NHS
Blood and Transplant

Our 2018/19 Annual Report and Accounts

HC2301

SG/2019/86

NHS
Blood and Transplant

Annual Report and Accounts 2018/19

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Performance Report

I hereby sign the Performance Report from pages 7 to 26

Betsy Bassis 14 June 2019

Chief Executive's Foreword

I joined NHSBT in March 2019, taking over from Sally Johnson who acted as Interim Chief Executive following Ian Trenholm's departure in July 2018. It is both a pleasure and an enormous privilege to be asked to lead such an extraordinary organisation whose sole mission it is to save and improve lives. By enabling donation, we allow people to do something extraordinary.

NHSBT has a long track record of operational excellence. This past year, however, was marked by several unexpected challenges. In Blood, we experienced persistently low stock levels in the first half of the year, including 13 occasions when stocks fell below our minimum threshold. This situation was due to the introduction of new iron testing procedures, adverse weather events and planned session closures, all of which impacted collection rates. To address these and other issues, a new Blood Operations Leadership Team (BOLT) was established, comprised of directors across the supply chain, and blood stocks are once again at healthy levels. We will be reviewing our operating model over the coming year to ensure the sustainability of this performance.

In March 2018, the Board was informed that the business case for the Core Systems Modernisation Programme (to replace the IT system supporting the blood supply chain) was not deliverable and that key drivers had changed. With the programme running behind schedule and over budget, the Board acted decisively by restricting further spend to only completing work already in progress. In September 2018, the Board decided to halt the project completely. A review by PwC identified multiple weaknesses in how the programme was established, governed and conducted. NHSBT is in the process of acting on the findings from this wide-ranging review.

Whilst some of the functionality developed by the Core Systems Modernisation programme is currently in use, Managing Public Money requires us to consider not just the cost, but also the economic value to NHSBT. Given ongoing support costs and duplication with our legacy system, we have concluded that it is prudent to declare the full investment of £26.2m as a constructive loss in these accounts. (See pages 42 and 65 for more information). However, we will explore what we can and should use going forward as part of a new IT strategy.

Our financial controls remain robust and our product safety standards are still very high. However, given the issues described above, NHSBT received a limited Internal Audit opinion for the past year. This is a highly disappointing situation for the organisation but one that we accept and are committed to turning around. As part of the wider review of our operating model, I have already taken steps to commence a fundamental review of our governance and risk management processes, which will be overseen by our Governance and Audit Committee.

NHSBT is a core participant in the Infected Blood 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 are cooperating fully with all information requests from the Inquiry. We hope that it will 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.

In Organ Donation and Transplantation, NHSBT delivered another record year for deceased organ donors. However, the percentage increase (1.7%) was the smallest in five years and the number of transplants from deceased donors actually fell year-on-year. Although NHSBT does not commission transplant procedures (being only responsible for donation and retrieval), we are working with the NHS transplant community to understand and address the root cause of this disappointing performance. We are committed to ensuring that no opportunity for organ donation and transplantation is lost.

Last year marked a major milestone for organ and tissue donation with the introduction of the Organ Donation (Deemed Consent) Act in England. This followed the successful introduction of opt out legislation in Wales in 2015, which has subsequently led to a significant increase in consent rates. Scotland, Jersey, the Isle of Man and Guernsey are now planning similar legislation. To maximise the benefit from these changes, NHSBT has a large programme of work underway to raise public awareness and encourage people to discuss their donation wishes with family and friends.

In the year we provided advanced diagnostic tests, supporting safe transfusion and transplantation, for around 160,000 patients and increased provision of stem cells and therapeutic services to the NHS. We also increased our provision of tissues to the NHS, including supporting around 5000 corneal transplants. This resulted in an 8% increase in income, delivered with high standards of quality, efficiency and a patient focus.

As part of wider efforts across the NHS, NHSBT prepared contingency plans for the possible impacts of EU Exit. Critical stocks were purchased in advance, valued at £0.8m.

We ended the year with a £12.7m surplus against a planned deficit of £0.6m. The most significant movement was an £11m reduction in transformation spend following the decision to halt further work on the Core Systems Modernisation programme.

I would like to thank people across NHSBT for their hard work and commitment during what was, at times, a difficult year. I know they 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.

Betsy Bassis
Chief Executive and Accounting Officer

The Nature and Purpose of NHSBT

The core purpose of NHSBT is to ***"Save and Improve Lives"*** through providing a safe and reliable supply of blood components, solid organs, stem cells, tissues and related diagnostic services to the National Health Service (NHS) and to the other UK Health Departments where directed. In support of this purpose NHSBT is constituted as a Special Health Authority in England and Wales. Our accountability to the Scottish and Northern Ireland Health Departments, regarding our UK-wide role in organ donation and transplantation, is discharged through certain arrangements within the NHSBT Board, supported by income generation agreements.

NHSBT is one of the largest services of its type in the world. NHSBT is organised into three operating divisions:

Blood Components covers the supply of red cells, platelets, plasma and specialist blood components to NHS hospitals in England. The cost of these products is recovered in the prices that are agreed annually through the National Commissioning Group for Blood. Around 28,000 units of blood are collected every week via a network of fixed sites and mobile blood collection teams. The blood is processed in three processing centres (two of which are also testing facilities) and distributed via a network of fifteen stock holding units to all English NHS Acute Trusts, 365 days a year.

Organ Donation and Transplantation (ODT). We are the UK "Organ Donation Organisation" that is working with the four UK Health Departments and hospitals throughout the UK to increase the numbers of organs available for transplantation. Our ODT activities (including the retrieval of donated organs) are funded by the UK Health Departments. There are currently around 6,000 people on the UK Transplant Waiting List.

Diagnostic and Therapeutic Services (DTS). This division is a group of strategic business units (SBUs) that supply biological products and related services, mostly to the NHS in England. This includes:

- ***Tissues and Eye Services*** – We operate the UK's largest tissue and eye bank. We manage the pathway from referral and consent of deceased donors to the retrieval and processing of tissue and eyes. Tissue (such as corneas, tendons, bone, heart valves and skin) is supplied on a cost recovery basis for the treatment of patients across the UK.

- **Cellular and Molecular Therapies (CMT**) – Building on the capabilities we have developed in Stem Cell Donation and Transplantation (SCDT) we also provide supporting services to NHS, academic and private sector organisations seeking to take next generation stem cell therapies to the clinic. This includes the operation of the Clinical Biotechnology Centre (CBC).

- ***Diagnostic Services*** – via a national network of laboratories we provide detailed investigations into complex serological problems referred to us from NHS hospital diagnostic teams, antenatal screening services and investigate adverse transfusion reactions (red cell immunohematology). We also support the diagnosis and treatment of medical conditions in several clinical areas including organ, stem cells and tissue transplantation and immunology (histocompatibility & immunogenetics).

- ***Therapeutic Apheresis Service (TAS)*** – We provide life-saving and life-enhancing treatments for both adults and children using special technology to exchange, remove, or collect certain components with the blood. Our services are delivered by experienced clinical teams across a range of clinical specialities across the whole of the NHS.

Going Concern

NHSBT operates a rolling five year planning process which continually updates our assumptions regarding product demand, prices, cash reserves, funding from the four UK Health Departments, operating costs and the projected cost and benefits of our transformation programme.

On the basis of our most recent projections the NHSBT Board continues to have a reasonable expectation that NHSBT will be able to generate adequate income and cash resources, that will exceed its projected costs, over the coming 5 year period and thus can continue to adopt the going concern basis in the preparation of these financial statements.

Principal Risks and Uncertainties

Our principal risks and uncertainties are:

Product and Service Safety
NHSBT provides biological products and associated services often at a time of critical need to NHS patients. There will be a serious risk to the health of the patient if the products and services we provide are not safe (for example, are contaminated or contain unidentified pathogens) or are clinically inappropriate.

Sufficiency (Blood)
As the sole supplier of blood components to the NHS, patient harm would result if blood components of the appropriate group/type are unavailable to meet demand, both in normal day to day demand and / or any short-term demand spike peak arising from a mass casualty incident.

In this regard the demand for red cells has been decreasing over the last 5 years and the trend is expected to continue over the medium term. At blood group level, however, we are seeing differential demand trends for "universal" components (O negative red cells and A negative platelets) and increasing demand for specific components e.g. Ro red cells for the treatment of patients with sickle cell disease. This results in a significant and increasing challenge for NHSBT, as we respond to lower overall demand by reducing overall blood collection capacity (e.g. through fewer / larger collection sessions), but without losing the donors that are needed for the specific components where demand is not declining.

Although demand for red cells is declining it tends to be predictable and blood stock targets are established that should be sufficient to cover short term fluctuations in day to day demand. Uncertainty in the blood supply chain applies primarily at the supply end and our ability to manage collection capacity and the donor base in order to consistently meet the collection targets needed to satisfy demand.

Business Continuity
NHSBT is the sole supplier in England of short shelf life biological products (e.g. blood). The supply of products and services could be severely impacted by loss of a key facility, such as Filton or Speke, or loss of a critical IT platform i.e. Pulse in Blood, Haematos in DTS, and the Electronic Offering System (EOS) and National Transplant Database (NTxD) in ODT. Any sustained business outage would have a significant impact on the NHS and its patients.

Transcription Error Resulting in Harm to Patients
Within the NHS clinical pathways that NHSBT supports there are numerous "hand offs" and, within NHSBT, ongoing use of certain paper based and verbal processes. This is particularly prevalent within the organ donation and transplantation pathway as well as in the provision of our diagnostic testing services. Although mitigated by extensive control checks there remains a residual risk that these are ineffective and result in transcription errors that could cause serious harm to NHS patients.

Safety of Blood donors
The processes involved in taking blood from donors (and also in respect of stem cell donation) can result in direct harm. There can also be consequential harm to donors through the impact of fainting after donation. In addition, there is a risk of making donors iron deficient through regular donation.

Financial risk and uncertainty
Uncertainty in ODT relates to the sufficiency of funding provided by the four UK governments to enable delivery of strategic targets. In Blood and DTS uncertainty applies to pricing and the willingness of the NHS to accept the prices proposed by NHSBT (exacerbated by the ongoing decline in demand for red cells and the limited opportunities available to further, and safely, reduce capacity).

Data management
NHSBT securely holds a large number of records for donors, NHS patients and potential donors and it is vital that we maintain and hold this data in ways which meets all legal requirements.

The above non-financial risks are mitigated by our critical control systems (for example our quality management systems, our clinical governance processes and our business continuity arrangements). Further detail on our risk environment and the effectiveness of our controls is provided in the Governance Statement (page 37) where it is noted that a review of governance and risk management is underway.

Performance Analysis

Strategic Objectives

NHSBT is operationally unique within the UK and has characteristics that cannot be found anywhere else apart from similar services in other countries of the world. Even amongst our international peers NHSBT is unusual in that the supply of blood, organs, stem cells and tissues is provided by the one national organisation. To deliver this NHSBT operates a Divisional structure comprising:

- Blood
- Organ Donation and Transplantation (ODT)
- Diagnostic and Therapeutic Services (DTS)

Our ambition is simple: we want to be recognised as the best service of our type in the world, and evidence this through benchmarking of our outcomes and performance. Strategic plans have been developed for each of Blood, ODT and the individual business units within DTS. The plans identify distinct strategic objectives, targets and plans for each business and are summarised below. The segmental reporting within these accounts (Note 2) reflects the strategic structure of NHSBT and identifies the income, contributions and allocation of overheads that are applied to each.

Taking each of our Divisions in turn:

Blood Components

***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.*

This objective is expressed in the Blood 2020 strategy that was published in January 2015. The external environment relating to Blood is now, however, significantly different from that envisioned by Blood 2020 and a new strategy is therefore being developed. Extensive engagement with donors and the NHS blood transfusion community is planned. It will also take into account the halting of the Core Systems Modernisation (CSM) and how NHSBT will modernise and renew the critical IT systems that

underpin the blood supply chain. It will also recognise the pressures that transfusion services within the NHS are facing and will review the opportunities to alleviate the pressures through driving greater direct integration of the blood supply chain with transfusion services. As such the scope is large and hence the new strategy is targeted for completion in March 2020.

Organ Donation and Transplantation

***Strategic Objective*:**
Through our vision for "Taking Organ Transplantation to 2020" we will build on the excellent progress of the last five years and aim to match world class performance in organ donation and transplantation.

The 'Taking Organ Transplantation to 2020' (TOT2020) strategy was published in June 2013 We continue to work towards the 2020 strategy that aims to achieve the following outcomes for organ donation and transplantation:

Outcome One *– Action by society and individuals will mean that the UK's organ donation record is amongst the best in the world and people can donate if and when they can.*

Outcome Two *– Action by NHS hospitals and staff will mean that the NHS routinely provides excellent care in support of organ donation and every effort is made to ensure that each donor can give as many organs as possible.*

Outcome Three *– Action by hospitals and staff means that more organs are usable, and surgeons are better supported to transplant organs safely into the most appropriate recipient.*

Outcome Four *– Action by NHSBT and Commissioners means that better support systems and processes will be in place to enable more donations and transplant operations to happen.*

In conjunction with the four UK Health Services, and the transplant community, a new strategy is under development to take organ donation beyond 2020. This will take into account the extensive work that is underway to introduce opt out legislation in Scotland and England (adding to that already in place in Wales) and will plan to maximise organ donations and transplants to minimise the numbers who die waiting for a transplant.

Diagnostic and Therapeutic Services (DTS)

The DTS Division supplies a range of biological products and specialist diagnostic services through the Strategic Business Units (SBUs) described below. Strategic plans have been developed for each business that captures its purpose and the rationale for its inclusion within the NHSBT portfolio of businesses. Each of the DTS business units operate on a national basis with a unique footprint of facilities and capabilities and are often competing with other parts of the NHS. A common objective of each business, therefore, is to leverage this capability and seek the opportunity to consolidate the provision of such services to the NHS. In turn this should generate benefits of scale and drive greater efficiency, higher safety and better availability of specialist services and therapies for NHS patients.

The objectives for each business are:

Tissue and Eye Services: *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.*

Therapeutic Apheresis Services: *To become the NHS preferred provider of high quality, cost effective therapeutic apheresis services.*

Within ***Diagnostics*** we recognise two SBUs and their associated objectives:

***Red Cell Immunohaematology (RCI)**: To position RCI as an innovative, integrated, technologically-enabled service that saves patients' lives by ensuring they have access to precisely matched blood when needed.*

***Histocompatibility & Immunogenetics (H&I)**: To maintain our position as the UK's largest provider of H&I services 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.*

Within ***Stem Cell Services*** we also recognise two SBUs, these are:

***Stem Cell Donation and Transplant (SCDT)**: 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.*

***Cellular & Molecular Therapies (CMT)**: To establish NHSBT as the preferred provider of established cell therapies to the NHS, and of innovative cellular and DNA-based therapies for academic and commercial organisations.*

Over time NHSBT has developed a unique national infrastructure to facilitate stem cell (bone marrow) transplantation. We are able to utilise this infrastructure to support the development of next generation stem cell therapies which use stem cells and bioactive molecules to regenerate tissues ('regenerative medicine') and to selectively destroy cancerous cells ('cancer vaccines') and viruses. As a result, NHSBT is planning to deploy its capabilities in providing donor stem cells and strengths in specialist manufacturing, regulatory expertise, distribution and delivery to the bedside and Research & Development to support the development of the regenerative medicine industry in the UK.

Corporate

To support the operating Divisions, we operate an R&D programme, and provide high quality and effective group services at the corporate level.

Our R&D programme for Blood includes research in to donor health and process optimisation to improve efficiency of our collections. We are also undertaking studies to determine the behavioural factors which lead people to donate. We continue to investigate emerging infections and the possibilities for screening and inactivating such threats. We are also developing approaches to make blood components more universal and more clinically effective with the intent of simplifying transfusion.

In ODT we are developing an R&D programme, in conjunction with hospital partners, to assess novel methods for improving the quality and number of organs available for transplant. We continue to maximise the use of donated organs by supporting research in transplantation nationally.

Within DTS we have deployed next generation diagnostics which have improved the availability of matched stem cells and blood components. We are examining potential alternatives to donated blood, such as blood derived from stem cells. Our research programmes in Tissues, primarily based on partnerships with academic partners, are identifying the next generation of tissue-based therapies that would meet the unmet needs of NHS patients.

Consistent with an organisation whose mission is to 'save and improve lives', we are committed to sustainable development and minimising wherever possible the impact of our operations on our environment. We believe that sustainability is an important value of our donors and that NHSBT should meet their expectations when they make their 'gift of life'. In July 2015, we set ourselves challenging targets for completion by 2025. These included to cut carbon emissions by 50% over a 2014/15 baseline and to achieve zero waste to landfill (excluding clinical waste). Our sustainability report can be found on page 23.

Operating Review

Key Performance Headlines 2018/19

Blood

2018/19 has been a very challenging year due to:

- The impact of the CSM programme to replace the Pulse system that supports the collection, processing and distribution of blood and which was halted in October 2018 following a Board decision in September 2018. Pulse will now be upgraded to safely support operations for a further five years. The timeline regarding the CSM project, the governance implications and the consequential impact is described further within this report (see Governance Statement on page 42).

- Issues with collection performance that resulted in unacceptably low levels of red cell stocks from December 2017 to November 2018 due to low collection levels, bad weather, a significant increase in new donors and changes in iron tests which meant more donors could not donate. Since November 2018 red cell stocks have returned to being consistently at, or indeed above, target levels. It required significant effort from across all parts of the supply chain to restore the stock position and we regret that it created undue pressure on the blood collection teams over the extended period of low stock levels. We are satisfied, however, that the factors affecting the collection performance have now been addressed, although it generated a strong focus on short term issues for an extended period and hence delayed development of a new strategic plan for Blood.

ODT

There were 1,600 deceased donors in 2018/19 1.7% higher than in 2017/18, and another new record for the UK. As a result, there were 3,959 deceased transplants in 2018/19, although this was 2.0% lower than the previous year. The fall in transplants versus the increase in donors reflects a decrease in the number of transplantable and transplanted organs per donor. The new strategy will set out how we will maximise both the number of donations and the number of transplants.

DTS

Income in 2018/19 at £81.1m (2017/18 £75.0m) was 8.1% higher than last year. This was driven by strong growth in Tissues and Eyes, Therapeutic Apheresis Services, Red Cell Immunohaematology, Cellular and Molecular Therapies. Issues of cord blood units, and the number of bone marrow provisions, however, both continued to decline. As a result, NHSBT will be working with the haematopoietic stem cell transplant community during 2019/20 to review and renew the UK strategy.

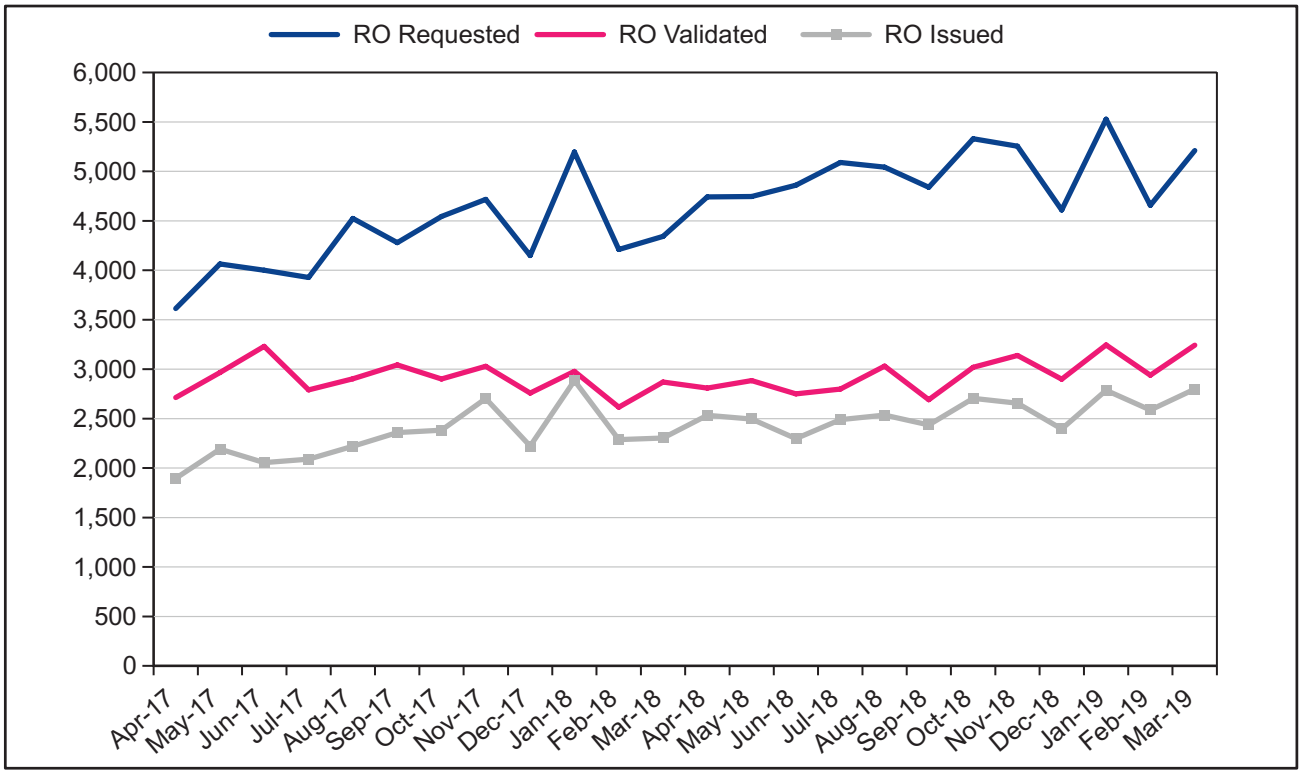
Further detail is provided below.

