

Strategic Plan 2013-18





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Joanne and Barry donated the cord blood of their son Harry when he was born at Luton and Dunstable Hospital in December 2004.

Jo says, "I was delighted to be able to donate Harry's cord blood. It is fantastic to have the opportunity to possibly save another person's life with something that would normally be thrown away. My second baby is due soon and I've already registered to donate again."

Jo

1 Saving and improving lives

NHS Blood and Transplant (NHSBT) is a Special Health Authority, dedicated to saving and improving lives through the wide range of services we provide to the NHS.

Our challenge is to provide a safe and reliable supply of blood components, diagnostic services and stem cell services to hospitals in England and North Wales and tissues and solid organs to hospitals across the UK. We also provide diagnostic and therapeutic services outside the UK.

We collect donations from voluntary donors, prepare them for use, dispatch them to hospitals and match them to patients who desperately need them. Each year our donors give around two million donations of blood and 3,500 organs, saving and transforming thousands of lives.

Our therapeutic services teams work with hospital clinicians to provide patients with life-saving treatments for conditions such as leukaemia. Our diagnostic work helps find the right treatment for patients with rare blood conditions and our translational research programme means we're constantly developing safer and more effective treatments.

Our ambition is simple – to be the best organisation of our type in the world.

The following pages provide a glimpse of the scope of our work, our donors, the patients we serve and set out our priorities for the next five years.



One unit of blood donated can potentially save or improve three lives.



One organ donor can save or enhance the lives of up to nine people.

For more information, please visit www.nhsbt.nhs.uk



Cuthbert Sperryn started donating platelets in 2010 aged 17. As a motorbike rider he thought it was morally right that if he was willing to accept blood from someone else he should also be willing to donate. On the donation process he says:

"Once connected you have to keep your arm still, so it's a good idea to get comfortable before the needle is inserted, to be honest once the donation starts it's pretty relaxing to sit and just read or listen to music. The nurses do keep an eye on you. It is quite straightforward really, once you have got through all the initial checks."

Cuthbert

2 Our role

We were formed in October 2005 from the merger of the National Blood Service and UK Transplant.

We are responsible for:

- Encouraging people to donate organs, blood, stem cells and tissues
- Optimising the safety and supply of blood, organs, stem cells and tissues and matching them to patients
- Helping to raise the quality, effectiveness and clinical outcomes of blood and transplant services
- Providing expert advice to other NHS organisations, and to the health departments of the four UK countries
- Commissioning and conducting research and development to improve outcomes for patients
- Implementing relevant EU statutory frameworks and guidance.



Peter Stokes' wife Gillian died after a massive brain haemorrhage, but her donated organs went on to transform the lives of at least four people. Peter says;

"Once you have made the decision to register, make your wishes known to your immediate family. This will help them to make the critical decision about donating your organs after your death".

Peter

3 Our strategy

This document summarises our high-level plans for the next five years. It is supplemented by discrete strategies for our internal business units which set out in more detail their respective aims and objectives.

Our strategy for the next five years is ambitious and is focused on:

- Delivering a modern world-class blood service that is responsive and attractive to our donors
- Working with NHS hospitals so our services are as accessible and effective as they can be to meet patient needs
- Better integration and planning of the end-to-end blood supply chain from donor through to patients
- Matching world-class performance in organ donation and transplantation
- Building on our unique skills and capabilities in tissues, stem cells, diagnostic and apheresis services to deliver high-quality, cost-effective therapies for the NHS and its patients
- Developing and delivering innovative research programmes.

In 2008 we produced a three-year plan which established a series of challenging objectives and addressed the recommendations of both the first Organ Donation Taskforce (ODTF) report and the National Blood Service Strategy Review.

We have met the objectives and realised the benefits of that plan, including more than £30m of annual savings to the NHS by reducing the price of blood to hospitals and successfully delivering the 50% growth in deceased organ donation by 2013.

Our focus now is on better planning and integration of the blood supply chain from donor to patient and continuous improvement in everything we do.

We remain acutely aware of the financial pressures facing public sector services and, in particular, our NHS hospital customers. We work on the basis that every £1 saved on the price of our products and services is £1 available to treat patients. We will also work with the Welsh Government to support the smooth transition to an All Wales Blood Service.

In Organ Donation and Transplantation (ODT) our focus is on launching a UK-wide strategy for 2013-20 to make sure everyone needing a transplant gets one. We work under the direction of the four UK Health Departments and are working with the Welsh Government on its plans to implement the legislation to introduce a system of deemed consent for organ donation.

Our tissues, stem cells, diagnostics and apheresis services help save and improve the lives of up to 13,000 patients per year. We are developing new strategies for each of these areas that are focused on providing high-quality, cost-effective patient-focused services for the NHS. The strategies build on our unique capabilities and our aim to be the NHS's preferred supplier by using our national network of centres of excellence to deliver improved safety, quality and better value for money.

Every product and service we provide depends entirely on the generosity of voluntary donors who donate to benefit people they rarely know. At all times we will work to maintain the respect, confidence and confidentiality of our donors so that we can continue to meet patient needs.



Henry Elliott donated bone marrow to save the life of someone he didn't know. The 19-year-old from Leicester, is studying to be a personal trainer.

"I have been a blood donor for a couple of years and it's great to know I helped people who are sick through giving blood whilst I was waiting to be a bone marrow donor. I decided to donate bone marrow because it's the right thing to do. It was a great experience and I'm looking forward to the next time I'm called up."

Henry

4 Caring for our donors

Seven thousand donors give blood every day, some also choose to become stem cell and living organ donors. Every year, hundreds of people support the decision of their loved one to donate their organs after their death, or make this decision on their behalf, so turning the loss of someone close into the ultimate gift of life to someone else. Our priority is to ensure that we care for those generous individuals as best as we possibly can.

We are proud that our services support the altruism and generosity of our donors. In 2012/13 our donors contributed:

- 1.9 million units of blood
- 4,208 organs
- 5,800 tissue donations
- 2,000 banked cord blood units.

These precious donations helped save and improve thousands of lives.

Our donors:

Nearly
20m
people on the
NHS Organ Register

1.3m
registered blood and
platelet donors

300,000
stem cell donors on the
British Bone Marrow Registry

20,000
cord blood donations in
the NHS Cord Blood Bank

Blood and platelet donors

Our aim is to provide donors with an accessible, safe and appealing service so they can give blood at a convenient time for them. We have 24 fixed blood donation centres across England and 88 mobile blood collection teams running about 25,000 blood collection sessions in the community.

Our challenge is to attract donors in sufficient numbers at the right time and from the right blood group mix to match the needs of hospital patients.

