Rent and rates	12,245	12,481
Transport costs	19,934	18,845
External contractors	25,877	25,544
Purchase and lease of equipment and furniture	5,343	4,518
Utilities and telecommunications	10,039	8,939
Media advertising	1,967	3,055
Organ Donation Transplant Scheme payments	18,136	17,703
Professional fees*	3,249	2,320
External Auditors remuneration: Audit fees**	98	88
Total	**190,821**	**182,498**

* Professional fees include legal and programme management costs
** No payment was made to the External Auditors for non-audit work

Note 6 Other operating expenditure

	Note	2019/20 £000	2018/19 £000
Capital charges paid over as cash to DHSC		17,512	17,441
Capital non-cash: Loss on disposal of fixed assets	8.1	47	90
Miscellaneous*		7,515	6,982
Total		**25,074**	**24,513**

* Amount includes £3.4m (2018/19 £3m) relating to IT software licence fees and £1.4m (2018/19 £1.3m) to insurance costs.

Note 7 Operating leases

This note discloses costs and commitments incurred in operating lease arrangements where NHSBT is the lessee.

NHSBT's operating lease commitments relate to property rents and vehicles. The vehicle commitments are based on 397 staff lease cars and 121 fleet vehicles. The property commitments are based on 49 properties.

The amounts recognised in these accounts are:

	2019/20	2018/19
	£000	£000
NHSBT as lessee		
Payments recognised as an expense		
Lease and rental payments*	8,228	8,100
Total future minimum lease payments payable		
Not later than one year	4,611	4,208
Later than one year and not later than five years	9,056	8,017
Later than five years	446	754
Total	**14,113**	**12,979**

* Lease and rental payments are included in Note 5 – Operating Expenses under rent and rates, purchase and lease of equipment, transport and other staff related costs.

Note 8 Other gains/(losses)

	2019/20	2018/19
	£000	£000
8.1 Profit/(loss) on disposal of non-current assets		
Loss on disposal of plant and equipment	**(47)**	**(90)**
	(47)	**(90)**

Note 9 Property, plant and equipment – 2019/20

	Land	Buildings	Assets Under Construction	Plant & Machinery	Transport Equipment	Information Technology	Total
	£000	£000	£000	£000	£000	£000	£000
Valuation/cost at 1 April 2019	27,503	157,226	7,382	52,776	10	5,670	250,567
Additions purchased	–	432	14,844	2,312	–	3,358	20,946
Reclassification	–	–	–	0	–	–	–
Indexation	–	–	–	1,294	–	–	1,294
Other in year revaluations*	148	286	–	–	–	–	434
Impairments	–	75	–	–	–	–	75
Disposals*	–	–	–	(3,792)	–	–	(3,792)
Valuation/cost at 31 March 2020	**27,651**	**158,019**	**22,226**	**52,590**	**10**	**9,028**	**269,524**
Accumulated depreciation at 1 April 2019 – brought forward	–	1,429	–	37,957	9	2,678	42,073
Provided during the year	–	4,978	–	3,254	–	792	9,024
Indexation	–	–	–	931	–	–	931
Other in year revaluations*	–	(4,721)	–	–	–	–	(4,721)
Disposals*	–	–	–	(3,745)	–	–	(3,745)
Accumulated depreciation at 31 March 2020	**–**	**1,686**	**–**	**38,397**	**9**	**3,470**	**43,562**
Net book value at 1 April 2019	27,503	155,797	7,382	14,819	1	2,992	208,494
Net book value at 31 March 2020	**27,651**	**156,333**	**22,226**	**14,193**	**1**	**5,558**	**225,962**
Net book value at 31 March 2020 comprises:							
Owned assets	17,908	98,431	2,170	14,193	1	5,558	138,261
Subsequent expenditure on or relating to assets acquired under a Finance Lease	–	20,713	15,650	–	–	–	36,363
Held on Finance Lease	9,743	37,189	4,406	–	–	–	51,338
	27,651	**156,333**	**22,226**	**14,193**	**1**	**5,558**	**225,962**
Revaluation reserve	14,404	74,498	–	883	–	923	90,708

Our owned and finance leased land and buildings included above have been valued at 31 March 2020 in a desktop valuation by the District Valuer. Non-specialist operational assets of approximately £8.6 million are valued at Existing Use Value (EUV) and specialist operational assets of approximately £171.8 million are valued at Depreciated Replacement Cost (DRC).The valuation exercise was carried out in February 2020 with a valuation date of 31 March 2020. In applying the Royal Institute of Chartered Surveyors (RICS) Valuation Global Standards 2020 ('Red Book'), the valuer has declared a 'material valuation uncertainty' in the valuation report. This is on the basis of uncertainties in markets, caused by COVID-19, which may impact upon the BCIS cost indices used in the DRC valuations of specialist operational assets and market data used in the EUV valuations of non-specialist operational assets.