Blood

We continued to see a decline in demand for red cells with issues of 1.417 million units in the year, 1.9% lower than 2017/18, but 1.4% higher than plan. However, demand for O negative red cells increased as proportion of total demand, from around 12% last year to 12.5% in 2018/19. In the final months of the year there were also large monthly fluctuations in demand for this type. Following restoration of overall stock levels in November 2018, O negative stocks, have remained safely above minimum levels but this will need to be closely monitored as we go forward. In mid-2018 we rebalanced our marketing efforts away from recruitment to focus much more strongly on reactivation and retention of lapsed O negative donors. This resulted in active O negative donors increasing from around 104,000 in June 2018 to 110,000 by March 2019, which helped restore stock levels and has provided a donor base that has been effective in meeting the high and fluctuating demand levels seen in late 2018/19.

As above, the demand from hospitals for O Negative red cells is higher but issues by NHSBT are higher still, as a proportion of total issues. This is because O Negative is the universal red cell type which can be given to anyone needing blood when the ordered blood group is unavailable. Substitution levels have been increasing since 2015/16. The main cause is a shortage of Ro red cells. The graph below shows growth in demand of around 15% p.a. and a growing issue shortfall of 3000 units in March 2019. This shortfall in Ro is met by issuing O negative red cells. The rise in demand for Ro is due to changing clinical practice in the treatment of patient with sickle cell disease. While there is no direct link between sickle cell disease and the Ro blood type, sickle cell patients require multiple transfusions with a more accurate blood match, driving up demand for this type. NHSBT is implementing plans to increase the supply of Ro red cells. NHSBT has insufficient number of Ro donors and so investments are being made to reactivate donors who have stopped donating and recruiting new donors. Donor recruitment is focussed on black donors who are more likely to have the Ro sub-type and be a closer match to the patient needs.

Ro red cells demand (requested), approved for issue (validated) and issued - to March 2019



As noted above, levels of red cell stocks were significantly below target from December 2017 to November 2018. The initial cause for the low red cells stocks was low blood collection levels in the run up to December 2017. As a result, we entered the winter period with much lower stocks than planned. Insufficient stock levels were then exposed by the impact of the poor weather (the “beast from the east”) in late February/early March 2018 following which stocks fell to historically very low levels. Although stocks should have recovered from that point on, the impact of other activities (in particular very high levels of new donor recruitment and the introduction of revised copper sulphate testing protocols) impacted collection performance and put undue pressure on collection teams with stock only recovering to target levels in late October.

Despite the period of low stocks, it is remarkable that delivery performance remained strong and, in fact, continued to improve during the year with “on time in full delivery” (OTIF) to hospitals reaching 98.6% by the end of 2018/19 (excluding substitution of Ro red cells) versus our target of 97.0% and a further healthy improvement on the 96.9% recorded last year. In addition:

- Management of platelet stocks and other component supply remained robust through the year (albeit, due to contracting issues, stocks of imported plasma components were lower than ideal during the year but have since also recovered).

- There were no Serious Incidents (SIs) during the year related to blood safety and no adverse trends in the reporting of adverse events following transfusion.
- From a customer perspective, and despite frequent periods of demand management with hospitals in response to low stock levels, hospital satisfaction improved during the year from over 66% in March 2018 to 85% by March 2019 (measured as the percentage of customers scoring 9 out of 10 or higher for overall service). Reflecting the pressures on collection teams described above donor satisfaction fell from around 77% at the end of 2017/18 (measured as the percentage of donors scoring 9 out of 10 or higher for overall service) to 70% in August 2018 but has since returned to last year's levels post November 2018. Similarly, donor complaints (measured as complaints per million donations) increased from around 500 in 2017/18 to above 700 in mid-2018 but has since fallen back to below 500 in March 2019.

Regarding regulatory performance there were two "major" regulatory non-compliances reported following regulatory inspection by the Medicines and Healthcare Products Regulatory Agency (MHRA) during the year, versus the twelve "majors" reported in 2017/18. This reflects marked improvements during the year including significantly reducing the number of overdue items within our Quality Management System in particular.

In addition, we continue to manage the ongoing demand decline for red cells, through delivering further efficiency improvement where it is safe to do so. The ongoing reduction in demand continues to be the primary challenge in Blood and, continuing to remove fixed capacity at the same rate as demand decline is becoming increasingly difficult. In the recent past NHSBT has closed excess capacity in processing and testing and closed a further two processing sites (Sheffield and Newcastle) during 2017/18. As a result, we can demonstrate world class productivity levels in these areas and blood prices that are amongst the lowest in the developed world. This outcome has also been supported by productivity improvement in blood donation, although productivity in this area is currently declining following the addition of around 150 staff to blood collection in late 2018 in response to the low stocks issue. Looking forward the ongoing expectation that red cell demand will continue to decline with pressure on costs (blood donation productivity, inflation, pension costs etc) is likely to see the need for price increases of around 5% pa over the near term.

Organ Donation and Transplantation (ODT)

We are immensely grateful to the 1600 people who donated their organs for transplant in 2018/19 and their generous families who supported their donation. This was a record number of organ donors in the UK and resulted in 3,959 organs being transplanted in that year. However, the number of transplants undertaken was 2% lower than the previous year. While there was an increase in the number of individuals donating there were, on average, fewer organs transplanted from each donor. This is believed to be due to the age and health profile of our potential donors.

At these levels, we are starting to fall behind the targets established by the 'Taking Organ Transplantation to 2020' strategy. Donors were 2% lower than the strategic target with transplants 13% lower than target. The underlying trends are also adverse, with the moving annual total of donors and transplants currently both falling. Nonetheless we should remember that, compared to the baseline year of the original Organ Donation Task Force (2007/08), there has now been a 98% increase in deceased donors and a 66% increase in deceased donor transplants. Going forward the change to an 'opt out system' for donation consent, and projects to extend the life of organs and ensure enough resource in transplant centres are expected to increase transplant numbers further.

Around 1.1 million new (opt in) registrants were added to the Organ Donor Register (ODR) in 2018/19, broadly in line with last year. A new ODR was implemented in 2015/16 to support the introduction of the Human Transplantation (Wales) Act 2013, which introduced a system of "soft opt out" for organ and tissue donation in Wales from 1 December 2015. The register now supports the opt out arrangements in Wales, alongside the opt in arrangements that currently apply elsewhere in the UK. At the end of 2018/19, there were around 640,000 opt-out registrations (versus 520,000 as at 31 March

2018) across the UK. The ODR is now being data cleansed (to remove duplications where individuals have registered more than once) and developed to support the opt out system in England.

During the year ODT continued to implement the ODT Hub Programme. The vision of this project is to provide "*a simpler, safer and responsive service that supports clinicians in matching world class performance in organ donation and transplantation, with a clinically led 24/7 support centre at its core and renewed technology as its foundation*". The project continued to go well during 2018/19, delivering its business case cost and the following developments:

- A digital donor assessment (iPad based) module which has delivered significant changes including a single process for nurses to assess potential deceased organ donors.
- A digital post-transplant outcome record ("HTA B"). This CRM-based product will have over 500 (mainly external) users at its fullest extent and provides a simple, time-saving way of communicating outcomes and meeting regulatory requirements.
- A new Interactive Matching Run tool used for controlling the process of offering organs and providing a fully usable product for hearts, lungs, intestinal and liver organs.
- A kidney and pancreas offering scheme which is due to enter live use in July 2019.

Diagnostic and Therapeutic Services (DTS)

Activity in DTS during 2018/19 has continued to focus on delivering more high-quality products and services for NHS patients. The DTS strategic business units 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 reduced prices and investment to develop new and improved therapies.

The outcome of this approach can most obviously be seen in **Therapeutic Apheresis Services** where income growth of 15% was seen as a result of increasing demand for the nationally based services that it offers. Growth of 15% was also seen in **Tissue and Eye Services** with strong growth, in particular, for autologous serum eyedrops.

Growth of 8% was also seen in **RCI**, and a doubling in sales of the products and services provided by the Clinical Biotechnology Centre (part of **Cellular and Molecular Therapies**). This resulted in overall growth of 8.1% for DTS (to £81.1m, including both invoiced sales and income from the Department of Health and Social Care (DHSC) in support of stem cell donation / cord blood banking).

We built the NHS Cord Blood Bank to ensure equity of access for patients to suitably matched un-related stem cells. We focus in particular on patients whose ethnicity is under-represented on the other panels. We aim to hold 20,000 units by the end of 2020. Clinical practice is evolving and where a sibling donation is not available, clinicians now often use 'haplo-identical' (a partially-matched family donor) options in preference to an unrelated donor or cord blood. As a result the bank issued only 44 units in the year (against a target of 63). We will be working closely with the clinical community to understand how demand might change over the next five years. NHSBT remains committed to having 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. Costs of the blood bank will reduce going forward as the bank transitions from growing to maintaining stock levels. BBMR issues were also lower than plan with 217 versus a target of 240 (and 243 last year). Actions are planned to optimise the BBMR registry to meet patients' needs more often from the UK.

Across the DTS portfolio there were two "major" regulatory non-compliances (versus 5 reported in DTS during 2017/18) (see page 42). Also, an internal inspection identified that during the year there was a collection of cord tissue for a trial undertaken without the correct variation in licence from the Human Tissues Authority. See page 42 for more information. Customer satisfaction across the DTS portfolio

was good with all services ahead of plan. Patient satisfaction was 97% (the same as last year) in Therapeutic Apheresis Services (TAS) which is the only part of NHSBT that directly treats NHS patients.

Research and Development (R&D)

Our world-leading R&D programme informs international best practice in transfusion, transplantation and regenerative medicine. During 2018/19 we:

- Completed the HLA-Epitope trial which demonstrated that HLA-epitope matched (HEM) platelets are as clinically effective as standard matched platelets for correcting platelet counts;
- Completed the PlaNeT-2 trial of platelet transfusion in neonates which shows that having a lower threshold trigger for transfusion significantly improves patient outcome;
- Developed a series of improvements to the blood supply chain, including an alternative red cell washing method and 5-day plasma, which have decreased waste, improved quality and reduced costs;
- Established an NHSBT Patient Advisory Group (PAG) consisting of members of the public (donors, carers, recipients) who will provide valuable insights into the design, delivery and prioritisation of our R&D Programme;
- Continued the recruitment of organ donors to the Quality in Organ Donation (QUOD) study to support a National BioBank which now contains samples from over 3,000 individuals;
- Continued to work with the four National Institute for Health Research (NIHR) Blood and Transplant Research Units to deliver translational research in donor health, organ donation and transplantation, stem cells and immunotherapies and manufactured blood cells;
- Initiated an Innovate UK funded project to apply artificial intelligence and machine learning to optimise the platelet supply chain;
- Published the results of our research in 200 scientific papers in International journals.

Financial Review

Trading Performance

NHSBT is required to report on a ***Net Expenditure*** basis with programme funding provided by the DHSC recognised in the general reserve. The Board and Management of NHSBT, however, review NHSBT's financial performance on an ***Income and Expenditure*** **basis**, as this is more appropriate to the trading nature of most of NHSBT's activities. On this basis NHSBT generated a surplus of £12.7m in 2018/19 compared to a £10.2m deficit in 2017/18 and a budgeted deficit of £0.6m.

Note 2 of the accounts reconciles the deficit position described above to the net expenditure basis on which the primary statement of these accounts is prepared. The note further provides a segmental analysis of our financial performance that is consistent with the business units defined by our strategies and the presentation of our management accounts.

Consistent with its constitution NHSBT would normally be required to deliver a balanced income and expenditure position (i.e. no planned surplus or deficit). Due to the significant investment required to

replace our IT infrastructure and systems, and especially the CSM programme, NHSBT has, through price management and prior year surpluses, generated internal cash reserves to fund the investment. NHSBT ended the year with cash of £28.4m (see note 13 in the financial statements). Although the CSM Programme has now been halted NHSBT continues to have a need to invest in its ageing infrastructure and will need to consider the alternative options for replacing or renewing the Pulse blood management system. The cash reserves will therefore be retained to fund these investments and hence avoid the price increases that would otherwise be required.

NHSBT receives most of its income through the prices of blood components (based on cost) charged to NHS Hospitals. This income was £262.9m in 2018/19 (0.8% higher than the £260.7m recorded in 2017/18). The higher income seen in 2018/19 arose primarily from the impact of price increases (+3.6%) that more than offset the impact of demand decline (-1.9%).

NHSBT also receives income from prices charged for diagnostics services, tissues, stem cells and therapeutic apheresis services (TAS) within DTS, again based on cost. Excluding programme funding, and other income this amounted to £70.4m in the year (£66.3m in 2017/18). As noted in the Operating Review above the income growth in DTS was particularly driven by growth in TAS (+15%), TES (+15%) and RCI (+8%).

In addition to income from the sales of products and services the DHSC provided programme funding of £69.2m for the year (£66.1m in 2017/18). £62.3m of this (£61.9m in 2017/18) was allocated to Organ Donation and Transplantation with £4.3m funding the development of the NHS Cord Blood Bank (£3.9m in 2017/18). NHSBT also received contributions in the year of £11.7m from the devolved UK Health Departments to fund our UK wide activities in Organ Donation and Transplantation (compared to £11.8m in 2017/18).

We additionally received £13.2m of “other” income (£10.0m in 2017/18) for cost recovery of services provided. £6.9m of this is related to the ad-hoc delivery of blood components to hospitals, over and above the scheduled deliveries within our service level agreements (which are included in prices) (£5.3m 2017/18).

As noted above, NHSBT generated a surplus of £12.7m in the year (versus a £10.2m deficit in 2017/18), and significantly higher than the deficit of £0.6m that was originally planned and budgeted. The segmental analysis in Note 2 identifies a surplus of £19.2m for Blood (£4.5m deficit in 2017/18), a £8.8m deficit for ODT (£7.4m deficit in 2017/18) and a £2.3m surplus in DTS (£1.7m surplus in 2017/18).

The significant surplus in Blood reflects higher income, much lower transformation costs, higher stocks (and hence a high fixed cost movement in stock), only marginally offset by an increase in underlying operating costs driven by the response to the low stock position. Transformation costs in Blood were £9.1m in 2018/19 versus £24.2m in 2017/18 with the halting of the CSM Programme being the primary driver for the reduction.

The deficit in ODT reflects the apportionment of NHSBT overhead to the operating unit. Funding received by ODT to implement the recommendations of the Organ Donor Taskforce, and which saw income in ODT grow from c.a. £15m in 2007/08 to £74m now, was provided on a marginal cost basis. This did not fund the shared group services provided by NHSBT to ODT. The full cost is reflected in our activity-based cost model and reports an underlying cross subsidy from Blood and DTS to ODT of around £9m in 2018/19. The existence of the cross-subsidy is recognised by both the DHSC and the National Commissioning Group for Blood. A request has been made to DHSC to consider removal of the cross-subsidy as part of the new spending review.

The surplus in DTS of £2.3m in 2018/19 comprises surpluses across most of the business units with the exception of deficits in Tissue and Eye Services (TES) and Cellular and Molecular Therapies (CMT). The surpluses reflect the growth in income seen across the businesses and hence a growth in contribution. The deficits in TES/CMT are expected to turn to surpluses in the near term due to increased sales and price increases.

Capital Spend

NHSBT spent capital of £9.0m in 2018/19 funded by the DHSC on a cash basis, versus £6.6m in 2017/18. Much of this was incurred in the continual improvement of manufacturing and laboratory facilities, replacement of the manufacturing and testing equipment, and IT hardware / applications used to support our operations. The increase reflected early spending on the investments in a new site at Barnsley and the new Clinical Biotechnology Centre being constructed at Filton. These two major projects will see capital spending increase significantly in 2019/20 to an expected level of around £27m.

The DHSC £9.0m funding covered the cashflow from investing activities of £13.3m less the £4.4m non-cash element of this, relating to the Barnsley lease, shown as a movement in financial liabilities plus the capital element of finance leases £0.1m (see Cashflow Statement).

Property Revaluation and Other Revaluation Movements

NHSBT property assets are subject to a full professional revaluation every 5 years in line with our accounting policy and Treasury's FReM guidance. At 31 March 2019 all owned, and finance leased properties (as determined under IAS17) were revalued by the Valuation Office in line with RICS guidance. Immediately prior to the revaluation, land and property assets were held at the previous valuation value uplifted by annual 'desk' valuations and all capital additions to the property for the previous 5 years. The revaluation increased the net value of land and buildings by £11.0m (see note 10 other in year revaluations cost and depreciation for Land and Buildings). This net movement included increases of £9.2m at Cambridge, which had not previously been classified as a finance lease, £4.8m at Liverpool which had not previously been classified as a full building finance lease and £4.3m at Filton where value increases exceeded costs paid to enhance the asset. Some property values decreased including a decrease of £9.5m (of which £0.9m resulted in an impairment) across Leeds and Sheffield assets as they were re-valued on a 'modern equivalent asset basis' reflecting the reduced area of land and property required for operations and using the Barnsley site to assess the modern equivalent requirements for re-valuation.

The total revaluation movement in the year of £13.7m included the property revaluation £11.0m (see above), £1.4m net revaluation on intangibles (see note 9), £1.2m net revaluation on IT assets (see note 10) and £0.2m indexation on plant and machinery (see note 10).

Net Assets

As shown on the Statement of Financial Position, net assets have increased to £266.1m from £240.1m at March 2018. Non-current assets increased £15.2m due to capital additions and a 5-year asset revaluation. Inventories increased by £6.8m compared to prior year including stock increases in blood and components £4.1m, an advance purchase of copper wafers £1m and £0.8m to build stock as part of our Brexit plans. Cash has increased from £23.5m to £28.4m. The cash balance has arisen over recent years from cumulative surpluses retained to invest in transformation including enhancing our IT systems.

NHSBT is the corporate trustee for NHSBT Trust Funds. The total net assets of the trust funds as at 31 March 2018 were £0.342m (compared to £0.316m in March 2017). The 2018/19 Trust Fund Accounts will be published in December 2019. Although the Trust Fund assets are controlled by NHSBT a consolidated account is not produced due to their lack of materiality. The 2017/18 Trust Fund Accounts are available on NHSBT website at https://www.nhsbt.nhs.uk/who-we-are/transparency/accounts/trust-fund-accounts/.

They are also available on the Charities Commission website.

There were no significant contingent liabilities to report as at 31 March 2019. For full details refer to note 18 contingent liabilities in the financial statements.

Sustainability Report

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, NHSBT has achieved a 25% CO2 saving against the 2014/15 baseline but the trend has flattened in 2018/19 compared to the prior year due to increased consumption of electricity following increased activity in DTS driving a greater need for environmental cooling. Going forward, however, our new Barnsley site and changes within our Transport area will improve our emissions levels.

Environmental

NHSBT continues to operate a maturing ISO14001:2015 environmental management system. The system is externally certified by BSi and regularly audited for legal compliance and to ensure it continues to meet the standards requirements.

Projects currently delivered/underway are:

- Tender completed for EVCP (Electric Vehicle Charging Points) contractor. EVCP points have been installed at Filton, Liverpool and Manchester. NHSBT has included all main centres in the contract specification, to allow other sites to be readily brought online. The new Barnsley Centre has been designed to allow for EVCP points to be available for staff and the logistics function, upon completion.

- A 200KvP Solar PV system, at NHSBT Manchester has been installed. This system has the capacity to cover 30% of the sites peak demand.

- A Solar PV system has been installed as part of the new Barnsley Centre construction. Allowing the site to use self generated electricity, upon completion and reduce its reliance on grid power.

Approved or Planned Developments

NHSBT operates a change programme comprising a portfolio of projects to deliver ongoing safety of our products and services, operational resilience and business process improvement. Over the last two years the CSM programme has been the most significant focus. Following the halting of CSM, a new programme is starting to emerge but further analysis of options to replace Pulse are required. Meanwhile our programme includes:

- **Blood**
  The most significant project within Blood is the Session Solution project which was initially conceived as a project within the CSM programme. Along with replacing the ageing hardware that currently supports blood collection sessions, the project will also deliver new web enabled hand-held devices that will allow the existing paper-based process in blood collection to be replaced. This will improve both safety, through reduced manual transcription risk, and efficiency. The project was approved by the Board in May 2019 and will roll out to blood collection teams over 2019/20. In addition to this a fundamental option appraisal will be conducted to consider how the Pulse blood management

system, in its current form, will be replaced. Options will involve replacing the components that comprise the Pulse system (hardware, database, operating system and applications), an existing blood management system (as used by other blood services) or a platform approach similar to the CSM Programme. In the short term the Pulse hardware will be replaced as part of the Data Centre Hosting Project (see below),

- **Organ Donation and Transplant (ODT)**
  2019/20 is year 4 of the original ODT Hub project. This phase of the project is more complex and was due to use the platforms established by the CSM programme. As CSM has been halted, the way forward for the ODT Hub project is now under review. The Board has approved £1.2m for the first 6 months of 2019/20 only, funding the completion of in-train developments, while the plans for donor and patient functionality are reviewed. Ultimately it is expected that the original ODT Hub Project will complete mid-year and then be re-established as a new 2-3 year programme to deliver the more complex objectives of the original programme.

  In addition to the Hub project, ODT will be supporting implementation of opt out legislation in both Scotland and England. Substantial work has already been undertaken to link the Organ Donor Register with the 'NHS App' allowing people to easily express their consent. In England, on behalf of DHSC, we will be undertaking major marketing campaigns to ensure there is sufficient awareness of the law changes. We will also be implementing changes to ensure NHS staff involved in organ donation and transplantation act in compliance with the law and to ensure sufficient capacity is in place to deliver the expected increase in organ transplants.

- **DTS**
  The projects across DTS are smaller except one to replace the Clinical Biotechnology Centre in Bristol and house it within an extension to our Filton Centre. The proposed investment will require around £8m in 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 will be reviewed by the Board in July 2019 and, if approved, will represent a major investment in "UK Plc" capabilities in regenerative medicine.