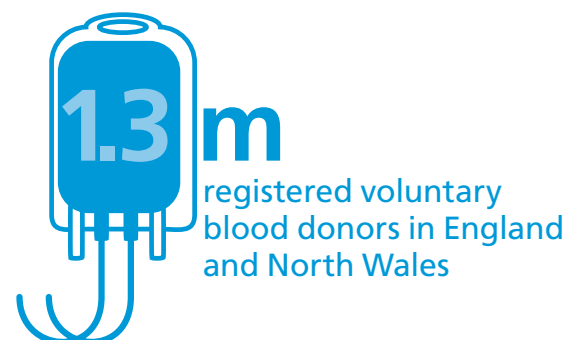
We know our donors support the need to balance efficiency with convenience which means we sometimes have to make difficult decisions about how and where we collect blood. In the future we will see a balance towards operating more sessions in venues with a larger numbers of beds. As a result, blood collection teams may visit some venues

less often than before and we may invite some donors to change the venue at which they have previously donated. However, we will offer more donor beds with a mixture of pre-booked and walk-in appointments so that people can donate in ways that fit with their lifestyles.

We will continue to invest in donor safety and comfort – the roll-out of new donor chairs will be completed in August 2013. We will build on successful initiatives to improve donor safety and experience through reduction in fainting, bruising and re-bleeding. We will continue to refurbish and modernise our fixed donor centres to make them more welcoming and attractive environments.

There is already an 'app' that enables donors to find their nearest blood sessions on their smartphones and tablets. During 2013 we will launch a new service allowing donors to access our information and to book appointments online. Longer-term, we intend to introduce online check-in at sessions for donors via smartphones and the opportunity to complete the Donor Health Check online – saving them time, reducing paperwork and allowing our staff to spend more time caring for donors.

We are always conscious that donating blood is a voluntary act and we will continue to celebrate this commitment – in part through developing our donor awards programme in response to donors' suggestions and ideas.



Organ donors

In 2012/13 we achieved the challenge set by the Organ Donor Taskforce to increase deceased donation by 50% versus the levels achieved in 2007/8 meaning more than 3,100 lives were transformed through a transplant. This fantastic result was due to the hard work and dedication of our staff and numerous people working in hospitals and local communities.

There are nearly 20 million people on the NHS Organ Donor Register (ODR) and numbers are steadily increasing. Despite these numbers, on average, three people a day die because there are not enough organs available for transplant.


This is because, despite more than 500,000 people dying each year in the UK, fewer than 5,000 people currently die in circumstances where they can become a donor. We know that 85% of families with a relative on the ODR will honour their wish to become an organ donor. Our challenge is that only 49% of families give consent where the potential donor is not on the ODR and their wishes may not be known.

We need to make sure that every potential donor is identified, and that skilled staff have the right conversations with families so that potential donors result in an actual donation. We will also aim to increase consent rates by leading a change in public attitudes to donation.

A new UK strategy, *Taking Organ Donation to 2020*, will be published this year. It was developed through consultation with all of our many stakeholders and the general public. It requires the NHS, public and professional organisations to work together to make sure everyone needing a transplant gets one. To support this NHSBT will call on the public for a revolution in attitudes to consent to donation. Without that, the UK will never achieve the best global outcomes in saving more lives through organ transplantation.

Our priorities:

- A revolution in public attitudes to increase consent to organ donation
- Increase representation of Black, Asian and Minority (BAME) communities on the NHS Organ Donor Register (ODR)
- Provide excellent care for donors and their families, ensuring each donor can donate as many organs as possible.

 **Nearly
20m**
people on the NHS
Organ Donor Register

Our priorities:

- Retain existing donors and attract new donors, especially those from rarer blood groups
- Modernise our community-based collection sessions and fixed site collection centres
- Roll out new technology making it easier for donors to donate and improve on-session communications
- Deliver on our research into donors' optimal donation frequency.



Celebrities such as Edith Bowman have helped publicise National Transplant Week.



We have worked closely with BAME communities to raise awareness of organ donation.

In addition to a change in public attitudes, the NHS will continue to play its part. Specialist Nurses in Organ Donation (SN-ODs) will continue to approach, work with and care for potential donor families. Clinical Leads in Organ Donation (CL-ODs) will continue to promote donation at Trust and hospital level and our Donation Committees will continue to promote donation at local and community level.

We will also promote donation in partnership with local councils, in schools, communities and with faith groups across the UK.

We will explore social marketing techniques and learn from other organisations and experts in the field how best to change public attitudes and behaviours.

We will continue to promote both deceased and living donation across the UK through programmes such as National Transplant Week which encourages people to feel proud at the thought of being a donor and celebrates their loved one's actions.

We will continue to work with UK Governments on the implementation of any legislative changes to organ donation.



3 people die a day
in need of an organ

Tissue donors

We operate the UK's largest tissue bank and are the largest not-for-profit organisation supplying the NHS with human tissue. We collect tissue from around 400 living and deceased donors each year and provide around 8,500 implants per year that help save and improve the lives of 2,600 patients. The tissues we supply include skin, bone, heart valves, arteries, tendons and amniotic membranes. Living donors can donate tissue such as bone that is no longer needed, for example following a hip replacement. People who have died are also able to donate tissue, along with organs as they wish. Our specially trained nurses work with bereaved families to explain the process of tissue donation, how it helps patients and to consent for donation.

We will continue to invest in our nurses who manage those sensitive conversations and develop relationships with donors.

We are very proud of the fact our donors help us meet the NHS need for tissue and tissue products. We will continue to promote the need for, and benefit of, tissue donation wherever we can. At present one in three tissue donors is also on the NHS Organ Donor Register or becomes an organ donor and we are acutely aware of the need to provide seamless, compassionate, quality care for donor families.

Our focus is supporting the donor family and we will work with families to understand what they require of us. We will also draw on positive initiatives from elsewhere, such as the USA.

We will continue to provide support services to other tissue banks across the UK. Our National Referral Centre gains consent to donate from over 1,800 eye-only donors per year (over 50% of all eye donors in the UK) and is also responsible for the care of these donor families. We will continue to administer the National Fulfilment System for Heart Valves, which ensures the fair and transparent allocation of donated heart valves in the UK.

Our priorities:

- Further improve the quality of care for donor families.



Martyn was only 23 when his life ended suddenly in a road traffic accident. Yet in the middle of their tragedy, only hours after his death, his family decided to let others be helped through the donation of his tissues.

1,800
eye-only donor consents
gained per year



Stem Cell donors

As a natural extension of our blood service we provide expert support to Haematopoietic Stem Cell Transplantation (HSCT) often described as 'bone marrow transplantation' for half of all stem cell transplants performed on patients in the UK each year. We expect this figure to grow by 5% per year.

We will use our national network of facilities and expertise to become a preferred partner to the NHS, academic and commercial organisations and to access Government funding to develop the next generation of highly personalised cell therapies for patients who need a transplant.

