

# ANNUAL REPORT 2005



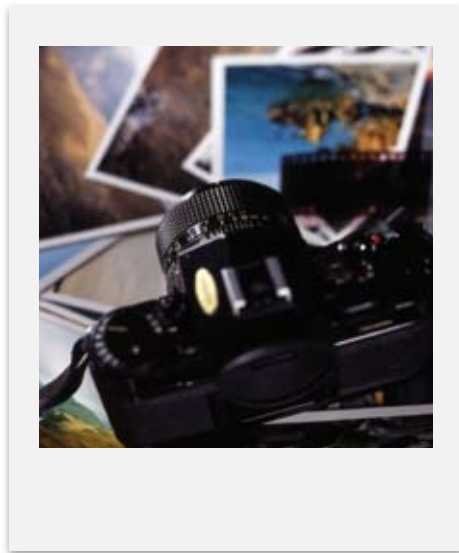


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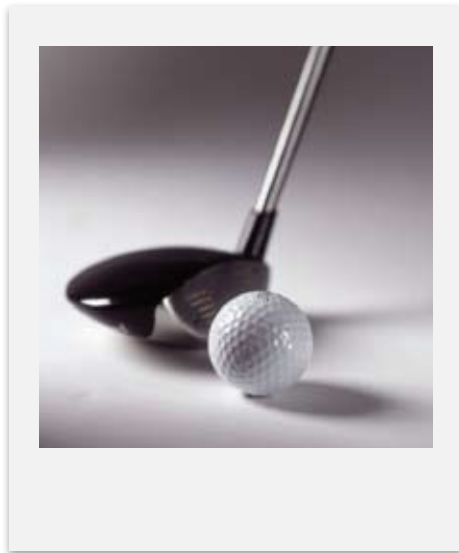
MELANIE OLIVER



Donor since 1987, now a neo-natal donor and ferry programme organiser at work. Lives in Maynooth and works in Dublin Fire Brigade Headquarters in the administration section. Member of St Mary's Brass and Reed band and plays the French Horn. Also a member of local parish folk group and plays guitar. Main interests are music, photography and DIY.



DECLAN MURRAY

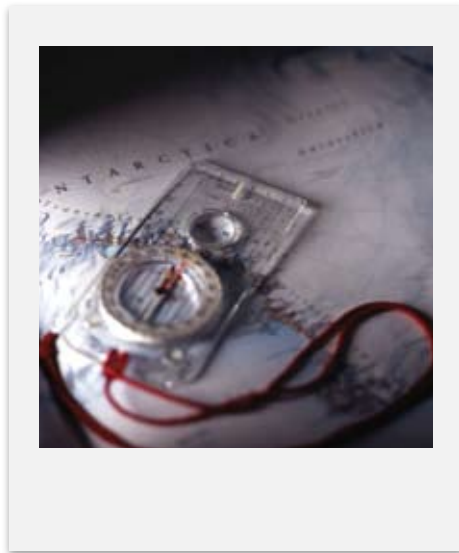


Donor since he was 18. Over 140 donations of blood and platelets to date. Enjoys sport, including basketball and golf. From Dublin and is a public servant.



ALAN MURPHY

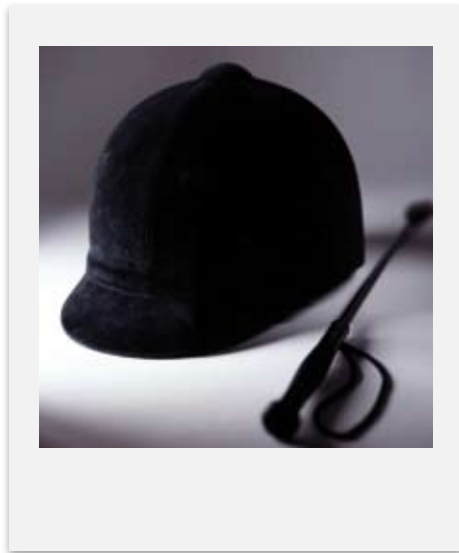




Company Director, has three children. 41 donations to date. Enjoys hill walking, swimming and watching his children play soccer. Member of CLRI Club Landrover of Ireland, attends regular off road events. Last year, spent 3 weeks camping in Norway and Sweden, including one week in the Artic Circle. This year, planning a 4 week trip to Antartica to inculde overland glacier trekking.



SARAH MARTIN



Sarah first donated in August 2001. Lives in Rathfarnham, Dublin. About to start her final year of Veterinary Medicine in the School of Veterinary Medicine in UCD. Loves horses and goes horse-riding when she can. Also enjoys going out with friends, going to the cinema, the gym and shopping.



EOIN CASSERLY



Eoin first donated in July 2004. From Sligo, student of Structural Engineering in UCD - enjoys boxing and music.

## ***MISSION STATEMENT***

**The IBTS is committed to excellence in meeting patients' needs through the professionalism of our staff and the generosity of our donors.**





Maura J McGrath  
Chairperson

## **1 MESSAGE FROM THE CHAIRPERSON**

**The primary objective of the IBTS is to provide sufficient quantities of the highest quality blood components to our hospitals. All of the efforts of IBTS staff and management have this as their over-riding priority. However, maintaining bloodstocks has proved to be a very difficult challenge in 2005 due in the main to the rigorous application of donor screening. It was most regrettable that we had to ask hospitals to postpone elective surgery for a three-day period in June so that blood products were available for emergencies. The Board of the IBTS is most anxious that we will not have to make requests of this nature in the future.**

We are therefore doubling our efforts to attract new donors and maintain our present donor numbers. We are also ensuring that inventory and stock management processes are in place to ensure that this most precious resource is carefully managed on a daily basis across all hospitals and clinics.

Given that in this country 3% of our population are donors and yet over 3000 units are required each week we at the IBTS have a challenge in terms of getting our message across to the general public. We will be embarking on different approaches to inform and educate the general public of the significance of being a blood donor in today's world. The contribution which Irish donors make to the health and well being of others is remarkable and is acknowledged by the Board of the IBTS. This generosity is unique and I wish to thank all of our donors.

In March of this year the Kubanek Report was published. This report deals with the delay in notification of donors between 1991 and 1994. The report by Professor Kubanek provides clarity and confirmation on the events of this time and the Board is fully committed to ensuring that the recommendations are fully complied with.

Two major priorities for the Board continue to be the development of the Cork Centre and a programme of research and development in transfusion medicine.

The funding for a new centre in Cork is currently under discussion with the Department of Health and Children and we as a Board are confident of a positive outcome in the very

near future. Discussions are also underway with UCC on a joint programme of research and development in transfusion medicine, which will herald a major and strategic development in this country.

I wish to acknowledge the dedication and effort of IBTS staff and management throughout this year in the delivery of this most important national service.

I wish to thank all Board members for their time and support during this year. In particular I want to express our thanks to Valerie Mannix who left the Board in September after contributing as a Board Member for the last twelve years.

I would like to welcome our new members Mark Moran & Melanie Cotter who have joined the Board and I look forward to us working together.

Thank You.

**MAURA J McGRATH** | Chairperson





Andrew Kelly Chief Executive

## **2 CHIEF EXECUTIVE'S REPORT**

**I have pleasure in presenting the 2005 Annual Report of the Irish Blood Transfusion Service (IBTS). In 2005 there were many new developments and initiatives implemented. However, in June we experienced some difficulties in maintaining a consistent supply to hospitals.**

### **SUPPLY**

In 2005 we experienced our first severe shortage of supply since January 2002. This resulted in the IBTS requesting hospitals to defer elective surgery for a short period during the month of June. Clearly this is a step which the IBTS never wants to take but unfortunately it was necessary on this occasion. We launched a nationwide appeal to replenish stocks and ensure that we would not have difficulties for the rest of the year. This appeal was very successful and I would like to thank all those donors who donated during that period and came back to donate further during 2005. By the end of the year we had increased donations slightly over 2004 and ended with very healthy bloodstocks at Christmas time. This event reminds us that maintaining an adequate and consistent blood supply requires constant vigilance.

### **QUALITY**

Quality underpins all of our activities and in 2005 the Irish Medicines Board (IMB) inspected IBTS facilities on twelve occasions. The compliance with Good Manufacturing Practice was deemed satisfactory by the IMB and while they listed a number of deficiencies these were dealt with by the IBTS in the normal way.

The IBTS has played a leading role in the implementation of the EU Directive on Blood and a senior member of staff has been seconded to the Department of Health and Children to project manage the implementation of the Directive across the Hospital sector. By year end a steering committee had been established to review the implementation of the EU Tissue Directive which came into law on 6th April 2006 and which will have significant implications for the hospitals involved in the provision of tissues services and also the IBTS.

### **SERVICE TO DONORS**

Our donors provide the essential raw material from which the IBTS produces therapeutic products for patients. During 2005 we reviewed the manner in which we were communicating with our donors and also what impact our advertising campaigns were

having in attracting sufficient donors to meet hospital requirements. We formally launched our 'text messaging' service in partnership with Vodafone Ireland who allow us 30,000 free text messages per month to donors to remind them of clinic locations and times. This partnership has been very successful and we value the contribution made by Vodafone in maintaining blood supplies in this country.

In 2005 we examined all of the processes linked to the giving of a donation at our clinics. This was done in conjunction with an external organisation to see how best to streamline the process without compromising safety or quality but to ensure a better donation experience for the donor.

The output of these process mapping exercises was communicated to all staff by the end of the year and proposals on how to address the delays, identified by donors as one of the biggest issues of concern for them. A Task Force was set up under the Chairmanship of the Operations Director to consult with staff at all levels in the donation process to ensure that a series of proposals were developed which would alter the donation process and allow a far more streamlined process at our clinics to reduce the waiting time and to have more donors processed in the time available. This will be a major exercise over the next two to three years, to radically change how our clinics operate and ensure that we retain donors and encourage them to come back and donate again on a regular basis.

## **STRATEGY AND STRUCTURE**

In May 2005 the Strategic Plan 2005 – 2009 was launched by the Chairperson of the Board. This was a significant development for the organisation as it set out the pathway which the IBTS wishes to take over the coming years in the development of our services and to ensure that we are dealing with the appropriate issues and making the right choices with regard to resource allocation. The budgetary allocation underpins the priorities set out in the Strategic Plan and these have been turned into Business Plans for the main functional areas of the organisation.

A further review of management structures was commenced in autumn 2005 to ensure that the structure complied with the recommendations contained in the Kubanek Report which emphasised the need for a unified blood system with a single quality system. It is expected that the deliberations of the consultants will be published in early 2006 for implementation by end of Quarter 2.

## **HUMAN RESOURCES**

The Partnership model continues to develop and to contribute to the management of issues within the organisation. One of the significant developments was the organisation of an Away Day / National Inaugural Conference in Athlone in October 2005 where 150 staff attended a day involving key note presentations in the morning by the National Medical Director and Mr. Eddie O'Sullivan, Head Coach to the Irish Rugby Team and fun activities in the afternoon. This concept arose out of a need for greater communication between centres and also from comments and views expressed through the Climate Survey which had been conducted in late 2004. It was a very successful day and all who attended expressed a wish that a further conference would be held and more staff encouraged to participate.

A major initiative with regard to training and development was undertaken during 2005 with significant resources allocated to this area. We need to put greater emphasis on professional and personal development and add to the many courses organised on maintaining technical competence and ensuring that people are qualified and trained

to carry out current functions. This is an area that needs further analysis and some more focused initiatives to deal with specific aspects of the development of staff and in particular managers at all levels.

A significant number of the issues raised in the Climate Survey had been dealt with during 2005 but there remains a number of areas to be finalised and this is expected to be done by Quarter 2, 2006. This was a very valuable exercise and one which we will repeat in the coming 18 months – 2 years to see what impact the initiatives taken following the first exercise will have had on the views of staff in all of the areas questioned.

## **KEY STRATEGIC DEVELOPMENTS**

In 2005 the IBTS developed protocols and began to issue platelets with a 7-day shelf life. These platelets were collected by using apheresis technology on GAMBRO machines. This was a significant development for the organisation and was carried out by the project team headed up by the National Medical Director. In addition, the IBTS was involved in the evaluation of a prion filter which would further help reduce the risk from vCJD from red cell transfusions. Clinical trials are being carried out in a number of hospitals to assess the effect of the filter on the finished red cell.

We commenced the evaluation of TIGRIS and it is estimated that this will not be finalised until mid 2006 when we will review our strategy for NAT testing.

These initiatives reflect the progressive nature of the work being carried out in the IBTS and the desire to be at the forefront of scientific developments in transfusion medicine.

I would like to thank all staff in the IBTS for their commitment and professionalism during 2005 which allows the IBTS meet the requirements of donors and patients.

**ANDREW KELLY** | Chief Executive



Dr. William Murphy National Medical Director

### **3 NATIONAL MEDICAL DIRECTOR'S REPORT**

**This year saw new national legislation governing blood transfusion in Ireland come into force. The legislation is a transposition into Irish Law of EU Directives that have been adopted over the past few years. It is now necessary for the IBTS to operate under the terms of a licence from the Irish Medicines Board; this licence covers all aspects of its operations, and is required to be renewed every three years.**

The need for EU and national laws covering the safety of blood transfusion arose out of the bleak events of the 1980s and 1990s where poor transfusion practices in several countries, including Ireland, contributed to the toll from HIV and hepatitis in Europe and throughout the world. Legislators in Europe recognised that transfusion was a public health issue of immense importance, and that the citizens of Europe required safeguarding at a uniform level throughout the EU. The legislation seeks to ensure that the best practices in transfusion are adopted and available everywhere in Europe.

For the IBTS the coming into force of the new regulations did not give rise to any sudden changes – we have developed a very constructive relationship with the IMB over the past ten years or so, and the regular IMB inspections required under the terms of the Finlay Report in 1997 have ensured that we achieved a high level of compliance with the IMB's requirements well in advance of the changes in the law. This hasn't always been an easy process, but it has certainly been extremely worthwhile, and has ultimately been to the benefit of the tens of thousands of patients who require transfusions of blood components every year. Not only are we required to ensure that state of the art testing, screening and processing is in place, but that every test and process is under the constant control of a strict quality assurance programme.

The new legislation will, however, give rise to far reaching changes in time. This is partly because for the first time the IMB's remit now extends into hospital blood banks, and partly because in future the technical specifications and standards in transfusion centres will be set by the Commission, and not, as has happened up till now, by the transfusion centres themselves. The IBTS will need to address the implications of these changes to its own practice and organisation in the coming years.

The IBTS continued to introduce new approaches to how we collect, test and process blood

donations throughout 2005. As new technology develops we evaluate, and if appropriate, validate the machines, techniques or kits for our own purposes to ensure that the methods in use in the IBTS represent the best available approach to safety and effectiveness. During 2005 we tested a new filter that is designed to reduce the potential for transmitting variant Creutzfeldt Jakob Disease by blood transfusion, and began the first clinical trials of its use in humans. We developed and introduced a new technique to extend the shelf life of platelets, and extended bacterial testing to all platelets prepared by the IBTS. We also began the assessment of single donor nucleic acid testing, a method that may increase the flexibility and sensitivity of testing for established and emerging virus threats to transfusion. In addition, we began a potentially far reaching programme to review and update the way donation clinics are conducted to try to streamline and enhance the process.