- **Group**
  NHSBT needs to invest in the resilience of its IT infrastructure and cyber security. This will involve a range of projects. The largest project will replace our infrastructure, which is reaching end of life, and relocate this to a new data centre (i.e. the government Crown Hosting environment). This is a critical piece of work for future resilience and requires excellence in execution so IT availability is never lost during the period of upgrade and transfer. The project is due to be approved by the Board later in 2019/20 once initial analysis, planning and design has been completed.

  We also continue to develop our Estate and respond to the needs of the business. The largest project involves the closure of the Leeds and Sheffield centres and consolidation into a new centre at Barnsley. This is the largest building project since we opened the Filton site in 2008. The project was approved by the Board and DHSC during 2017/18 and is progressing well. The building has been completed to plan and is now being fitted out. A critical component of this fit-out is the construction of a new clean room suite. NHBST is due to move into the new centre in Summer 2020.

Principles for Remedy

We strive to provide a good, timely and cost-effective service to our customers, so if we fail to deliver the expected service we ask our customers to let us know. Then we take steps to put things right, understand what happened and do what we need to improve. Our complaints procedures are in line with best practice published by the Parliamentary and Health Ombudsman. Our contact details are published on our compliments and complaints leaflets and on our websites. Customers can complain or compliment us in person, by phone, via the website, social media or email. We receive compliments

and complaints from Hospitals, Blood Donors and from Organ Donor families. The paragraphs below outline the activity and level of complaints in each area during the period.

Learning from Hospital Compliments and Complaints

In 2018/19 we issued 1.87 million components, made 135,000 deliveries, dispatched 300,000 units of reagents and Red Cell Immunohaematology (RCI) performed diagnostic tests on 72,000 patient samples to support hospitals. In the same year we received 282 formal compliments (349 in 2017/18) citing staff for great service and highlighting how often we go 'above and beyond' to support hospital need and patient care. We also received 882 complaints (900 2017/18) from hospitals showing us where we had not delivered to our high standards but also providing us with opportunities to improve service. Every complaint was investigated, and the outcome reported back to our customers. We report complaints throughout our business and up to our Board, to provide assurance. Learning from all complaints helps us remove the causes, improve service and protect patient care. Complaints are managed by our team of Hospital Customer Service Managers' who provide a local contact and national influence.

Through our satisfaction survey and other feedback, we are assured by our hospital customers that we are delivering valued services to a high standard. Overall 100% of our transfusion customers are satisfied or very satisfied with NHSBT. This level of satisfaction reflects the value we place on responding to feedback, involving customers and making change to ensure NHSBT is as easy as possible to work with.

We will continue to involve and collaborate with hospitals throughout our services to transfusion. We work in partnership with the National Transfusion Laboratory Managers Group and National Blood Transfusion Committee on behalf of the hospital transfusion community, ensuring a 'hospital voice' and effective challenge is in place.

Managing Blood Donor Compliments and Complaints

We have seen an increase in the number of blood donors who complained last year from 4165 in 2017/18, to 5479 in 2018/19, compared to our target of 4900.

In the year our Top Box scoring, where we measure donors who give us nine or ten out of ten for overall satisfaction, was at 74.9% (77.0% 2017/18) versus a target of 78%. We also received 6,843 compliments (10,021 2017/18) and 13,517 complaints (14,568 2017/18) in relation to Blood Donation. We responded to 91.8% of complaints from our blood donors within 18 days (93.9% 2017/18), against our target of 90%. In 2018/19, blood stocks went below minimum target levels on several occasions. There were concerted efforts to recover stock level through maximising collections. The urgency to boost stocks lead to a reduction in donor experience. The other main driver in donor experience were challenges around attempting to manage large numbers of new donors into our appointment grids whilst satisfying demand for existing donors. We recognised these challenges and have implemented new strategies which have considerably improved this performance over the second half of 2018/19. These include bolstering our front-line operational teams and developing a dedicated account management team to focus on reactivating lapsed donors, leading to a reduced emphasis on new donor recruitment, whilst delivering an improved donor experience.

We received two requests for information from the Parliamentary Ombudsman to reply to, but no formal complaints.

Managing Organ Donation Complaints

Complaints within ODT are received from members of the public, family members of organ donors, hospital staff involved in the donation and transplant pathway and occasionally transplant recipients or their family members. We are committed to responding to complaints and feedback in a timely, transparent and open manner.

Alongside this we are committed to ensuring that our processes are flexible and meet the needs of individual complainants. Targets are in place to ensure a timely response to the complainant and direct contact is made in all cases where contact details have been provided. ODT staff have facilitated 1600 proceeding donors during the period April 2018 to March 2019. During this timeframe we have received 39 complaints. Of the 39 complaints, 26 were clinical and 13 non-clinical.

All complaints are reviewed, analysed and reported to the ODT Clinical Audit, Risk and Effectiveness Group (CARE). Trends are discussed to ensure learning informs the continued development and improvement of ODT processes and practice.

ODT continue to receive regular compliments about the service. For the same timeframe, 107 compliments were received and shared with all staff via Complimentary Tales: a quarterly newsletter that celebrates success within the Directorate.

Ethical supply chain

NHSBT is committed to upholding human rights, anti-corruption, anti-slavery and anti-bribery within NHSBT and throughout the supply chain. Audits, reviews and checks are carried out on an ongoing basis across the supplier base, to ensure compliance.

Accountability Report

Corporate Governance Report – Directors' Report

I hereby sign the Accountability Report from pages 27 to 66.

Betsy Bassis
Chief Executive and Accounting Officer

14 June 2019

Board Members

Current members:

Chief Executive

Betsy Bassis

Chair

Millie Banerjee

Non-Executive Directors

Lord Oates

Professor Paresh Vyas

Keith Rigg

Charles St John

Jeremy Monroe

Helen Fridell

Piers White - MBE

Executive Directors

Dr Gail Miflin
Medical and Research Director

Dr Huw Williams
Director of Diagnostic and Therapeutic Services

Greg Methven
Director of Manufacturing and Logistics

Rob Bradburn
Director of Finance

Anthony Clarkson
Director of Organ Donation and Transplantation

Board Members serving during the period 1 April 2018 to 31 March 2019:

Chief Executive

Ms Betsy Bassis – joined from 4 March 2019. Accounting Officer from 29 March 2019
Mr Ian Trenholm - left 29 July 2018
Ms Sally Johnson OBE - Interim Chief Executive from 30 July 2018 to 29 April 2019. Accounting Officer from 30 July to 28 March 2019.

Chair

Ms Millie Banerjee

Non-Executive Directors

Lord Oates
Professor Paresh Vyas
Mr Keith Rigg
Mr Charles St John
Mr Jeremy Monroe
Ms Helen Fridell – from February 2019
Mr Piers White – from February 2019
Mr Roy Griffins CB – left December 2018
Ms Louise Fullwood – left December 2018

Executive Directors

Dr Gail Miflin – Medical and Research Director
Dr Huw Williams – Director of Diagnostic and Therapeutic Services
Mr Greg Methven – Director of Manufacturing and Logistics
Mr Rob Bradburn – Director of Finance
Mr Anthony Clarkson – Interim Director of Organ Donation and Transplantation from 30 July 2018 to 10 February 2019 and Director of Organ Donation and Transplantation from 11 February 2019
Ms Sally Johnson OBE – Director of Organ Donation and Transplantation to 29 July 2018

Details of the remuneration of senior managers of NHSBT can be found in the Remuneration and Staff Report at pages 49 to 64.

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/

The NHSBT Board

The NHSBT 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 Chairman and comprises Non-Executive Directors (NEDs) and Executive Directors, including the Chief Executive, Medical and Research Director and Finance Director. Three of the NEDs have been designated to represent the interests of Wales (NHSBT being a Special Health Authority in England and Wales), Scotland and Northern Ireland (reflecting our UK wide role for organ donation and transplantation).

As explained on page 11, NHSBT is comprised of three divisions, and one of these, DTS, comprises several ‘businesses’. Strategic objectives and targets are set for each division or business. Targets include, the safety and sufficiency of supply, customer service, operational effectiveness and efficiency as required by NHSBT stakeholders. Accountability for delivery, governance, internal control and risk management sits with the Divisional Director. The Business level and Divisional level governance is overlaid with an NHSBT integrated performance and risk management process.

The Board meets six times a year (bi-monthly) but receives a comprehensive integrated performance report every month covering:

- progress against strategic targets;
- performance against certain key indicators designed to demonstrate that key clinical, operational and safety processes are under control;
- new risks, and existing risks with an increased risk score, that have been reviewed and escalated to the Board by the Executive Management Team;
- financial performance; and
- progress against key strategic projects.

The Board reviews its effectiveness after each meeting, with a Board member assessing the group's performance against their agreed way of working, based on NHSBT values. There are annual Board Development Days and there are more formal reviews of Board effectiveness normally every three years. The latest formal assessment was in May 2015, facilitated by PwC, and utilising a PwC assessment tool. Due to the change of Chief Executive in the year this formal review was postponed until 2019/20.

The Board reviews the effectiveness of its Committees, which support the work of the Board, on an annual basis. All Board Committees are required to submit Annual Reports and Workplans which are reviewed at the Board in July each year.

Board Committees

The Board has established the seven Board Committees described below. All seven Committees were in operation during 2018/19.

The Governance & 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. During the year the GAC continued to have a strong focus on the transformation programme including the CSM programme, which was halted in October 2018 and for which lessons learned have since been received. 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.

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.

Transplantation Policy Review Committee – reviews and concludes on the policies for 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.

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. It also ensures that appropriate details of Board Members' remuneration and other benefits are published in the Annual Report.

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.

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.

Finance Committee – The Committee was formed in June 2018 and is 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.

The average attendance of Members at Board Committees during 2018/19 was:

Board Committee	(%)
Remuneration Committee	83%
Trust Fund Committee	100%
Finance Committee	83%
Governance & Audit Committee (GAC)	80%
National Administrations Committee	78%
Research and Development Committee	88%
Transplantation Policy Review Committee	65%

The remit and terms of reference are reviewed by each committee annually.

The attendance of Members at Board meetings during 2018/19 was:

Member Name	Member Position	No.
Millie Banerjee	Chair	6/6
Ian Trenholm [1]	Chief Executive	2/6
Rob Bradburn	Director of Finance	6/6
Sally Johnson [2]	Director of Organ Donation and Transplantation / Interim Chief Executive	6/6
Betsy Bassis [3]	Chief Executive	1/1
Anthony Clarkson [4]	Director of Organ Donation and Transplantation	4/6
Gail Miflin	Medical and Research Director	5/6
Huw Williams	Director of Diagnostics and Therapeutic Services	5/6
Greg Methven	Director of Manufacturing & Logistics	5/6
Roy Griffins [5]	Non-Executive Director	4/6
Keith Rigg	Non-Executive Director	6/6
Jeremy Monroe	Non-Executive Director	6/6
Charles St John	Non-Executive Director	6/6
Lord Oates	Non-Executive Director	6/6
Louise Fullwood [6]	Non-Executive Director	3/6
Paresh Vyas	Non-Executive Director	3/6
Helen Fridell [7]	Non-Executive Director	1/1
Piers White [8]	Non-Executive Director	1/1

[1] *last Board meeting was July 2018 – left NHSBT 29 July 2018*
[2] *last Board meeting was March 2019 – leaving NHSBT 29 April 2019, replacement Betsy Bassis*
[3] *first Board meeting was March 2019 – replacing Sally Johnson as Chief Executive*
[4] *first Board meeting was September 2018 – replacing Sally Johnson as Director of Organ Donation*
[5] *last Board meeting was November 2018 – left NHSBT 31 December 2018 replacement Piers White*
[6] *last Board meeting was November 2018 – left NHSBT 31 December 2018 replacement Helen Fridell*
[7] *first Board meeting was March 2019 – replacing Louise Fullwood*
[8] *first Board meeting was March 2019 – replacing Roy Griffins*

Personal Data Incidents

NHSBT follows NHS Digital's guidance on the reporting and grading of incidents. Breaches of Information Governance and Information Security standards are categorised as effecting Confidentiality, Integrity, Availability or Security (CIAS)

There are 241 incidents on record for 2018/19 (220 2017/18). As in the previous year, most incidents involved mishandling of paper documents, particularly Donor Health Check forms (DHC), nearly all of which were subsequently recovered.

In 2018/19 three incidents (0 in 2017/18) reached the threshold to be externally reportable to DHSC and Information Commissioners Office (ICO) additionally the ICO were approached for advice on a further incident when seeking their advice on appropriate actions.

Health and Safety

The table below shows the Health and Safety incidents, by NHSBT directorate, and 'Level' reported over the last four years. The definition of each level is shown below the table.

	16/17				17/18				18/19			
Level	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Blood Donation	11	6	151	506	9	4	108	656	11	3	120	766
Blood Manufacturing & Logistics	4	1	41	211	2	2	34	269	5	2	30	362
DTS	1	0	34	128	1	0	26	155	1	0	27	147
ODT	0	0	1	12	0	0	7	18	0	0	4	17
Group Services	0	0	4	57	1	0	5	100	0	2	4	80
Total	**16**	**7**	**231**	**914**	**13**	**6**	**180**	**1198**	**17**	**7**	**185**	**1372**

Level One incidents – over 7 day lost time injuries or specified injuries reported to the Health and Safety Executive e.g. fractures or injuries requiring an over 24 hours stay in hospital.

Level Two incidents – over 3 but less than 8 day lost time injuries.

Level Three incidents – injuries or near miss incidents graded as serious by Health and Safety Department based on their severity and likelihood of reoccurrence.

Level Four incidents – minor injuries or all other near miss incidents where no injury to staff.

The figures for 2018/19 are as reported to HR Direct as of 16 April 2019.

The number of level one and two incidents has increased above the prior year back to the levels of 2016/17. The number of level three incidents has increased slightly (180 to 185) with more blood exposures across Manufacturing and Blood Donation. Consistent use of guards and gloves will be monitored in Manufacturing. In Blood Donation there were more incidents in London and the South East and behavioural safety will be reviewed in this area in the coming year.

Corporate Governance Report – Statement of Accounting Officer's Responsibility

The DHSC Permanent Secretary has appointed the Chief Executive of NHS Blood and Transplant as the Accounting Officer for 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 (which disclose with reasonable accuracy at any time, the financial position) and for safeguarding the assets (and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities) are set out in Managing Public Money issued by HM Treasury.

Under the National Health Service Act 2006 and with the approval of HM Treasury the Secretary of State has directed NHS Blood and Transplant to prepare for each financial year a statement of accounts in the form and on the basis set out in the Accounts Direction. The accounts are prepared on an accrual basis and must give a true and fair view of NHS Blood and Transplant and of its income and expenditure, Statement of Financial Position, changes in taxpayers' equity and cash flow 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, including the relevant accounting and disclosure requirements, and apply appropriate accounting policies on a consistent basis;
- make judgments 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 financial statements; and
- prepare the financial statements on a going concern basis.

As Accounting Officer:

- so far as I am aware, there is no relevant audit information of which the NHSBT's auditors are unaware; and
- 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 the NHSBT's auditors are aware of that information.
- I confirm that the Annual Report and Accounts as a whole is fair, balanced and understandable.
- I have taken personal responsibility for the Annual Report and Accounts and the judgements required for determining that is it fair, balanced and understandable.

Betsy Bassis
Chief Executive and Accounting Officer

Date: 14 June 2019

Corporate Governance Report – Governance Statement

Board and Accounting Officer Scope of Responsibility

The Board of NHS Blood and Transplant (NHSBT) is accountable for ensuring that NHSBT operates in accordance with the law and all applicable regulations and, in support of this, implements appropriate governance arrangements to assure itself that NHSBT is operating as required and managing risks. The Accounting Officer, together with the Board, has responsibility for maintaining a sound system of internal control that supports the safe and effective achievement of NHSBT's policies, 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

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

The relationship between NHSBT and the Department of Health and Social Care (DHSC), along with NHSBT's accountabilities to the DHSC, are described in an NHSBT Framework Document. NHSBT's accountabilities to the Welsh Government, and to the Scottish and Northern Irish Health Departments in respect of organ donation and transplantation across the UK, are governed via certain Board arrangements and through Income Generation Agreements.

The Governance Framework

The governance structure, and supporting assurance processes, within NHSBT is described in the NHSBT Governance and Assurance Framework. The Framework was last updated and reviewed by the Governance and Audit Committee (GAC) in November 2018 and was considered to provide reasonable assurance of the delivery of NHSBT's statutory and strategic objectives and the effectiveness of its internal controls and risk management processes. The review also confirmed that there were no material gaps within the Framework and that it is consistent with guidance (including the principles set out in "Corporate Governance in Central Government Departments"). Within the context of NHSBT's objectives and activities, three pillars of the assurance framework are considered to be particularly important namely, clinical safety, product safety and business continuity. These are described further below.

Board arrangements

Information on our Board and its Committees is set out from page 29.

Strategic Management and Reporting

Strategies are approved by the Board for each of our 'businesses' and capture the objectives, targets and high-level milestone plans relevant to each. Performance against objectives and targets are reviewed monthly by the Executive Team and is collated into an integrated monthly performance report to the Board (including trend data, progress on strategic projects and a summary of risks). The content of the Board Performance Report is reviewed on a periodic basis to ensure that it provides sufficient information and assurance to the Board on the delivery of objectives and management of risks.

Clinical Governance

The Medical and Research Director 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. This responsibility is supported by a Clinical Audit, Risk and Effectiveness Committee (CARE) which meets on a bi-monthly basis and is supported by CARE groups embedded within each of the operational directorates.

A standing clinical governance item is included within each operational Senior Management Team agenda and a combined clinical governance report is provided to the Executive Team (as part of the performance review meeting) and to the GAC and Board as part of a standing agenda item. Reports cover clinical risks, clinical audits, outcomes, incidents including serious incidents (SIs) and Never Events, clinical complaints/commendations and clinical claims.

Data on infectious disease markers and risk factors in donors are collected systematically through collaboration with Public Health England, along with reports of infection transmission, and an annual report published. Data on other severe transfusion complications are monitored through the DTS CARE group.

Policies for the allocation of organs are determined by the medical profession in consultation with other health professionals, DHSC and specialist advisory groups. The policies covering the selection and allocation of organs are scrutinised in detail and approved by the NHSBT Transplantation Policy Review Committee which includes the Chairs of the independent Organ Advisory Groups. Disagreements in the Committee, of which none occurred in this year, are referred to the NHSBT Board. The NHSBT Statistics and Clinical Studies team assist with the development and continual monitoring of the separate organ allocation schemes to ensure equity of access to transplantation for all patients and to optimise the use of organs available. Data on transplant outcomes are monitored by the ODT CARE group. Statistical process monitoring is used to monitor patient and graft outcome trends for each transplant centre, supported by a policy that defines actions to be taken should a centre trigger an alert.

NHSBT clinical policies are developed through the support of external advisors. For blood, stem cells and tissues, the Joint Professional Advisory Committee (and its Standing Advisory Committees) oversees guidelines for all four UK Blood Services. For organs, there is an Advisory Group for each organ type; the chairs meet with NHSBT senior staff to ensure commonality and consistency across advisory groups.

Risk Management and Control

The NHSBT approach to risk is documented in our Risk Management Strategy and identifies the roles and responsibilities for managing risk. The strategy is underpinned by Management Process Descriptions (MPDs) that are incorporated within the NHSBT Risk Manual.

The manual describes the operation of the NHSBT risk register. New risks, that are identified for potential inclusion on the risk register, are assessed for their likelihood and consequence using a 5 x 5 risk matrix. High scoring net risks are reviewed by the Executive Team and escalated to the Board as necessary. Existing and new risks are captured within the monthly performance reporting cycle and are summarised within the monthly Board performance report.

The GAC is accountable for ensuring that the risk management process is fit for purpose and is working effectively. To gain assurance, the GAC reviews the risks and controls within each of our SBUs on a rolling basis (and included within the GAC annual work plan).

Product Safety, Regulation and Quality Assurance

NHSBT products and services must be carried out in line with appropriate laws which include the Consumer Protection Act, The European Organ Donation Directive (EUODD), the Human Tissue Act 2004, the EU Tissues and Cells Directive, related tissues and organ donation UK laws and the Health and Social Care Act 2012.

NHSBT also complies with Advisory Committee guidance from the Safety of Blood, Tissues and Organs (SaBTO).

NHSBT is regulated and inspected by bodies including the Blood Safety and Quality Regulations (BSQR), The Medicines Healthcare and Regulatory Agency (MHRA), the Human Tissue Authority (HTA), and the Care Quality Commission (CQC). We are also applying for a provider licence from Monitor (now part of NHS Improvement).

NHSBT also complies with professional standards some of which are accredited including the Clinical Pathology Accreditation (CPA), the United Kingdom Accreditation Service (UKAS) and the Joint Accreditation Committee (JACIE) standards.

Under EU law NHSBT's Reagent products must be marked before issue with a CE mark, which is an EU required mark for medical devices denoting it has been made to EU standards.

Quality Management System (QMS)

NHSBT operates a single, comprehensive quality management system (QMS) with detailed process documents and training records held in an electronic system (QPulse). The records ensure continued, demonstrable compliance with our regulatory requirements, licences and accreditations. The system records that staff are adequately qualified, trained and competent. This system and a robust process of self-inspection (see below), provide 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 and cover all regulated activities at all licensed sites and include:

- Internal Quality Audit is undertaken by a team of approved auditors independent of the site or activity being inspected. They confirm closure of external inspection findings and identify areas for regulatory and quality improvement.
- Risk based process audits are scheduled throughout the year and look at critical processes across a number of sites. The aim is to look in detail at procedures and their implementation to identify any omissions, gaps or overlaps and to confirm compliance to the written procedures. The focus of risk-based process audits are 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.

