



**National Services Division**  
Annual Report 2004/05



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يمكن أن يتوفر هذا الإعلان بلغات مختلفة، وطباعة بحجم أكبر، وطباعة برايل (باللغة الإنجليزية فقط). للحصول على معلومات حول ترجمة هذا الإعلان بلغتك المحلية، يرجى الاتصال بالرقم الوارد أدناه.

यह प्रकाशन विभिन्न भाषाओं, बड़े अक्षरों, ब्रेल लिपि (सिर्फ अंग्रेजी में) उपलब्ध कराया जा सकता है। आपकी समुदाय की भाषा में इसे प्रकाशन के अनुवाद के बारे में जानकारी के लिए कृपया नीचे दिए हुए नम्बर पर टेलीफोन करें।

Cuirear am foillseachadh seo ri fhaighinn ann an grunn chànan, clò-bhualadh mòr is Beuille (Beurla a-mhàin). Cuir fòn dhan àireamh a leanas airson fiosrachaidh mar a gheibhear eadar-theangachadh an fhoillseachaidh seo nad chànan coimhearsnachd:

এই প্রকাশনটি বিভিন্ন ভাষায়, বড় ছাপার আকারে এবং ব্রেইলি-ত (শুধুমাত্র ইং-বলী-ত) সরবরাহ করা যে-ত পা-ত। এই প্রকাশনটি আপনার মাতৃভাষায় অনুবাদ সম্পর্কিত তথ্যের প্র-স্নায়-ন অনুরূহপূর্বক নিম্নলিখিত নম্ব-র টেলি-ফোন করুন :

ਇਹ ਪ੍ਰਕਾਸ਼ਨ ਵਾਖ ਵਾਖ ਭਾਸ਼ਾਵਾਂ ਵਿਚ, ਵੱਡੇ ਛਾਪੇ, ਬ੍ਰੇਲ (ਸਿਰਫ਼ ਅੰਗਰੇਜ਼ੀ ਵਿਚ) ਉਪਲਬਧ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ। ਇਸ ਪ੍ਰਕਾਸ਼ਨ ਦੇ ਆਪਣੇ ਭਾਈਚਾਰੇ ਦੀ ਭਾਸ਼ਾ ਵਿਚ ਅਨੁਵਾਦ ਲਈ ਜਾਣਕਾਰੀ ਲਈ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠ ਲਿਖੇ ਨੰਬਰ ਤੇ ਫ਼ੋਨ ਕਰੋ।

یہ طبع مختلف زبانوں اور بڑے چھاپ میں دستیاب کی جاسکتی ہے۔ براہی (صرف انگریزی میں) اپنی کمیونٹی کے زبان میں اس طبع کے ترجمے کے بارے میں معلومات حاصل کرنے کے لئے، براہ کرم مندرجہ ذیل نمبر پر فون کیجئے۔



**National Services Division**  
Annual Report 2004/05



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## Professor Stuart Bain

Welcome to the 2004/05 annual report of the National Services Division of NHS National Services Scotland. The report provides details on the number of patients treated and the funding allocated in the national specialist services and screening programmes commissioned by NSD, together with information on the changes and developments in these services.

This year was a challenging one for National Services Scotland (NSS). National Services Division staff, along with staff from other Divisions have been involved in contributing to a major exercise in national planning led by the Scottish Executive under the leadership of Professor David Kerr.

The 'National Framework for Service Change in NHS Scotland' sets out proposals to build a health service fit for the future. It maps out a critical role for many of NSS's Divisions, including National Services Division, in implementation.

Internally NSS has sought to reorganise its support services to ensure that it is well placed to take on supporting NHS Scotland in relation to shared services, logistics and the better procurement initiative. In this way we intend to maximise the contributions that NSS can make to NHS Scotland.

I hope that you will find this report interesting and informative and I would be keen to hear your views.

The report is also available on the NSD website at [www.nsd.scot.nhs.uk/reports/200405](http://www.nsd.scot.nhs.uk/reports/200405)

Professor Stuart Bain  
Chief Executive  
NHS National Services Scotland



## Deirdre Evans

Our aim, at National Services Division, is to help patients who need access to specialised health services to obtain the care that they need. We also aim to support the NHS in providing a range of screening programmes to detect early signs of disease and prevent avoidable ill-health. We have a particular role in ensuring that the highest possible standards of care are delivered within available resources and that there is a consistent and reliable approach within screening programmes for all residents of Scotland.

In 2004/05, £82 million was invested in specialised services and screening programmes. This provided specialised care for a large number of patients - details are set out in the body of the report. It also provided for service developments. Routine breast screening was extended to include women up to age 70, and this has now been implemented for 90% of the eligible population. The introduction of new techniques and technology in cervical screening resulted in an average 4.8% decrease in inadequate smears against the previous year. This means that fewer women will have to return for a second smear when the first one has failed. It also speeds up reporting times.

In diabetes, new software has been commissioned by NSD to support NHS Boards in eye screening for diabetic retinopathy.

The developments in genetics and molecular genetic laboratory services have reduced the length of time that results take to be reported in pregnancy screening.