Blood transfusion continues to undergo development in all areas, with change itself the only constant. Advances in legislation and technology are only two of the drivers of change – the necessity for a cost effective approach to meeting our goals and the needs of patients is also essential.

Another element also contributes to the forces for change, and is likely to continue to drive changes for many years to come. Haemovigilance and other clinical studies of patients receiving transfusions are yielding new insights into the effects of transfusions, particularly in critically ill patients. From these studies, for example, a major adverse effect of plasma transfusions has emerged – transfusion related acute lung injury, which was previously thought to be very rare and fairly benign. We now know that it is neither particularly uncommon nor particularly benign, and have put in place measures designed to prevent it. Increased understanding of the effect of storage of red cells on oxygen delivery to the tissues of seriously ill patients may give rise to similar changes in the not too distant future.

None of these changes makes any difference to the core purpose of a blood transfusion service – the essential need of any country for its people to donate their own blood for the welfare and health of the ill among them. There is no scientific advance in sight at the close of 2005 that will change that need, and the IBTS looks forward to continuing to work with its major partners – the donor community upon which we and the entire health care system rely – for many years to come, to ensure that patients in Irish hospitals continue to get the care that they require.

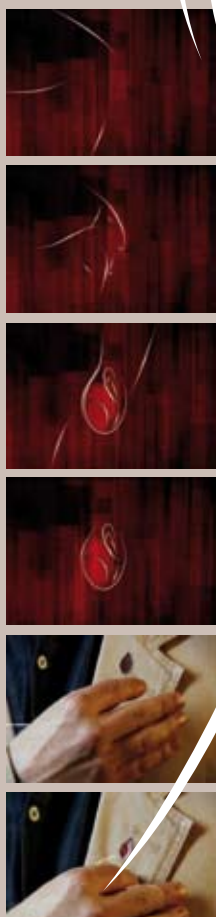
**DR WILLIAM MURPHY** | National Medical Director

MD, FRCPEdin, FRCPath



# DONOR SERVICES ACTIVITY

# 01



## **4 DONOR SERVICES NATIONAL ACTIVITY**



Donor Services is responsible for blood collection through a network of fixed clinics and regional centres throughout the country. Regional centres are responsible for the organisation of mobile clinics in their area and cover the south east, north east, south, mid-west and west. Fixed clinics are located in Dublin at D'Olier Street, the National Blood Centre and Stillorgan and in Cork at St Finbarr's Hospital.

### **BUILDING AWARENESS**

Awareness of the need for new and regular blood donation is critical. The Marketing Team have carried out numerous awareness presentations to organisations and schools during the year as well as participating in other promotional opportunities.

The IBTS participated in promotions in colleges and shopping centres and held exhibition stands at the Young Scientist Exhibition and the National Ploughing Championships.

### **FERRYING PROGRAMME**

Over 5,000 people attended the two fixed clinics in Dublin through the ferrying programme which amounts to over 650 visits by companies to D'Olier Street and Stillorgan clinics. The ferrying programme has contributed to over 16% of overall attendances at the fixed clinics in Dublin and is an essential element of donor recruitment and retention in the Dublin area.

Through the Ferrying Programme employers have an opportunity to make blood donation a part of their corporate social responsibility commitments, by giving staff the opportunity to donate blood as a group during work time. Transport is provided by the IBTS to and from the clinic.

New corporate programme information packs were developed during the year to enhance this programme in Dublin.

The IBTS sponsored a Dublin Chamber of Commerce event at the National Blood Centre. This gave the IBTS the opportunity to encourage business people to consider blood donation as a part of their corporate social responsibility programmes.



## SUMMER CAMPAIGN

Launched in June, the Summer campaign coincided with World Blood Donor Day and was aimed at informing the public of the need for new and regular donors to donate at a traditionally challenging time for donations.

## BLOOD FOR LIFE WEEK 2005

Blood for Life Week 2005 was the most successful campaign to date. It ran from the 18th to the 24th of September with the theme 'Play your part in Ireland's most extraordinary club.' The main aim of the campaign was to increase public awareness about blood donation and encourage new and regular donors to attend blood donation clinics.

Vodafone, TV3 and Today FM were our main supporters for the campaign and throughout the year. Dublin FM104 has also supported the IBTS in several projects throughout the year.

There were also on street activities on Grafton Street on the 20th of September with 'Buddy Blood Drop' making his first appearance. New pens and keyrings were distributed as well as pledge cards. The pledge programme allows people who are interested in becoming blood donors complete a free post registration card or alternatively text their details in, and in return receive an information pack and details on their nearest clinics. This has been one of the most successful projects of the year and thousands of potential donors have received pledge programme information packs.



Today FM DJs Ray Darcy and Ian Dempsey also lent their support during Blood for Life Week. Today FM and FM 104 DJs recorded advertisements promoting our new pledge initiative and these were aired during Blood for Life Week.

A thank you ceremony was held in the National Blood Centre to recognise Ferrying Programme co-ordinators and neonatal donors for their hard work and commitment. Plaques and Certificates of appreciation were distributed by Chairperson Ms Maura McGrath and National Medical Director Dr William Murphy.

## CHRISTMAS CAMPAIGN

A pre-Christmas campaign was launched on 28th November to ask donors to remember to give blood before the Christmas holiday period.

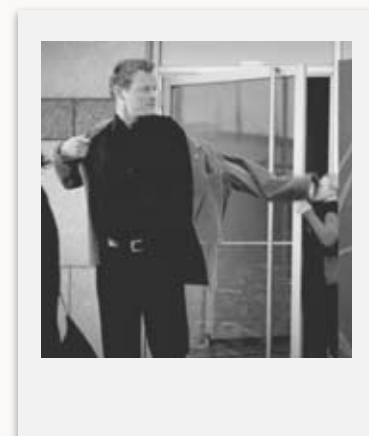
## TEXT MESSAGE SERVICE TO DONORS

The text message clinic reminder service continued to be supported by Vodafone. Donors were notified, by text, of venues and times of the mobile collection clinics in their area. This programme has been well received by donors and has been seen as an essential and invaluable means of communication with donors. Vodafone, as part of their Corporate Social Responsibility Programme, has continued to enable the IBTS to communicate in a most direct manner with donors. The Chamber of Commerce Ireland awarded this programme the Best Innovation Project for 2005 in November, at the annual Corporate Social Responsibility Awards.

## COMMUNITY RELATIONSHIPS

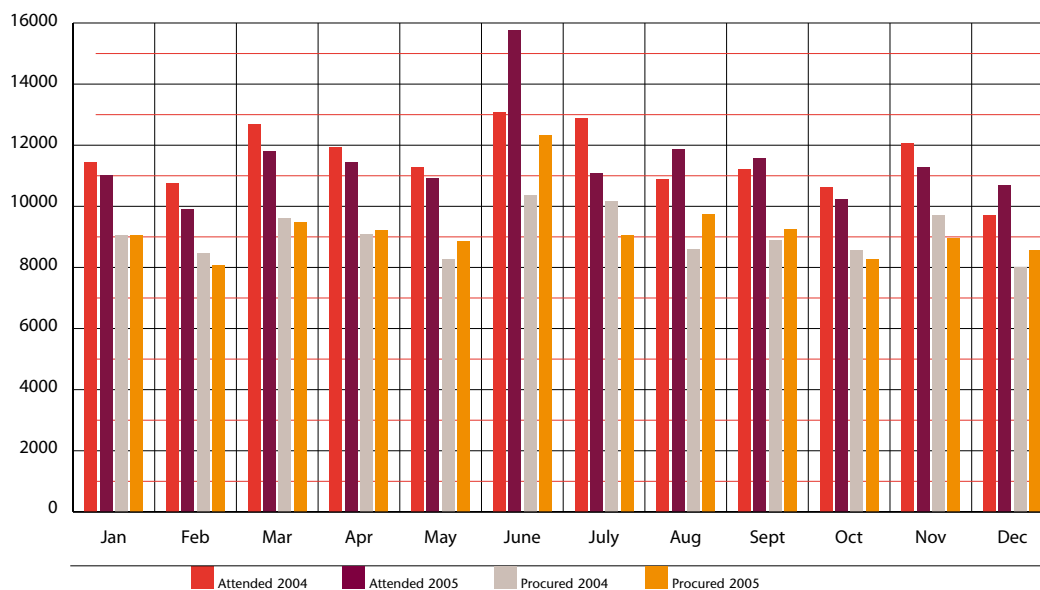
Corporate and community relationships are vital for the IBTS. This year, Rotary Ireland supported the IBTS by actively encouraging its members to recruit their families and friends to become regular blood donors. Presentations were made throughout the country to rotarians highlighting the need for new and regular blood donors.

## 5 DONOR STATISTICS



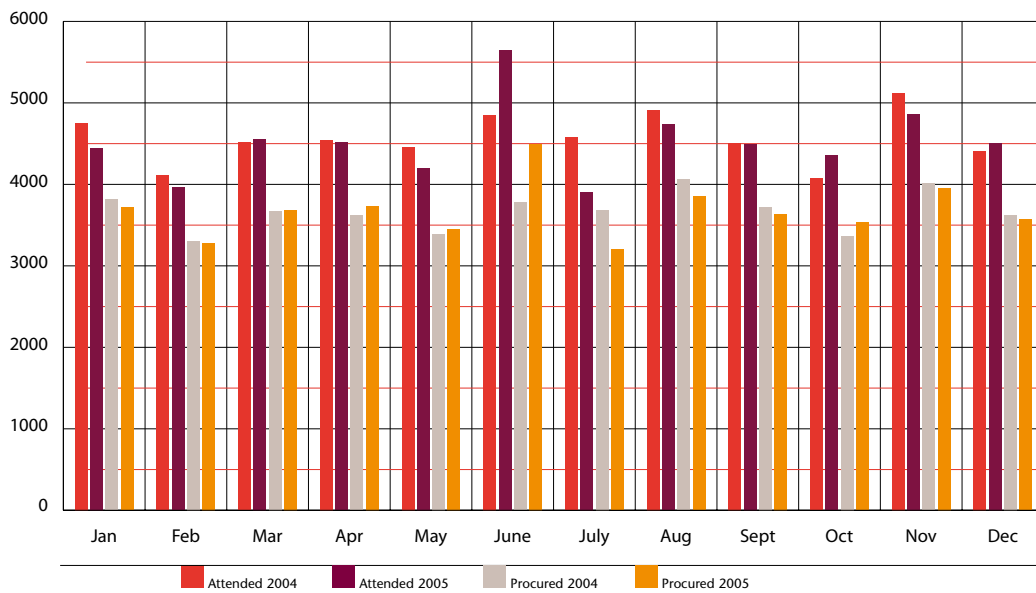
### NBC (EXCL MRTC): JAN - DEC 2004 + 2005

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
Jan	11,449	11,029	9,059	9,042
Feb	10,750	9,893	8,460	8,057
Mar	12,684	11,808	9,621	9,470
Apr	11,936	11,424	9,094	9,208
May	11,259	10,906	8,260	8,838
June	13,083	15,770	10,348	12,338
July	12,888	11,092	10,177	9,042
August	10,870	11,849	8,579	9,738
Sept	11,217	11,584	8,896	9,252
Oct	10,624	10,227	8,552	8,272
Nov	12,065	11,261	9,703	8,960
Dec	9,704	10,701	8,009	8,568
Total	138,529	137,544	108,758	110,785



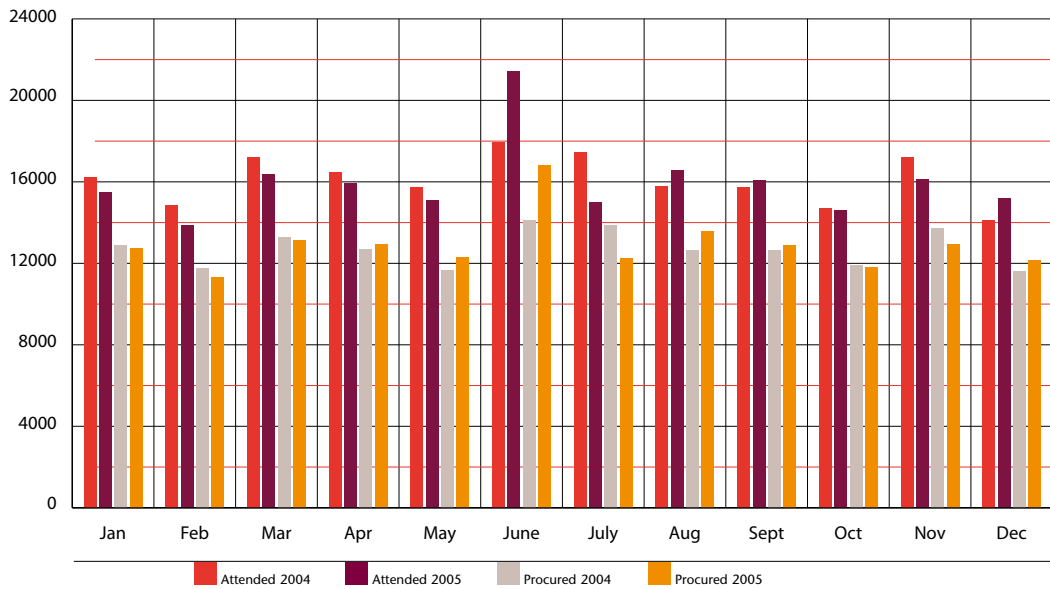
**MRTC TOTAL: JAN - DEC 2004 + 2005**

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
Jan	4,755	4,448	3,816	3,717
Feb	4,111	3,960	3,304	3,283
Mar	4,512	4,560	3,673	3,684
Apr	4,548	4,516	3,618	3,738
May	4,457	4,203	3,391	3,453
June	4,855	5,646	3,776	4,498
July	4,577	3,904	3,689	3,202
Aug	4,916	4,733	4,060	3,852
Sept	4,511	4,495	3,726	3,637
Oct	4,071	4,356	3,365	3,531
Nov	5,120	4,866	4,011	3,956
Dec	4,409	4,507	3,623	3,570
<b>Total</b>	<b>54,842</b>	<b>54,194</b>	<b>44,052</b>	<b>44,121</b>