- Monthly reporting of supporting key operational KPIs, designed to monitor that key processes remain in control, via the Board Performance Report

Recently, NHSBT's Internal Auditors, PwC, completed an audit of our systems for tracking responses to internal and external inspection recommendations and our reporting of this to Board. They gave a limited assurance opinion and recommended, as a high priority, to include more KPI and trend analysis in our reports. There were further medium priority recommendations, including one to record inspector's improvement suggestions within our quality system for follow up and another to adapt our overdue event reporting. We have agreed actions and will complete these by September 2019 to further strengthen our compliance.

Business Continuity

Many of the products and services provided by NHSBT are unique and are critical to the functioning of the wider health community. It is therefore essential that systems are in place to support the organisation when it is challenged by an event that threatens to disrupt supply. The Director of Diagnostic and Therapeutic Services is accountable for ensuring that NHSBT's business continuity arrangements are fit for purpose. This is achieved by:

- Ensuring organisational resilience through the continued development of the business continuity management system.
- Integrating it with the existing QMS to provide document control, corrective and preventive actions and the auditing of arrangements.
- 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.

A training protocol and appropriate training packages have been developed for different staff groups that range from mandatory general awareness training that is given to all staff, through to tailored training for key roles within our response to critical incidents.

NHS Blood and Transplant Risk Profile

NHSBT has a different risk profile to the broader NHS. In the main, NHSBT supplies products and services to NHS hospitals and not direct care to patients. The exception is therapies provided directly to patients by our Therapeutic Apheresis Teams. Therapeutic Apheresis is less than 3% of our activity measured by income.

NHSBT also differs to the broader NHS due to a dependence on voluntary donations of blood, organs, hematopoietic stem cells and tissues. NHSBT must have due regard for donors (and their families where appropriate) and the donations they have given as well as the recipients of our products and services.

Also, NHSBT's products and services are often required at times of critical need for NHS patients. Consequently, NHSBT's appetite for risk is essentially low.

NHSBT has a mission to be the "best organisation of our type in the world". To meet this, we need to deliver world class performance across all aspects of our service. Our strategy incorporates a balanced set of objectives covering quality and efficiency, but we plan for the highest levels of risk mitigation before any steps are taken which could impact the safety or availability of our donors, products or services and ultimately the safety of NHS patients. Both our clinical governance (CARE) and quality assurance functions are closely involved with strategic projects at all stages of their progress.

NHSBT is a supplier critical products and services to the NHS. Risks to product and service **safety** and **availability** have been a key focus in year.

Transcription errors can risk the ***safety*** of our services in organ donation and transplantation and in our diagnostic testing services. To prevent this, extensive control checks are in place. We continue to reduce this risk through the introduction of new systems, such as the Donor Registration System and the ODT Hub, and electronic requesting and reporting of results between NHSBT and customer hospitals in our RCI and H&I services. We have also made an improvement through deployment of human factors analysis, supported by appropriate tools and process design. Any incidents are captured by our CARE and Quality Management processes with full root cause analysis conducted and corrective actions implemented. Quality Incidents are reported to the Executive Team, GAC and Board on a periodic basis. Every serious incident is investigated and reported in detail.

There is a risk to blood donor ***safety*** from iron deficiency. As reported last year, an NHSBT study identified that some donors (5% of men and up to 14% of women) were donating with lower haemoglobin results than regulatory limits. A smaller proportion (1.1% of male and 2.8% of female) were anaemic and approximately 0.1% with very low iron levels could have caused clinical concern. A subsequent study (COMPARE) was devised to establish the optimal method of haemoglobin screening. The capillary HemoCue method for screening has since been selected and rolled out across NHSBT during Q1 2019/20. Whilst mitigating action has been taken some risk remains and we will continue to review practices to protect our donors. This could include new or additional testing procedures, which may result in more donors being told they cannot safely donate (which may in-turn require a larger donor base) or it may involve providing iron supplements to regular donors.

The potential impact of IT outages on our ability to make our products ***available*** in a timely manner is of some concern. Post CSM, NHSBT has a continuing programme to modernise its IT infrastructure and key applications. Some of the older systems (which cannot be updated quickly) are at greater risk than normal from a loss of IT services. When we do update our systems, we apply extensive change control procedures, overseen by the Quality Assurance function and with involvement of the CARE and Business Continuity functions before any changes are implemented.

The **availability** of specific higher demand blood types is a risk we recognise. The demand for red cells has been decreasing over the last 6 years. However, demand for blood groups such as O negative and the Ro sub-type are growing as a proportion of overall demand. NHSBT needs fewer donors overall, but needs to identify, recruit and retain a higher number of donors for the rarer blood types. If we do not have the specific blood group available that a patient requires, they will receive a less clinically appropriate unit of blood, usually O negative, further increasing the demand for this rare type. To mitigate this risk NHSBT will need to improve processes for recruiting and retaining rarer blood group donors.

Lapses of Governance and Control

Never Events / Serious Incidents

There were no Never Events within NHSBT during the year (none in 2017/18). The NHS Never Event list is defined by NHS Improvement and are defined 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 2018/19 a total of three incidents were identified as being SIs versus six in 2017/18. The three incidents related to:

- A delayed delivery of cardiac tissue.
- Discrepancies in blood donor data in the British Bone Marrow Registry Database (BBMR).
- Extended cold ischaemic time beyond what was considered usable for a heart transplant.

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.

Non-compliance with Regulatory Requirements

NHSBT is committed to delivering a strong regulatory performance with an ambition that there should be no "critical" and no "major" non-compliances identified during any regulatory inspection. During 2018/19, there were 19 external regulatory and accreditation inspections of NHSBT's facilities. There were no critical non-compliances received in any of the inspections. However, there were two major non-compliances arising from an MHRA inspection in Liverpool in February 2019, one of which was in the Advanced Therapies Unit and the other one was in Tissue and Eye Services. This compares to 2017/18 where there were no critical and twelve major non-compliances reported. All recommendations raised in the Liverpool Inspection have since been addressed.

There has also been a significant reduction in the number of overdue events showing within the quality management system. An overdue event is, for example, when a policy or procedure has been updated or refreshed and requires each impacted person within NHSBT to acknowledge the new document in the system by a deadline. Our regulators use this reporting to assess our control systems on inspection.

In April 2019 we identified that NHSBT had collected cord tissue, for use in an advanced therapies trial, without first notifying the Human Tissue Authority (HTA) and submitting the appropriate licence variation. We promptly informed the HTA of the omission and submitted a licence variation which has now been granted. Our quality team has investigated the causes and we are in the process of putting controls in place to prevent this happening again.

Governance – CSM Programme

The Core Systems Modernisation (CSM) programme was approved in July 2016 with the objective of replacing the blood supply chain management system (Pulse). The driver for the project was to replace a system that is formed of ageing technologies and is dependent on an SME for its maintenance and support. In particular, the system is based on Itanium processors (with hardware solely manufactured by one supplier) which the supplier announced would no longer be support in the near future.

From inception, the programme was subject to NHSBT's corporate project governance and reporting processes. As a result of early milestone plans not being met, and the lack of a coherent plan for the programme it was rated at "red" status throughout 2017/18. Given the ongoing issues, the GAC commissioned an independent assessment in September 2017 from PwC as our internal auditors. This identified that the programme scope remained unclear, there were material gaps in the governance structure and supporting processes and also that, for a programme of its size, a number of project management artefacts had not been developed. In response, a re-set process was then implemented (overseen by the GAC) to improve the governance process and produce the missing project artefacts.

In November 2017 the NHSBT Board was notified that there was still a material risk that the project would take longer and cost more than was approved in the business case. Following the appointment of a new project director in January 2018, the CSM Programme Board was formally notified in February 2018 that the programme would take much longer, and cost substantially more than the business case. Although a revised approach was proposed, the Board decided in March 2018 to reduce the scope and spend rate to focus only on delivery of in-train developments in the first 6 months of 2018/19. Although this was successful, with some working functionality released on the new platforms, the Board decided in September 2018 to halt the project. The decision was based on: the need to fundamentally revisit the options for Pulse, given the substantial cost of the investment needed to complete the existing programme; a loss of confidence in the technical solution; and a new announcement from the manufacturer that the hardware on which Pulse is based would now be supported through to 2025.

As part of the Board decision, in conjunction with DHSC, a fundamental review and lessons learned review was commissioned from PwC. The report went on to note that:

- There were some key weaknesses in the way that the programme was established. Stated objectives were open to interpretation and created confusion as to whether the key driver for the programme was to replace a technology platform or create future business capability.

- NHSBT's organisational and programme readiness was never formally assessed. During the first 6 months of the programme significant effort was spent addressing issues with mobilisation. The programme then attempted to rapidly scale up resources, to meet ambitious timescales, which led to further inefficiencies and an increased dependency on external contractors and suppliers.

- There was a lack of consistent programme leadership and limited experience of large technology transformation programmes. Allied to capacity and capability issues at lower levels of the programme, this contributed to ineffective management of the key suppliers on which the programme depended.

- Individuals who flagged issues or concerns, either within delivery partners or NHSBT, often felt that they were viewed in a negative light or ignored. For a large portion of the programme the Chief Executive at the time took on the role of the Senior Responsible Officer. This contributed towards ineffective governance as members of the programme board felt unable to challenge decisions made and also made it difficult for the Chief Executive to provide effective independent challenge to programme delivery.

The report made a total of 28 recommendations that were accepted by the Board in full. The recommendations result in 31 actions that are being tracked through to completion by the GAC. Some of the actions are only relevant when NHSBT takes on another programme of the size and complexity as CSM. As such the initial focus has been on the actions that are common to all projects and programmes with 11 actions completed by April 2019 and the remaining actions to be addressed by August 2019. The NHSBT Board recognises that in advance of any programme being commenced that is similar in size and complexity to CSM, a fundamental review of NHSBT's readiness will be required regarding ICT capability and the capacity of NHSBT management.

In January 2019, the Board publicly reported that the CSM Programme had been halted, along with the findings and recommendations of the PwC review. At this time, it was declared that a constructive loss in the region of £17.0m had resulted (subject to further review and audit). This was based on a review of the total programme costs (now confirmed at £26.2m) and an allocation of the costs to the functionality in use in the region of £9.0m with the balance as the effective loss.

A further review has been conducted of the investment in CSM, its outcomes and the cost and benefits of the parts of CSM that are in use. This review concluded that the functionality in use generates lower financial and non-financial benefits than the cost of maintaining it and that savings could be made from ceasing to use it in future. Although the decision to cease using the functionality developed under the CSM programme has not been taken at this time, the NHSBT Board has prudently determined to declare the total investment of £26.2m in the CSM Programme as a constructive loss. All of the investment was revenue so there is no capital write off or balance sheet impact. This is a matter of accountability, transparency and disclosure. Approval for the constructive loss has been sought from DHSC and HM Treasury in line with the requirements of HMT's "Managing Public Money".

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 resulted in a total of 11 reports being issued during 2018/19. Of the reports issued:

- 3 reports received a “substantial” assurance opinion
- 4 received a “moderate” assurance opinion
- 3 received a “limited” assurance opinion
- 0 received an “unsatisfactory” opinion
- 1 was an advisory report on which an opinion is not provided.

The limited assurance reports were issued with regard to:

- Blood 2020 strategy
  The report identified weaknesses in the accountability and governance structures for delivering the strategy. Specifically, that oversight arrangements for the strategy (comprising decision making, risk management and monitoring) did not effectively deliver on blood demand objectives. In response, a Blood Operations Leadership Team (BOLT) was established to coordinate decision making across the supply chain. This will remain in place pending the new Blood Strategy and a revised operating model for Blood being developed in 2019/20.

- Risk management in Blood Donation
  The report identified that:
  - The risks captured were incomplete, especially those relating to management of donors
  - The accountability structures in Blood, as above, did not support a holistic approach to managing risk
  - The approach to managing risks did not encourage or enable clear ownership or accountability and was inefficient

  The BOLT will coordinate risks in Blood pending a revised operating model. It is accepted that NHSBT needs to improve its culture and processes for managing strategic risk. This will be closely reviewed by GAC during 2019/20.

- Quality – internal and external inspection follow-up systems
  This audit covered tracking of completion of actions agreed with inspectors and the reporting of these. The high priority audit point relates to Board reporting. It was recommended that we improve the reporting by increasing the use of KPIs and trends to identify themes. We will review our reporting with the Executive Team and the Board and implement the agreed action by September 2019. However, our quality systems remain strong and provide significant assurance to the Board regarding the safety of the products and services we provide.

The advisory work related to NHSBT's compliance with GDPR and was a follow-up to a report in June 2018 that provided 'moderate' assurance. The advisory review found that whilst there has been a significant amount of work ongoing to ensure GDPR compliance, six actions due to be completed before March 2019 had to be extended to September 2019. With hindsight there was optimism in setting timescales for completion given the need to recruit resource to the project and emerging ICO guidance through the period.

In addition to the above 11 reports, PWC also reviewed the CSM programme (see above). All 28 recommendations are being addressed with 11 of 31 Actions completed by April 2019 and the remaining due to be completed by August 2019.

Two audits: The Board Effectiveness and Cyber Security reviews, were deferred to 2019/20 to allow the incoming Chief Executive and Interim ICT Director to be in place prior to the reviews and increase the value of this work.

GAC monitors the completion of all medium and high outstanding audit recommendations. GAC were informed that the completion date for 7 medium and high recommendations originally due by 31 March 2019 were extended. Six for GDPR, five of which will be completed by September 2019. The further point relates to data held in the NHS payroll system which is not under the direct control of NHSBT. NHSBT will continue to request revisions to data archiving on this system but may not see changes delivered by September 2019. There was also one outstanding recommendation from the Blood Strategy audit which required a revised blood strategy to address the resourcing and capability weaknesses identified. This will be addressed in the revised Blood Strategy which will now be complete by March 2020. The extension is to allow the new Chief Executive to lead on this process.

The Internal Audit Opinion (below) is limited. As referenced in the Chief Executive's Forward, NHSBT will undertake a fundamental review of governance and risk management to address all the weaknesses identified so that controls remain effective.

Internal Audit - Opinion of the Head of Internal Audit

In 2018/19 Internal Audit has provided assurance over 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 2018/19 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:

1. The outcomes of the work that Internal Audit has conducted throughout the course of the reporting year and on the follow up action from audits conducted in the previous reporting year.

2. Cumulative knowledge gained from attendance at management committees, access to risk registers and key documentation, discussions with management and our cumulative work on the CSM Programme.

There were a number of changes made to the plan midway through the year, some as a result of the CSM Transformation programme ceasing. Also, two reviews have been deferred to 2019/20 (see above). For the Internal Audit work completed in the year, an appropriate level of resource has been in place to enable the function to satisfactorily complete the work planned.

Our opinion rating is driven principally by the following factors:

- From the cessation of the CSM transformation programme and carrying out a Lessons Learnt advisory review we identified a number of risks and issues for the organisation including lack of capability and capacity to deliver large complex programmes and also the lack of skills and capability constraints within the ICT function. There were also broader concerns in respect of the governance, monitoring and reporting progress of CSM and management of risks across the organisation.

- We also completed two reviews in the area of Blood Donation which were both given a limited assurance opinion and a review of Quality Management systems was also given a limited assurance opinion. Note the scope of our work in respect of Blood Donation did not include product safety.

- We noted that there has been a lack of progress in respect of GDPR during the period under review.

- All our work relating to key financial system and budgetary controls and processes were concluded as substantial.

Therefore, in summary, my overall opinion is that I can give Limited assurance to the Accounting Officer that NHSBT has significant weaknesses in the framework of governance, risk management and control such that it could be or could become inadequate and ineffective.

Information and Data Management

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 security and management of this personally identifiable data is extremely important to NHSBT.

As described above, NHSBT has an ongoing project to ensure a continuing compliance with GDPR and related ICO guidance. We regret that there were three incidents reported to the ICO in 2018/19 (versus none in the previous year). The ICO did not take action in any of these cases and we sought, and followed, advice from the ICO following a marketing email being sent to blood donors.

During 2017/18 PwC reported on the outcome of a cyber-security assessment that was conducted as a pilot of the Treasury's GBEST scheme (a framework to deliver controlled, bespoke, intelligence-led cyber security tests). The assessment involved simulated cyber-attacks on NHSBT systems. Cyber security is a growing risk area and NHSBT is implementing a phased, risk-based approach to addressing the growing risk. This is likely to require a material further investment over the coming years to continue to protect our data.

Whistle blowing Policy and Counter Fraud Policy

NHSBT's Whistle Blowing policy provides clear guidance on what an employee must do to raise concerns of possible danger, professional misconduct, unlawful conduct, or financial malpractice that might affect patients, donors, colleagues or NHSBT. The number of formal whistle blowing complaints made under the policy was in low single figures over the last year. Included within the internal audit plan for 2019/20 is an objective to review our policy and procedures in this area and consider whether these adequately promote whistle blowing within NHSBT.

The Anti-Fraud, Bribery and Corruption policy explains how staff must conduct business and report suspected fraud. Compared to the broader NHS, NHSBT considers its inherent risk of fraud to be relatively low, and also mitigates fraud through strong control functions including a professionally accredited procurement function and a high level of segregation of duties. In support, NHSBT undertakes an annual plan of work to ensure governance and oversight of counter fraud activity, that all staff are informed and involved in the counter-fraud effort, to prevent and detect frauds and to hold those committing frauds to account. During 2018/19 three frauds have been formally reported. Two of these involved timesheet/employment frauds with the third relating to a potential fraud, resulting in a police investigation of a third party external to NHSBT. This was identified as a result of claims being publicly made that a charity had provided funds to NHSBT.

NHS Provider Licence

During 2018/19 NHSBT 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. An application for this licence is underway.

Duties of the Secretary of State for Health and Social Care

As a Special Health Authority, NHSBT operates on behalf of the Secretary of State for Health and Social Care and is therefore accountable for complying with the duties of the Secretary of State as identified by the Health and Social Care Act 2012. As a provider of products and services to the NHS (rather than clinical care) we are a step removed from the front-line health and care system and hence there is limited direct relevance of the duties of the Secretary of State to the day to day operations of NHSBT. One of the duties of the Secretary of State is, however, to "have regard to the need to reduce inequalities between the people of England with respect to the benefits that may be obtained by them from the health service". NHSBT's strategies in Blood, Organs and Stem Cells all 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 are satisfied that our strategies and plans consider the duties of the Secretary of State within this specific area.

Review of Effectiveness

I joined NHSBT as Chief Executive on 4 March 2019 and became the responsible Accounting Officer on 29 March 2019. Sally had been Interim Chief Executive since July 2018 following Ian Trenholm's departure. Sally Johnson ceased being Accounting Officer on the 28th March a month before retiring from NHSBT.

Having joined in the last days of the year, I am placing reliance, in regard to 2018/19 performance, on the assurances of my predecessor and on the Internal system of control in place on my arrival. These included, 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, and
- 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. However, the organisation received a number of limited assurance audit reports relating to the way we oversee the organisation's business and change risks. Improvement is clearly required and as a result, I have launched a fundamental review of our approach to governance and risk management with a view to addressing the weaknesses identified in 2018/19.

Remuneration and Staff Report

This report forms part of the Accountability Report on pages 27 to 64.

Remuneration Committee Membership

During 2018/19 membership of the Remuneration Committee comprised of Louise Fullwood, Millie Banerjee, Jeremy Monroe and Lord Oates. The Committee was chaired by Louise Fullwood until her term as a Non-Executive Director ended on 31st December 2018. The Remuneration Committee has been chaired by Lord Oates since January 2019. Ian Trenholm, Sally Johnson and Katherine Robinson also attended the Committee meetings as 'standing attendees'. They excuse themselves from the meeting when their remuneration is being discussed.

Remuneration Policy

Remuneration of the Chief Executive and Executive Directors is in line with the decisions of the Remuneration Committee and all relevant DH guidance and Executive Senior Management (ESM) Framework. Any cost-of-living pay increases are paid according to DHSC Remuneration Committee recommendations. Remuneration for Non-Executive Board Members is set by the Secretary of State for Health.

Methods to Assess Performance

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 shown below. The NHS start date is the date of commencement of continuous NHS service for pension purposes.

Ian Trenholm, Chief Executive. NHS start date 1 July 2014, appointed 1 July 2014. Full time permanent post with three months' notice of termination by the employee, and six months' notice period by NHSBT. Ian Trenholm resigned from NHSBT and left on the 29 July 2018.

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.

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.

Anthony Clarkson, Director of Organ 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.

Leonie Austin, Director of Marketing and Communications. NHS start date 1 April 2010, appointed 1 April 2010. Full time permanent post with three months' notice of termination by the employee, and six months' notice of termination by NHSBT. Leonie Austin resigned and left NHSBT 31 May 2018.

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.

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.

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.

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.

Greg Methven, Director of Manufacturing and Logistics. 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.

Aaron Powell, Chief Digital Officer. NHS start date 1 January 2010, appointed 17 July 2015. Permanent full-time post with three months' notice of termination by the employee, and six months' notice period by NHSBT. Aaron Powell resigned and left NHSBT on 31 December 2018.

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 months' notice period by NHSBT.

Mike Stredder, Director of Blood Donation. 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.

Dr Gail Miflin, Medical and Research Director. 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.

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.

The remuneration and pension benefits of the most senior officials of NHSBT are shown in the tables on pages 51 and 52. The tables on pages 51 and 52 are subject to audit.