A range of new services has been established and there has been rapid development of managed clinical networks.

The achievements in both specialised and screening services are remarkable and I would like to extend NSD's thanks to all those involved in these services.

Mrs Deirdre Evans  
Director  
National Services Division



## National Services Division

### National commissioning

Most healthcare in Scotland is funded by NHS Boards, either individually or working together in Regional Planning Groups. National commissioning is reserved for those services where local or even regional commissioning is not appropriate - generally national programmes, such as screening, or high cost, low volume specialised services, such as transplantation.

National commissioning aims to:

- ensure equity of access for all Scottish residents to specialist and screening services
- ensure the best possible clinical outcomes
- provide a secure funded environment for the establishment and development of new national services
- provide risk sharing arrangements for NHS Boards where incidence is sporadic and treatment expensive
- avoid unnecessary proliferation of duplicate services, thereby promoting clinical quality and cost effectiveness.

Provision of services is concentrated in a small number of locations nationally, allowing the essential expertise of these services to be maintained and developed. The ring-fenced nature of the funding allocated by NSD gives security and stability to these important services and ensures equity of access for patients.

Service level agreements exist between NSD and each individual service which cover all agreed service frameworks, targets, standards and activity expectations. NSD encourages communication from the individual services and meets regularly with clinical, nursing, finance and management personnel from each to discuss audit, clinical outcome, specific quality issues and developments, as well as ongoing involvement in teaching, research and training.

## Scottish screening programmes

There are three key elements to each national screening programme which need to be closely coordinated to be effective:

- commissioning screening and support services
- commissioning IT to support screening
- quality assurance of screening.

In Scotland it is generally agreed that population based screening programmes should not be introduced without an adequate quality assurance structure and that this is best organised centrally to minimise variations in services and standards. NSD commissions the Scottish Breast Screening Programme and has responsibilities for the national elements in support of cervical screening, colorectal cancer screening, pregnancy and newborn screening, diabetic retinopathy screening and newborn hearing screening.

Further information on each of the screening programmes can be found on pages 28-33.

Screening policy is set by the Scottish Executive Health Department (SEHD) on the advice of the UK National Screening Committee and other appropriate bodies.

There is a multi-disciplinary National Advisory Group for breast and cervical screening which provides a forum for consideration of changes to the National Screening Programmes. NSD works closely with this group and would be happy to answer any questions on their work.

## Becoming a national service

There is currently an annual process for applying to become a national service through the National Services Advisory Group (NSAG), a multi-disciplinary group which advises both NHS Boards and SEHD on Scottish specialised services. Details are available from NSD (see contact information).

National Services Division  
Gyle Square  
1 South Gyle Crescent  
Edinburgh  
EH12 9EB  
tel: 0131 275 6575

Deirdre Evans, Director  
0131 275 6575  
deirdre@nsd.csa.scot.nhs.uk

Dr Adam Bryson, Medical Director  
0131 275 6537  
adam@nsd.csa.scot.nhs.uk

Katherine Collins, Nursing &  
Quality Advisor  
0131 275 6157  
kathy@nsd.csa.scot.nhs.uk

Carol Colquhoun, National  
Screening Coordinator  
0131 275 6158  
carol.colquhoun@nsd.csa.scot.nhs.uk

Peter Croan, Head of Finance &  
Operations  
0131 275 6178  
peter@nsd.csa.scot.nhs.uk

Marjorie Johns, Planning &  
Performance Manager  
0131 275 6425  
marjorie@nsd.csa.scot.nhs.uk

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## Service reviews and developments

### Service reviews

Each year NSD examines a small number of services in depth, to develop proposals for their strategic future on a 3-5 year time frame. Decisions are taken by the Scottish Executive Health Department in consultation with NHS Boards.

In the course of 2004/05, NSD reviewed:

- Spinal injuries service

and in the course of next year, will report on reviews of:

- Cochlear implantation
- Cleft lip and palate surgery
- Pregnancy screening
- Recombinant and commercial factor concentrates

### Spinal injuries service

The review identified that there remains compelling evidence for patients with spinal cord injury to be transferred to a specialist unit that cares for a large volume of patients and that in most cases, these patients should be transferred to the unit within 24 hours of injury. It is in such units that these patients can receive the appropriate multi-disciplinary interventions to address their injuries and also the appropriate rehabilitation programme.

The incidence of spinal injuries in Scotland - around 160-200 per year - supports the need for one national specialist unit in Scotland. The review found that the service provided at QENSIU is of the highest quality and that it is able to demonstrate the outcome of the care, treatment and rehabilitation provided to its patients.

## New national services

Each year, applications are received by the National Services Advisory Group (NSAG) to be considered for national designation.

In the course of 2004/05, NSAG concluded that the following services met the criteria for national designation. The recommendations were approved by Board Chief Executives and the services listed here will be commissioned and funded by NSD from 1 April 2005. A brief description of each new service is overleaf.