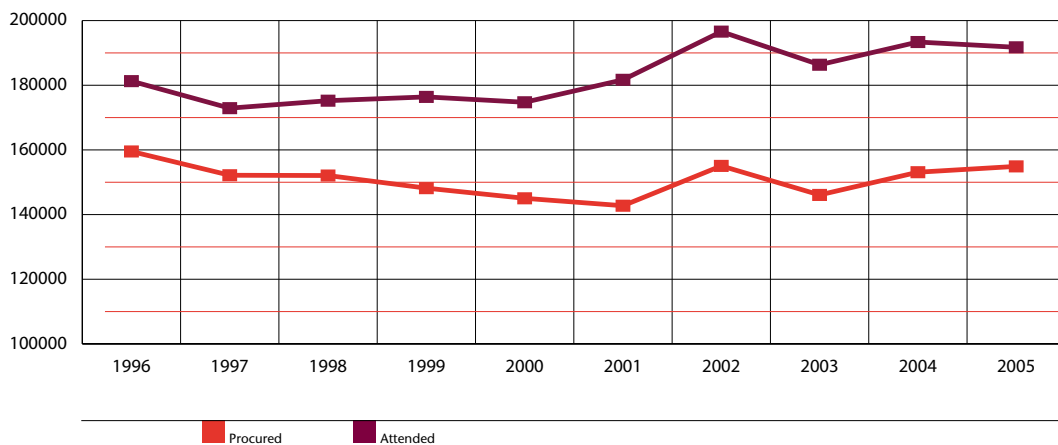
**GRAND TOTAL: JAN - DEC 2004 - 2005**

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
Jan	16,204	15,477	12,875	12,759
Feb	14,861	13,853	11,764	11,340
Mar	17,196	16,368	13,294	13,154
Apr	16,484	15,940	12,712	12,946
May	15,716	15,109	11,651	12,291
June	17,938	21,416	14,124	16,836
July	17,465	14,996	13,866	12,244
August	15,786	16,582	12,639	13,590
Sept	15,728	16,079	12,622	12,889
Oct	14,695	14,583	11,917	11,803
Nov	17,185	16,127	13,714	12,916
Dec	14,113	15,208	11,632	12,138
<b>Total</b>	<b>193,371</b>	<b>191,738</b>	<b>152,810</b>	<b>154,906</b>



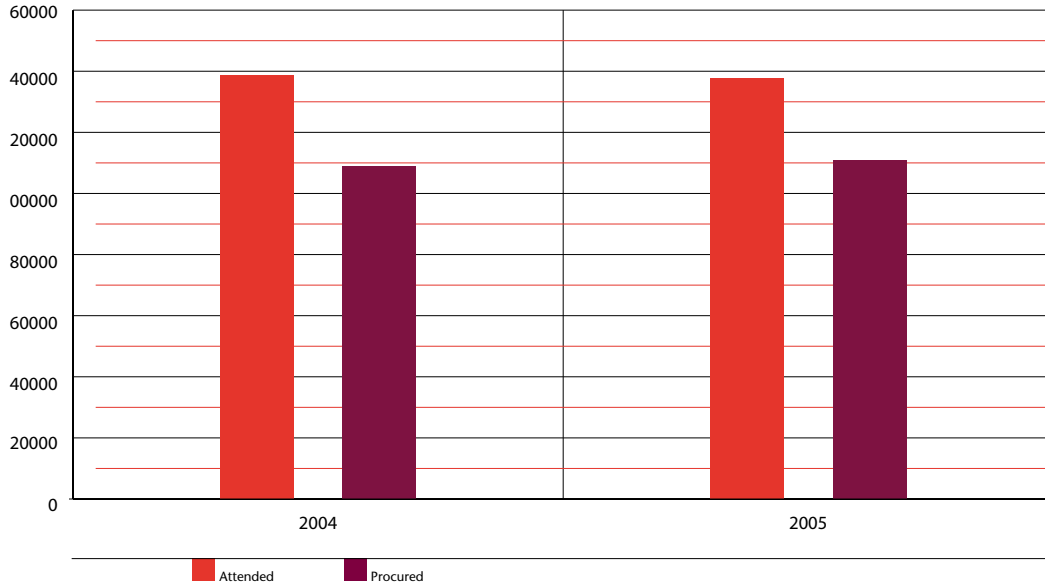
**DONATION TRENDS 1996 - 2006**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
ATTEND	181274	172913	175225	176396	174738	181684	196587	186345	193371	191738
PROCURED	159521	152163	152078	148172	145033	142740	155056	146078	152810	154906



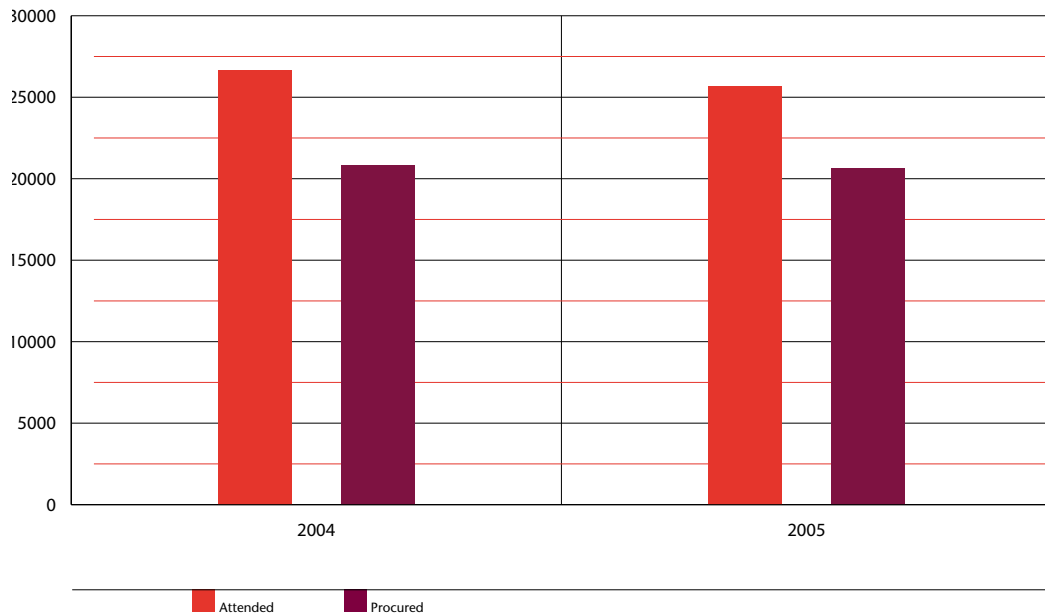
### NBC CUMULATIVE AT A GLANCE: 2004 + 2005

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	138529	137544	108758	110785