Salary and Pension Entitlement of Senior Managers

a) Remuneration

	Year to 31 March 2019					Year to 31 March 2018				
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
Mr J Pattullo (Chair) [1]	-	-	-	-	-	10-15	-	-	-	10-15
Ms M Banerjee (Chair)	60-65	-	-	-	60-65	50-55	-	-	-	50-55
Ms L Fullwood (NED) [2]	5-10	-	-	-	5-10	5-10	-	-	-	5-10
Ms S Johnson - (Director of Organ Donation and Transplantation and Interim Chief Executive) [3]	155-160	5-10	-	207.5-210	370-375	130-135	5.10	-	27.5-30	165-170
Mr A Clarkson (Director of Organ Donation and Transplantation) [4]	70-75	-	16	85-87.5	155-160	-	-	-	-	-
Mr R Griffins (NED) [5]	5-10	-	-	-	5-10	10-15	-	-	-	10-15
Mr J Monroe (NED)	5-10	-	-	-	5-10	5-10	-	-	-	5-10
Lord Oates (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
Prof P Vyas (NED)	5-10	-	-	-	5-10	5-10	-	-	-	5-10
Ms H Fridell (NED) [6]	0-5	-	-	-	0-5	-	-	-	-	-
Mr P White (NED) [7]	0-5	-	-	-	0-5	-	-	-	-	-
Mr I Trenholm (Chief Executive) [8]	55-60	-	-	32.5-35	90.95	175-180	5-10	-	37.5-40	220-225
Ms B Bassis (Chief Executive) [9]	10-15	-	-	-	10-15	-	-	-	-	-
Ms L Austin (Director of Marketing and Communications) [10]	15-20	-	-	-	15-20	110-115	-	-	25-27.5	140-145
Mrs C Rose (Interim Director of Marketing and Communications) [11]	90-95	-	-	20-22.5	115-120	-	-	-	-	-
Mr I Bateman (Director of Quality)	110-115	-	13	10-12.5	120-125	100-105	-	15	15-17.5	115-120
Mr R Bradburn (Director of Finance)	140-145	-	65	22.5-25	170-175	140-145	-	56	35-37.5	180-185
Mr D Evans (Director of Workforce) [12]	-	-	-	-	-	30-35	-	-	-	30-35
Mr G Methven (Director of Blood Manufacturing and Logistics	130-135	-	1	27.5-30	155-160	125-130	-	-	27.5-30	155-160
Dr Gail Miflin (Medical and Research Director)	190-195	-	1	130-132.5	320-325	190-195	-	-	90-92.5	280-285
Mr A Powell (Chief Digital Officer) [13]	90-95	-	-	32.5-35	125-130	120-125	-	19	27.5-30	150-155
Mr B Henry (Interim Technology Director) [14]	70-75	-	-	-	70-75	-	-	-	-	-
Mr M Stredder (Director of Blood Donation)	125-130	-	-	30-32.5	155-160	125-130	5-10	-	27.5-30	160-165
Mr H Williams (Director of Diagnostics and Therapeutic Services)	125-130	5-10	-	27.5-30	160-165	130-135	-	-	30-32.5	160-165
Mrs K Robinson (People Director)	115-120	-	19	42.5-45	160-165	110-115	-	46	92.5-95	205-210

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

1 Mr J Pallutto – left on 31 May 2017. Full year salary (£5k bands) is £60-65

2 Ms L Fullwood – left on 31 December 2018. Full year salary (£5k bands) is £5-£10

3 Ms S Johnson – Director of Organ Donation and Transplantation to 29 July 2018. Interim Chief Executive from 30 July 2018 to 28 March 2019 (successor Ms B Bassis, see no.9 below). Retired on 29 April 2019. Full year salary (£5k bands) is £165-170

4 Mr A Clarkson – appointed as Director of Organ Donation and Transplantation on 11 February 2019 (was Interim Director from 30 July 2018 to 10 February 2019). Full year salary (£5k bands) is £110-£115

5 Mr R Griffins – left on 31 December 2018. Full year salary (£5k bands) is £5-£10

6 Ms H Fridell – appointed as Non-Executive Director on 18 February 2019. Full year salary (£5k bands) is £5-£10

7 Mr P White – appointed as Non-Executive Director on 18 February 2019. Full year salary (£5k bands) is £10-£15

8 Mr I Trenholm – left on 29 July 2018. Full year salary (£5k bands) is £165-£170

9 Ms B Bassis – appointed as Chief Executive on 04 March 2019. Effective start date 29 March 2019, replacing Ms S Johnson (see no.3 above). Full year salary (£5k bands) is £165-£170

10 Ms L Austin – left on 31 May 2018. Full year salary (£5k bands) is £110-£115

11 Mrs C Rose – appointed as Interim Director of Marketing and Communications on 21 May 2018. Full year salary (£5k bands) is £90-£95

12 Mr D Evans – left on 31 July 2017. Full year salary (£5k bands) is £125-£130

13 Mr A Powell – left on 31 December 2018. Full year salary (£5k bands) is £120-£125

14 Mr B Henry – appointed as Interim Technology Director on 03 January 2019. Engaged full time as a contractor.

b) Pension Benefits

Name and title	Real increase / (decrease) 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 age at 31 March 2019 (bands of £5,000) £000	Lump sum at pension age related to accrued pension at 31 March 2019 (bands of £5,000) £000	Cash Equivalent Transfer Value at 31 March 2019 £000	Cash Equivalent Transfer Value at 31 March 2018 £000	Real increase in Cash Equivalent Transfer Value £000
Mr I Trenholm (Chief Executive) [1]	0-2.5	-	90-95	-	1,339	1,066	71
Ms B Bassis (Chief Executive) [2]	0-2.5	-	0-5	-	3	-	-
Ms S Johnson (Director of Organ Donation & Transplantation and Interim Chief Executive) [3]	10-12.5	30-32.5	65-70	200-205	1,681	1,266	341
Mr A Clarkson (Director of Organ Donation & Transplantation) [4]	2.5-5	7.5-10	35-40	90-95	641	455	105
Ms L Austin (Director of Marketing & Communications) * [5]	0-2.5	-	15-20	-	264	226	2
Mrs C Rose (Interim Director of Marketing & Communications) [6]	0-2.5	-	5-10	-	73	46	12
Mr I Bateman (Director of Quality)	0-2.5	2.5-5	20-25	65-70	526	444	55
Mr R Bradburn (Director of Finance) *	0-2.5	-	25-30	-	448	367	49
Mr A Powell (Chief Digital Officer) * [7]	0-2.5	-	20-25	-	230	165	31
Mr M Stredder (Director of Blood Donation) *	0-2.5	-	5-10	-	111	70	21
Dr H Williams (Director of Diagnostic & Therapeutic Service) *	0-2.5	-	10-15	-	234	178	32
Mrs K Robinson (People Director)	2.5-5	0-2.5	35-40	80-85	573	453	89
Mr G Methven (Director of Manufacturing & Logistics) *	0-2.5	-	5-10	-	63	29	15
Dr G Miflin (Medical and Research Director) *	5-7.5	10-12.5	50-55	120-125	991	755	189
Mr B Henry (Interim Technology Director) [8]	-	-	-	-	-	-	-

* Prior year figures affecting accrued pension and CETV have been restated as a result of NHS Pensions re-issue of 2017/18 disclosures

1 Mr I Trenholm – left on 29 July 2018

2 Ms B Bassis – appointed as Chief Executive on 04 March 2019. Effective start date 29 March 2019, replacing Ms S Johnson (see no.3 below)

3 Ms S Johnson – Director of Organ Donation and Transplantation to 29 July 2018. Interim Chief Executive from 30 July 2018 to 28 March 2019 (successor Ms B Bassis, see no.2 above). Retired on 29 April 2019. Full year salary (£5k bands) is £165-170

4 Mr A Clarkson – appointed as Director of Organ Donation & Transplantation on 11 February 2019 (was Interim Director from 30 July 2018 to 10 February 2019)

5 Ms L Austin – left on 31 May 2018

6 Mrs C Rose – appointed as Interim Director of Marketing & Communications on 21 May 2018

7 Mr A Powell – left on 31 December 2018

8 Mr B Henry – appointed as Interim Technology Director on 03 January 2019. Engaged full time as a contractor and not a member of the NHS Pension scheme.

Cash Equivalent Transfer Value

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capital value of the pension scheme benefits accrued by a member at a particular point in time. The benefits valued are the members' accrued benefits and any contingent spouse's pension payable from the scheme. A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another pension scheme or arrangement when the member leaves a scheme and chooses to transfer the benefit accrued in the former scheme. The pension figures shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies.

The CETV figure, and other pension details, include the value of any pension benefits in another scheme or arrangement which the individual has transferred to the NHS pension scheme. They also include any additional pension benefit accrued to the member as a result of their purchasing additional years of pension service in the scheme at their own cost. CETV are calculated within the guidelines and framework prescribed by the Institute and Faculty of Actuaries.

Real Increase in CETV

This reflects the increase in CETV effectively funded by the employer. It takes account of the increase in accrued pension due to inflation, contributions paid by the employee (including the value of benefits transferred from another scheme or arrangement) and uses common market valuation factors for the start and end of the period.

Pension Scheme Liabilities

Most employees are members of the NHS pension scheme which is an unfunded, defined benefit scheme. The scheme is not designed in a way that enables the NHS bodies to identify their shares of the underlying assets and liabilities and so is accounted for as a defined contribution scheme. See Accounting policy 1.11.

Compensation on Early Retirement or Loss of Office

Early Retirements and redundancies

During 2018/19 there were 57 payments for early retirements and/or redundancies from NHSBT. The sum of £1,323,000 has been paid out in 2018/19 in respect of these redundancies and/or early retirements (2017/18 111 early retirements and/or redundancies and payments of £4,267,000).

An opening provision of £366,000 for redundancy costs has been utilised or reversed unused during 2018/19 and no further provision has been made for redundancy costs this year.

A total charge of £911,000 for early retirements and redundancies is included within other staff related costs in note 4 of the financial statements (2017/18 £1,957,000).

This is subject to audit.

Reporting of Other Compensation Schemes

The table below discloses the number and value by cost band of compensation packages paid in 2018/19.

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	15	55	5	33	20	88	-	-
£10,001 - £25,000	8	121	8	114	16	235	-	-
£25,001 - £50,000	10	320	7	268	17	588	-	-
£50,001 - £100,000	1	76	1	57	2	133	-	-
£100,001 - £150,000	1	126	-	-	1	126	-	-
£150,001 - £200,000	1	153	-	-	1	153	-	-
Totals for 2018/19	**36**	**851**	**21**	**472**	**57**	**1,323**	**-**	**-**
Totals for 2017/18	**91**	**3,455**	**20**	**812**	**111**	**4,267**	**-**	**-**

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

Five individuals retired early on ill-health grounds; the total additional accrued pension liabilities in the year amounted to £214,975.48.

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 in NHSBT in the financial year 2018/19 is shown in the table below, together with the remuneration ratio compared to the midpoint of the banded remuneration of

the highest paid directors pay. This shows the pay multiple has gone down to 6.7 due to the median remuneration for employees increasing as a result of average pay increases this year.

	2018/19	2017/18
Highest Director Banded Remuneration	£190k to £195k	£190k to £195k
Lowest Banded Remuneration	£0k to £5k	£5k to £10k
Median Remuneration	£28,828	£28,228
Remuneration Ratio	6.7	6.8

In 2018/19, 2 (2017/18, 2) employee received remuneration in excess of the highest-paid director. Remuneration ranged from £200k to £210k (2017/18 £205k to £225k).

The 2017/18 disclosures have been restated to reflect clarification in relation to the Financial Reporting Manual and other relevant guidance.

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.

Staff Numbers and Costs

The analysis of staff numbers and costs distinguishing between staff permanently employed and other staff engaged on the objectives of NHSBT such as agency staff are presented below. This exact information is also disclosed in note 4 of the financial statements.

This is subject to audit.	**Total**	**31 March 2019 Permanently Employed Staff**	**Other**	**31 March 2018 Total**
	£000	**£000**	**£000**	**£000**
Salaries and wages	**167,704**	155,725	11,979	164,078
Social security costs	**15,740**	15,059	681	15,506
Employer contributions to NHS Pensions Agency	**21,071**	20,159	912	20,384
	204,515	**190,943**	**13,572**	**199,968**

Whole Time Equivalents	**Total Number**	**Permanently Employed Number**	**Other Number**
Year Ended 31 March 2019	**4,672**	**4,412**	**260**
Year Ended 31 March 2018	4,674	4,427	247

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 2018 to December 2018 the total number of whole-time equivalent days lost to sickness absence was 40,872 days (2017 39,901 days). This equates to an average of 8.8 days per whole time equivalent (2017 8.6 days) and a sickness absence rate of 2.4% (2017 2.3%).

Action taken to maintain or develop the provision of information to, and consultation with, employees

Communication

NHSBT is committed to developing open and honest communication and engagement with its employees at all levels throughout the organisation. A range of communication techniques are used to communicate with staff taking account of geography, access to technology and shift patterns. Each year a communications audit is conducted to ensure these methods remain robust but also highlight any areas for development. NHSBT remains committed to seeking new opportunities for enhancing communication with staff and mobile technology via the use of hand-held devices for staff working remotely is evidence of this ongoing ambition and the introduction of tools available via Microsoft Office 365 such as Yammer and MS Teams. NHSBT launched a new intranet (LINK) this year which significantly enhances the ability of colleagues to access information.

Staff Engagement

Our last pulse staff survey, Our Voice- Check Up was completed in late 2018. The purpose of the 2018 pulse survey was to measure progress since 2016 in key areas of importance arising from that year. These were:

- Senior leadership visibility – improvement of 6%
- Communication- improvement of 3%
- Opportunities for career development – improvement of 4%
- Harassment, Bullying, Abuse and Colleague Well Being - improvement of 3%
- Impact of Line Managers – improvement of 6.5%
- Perceived response to the survey – improvement of 10%
- Engagement score – improvement of 0.07
- Patient experience- decrease of 3%
- Discrimination- steady at 8%

Engagement Initiatives

Director Roadshows – where Directors visit our national centres to meet with and brief staff on our strategic plans within centres.

Connect to a Region – this was implemented in 2014. This initiative ensures that each Executive and their senior managers are responsible for a region of the country to provide more direct support for Heads of Centres and their Partnership Committees to target localised areas for improvement.

Team Talk – this is now well embedded by Internal Communications and contains important updates on initiatives and changes throughout NHSBT for all colleagues.

Yammer and Office 365- a new social media and information sharing platform to allow colleagues to better connect with each other and share ideas.

Recognition of excellence and awards ceremony– a scheme where colleagues or managers can nominate others for exceptional work and behaviours.

Charity Partnership- a colleague elected scheme to fundraise nationally for a charity aligning with NHSBT's core values. NHSBT's current charity is Bloodwise, please see link to website: https://bloodwise.org.uk/

Other engagement offerings:

- A comprehensive Employee Benefits & Discounts package – where NHSBT provides colleague with access to a range of benefits and discounts available to NHS workers including cycle to work schemes.
- Pay Scheme – NHSBT provides a comprehensive pay, terms and conditions package iva the nationally agreed NHS Pay Schemes.
- Access to fast track Physiotherapy – a service where colleagues can access physiotherapy services via our occupational health provider to enable a quicker recovery from injuries which don't need to be work related, but which otherwise might impact work.
- Wellbeing Zone on the NHSBT employee portal (PeopleFirst) – this is an area that provides colleagues with wellbeing advice and information provided by our occupational health provider.
- Employee Assistance Programme – providing support and advice for financial, debt, relationship, bereavement, legal signposting and up to six face to face counselling sessions.
- Total Rewards Statements – this provides on-line personalised information about the NHSBT employment package and for members of the NHS Pension Scheme to review their annual pension benefit statement.
- My ESR new for 2018/19 – this gives NHSBT's colleagues access to view their employment record, access to mandatory training and update their personal information.
- Your Voice – a regular organisational colleague survey that gathers data and opinions regarding the colleague experience in working for NHSBT. This is then actioned over the coming year in order to respond to the data and colleagues' ideas.

Trade Union Relationships

Another key relationship is our engagement with our union colleagues. NHSBT has a robust Partnership Framework which continues to be productive and effective in enhancing the partnership working approach. On a yearly basis, the Executive Team meet with the national representatives to share plans for the year ahead. This continues to demonstrate our open and transparent approach and allows for discussion, in respect of some strategies, at an earlier stage.

NHSBT enables 106.34 whole time equivalent Trade Union representatives to carry out national consultation/partnership working duties across NHSBT as part of our Partnership working agreement. These representatives collectively spent 10,942 hours' time release in this year. This time reflects the scale of change consultation within NHSBT and geographic spread of employees across our national organisation. 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**
118	106.34

Percentage of time spent on facility time	
Percentage of time	**Number of employees**
0%	17
1-50%	97
51-99%	1
100%	3
Percentage of pay bill spent on facility time	
Description	**£000**
Total of cost facility time	343
Total pay bill	204,515
Percentage of the total pay bill spent on facility time	0.17%

Paid Trade Union activities	
Time spent on trade union activities as a percentage of the total paid facility time hours	18%

Learning & Development

NHSBT provides an award-winning comprehensive learning and development framework for all staff through our 'SHINE' offering. SHINE learning and development offers a full range of in-house development including personal skills development, scientific training and Management and Leadership development. Coaching and mentoring are well embedded across the organisation also. The organisation now has 10 fully qualified coaches.

A suite of management development is available from front line supervisor through to aspirant CEO level. These include:

- **Effective Line manager (ELM)** – for all managers and aspiring managers.
- **Advanced Line management (ALM)** – for new and developing managers.
- **Hubbub BT** – for middle managers and leaders.
- **Senior Leadership Development programme (SLDP)** – for senior managers and aspiring directors.

NHSBT also plays a key part in the DHSC Healthcare Sector leadership programme and plays a leading part in the DH Talent board.

There are also a wide range of online resources for learners. These include video talks, toolkits, e-learning programmes, workbooks and factsheets.

NHSBT has an on-line structured learning tool for all leaders and managers both current and aspiring called the Leadership Ladder. NHSBT also provides a comprehensive learning and development programme which incorporates face to face learning, digital learning and work-based experience learning. It enables colleagues to develop and demonstrate their learning using the 70:20:10 learning principles, please see below;

- 10% of learning is carried out in formal organised training events.
- 20% of learning is carried out in work based organisational events such as learning groups, shadowing, secondments and projects.
- 70% of learning is carried out in the workplace on an ongoing basis as part of the execution of the day to day role.

This is linked to the performance development process. Staff are encouraged to have personal development plans, and this remains an essential part of our appraisal process. The organisation also has a process to agree funding for external development opportunities which are supported up to 75% funding and up to 100% funding if the development is essential to the role.

Apprenticeship

The Apprenticeship Levy was introduced by the UK Government on 6 April 2017, requiring all employers operating in the UK with a pay bill over £3m each year, to invest in apprenticeships. NHSBT is required to pay a levy of 0.5% of its pay bill, less an allowance of £15,000 to fund apprenticeships through a GOV.UK digital apprenticeship service account. These funds will be used to make payments directly to approved training providers to pay for the training and assessment of the apprenticeship. NHSBT's levy balance as at 31 March 2019 is £1.6m. £84.5k has been paid to providers since 2017/18, with further commitments of £304K depending on known apprenticeship programme starts.

In line with government policy, the aim of the scheme will expand year on year with the aim to continually meet our public-sector target of 2.3% of apprentice starts per year (equates to 124 starts per year).

Breakdown of apprentice figures 2018/19:

- 51 apprentices are live and are funded from the levy
- 21 completed and were funded from the levy
- 28 learners ready to start a programme in 2019/20
- 18 learners (awaiting to source regionalised training provider in 2019/20)

Our apprentices are currently entry level new recruits joining NHSBT and existing employees enhancing their skills in 14 different programmes / levels. In 19/20 we will be able to offer a leadership and management Apprenticeship pathway (Level 3 to Level 7) alongside our existing Apprenticeship programmes such as business and administrative, logistics, science (Level 5) with integrated advanced therapies knowledge. Apprenticeships form an essential part of our talent pipeline.

Reward and Recognition Schemes

NHSBT also recognises staff through our 'Recognition of Excellence' scheme and an annual awards ceremony is held to celebrate the very best staff offer in a wide variety of categories.

A Diverse Organisation

NHSBT employs 803 Black, Asian and Minority Ethnic (BAME) colleagues, which is 14.3% of our employee workforce.

Although this percentage is reflective of BAME representation across the wider UK population, the representation is not consistent across all our Directorates, our Centres or across all pay bands. We are therefore seeking ways to raise the organisations profile at centres which are under-represented in comparison to the local demographic, holding open days etc. to engage with the local communities and to promote and share insights and describe the various career opportunities available at NHSBT. Our first is planned for Birmingham.

NHSBT was also selected to take part in NHS England's Workforce Race Equality Standard (WRES) Expert Programme. This will help to influence the shift and cultural changes necessary to bring about race equality across the organisation to improve the experiences of BAME employees.

Last year we have worked hard to improve BAME representation across our senior leadership group, to improve representation of BAME employees at Band 8a and above. From the time of setting the target, back in 2015, the number of Band 8a and above BAME employees has increased from 41 to 57, a 39% increase. Although this is a great improvement, this is still an area of focus for us. In addition to this, we will be focussing more closely at the career pathway and succession planning of employees that are likely to aspire to the Band 8a posts over the coming year.
We have continued with the diverse Interview Panel initiative, growing the number of BAME panel members over the year to help to increase diversity across the senior leadership team. This initiative ensures that there is a BAME panel member on every position being interviewed for at Band 8a and above.

An evaluation of the Black, Asian and Minority Ethnic (BAME) Career Masterclass was undertaken by a University of West of England - Master's student, providing us with some recommendations to further progress development and career progression of BAME colleagues. We will be working with our Organisational Workforce Development colleagues to refine the coaching and mentoring offering as an initial outcome.