Pre-implantation genetic diagnosis

Paediatric bone marrow transplantation

Paediatric spinal surgery for scoliosis

Paediatric cleft lip and palate surgery

Pancreatic and hepatobiliary cancer MCN

Paediatric renal MCN

Advanced heart failure

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## New national services

### Pre-implantation genetic diagnosis (PGD)

This is a relatively new procedure which allows the testing of embryos at an early stage to determine their sex and to identify if they are affected by genetic disorder/chromosome abnormality. The service is delivered jointly by the Assisted Conception Unit, Glasgow Royal Infirmary, and the cytogenetics service at Yorkhill. The route of referral is through regional clinical genetics services.

### Paediatric bone marrow transplant

This service, based at Yorkhill hospital, provides paediatric allogenic bone marrow transplantation, predominantly for childhood leukaemia. The service excludes treatment for SCIDS (severe combined immune deficiency syndrome), which is a UK designated service already covered by NSD funding.

### Paediatric spinal surgery for scoliosis

Paediatric spinal surgery is provided for three groups of patients: idiopathic scoliosis, congenital scoliosis and children with neuromuscular conditions. The service is based at the Royal Hospital for Sick Children in Edinburgh.

### Paediatric renal managed clinical network

Around 260 new cases of childhood renal disease are diagnosed every year. This network supports the local care of children with chronic and acute renal failure through outreach services from Yorkhill hospital in Glasgow. The network aims to ensure that all children in Scotland with severe renal disease are treated equitably and in accordance with best clinical practice.

### Paediatric cleft lip and palate surgery

This joint service is provided by the Royal Hospitals for Sick Children in Edinburgh and Yorkhill, Glasgow, and by the Children's Hospital in Aberdeen. The designated service covers only the surgical element of care, not other treatment and follow-up such as speech and language therapy.

### Pancreatic and hepatobiliary cancer MCN

There are approximately 600 diagnosed cases of pancreatic cancer in Scotland each year, of which some 30% undergo surgery. The aim of the network is to optimise care and outcomes through the standard setting and audit processes that are core functions of MCNs.

### Advanced heart failure

During the year NSD has been working with service providers from NHS Greater Glasgow to extend the current cardiothoracic transplantation service into a national centre for the treatment of advanced heart failure. Transplantation is now only one of a range of options for patients with advanced heart failure. The extended service will provide the best possible options for the treatment and management of this small patient group, who require a high level of clinical expertise and experience.

National specialised services



## Adult cystic fibrosis

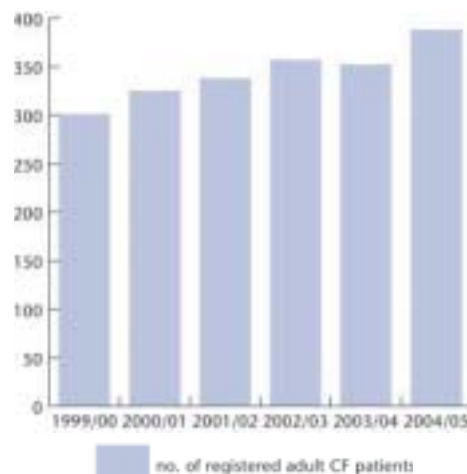
Cystic fibrosis is a genetic condition caused by a mutation in one of a number of genes. Approximately one in every 24 people carries a mutation of a CF gene, but because it is a recessive gene, CF will only develop if both parents are carriers. Although rare, it is the most common life-threatening recessively inherited disease of caucasian populations.

The severity of the condition can vary between individual cases, but in its more severe form, typical symptoms are thickened secretions in the lungs and pancreas, leading to a deterioration in lung function, persistent chest infections, liver and bowel problems and often diabetes. Male sterility is also a feature in over 90% of cases.

CF is not a curable condition, but better management and treatment of children with CF has led to an increasing number of adults living longer, more productive lives. Without treatment, most people who have CF would die in childhood.

The number of registered adults with CF has increased gradually over the last few years. The introduction of newborn screening should detect around 15 new cases per year, which will allow for accurate prediction of the future adult caseload.

No. of registered adult CF patients, 1999/00 - 2004/05



Clinical services for adults with cystic fibrosis are provided from three centres in Scotland: Aberdeen Royal Infirmary, Gartnavel General Hospital in Glasgow and the Western General Hospital in Edinburgh. Additionally, the Edinburgh team runs an outreach clinic in Dundee. The University of Dundee is home to the cystic fibrosis audit database, which collects data on all registered CF patients to monitor health trends within the CF community. The database is jointly funded by NSD and the UK charity the CF Trust.

The aim of the specialist centres in Scotland is mainly to provide an out-patient based service for the treatment, assessment and review of adult patients.

Training and support is also available for patients and their carers to facilitate and maximise independent living and to encourage community based management wherever possible. There is also the provision for in-patient and day case clinical management.

NHS Board area	no. of registered patients	expenditure 04/05 (£000)*
ARGYLL & CLYDE	40	266
AYRSHIRE & ARRAN	29	236
BORDERS	6	67
DUMFRIES & GALLOWAY	6	98
FIFE	27	203
FORTH VALLEY	18	159
GRAMPIAN	46	273
GREATER GLASGOW	74	604
HIGHLAND	12	140
LANARKSHIRE	33	326
LOTHIAN	62	415
ORKNEY	0	13
SHETLAND	0	14
TAYSIDE	32	247
WESTERN ISLES	2	26
<b>total</b>	<b>387</b>	<b>3,089</b>

\*This figure represents the total expenditure across the three centres, allocated to individual NHS Boards by the Arbutnott formula. All figures are rounded to the nearest £1000.