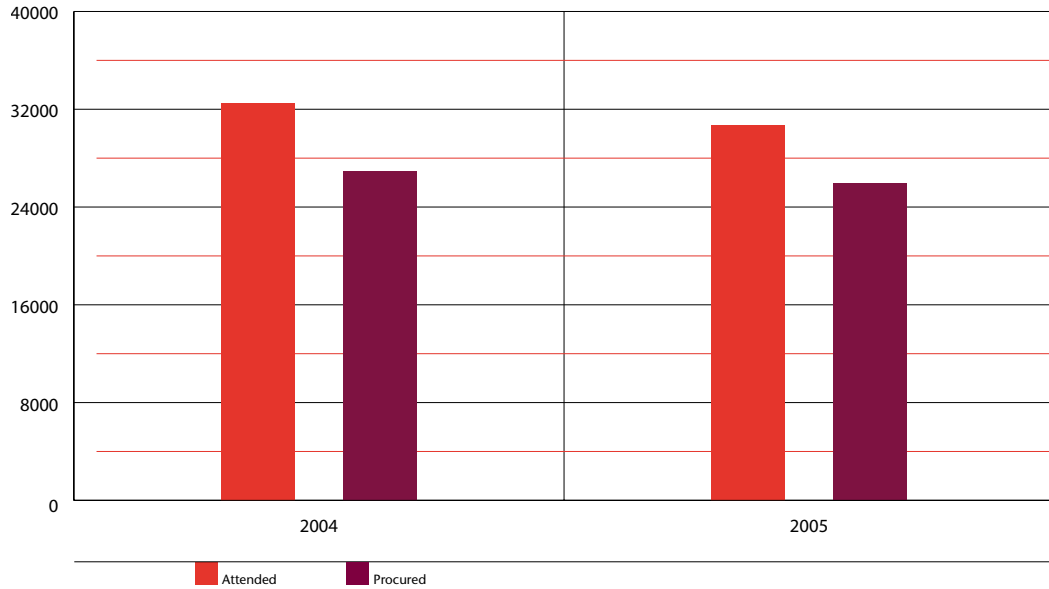
### ARDEE CENTRE: 2004 + 2005

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	26658	25659	20805	20661



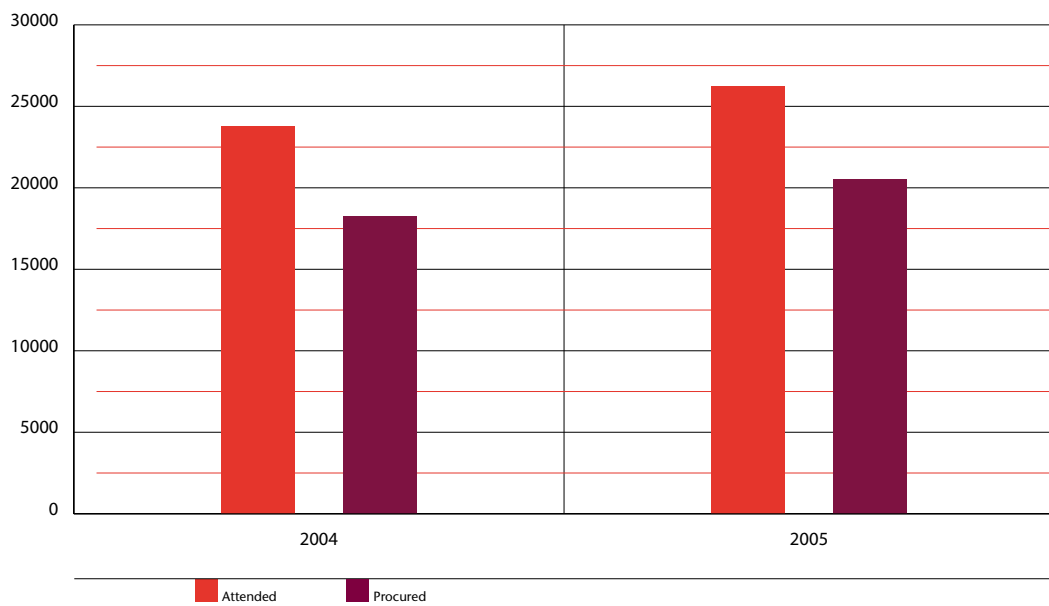
### CARLOW CENTRE: 2004 + 2005

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	32504	30718	26959	25924



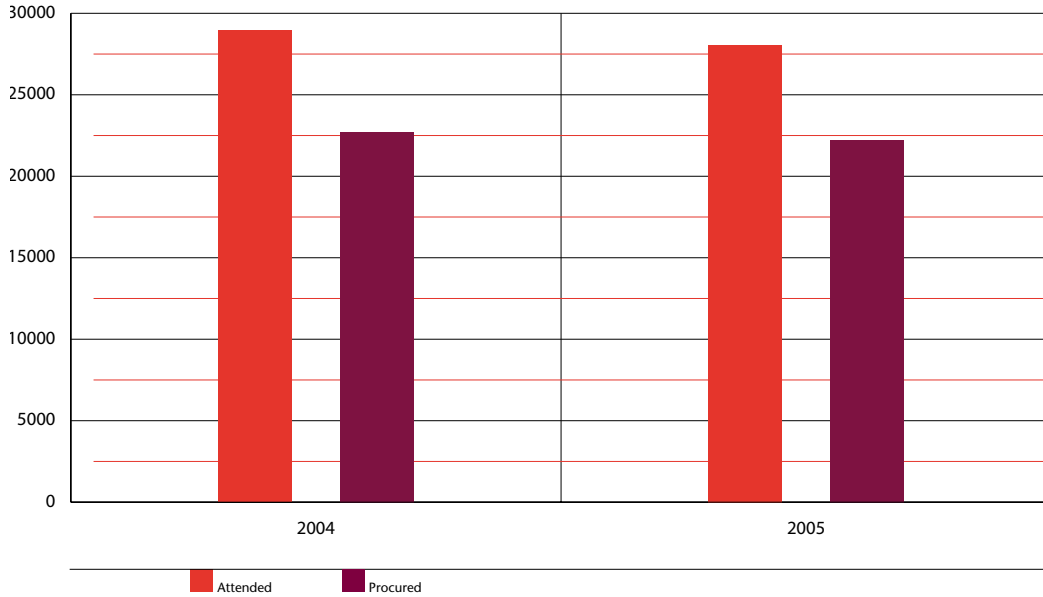
### D'OLIER STREET CENTRE: 2004 + 2005

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	23766	26218	18251	20521



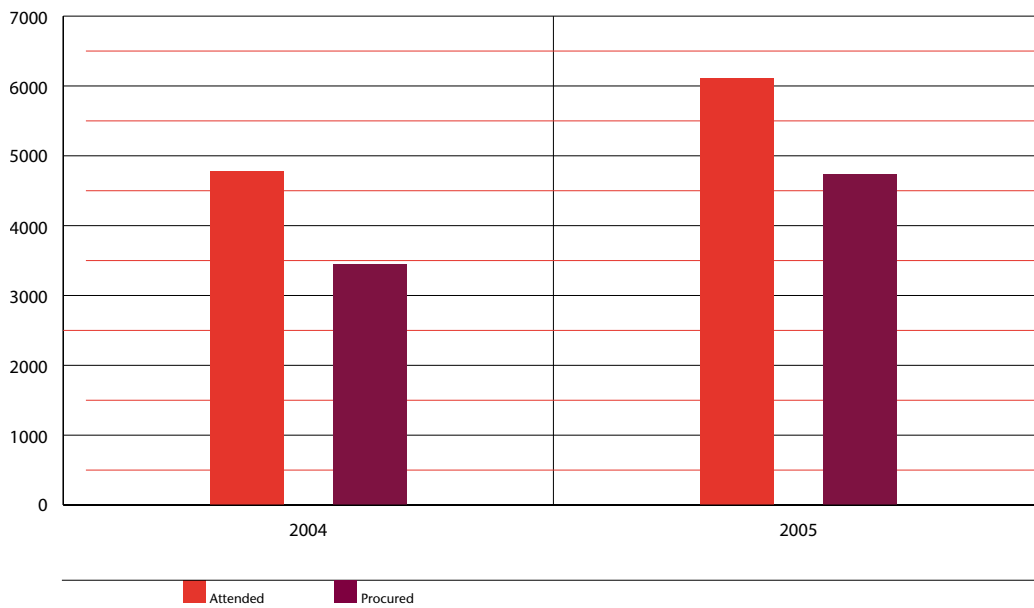
**MOBILE ONE DUBLIN: 2004 + 2005**

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	28957	28060	22712	22221



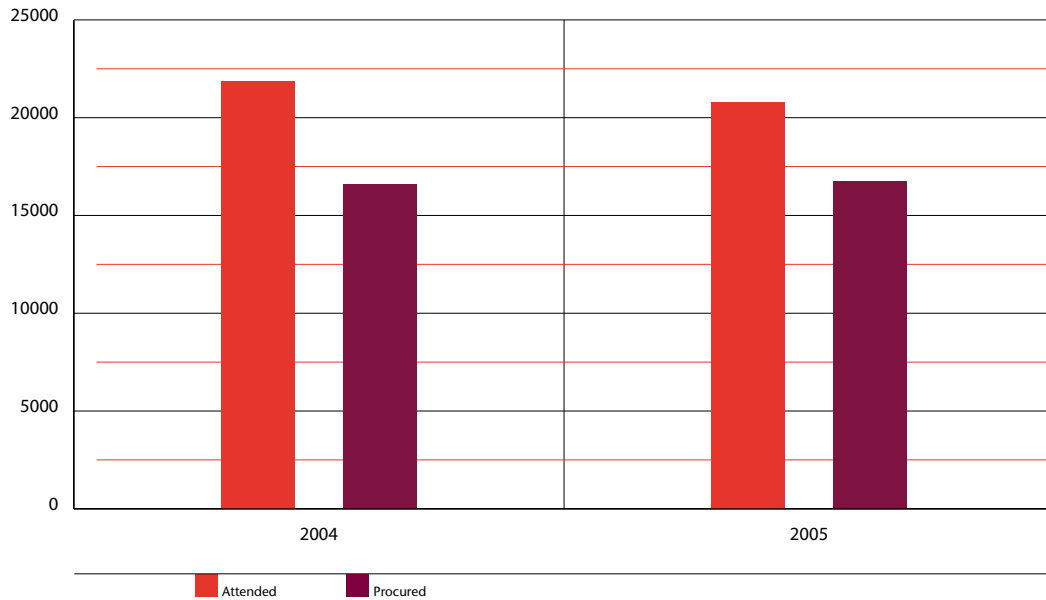
**STILLORGAN CENTRE: 2004 + 2005**

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	4779	6107	3444	4731



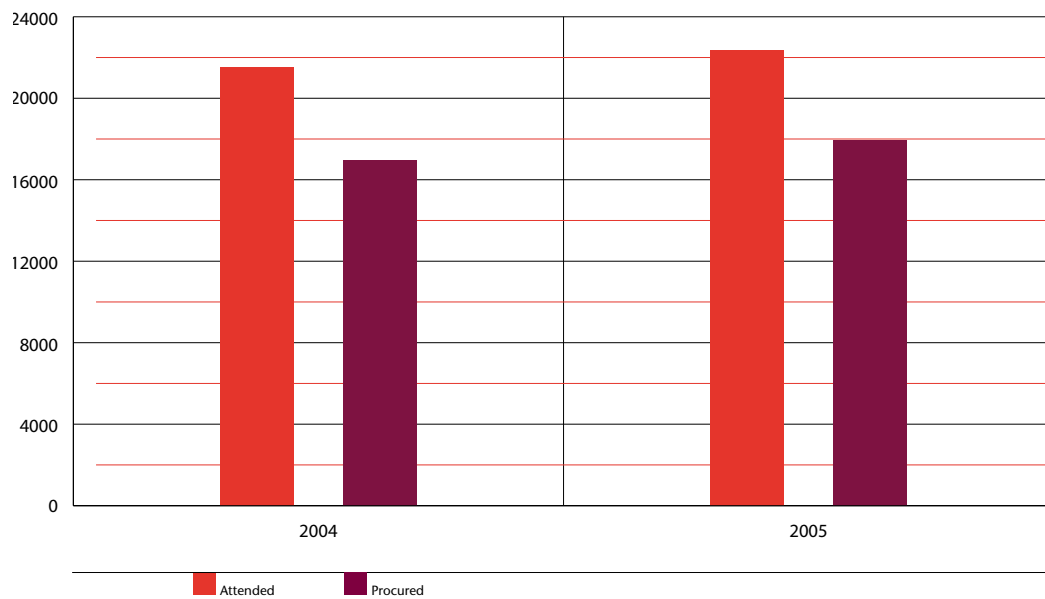
### TUAM CENTRE: 2004 + 2005

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	21865	20782	16587	16727



### LIMERICK CENTRE: 2004 + 2005

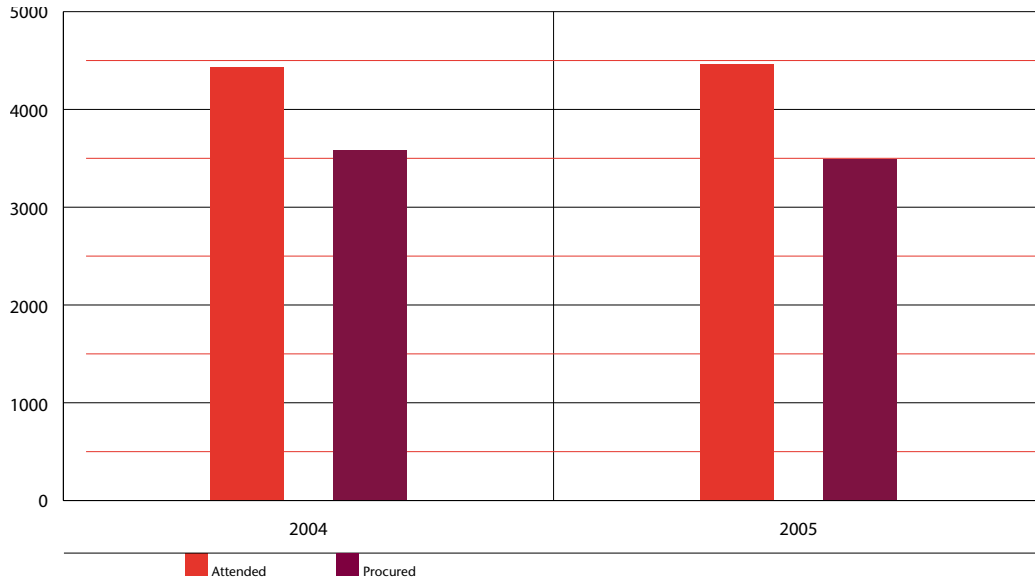
	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	21,511	22,367	16,942	17,944





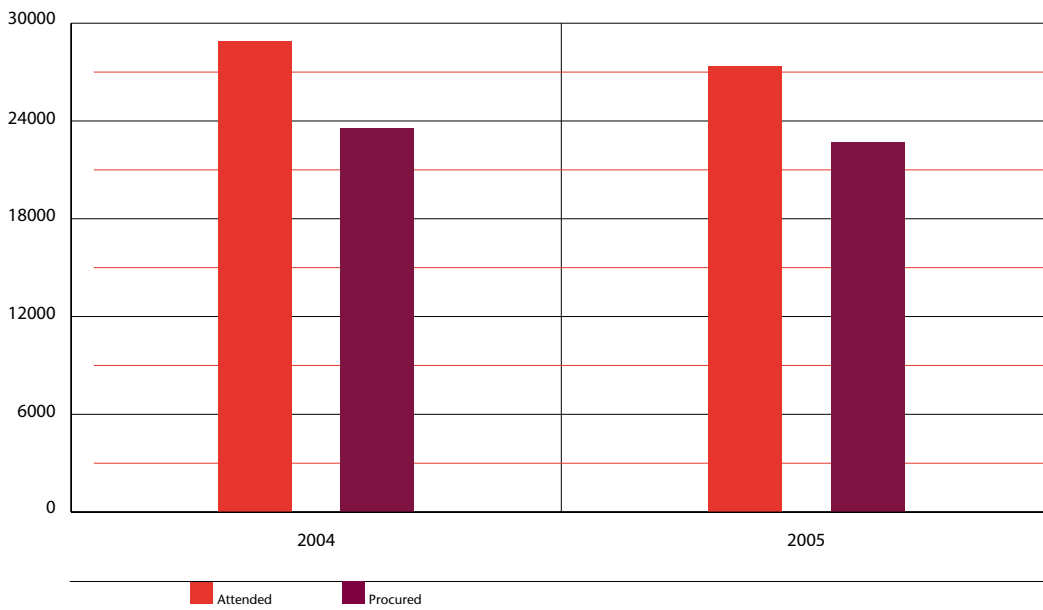
**MRTC FIXED CENTRE: 2004 + 2005**

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	4434	4463	3586	3490



**MRTC MOBILE ONE: 2004 + 2005**

	ATTENDANCES		PROCURED	
	2004	2005	2004	2005
<b>Totals</b>	28897	27364	23524	22687

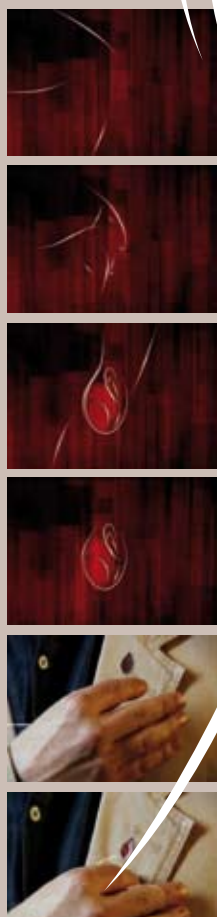




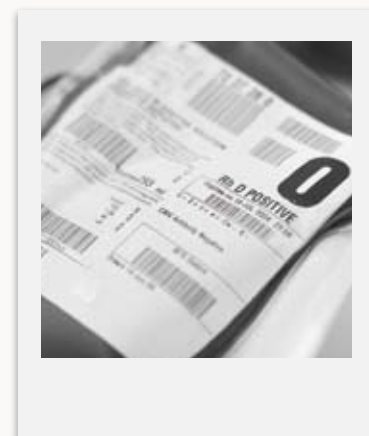
*Ray Darcy and Ian Dempsey from Today FM with Buddy Blood Drop during Blood for Life Week.*

# SECTORAL REPORTS

# 02



## 6 PROCESSING AND TESTING



**Blood has a limited lifespan outside the body, therefore it is important that it be available to hospitals for transfusion as soon as possible after collection. The procedures operated by the IBTS ensure that donations can be issued to hospitals within 48 hours of collection.**

Red cells are stored at 4°C and have a shelf life of 35 days. Platelets are stored at 22°C and have a shelf life of just 5 days. The issuing of 7 day platelets following bacteriological testing, commenced in 2005.

When a person gives blood, a number of small blood samples are collected for testing purposes. The blood donation itself (470mls) is processed in the Components Laboratory and red cells, platelets and plasma are prepared for therapeutic use.

Tests are performed using automated equipment and tracked by the unique barcode assigned to each donation. IBTS uses the latest technology and testing processes to ensure the safety of all products issued. On completion of testing and processing, each unit undergoes visual inspection. The barcode on the unit is scanned and if all tests are complete and satisfactory results obtained, the unit is then labelled and cleared for issue.

### AUTOMATED DONOR GROUPING

During the year the Automated Donor Laboratory tested over 116,000 samples from blood donors. This equates to more than 2 million individual tests, including ABO grouping, Rhesus phenotyping and antibody screening/identification.

From these results the frequency of various antigen types within the population can be determined and compared to the expected frequencies. This information is important in maintaining an adequate blood stock in the correct proportion to its use. For example when

Blood Group	O	A	B	AB
Expected %	45	40	11	4
Actual %	56	30	11	3

examining the results of typing first time donors from 2005 it can be seen there are less group A and more group O individuals in the first time donor population than expected.

This type of information is particularly useful as there is always an over demand for group O blood components.

The Automated Donor Grouping Laboratory is constantly evaluating new types of tests and techniques used to keep up with international testing practices. This year saw the introduction of a new piece of blood typing automation the QASAR IV, which will further expand the types of tests that may be performed on blood donations. This will enable the department to introduce screening for haemoglobin S, the type of haemoglobin associated with Sickle Cell disease. The screening of selected donations for this trait will again improve the safety of blood and blood components issued by the IBTS.

## **VIROLOGY**

The Virology Laboratory receives a clotted sample from each donor taken at the time of donation. This sample is identified with a unique bar code identifier at the time of donation. The sample is tested for the presence of specific viral markers that may be transmitted by transfusion.

These tests are performed using GMP (good manufacturing practice) compliant equipment. The results are electronically transmitted to Progesa. The donation barcode is scanned and the unit is cleared and labelled for issue if all tests are complete and satisfactory results are obtained. The quality of the testing system is ensured by using standards from the 'National Institute of Biological Standards and Controls', as 'go/no go' controls on all testing runs.

This ensures that equipment is functioning to the highest standard. The laboratory participates in a monitoring programme which allows IBTS to compare results to Blood Centres in the UK.

The laboratory also participates in the surveillance programme run by National Blood Service/ Health Protection Agency. The reactive rates for testing kits and confirmatory results using various lot numbers of reagents are monitored with the National Blood Authority.

A notifying report is generated which details assay performance and trends in reactive rates.

The following serology tests are performed in the Virology Laboratory and are mandatory for all donations:

- Hepatitis B including Hepatitis B surface Antigen and B core Antibodies
- Human Immunodeficiency Virus
- Hepatitis C Virus
- Human T Lymphotropic Virus
- Syphilis

A frozen serum sample is stored from each donation. Selected donations are tested for CMV in order to have a supply of CMV negative donations for patients who require them.

Following extensive validation a new assay for Hepatitis B core antibody was introduced in April. The new core assay has much improved specificity to provide significant reduction in the number of falsely reactive donors.

In addition to testing the routine donor samples from donations, the laboratory also tests samples from donors who were previously reactive on a screening assay.

The laboratory performs screening tests for viral markers for various departments within the IBTS, including bone marrow donors, stem cell donors, heart valve donors and samples from recipient tracing testing programme.

## **NUCLEIC ACID TESTING LABORATORY**

The Nucleic Acid Testing (NAT) Laboratory brings cutting edge technology to current blood screening practices by combining advanced Nucleic Acid Testing technology within a unique, single-tube system. Current available screening technologies are designed to detect core antibodies or surface antigens, however these infection indicators leave a small residual risk for disease transmission. NAT detects very low levels of viral RNA that may not be detectable through current approved serological assays.

The NAT Laboratory at the NBC tests all donations using the Chiron Procleix HIV-1/HCV Assay. This assay is a qualitative in-vitro nucleic acid testing assay system for the detection of human immunodeficiency virus type 1 and/or hepatitis C virus RNA in human plasma. This assay is highly sensitive and specific for viral nucleic acids and is capable of detecting infection earlier than other screening methods, thus narrowing the window period. An archive sample is retained on all donations.

Prevention of cross-contamination within the laboratory itself and also between processed samples is critical to the success of NAT testing. The level of importance associated with prevention of contamination is best reflected in the strict layout of the laboratory, which ensures unidirectional flow of samples throughout.

During the year over 160,000 donations were tested in the laboratory and there was no requirement to invoke the contingency testing plan which the IBTS has with the Scottish National Blood Transfusion Service. The NAT Laboratory participates in two proficiency programmes, one circulated by the National Institute for Biological Standards and Control in the UK and the second by VQC-Acrometrix in the Netherlands.

The NAT Laboratory also participates in a QA programme (EDC.net) provided by the National Serology Reference Laboratory (NRL, Australia) which is regarded as world leading. The NRL is a WHO Collaborating Centre and its Quality Control programmes provide a mechanism for laboratories to monitor the day to day quality of their testing processes. The laboratory runs an Internal Competency Scheme where the competency of each operator to perform the Procleix HIV-1/HCV assay is assessed each quarter and a statistical process monitoring programme is in place.