We have over 300,000 donors who are willing to donate their stem cells to patients having treatment for conditions such as leukaemia. Donors come from the British Bone Marrow Registry and the NHS Cord Blood Bank, both of which we run.

British Bone Marrow Registry

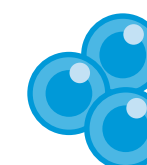
The British Bone Marrow Registry (BBMR) holds details of around 300,000 blood donors who have volunteered to donate stem cells for patients who need them. They do this by giving a small extra sample of blood with their donation which is 'tissue-typed' and added to the register.

50%
of total stem cell
transplants provided
for the UK

20,000
donations banked

Our priorities:

- Attract ethnically diverse cord blood donors
- Improve our contact with bone marrow donors.



300,000
donors willing to
donate their stem cells

The NHS Cord Blood Bank

The NHS Cord Blood Bank collects stem cells from umbilical cord blood at six NHS Hospitals:

- Barnet General Hospital
- Northwick Park Hospital
- Luton and Dunstable Hospital
- Watford General Hospital
- University College Hospital
- St George's Hospital.

We currently have around 20,000 donations banked, which are available to any patient who needs a stem cell transplant in the UK or abroad. It is the fourth largest internationally accredited cord blood bank in the world, with the second highest percentage of rare tissue types.



In 2009 we opened the world's largest blood centre in Filton. Operating 24 hours a day, seven days a week, it uses cutting-edge technology in blood filtration conveyor and storage systems. The testing laboratory, the largest in the UK, tests close to 1,000,000 donations every year.

5 Our unique expertise

Our 6,000 dedicated and expert staff collect donations from our loyal donors, turn their voluntary donations into life-saving and life-enhancing products and distribute them to hospitals throughout the UK to patients. We do this in many different ways using our specialist skills and expertise to ensure a safe, sufficient and efficient service to patients and NHS hospitals.

Blood

Nearly 1,000 dedicated staff care for our blood and platelet donors. To better support them, in improving productivity and providing a better experience for our donors, we will be undertaking a comprehensive review of how the donation process is organised and managed. At the same time we will continue to improve donor satisfaction with the overall service over the five years of the strategy.

Our staff work 24/7 365 days per year to process, test and issue donated blood at our centres in Manchester, Filton, Sheffield, Colindale and Newcastle. Using lean manufacturing techniques has contributed to us achieving world-class productivity levels in processing and testing. This has helped us reduce the price of blood from £140/unit in 2008/09 to £122/unit for 2013/14. Our aim is to at least maintain this price until 2018 if not reduce it further.

We will review in the summer the three pilots on integrating the management of stocks within hospitals and consider the systems and processes that would be needed to roll this out further.

Our priorities:

- Review the structure and organisation within blood donation
- Run a pilot in Newcastle to test the impact on donors and the feasibility of running fewer sessions but with more beds
- Continue the introduction of lean manufacturing initiatives
- Complete and evaluate a series of pilots designed to develop an approach to integrated stock management with hospitals
- Implement a transport management system to aid the tracking and planning of transport movements.



'Our Specialist Nurses in Organ Donation work closely with potential donor families to discuss their loved one's wishes and the possibility of organ donation.'

We will explore new logistical processes in support of the movement of people, equipment and consumables to blood collection sessions in order to minimise wastage, reduce infrastructure costs and minimise non-productive time in set up/set down.

Our focus is on continuous improvement and we will benchmark our performance against other international blood services. We will focus on strategic procurement and collaboration with the other UK and European blood services. This includes a confirmed saving of £18m over seven years arising from our new microbiology managed services contract and an expected £2.2m pa savings on the new Eurobloodpack.

Organs

Our Specialist Nurses in Organ Donation cover every hospital in the UK. They are trained to talk sensitively and compassionately to the families of all potential donors (including those not on the NHS Organ Donor Register). We will continue to work with our NHS colleagues to remove the obstacles to organ donation and manage the identification and referral of potential donors.

Diagnostic Services

Our staff in our diagnostic services work to ensure the safety and clinical efficacy of transfusion and transplantation therapies by providing specialist diagnostic and donation selection activities.

We will conduct a review of laboratory processes using lean working principles to improve the service we provide to hospitals and patients.

24/7/365

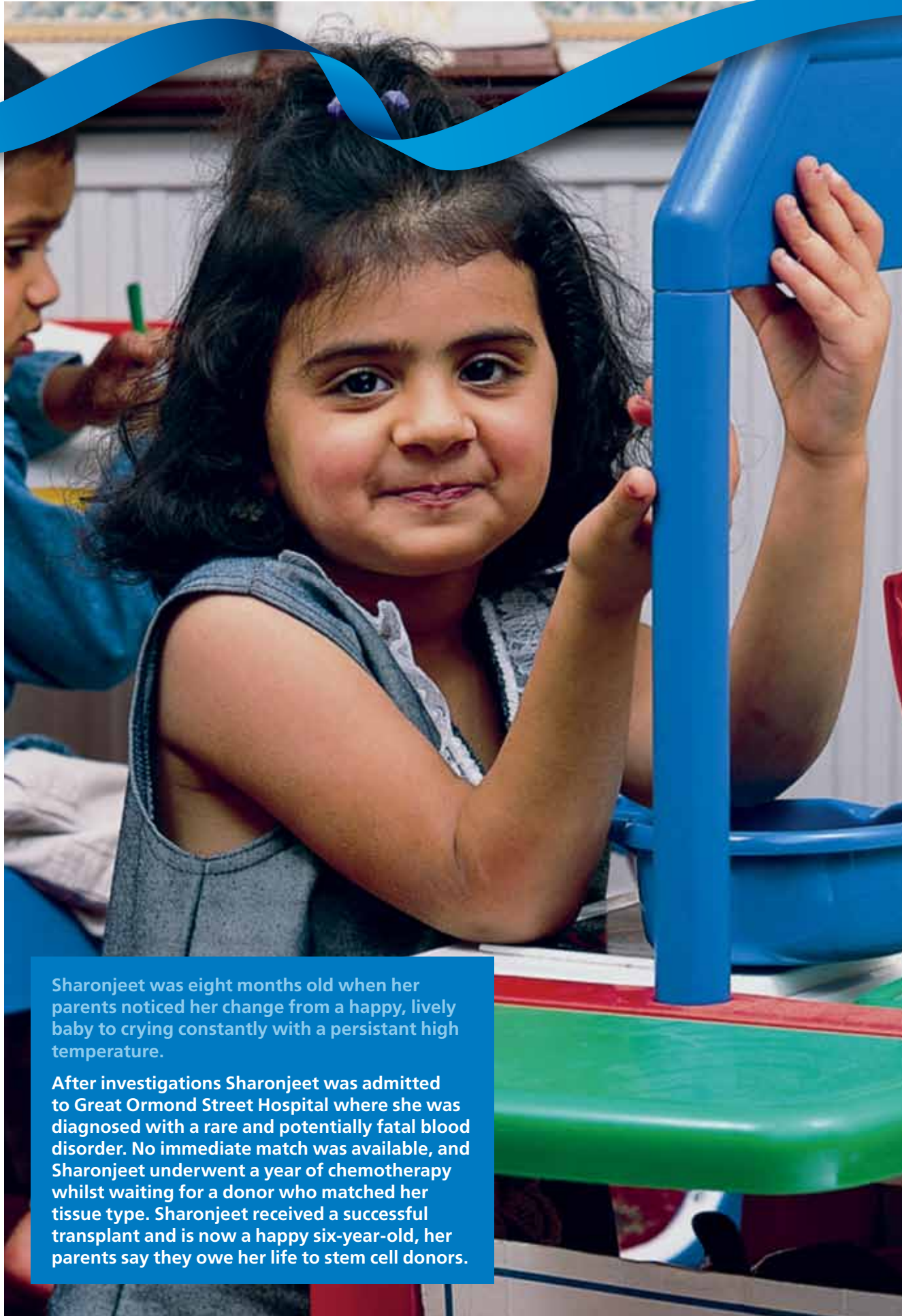
our staff process, test
and issue donated blood
at our centres all year