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## Brachial plexus service

The brachial plexus injury service was newly designated from 1 April 2004. It is provided from the Victoria Infirmary, part of the South Glasgow University Hospitals Division.

The service deals with patients who have suffered damage to the nerves and/or the nerve roots of the brachial plexus. This damage causes symptoms which can vary in severity from loss of control of some of the muscle function of the upper arm, to total loss of sensory and motor function in the entire limb. The injury can affect one or both limbs.

The patient group are mostly young adults, for whom appropriate intervention can result in gains in independence through restoring some function to the upper limbs.

The cause of injury is usually traumatic, with motorcycle road traffic accidents and falls accounting for more than 50% of the injuries reported in this year.

In their first year as a national service, the brachial plexus team has been busier than expected, performing 30 assessments against the expected 20. There have been 17 admissions for surgery.

NHS Board area	no. of assessments 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	0	19
AYRSHIRE & ARRAN	0	17
BORDERS	0	5
DUMFRIES & GALLOWAY	0	7
FIFE	1	14
FORTH VALLEY	0	11
GRAMPIAN	4	19
GREATER GLASGOW	14	43
HIGHLAND	0	10
LANARKSHIRE	7	23
LOTHIAN	3	29
ORKNEY	0	1
SHETLAND	0	1
TAYSIDE	1	17
WESTERN ISLES	0	2
<b>total</b>	<b>30</b>	<b>219</b>

## Clinical Scientist Training Schemes

These schemes are funded by NSD to provide specialist training up to state registration through a range of clinical placements for grade A/B clinical scientists undertaking training alongside further academic work appropriate to their particular discipline. Intake to the scheme is every academic year and in each intake NSD currently funds:

- four trainees in medical physics
- one trainee in microbiology
- three trainees in clinical biochemistry
- two trainees in cytogenetics
- four trainees in molecular genetics.

Training is coordinated by Grampian, Tayside and Lothian NHS Boards. The trainees undertake work placements all across Scotland, some within other nationally designated services such as the molecular genetics centres.

NHS Board area	funding 04/05
ARGYLL & CLYDE	106
AYRSHIRE & ARRAN	94
BORDERS	27
DUMFRIES & GALLOWAY	39
FIFE	81
FORTH VALLEY	64
GRAMPIAN	109
GREATER GLASGOW	241
HIGHLAND	56
LANARKSHIRE	130
LOTHIAN	166
ORKNEY	5
SHETLAND	6
TAYSIDE	98
WESTERN ISLES	10
<b>total</b>	<b>1,232</b>

## Cochlear implantation

The Scottish cochlear implantation programme is one of the largest in the UK. Provided predominantly from Crosshouse Hospital in Ayrshire, it has received around 1000 referrals and performed well over 400 implant operations since it began in 1988.

Cochlear implantation involves the placement of an electrode into the inner ear, which, via a processor, can enable profoundly deaf adults and children to hear sounds. The technology is an established, effective option which can make great differences to the patient's independence, perception and self confidence.

Adult patients are also seen and operated on in Edinburgh. Both centres provide detailed assessment prior to surgery and offer support and ongoing care during the rehabilitation of post-implant patients.

Patients being considered for implantation are usually profoundly deaf, although some recent research has suggested that adults who have acquired speech prior to the onset of their deafness and have a lesser degree of hearing loss, may derive benefit from this procedure. NSD is conducting a review of this service in 2005/06 to assess the likely impact of any extension to the current criteria for candidacy.

NHS Board area	no. of implants 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	5	151
AYRSHIRE & ARRAN	5	134
BORDERS	2	38
DUMFRIES & GALLOWAY	3	55
FIFE	2	115
FORTH VALLEY	5	90
GRAMPIAN	3	155
GREATER GLASGOW	9	342
HIGHLAND	1	80
LANARKSHIRE	2	185
LOTHIAN	7	235
ORKNEY	0	7
SHETLAND	0	8
TAYSIDE	4	140
WESTERN ISLES	0	15
<b>total</b>	<b>48</b>	<b>1,749</b>

## Endoprosthetic replacement of primary bone tumour

In the year, 281 patients were referred to this service from all over Scotland, of whom 19 were discovered to have primary bone tumours.

Both adults and children are treated by this service, which provides diagnosis for patients suspected of having bone tumours, considers the appropriateness of replacing the affected part of the bone, and carries out the extremely complex surgery. It is predominantly based at the Western Infirmary in Glasgow, along with the required supporting oncology, radiology and histopathology services. Surgery for adults is also carried out in Edinburgh and Aberdeen, and for children at Yorkhill hospital.

With network management support from NSD, 2004 saw the first annual general meeting of the Scottish Bone and Soft Tissue Sarcoma Network, which has been established to enable the service to develop clinical audit and outcome measurement, and to promote the sharing of experiences and knowledge.