## **DIAGNOSTICS**

The Diagnostics Laboratory at the NBC provides red cell immunohaematology and antenatal services for hospitals nationwide. The services provided by the Diagnostics Laboratory include:

- Provision of phenotyped blood
- Provision of crossmatched blood for complex cases and for hospitals without blood transfusion laboratories

- Investigation of antibody problems
- Investigation of haemolytic transfusion reactions
- ABO/Rh typing, including typing problems
- Investigation of positive Direct Antiglobulin Tests (patients)
- Investigation of Autoimmune Haemolytic Anaemia
- Investigation of Haemolytic Disease of the Newborn (HDN)
- Prevention of HDN by routine Antenatal Screening for at risk pregnancies (including the quantitation of Anti-D and titration of clinically significant antibodies)
- Provision of suitable blood at delivery for at risk pregnancies
- Scientific advice to hospital colleagues
- Extended phenotyping for transfusion dependant patients

In addition to the above reference services, the Diagnostics Laboratory also controls the issue of all platelet products (including CMV negative, irradiated orders, neonate suitable products) and the issue of special provision red cell products (including CMV negative, irradiated, neonate suitable).

In total, over 2000 samples were referred for diagnostic services in 2005.

## COMPONENTS

The Blood Components Laboratory located in the NBC is responsible for the processing of all blood donations collected in Dublin, D'Olier Street, Stillorgan and Mobile One as well as Carlow, Ardee, and Tuam.

Each donation is filtered to remove the leucocytes and processed to produce red cell concentrates, buffy coats for pooled platelet production, and some plasma for pooled cryoprecipitate production. A limited contingency stock of fresh frozen plasma is also maintained.

A number of specialised products suitable for neonatal use are produced on a made-to-order basis.

During the year, 102,400 red cell concentrates were produced. In addition, 2,500 whole blood units and 2,300 red cell units suitable for neonatal use were produced. A total of 11,000 units of pooled platelets and 1,600 units of pooled cryoprecipitate were produced.

The specialised neonatal products produced include 967 red cell concentrates each split into five packs, 915 plasma reduced whole blood units, and 82 plasma reduced whole blood units each split into four packs.

During 2005 a project to produce prion protein reduced red cell preparations was initiated. The initial study was encouraging and the product is in clinical trial. A total of 26 prion protein reduced leucodepleted red cell units were produced.

## HLA/NHIRL LABORATORY

The HLA Laboratory received approval from the Department of Health and Children to change its name to the National Histocompatibility and Immunogenetics Reference Laboratory (NHIRL) in February. The laboratory renewed its accreditation from the European Federation for Immunogenetics (EFI) in October. The laboratory maintained its 100% score in the NEQAS external proficiency scheme for high resolution DNA typing.

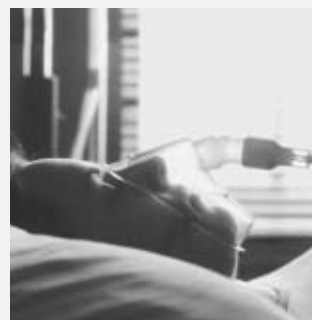
In 2005 there was a 1% reduction in the number of samples tested compared to 2004. Significant increases in testing for related HSCT workups (11%) and HPA phenotyping (325%) and HLA - A,B typing (404%) of the platelets panel were noted compared to 2004.

Decreases in IUBMR recruitment (15%), disease association testing (17%), unrelated HSCT workups (17%), high resolution class I+II typing (2%), HPA genotyping (19%) and discontinuation of solid organ service in 2004 have contributed to the slight decrease in overall testing. Referrals for antibody (both HLA+HPA) testing also fell by 19% which may reflect our communication to all hospitals indicating our discontinued investigation of samples from cases of suspected ITP. The platelet cross matching service was discontinued in October.

The NHIRL Laboratory continues to provide a quality service reflected by our renewal of EFI accreditation in autumn 2005 and our 100% score for high resolution class I+II typing in NEQAS.



## 7 HOSPITAL SERVICES



The Hospital Services Department is the vital link in the distribution chain that ensures blood reaches the patients who need it under controlled conditions. The main function of hospital services is to provide safe and secure distribution of all products released for issue to hospitals. This involves critical product management and the maintenance of accurate and comprehensive records of both received and issued blood, blood components and derivatives.

### BLOOD AND BLOOD PRODUCTS ISSUED: 2004 + 2005

PRODUCTS ISSUED	2005	2004
Red Cells & Whole Blood	139,314	136,230
Platelets - Therapeutic Doses	19,777	17,598
Frozen Plasma	746	2,089
Octaplas	24,880	24,848
Cryoprecipitate	1,765	1,258
Factor VIIA (xIU)	424,080	405,280
Protein C (x IU)	-	9,500
Anti Thrombin III (x IU)	79,850	5,000
Factor VIII Recombinant (x IU)	21,031,000	20,805,066
Factor VIII Plasma	-	-
Von Willebrand Factor (x IU)	543,000	592,500
Factor IX Recombinant (xIU)	10,970,280	10,559,228
Prothromplex (x IU)	459,600	541,200
Factor XIII	9,750	5,100

## **TISSUE BANKING**

The Tissue Bank at the NBC consists of the Irish Eye Bank, the Irish Homograft Heart Valve Bank and the Irish Directed Cord Blood Bank. A quality management system is in place and the bank conforms to the standards of the European Eye Bank Association and the British Association of Tissue Banks.

## **EYE BANK**

### **CORNEAS**

No corneas from Irish donors were harvested in 2005. 94 corneas were imported from Rocky Mountains Lions Eye Bank (RMLEB) in Denver, Colorado and issued.

### **SCLERA**

No sclera were harvested from Irish donors in 2005. 23 sclera were imported from Rocky Mountains Lions Eye Bank (RMLEB) in Denver and issued. A stock of imported scleral tissue is maintained in the Eye Bank at all times for issue on demand.

### **AMNION TISSUE**

19 pieces of frozen amnion tissue were issued. A stock of imported amnion tissue is maintained in the Eye Bank at all times for issue on demand.

### **PERICARDIUM**

2 pieces of freeze-dried pericardium tissue were issued. A stock of imported pericardium tissue is maintained in the Eye Bank at all times for issue on demand.

### **HEART VALVE BANK**

80 homograft heart valves were processed from 42 donors in 2005. There were 77 issues to cover procedures of which 42 were implanted with the remainder returned unused.

In addition 10 homograft heart valves were imported by consultant cardiac surgeons for specific patients and 9 were used. The Heart Valve Bank stores and distributes these imported valves as a service to the relevant hospitals.

## 8 **QUALITY ASSURANCE**



**The Quality Assurance function is responsible for ensuring regulatory compliance within the IBTS. Quality Assurance was also involved in a number of major product development projects during the year.**

An enhancement to the Bacterial Screening Programme to launch the testing and release of 7-day platelets was successfully implemented at the NBC. At the MRTC the plan to carry out bacterial screening testing at the centre commenced. MRTC samples are currently transported and tested in the NBC.

A programme to introduce prion reduction technology has been developed by the IBTS under the stewardship of the National Medical Director. The quality function plays an essential role in supporting clinical trials and in the introduction of such new technologies.

Regulatory compliance is a key objective for the IBTS and during the year, there were 12 GMP inspections covering sites, depots and mobile units.

As the EU Blood Directive has been implemented through Statutory Instrument 360 of 2005, IMB inspections of blood establishments are now carried out under the EU Blood Directive. The IBTS has been designated a Blood Establishment, and the activities of quality improvement, quality control and quality assurance now have a firm legislative basis. A specific IMB inspection of the validation approach to the introduction of eProgesa into IBTS was performed in September.

Maintaining a validated state is essential to ensuring compliance and supporting the roll out of new/upgraded technologies. There were in excess of 120 validation projects initiated within the IBTS during the year.

Monthly Quality Meetings were held at MRTC and NBC, reporting on non-conformances, complaints, recalls and change control status. Weekly change control meetings were introduced early in 2005 with a view to standardising practice throughout IBTS.

## **9 MUNSTER REGIONAL TRANSFUSION SERVICE**



The Munster Regional Transfusion Centre (MRTC) undertakes blood collection, processing and modification of blood components, blood group serology testing and screening tests for infectious disease markers and manages storage and distribution of stock to hospitals in the region. The MRTC provides diagnostic services by way of routine serology services for Cork City hospitals and a reference service for hospitals in the Munster region as well as antenatal screening.

Other patient services include therapeutic apheresis for Cork City hospitals and support of hospital transfusion practice by attendance at Hospital Transfusion Committees and medical and scientific consultation for professional users. MRTC also provides screening for recipients of anti-D immunoglobulin and blood transfusion in relevant years for Hepatitis C virus and investigates other possible transfusion transmitted infections.

### **DONATION PROCUREMENT**

MRTC is based in St. Finbarr's Hospital in Cork where there is a fixed donor clinic procuring whole blood donations and where a platelet apheresis programme is in development. Two mobile whole blood donation collection teams operate in Munster Mobile I from the Cork Centre and Mobile II from the Limerick Centre.

54,194 donors attended whole blood clinics in Munster throughout 2005, 44,121 donations were procured of which 7.7% were from first time donors. Overall in Munster in 2005, wholeblood donations were +0.2% on 2004.

Whole blood donor clinics were held at 53 Mobile I venues and 41 Mobile II venues during 2005. New clinics were held in Douglas, Newtownshandrum and Ringaskiddy. Cork Airport Business Park and Mahon Community Centre were assessed as venues for holding mobile blood clinics.

Promotional stands were manned at the Cork Adult Education Exhibition and at the National Ploughing Championships in September 2005 from which links were established with branches of Macra na Feirme. Promotional stands were also manned adjacent to mobile clinic venues at EMC - Ovens, Schering Plough - Innishannon, Musgraves - Cork,

Kostel - Mallow, adjacent to mobile clinic venues. These venues do not have suitable facilities for holding on site clinics.

The annual Donor Award Ceremony was held on the 18th September 2005. 127 donors who had given 50 donations and 9 donors who had given 100 donations were presented with their awards. The award ceremony launched Blood for Life week in Munster.

### **BLOOD GROUP SEROLOGY TESTING AND SCREENING TESTS FOR INFECTIOUS DISEASE MARKERS**

Blood group serology testing and screening for infectious disease markers is undertaken on each donation procured. Donations were grouped by ABO, Rh and Kell type routinely in 2005. Further antigen typing was undertaken for specific patients. All donations were also screened for antibodies.

Screening for infectious disease markers included Hepatitis B and C, HIV, Syphilis and HTLV I + II. CMV testing was undertaken for immunodeficient patients. In addition, MRTC staff continued preparation for the introduction of Platelet Bacterial Screening and Nucleic Acid Testing (NAT) at MRTC.

### **COMPONENTS ISSUED FROM MRTC**

MRTC provides transfusion support by distributing blood components as stock to hospitals throughout Munster and special services by way of modification and additional matching as required for specific patients for example neonates and patients undergoing chemotherapy. 36,861 red cell preparations were issued of which 7% (2592) were irradiated for vulnerable patients.

The Components Laboratory processes whole blood donations into its constituent parts, red cell preparations, platelets and plasma. Irish donor derived plasma is held as contingency stock at this time.

Overall in 2005 there was a 4.8% increase in demand for red cell issues over 2004.

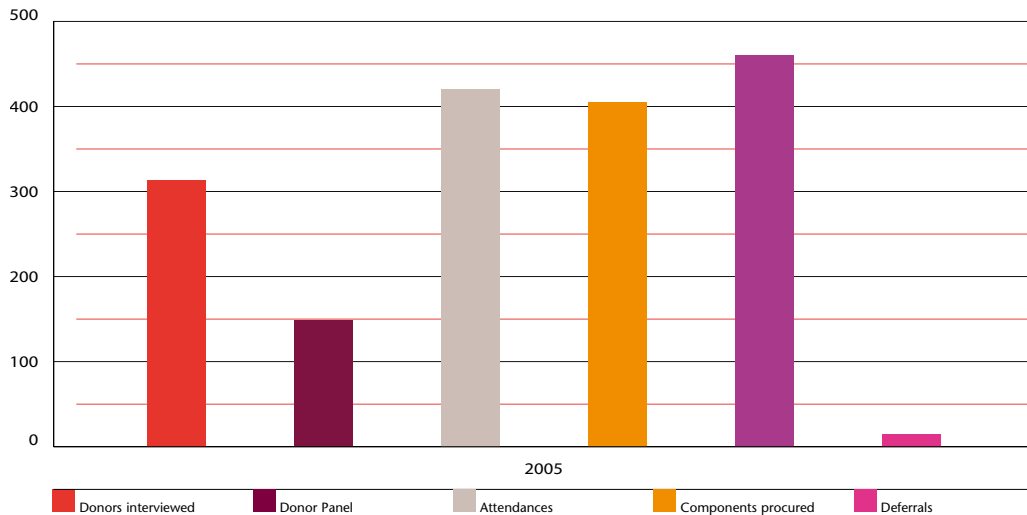
There was a 22% increase in platelets issued in 2005 over 2004.

### **INVENTORY MANAGEMENT – RED CELL PREPARATIONS**

The stock of red cells available to hospital users is actively managed by reviewing procurement targets and hospital demand weekly. Minimum banking levels are reviewed in relation to two days (minimum) issue levels. Minimum banking levels were achieved throughout 2005 for 100% of routine working days across the major blood groups. The use of Group O Rhesus D negative red cell preparations issued to hospitals for which MRTC crossmatches for specific patients, at 11.8% is a benchmark for issues to stock holding hospitals.

## MRTC PLATELET APHERESIS 2005

Donors interviewed	313
Donor panel	149
Attendances	420
Donations	405
Components procured	460
Deferrals	15



## PLATELET APHERESIS PROGRAMME

A programme plan was put in place from which 517 donors expressed an interest in the programme and by end year 149 donors were members of the MRTC Platelet Apheresis Programme panel. During the year, 420 donors attended from whom 460 components were procured (18% as double dose). In all apheresis components comprised 21% of the total platelet components issued in the region. Until the MRTC panel is HLA typed, the demand for HLA matched platelets for specific patients is met from the NBC.

## DIAGNOSTIC SERVICES

Clinical and laboratory services are provided by way of compatibility testing in the Crossmatch Department and antenatal screening in the Antenatal Department at MRTC. The Crossmatch Department provides a routine serology service for Cork City hospitals, a reference service for hospitals in the Munster region and undertakes secondary processing out of hours, component modification and special preparations for paediatric patients. The Crossmatch Department investigates transfusion reactions in hospitals for which we provide a compatibility service. During 2005 the Crossmatch Department assumed responsibility to check that platelet components were negative by bacterial testing prior to issue. 9,058 samples were received, of which 3,504 were crossmatched against 8,898 red cell preparations.

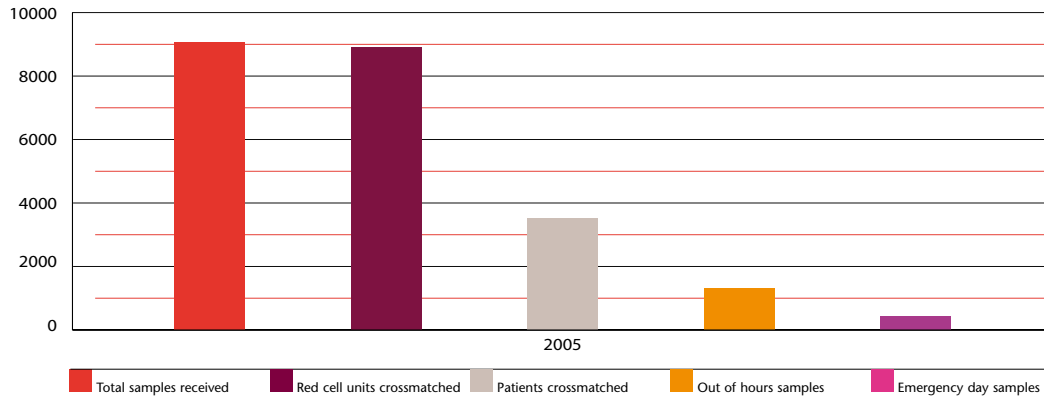
578 antibody investigations were undertaken and in addition 126 had Rh Genotype determined. 1,740 direct antiglobulin tests were undertaken. Antigen screening of 4,598 red cell preparations was undertaken.