The valuation has been used to revalue the assets in these financial statements. While the uncertainty declared by the valuer may have an impact on the amounts recognised in the financial statements, it is not currently possible to reliably quantify this impact. At the present time, based on the information currently available, less certainty – and a higher degree of caution – should be attached to the District Valuer's valuation than would normally be the case. With the valuer having declared this material valuation uncertainty, the valuer has continued to exercise professional judgement in providing the valuation and this remains the best information available to NHSBT.

The note above contains the Sheffield & Leeds centres which will be disposed of following the completion of the new Barnsley centre (above as an asset under construction). Leeds and Sheffield properties have been valued under a modern equivalent asset valuation method at March 2020, which values the asset used in operations (not the full square footage owned). This method was selected due to the excess capacity at these sites as we prepare for the relocation to Barnsley. This valuation method resulted in a reduction in the value of owned assets in the year of recognition (2018/19).

Note 9.1 Property, plant and equipment – 2018/19

	Land	Buildings	Assets Under Construction	Plant & Machinery	Transport Equipment	Information Technology	Total
	£000	£000	£000	£000	£000	£000	£000
Valuation/cost at 1 April 2018	23,741	156,351	1,483	55,715	10	18,189	255,489
Additions purchased	–	2,313	6,870	2,706	–	997	12,886
Reclassification	–	971	(971)	–	–	–	–
Indexation	–	–	–	831	–	–	831
Other in year revaluations	4,624	(2,185)	–	–	–	(2,447)	(8)
Impairments	(862)	(224)	–	–	–	–	(1,086)
Disposals	–	–	–	(6,476)	–	(11,069)	(17,545)
Valuation/cost at 31 March 2019	**27,503**	**157,226**	**7,382**	**52,776**	**10**	**5,670**	**250,567**
Accumulated depreciation at 1 April 2018	–	4,058	–	40,492	8	16,705	61,263
Provided during the year	23	5,927	–	3,247	1	644	9,842
Indexation	–	–	–	604	–	–	604
Other in year revaluations	(23)	(8,556)	–	–	–	(3,602)	(12,181)
Disposals	–	–	–	(6,386)	–	(11,069)	(17,455)
Accumulated depreciation at 31 March 2019	**–**	**1,429**	**–**	**37,957**	**9**	**2,678**	**42,073**
Net book value at 1 April 2018	23,741	152,293	1,483	15,223	2	1,484	194,226
Net book value at 31 March 2019	**27,503**	**155,797**	**7,382**	**14,819**	**1**	**2,992**	**208,494**
Net book value at 31 March 2019 comprises:							
Owned assets	17,823	97,543	957	14,819	1	2,992	134,135
Subsequent expenditure on or relating to assets acquired under a Finance Lease	–	21,094	2,019	–	–	–	23,113
Held on Finance Lease	9,680	37,160	4,406	–	–	–	51,246
	27,503	**155,797**	**7,382**	**14,819**	**1**	**2,992**	**208,494**
Revaluation reserve	**14,256**	**71,830**	**–**	**845**	**–**	**1,158**	**88,089**

Note 10 Intangible assets – 2019/20

	Software Purchased	Total
	£000	£000
Valuation/cost at 1 April 2019 – brought forward	9,324	**9,324**
Additions	1,156	**1,156**
Revaluations	–	**–**
Disposals	(2,755)	**(2,755)**
Valuation/cost at 31 March 2020	**7,725**	**7,725**
Amortisation at 1 April 2019 – brought forward	5,917	**5,917**
Provided during the year	984	**984**
Revaluations	–	**–**
Disposals	(2,755)	**(2,755)**
Amortisation at 31 March 2020	**4,146**	**4,146**
Net book value at 1 April 2019	3,407	**3,407**
Net book value at 31 March 2020	**3,579**	**3,579**
Net book value at 31 March 2020 comprises:		
Purchased	3,579	**3,579**
Asset financing	**3,579**	**3,579**
Revaluation reserve	**1,057**	**1,057**