The BAME Career master class was designed to provide employees from BAME backgrounds with insights, tools and techniques that will enable them to further their career within NHSBT and/or the wider NHS

Lesbian, Gay, Bisexual and Transgender (LGBT+) representation

NHSBT is now part of the Stonewall Diversity Champions Programme. Stonewall is a lesbian, gay, bisexual and transgender (LGBT) rights charity. We have completed the Stonewall Workplace Equality Index (WEI) for 2018. This included an employee survey which received 537 responses. The results of the WEI were received in February 2019 and NHSBT ranked 380 out of the 445 organisations which took part, yielding a score of 27 out of 200 (13.5%). The LGBT+ Network are currently analysing these results and producing an action plan on how the organisation can address the gaps identified in the WEI. Any actions from the WEI and resulting progress will require support from the senior management team and from all Directorates across the organisation. As NHSBT is now a Stonewall Diversity Champion, the accompanying logo can be used on any documents produced by NHSBT where appropriate. This is a positive indicator that NHSBT is committed to striving for LGBT+ inclusion.

The "Alliances for Solidarity" lanyard campaign was launched in May 2018 and over 3000 lanyards have been issues to employees across the organisation in support of LGBT+ inclusivity. This is more than half of the current total number of employees across NHSBT.

A group is working on assessing the feasibility of introducing individualised risk assessments in blood donation for men who have sex with men (FAIR – For the Assessment of Individualised Risk). The Steering Group is composed of relevant scientists and clinicians from NHSBT, the LGBT+ Network and external stakeholders such as Stonewall, Terrence Higgins Trust and the National Aids Trust. This work could potentially have profound implications for progressing LGBT+ equality across the UK.

Women in Science, Technology, Engineering and Maths (STEM) representation

The WISTEM network (Women in Science, Technology, Engineering and Maths) was officially launched at the Filton International Women's Day event on 8th March 2019. The purpose of the network is to create an all-inclusive and collaborative community to celebrate and support NHSBT women who work in a STEM role as well as those who may be interested in starting a STEM career. The aims of the network are to:

- Be a champion for women working in STEM careers
- Support career development

- Encourage career choices and recruitment
- Understand the different challenges across different areas

Health & Well-being

A key highlight of the engagement score data from the September 2018 pulse survey shows our overall engagement score for NHSBT has increased to 3.80 from 3.73 from the 2016 survey.

Following on from the training of Mental Health Wellbeing Champions across NHSBT, and the work around this in 2018, the staff survey showed a 7% increase in the question 'my manager cares about my wellbeing'.

A few more Champions have now been trained and we have a total of 107 people trained. Further training has been planned through 2019 with our three new Mental Health First Aider Instructors.

We are trialling a Health Needs Assessment tool across different areas to see what value it can add for teams and departments.

Diversity Data

We have continued to work towards improving employee personal data by providing NHSBT colleagues self-service access to their own personal data within the electronic staff record (ESR) system and in 2019 we are launching a campaign on data declaration with targets for increased declaration which emphasises the importance of data monitoring.

Accurate and updated data will help the organisation have a better understanding of our workforce so that we can tailor specific campaigns and initiatives towards making NHSBT a more diverse and inclusive workplace.

Gender

As at 31 March 2019 NHSBT employed 5,753 staff members (of which 10 are directors) of whom 3,929 were female (of which 3 are directors) and 1,824 were male (of which 7 are directors).

Like the wider NHS, the ratio of male to female employees is approximately 32:67. This ratio however transposes as we move beyond the Band 8a pay band and this is one area of work that the newly formed Women in STEM network group will be looking into for the year ahead.

In 2017 the Government introduced legislation that made it statutory for organisations with 250 or more employees to report annually on their gender pay gap.

Since 2017 we have seen an improvement in NHSBT's gender pay gap with a significant reduction (11.6%) in the average (mean) bonus payments when comparing men to women. Whilst our mean gender pay gap of 7.6% compares well to other public sector organisations we will continue to work hard to tackle any pay gap and have a detailed action plan in place.

According to the Office for National Statistics (ONS) published in October 2018, the mean gender pay gap figure for the public sector is around 17.5%, and so NHSBT compares favourably with the wider public sector and other NHS Arms' Length Bodies.

Disability Equality

NHSBT is committed to disability equality and aims to embed a disability confident organisational culture. This year, we have done this by:

- Continuing to work on the Business Disability Forum (BDF) Self-Assessment Survey
- Updating our terms of reference and objectives documents
- Improving the information and awareness packages available for colleagues and managers via e-learning and our staff intranet site.

Encouraging Greater Inclusivity

A key focus for us this year is how we encourage greater inclusivity whilst recognising diverse uniqueness of our colleagues and engage more with colleagues at a local level to support events and initiatives that encourage greater integration.

We shall also be using digital communication tools to help promote information, key messages and encourage greater dialogue on inclusivity across the organisation.

Health, Safety and Wellbeing

NHSBT is committed to the health, safety and wellbeing of our colleagues and in 2018/19 the latest 5-year HS&W plan was agreed with the aim of increasing safe working across the organisation and to increase our wellbeing scores. Good engagement with staff side colleagues continues with partnership working at the national HS&W committee chaired by Mike Stredder, Blood Donation Director. The committee agreed a new mental health policy, which has been implemented with the training of 109 mental health and wellbeing champions across all areas. Wellbeing scores increased by 7% with more colleagues reporting positively that their manager cares about their wellbeing at 73%.

Legal compliance has been maintained with no major non-conformances to our H&S management system being raised in 2018/19, with successful maintenance of our certification to the Occupational H&S Assessment Series (OHSAS) 18001 standard, as audited by BSI. Over the next two years there is a planned transition to the new ISO standard for health, safety and wellbeing (ISO45001). The findings from BSI's transition preparedness assessment in January 2019 was that:

"The organisation's leadership team have a high level of engagement with OH&S strategy and are integrating wellbeing alongside the existing OH&S systems. There is good alignment with overall strategy and resources are in place to support the management system."

A deep dive review of H&S practice across the Alliance of Blood Operators (ABO) showed that NHSBT are mid table for blood collection lost time accident frequency rate (third out of five) and had the lowest lost time severity rate. The severity rate is a measure of the number of days lost per case, which reflects the support available to colleagues for them to return to work as soon as possible.

Expenditure on Consultancy

Consultancy expenditure during 2018/19 is £nil (2017/18 £nil).

Review of Tax Arrangements for Public Sector Appointees

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 2019, for more than £245 per day and that last longer than six months:

	Number
Number of existing engagements as of 31 March 2019	2
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	0
for between 2 and 3 years at the time of reporting	0
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 6 month duration, between 1 April 2018 and 31 March 2019, 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	5
Of which number for whom:	
Assessed as caught by IR35	5
Assessed as not caught by IR35	0
Engaged directly (via PSC) and are on the payroll	0
Of engagements reassessed for consistency/assurance purposes during the year	5
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 2018 and 31 March 2019:

	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	22

The Technology Director role is currently filled on an Interim basis by a contractor due to the Chief Digital Officer leaving in the period prior to the new Chief Executive joining NHSBT.

Parliamentary Accountability and Audit Report

This is subject to audit.

Basis for Accounts Preparation

The accounts for the year ending 31 March 2019 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 £88k (£87k 2017/18). There were no payments to the C&AG for non-audit work during 2018/19 and 2017/18.

Regularity of Expenditure: Losses and Special Payments

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).

Losses Statement	**31 March 2019**		**31 March 2018**	
	No. Cases	**£000**	**No. Cases**	**£000**
Cash losses	8	1	1	5
Book keeping losses	-	-	-	-
Losses of pay, allowance and superannuation benefits	33	54	31	7
Losses of accountable stores	111	282	114	105
Claims waived or abandoned	2	13	1	1
Constructive losses	1	26,178		
Total	**155**	**26,528**	**147**	**118**

Special Payments	**31 March 2019**		**31 March 2018**	
	No. Cases	**£000**	**No. Cases**	**£000**
Contractual payments	-	-	1	30
Compensation payments	30	115	42	187
Ex gratia payments	5	13	-	-
Total	**35**	**128**	**43**	**217**

The losses report above includes a constructive loss (per HM treasury managing Public Money definitions) generated by the CSM programme being halted. The total cost of the programme was £26.2m to October 2018 most of which was spent as revenue in 2016/17 and 2017/18. The spend has been assessed against the outputs delivered and in use by NHSBT and the economic value of the functionality in use has also been assessed. NHSBT will now reassess all options for replacing Pulse, which may mean existing functionality is uneconomic to maintain and so NHSBT is reporting the full £26.2m as a constructive loss. (see page 42 where CSM is discussed in more detail).

A lesson learned report has been completed by PWC (our internal auditors) which had 28 recommendations across capability and capacity, programme management, culture and governance. The report can be seen in the January Board papers on the NHSBT website. All actions to address the 28 recommendations will be completed in 2019 and before any project commences to replace Pulse.

In 2017/18 NHSBT received £132,000 from Network Rail for full and final settlement in relation to a flood at the Filton site in 2012.

Remote Contingent Liabilities

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

NHSBT has a statutory duty to deliver a breakeven financial plan year on year, except where approved to make investments from planned accumulated surpluses. The majority of its costs are recovered through prices. Annual price setting for Blood Components and Specialist services is agreed with the National Commissioning Group (for Blood), on behalf of the NHS. Prices are national, and set per unit, against forecasted sales volumes for the forthcoming financial year and are established to recover the full cost of providing products and services to the NHS (including a return on the cost of capital employed). Built into the price for Blood is a risk-share with the NHS, equivalent to 2% of planned volumes, which provides in-year protection against unforeseen reductions to demand. Performance against agreed sales volumes, is reviewed in-year with Commissioners, and in the event of an over-recovery of costs, these are returned to the NHS in the form of a rebate. Costs, including an allocation of overheads, and service income derived from prices are recognised at a strategic operating unit level, within the segmental reporting note 2 which is subject to audit.

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 2019 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 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 2019 and of the net 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.

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 am required to conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists relates to events or conditions that may cast significant doubt on NHS Blood and Transplant's ability to continue as a going concern for a period of at least twelve months from the date of approval of the financial statements. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's 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 auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern. I have nothing to report in these respects.

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 consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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 Board and the Accounting Officer are responsible for the other information. The other information comprises information included in the annual report, other than the parts of the 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 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 the NHS Blood and Transplant and its environment obtained in the course of the audit, I have not identified any material misstatements in the Performance Report or the Accountability Report; and

- the information given in the Performance Report and 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 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
The National Health Service Act 2006 provides for me to report to Parliament on the annual accounts of NHS Blood and Transplant on matters which I consider should be brought to its attention. In considering matters to report to Parliament, I am mindful of the responsibilities placed on central government bodies to ensure value for money when using public funds and to manage their exposure to risk.

I therefore draw Parliament's attention to the constructive loss of £26.2 million recorded on page 65 of the Parliamentary Accountability and Audit Report, that was incurred as a result of numerous project management and governance failings in the Core Systems Modernisation Programme. These failings have been detailed on pages 42 to 43 of the Governance Statement. I am satisfied that the account provided is accurate and that the loss to the taxpayer is correctly recorded within the Parliamentary Accountability and Audit Report.

The constructive loss has been approved by the Department of Health and Social Care and I therefore do not consider the expenditure to be irregular.

Gareth Davies
Comptroller and Auditor General

Date 20 June 2019

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

Annual Accounts

Statement of Comprehensive Net Expenditure for the year ended 31 March 2019

	Notes	31 March 2019 £000	31 March 2018 £000
Gross Income			
Income from sale of goods and services	2	333,282	327,019
Other operating income	2	24,885	21,830
		358,167	**348,849**
Expenditure			
Staff costs	4	(204,515)	(199,968)
Purchase of goods and services	5	(182,498)	(199,911)
Depreciation, amortisation & impairment charges	9&10	(12,187)	(10,558)
Other operating expenditure	6	(24,513)	(24,403)
		(423,713)	**(434,840)**
Net operating expenditure before interest		**(65,546)**	**(85,991)**
Finance expense		(408)	(428)
Net operating expenditure after interest	2	**(65,954)**	**(86,419)**
Other Comprehensive Net Expenditure Items which will not be reclassified to net operating costs:			
Net gain on revaluation of Property, Plant and Equipment	9&10	13,757	13,645
Total comprehensive net expenditure		**(52,197)**	**(72,774)**

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 2019

	Notes	31 March 2019 £000	31 March 2018 £000
Non-Current Assets			
Intangible assets	9	3,407	2,788
Property, plant and equipment	10	208,494	194,226
Financial assets	12	491	171
Total non-current assets		**212,392**	**197,185**
Current Assets			
Inventories	11	21,817	15,030
Trade and other receivables	12	36,244	35,696
Cash and cash equivalents	13	28,444	23,479
Total current assets		**86,505**	**74,205**
Current Liabilities			
Trade and other payables	14	(23,664)	(25,506)
Provisions for liabilities and charges	15	(350)	(807)
Other liabilities	16	(186)	(166)
Total current liabilities		**(24,200)**	**(26,479)**
Total assets less current liabilities		**274,697**	**244,911**
Non-Current Liabilities			
Provisions for liabilities and charges	15	(437)	(867)
Financial liabilities	16	(8,164)	(3,944)
Total non-current liabilities		**(8,601)**	**(4,811)**
Total assets less total liabilities		**266,096**	**240,100**
Taxpayers' Equity			
General Fund		176,661	160,046
Revaluation Reserve		89,435	80,054
Total taxpayers' equity		**266,096**	**240,100**

Notes 1 to 22 form part of these accounts.

The financial statements on pages 73 to 102 were approved by the Governance and Audit Committee in accordance with powers within the NHSBT Standing Orders on 14 June 2019 and are signed by the Accounting Officer, Betsy Bassis.

Betsy Bassis
Accounting Officer

Date: 14 June 2019

Statement of Cash Flows for the year ended 31 March 2019

	Notes	31 March 2019 £000	31 March 2018 £000
Cash flows from operating activities			
Net operating costs		(65,546)	(85,991)
Other cashflow adjustments	17.2	11,907	12,936
Movement in working capital	17.1	(9,602)	669
Provisions utilised	15	(541)	(2,362)
Movement in financial liabilities	16	4,406	-
Net cash (outflow) from operating activities		**(59,376)**	**(74,748)**
Cash flows from investing activities			
Purchase of plant, property & equipment		(12,789)	(6,576)
Purchase of intangible assets		(521)	-
Proceeds from disposal of non-current assets		-	2
		(13,310)	**(6,574)**
Cash flows from financing activities			
Grant from DHSC		78,201	72,600
Capital element paid in respect of finance leases	16	(166)	(149)
Interest paid in respect of finance leases		(384)	(405)
Net financing		**77,651**	**72,046**
Net increase in cash and cash equivalents		4,965	(9,276)
Cash and cash equivalents at 01 April		23,479	32,755
Cash and cash equivalents at 31 March	13	**28,444**	**23,479**

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2018

	Notes	General Fund £000	Revaluation Reserve	Total Reserves £000
Balance at 1 April 2017		171,026	69,247	240,273
Changes in taxpayers' equity for 2017/18				
Comprehensive net expenditure for the financial period		(86,419)	-	(86,419)
Net gain on revaluation of property, plant and equipment	9&10	-	13,645	13,645
Transfer between reserves		2,839	(2,839)	-
Total recognised income and expense for 2017/18		**(83,580)**	**10,806**	**(72,774)**
Revenue Grant from DHSC		66,100	-	66,100
Capital Grant from DHSC		6,500	-	6,500
Balance at 31 March 2018		**160,046**	**80,054**	**240,100**

Statement of Changes in Taxpayers' Equity for the year end 31 March 2019

	Notes	General Fund £000	Revaluation Reserve	Total Reserves £000
Balance at 1 April 2018		160,046	80,054	**240,100**
Changes in taxpayers' equity for 2018/19				
Comprehensive net expenditure for the financial period		(65,954)	-	**(65,954)**
Net gain on revaluation of property, plant and equipment and intangible assets	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)**
IFRS15 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**

NHSBT Notes to the Accounts

1. Accounting Policies

The financial statements have been prepared in accordance with the 2018/19 Government Financial Reporting Manual (FreM) issued by HM Treasury. The accounting policies contained in the FreM follow International Financial Reporting Standards to the extent that they are meaningful and appropriate to the public sector as determined by HM Treasury, which is advised by the Financial Reporting Advisory Board. The FreM follows EU adopted IFRSs and interpretations in effect for accounting periods commencing on or after 1 January 2018.

The financial statements have been prepared on a going concern basis and the particular policies adopted by NHS Blood and Transplant (NHSBT) are described below (1.1 to 1.18). They have been applied consistently in dealing with items considered material in relation to the accounts. The accounts are presented in sterling and presented to the nearest thousand.

1.1 Accounting Conventions

This account is prepared under the historical cost convention, modified to account for the revaluation of property, plant and equipment at their economic value in use to the business by reference to current costs. This is in accordance with directions issued by the Secretary of State for Health and Social Care and approved by HM Treasury.

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.

Critical judgements and key sources of estimation uncertainty

There are no critical judgements made in the application of the accounting policies set out below. The key source of estimation uncertainty that have a risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are:-

- Use of depreciated replacement cost to value land and buildings (see accounting policy note 1.5)
- Use of amortised cost as a proxy for fair value for intangible assets (see accounting policy note 1.6)
- The estimation assumptions used in the calculation of provisions for liabilities and charges (see accounting policy note 1.13)

1.2 Income

Operating income is income which relates directly to the operating activities of NHSBT. It principally comprises fees and charges for services provided on a full-cost basis to the NHS and external customers.

Income is accounted for by applying the accruals convention. The main sources of funding for NHSBT are income from sales to the NHS. Where revenue is received for a specific activity which is to be delivered in the following financial year, that revenue is deferred.

The products and services provided to the NHS are primarily blood, components and services such as tissue typing. Products and services are billed in the month following delivery with the exception of Blood and Components where customers are billed a monthly contract value which is adjusted a month in arrears for actual products issued and services delivered.

NHSBT also receives programme funding from DHSC, for the provision of transplant services by the Organ Donation operating division. The programme funding is credited to the general reserve and not recorded as income. Programme funding is recognised in the financial period in which it is received.

IFRS 15 Revenue from Contracts with Customers is effective for annual reporting periods beginning on or after 1 January 2018 and therefore this standard has been applied for the first time to this year's annual report and accounts. A detailed assessment of all income has taken place prior to the year-end closure to ensure all of the provisions of the new standard have been met. All income has been assessed to determine if it is in scope of IFRS 15. NHSBT income from DHSC for programme funding and grant in aid, together with income received from grants is outside the scope of IFRS 15 and continues to be accounted for under IAS 20 Accounting for Government Grants and Disclosure of Government Assistance as adapted for the public sector. Government grants are included in the provision of products and services and other income as shown in Note 2 of these accounts. Government grants and assistance recognised in the financial statements include programme funding from DHSC and grants for research and development, and organ donation & transplantation.

Those sources of income identified as revenue from contracts with customers have been assessed against the new standard for both the current year and the 2017/18 comparator for any accounting treatment adjustments. The material revenue contracts subject to IFRS15 are the blood and testing income contracts with NHS customers, diagnostic & therapeutic services income and other miscellaneous income. NHSBT has applied IFRS 15 using the method described in section C3 (b) of the standard. This method recognizes the cumulative effect of initially applying this standard as an adjustment to the opening balance of retained earnings. A small adjustment has been made to the opening balance.

NHSBT has elected to use the practical expedient in IFRS 15.121 in regard to the non-disclosure of its remaining performance obligations.

There have been no material adjustments to the current period revenue and balances as a consequence of applying IFRS 15 and therefore there are no additional disclosures as required by IFRS 15 C8. This is because the recognition of revenue regarded as in scope of the standard has in the majority of cases been recognised after the performance obligations have been met before the income has been recognised.

There are no material amounts to be disclosed as a consequence of exercising the practical expedient available for contract modifications (IFRS C7A).

1.3 Taxation

NHSBT is not liable to pay corporation tax. Expenditure is shown net of recoverable VAT. Irrecoverable VAT is charged to the most appropriate expenditure heading or capitalised if it relates to an asset.

1.4 Capital Charges

In accordance with Treasury guidance, a notional cost of capital is charged at 3.5% (2017/18 3.5%) on all assets (excluding cash balances) less liabilities. These notional charges are shown as an expenditure item in segmental reporting note 2. The notional charge is not reflected in the Statement of Comprehensive Net Expenditure, but a cash payment of £17.4m (2017/18 £17.5m) in respect of the prior year capital charges (depreciation and notional cost of capital) recovered through prices and paid over to the Department of Health and Social Care (DHSC) is shown in Note 6 and in the SOCNE.

1.5 Property, Plant & Equipment

(a) Capitalisation – Property, Plant & Equipment is capitalised if:

- it is held for use in delivering services or for administrative purposes;
- it is expected to be used for more than one year;
- individually has a cost equal to or greater than £5,000; or
- collectively has a cost of at least £5,000 and an individual cost of more than £250, where the assets are functionally interdependent, they have broadly simultaneous purchase dates, are anticipated to have simultaneous disposal dates and are under single managerial control; or
- 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, the components are treated as separate assets and depreciated over their own useful economic lives.

All property, plant and equipment 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 in use are held in the Statement of Financial Position as equivalent to fair value.

Property assets are classified separately as land and buildings. Buildings assets include the costs of refurbishment where the work results in additional and/or extended service potential of the property. Where properties are occupied under operating leases, refurbishments by NHSBT are capitalised at historic cost and depreciated over the remaining life of the lease.

Assets 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 includes professional fees but not borrowing costs, which are recognised as expenses immediately, as allowed by IAS 23 for assets held at fair value.

(b) Valuation

All land and buildings are revalued using professional valuations in accordance with IAS 16 every five years. Professional valuer's review the valuations annually on a desktop basis 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 carried out in March 2019. The revaluations are carried out professionally by the Valuation Office Agency. The next full valuation will be carried out in 2024.

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.