Secondary processing was undertaken by way of saline washing of 69 components.

163 cryopreserved components were thawed for individual patient use and 98 red cell components were prepared for paediatric use. 3,760 components were irradiated and 28 transfusion reactions were investigated.

## MRTC OVERALL ACTIVITY 2005

Total samples received	9058
Red cell units crossmatched	8898
Patients crossmatched	3504
Out of hours samples	1293
Emergency day samples	425

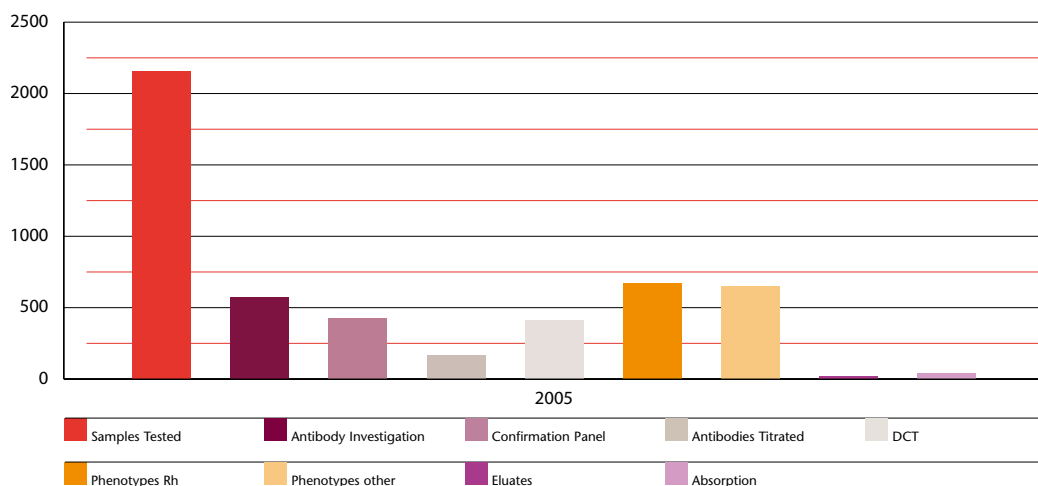


## ANTE-NATAL DEPARTMENT

The Ante-Natal Department provides routine and reference ante-natal screening services. 2,155 samples were tested during 2005 and antibody investigation was undertaken on 569 samples. When antibodies are detected paternal Rhesus phenotyping is undertaken if appropriate and matched blood is made available for mother and baby at delivery as appropriate. Anti-D Quantitation is referred to the NBC. Rare antibodies are referred to the International Blood Group Reference Laboratory (IBGRL) in Bristol as were maternal peripheral blood samples for determination of foetal Rhesus D type by PCR. Determination of foeto maternal haemorrhage (FMH) by Kleiheur testing was undertaken at delivery, supported by flow cytometric analysis as appropriate.

## MRTC ANTE-NATAL DEPARTMENT 2005

Samples tested	2155
Antibody investigation	569
Confirmatory panels	422
Antibodies titrated	168
DCT	407
Phenotypes Rh	669
Phenotypes other	648
Eluates	21
Absorption	39



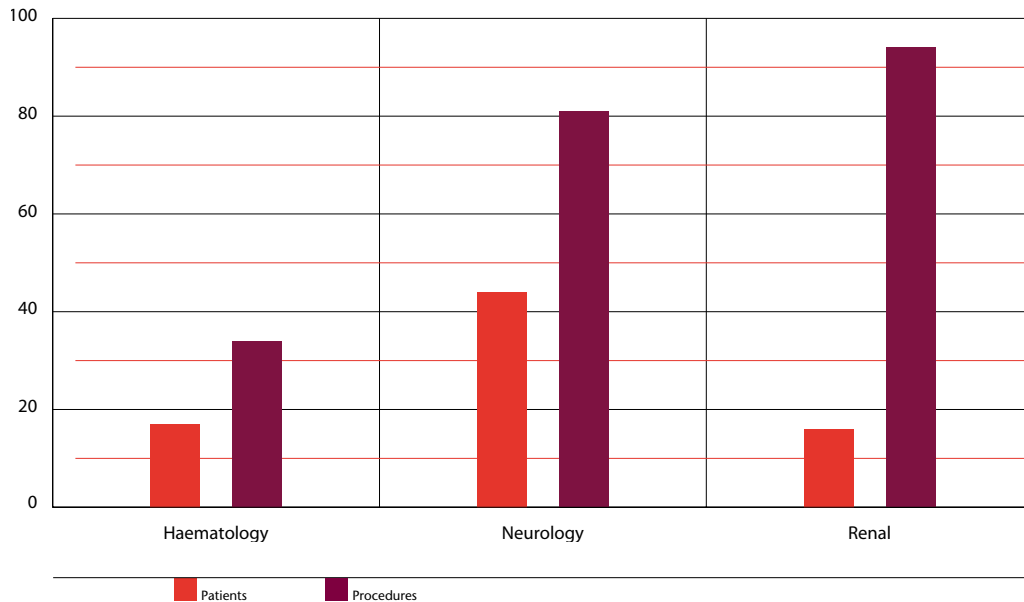
## THERAPEUTIC APHERESIS

MRTC provides a Therapeutic Apheresis service for patients in Cork City hospitals. The demand is primarily for plasma exchange for specified clinical conditions. In addition leuco-reduction is undertaken for specified patients. During 2005, 209 therapeutic apheresis procedures were carried out on 77 patients, up to 32 procedures in any individual month. This included plasmaexchange procedures in haematology, neurology and renal patients. 3 leucopheresis procedures were carried out on a single patient.

Of the 209 procedures carried out 87 were pre-booked and 122 were carried out for patients presenting with acute illness.

### THERAPEUTIC APHERESIS 2005

DEPARTMENT	PATIENTS	PROCEDURES
Haematology	17	34
Neurology	44	81
Renal	16	94





## **10 NATIONAL HAEMOVIGILANCE OFFICE**



**The National Haemovigilance Office (NHO) was set up in 1999 and in the five years from 2000/2004 a total of 778 adverse transfusion reactions/ events have been reported to the NHO of which 428 were in the Incorrect Blood Component Transfused (IBCT) category.**

During 2005, the three-year Near Miss Research Project was concluded and the data collected is currently being analysed.

The National Haemovigilance Office (NHO) hosted its fifth annual conference in the Clarion Hotel, Cork in October. Over 180 delegates from all over Ireland were in attendance, with an excellent representation from a number of different transfusion related disciplines.

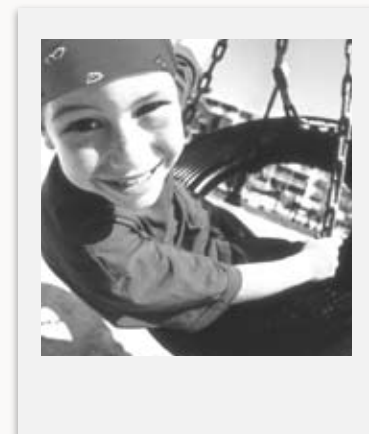
Dr. Elizabeth Keane, IBTS Board Member opened the Conference, which drew guest speakers from a variety of transfusion related backgrounds.

'Haemovigilance - The Irish Experience' was illustrated by a shared presentation by Dr. Stefan Laspina and Dr. Emer Lawlor, Director, NHO on the findings of the NHO Annual Report 2004. Ms. Derval Lundy, NHO presented '759 chances to learn' a review of the Near Miss Project followed by a haemovigilance perspective of clinical transfusion practice by Ms. Marina Cronin, Haemovigilance Officer, Adelaide & Meath Hospital, Tallaght

'The UK Experience' was covered by Dr. Joan Jones, Welsh Blood Service, Dr. Judith Chapman and Dr. Dafydd Thomas, Swansea NHS Trust UK.

The key note speaker was Dr. Dorothy Stainsby of SHOT who also acted as adjudicator for the poster competition and presentations were also given by Dr. Joan Fitzgerald, Consultant Haematologist, IBTS and Mr. Don Mullahy, Senior Medical Scientist, IBTS.

## **11 IRISH UNRELATED BONE MARROW REGISTRY**



The Irish Unrelated Bone Marrow Registry (IUBMR) was set up in 1989 to provide a panel of volunteer donors for Irish and International patients requiring bone marrow transplantation as a curative therapy for some acquired malignant conditions and for inherited metabolic disorders. The vast majority of patients who do not have a sibling donor will find suitably matched donors either on the Irish or International panel.

### **REGISTRY ACTIVITIES**

To date the IUBMR has facilitated 165 transplants. Of the 165 transplants, 137 were for Irish patients and 28 for International patients.

In 2005 the registry facilitated 18 transplants on behalf of Irish (15) and International (3) patients. Of the 18 transplants 13 were bone marrow transplants, 3 were Peripheral Blood Stem Cell transplants and 2 were Cord Blood transplants.

### **REGISTRY ACCREDITATION**

Since 1991 the IUBMR has been affiliated to the World Marrow Donor Association (WMDA), an organisation which sets operational standards for bone marrow registries. The IUBMR currently submit data for the WMDA annual report. In 2006, the IUBMR plan to apply for WMDA accreditation.

### **BONE MARROW DONOR AWARDS CEREMONY**

The Bone Marrow Registry held its first Bone Marrow Donor Awards Ceremony in the Radisson Hotel, Stillorgan on Monday 19th September 2005 to commence Blood for Life Week. To mark the event, President Mary McAleese joined our donors who had donated bone marrow/stem cells to unrelated patients worldwide.

They were presented with a classic John Rocha Waterford Crystal clock and scroll to acknowledge their selfless act of giving the gift of 'Time and Life'.

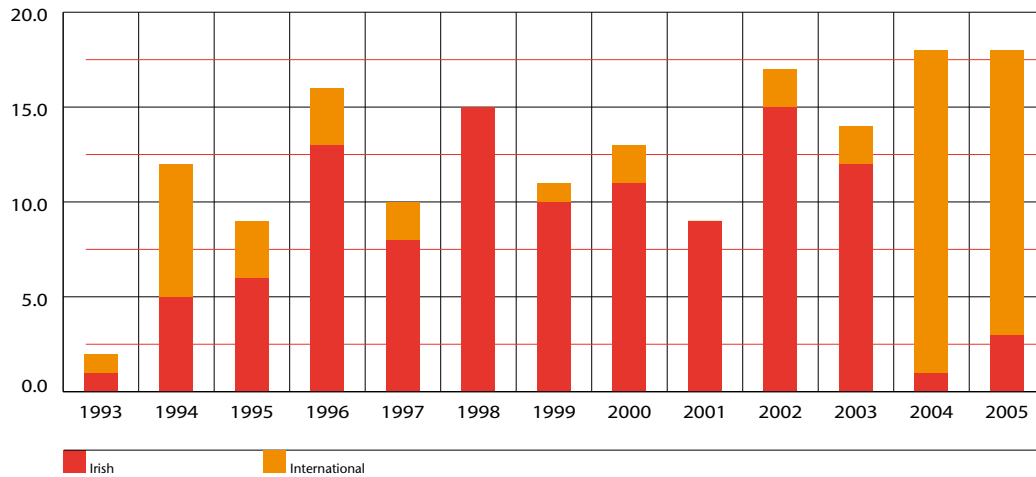
### **IRISH DIRECTED CORD BLOOD BANK**

The Irish Cord Blood Bank facilitates the collection and cryopreservation of directed

umbilical cord blood donations. The cord blood must be intended for a named sibling of the newborn, who has a condition for which a stem cell transplant may be a curative treatment. The collection of the cord blood must be requested by a bone marrow transplant physician. During the year 11 such cord blood donations were processed.

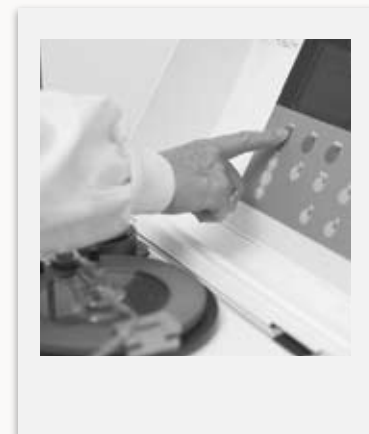
### IUBMR TRANSPLANTS FACILITATED 1993-2005

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Irish	5	6	13	8	15	10	11	9	15	12	1	3
Int	7	3	3	2	0	1	2	0	2	2	17	15



President of Ireland Mary McAleese, with IBTS Chairperson Maura McGrath and Board Members Valerie Mannix, Dr Liz Keane and Sean Wyse at the Bone Marrow Donor Awards Ceremony

## 12 THERAPEUTIC APHERESIS SERVICE



The NBC Therapeutic Apheresis Service performs therapeutic apheresis procedures for patients in Dublin hospitals.

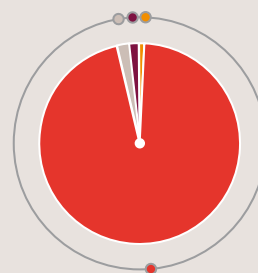
The team, which is led by an IBTS Consultant, includes nurses that are trained in therapeutic apheresis procedures. The procedures are carried out at the patient's bed side using mobile apheresis equipment.

### PROCEDURE TYPE

The following table displays the procedural type and number of cases performed by the Therapeutic Apheresis Service, NBC during the year.