Note 10.1 Intangible assets – 2018/19

	Software Purchased	Total
	£000	£000
Valuation/cost at 1 April 2018 – brought forward	18,030	**18,030**
Additions	521	**521**
Revaluations	(5,186)	**(5,186)**
Disposals	(4,041)	**(4,041)**
At 31 March 2019	**9,324**	**9,324**
Amortisation at 1 April 2018 – brought forward	15,242	**15,242**
Provided during the year	1.259	**1,259**
Revaluations	(6,543)	**(6,543)**
Disposals	(4,041)	**(4,041)**
Amortisation at 31 March 2019	**5,917**	**5,917**
Net book value at 1 April 2018	2,788	**2,788**
Net book value at 31 March 2019	**3,407**	**3,407**
Net book value at 31 March 2019 comprises:		
Purchased	3,407	**3,407**
Asset financing	**3,407**	**3,407**
Revaluation reserve	**1,346**	**1,346**

Note 11 Inventories

	31 March 2020	31 March 2019
	£000	£000
Raw materials and consumables	6,394	6,667
Work in progress	2,204	2,801
Finished processed goods	11,524	12,349
Total	**20,122**	**21,817**

In year losses of stock items are included in the Losses and Special Payments disclosure in the Accountability Report. Each case is reported to the Governance and Audit Committee with an explanation of how they occurred.

Within the above raw materials and consumables balance blood packs are valued at £598k. These are normally verified with a full physical stock count at 67 locations. COVID-19 prevented physical stock counts of blood packs at 2 locations. We estimated the stock quantities at these two sites at 31 March 2020 by taking the March 2019 stock quantity and applying the average percentage change in stock quantity at the other 65 locations.

Note 12 Trade and other receivables

	31 March 2020	31 March 2019
	£000	£000
Current		
NHS receivables – revenue	15,433	17,671
Non-NHS trade receivables – revenue	12,959	6,791
Provision for impairment of receivables	(104)	(127)
Other debtors	183	204
VAT	3,729	2,652
Prepayments and accrued income	9,654	9,053
Subtotal	**41,854**	**36,244**
Non-Current		
Other prepayments and accrued income	77	491
Subtotal	**77**	**491**
Total trade and other receivables	**41,931**	**36,735**

	2019/20	2018/19
Allowances for credit losses	£000	£000
At 1 April	(127)	(2)
(Increase)/decrease in receivables impaired	(104)	-
Amounts written off during year	4	(127)
Amounts recovered during year	123	2
At 31 March	**(104)**	**(127)**

Note 13 Cash and cash equivalents

	2019/20	2018/19
	£000	£000
At 1 April	28,444	23,479
Net change in year	22,105	4,965
At 31 March	**50,549**	**28,444**
Broken down into:		
Cash in hand	1	1
Cash with the Government Banking Service	50,548	28,443
Total cash and cash equivalents as in SoFP and SoCF	**50,549**	**28,444**

Note 14 Trade and other payables

	31 March 2020	31 March 2019
	£000	£000
Current		
NHS payables – revenue	6,659	5,309
Non-NHS trade payables – revenue	2,729	3,598
Non-NHS trade payables – capital	29	373
Tax and social security costs	12	6
Accruals and deferred income	32,407	14,378
Total current trade and other payables	**41,836**	**23,664**

Note 15 Provisions for liabilities and charges

	Employee Benefits	Product Liability & Other	Total
	£000	£000	£000
At 1 April 2019	464	323	787
Provisions arising in the year	(13)	246	233
Utilised during the year	(27)	(97)	(124)
Reversed unused	–	(35)	(35)
Unwinding of discount	12	–	12
Balance at 31 March 2020	**436**	**437**	**873**
Expected timing of cash flows:			
– not later than 1 year;	27	437	464
– later than one year and not later than five years;	113	–	113
– later than five years	296	–	296
Total	**436**	**437**	**873**

The provision for employee benefits is in respect of permanent injury benefit awards which are payable over the life term of the individuals receiving the payments.

Product Liability and Other relates to legal actions brought against NHSBT by individuals arising from use of NHSBT products; legal claims for personal injury (employee); legal claims from donors and employees; and other employee liability and public liability claims.