Increases arising on revaluation are taken to the Revaluation Reserve except when it reverses a revaluation decrease for the same asset previously recognised in the Statement of Comprehensive Net Expenditure. In this case it is credited to the Statement of Comprehensive Net 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. Impairment losses that arise from a clear consumption of economic benefit are charged to expenditure. Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of the recoverable amount but capped at the amount that would have been determined had there been no initial impairment loss. The reversal of the impairment loss is credited to expenditure to the extent of the decrease previously charged there and thereafter to the revaluation reserve. Gains and losses recognised in the revaluation reserve are reported as other comprehensive net expenditure in the Statement of Comprehensive Net Expenditure. When NHSBT disposes of revalued property, plant and equipment, any remaining amount attributable to the asset held in the revaluation reserve is transferred to the general fund.

1.6 Intangible Assets

Intangible assets are non-monetary assets without physical substance, which are capable of sale separately form the rest of NHSBT's business or which arise from contractual or other legal rights. They are recognised only when it is probable that future economic benefits will flow, or service potential 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.

Following initial recognition at historic cost, intangible assets are carried at amortised cost as a proxy for fair value.

Expenditure on research is not capitalised, it is recognised as an operating expense in the period in which it is incurred. Development expenditure is capitalised to the extent that it results in the creation of an asset but only if, all of the following criteria have been demonstrated as met:

- the technical feasibility of completing the intangible asset so that it will be available for use
- the intention to complete the intangible asset and use it
- the ability to sell or use the intangible asset
- how the intangible asset will generate probable future economic benefits or service potential
- the availability of adequate technical, financial and other resources to complete the intangible asset and sell or use it
- the ability to reliably measure the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally generated intangible assets is the sum of the expenditure incurred in developing and/or bringing the asset into use.

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.

1.7 Depreciation, amortisation and impairments

Amounts are deducted from each individual intangible asset, property plant and equipment, to write off the costs or valuation, less any residual value, to net operating expenditure as follows:

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

- Purchased computer software licences are amortised over the shorter of the term of the licence and their useful economic lives;

- Land is not depreciated as per IAS 16 section 58;

- Buildings are depreciated evenly on their revalued amount over the assessed remaining life of the asset as advised by the Valuation Officer. Assets (other than land) held under finance leases are depreciated over their estimated useful lives or, where shorter, the lease term;

- Equipment assets are depreciated evenly over the expected useful life:
  - Short term equipment assets: one to five years
  - Medium term equipment assets: six to ten years
  - Long term equipment assets: eleven to twenty years

- Assets under construction, and assets held or identified for future sale are not depreciated;

- Intangible assets are amortised over a minimum of 3 years and a maximum of eight 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.

At each Statement of Financial Position date, NHSBT checks whether there is any indication that any of its tangible or intangible non-current assets have suffered an impairment loss. If there is indication of an impairment loss, the recoverable amount of the asset is estimated to determine whether there has been a loss and, if so, its amount. Intangible assets not yet available for use are tested for impairment annually.

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.

1.10 Foreign Exchange

NHSBT's functional currency and presentational currency is sterling. Resulting exchange gains and losses are taken to the Statement of Comprehensive Net Expenditure. All other transactions, which are denominated in a foreign currency, are translated into sterling at the exchange rate prevailing on the date of each transaction.

1.11 Employee Benefits

Short-term employee benefits

Salaries, wages and employment-related payments are recognised in the period in which the service is received from employees. The cost of leave earned but not taken by employees at the end of the period is recognised as a liability in the Statement of Financial Position.

Retirement Benefit Costs

Past and present employees are covered by the provisions of the NHS Pensions Scheme. The scheme is accounted for as if it were a defined contribution scheme. The cost to NHSBT of participating in the scheme is taken as equal to the contributions payable to the scheme for the accounting period.

For early retirements, other than those due to ill health, the additional pension liabilities are not funded by the scheme. The full amount of the liability for the additional costs is charged to expenditure at the time NHSBT commits itself to the retirement, regardless of the method of payment.

Early Termination Costs

Early termination costs are charged to the Statement of Comprehensive Net Expenditure in accordance with IAS 19 Employee Benefits when as a result of a decision to terminate an employee's employment, the offer can no longer be withdrawn, and all of the following criteria are met:

- Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made.

- The plan identifies the number of employees whose employment is to be terminated, their job classifications or functions and their locations (but the plan need not identify each individual employee) and the expected completion date.

- The plan establishes the termination benefits that employees will receive in sufficient detail that employees can determine the type and amount of benefits they will receive when their employment is terminated.

Pension costs

NHSBT employees can opt to join the NHS Pensions Scheme. Details of the benefits payable under these provisions can be found on the pension website at: https://www.nhsbsa.nhs.uk/nhs-pensions

The scheme is an unfunded, defined benefit scheme where the costs recorded are the employer contributions payable to the scheme in the period. The scheme covers NHS employers, GP practices and other bodies, allowed under the direction of the Secretary of State, in England and Wales. The scheme is not designed to be run in a way that would enable NHS bodies to identify their share of the underlying scheme assets and liabilities.

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 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 2019, is based on an assessment of liabilities at 31 March 2018, updated to 31 March 2019 with an approximation to reflect known changes. 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 scheme actuary report, which forms part of the annual NHS Pension Scheme Accounts, published annually. These accounts can be viewed on the NHS Pensions website. 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 scheme (taking into account its recent demographic experience), and to recommend the contribution rates.

The last published full actuarial valuation undertaken for the NHS Pension Scheme was completed for the year ending 31 March 2016. The impacts of this revaluation are expected to be reflected in contributions from 2019. The expected employee contributions to the plan for the next annual reporting period are 20.68%.

The Scheme Regulations allow contribution rates to be set by the Secretary of State for Health, with the consent of HM Treasury, and consideration of the advice of the Scheme Actuary and appropriate employee and employer representatives as deemed appropriate.

c) Scheme provisions

The NHS Pension Scheme is a defined benefits scheme. NHSBT employees are members of the 1995, 2008 and 2015 schemes. Each scheme has different benefits and conditions. Below is a summary of key features of each and is an illustrative guide only.

The 2015 scheme is a career average revalued earning (CARE) scheme. In the CARE scheme the member's pension is based on pensionable pay throughout their career. The members earn 1/54th of their pensionable pay each year they work, this is revalued each year up to retirement or leaving. The final pensionable pay is calculated by adding together the revalued pensions earned in each year of membership.

The 1995 and 2008 Schemes are "final salary" schemes. Annual pensions are normally based on 1/80th for the 1995 section and of the best of the last three years pensionable pay for each year of service, and 1/60th for the 2008 section of reckonable pay per year of membership. Members who are practitioners as defined by the Scheme Regulations have their annual pensions based upon total pensionable earnings over the relevant pensionable service.

Annual increases are applied to pension payments based on the consumer price index (CPI) in the twelve months ending 30 September in the previous calendar year.

Early payment of a pension is available to members of the schemes who are permanently incapable of fulfilling their duties effectively through illness or infirmity. A death gratuity of twice final year's pensionable pay for death in service, and five times their annual pension for death after retirement is payable.

For early retirements other than those due to ill health the additional pension liabilities are not funded by the scheme. The full amount of the liability for the additional costs is charged to the employer.

Members can purchase additional service in the NHS Scheme and contribute to money purchase AVC's run by the Scheme's approved providers or by other Free Standing Additional Voluntary Contributions (FSAVC) providers.

NHSBT has made £21.0m employer contributions to the NHS pension scheme and £13.5m of employee contributions during 2018/19 for 5,027 participating members.

National Employment Savings Trust (NEST)

NEST was set up by the government for auto enrolment and is run as a trust.

The legal minimum contribution for jobholders is currently 5 per cent of their qualifying earnings. Of this, NHSBT pays a minimum of 2 per cent. Tax relief is receivable from the government in relation to pension contributions and NEST claims this on the employee's behalf.

The law requires NHSBT to increase minimum contributions. By April 2019, the combined minimum contribution rate for qualifying earnings will have gone up to 8 per cent, of which NHSBT will pay a minimum of 3 per cent.

At the end of the 2018/19 financial year there are 110 employees who are a member of NEST pension scheme.

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 1.5 (b) 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. Leased land and buildings are assessed separately as to whether they are operating or finance leases in accordance with IAS 17.

The change in accounting treatment for leases has been deferred until 2020/21 when IFRS 16 Leases is due to be adopted. It is expected that all material long term operating leases in future will be presented in the Statement of Financial Position (together with all other finance leases, although the distinction between finance and operating leases will be discontinued) showing both the recognition of the asset and the liability of the lease if the nature of the lease meets the criteria as defined by the standard. IFRS 16's application is expected to have a material impact on the financial position of NHSBT due to the material property operating leases not currently capitalised on the balance sheet.

1.13 Provisions

Provisions are recognised when NHSBT has a present legal (or constructive) obligation for a future liability as a result of a past event, and it is probable that NHSBT will be required to settle the obligation. NHSBT provides for legal or constructive obligations that are of uncertain timing or amount at the Statement of Financial Position date on the basis of the best estimate of the expenditure required to

settle the obligation, taking into account the risks and uncertainties. Where appropriate, this is supported by independent professional advice.

Provisions are charged to net operating expenditure unless they relate to capital projects, in which case the provision is added to the asset's carrying amount. Where the effect of the time value of money is significant, the estimated risk-adjusted cash flows are discounted using the Treasury's published discount rates.

When some or all of the economic benefits required to settle a provision are expected from a third party, the receivable amount is recognised as an asset if it is virtually certain that re-imbursements will be received, and the amount of the receivable can be measured reliably.

Clinical Risk Pooling

The NHS Resolution (NHSR) operates a risk pooling scheme under which NHSBT pays an annual contribution to the NHSR, which in return settles all clinical negligence claims. The contribution is charged to expenditure.

Provisions for clinical negligence claims therefore are included in the accounts of the NHSR. Although the NHSR is administratively responsible for all cases, the legal liability remains with NHSBT. The value of provisions of NHSBT carried by the NHSR is disclosed in Note 15.

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 the 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 the Statement of Comprehensive Net Expenditure as and when they become due.

1.14 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 control of NHSBT, 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 control of NHSBT. A contingent asset is disclosed where an inflow of economic benefits is virtually certain.

1.15 Financial Instruments

IFRS 9 Financial Instruments is effective for periods beginning on or after 1 January 2018 and therefore NHSBT has applied the standard for the first time to this set of accounts (see Note 22).

Financial assets
Financial assets are recognised on the Statement of Financial Position when NHSBT becomes party to the financial instrument contract or, in the case of trade receivables, when the goods or services have been delivered. Financial assets are derecognised when the contractual rights have expired, or the asset has been transferred. Financial assets are initially recognised at fair value.

NHSBT does not have any available for sale financial assets.

Loans and receivables are non-derivative financial assets with fixed or determinable payments which are not quoted in an active market and which are not classified as available for sale. After initial recognition, they are measured at amortised cost using the effective interest method, less any impairment. NHSBT does not currently hold any loan assets in its Statement of Financial Position.

Financial liabilities

Financial liabilities are recognised on the Statement of Financial Position when NHSBT becomes party to the contractual provisions of the financial instrument or, in the case of trade payables, when the goods or services have been received. Financial liabilities are derecognised when the liability has been discharged, that is, the liability has been paid or has expired. Financial liabilities are initially recognised at fair value.

Financial liabilities are classified as either financial liabilities 'at fair value through the Statement of Comprehensive Net Expenditure' or other financial liabilities.

After initial recognition, all other financial liabilities are measured at amortised cost using the effective interest method. The effective interest rate is the rate that exactly discounts estimated future cash payments through the life of the asset, to the net carrying amount of the financial liability. NHSBT currently hold finance lease liabilities in the Statement of Financial Position, see Note 1.12 above and Note 16 below, the accounting treatment of which falls under IAS 17 Leases (IFRS 16 will be effective for accounting periods commencing on or after 1 January 2019), and not IFRS 9 Financial Instruments.

1.16 Subsidiaries

NHS Blood and Transplant is the corporate trustee of the linked NHS Blood and Transplant Trust Fund as it effectively has the power to exercise control to obtain economic benefits. The trust fund transactions are immaterial in the context of NHS Blood and Transplant and the trust's transactions have not been consolidated into NHSBT's accounts. Details of the transactions with the charity are included in the related parties' note 20.

1.17 Taxpayer's equity

General Fund

The general fund is the primary fund used by NHSBT. This fund is used to record all resource inflows and outflows that are not associated with special-purpose funds. The activities being paid for through the general fund constitute the core administrative and operational tasks of NHSBT.

Revaluation Reserve

The revaluation reserve contains surpluses from the revaluation of assets and arise when the value of an asset becomes greater than the value at which it was previously carried on the balance sheet, increasing shareholders' funds. The revaluation reserve is an unrealised reserve which is not available for distribution.

1.18 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, effective for accounting periods commencing on or after 1 January 2019 have not been adopted early in these accounts:

- **IFRS 16 – Leases**: The change in the accounting treatment for leases has been deferred until 2020/21. 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.

- **IFRIC 23 – Uncertainty over Income Tax Treatments**: This interpretation is not expected to have any impact on NHSBT's accounts.

- **Prepayment Features with Negative Compensation (Amendments to IFRS 9)**: This amendment relating to financial instruments is not expected to have any impact on NHSBT's accounts.

Note 2 – Segmental Reporting and Reconciliation of net operating expenditure to Programme Funding from the Department of Health and Social Care (DHSC)

For the year 1 April 2018 to 31 March 2019	Total	Blood Components (incl R&D)	Diag-nostics	Tissues	Stem Cells Unit	Therapeutic Apheresis Services	Organ Donation & Transplant
	£000	£000	£000	£000	£000	£000	£000
Revenue							
Provision of Products and Services	**333,282**	262,902	30,372	14,719	14,262	11,027	-
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	-	3,709	366	241
Programme Funding from the DHSC	**69,201**	2,229	244	75	4,263	53	62,337
Total Revenue	**427,368**	**271,984**	**32,632**	**14,794**	**22,234**	**11,446**	**74,278**
Expenditure							
Variable costs	**(60,664)**	(41,060)	(6,188)	(2,107)	(3,700)	(4,169)	(3,440)
Direct costs	**(212,141)**	(109,828)	(18,438)	(9,825)	(12,435)	(3,801)	(57,814)
Direct support costs	**(82,700)**	(66,377)	(2,414)	(1,993)	(4,115)	(792)	(7,009)
Movement in value of stocks	**3,972**	4,125	-	(153)	-	-	-
Other support costs	**(48,200)**	(30,585)	(3,280)	(1,675)	(2,408)	(1,012)	(9,240)
Total Expenditure	**(399,733)**	**(243,725)**	**(30,320)**	**(15,753)**	**(22,658)**	**(9,774)**	**(77,503)**
Operating surplus/ (deficit) for the financial period	**27,635**	**28,259**	**2,312**	**(959)**	**(424)**	**1,672**	**(3,225)**
Transformation costs	(14,905)	(9,051)	(330)	-	-	-	(5,524)
Operating surplus for the financial period	**12,730**	**19,208**	**1,982**	**(959)**	**(424)**	**1,672**	**(8,749)**
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)**						

For the year 1 April 2017 to 31 March 2018	Total	Blood Components (inc R&D)	Diag-nostics	Tissues	Stem Cells Unit	Therapeutic Apheresis Services	Organ Donation & Transplant
	£000	£000	£000	£000	£000	£000	£000
Revenue							
Provision of Products and Services	327,019	260,699	29,957	12,853	14,122	9,388	-
Income from Scottish Parliament	6,043	-	-	-	-	-	6,043
Income from National Assembly for Wales	3,707	-	-	-	-	-	3,707
Income from Northern Ireland Assembly	2,080	-	-	-	-	-	2,080
Other Income	10,000	5,278	599	-	3,398	553	172
Programme Funding from the DHSC	66,100	-	224	-	3,949	-	61,927
Total Revenue	**414,949**	**265,977**	**30,780**	**12,853**	**21,469**	**9,941**	**73,929**
Expenditure							
Variable costs	(58,424)	(40,937)	(5,404)	(1,866)	(3,091)	(3,565)	(3,561)
Direct costs	(207,651)	(108,512)	(17,627)	(9,572)	(11,207)	(3,390)	(57,343)
Direct support costs	(81,628)	(65,570)	(2,426)	(2,038)	(4,151)	(809)	(6,634)
Movement in value of stocks	(1,373)	(1,288)	-	(85)	-	-	-
Other support costs	(47,045)	(29,925)	(3,168)	(1,687)	(2,295)	(966)	(9,004)
Total Expenditure	**(396,121)**	**(246,232)**	**(28,625)**	**(15,248)**	**(20,744)**	**(8,730)**	**(76,542)**
Operating surplus/ (deficit) for the financial period	**18,828**	**19,745**	**2,155**	**(2,395)**	**725**	**1,211**	**(2,613)**
Transformation costs	(29,025)	(24,196)	-	-	-	-	(4,829)
Operating deficit for the financial period	**(10,197)**	**(4,451)**	**2,155**	**(2,395)**	**725**	**1,211**	**(7,442)**
Add: Notional cost of capital in expenditure	7,422						
Less: Programme Funding from DHSC	(66,100)						
Less: Capital charges paid to the DHSC	(17,544)						
Net expenditure	**(86,419)**						

NHSBT comprises a number of strategic operating units, or segments, together with Group Services.

The **Blood Components** operating unit provides blood and blood components, primarily to NHS hospitals and includes research and development activity.

The **Diagnostic Services** operating unit provides specialist laboratory services (Red Cell Immunohematology and Histocompatibility & Immunogenetics) and also reagents.

The **Tissues** operating unit provides human tissue products.

The **Stem Cell Services** operating unit comprises the Cellular and Molecular Therapies function, the British Bone Marrow Registry (BBMR) and the Cord Blood Bank (CBB).

The **Therapeutic Apheresis Services** operating unit provides a range of therapeutic apheresis services (e.g. plasma exchange, photopheresis) direct to patients.

The operating units listed above seek to recover their costs through the pricing of blood components, tissues and services to NHS hospitals, which are primarily set annually via a national commissioning process. Programme Funding from the DHSC is provided by the DHSC to support the activities of the CBB and BBMR.

The **Organ Donation and Transplantation** operating unit is primarily funded through Programme Funding from the DHSC, along with contributions from the Devolved Health Administrations. The purpose of the unit is to identify and refer increasing numbers of potential organs donors and to increase the numbers of actual donors so that an increase in the number of transplants is enabled.

Group Services comprises overhead departments including Finance, People, IT Services and Estates & Facilities. The Group Services costs are to support the strategic operating units. These costs are allocated across the segments using activity-based costing methodology.

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.

Geographical information has not been disclosed for revenues or expenditure with foreign country entities due to the small proportion of transactions within the totals and therefore does not have an impact on the readers understanding of the segmental information.

Note 3 - Revenue from contracts with customers

This year, IFRS 15 Revenue from contracts with customers, has been adopted and applied to these accounts for the first time and the information below sets out the disclosures NHSBT needs to make in its year of transition under the new revenue standard.

Total income received by source is:

	31 March 2019 £000	31 March 2018 £000
Programme funding from DHSC	69,201	66,100
Income from grants (government and non-government)	14,482	14,460
Income from contracts with customers (including NHS contracts)	343,685	334,388
Total	**427,368**	**414,948**

Income from contracts with customers:	31 March 2019 £000	31 March 2018 £000
Blood and components income	261,183	256,910
Diagnostic & therapeutic services income	75,960	70,248
Other income	6,542	7,231
Total	**343,685**	**334,389**

Any consideration from contracts with customers is included in the transaction price of the contracts i.e. there is no consideration 'in kind'.

The majority of NHSBT's Blood and DTS income approximately 92% of the total, is low economic credit risk as it is income from the NHS. The remaining 8% of Blood and DTS income is subject to the economic conditions of the private sector.

Other income consists of approximately 55% of income from NHS customers and 45% of income from other sectors.

The balances for contracts with customers as at the beginning and the end of the period are:

	31 March 2019 £000	31 March 2018 £000
Receivables	20,461	22,748
Contract assets	257	47
Contract liabilities	(362)	(138)

There are more contract assets and liabilities for the current year due to more contracts where performance obligations have been fulfilled (asset) or unfilled at a different rate to income being billed or received therefore requiring the income to be adjusted.

NHSBT only recognises accrued and deferred income as contract assets and liabilities. NHSBT has no costs from contracts with customers that meet the criteria of assets as described in IFRS 15.91 or IFRS 15.95.

It is not possible to disclose the aggregate amount of the transaction prices allocated to the remaining performance obligations for contracts with customers as of 31 March 2019 because the majority of the contracts are based on unit price lists as opposed to quantifiable total contract values. An estimate of the revenue NHSBT is expected to recognise over the next three financial years, and as the contracts are completed, is:

NHSBT Forecast	2019/20 Est £m	2020/21 Est £m	2021/22 Est £m
Blood / DTS / Other	331.1	328.3	326.7

NHSBT typically satisfies its performance obligations for supplies and services as supplies are delivered and services completed. Services that are provided continually over the longer term are usually invoiced monthly in equal amounts spread across the period of delivery of the service.
The satisfaction of performance obligations generates the requests for payment shortly thereafter. Payment terms for NHSBT customers are typically 30 days from the date of invoice. There are no significant financing components in NHSBT contracts due to:

- the short length of time between when the entity transfers the promised supplies or services to the customer and when the customer pays for those goods or services, and
- the amount of promised consideration and the cash selling price, of the promised supplies or services, usually being the same.

Cash transaction prices are based on full cost recovery (non-profit) within fixed rate or fixed price contracts. Consideration amounts within contracts are not usually variable or typically constrained only to the extent that any estimated cash consideration is usually adjusted to actual cash consideration within a month of the estimation date.