#### CASES BY PROCEDURE TYPE 2005

TYPE	NO. OF CASES	
Plasma Exchange	311	96%
Platelet Depletion	6	2%
Red cell exchange	3	1%
Red cell depletion	2	1%
<b>Total Cases</b>	<b>322</b>	<b>100%</b>



■ Plasma Exchange
 ■ Platelet Depletion
 ■ Red Cell Exchange
 ■ Red Cell Depletion

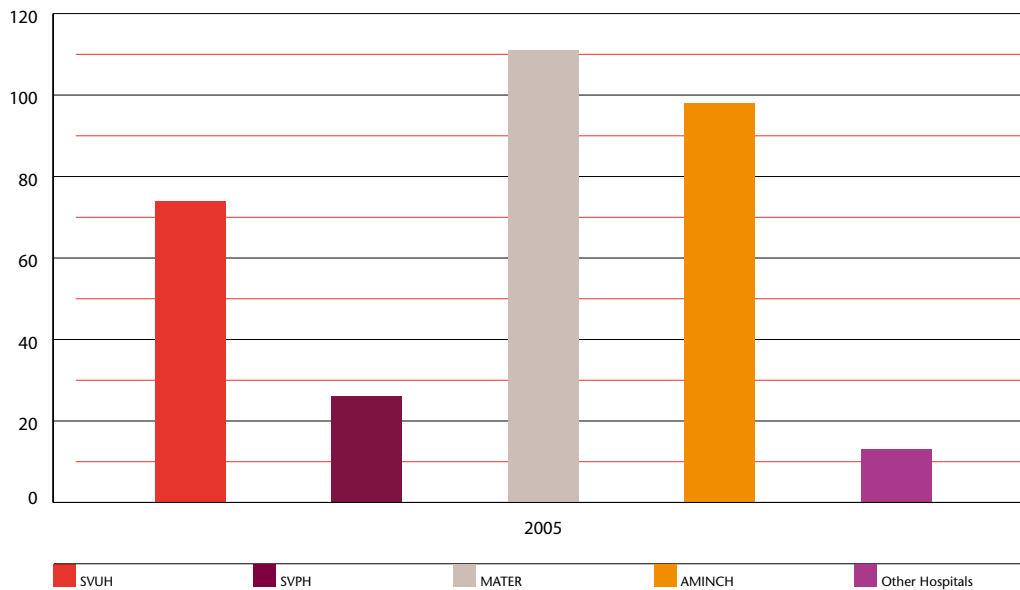
A total of 322 cases were performed 96% (n = 311) accounted for plasma exchange with the remaining 4% covering platelet depletion (n = 6), red cell exchange (n = 3) and red cell depletion (n = 2).

## PROCEDURES BY HOSPITAL

The main hospitals involved are the major hospitals in Dublin with the exception of Beaumont Hospital, however requests are taken from all hospitals and assessed for treatment. The following table displays the number of cases per hospital for the year 2005.

### CASES BY HOSPITALS

St Vincents University Hospital (SVUH)	74
St Vincent's Private Hospital (SVPH)	26
MATER	111
Tallaght Hospital (AMINCH)	98
Other Hospitals	13



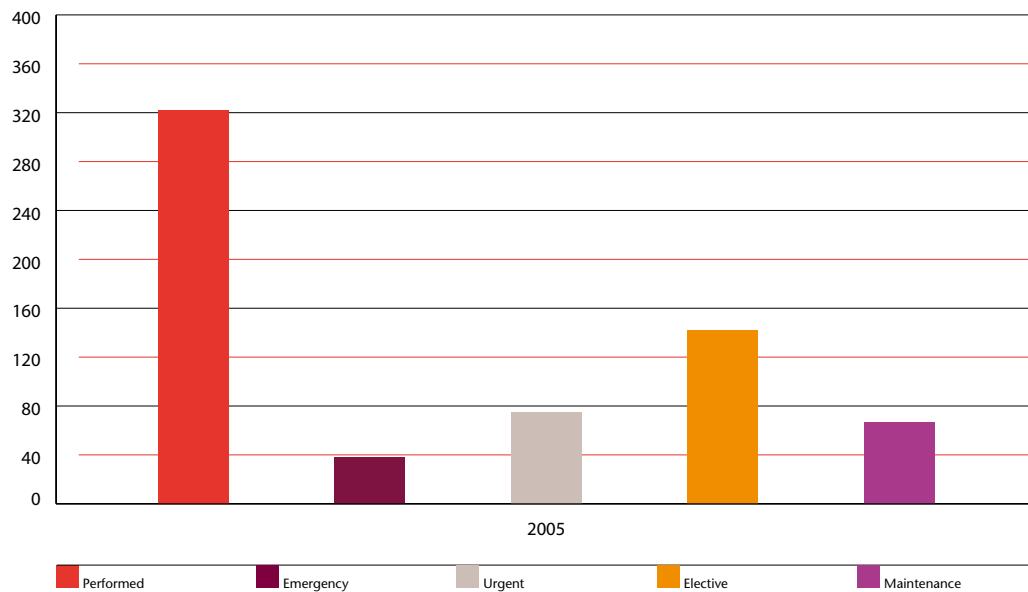
From the total of 322 cases performed the main four Dublin academic teaching hospitals accounted for 96% (n = 309) of the service requirements. The remaining 4% (n = 13) was distributed among other hospitals. Mater Hospital accounted for 35%, AMINCH for 30%, SVUH for 23%, SVPH 8%. Other hospitals 4%.

## CLASSIFICATION OF PROCEDURES

During the year, apheresis procedures carried out by the on call therapeutic service added a new classification under emergency procedures, urgent procedures that are performed for conditions which require treatment on weekends or public holidays, before the next business day but during daylight hours.

### CASES BY CLASSIFICATION

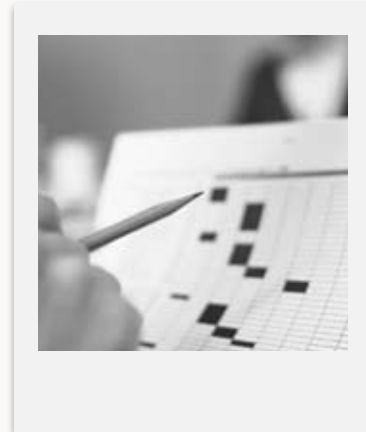
Performed	322
Emergency	38
Urgent	75
Elective	142
Maintenance	67



## ACTIVITY ANALYSIS

On review of the service 44% of the workload is elective, 35% emergency / urgent and maintenance at 21%. By the nature of the service, planning of resources is difficult with 35% emergency/urgent requirement. A total of 38 emergency cases were carried out at weekends/ bank holidays and this accounted for 12% of activity.

## **13 RECIPIENT TRACING UNIT**



**The Recipient Tracing Unit traces and offers testing to recipients of Anti D between the risk years of 1977-79 and 1991-94 as part of the follow up to the Anti D HCV Screening Programme established in 1994.**

Additionally it manages the Anti D Reassurance Programme which offers re-testing to all recipients who have tested negative, but who were exposed to an infectious or potentially infectious batch of Anti D, through the individual's GP. This Programme was set up by the Expert Group, a multi-disciplinary group appointed by the Minister for Health and Children. To date 10,727 recipients have tested under the Reassurance Programme. Included in this figure are a number of women who tested under the Reassurance Programme but we have since learned were recipients of non-infectious batches or where batch details are unknown.

A further aspect of the Programme offers HCV testing to transfusion recipients who received blood prior to the introduction of HCV testing for blood donations, introduced in October 1991. It also investigates suspected transfusion transmitted infections reported by health professionals to the National Haemovigilance Office in the IBTS.

Though over 68,000 individuals have been tested under the Anti D Screening Programme, not all the individuals who were exposed have been tested and the Recipient Tracing Unit is continuing to trace, in co-operation with the hospitals the individuals who may not realise they have received Anti D during the risk periods. To date 1,027 recipients who received potentially infectious batches of Anti D within the risk years have screened Eliza positive for Hepatitis C. The remainder have screened Eliza negative.

## **14 INFORMATION TECHNOLOGY**



The IT team currently provides a critical support function to all eight IBTS centres throughout the country. The objective is to have an IT system that provides an efficient and effective service to the organisation and supports the maximum safety of our donors and quality of our products.

### **IT PERSONNEL**

The IT team consists of 16 personnel and some contractors from time to time to support any new developments and to provide IT support to over 600 personnel, which are based in eight permanent sites, with 6 mobile units on the road most days. There are in excess of 350 PCs in use throughout the organisation running various applications all with varying degrees of complexity and Good Manufacturing Practice (GMP) requirements. With the emergence of a more technologically focused organisation and the ever growing needs for GMP compliance we recruited an IT Quality Manager and an Oracle Database Administrator in 2005. These new positions give the necessary support to any validation requirements and also help us plan for future in-house developments.

### **PROGESA**

The system has continued to prove its robustness throughout the year - there were no outages. One of our objectives for the year was to merge the donor databases in Dublin and Cork as well as the two patient databases in Progesa, this was achieved in August.

A separate project was undertaken by Donor Services with the aid of IT to identify and merge duplicate donor records on the system.

Outages on Progesa mobile servers were also kept to a minimum during 2005 despite the ageing of equipment in use on mobile clinics. These are being updated with the introduction of eProgesa.

### **ePROGESA**

This project continued throughout the year with the main achievement being going to tender for, and the acquisition of, new servers to make up the eProgesa hardware platform. During the year some issues were identified with the system and were sent for resolution to MAK-Systems.



## **INTERNATIONAL MAK USERS CONFERENCE**

In April the IBTS hosted the International MAK Users conference. It was attended by 55 delegates from 15 different blood bank establishments throughout the world. We gave a demonstration of eProgesa which was very well received by all in attendance and has resulted in the IBTS being seen as a respected leader within this group.

## **ELECTRONIC DOCUMENT MANAGEMENT SYSTEM**

During 2005 it became apparent that there was a pressing need to find a solution to the amount of documentation generated from the various systems within the IBTS. An external consultant was contracted to gather the user requirements for such systems and a detailed URS was agreed and signed off in 2005.

## **IT INFRASTRUCTURE**

2005 has seen some major changes to the IBTS IT infrastructure with the migration of the core systems to new operating systems. This has already provided benefits to the organisation and will set the way for continuing developments.

## **WINDOWS NT4 TO 2003 AND XP MIGRATION**

The IBTS IT infrastructure was moved from the obsolete NT4 system to Windows 2003 and XP systems. This has already improved the core aspects of the IT infrastructure and has provided benefits in terms of reliability, stability and performance. It has allowed the introduction of new versions of general applications and the ability to improve our existing services and introduce new ones to the organisation.

## **FRAME RELAY UPGRADE**

The data communications lines between the different IBTS offices, allows for use of systems such as Progesa, CORE (the HR\Payroll system) and email, have been upgraded which has improved the quality of service in these areas.

## **ANTI-VIRUS**

With the continuing increase of risk from external computer based attacks it is vital to have an anti-virus solution which can provide the maximum protection to the organisation. In 2005 we introduced new virus protection software which offers a three tiered protection strategy to the highest risk of virus infection, emails. It also has improved the individual virus protection to all vulnerable servers, PCs and laptops. The system also has the ability to detect unprotected systems and deploy virus protection to them automatically.

## **WINDOWS SERVER SAN INTEGRATION**

2005 saw the introduction to the NBC of a SAN, a device which greatly improves the reliability, performance and flexibility of server storage. The core infrastructure servers were attached to the SAN providing its benefits to the services they provide.

## **IT SUITE UPGRADE**

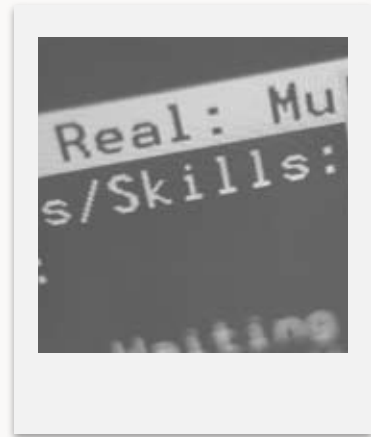
With the introduction of new IT equipment in the NBC to support the operation of the new network infrastructure environment and also the hardware to support the new eProgesa system there was a requirement to improve both power supply protection system and the air handling system. The UPS which provides battery powered backup in the event of a power supply failure was increased in capacity to accommodate the new systems. Also new

air conditioning units were added to deal with the increased heat output from the new systems.

### **HELPDESK SUPPORT CALLS**

We took in excess of 800 support calls in 2005 of which we had reached a close out rate of 95%. The majority of these calls were linked to the migration from Windows NT.

## **15 HUMAN RESOURCES**



The Human Resources Department provided updates to the Human Resources Staff Manual, which details all HR policies and procedures, in line with all legislation and recommendations. 'Term Time', a family friendly initiative was successfully launched within the organisation. Recruitment and selection administration was reviewed and updated. There was ongoing development of HR records on the HR database, Core.

In line with the training needs analysis, mandatory training and individual coaching in certain policies was carried out for all staff. In addition, the HR Strategy continued to be implemented as part of the organisational strategy leading to best practice HR in the organisation. Sustaining Progress has provided significant impetus to the modernisation agenda and the IBTS has received sanctions on all increases to date.

### **KEY HR DEVELOPMENT INITIATIVES**

#### **VALUES**

The Values Subgroup went through a tendering process to source an organisation to work with the IBTS to establish organisational values. Unfortunately, the companies who tendered did not meet all the requirements for this initiative. It has been decided that the most appropriate way to progress this project is internally, through a blend of internal project members and an external consultant.

#### **PERFORMANCE MANAGEMENT**

A partnership subgroup has been set up called the Performance Management and Development Group to undertake this project. This project will develop a methodology on implementing performance management throughout the IBTS in line with work previously done in the HSE.

#### **WORK-LIFE BALANCE ARRANGEMENTS**

Arising out of the Employee Climate Survey, a joint PSG/HR booklet entitled 'Work-life Balance Arrangements in the IBTS' was circulated to all staff at the end of October to remind staff of the flexible work arrangements available.

### **SUGGESTION SCHEME**

The PSG subgroup has now responded to all suggestions received to date. Some employees were asked to submit further details regarding their suggestion and two employees were awarded the 'Encouragement Award' for their suggestions.

### **D'OLIER STREET DONATION CLINIC REVIEW**

The parties participated in an exercise on Interest Based Bargaining in relation to the D'Olier Street review. This is an alternative to traditional adversarial approaches.

### **NATIONAL UNIFORM PROJECT**

The corporate uniforms project was completed.

### **IBTS STAFF RECOGNITION SCHEME**

The purpose of this scheme is to facilitate recognition for years of service and commitment to the IBTS, through the granting of one-off extra annual leave awards at defined years of service within the IBTS. For 10 years service all staff who qualify will receive a once off allocation of 2 days annual leave; for 20 years service 4 days annual leave will be awarded; for 30 years 6 days will be awarded and for 40 years 8 days will be allocated.

## **EMPLOYEE RELATIONS**

### **PARTNERSHIP STEERING GROUP**

The Partnership Steering Group concluded its two year term in December 2005.

Arising out of the Employee Climate Survey, it was suggested that the IBTS hold an 'Away-Day', centred on enhancing and promoting internal staff communications. A major one-day event was arranged, to which all IBTS staff were invited and encouraged to attend. The IBTS Inaugural National Conference took place in the Radisson Hotel Athlone in October.

### **SUSTAINING PROGRESS AND BENCHMARKING MODERNISATION PROGRAMME**

The formal verification of progress and modernisation throughout the public sector is viewed by the IBTS as an opportunity to effect real modernisation and change in the organisation over the lifetime of the Agreement.

This process requires that heads of organisations within the health sector prepare and submit progress reports on the attainment of objectives set out in the action plan template (agreed for the sector by the National Partnership Forum and approved by the Performance Verification Group). IBTS Progress Reports are circulated to all Heads of Department and members of the IBTS National Partnership Steering Group, seeking inputs, contributions and comments from representative groups, prior to completion.

The Training and Development function continues to support ongoing organisational development whilst making a significant contribution to the modernisation agenda, and will continue to play an integral role in this process.

As before, all objectives contained in the Progress Report will continue to be discussed with the relevant unions, with a view to agreement and implementation. The role of staff across all sections of the organisation is critical for the successful implementation of the change programme.