NHS Board area	Patients receiving EPR 04/05	expenditure 04/05 (£000)
ARGYLL & CLYDE	2	47
AYRSHIRE & ARRAN	0	42
BORDERS	0	12
DUMFRIES & GALLOWAY	0	17
FIFE	1	36
FORTH VALLEY	0	28
GRAMPIAN	1	49
GREATER GLASGOW	2	107
HIGHLAND	1	25
LANARKSHIRE	0	58
LOTHIAN	3	74
ORKNEY	0	2
SHETLAND	0	3
TAYSIDE	2	44
WESTERN ISLES	0	5
<b>total</b>	<b>12</b>	<b>549</b>

## Hydatidiform mole follow-up service

The hydatidiform mole service is provided by the Immunodiagnosics Group at the Department of Immunology at Ninewells Hospital, Dundee. It is the Scottish arm of a UK hydatidiform mole follow-up service, the other centres being in London's Charing Cross Hospital and the Royal Hallamshire in Sheffield. The follow-up involves the registration and measurement, by radioimmunoassay, of human chorionic gonadotrophin (hCG) concentration in women who have been treated for molar pregnancies in Scotland.

When a molar pregnancy occurs, instead of a fetus forming, the placenta grows a series of cysts, thought to arise from a problem at the point of fertilisation. In around 10% of molar pregnancies, the cyst can become cancerous and will require further treatment.

Raised levels of hCG in 'non-pregnant' samples suggest a disease recurrence or the development of choriocarcinoma. The Dundee centre also manufactures and distributes to the other UK centres iodinated hCG and so ensures the continuity of the UK service.

NHS Board area	no. of molar pregnancies registered 04/05	expenditure 04/05 (£000)
ARGYLL & CLYDE	11	18
AYRSHIRE & ARRAN	8	16
BORDERS	1	5
DUMFRIES & GALLOWAY	1	7
FIFE	11	14
FORTH VALLEY	6	11
GRAMPIAN	18	19
GREATER GLASGOW	23	42
HIGHLAND	5	10
LANARKSHIRE	1	23
LOTHIAN	10	29
ORKNEY	0	1
SHETLAND	0	1
TAYSIDE	17	17
WESTERN ISLES	2	2
<b>total</b>	<b>114</b>	<b>213</b>

## Hyperbaric medicine

The hyperbaric medicine unit is funded by NSD to provide emergency treatment and advice for diving casualties occurring in Scotland. It provides a category 1 therapeutic recompression facility attached to Aberdeen Royal Infirmary offering a continuously available treatment and advice service.

The unit responds to calls from the general public (divers), diving organisations, medical staff in general practice and hospital services, and the emergency services (predominantly Coastguard). In addition, it provides a consultant led advisory service to other recompression facilities throughout Scotland, and maintains a national registration service. The registration service covers non-NHS facilities in Scotland which may be used to treat Scottish patients. There are currently three other registered facilities in Scotland, at Oban, Millport and Stromness, Orkney.

In addition to decompression illness (DCI) in divers, hyperbaric medicine is used to treat carbon monoxide poisoning emergencies, and in the treatment of chronic wound conditions which can be associated with post-radiotherapy tissue damage.

NHS Board area	Patients treated for DCI 04/05	expenditure 04/05 (£000)
ARGYLL & CLYDE	0	65
AYRSHIRE & ARRAN	0	58
BORDERS	0	17
DUMFRIES & GALLOWAY	0	24
FIFE	1	50
FORTH VALLEY	0	39
GRAMPIAN	3	67
GREATER GLASGOW	1	148
HIGHLAND	0	34
LANARKSHIRE	2	80
LOTHIAN	3	102
ORKNEY	0	3
SHETLAND	0	4
TAYSIDE	2	61
WESTERN ISLES	0	6
<b>total</b>	<b>12</b>	<b>758</b>

## Molecular genetics

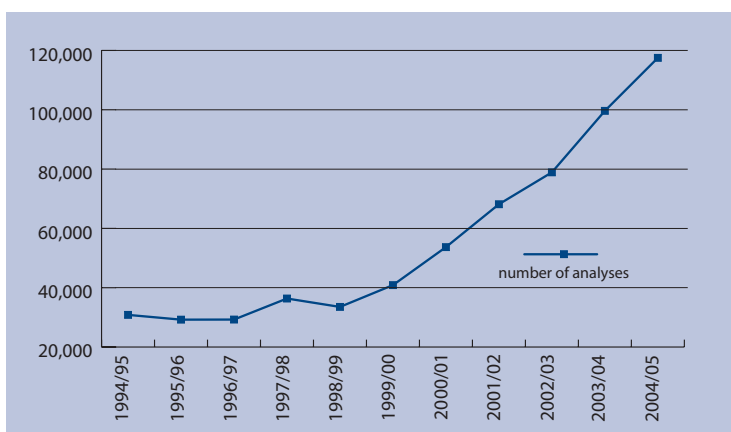
The Scottish molecular genetics service is provided from four laboratories; in Aberdeen, Glasgow, Edinburgh and Dundee. They provide both pre- and post-natal testing for a range of inherited conditions, both rare and relatively common. In addition, they play an important role in cancer services by providing a genetic testing service for breast, ovarian and colorectal cancers.