At 31 March 2020 £20,683,911 (is included in the provisions of NHS Resolution (formerly NHS Litigation Authority) in respect of clinical negligence liabilities of NHSBT (31 March 2019: £6,990,614).

Note 16 Finance leases

Obligations under finance leases where NHS Blood and Transplant is the lessee.

Minimum lease payments	31 March 2020 £000	31 March 2019 £000
Not later than one year	959	554
Later than one year and not later than five years	3,432	4,242
Later than five years	18,817	18,966
	23,208	**23,762**
Less future finance charges	(15,043)	(15,412)
Present value of future lease obligations	**8,165**	**8,350**

Present value of minimum lease	31 March 2020 £000	31 March 2019 £000
Not later than one year	230	186
Later than one year and not later than five years	1,190	1,125
Later than five years	6,745	7,039
Present value of future lease obligations	**8,165**	**8,350**
Analysed as:		
Current borrowings	230	186
Non-current borrowings	7,935	8,164
	8,165	**8,350**

Finance lease obligations relate to the Blood Centre in Speke, Liverpool acquired in 2003 with a primary lease term of 25 years; the site of the Blood Centre in Newcastle acquired in 1985 with a lease term of 125 years; and the new Blood Centre and offices in Barnsley acquired in 2018 with a primary lease term of 25 years currently under construction with target occupation in 2020. The value of construction is recorded in assets under construction in note 9.

Note 17 Other cash flow adjustments (non-cash)

Other cash flow adjustments	31 March 2020 £000	31 March 2019 £000
Depreciation (note 9)	9,024	9,842
Amortisation (note 10)	984	1,259
Impairments (note 9)	(75)	1,086
Loss on disposal (note 8)	47	90
Provisions arising in year (note 15)	234	110
Provisions reversed in year (note 15)	(35)	(480)
Notional pension cost	9,776	–
Total	**19,955**	**11,907**

Note 18 Contingent assets and liabilities

A contingent liability of an estimated £516,000 per annum, relates to potential costs of a legal case *N Flowers and others v East of England Ambulance Trust* which is under appeal. The claimants in the case argue that annual leave payments should reflect non-guaranteed and voluntary overtime. The above figure is an estimate of what NHSBT may have to pay for one year's arrears. Arrears in other instances have been paid for two years.

A contingent liability of £56,363 (31 March 19 £75,837) relates to potential costs associated with donor claims, personal injury claims and other employee liability and public liability claims.

A contingent liability of £1,375,000 (31 March 2019 £1,375,000) relates to Hepatitis C cases brought under an action for product liability.

Due to the nature of the contingent liabilities it is difficult to predict with any degree of accuracy the final amounts due and when they will crystallise.

Note 19 Capital commitments

At 31 March 2020 the value of contracted capital commitments was £10,223,592 (31 March 2019 £14,524,476) of which £7.3m relates to the extension at the Filton site.

Note 20 Related parties

During the period none of the Department of Health and Social Care Ministers, Trust Board members or members of the key management staff, or parties related to any of them, has undertaken any material transactions with NHS Blood and Transplant.

The Department of Health and Social Care is regarded as a controlling, related party. During the year NHSBT has had a significant number of material transactions with the Department, and with other entities for which the Department is regarded as the parent Department, including:

- NHS England
- NHS Foundation Trusts
- NHS Trusts
- Health Education England

During the year these transactions were valued at £426m in income (31 March 2019 £401m) and £27m of expenditure (31 March 2019 £26m). Of this income, NHSBT received £72.7m (2018/19 £69m) from the DHSC in relation to operational grant-in-aid and £22.6m (2018/19 £9m) funding for capital programme.

In addition, NHSBT has had several material transactions with other government departments, central and local government bodies, NHS bodies of Scotland, Wales and Northern Ireland. These transactions amounted to £16m (2018/19 £15m) of income £44m (2018/19 £44m) in expenditure*

**expenditure figures inclusive of Pensions and Social Security costs of permanently employed staff.*

NHSBT board member or senior manager	NHSBT appointment	Related party	Related party position held	Value of goods and services provided to related party £000	Value of goods and services purchased from related party £000
Ms M Banerjee	Chair	South-West London Integrated Care System	Chair	11,146	517
Prof P Vyas	Non-Executive Director	University of Oxford	Clinical Professor of Haematology	83	515
Prof P Vyas	Non-Executive Director	Oxford University Hospitals NHS Foundation Trust	Consultant Haematologist	5,240	2,026
Mr I Bateman	Director of Quality	The Pirbright Institute	Trustee Director	2	–
Mr H Williams	Director of Diagnostics and Therapeutic Services	Baxter Healthcare Ltd	Minor Shareholder	–	5

In accordance with IAS 24 the NHS Blood and Transplant Trust Fund is regarded as a related party. Income received from the Trust Fund during the year totalled £111k (31 March 2019 £105k) and there was a debtor due by the Trust Fund of £73k (31 March 2019 £42k).