Our priorities:

- Sustain retrieval services through a period of change in commissioning across England and proposed legislative changes in Wales
- Continued development of Regional Collaboratives as the focus for improving clinical practice in organ donation
- Ensure that better support systems and processes are in place to support organ donation and transplantation operations.

£18.2m

national research
programme



Sharonjeet was eight months old when her parents noticed her change from a happy, lively baby to crying constantly with a persistent high temperature.

After investigations Sharonjeet was admitted to Great Ormond Street Hospital where she was diagnosed with a rare and potentially fatal blood disorder. No immediate match was available, and Sharonjeet underwent a year of chemotherapy whilst waiting for a donor who matched her tissue type. Sharonjeet received a successful transplant and is now a happy six-year-old, her parents say they owe her life to stem cell donors.

6 Quality products and services for patients

Our purpose is to provide quality products and services that save and improve patient lives. We do this as efficiently as possible as every £1 we save can be released for front line patient care. We never compromise on patient safety.

Blood

Our aim is to be the supplier of choice to our hospital customers by providing a cost-effective range of blood products, services and clinical advice needed for transfused patients.

As part of this drive we are completing the roll-out of our Online Blood Ordering System (OBOS) for hospitals on which 98% of orders are now received. The web portal that supports this will be used to develop further initiatives. It also allows us to measure and report our 'on time in full' delivery performance for every hospital customer.

We will continue to work with hospitals to reduce inappropriate use of blood through the Patient Blood Management initiative in partnership with the National Blood Transfusion Committee. Working with the UK Forum and Public Health England, we will continue to assess the availability and performance of prion assays/filters in support of any further steps that can be taken to reduce the potential risk from vCJD.

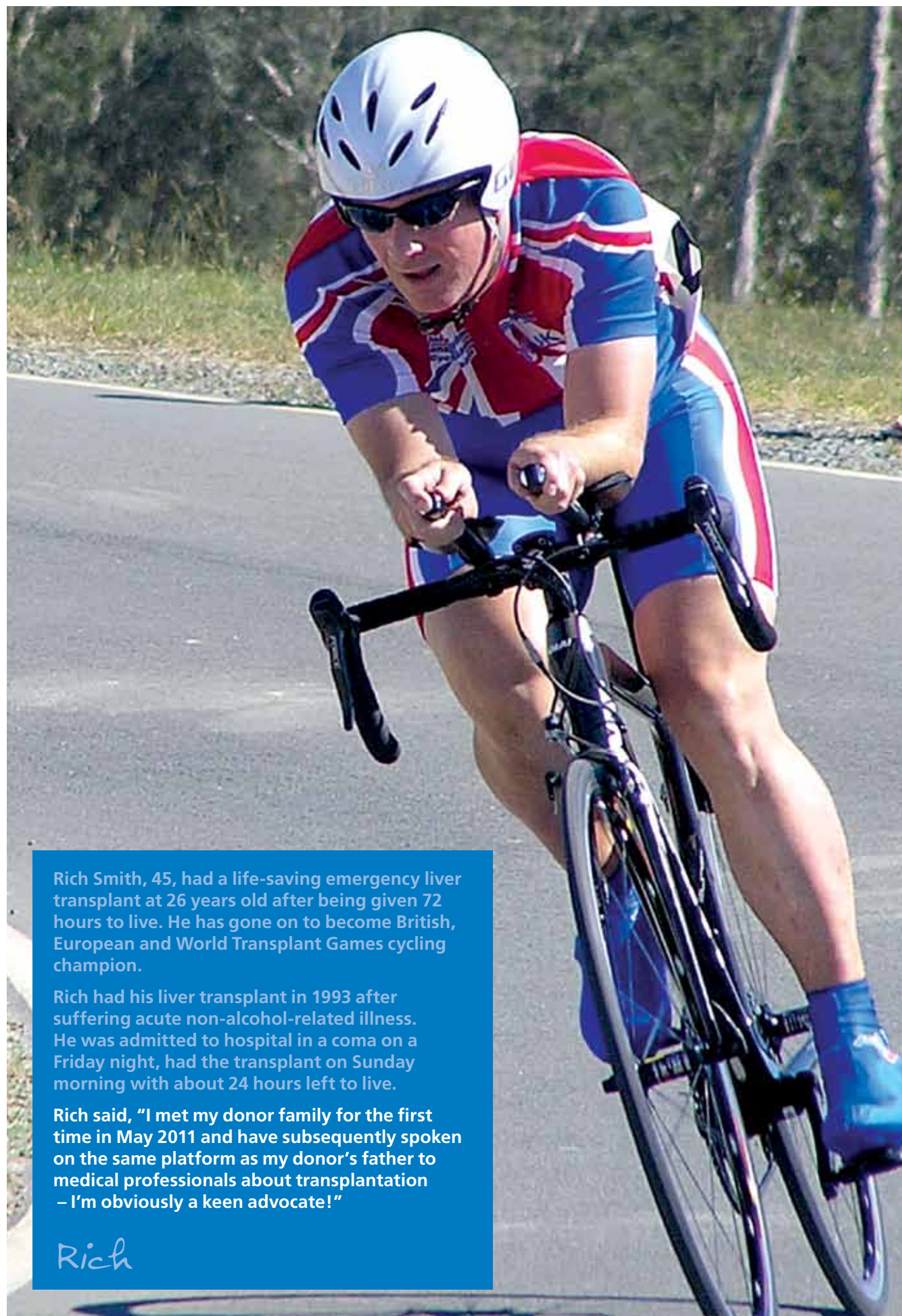
On platelets we have exceeded the 80% target for production by component donation despite a significant growth in demand. We will work with the Safety Advisory Committee for Blood, Tissues and Organs (SaBTO) to determine whether there are circumstances when it would be appropriate to reduce the 80% limit and improve supply through increased production from pooled platelets.