The development of a new type of analysis known as QF-PCR (quantative fluorescence polymerase chain reaction), which is particularly suitable for detecting a range of genetic abnormalities, has led to faster turnaround times for results on conditions such as Down's syndrome.

The introduction of routine screening for cystic fibrosis has also added to the throughput in the four laboratories. As molecular genetic testing techniques advance, it becomes possible to offer screening or testing for a wider range of conditions. The table below illustrates the rise in total analyses (across all four sites) over the last ten years.

NHS Board area	expenditure 04/05 (£000)
ARGYLL & CLYDE	214
AYRSHIRE & ARRAN	190
BORDERS	54
DUMFRIES & GALLOWAY	79
FIFE	164
FORTH VALLEY	129
GRAMPIAN	220
GREATER GLASGOW	487
HIGHLAND	113
LANARKSHIRE	263
LOTHIAN	335
ORKNEY	10
SHETLAND	12
TAYSIDE	199
WESTERN ISLES	21
<b>total</b>	<b>2,490</b>

Total number of DNA analyses, 1994/95 - 2004/05



## National managed clinical networks

2004/05 saw the designation of the Scottish Muscle Group as a national managed clinical network. This aims to support the professionals caring for people with neuromuscular disorders - a large group of individually rare conditions such as muscular dystrophy.

Other nationally designated NMCNs are:

- Phototherapy, which was established in 2002 in response to an increasing need for phototherapeutic treatment and the resulting requirement for standardised protocols and procedures in relation to treatment and follow up
- Home parenteral nutrition, which involves the delivery of nutrients and fluids directly into a central vein, for patients with chronic intestinal failure who are unable to eat normally
- Cleft lip and palate, which involves professionals from a very wide range of disciplines and aims to provide and coordinate the highest possible standards of care for the patients and ensure equity of access for all.

NSD meets only the administrative costs of the NMCNs.

NHS Board area	expenditure 04/05(£000)*
ARGYLL & CLYDE	23
AYRSHIRE & ARRAN	20
BORDERS	6
DUMFRIES & GALLOWAY	8
FIFE	17
FORTH VALLEY	14
GRAMPIAN	23
GREATER GLASGOW	51
HIGHLAND	12
LANARKSHIRE	28
LOTHIAN	35
ORKNEY	1
SHETLAND	1
TAYSIDE	21
WESTERN ISLES	2

total

263

\*total expenditure across all four NMCNs

## Ophthalmic oncology

The national ophthalmic oncology service provides diagnosis and treatment for uveal melanoma and other intra-ocular tumours and is provided from North Glasgow University Hospitals Division of NHS Greater Glasgow.

During the year, the service received 156 referrals, of whom 132 were accepted for further management by the ophthalmic oncology service.

Treatment can involve episcleral plaque brachytherapy, which involves the placement of a radiotherapeutic patch on the tumour, or surgical resection to prevent, wherever possible, removal of the eye. Some patients will be referred to the Clatterbridge Centre for Oncology in Merseyside, where proton beam therapy is provided.

NHS Board area	expenditure 04/05 (£000)
ARGYLL & CLYDE	49
AYRSHIRE & ARRAN	44
BORDERS	12
DUMFRIES & GALLOWAY	18
FIFE	38
FORTH VALLEY	30
GRAMPIAN	51
GREATER GLASGOW	112
HIGHLAND	26
LANARKSHIRE	60
LOTHIAN	77
ORKNEY	2
SHETLAND	3
TAYSIDE	46
WESTERN ISLES	5
<b>total</b>	<b>572</b>

## Photobiology

The primary function of the photobiology unit is the provision of a diagnostic and management service for photosensitive patients throughout Scotland. Based at Ninewells Hospital, Dundee, the service has expanded to provide a porphyria diagnostic and advice service. Porphyria is an enzyme disorder, some types of which can cause photosensitivity.

The diagnostic process involves testing the patient's skin reaction to different wavelengths of light in order to recommend an appropriate treatment.

The national service also provides high output UVA1 therapy for a specific group of collagen/vascular diseases, the sclerodemas.

In the year, the service saw 233 patients from all over Scotland.

NHS Board area	expenditure 04/05 (£000)
ARGYLL & CLYDE	32
AYRSHIRE & ARRAN	28
BORDERS	8
DUMFRIES & GALLOWAY	12
FIFE	24
FORTH VALLEY	19
GRAMPIAN	33
GREATER GLASGOW	73
HIGHLAND	17
LANARKSHIRE	39
LOTHIAN	50
ORKNEY	2
SHETLAND	2
TAYSIDE	30
WESTERN ISLES	3
<b>total</b>	<b>372</b>

## Recombinant and commercial factor concentrates

There are around 500 children and adults with haemophilia in Scotland, many of whom have very mild symptoms and who do not require to use the clotting factors purchased through the national arrangements on a regular basis.

Since 2002, recombinant clotting factors - which use genetically-engineered material rather than human or animal plasma as their basis - have been available to all people with haemophilia in Scotland.