## **ENVIRONMENTAL HEALTH AND SAFETY**

The EHS function within the IBTS develops awareness and provides health and safety training programmes, tracks health and safety performance and provides guidance on

health and safety matters as they arise within the organisation. In 2005, key occupational health and safety areas were developed such as risk assessments completed for laboratories and MRTC, Parent Safety Statement updated to reflect legislative changes, final draft of IBTS Accident/Incident Reporting Programme created, draft office safety programme and office ergonomic programme to include pilot of an e learning programme and the set up of two regional safety committees. Developments in these areas provide a solid foundation from which the IBTS safety management system is growing and being incorporated into day-to-day business activities.

The following were the staff numbers in the IBTS at the end of 2005.

<b>STAFF HEADCOUNT</b>	
NBC	309
MRTC	134
Ardee	35
Carlow	35
Tuam	25
Limerick	33
D'Olier St	58
Stillorgan	10
Total	639

## 16 COMMUNICATIONS



### WEBSITE

Our main email address [info@ibts.ie](mailto:info@ibts.ie) received 737 valid queries in 2005. There is a continuing decline in the popularity of this generic public email address. The website contains multiple contact points and this drop in activity to the general email address has been exceeded in volume by the increased level of activity at [contactus@ibts.ie](mailto:contactus@ibts.ie), [clinics@ibts.ie](mailto:clinics@ibts.ie) and [bonemarrow@ibts.ie](mailto:bonemarrow@ibts.ie). Also, appointments can be arranged directly with the donation clinic in Stillorgan, through [stillorgan@ibts.ie](mailto:stillorgan@ibts.ie).

### PUBLICATIONS

The IBTS published issue 8 and 9 of Donor Digest in 2005. Donor Digest is a four page information newsletter for donors, which is available at clinics throughout the country.

The IBTS Strategic Plan 2005 – 09 was published in May. The 2004 Annual Report was published in September. All of our publications are available at [www.ibts.ie](http://www.ibts.ie).

### FREEDOM OF INFORMATION

The IBTS received 9 requests under the Freedom of Information Act in 2005. The IBTS posts the Board Minutes subsequent to ratification by the Board and subject to FOI on [www.ibts.ie](http://www.ibts.ie).

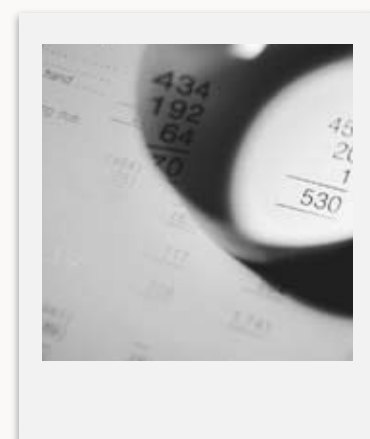


## **INTERNAL COMMUNICATIONS**

The implementation of the internal communications strategy is ongoing. The Internal Communications Strategy Implementation Group produced 4 issues of Staff Update, a quarterly newsletter for all IBTS staff. The group also produced a 2006 staff yearbook and diary. Additional features were also made available to staff on the intranet.

The Group was also involved in the development of the organisation climate survey and in the action plan to implement the recommendations.

## 17 FINANCE



	2005	2004
	€'000	€'000
		as restated
<b>INCOME</b>		
Recurring income	101,137	97,346
Non-recurring income	270	291
Total Income	101,407	97,637
<b>EXPENDITURE</b>		
Total expenditure	96,330	94,923
Surplus for year	5,077	2,714
Actuarial loss on pension scheme	(4,051)	(952)
Transfer to Capital Reserve	(5,000)	-
Accumulated reserve at 1st January	6,140	4,378
Accumulated reserve at 31st December	2,166	6,140

### INCOME

The Board's total income for 2005 of €101.4 million (2004 €97.6 million) is analysed into recurring income and non-recurring income.

Recurring income consists of revenue generated from products and services provided to hospitals of €101.1 million (2004 €97.3 million). The Board did not increase its prices for 2005 from 2004 levels; accordingly all increases are due to increased activity. No direct funding was received, during 2005, from the Department of Health and Children in relation to expenditure incurred on the Hepatitis C Programme (2004 €0.5 million).

Non-recurring income during 2005 includes interest earned on bank deposits and proceeds from the sale of fixed assets.



## **EXPENDITURE**

Expenditure for 2005 amounted to €96.3 million, which is an increase of €1.4 million on 2004. Increased expenditure in the year mainly related to implementing national pay agreements within the organisation and additional depreciation costs due to increased investment in assets over the last number of years. The high professional fees in 2004, due to legal actions taken against the Board, were not incurred during 2005.

Financial reporting standard 17 'Retirement Benefits' (FRS 17) was introduced in November 2000, however the Irish Blood Transfusion Service, elected to continue to account for its pension obligations under SSAP 24 Accounting for Pension Costs and to disclose the impact of FRS 17 in the notes to the financial statements. FRS 17 has now been fully implemented and, for the financial year ended 31 December 2005, the Board now accounts for pensions in accordance with FRS 17.

During the year the Board decided to set up a capital reserve fund for the development of new facilities in Cork. €5 million was transferred to this fund for the year ended 31st December 2005.

## **CAPITAL EXPENDITURE**

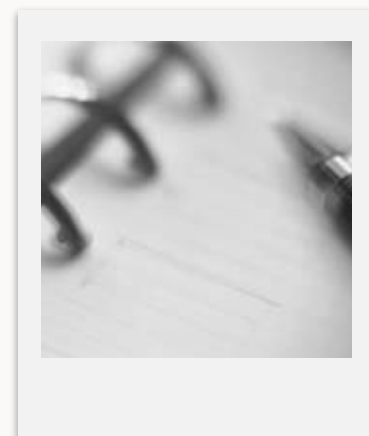
Expenditure of €3.1 million was invested in capital projects during 2005. The main investments were in improving information technology systems particularly migrating to Windows XP and upgrading our blood management system to eProgesa. The eProgesa project is ongoing and has not yet been capitalised. Other expenditure included upgrading our fleet and plant and equipment to support on-going organisational activities.

## **PROMPT PAYMENT LEGISLATION**

The Board complies with the requirements of Prompt Payment Legislation except where noted below. The Board's standard credit taken, unless otherwise specified in specific contractual arrangements, are 30 days from the date of invoice or confirmation of acceptance of the goods or services which are subject to payment. It is the Board's policy to ensure that all accounts are paid promptly.

During the year ended 31 December 2005, under the terms of applicable legislation, a total of 263 invoices to the value of €6,991,583 were late, by an average of 50 days. These invoices constituted 1.99% by number and 10.48% by value of all payments to suppliers for goods and services during the year. Total interest paid in respect of all late payments amounted to €10,222. The Board continuously reviews its administrative procedures in order to assist in minimising the time taken for invoice query and resolution.

## **18 CORPORATE GOVERNANCE**



**The Board's policy is to maintain the highest standards of corporate governance, in line with generally accepted policies and practices. The Board is accountable to the Minister for Health and Children.**

The Board attended a workshop on Corporate Governance on 10th September. At the end of the workshop a number of decisions were made in relation to the conduct of Board business and areas to be addressed in the coming year. A commitment was also made to review performance in this area on a regular basis.

### **COMPLIANCE WITH THE CODE OF PRACTICE FOR THE GOVERNANCE OF STATE BODIES**

The Board is committed to complying with the relevant provisions of the Code of Practice for the Governance of State Bodies, published by the Department of Finance in 2001.

During the year, the IBTS received reports on internal control and going concern issues. The Board regularly reviews the reports of the Irish Medicines Board on operational and compliance controls and risk management. The Board will continue to review these reports and to work closely with the IMB to ensure the highest international standards.

### **WORKINGS OF THE BOARD**

The Board is comprised of twelve members including a non-executive Chairman appointed by the Minister for Health and Children.

The Board meets monthly. All members receive appropriate and timely information, to enable the Board to discharge its duties. The Board takes appropriate independent, professional advice as necessary.

The Board has activated a committee structure to assist in the effective discharge of its responsibilities.

### **MEDICAL ADVISORY COMMITTEE**

The Medical Advisory Committee is comprised of the medically qualified members of the Board and the medical consulting staff and meets on a monthly basis. Its function is to monitor developments relevant to the field of transfusion medicine and related fields, to

inform the Board of any such developments and to advise the Board on appropriate action.

### **FINANCE COMMITTEE**

The Finance Committee met five times during the year and is comprised of three members of the Board. It is also attended by the Chief Executive, National Medical Director, Director of Finance and Management Accountant. The Committee may review any matters relating to the financial affairs of the Board. It reviews the annual capital and operating budgets, management accounts, insurance, procurement, treasury policy, capital expenditure, costings exercises and banking and financing arrangements. The Committee reports to the Board on management and financial reports and advises on relevant decision-making. The Finance Committee operates under formal terms of reference.

### **AUDIT COMMITTEE**

The Audit Committee met four times during the year and is comprised of three members of the Board. It is also attended by the Chief Executive, the National Medical Director, the Director of Finance, the Director of HR, the Management Accountant and the Internal Auditor. The Committee may review any matters relating to the financial affairs of the Board. It reviews the annual financial statements, reports of the Internal Auditor, the accounting policies, compliance with accounting standards and the accounting implications of major transactions. The external auditors meet with the Committee to review the results of the annual audit of the Board's financial statements. The Audit Committee operates under formal terms of reference.

### **RISK REGISTER**

Following a number of workshops, facilitated by an outside consultant, in late 2004 a formal Risk Register was approved by the Business Review Group and was presented to the Board and the Audit Committee.

The Risk Register identifies strategic, clinical, financial and operational risks to the organisation and the existing controls and further actions necessary to minimise the impact on the organisation in the event of the risk occurring.

The Risk Register is reviewed and updated regularly by the Business Review Group to ensure that the identified risks and controls are current and that new and emerging risks are identified and controlling measures put in place.

### **GOING CONCERN**

After making reasonable enquiries, the directors have a reasonable expectation that the IBTS has adequate resources to continue in operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis in preparing financial statements.

### **INTERNAL CONTROL**

The Board members are responsible for internal control in the IBTS and for reviewing its effectiveness. The Board's system of internal financial control comprises those controls established in order to provide reasonable assurance of:

- The safeguarding of assets against unauthorised use or disposition; and
- The maintenance of proper accounting records and reliable financial information used within the organisation.

The key elements of the Board's system of internal financial control are as follows:

- A comprehensive system of financial reporting
- Annual Budget prepared and presented to both the Finance Committee and the Board and monthly monitoring of performance against budgets
- Clearly defined finance structure with appropriate segregation of duties and limits of authority across all finance functions
- Fully documented procedures
- Clear authorisation limits for capital and recurring expenditure approved by the Finance Committee
- Monthly stocktakes carried out by staff independent of stores staff
- Payment verification of supplier invoices by senior staff independent of accounts payable staff
- Financial system possesses verification checks and password controls
- Regular monitoring of credit control function
- All despatch docket for issues of products are matched to their relevant invoices to ensure all the board's activities are fully billed
- All purchase orders signed by Purchasing Officer
- All non stock invoices signed and coded by budget managers
- All stock invoices independently matched with stores GRN

The Board are aware that the system of Internal Control is designed to manage rather than eliminate the risk of failure to achieve business objectives. Internal control can only provide reasonable and not absolute assurance against material mis-statement or loss.

### **STATEMENT OF BOARD MEMBERS' RESPONSIBILITIES**

The Board is required by the Blood Transfusion Service Board (Establishment) Order 1965, to prepare financial statements for each financial year which, in accordance with applicable Irish law and accounting standards, give a true and fair view of the state of affairs of the Irish Blood Transfusion Service and of its income and expenditure for that year. In preparing those financial statements, the Board is required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and estimates that are reasonable and prudent;
- Disclose and explain any material departure from applicable accounting standards;
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Irish Blood Transfusion Service will continue in business.

The Board is responsible for keeping proper books of account, which disclose with reasonable accuracy at any time, the financial position of the Irish Blood Transfusion Service and to enable it to ensure that the financial statements comply with the Order. It

is also responsible for safeguarding the assets of the Irish Blood Transfusion Service and hence taking reasonable steps for the prevention and the detection of fraud and other irregularities.

### **MEMBERS OF THE BOARD 2005**

Ms. M McGrath, Chairperson

Dr. E. Keane

Ms. V Mannix (term of appointment expired 30/09/05)

Dr. C. van der Poel (term of appointment expired 30/11/05)

Mr. T. McNamara

Dr. M. Horgan

Mr. D. Keenan

Mr. D. Lowe

Mr. S. Wyse

Ms. J. O'Brien

Dr. M. Cahill

Dr. M. Cotter (appointed 01/09/05)

Mr. M. Moran (appointed 01/10/05)

### **AUDITORS**

Comptroller and Auditor General

Treasury Building

Lower Castle Yard

Dublin Castle

Dublin 2

### **SOLICITORS**

McCann Fitzgerald Solicitors

2 Harbourmaster Place

Customs House Dock

Dublin 1

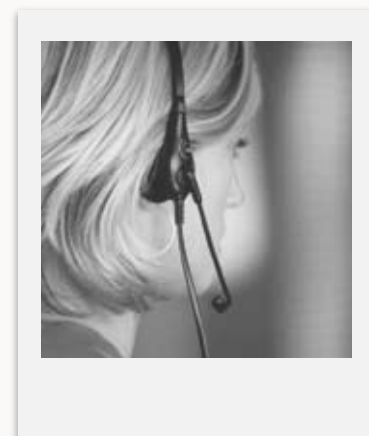
### **BANKERS**

Allied Irish Bank

Dame Street

Dublin 2

## 19 CONTACT DETAILS



### Irish Blood Transfusion Service

#### NATIONAL BLOOD CENTRE

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t: 01 4322800  
f: 01 4322930  
e: info@ibts.ie  
www.ibts.ie  
aertel p691  
Donor infoline 1850 731 137

#### MUNSTER REGIONAL TRANSFUSION CENTRE

St Finbarr's Hospital  
Douglas Road  
Cork  
t: 021 4807400  
f: 021 4313014

#### DUBLIN BLOOD DONOR CLINIC

2-5 D'Olier Street  
Dublin 2  
t: 01 4745000

#### STILLORGAN BLOOD DONATION CLINIC

6 Old Dublin Road  
Stillorgan  
Co Dublin  
t: 1850 808 808

#### ARDEE CENTRE

John Street  
Ardee  
Co Louth  
t: 041 6859994  
f: 041 6859996

#### CARLOW CENTRE

Kernanstown Industrial Estate  
Hackettstown Road  
Carlow  
t: 059 9132125  
f: 059 9132163

#### LIMERICK CENTRE

Carrig House  
Cloghkeating Ave  
Raheen Business Park  
Limerick  
t: 061 306980  
f: 061 306981

#### TUAM CENTRE

Unit 49  
N17 Business Park  
Tuam  
Co Galway  
t: 093 70832  
f: 093 70587



**NATIONAL BLOOD CENTRE**

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**Irish Blood  
Transfusion Service**

Seirbhís Fuilaeistriúcháin na hÉireann