Our priorities:

- Continue to modernise ordering and reporting systems
- Maintain momentum in reducing inappropriate use of blood
- Improve regulatory performance with a 'zero majors' policy.

 **98%**
of orders now
received online

We are regulated and subject to regular inspections. We achieved no critical non-compliances and only one major non-compliance last year. We aim for zero majors in the future. We operate a Quality Management System, a robust training programme for staff and manage a comprehensive schedule of self-inspections to provide assurance of operational performance and regulatory compliance.



Rich Smith, 45, had a life-saving emergency liver transplant at 26 years old after being given 72 hours to live. He has gone on to become British, European and World Transplant Games cycling champion.

Rich had his liver transplant in 1993 after suffering acute non-alcohol-related illness. He was admitted to hospital in a coma on a Friday night, had the transplant on Sunday morning with about 24 hours left to live.

Rich said, "I met my donor family for the first time in May 2011 and have subsequently spoken on the same platform as my donor's father to medical professionals about transplantation – I'm obviously a keen advocate!"

Rich

Organs

Our Specialist Nurses in Organ Donation work to increase the number of people who donate their organs for transplantation. We are responsible for the crucial task of matching and allocating donated organs throughout the UK.

We will continue to develop our IT systems by creating a fully automated tablet-based system to record and transmit data about organ donors. This will be easier for hospital-based staff to use and will help avoid the risk of transcription error.

We will continue to work in partnership with the NHS to consolidate and build on the infrastructure put in place to increase the number of organ donors and number of transplants carried out. We will launch a new UK strategy this year that sets out how everyone involved in organ donation and transplantation can increase donations and transplants by 2020.

We will support hospitals to improve organ donation by providing a balanced scorecard of performance data that will help identify areas for improvement at each stage of the clinical pathway.

In response to the changing demands of the four UK countries we will redevelop the NHS Organ Donor Register, particularly to support the proposed legislative changes in Wales.

Our priorities:

- Publish a UK-wide strategy for organ donation and transplantation to 2020
- Develop an implementation plan to support that strategy
- Transplant all usable organs safely
- Support improvements through performance reporting
- Overhaul the NHS Organ Donor Register.



We are responsible for the crucial task of matching and allocating donated organs throughout the UK

In 2012 we welcomed the appointment of the Human Tissue Authority as the competent authority to oversee the implementation of the European Directive on standards of quality and safety of human organs intended for transplantation.

Tissue Services

We play a vital role in providing skin, tendons, bone and other tissues to UK hospitals. We are the sole supplier of certain critical products to the NHS and have the capability to provide bespoke services for unmet clinical needs that are not readily available commercially.

We work in a competitive market and will continue to work closely with our hospital customers to ensure that the services and products we provide meet patient need. We will work with Donation Committees to raise awareness of tissue donation in hospitals, establish a dedicated Tissues Helpline/Customer Care Service to provide advice throughout the supply chain to customers, hold seminars and training courses and establish flexible pricing policies.

Stem cells

Our aim is to increase the number of donors available to patients – especially for the 65-75% of those in need who are unable to find a match in a sibling. We work with registers all over the world – on which there are over 13 million donors – to make this possible.

In the UK we work with the Anthony Nolan charity to provide a single point of access for UK transplant centres searching for stem cell donors and cord blood donations. Together we aim to create a UK cord blood inventory of 50,000 donors to increase the chances of finding a suitable match for those in need. We will also bank an additional 2,300 cord blood donations each year by further developing our 24/7 collection operation and carry out high-resolution HLA typing of 10,000 selected adult volunteer donors to reduce the time taken to provide stem cells for transplantation and, as a result, improve patient outcomes.

Diagnostic Services

Our red cell immunohaematology (RCI) and histocompatibility and immunogenetics (H&I) services provide vital support for blood transfusion, organ and stem cell transplantation. They will continue to work closely with hospitals to ensure that testing and matching activity is carried out efficiently, accurately and speedily for patients. Specifically, we will complete the implementation of an electronic reporting system for pathology results.

We will work with partners to review and develop the options for RCI and the potential integration of transfusion services.

1,000 patients treated at our Specialist Therapeutic Services sites

Specialist Therapeutic Services

We provide life-saving and life-enhancing therapeutic apheresis services to patients at dedicated Specialist Therapeutic Services (STS) sites within NHS facilities across the country. We treat over 1,000 patients each year at:

- The Christie NHS Foundation Trust
- Oxford University Hospitals NHS Trust
- Sheffield Teaching Hospitals NHS Foundation Trust
- Leeds Teaching Hospitals NHST Trust
- North Bristol NHS Trust
- Royal Liverpool and Broadgreen University Hospitals NHS Trust.

We use a portfolio of therapies to treat a variety of conditions across a range of clinical specialties using technology that exchanges, removes, or collects certain components within the blood.

Our facilities are regulated by the Care Quality Commission and classified as an ‘acute’ service. Our recent inspections report that our units are fully compliant with all standards of quality and safety expected. We are uniquely positioned to improve the quality and efficiency of therapeutic apheresis services and aim to become the preferred supplier to the NHS.

Our priorities:

- Implement new systems to support delivery of Tissue Services
- Launch new products: demineralised bone and dCell dermis.

2,300 additional cord blood donations each year by collecting 24/7



Our Specialist Therapeutic Services staff treat over 1,000 patients per year.



7 Pushing the boundaries

We run an innovative national and international research programme with most of the work conducted in partnership with leading universities.

Our partnership work with leading universities is supported by:

- The Clinical Biotechnology Centre (Bristol), which manufactures GMP-grade biologicals for Phase 1 clinical trials
- NHSBT/MRC Clinical Studies Unit (Oxford/Cambridge/London), which supports clinical studies and trials
- Systematic Reviews Initiative (Oxford) and the Statistics and Clinical Audit team (Bristol).

Our aim is to generate new knowledge about blood, tissue, organ and stem cell transplantation so we can improve the effectiveness and safety of the life-saving treatments we support. We also focus on ensuring the appropriate use of transfusions by conducting clinical trials to make best use of precious donations while ensuring the best outcomes for patients. In association with industry, we develop and assess new technologies to deliver the most up-to-date products to the NHS.