Last year, through the arrangements put in place by NSD and Scottish Healthcare Supplies, new, third generation recombinant products were introduced across the country for children and adults with haemophilia A (factor VIII deficiency). These products are not only plasma-free, but also protein-free. By eliminating human or animal plasma proteins such as albumin from the clotting factors, the risk of passing on blood-borne infections to those receiving treatment is eliminated. Plasma- and albumin-free factor IX, for the treatment of haemophilia B, was already available across Scotland.

In 2004/05, work also began on developing a home delivery service for regular users of clotting factors. An invitation to tender will be issued in late 2005.

NHS Board area	expenditure 04/05(£000)
ARGYLL & CLYDE	1,732
AYRSHIRE & ARRAN	1,538
BORDERS	439
DUMFRIES & GALLOWAY	638
FIFE	1,322
FORTH VALLEY	1,039
GRAMPIAN	1,781
GREATER GLASGOW	3,933
HIGHLAND	915
LANARKSHIRE	2,127
LOTHIAN	2,705
ORKNEY	84
SHETLAND	94
TAYSIDE	1,607
WESTERN ISLES	169
<b>total</b>	<b>20,124</b>

## Scottish Pulmonary Vascular Unit

The Scottish Pulmonary Vascular Unit (SPVU), situated at the Western Infirmary in Glasgow, accepts referrals from all over Scotland for the diagnosis of pulmonary artery hypertension.

This is a rare condition in which the pressure of the blood supplying the lungs is abnormally high due to a narrowing of the pulmonary arterioles (the blood vessels within the lungs). In order to maintain an adequate blood flow, the right side of the heart must contract more vigorously, leading to enlargement of the muscle wall and eventually, right sided heart failure.

The SPVU is now recognised as one of the top units in Europe, thanks to the continued efforts of all staff to improve the care and treatment of patients with pulmonary artery hypertension. The condition is treated primarily through drug therapy, using potent vasodilators. This can involve constant intravenous administration.

The unit provides advice to patients and referring clinicians on drug treatment and follow-up care, enabling patients to be treated in their home NHS Board wherever possible.

NHS Board area	referrals 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	9	167
AYRSHIRE & ARRAN	7	148
BORDERS	4	42
DUMFRIES & GALLOWAY	0	61
FIFE	3	127
FORTH VALLEY	3	100
GRAMPIAN	6	171
GREATER GLASGOW	19	378
HIGHLAND	4	88
LANARKSHIRE	3	205
LOTHIAN	13	260
ORKNEY	0	8
SHETLAND	0	9
TAYSIDE	10	155
WESTERN ISLES	0	16
<b>total</b>	<b>81</b>	<b>1,936</b>

## Spinal injuries service

The Queen Elizabeth National Spinal Injuries Unit (QENSIU) is located at the Southern General Hospital in Glasgow. It is responsible for the management of all patients in Scotland who have a traumatic injury to the spinal cord. This involves the acute management of the injury, rehabilitation to maximise function and life long follow-up to prevent any complications of paralysis.

QENSIU also provides support to all hospitals in Scotland who admit patients with fractures of the spinal column. This support varies from simple advice to local visits and consultations.

Patients whose spinal fracture is complicated by a neurological injury often require acute surgical intervention combined with a period of intensive or high dependency care, before a prolonged period of rehabilitation. Rehabilitation consists of education, physiotherapy, occupational therapy and multi-disciplinary care to maximise the full potential following injury. Inpatient stays can be long, but the unit has a policy of early rehabilitation and discharge into the community with adequate support and has had considerable success in reducing length of stay where appropriate.

Over the course of the year, 144 new patients were admitted, of whom 136 were Scottish residents.

NHS Board area	new admissions 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	9	511
AYRSHIRE & ARRAN	13	454
BORDERS	2	130
DUMFRIES & GALLOWAY	9	188
FIFE	4	390
FORTH VALLEY	6	307
GRAMPIAN	8	526
GREATER GLASGOW	37	1,161
HIGHLAND	9	270
LANARKSHIRE	22	628
LOTHIAN	8	798
ORKNEY	0	25
SHETLAND	1	28
TAYSIDE	6	474
WESTERN ISLES	2	50
<b>total</b>	<b>136</b>	<b>5,939</b>

## Supra-renal and thoraco-abdominal aortic aneurysms

The repair of aortic aneurysms is a fairly common surgical procedure, but a small minority of aneurysms (around 15 per year in Scotland) affect the supra-renal and thoraco-abdominal regions of the aorta at the point where the arteries branch off to supply the liver, kidneys, spinal cord and intestines.

Surgery for the repair of these aneurysms is highly complex and specialised. The Scottish service was set up at the Royal Infirmary of Edinburgh in 2001. The service has produced results which compare favourably with other specialised centres in the Europe and the United States.

All patients being considered for possible TAAA surgery undergo extensive investigations and a detailed assessment by a consultant anaesthetist to help quantify the risks associated with surgery. Anaesthetists are also closely involved in the post-operative management of the patients after surgery.

Surgical and anaesthetic techniques continue to evolve in this area. The unit has a strong commitment to building the service through continuing education and a team approach to the care of the patients and their families.