Arrangements are in place to accommodate returns and refunds where appropriate e.g. for the non-usage of supplies, the extent of which are measured internally and reported to customers. There are no general warranties given only specific undertakings written into contractual terms. Changes in pricing are usually reviewed annually and are confirmed with the National Commissioning Group for Blood (NCG) and the Department of Health after consultation with hospital customers. Judgements are made in assessing current prices for supplies and services based on short term (typically one year) estimates of future variable and fixed costs and are reflected in the prices of contracts with customers. No discounts are given to customers that are material in value.

Note 4 – Staff Costs and related numbers

	Total	31 March 2019		31 March 2018
		Permanently Employed Staff	Other	Total
	£000	£000	£000	£000
Salaries and wages	**167,704**	155,725	11,979	164,078
Social security costs	**15,740**	15,059	681	15,506
Employer contributions to NHS Pensions Agency	**21,071**	20,159	912	20,384
Total	**204,515**	**190,943**	**13,572**	**199,968**

Whole Time Equivalents	Total Number	Permanently Employed Number	Other Number
Year Ended 31 March 2019	**4,672**	**4,412**	**260**
Year Ended 31 March 2018	4,674	4,427	247

Non-permanently employed (other) labour has increased from £12.1m last year to £13.6m this year. This is due to an increase in contingent labour paid through the payroll of just over £2.2m offset by a reduction in agency staff costs to £1.7m of this year's total.

Note 5 – Purchase of Goods and Services

	31 March 2019	31 March 2018
	£000	£000
Consumables	61,107	64,272
Maintenance of buildings, plant and equipment	15,902	16,742
Rent and rates	12,481	12,062
Transport costs	18,845	18,672
External contractors	25,544	34,814
Purchase and lease of equipment and furniture	4,518	4,657
Utilities and telecommunications	8,939	8,847
Media advertising	3,055	3,624
ODT Scheme payments	17,703	19,642
Other staff and related costs	11,996	13,828
Professional fees *	2,320	2,664
External Auditor's remuneration: Audit fees **	88	87
Total	**182,498**	**199,911**

* 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

	Notes	31 March 2019 £000	31 March 2018 £000
Capital charges paid over as cash to DHSC		17,441	17,544
Capital non-cash: Loss on disposal of fixed assets	8.1	90	2,591
Miscellaneous *		6,982	4,268
Total		**24,513**	**24,403**

* Amount includes £3.0m relating to IT software licence fees and £1.3m to insurance costs.

Note 7 – Operating Leases

NHSBT as lessee	31 March 2019 £000	31 March 2018 £000
Payments recognised as an expense		
Lease and rental payments *	8,100	7,556
Total future minimum lease payments payable		
Not later than one year	4,208	4,527
Later than one year and not later than five years	8,017	7,209
Later than five years	754	806
Total	**12,979**	**12,542**

Operating Leases include:
63 property leases with an average 9 years length. There are no contingent rents and no purchase options.

414 lease cars for employees all with 3-year duration. There are purchase options but NHSBT has not exercised these in year though some drivers have.

343 fleet vehicles with an average 4.5-year lease. No purchase options have been exercised in year.

* Lease and rental payments are included in Note 5 – Purchase of Goods and Services and on the Statement of Comprehensive Net Expenditure. In note 5, the various costs in the sum of £8.1m are allocated under categories: Purchase of lease equipment and furniture, rent and rates, transport and other staff related costs.

Note 8 – Other Gains and Losses

	31 March 2019 £000	31 March 2018 £000
8.1 Profit / (Loss) on disposal of non-current assets		
Loss on disposal of transport equipment	-	(144)
Loss on disposal of plant and equipment	(90)	(97)
Loss on disposal of Brentwood property	-	(2,350)
	(90)	**(2,591)**

Note 9 – Intangible Non-Current Assets

	Total £000	Software Purchased £000
Cost		
At 1 April 2018	**18,030**	18,030
Additions purchased	**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	**15,242**	15,242
Provided during the year	**1,259**	1,259
Revaluations*	**(6,543)**	(6,543)
Disposals*	**(4,041)**	(4,041)
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**
Cost		
At 1 April 2017	**18,030**	18,030
Additions purchased	**-**	-
Reclassification	**-**	-
Disposals	**-**	-
At 31 March 2018	**18,030**	**18,030**
Amortisation		
At 1 April 2017	**13,930**	13,930
Provided during the year	**1,312**	1,312
Impairments	**-**	-
Disposals	**-**	-
At 31 March 2018	**15,242**	**15,242**
Net book value at 1 April 2017	**4,100**	4,100
Net book value at 31 March 2018	**2,788**	**2,788**
Net book value at 31 March 2018 comprises:		
Purchased	**2,788**	2,788
Asset financing	**2,788**	**2,788**
Revaluation reserve	**28**	**28**

* An exercise to review nil net book value assets was undertaken in year which resulted in disposals of net nil impact and those assets still in use were re-lifed and re-valued.

Note 10 – Property, Plant and Equipment

	Total	Land	Buildings	L&B Identified for future sale	Assets Under Con-struction	Plant & Machinery	Transport Equipment	Information Technology
	£000	£000	£000	£000	£000	£000	£000	£000
Cost or valuation:								
At 1 April 2018	**255,489**	23,741	156,351	-	1,483	55,715	10	18,189
Additions purchased	**12,886**	-	2,313	-	6,870	2,706	-	997
Reclassification	**-**	-	971	-	(971)	-	-	-
Indexation	**831**	-	-	-	-	831	-	-
Other in year revaluations*	**(8)**	4,624	(2,185)	-	-	-	-	(2,447)
Impairments	**(1,086)**	(862)	(224)	-	-	-	-	-
Disposals*	**(17,545)**	-	-	-	-	(6,476)	-	(11,069)
At 31 March 2019	**250,567**	**27,503**	**157,226**	**-**	**7,382**	**52,776**	**10**	**5,670**
Depreciation:								
At 1 April 2018	**61,263**	-	4,058	-	-	40,492	8	16,705
Provided during the year	**9,842**	23	5,927	-	-	3,247	1	644
Indexation	**604**	-	-	-	-	604	-	-
Other in year revaluations*	**(12,181)**	(23)	(8,556)	-	-	-	-	(3,602)
Disposals*	**(17,455)**	-	-	-	-	(6,386)	-	(11,069)
Accumulated depreciation at 31 March 2019	**42,073**	**-**	**1,429**	**-**	**-**	**37,957**	**9**	**2,678**
Net book value at 1 April 2018	**194,226**	23,741	152,293	-	1,483	15,223	2	1,484
Net book value at 31 March 2019	**208,494**	**27,503**	**155,797**	**-**	**7,382**	**14,819**	**1**	**2,992**
Net book value at 31 March 2019 comprises:								
Owned assets	**134,135**	17,823	97,543	-	957	14,819	1	2,992
Subsequent expenditure on or relating to assets acquired under a Finance Lease	**23,113**	-	21,094	-	2,019	-	-	-
Held on Finance Lease	**51,246**	9,680	37,160	-	4,406	-	-	-
	208,494	**27,503**	**155,797**	**-**	**7,382**	**14,819**	**1**	**2,992**
Revaluation reserve	**88,089**	**14,256**	**71,830**	**-**	**-**	**845**	**-**	**1,158**
Cost or valuation:								
At 1 April 2017	**246,600**	23,627	143,909	2,350	3,663	54,273	589	18,189
Additions purchased	**6,389**	-	580	-	1,483	4,326	-	-
Reclassification	**-**	-	3,663	-	(3,663)	-	-	-
Indexation	**1,416**	-	-	-	-	1,385	31	-
Other in year revaluations	**8,313**	114	8,199	-	-	-	-	-
Disposals	**(7,229)**	-	-	(2,350)	-	(4,269)	(610)	-
At 31 March 2018	**255,489**	**23,741**	**156,351**	**-**	**1,483**	**55,715**	**10**	**18,189**
Depreciation:								
At 1 April 2017	**60,569**	-	3,585	-	-	40,645	427	15,912
Provided during the year	**9,246**	22	5,426	-	-	2,982	23	793
Indexation	**1,059**	-	-	-	-	1,037	22	-
Other in year revaluations	**(4,975)**	(22)	(4,953)	-	-	-	-	-
Disposals	**(4,636)**	-	-	-	-	(4,172)	(464)	-
Accumulated depreciation at 31 March 2018	**61,263**	**-**	**4,058**	**-**	**-**	**40,492**	**8**	**16,705**
Net book value at 1 April 2017	**186,031**	23,627	140,324	2,350	3,663	13,628	162	2,277
Net book value at 31 March 2018	**194,226**	**23,741**	**152,293**	**-**	**1,483**	**15,223**	**2**	**1,484**
Net book value at 31 March 2018 comprises:								
Owned assets	**165,296**	19,928	127,176	-	1,483	15,223	2	1,484
Subsequent expenditure on or relating to assets acquired under a Finance Lease	**22,067**	-	22,067	-	-	-	-	-
Held on Finance Lease	**6,863**	3,813	3,050	-	-	-	-	-
	194,226	**23,741**	**152,293**	**-**	**1,483**	**15,223**	**2**	**1,484**
Revaluation reserve	**80,026**	**9,871**	**69,231**	**-**	**-**	**923**	**1**	**-**

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 2019, 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 has resulted in a reduction in the value of owned assets and an impairment of £862k.

The value of owned assets has reduced year on year by £31.1m. £23.0m (opening valuation) of this reduction relates to Birmingham Vincent Drive and Manchester properties reclassified to finance leases as at March 2019. A further £9.5m of this reduction relates to Leeds and Sheffield properties (see above).

The value of finance leased assets has increased year on year by £44.3m. £24.2m (closing valuation now including land) of this increase relates to Birmingham Vincent Drive and Manchester properties reclassified (as above) following a review of the leases. A further £9.2m of this increase relates to the Cambridge property reclassified as a finance lease (from operating lease) in the year.

* An exercise to review nil net book value plant and machinery and IT assets was undertaken in year which resulted in disposals of net nil impact and those assets still in use were re-lifed and re-valued.

Note 11 – Inventories

	31 March 2019 £000	31 March 2018 £000
Raw materials and consumables	6,667	3,941
Work in progress	2,801	3,687
Finished processed goods	12,349	7,402
Total	**21,817**	**15,030**

In year losses of accountable stores (stock) are disclosed in the Accountability report page 65. Each case is reported to the GAC with an explanation of how they occurred. Inventories are up £6.8m on prior year including stock increases in blood and components £4.1m, an advance purchase of copper wafers £1m and £0.8m stock building of consumables in case of a hard Brexit.

Note 12 – Trade and Other Receivables

	31 March 2019 £000	31 March 2018 £000
Current		
NHS receivables – Revenue	17,671	18,904
Non-NHS trade receivables – Revenue	6,791	5,285
Provision for impairment of receivables	(127)	(2)
Other debtors	204	96
VAT	2,652	3,171
Prepayments and accrued income	9,053	8,242
Subtotal	**36,244**	**35,696**
Non-Current		
Financial Assets	491	171
Subtotal	**491**	**171**
Total trade and other receivables	**36,735**	**35,867**

Provision for irrecoverable debts

Amounts falling due within one year	2018/19 £000	2017/18 £000
At 1 April	2	12
Provided in year	127	2
Written off during year	-	(10)
Recovered during year	(2)	(2)
At 31 March	**127**	**2**

	2018/19 £000	2017/18 £000
Aging of debts provided against		
Up to 12 months	94	2
Over 12 months	33	-
	127	**2**

Receivables and other debtors past due but not impaired		
Up to 3 months	9,673	8,919
Between 4 and 12 months	2,081	4,256
Over 12 months	361	480
	12,115	**13,655**

None of the bad debt provision, nor any of the bad debts written off in the year arise from transactions with related parties (as defined in note 20).

Note 13 – Cash and Cash Equivalents

	31 March 2019 £000	31 March 2018 £000
Balance 1 April	23,479	32,755
Net change in year	4,965	(9,276)
Balance 31 March	**28,444**	**23,479**
Comprising:		
Held with Government Banking Service accounts	28,443	23,478
Cash in hand	1	1
Cash and cash equivalents as in Statement of Cash Flows	**28,444**	**23,479**

Note 14 – Trade and Other Payables

	31 March 2019 £000	31 March 2018 £000
Current		
NHS payables – Revenue	5,309	4,582
Non-NHS trade payables – Revenue	3,598	3,431
Non-NHS trade payables – capital	373	276
Tax and social security costs	6	10
Accruals and deferred income	14,378	17,207
Trade and other payables	**23,664**	**25,506**

Note 15 – Provisions for Liabilities and Charges

At 31 March 2018	PAYE & Liabilities £000	Employee Benefits £000	Redun-dancy £000	Product Liability & Other £000	Total £000
Balance at 1 April 2017	293	927	2,314	692	4,226
Provisions arising in the year	-	12	366	240	618
Utilised during the year	-	(47)	(2,142)	(173)	(2,362)
Reversed unused	(293)	-	(172)	(366)	(831)
Unwinding of discount	-	23	-	-	23
Balance at 31 March 2018	**-**	**915**	**366**	**393**	**1,674**
Expected timing of cash flows:					
With 1 year	-	48	366	393	807
Between 1 year and 5 years	-	202	-	-	202
Thereafter	-	665	-	-	665
	-	**915**	**366**	**393**	**1,674**
At 31 March 2019					
Balance at 1 April 2018	-	915	366	393	**1,674**
Provisions arising in the year	-	(73)	-	183	**110**
Utilised during the year	-	(34)	(366)	(141)	**(541)**
Reversed unused	-	(368)	-	(112)	**(480)**
Unwinding of discount	-	24	-	-	**24**
Balance at 31 March 2019	**-**	**464**	**-**	**323**	**787**
Expected timing of cash flows:					
With 1 year	-	27	-	323	**350**
Between 1 year and 5 years	-	113	-	-	**113**
Thereafter	-	324	-	-	**324**
	-	**464**	**-**	**323**	**787**

Employee Benefits provisions relate to Permanent Injury Benefit awards which are payable over the life term of the individuals receiving the payments.

Redundancy provisions relate to costs expected to arise from restructure programmes that have been approved by the NHSBT Board, have completed staff side consultation, and are in the process of implementation.

Product Liability and Other includes provisions relating to legal actions brought against NHSBT through the use NHSBT products by individuals, legal claims for personal injury, legal claims from donors and employees and other employee liability and public liability claims. Where a reliable estimate cannot be made a contingent liability is disclosed at note 18.

£6,990,614 (31 March 2018 £7,600,000) is included in the provisions of the NHS Resolution at 31 March 2019 in respect of clinical negligence liabilities relating to NHSBT. There is a £nil provision in respect of existing liabilities scheme (31 March 2018 £nil).

Note 16 – Finance Liabilities (Leases)

Minimum Lease Payments	31 March 2019 £000	31 March 2018 £000
Not later than one year	554	554
Later than one year and not later than five years	4,242	2,216
Later than five years	18,966	8,039
	23,762	**10,809**
Less future finance charges	(15,412)	(6,699)
Present value of future lease obligations	**8,350**	**4,110**

Present Value of Minimum Lease	31 March 2019 £000	31 March 2018 £000
Not later than one year	186	166
Later than one year and not later than five years	1,125	884
Later than five years	7,039	3,060
Present value of future lease obligations	**8,350**	**4,110**
Analysed as:		
Current borrowings	186	166
Non-current borrowings	8,164	3,944
	8,350	**4,110**

Finance leases relate to the following:

- Speke – building acquired in 2004/05, depreciated over the primary lease term of 25 years
- Newcastle – lease for land, depreciated over the primary lease term of 125 years
- Barnsley – £4.406m also reflected in asset under construction additions for a new property acquired and due to be occupied in 2020, depreciated over the primary lease term of 25 years

The movement on finance leases in the year was £4.240m which is the non-cash increase in the year of £4.406m (see the cashflow statement) and the capital element paid in respect of finance leases £0.166m (see the cashflow statement).

Note 17 – Working Capital

17.1 – Movement in Working Capital	31 March 2019 £000	31 March 2018 £000
(Decrease)/Increase in receivables with 1 year (note 12)	548	6,351
(Decrease)/Increase in receivables after 1 year (note 12)	320	(2)
(Decrease)/Increase in inventories (note 11)	6,787	(1,957)
Decrease/(Increase) in payables with 1 year (note 14)	1,842	(4,873)
IFRS15 adjustment	8	-
Subtotal	**9,505**	**(481)**
Decrease/(Increase) in payables relating to items not passing through the Statement of Comprehensive Net Expenditure (note 14)	97	(188)
Subtotal	**97**	**(188)**
Total	**9,602**	**(669)**

17.2 – Other Cash Flow Adjustments	31 March 2019 £000	31 March 2018 £000
Depreciation (note 10)	9,842	9,246
Amortisation (note 9)	1,259	1,312
Impairments (note 10)	1,086	-
Loss on disposal (note 8)	90	2,591
Provisions arising in year (note 15)	110	618
Provisions reversed in year (note 15)	(480)	(831)
Total	**11,907**	**12,936**

Note 18 – Contingent Liabilities at 31 March 2019

A contingent liability of £75,837 (31 March 18 £62,000) 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 2018 £1,425,000) 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 31March 2019

At 31 March 2019 the value of contracted capital commitments was £14,524,476 (31 March 2018 £228,000). The significant increase of £14m relates to the new Barnsley building.

Note 20 – Related Parties

The DHSC 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 i.e. the majority of NHS Trusts and Foundations Trusts.

During the period these transactions were valued at £401m of income (31 March 2018 £389m) including capital funding and programme funding from the DHSC and £26m of expenditure (31 March 2018 £27m) which represented trading with 232 separate organisations.

During the period none of the members of the key management staff or other related parties has undertaken any material transactions with NHS Blood and Transplant.

In accordance with IAS 24 the NHS Blood and Transplant Trust Fund and the NHS Pension scheme are regarded as a related party. Income received from the Trust Fund during the year totalled £105,000 (31 March 2018 £28,000) and there was a debtor balance due by the Trust Fund of £42,000 (31 March 2018 £55,000).

Note 21 – Events after the Reporting Period

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.

On 12 June 2019, the Court of Appeal in the case of *East England Ambulance v Flowers* confirmed that NHS staff 'non-guarantee' and voluntary overtime must be included in holiday pay under the Working Time Directive. NHSBT await NHS guidance to quantify the payment that may require to be made to some NHSBT staff.

There were no material post balance sheet events.

Note 22 – Financial Instruments

IFRS 9 Financial Instruments is effective for periods beginning on or after 1 January 2018 and therefore NHSBT has applied the standard for the first time to this set of accounts. In so doing NHSBT has applied the standard as follows:

- **Classification and measurement** – NHSBT hold only non-current financial assets (prepayments and accrued income), current payables and receivables and measurement of these are described in Note 1 Accounting Policies (1.15 Financial Instruments). There are no other financial instruments held in scope of IFRS 9.

- **Hedge accounting** – NHSBT does not carry out any hedge accounting transactions and therefore it does not impact on these accounts.

- **Impairment of financial assets** – as the majority of receivables (circa 97%) is with other NHS bodies, for whom DHSC provides a guarantee of last resort, means there is no credit risk. Additionally, following HM Treasury guidance, NHSBT must not recognise credit losses for intra-DHSC debt. For the minority of receivables that are non-DHSC debts, NHSBT assesses individual debts as part of bad debt provision and write off assessments throughout the year. Although this can be considered a proxy for the expected credit loss under IFRS 9 the amounts involved are immaterial.

- **Disclosures** – there are no additional disclosures or adjustments required for this year's accounts (or last year's comparator) for those financial instruments held as described above.

Financial reporting standard IFRS7 Financial Instruments Disclosures 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. Because of the way that NHSBT is 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 the listed companies to which IFRS7 mainly applies. NHSBT has no power 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 is therefore exposed to little credit, liquidity or market risk.

Liquidity risk

The majority of NHSBT's operating costs arise in Blood and Specialist Services. These are mainly recovered through prices under annual service agreements with NHS Trusts and Foundation Trusts, which are financed from resources voted annually by Parliament and provide ongoing and predictable levels of income. Likewise, Organ Donation and Transplantation is financed through Programme Funding from the DHSC from resources voted annually by Parliament.

Capital expenditure costs are financed from a Capital Allocation from the DHSC voted annually by Parliament to the DHSC. Liquidity risk is low.

Credit risk

NHSBT makes a relatively small amount of sales to customers external to the National Health Service and is not therefore exposed to significant credit risk.

Interest rate risk

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

Foreign currency risk

NHSBT has a relatively small amount of foreign currency income or expenditure. It is converted at the spot rate at the time of the transactions. NHSBT is not therefore exposed to significant foreign currency risk.

Fair values

Fair values are not significantly different from book values and therefore no additional disclosure is required.

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 patient 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). When the D and DHCE genes combine there are 8 possible outcomes – one of which is Dce – also known as Ro subtype. Only 2% of our donors have the Ro subtype. We do not currently collect enough Ro blood to meet demand for this type.
Diagnostic and Therapeutic (DTS)	This division of NHSBT is a group of strategic business units (SBUs) that supply biological products and related services, mostly to the NHS in England. It includes Tissues and Eye Services, Cellular and Molecular Therapies (CMT), Diagnostic Services (H&I and RCI) and Therapeutic Apheresis Service (TAS).
Epitope	An epitope is the part of an antigen that is recognized by the immune system, specifically by antibodies, B cells, or T cells.
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 Diagnostic and Therapeutic division 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.

Term	Definition
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.
Lymphocyte	A lymphocyte is a type of white blood cell in human immune systems.
ODT	Organ 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.
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 12.5% 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 Diagnostic and Therapeutic division which investigate serological problems, investigate adverse transfusion reactions and provide 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% of our donors have the Ro subtype. We do not currently collect enough Ro blood to meet demand for this type.
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 Diagnostic and Therapeutic division which treats patients with Apheresis.
Tissues and Eye Services (TES)	The business unit in NHSBT's Diagnostic and Therapeutic division which collects donations of tissues and eyes, prepares these for transplantation, stores and provides these to hospitals to meet patient need.

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