Our research activity:

17
Primary Investigators

close to
200
staff

£16m
total budget per year



collaboration with University partners in Cambridge, Oxford, London and Bristol

specialist activity in Birmingham and Liverpool

We have launched a new research programme in blood donor health – the Interval trial. In our first study, in collaboration with the University of Cambridge, we are investigating the optimal interval between blood donations. We are exploring whether we can personalise the gap between donations to allow donors the maximum opportunities to donate while maintaining normal blood levels of iron. Anaemia is a major cause of deferral at donor sessions and this research should provide the evidence required to reduce deferral rates. So far we have recruited over 27,000 donors of a target of 50,000 and expect results to be reported in 2015.

We plan to conduct a study of donor genotyping to identify where the technology can bring benefits to donors and NHS patients.

We are developing methods to assess and improve the quality of organs available for transplant. In support of this, we have initiated the Quality in Organ Donation (QUOD) project which will seek to establish a bio-bank of consented organ donor and recipient samples. Together with clinical information, this will allow us to study and test methods to maintain the function of organs between donation and transplantation.

In Tissue Services we are actively engaged in collaborative projects with UK organisations researching and developing innovative new products that could address unmet clinical needs. This enables us to put our Research and Development resource to best use and develop new products for UK patients.

Over the next five years we will focus our expertise on developing new treatments including decellularised (dCELL) dermis, dCELL heart valves and demineralised bone matrix (DBM) products. dCELL dermis in particular appears to present a viable opportunity for treating diabetic ulcers and improving chronic wound care.

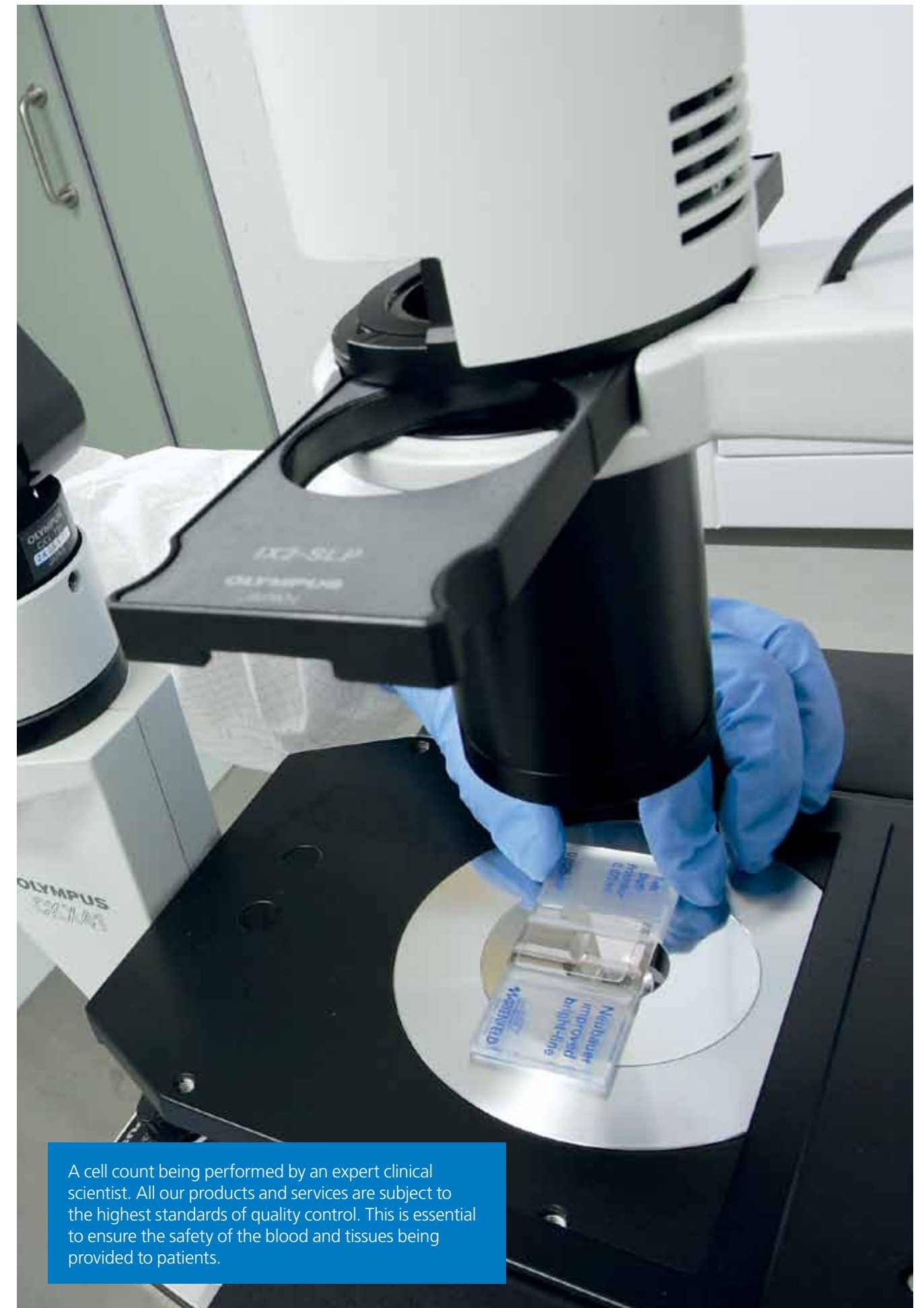
In Stem Cells we will invest in maintaining our existing partnerships and support the translation of next generation, and highly personalised, cell therapies to the clinic. We will collaborate in the Cell Therapies Catapult – a technology and innovation centre bringing business, scientists and engineers together to turn ideas into new products and services.

Our priorities:

- Consult on a new research strategy to be published in 2015.



27,000+
donors recruited to the
interval trial with a target
of 50,000



A cell count being performed by an expert clinical scientist. All our products and services are subject to the highest standards of quality control. This is essential to ensure the safety of the blood and tissues being provided to patients.

8 Our organisation

Each person at NHSBT plays an equally important role whether a donor carer, a specialist nurse, a research scientist, a receptionist, a technician, a driver or worker in a support function. A single thread unites and connects us all – our vital role in making sure the precious donations we receive from the public continue to save and improve lives.

It is essential that we maintain the trust we have developed over the years. Our donors and their families need to be certain that we will treat their donations with the respect and care they deserve, and that their gift will save or improve other people's lives.

As such we will continue to work to ensure that we reflect the communities and people we serve through compliance with the Single Equality Act. We will also continue to review and develop our organisational structure and leadership capabilities to make sure we are the best organisation of our type in the world.

Our values

We have developed our own unique values that are consistent with those in the NHS Constitution. These values are based on what our staff and stakeholders believe we deliver and stand for today. These values of **caring, expert and quality** shape the way we behave, inform the work we do and guide our current and future strategies.

We care about our donors and their families, our staff and the patients we serve. Much of our work involves directly caring for others, whether they are leukaemia patients, blood donors or bereaved families. But in all our work, our caring approach means we always put the best interests of donors, patients and staff first. We also care about being a great place to work. We make sure we have a safe environment to work in and offer staff training and the chance to develop their skills in other ways.