Note 21 Events after the reporting date

In accordance with the requirements of IAS10 events after the reporting period are considered up to the date on which the accounts are authorised for issue. The Accounting Officer authorised these financial statements for issue on the same date as the Certificate and Report of the Comptroller and Auditor General.

There are no events after the reporting date which would have a material effect on these accounts.

Note 22 Financial instruments

Financial reporting standard IFRS 7 requires disclosure of the role that financial instruments have had during the period in creating or changing the risks a body faces in undertaking its activities. Due to the continuing service provider relationship that NHSBT has with customers and the way they are financed, NHSBT is not exposed to the degree of financial risk faced by business entities. Also, financial instruments play a much more limited role in creating or changing risk than would be typical of listed companies to which the financial reporting standards may apply. NHSBT has limited powers to borrow or invest surplus funds and financial assets and liabilities are generated by day-to-day operational activities rather than being held to change the risks facing NHSBT in undertaking its activities.

NHSBT's treasury management operations are carried out by the finance department, within parameters defined within the Standing Financial Instructions and policies agreed by the Board. The treasury activity is subject to review by internal audit.

Currency risk

NHSBT is principally a domestic organisation with the great majority of transactions, assets and liabilities being UK and sterling based. NHSBT has no overseas operations. NHSBT therefore has low exposure to currency rate fluctuations.

Interest rate risk

All of NHSBT's financial assets and financial liabilities carry nil or fixed rates of interest. NHSBT is not, therefore, exposed to significant interest rate risk.

Credit risk

Since the majority of NHSBT's revenue comes from contracts with other public sector bodies, NHSBT has low exposure to credit risk.

Liquidity risk

The majority of NHSBT's operating costs are finances from resources voted annually by Parliament. NHSBT's capital expenditure is funded from resources made available from Government. NHSBT is not, therefore, exposed to significant liquidity risks.

Glossary

Term	Definition
Allografts	A surgical transplant of tissue between genetically different individuals of the same species.
A negative platelet	This is the 'universal' platelet type which can be given to patients where their type is unknown.
Antigen	An antigen is any substance that causes your immune system to produce antibodies against it. This means your immune system does not recognize the substance and is trying to fight it off. An antigen may be a substance from the environment, such as chemicals, bacteria, viruses, or pollen. An antigen may also form inside the body.
Apheresis	Apheresis is a medical procedure in which the blood of a person is passed through an apparatus that separates out one particular constituent and returns the remainder to the circulation.
Blood Groups	There are 36 known blood groups. The main two groupings used are the ABO group and the Rhesus group (usually described as + or –). The rhesus group is made up of two genes, the D gene (which gives the + or –) and the RHCE gene (which gives four group variations Ce, ce, CE, cE). The Kell group is the 3rd main blood group.
British Bone Marrow Registry (BBMR)	The British Bone Marrow Registry (BBMR) is the part of NHSBT that helps people find stem cell matches. We work in co-operation with the UK's other bone marrow and blood donor registries, the charity Anthony Nolan and the NHS Cord Blood Bank. We are also part of an international network that helps find matches for people across the world.
Clinical Services	An operating division of NHSBT that supplies biological products and related services, mostly to the NHS in England. It includes Cellular and Molecular Therapies (CMT), Diagnostic Services (H&I and RCI) and Therapeutic Apheresis Service (TAS).
Convalescent Plasma	This plasma (containing antibodies) which is taken from recovered patients and used as a therapeutic treatment for other patients.
Epitope	An epitope is the part of an antigen that is recognized by the immune system, specifically by antibodies, B cells, or T cells.
Fetal RHD testing	Women who are **Rhesus D negative** (RhD-) exposed to fetal RhD+ erythrocytes can develop anti-Rh antibodies (Rh-isoimmunization), which have the potential to permeate the placenta and cause hemolytic disease.
Histocompatibility	Histocompatibility, or tissue compatibility, means having the same, or sufficiently similar human leukocyte antigens (HLA). Histocompatibility testing is used prior to whole organ, tissue, or stem cell transplants, where the differences between the donor's HLA alleles and the recipients could trigger the immune system to reject the transplant.
Histocompatibility & Immunogenetics (H&I)	The business unit in NHSBT's Clinical Services Directorate which provides testing and advice ranging from Solid Organ and Stem Cell transplantation and donor selection to testing for potential genetic immune reactions to drugs.
Human leukocyte antigens (HLA)	Each individual expresses many unique HLA proteins on the surface of their cells, which signal to the immune system whether a cell is part of the self or an invading organism. T cells recognize foreign HLA molecules and trigger an immune response to destroy the foreign cells.
Immunohematology	The study of the immunology and genetics of blood groups, blood cell antigens and antibodies and specific blood proteins. Important in blood banking and transfusion medicine.

Term	Definition
International Blood Group Reference Laboratory (IBGRL)	Provide reference services related to blood transfusion. It is a designated collaborating centre for the World Health Organisation. IBGRL also: • maintains a database of donors with rare blood types which authorized laboratories can interrogate directly; • performs research in blood transfusion science; • generates a range of monoclonal antibodies, recombinant proteins and kits for the estimation of feto-maternal hemorrhage (FMH) which are available to researchers around the world; • provides specialist clinical diagnostic services for NHSBT, providing expertise in red cell reference serology and blood group genotyping, including non-invasive fetal genotyping from maternal blood.
Lymphocyte	A lymphocyte is a type of white blood cell in human immune systems.
OTDT	Organ and Tissue Donation and Transplantation – the part of NHSBT which manages the Organ Donor Register and National Transplant Register (which matches donors to people who are waiting for a transplant) and co-ordinates organ transplants in the UK and also manages tissue donation production and sales.
O negative red cells	All patients can receive O negative red blood cells. O negative donors are often called 'universal donors' because anyone can receive the red blood cells from their donations. Although about 8% of the population has O negative blood, it accounts for 13% of hospital requests for red blood cells. Hospitals can safely give O negative blood to patients in emergencies where the blood type is unknown.
Plasmids	A plasmid is a small DNA molecule within a cell that can replicate independently. Particular genes can be attached to these plasmids to replicate and be used in gene therapies.
Red Cell Immunohematology (RCI)	The business unit in NHSBT's Clinical Services division which investigates serological problems, investigates adverse transfusion reactions and provides antenatal screening services.
Ro	Ro is a blood type. (see above) When the Rhesus group D and DHCE genes combine there are 8 possible outcomes – one of which is Dce – also known as Ro subtype. Only 2.99% of our donors in 2019/20 had this Ro subtype. We do not currently collect enough Ro blood to meet demand for this type.
Ro Kell negative blood	Ro Kell negative blood is especially important for treating the rare, inherited condition sickle cell disease. Only around 2% of donors have this rare combination of two blood types. Donors of any ethnicity can be Ro Kell negative although Black people are 10 times more likely to have the Ro subtype than white people. People with Ro Kell negative blood are being urged to talk to family members about donation, because they may also share this rare combination of types.
Serology (serological)	The scientific study or diagnostic examination of blood serum, which looks at the response of the immune system to pathogens or introduced substances.
T cells	A T cell is a type of lymphocyte which plays a central role in the immune response.
Therapeutic Apheresis Service (TAS)	The business unit in NHSBT's Clinical Services division which treats patients with Apheresis.
Tissues and Eye Services (TES)	The business unit in NHSBT's Organ and Tissues Donation and Transplantation division which collects donations of tissues and eyes, prepares these for transplantation, stores and provides these to hospitals to meet patient need.

Term	Definition
TNC	Cord units are graded based on the numbers of viable stem cells contained in the unit. TNC = Total Nucleated Cells.
Variant CJD/ 'Mad Cow' disease	Bovine spongiform encephalopathy (BSE), commonly known as mad cow disease, is a neurodegenerative disease of cattle. Spread to humans, it is believed to result in variant Creutzfeldt–Jakob disease (vCJD).

CCS0920201056

978-1-5286-2141-0