We demonstrate our expertise in meeting the needs of our external and internal customers and partners. Our clinical research programme means we are constantly developing even safer and more effective treatments. It is this expertise that gives donors and their families confidence that we use their donations to save and improve lives.

We strive to provide the highest quality products, service and experience. We work closely with our regulators to make sure we identify any risks and manage them.

If we spot a potential problem we speak up, wherever we work and so maintain our reputation for quality. This culture is even more important in light of the issues raised in the Mid Staffordshire NHS Public Inquiry Report conducted by Robert Francis QC. It is thanks to our commitment to quality that everyone we work with can be confident we are providing a safe and reliable supply of blood, organs, stem cells and tissues.

Our aims include:

- Applying sustainable principles to all that we do. We will, as a minimum, meet all Government and statutory targets for carbon reduction
- Investing in our IT applications to support achieving our aims using common standards and fit-for-purpose platforms
- Investing in our estates and facilities whilst also ensuring our estates work for us and meet the current and future needs of the organisation and its objectives
- Ensuring our corporate and accountability structures enable effective and efficient delivery of our strategy
- Ensuring our donor-facing operations are supported by highly effective and efficient group systems and processes
- Working with a wide range of individuals and organisations who share our ambition to save and improve more lives.



Staff in Filton celebrating the reopening of the centre following short-term disruption due to extreme weather in September 2012.

9 Finances

The majority of our income is generated from the products and services we provide to hospitals. We receive Grant in Aid funding from the Department of Health and funding from the Welsh Government, Northern Irish Government and Scottish Government to fund our organ donation activity. We also receive funding from the Department of Health Stem Cell Strategic Forum to aid our work in that area.

Looking forward we will build on the significant reductions in the price of red cells delivered since 2007/08 and aim to provide flat/ decreasing prices for our products/services over the longer term.

Since 2008/9 we have exceeded NHS efficiency requirements and can demonstrate that our prices are some of the lowest in the world versus comparable developed economies. In real terms our prices in 2013/14 are significantly lower than 2005/6 despite lower volumes, inflation and the introduction of new safety measures.

The headline price for red cells of £122.09 in 2013/14 will be achieved by delivering efficiency savings of 2.2% on our cost base for 2012/13. These savings include a mix of productivity improvements, cash-releasing consolidations and operational efficiencies.

Our specialist product strategies utilise our significant network and capabilities to establish us as the preferred national supplier of these services to the NHS. This provides us with the opportunity to generate year-on-year reductions in unit cost over the medium term and hence lower prices to NHS hospitals, whilst improving the quality and reliability of the service overall.

Organ Donation and Transplantation plans are fully funded through (indicative) Grant in Aid from the Department of Health and contributions expected from each of the other UK Health Departments. It is anticipated that the costs of implementing a register in support of the Welsh-deemed consent legislation will be funded by the Welsh Government.

Our plans are based on achieving a breakeven position each year, where our income is equal to our planned level of expenditure. Were we to make an unplanned in-year surplus, for example due to changes in hospital demand for our products, we would look to return this to hospitals in that year.

10 Appendix: Strategic Targets

Blood Supply

| Strategic Targets – Blood Components | 2012/13 Plan | 2012/13 Actual | 2013/14 Plan | 2014/15 Plan | 2015/16 Plan | 2016/17 Plan | 2017/18 Plan |
|---|--------------|----------------|--------------|--------------|--------------|--------------|--------------|
| % of product requests met | >99.9% | >99.98% | >99.98% | >99.98% | >99.98% | >99.98% | >99.98% |
| Percentage of Products Issued On-Time-In-Full (OTIF) | 95% | 94.2% | 96% | 96.5% | 97% | 98% | TBD |
| % of hospitals scoring ≥ 9/10 for satisfaction with overall service | 60% | 71% | >61% | >62% | >62% | >62% | TBD |
| Number of occasions where red cell stocks (for any blood group) are below the daily alert level | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of occasions where opening stock of platelets is below average daily demand | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| % of blood donors scoring ≥ 9/10 for satisfaction with overall service | 68% | 68.3% | 68% | 69% | 70% | 71% | TBD |
| Number of TRALI cases | ≤2 | 4 | ≤2 | ≤2 | ≤2 | ≤2 | TBD |
| Number of confirmed TTIs from bacterial contamination (incidents) | ≤1 | 0 | ≤1 | ≤1 | ≤1 | ≤1 | TBD |
| % of platelets produced by component donation | 80% | 86.5% | 80% | 80% | 80% | 80% | TBD |
| Number of ‘critical’ regulatory non-compliances | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of ‘major’ regulatory non-compliances | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Unit price of red cells | £123.31 | £123.31 | £122.09 | £122 | £122 | £122 | £122 |

Note:
1. TRALI = Transfusion Related Acute Lung Injury, TTI = Transfusion Transmitted Infection.
2. 2012/13 actual performance is based on the position as at 31st March 2013.
3. Unit price of red cells assumes no further instructions to implement additional blood safety initiatives.

Organ Donation

| Strategic Targets – Organ Donation and Transplantation | 2012/13 Plan | 2012/13 Actual | 2013/14 Plan | 2014/15 Plan | 2015/16 Plan | 2016/17 Plan | 2017/18 Plan |
|--|--------------|----------------|--------------|--------------|--------------|--------------|--------------|
| Increase the consent/authorisation rate for deceased organ donation | NA | 57.5% | 61.5% | TBD | TBD | TBD | TBD |
| Number of Deceased Organ Donors | 1,214 | 1,212 | 1,272 | TBD | TBD | TBD | TBD |
| Increase the rate of Deceased Organ Donors per million of population | NA | 19.1 | 20.0 | TBD | TBD | TBD | TBD |
| Number of Living Organ Donors | 1,081 | 1,096 | 1,112 | TBD | TBD | TBD | TBD |
| Number of Organ Transplants | 4,230 | 4,208 | 4,328 | TBD | TBD | TBD | TBD |

Note:

1. 2012/13 actual performance is based on the position as at 31st March 2013.
2. The targets for improving the rate of organ donation and transplant are a shared objective of all stakeholders within the DH, the other UK Health Departments and partners across Government. They have been incorporated into the Terms of Reference of the DH Programme Delivery Board, and reflected in the strategic targets of NHSBT.

Tissue Services

| Strategic Targets – Tissue Services | 2012/13 Plan | 2012/13 Actual | 2013/14 Plan | 2014/15 Plan | 2015/16 Plan | 2016/17 Plan | 2017/18 Plan |
|---|--------------|----------------|--------------|--------------|--------------|--------------|--------------|
| Sales income (£m) | 8.4 | 7.8 | 9.2 | 10.4 | 11.8 | 13.1 | 14.3 |
| Contribution to Overheads* | 0.9 | 0.4 | 0.7 | 1.4 | 2.2 | 2.8 | 3.4 |
| % of hospitals rating \geq 9/10 for satisfaction | Set baseline | NA | TBD | TBD | TBD | TBD | TBD |
| Number of “critical” and “major” regulatory non-compliances | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Market share for Tendons (and Meniscus)* | 19% | New | 23% | 30% | 38% | 44% | 50% |
| Market share for Bone Grafts* | 25% | New | 28% | 33% | 38% | 44% | 50% |
| Market share for DBM* | 0.6% | New | 1.3% | 2.5% | 4.0% | 5% | 7% |

Note:

1. 2012/13 actual performance is based on the position as at 31st March 2013.
2. *Metrics/Targets established as per the strategic plan – to be reported to NHSBT Board starting April 2013/14.

Diagnostic Services

| Strategic Targets – Diagnostics and SpS Group | 2012/13 Plan | 2012/13 Actual | 2013/14 Plan | 2014/15 Plan | 2015/16 Plan | 2016/17 Plan | 2017/18 Plan |
|--|--------------|----------------|--------------|--------------|--------------|--------------|--------------|
| Contribution to O/Heads – Group (£m)* | 5.4 | 4.0 | 7.3 | 8.5 | >8.5 | >8.5 | TBD |
| Number of ‘critical’ regulatory non-compliances – Group* | 0 | 0 | 0 | 0 | 0 | 0 | TBD |
| Percentage of hospitals scoring \geq 9/10 for satisfaction – RCI | >60% | 61% | \geq 62% | \geq 62% | \geq 62% | \geq 62% | \geq 62% |
| Percentage of hospitals scoring \geq 9/10 for satisfaction – H & I | >60% | 79% | >60% | >60% | >60% | >60% | TBD |

Note:

1. *These metrics relate to the overall performance of Specialist Services.
2. 2012/13 actual performance is based on the position as at 31st March 2013.

Stem Cells

| Strategic Targets – Stem Cells | 2012/13 Plan | 2012/13 Actual | 2013/14 Plan | 2014/15 Plan | 2015/16 Plan | 2016/17 Plan | 2017/18 Plan |
|--|--------------|----------------|--------------|--------------|--------------|--------------|--------------|
| On Time In Full Service | Set baseline | NA | 100% | 100% | 100% | 100% | 100% |
| Banked Donations (Cumulative) 1, 2 | New | New | 8,900 | 11,200 | 13,500 | 15,800 | 18,100 |
| Cord Blood – proportion of BME units | 40% | \geq 40% | 40% | 40% | 40% | 40% | TBD |
| % of customers rating \geq 9/10 for satisfaction | Set baseline | NA | \geq 60% | \geq 60% | \geq 60% | \geq 60% | \geq 60% |
| Number of critical or major non-compliances | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Income from new cell therapy support services (£m) 4 | 0.3 | New | 0.5 | 0.9 | 1.3 | 1.6 | 1.8 |
| Total Income (£m) 3, 5 | 16.9 | New | 17.3 | 18.5 | 19.8 | 21.1 | 22.3 |

Note:

1. Assumes 2,300 donations added to the bank each year. Assumes no impact on cord blood banking from, for example, delayed cord clamping.
2. Cord blood donations containing over 14 x 10⁸ total nucleated cells (revised threshold for banking).
3. Total income for Stem Cell Services, assuming increasing revenue from provision of cord blood and adult stem cell donations based on recurring GIA investment in NHS-CBB and BBMR in line with 2012/13 levels.
4. *Metrics/Targets established as per the strategy and will be reported to the NHSBT Board starting 2013/14.

Specialist Therapeutic Services

| Strategic Targets – Specialist Therapeutic Services | 2012/13 Plan | 2012/13 Actual | 2013/14 Plan | 2014/15 Plan | 2015/16 Plan | 2016/17 Plan | 2017/18 Plan |
|--|--------------|----------------|---------------|---------------|---------------|---------------|--------------|
| Specialist Therapeutic Service (STS) Sales Income (£m) | 4.5 | 5.5 | 5.8 | 7.1 | 8.0 | 8.8 | TBD |
| Contribution to Overheads (£m)* | 0.5 | 1.0 | 1.0 | 1.5 | 1.9 | 2.3 | TBD |
| Percentage of hospitals scoring >= 9/10 for satisfaction with STS | Set baseline | NA | Baseline + 2% | Baseline + 3% | Baseline + 4% | Baseline + 4% | TBD |
| Percentage of patients rating patient experience >= 9/10 with the service from STS | Set baseline | NA | Baseline + 2% | Baseline + 3% | Baseline + 4% | Baseline + 4% | TBD |
| Number of “critical” and “major” regulatory non-compliances | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

- Note:**
- 1. 2012/13 actual performance is based on the position as at 31st March 2013.
 - 2. *Metrics/Targets established as per Strategic Plan – to be reported to NHSBT Board 2013/14.

Corporate

| Strategic Targets – Corporate | 2012/13 Plan | 2012/13 Actual | 2013/14 Plan | 2014/15 Plan | 2015/16 Plan | 2016/17 Plan | 2017/18 Plan |
|---|--------------|----------------|--------------|--------------|--------------|--------------|--------------|
| Corporate Service costs as a percentage of total costs (IT, HR, Finance & Procurement)* | 7.6% | 7.6% | 7.5% | 7.3% | <7.3% | <7.3% | TBD |
| Estate costs as a percentage of total costs* | 8.7% | 8.6% | 8.5% | 8.3% | <8.3% | <8.3% | TBD |
| Reduction of CO ₂ emissions (tonnes) (estate based emissions as per the Carbon Reduction Commitment) | 16% | 16% | 21% | 25% | >25% | >25% | TBD |

- Note:**
- 1. 2012/13 actual performance is based on the position as at 31st March 2013.
 - 2. CO₂ emissions are reported one quarter in arrears and are therefore a forecast of expected performance.

NHS Blood and Transplant

NHS Blood and Transplant (NHSBT) saves and improves lives by providing a safe and reliable supply of blood components, organs, stem cells, tissues and related services to the NHS, and other UK health services.

We manage the UK-wide voluntary donation system for blood, tissues, organs and stem cells, and turn these donations into products that can be used safely to save lives or radically improve the quality of people's lives.

We rely on thousands of members of the public who voluntarily donate their blood, organs, tissues and stem cells. Their generosity means each year we're able to supply around 2 million units of blood to hospitals in England and North Wales and 7,500 organ and tissue donations, which save or improve thousands more people's lives.

For more information

Visit nhsbt.nhs.uk

Email enquiries@nhsbt.nhs.uk

Call **0300 123 23 23**