NHS Board area	assessments 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	1	66
AYRSHIRE & ARRAN	1	59
BORDERS	1	17
DUMFRIES & GALLOWAY	3	24
FIFE	0	51
FORTH VALLEY	0	40
GRAMPIAN	1	68
GREATER GLASGOW	4	151
HIGHLAND	2	35
LANARKSHIRE	1	81
LOTHIAN	3	104
ORKNEY	0	3
SHETLAND	0	4
TAYSIDE	4	62
WESTERN ISLES		6
<b>total</b>	<b>21</b>	<b>771</b>

Paediatric services



## Cleft lip and palate surgery

Surgery to repair cleft lip and palate takes place in the children's hospitals Aberdeen, Glasgow and Edinburgh. Some children require a number of procedures throughout their childhood, and up to 20 years of age.

Initial repairs tend to take place within the first few months after birth; further revisions are needed later in life as the child grows and teeth come in.

The surgical service sits within the wider managed clinical network of the cleft lip and palate service that brings together all the elements of care needed by children with clefts.

2004/05 was a transitional year so the funding reported below represents a contribution towards the total costs of the service. From 2005/06, the service's costs in full will be met through national funding.

NHS Board area	expenditure 04/05 (£000)
ARGYLL & CLYDE	14
AYRSHIRE & ARRAN	12
BORDERS	4
DUMFRIES & GALLOWAY	5
FIFE	11
FORTH VALLEY	8
GRAMPIAN	14
GREATER GLASGOW	32
HIGHLAND	7
LANARKSHIRE	17
LOTHIAN	22
ORKNEY	1
SHETLAND	1
TAYSIDE	13
WESTERN ISLES	1
<b>total</b>	<b>162</b>

## Interventional fetal therapy

The service at the Royal Hospital for Sick Children at Yorkhill, Glasgow, provides for specific fetal conditions such as severe Rhesus isoimmunisation, neonatal alloimmune thrombocytopenia, fetal parvovirus infection, and congenital lung and bladder malformations.

This is a recently established national service and is still developing. Activity is expected to be around 35 treatments per year.

NHS Board area	expenditure 04/05 (£000)
ARGYLL & CLYDE	9
AYRSHIRE & ARRAN	8
BORDERS	2
DUMFRIES & GALLOWAY	3
FIFE	7
FORTH VALLEY	6
GRAMPIAN	10
GREATER GLASGOW	21
HIGHLAND	5
LANARKSHIRE	12
LOTHIAN	15
ORKNEY	0
SHETLAND	1
TAYSIDE	9
WESTERN ISLES	1
<b>total</b>	<b>110</b>

## Renal transplantation

Although adult kidney transplantation is locally funded, paediatric renal transplantation is nationally funded as it is much less common. It was designated as a national service from April 2002.

The service operates from the Royal Hospital for Sick Children at Yorkhill in Glasgow, and carries out both cadaveric transplantation (where the organ has been donated by someone who has died) and living related donor transplants. These donors are cared for at Glasgow's Western Infirmary.

In recent years there has been an observable shift towards more living related transplants, as the number of available cadaveric donors decreases. Out of the eight transplants carried out this year, five were living related donors.

The service also provides one year of post-transplant follow-up care and clinical psychology support to organ recipients and their families. Children who receive a transplant will require life-long immunosuppressant therapy, and the psychology support aims to help the family to deal with this change to their lives, and therefore minimise the risk of non-compliance with therapy.

NHS Board area	transplants 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	1	57
AYRSHIRE & ARRAN	0	51
BORDERS	0	14
DUMFRIES & GALLOWAY	0	21
FIFE	0	43
FORTH VALLEY	0	34
GRAMPIAN	1	59
GREATER GLASGOW	1	129
HIGHLAND	1	30
LANARKSHIRE	1	70
LOTHIAN	3	89
ORKNEY	0	3
SHETLAND	0	3
TAYSIDE	0	53
WESTERN ISLES	0	6
<b>total</b>	<b>8</b>	<b>662</b>

## Paediatric cardiac surgery, interventional cardiology and neonatal cardiology

The Yorkhill centre provides most of the cardiac surgery required by children in Scotland. In 2001, interventional cardiology was added to the national agreement and in April 2003, neonatal cardiology also became nationally designated, reflecting the integrated nature of these services.

The service provides open and closed cardiac surgery for children up to and including 16 years of age, for all congenital and acquired heart disease with the exception of surgery for hypoplastic left heart syndrome (a very rare condition affecting only two to four babies per year in Scotland). This surgery is carried out in Birmingham.

Interventional cardiology provides a range of procedures and is a developing area, allowing for less invasive treatments for a variety of conditions. This has meant, however, that those cases which do require surgery have tended to become more complex.

Neonates (babies within 30 days of birth) are now also covered by national designation for cardiological procedures.

In 2004/05, 279 surgical procedures and 239 interventional procedures were carried out.

NHS Board area	cardiac surgery expenditure 04/05 (£000)	interventional cardiology expenditure 04/05 (£000)
ARGYLL & CLYDE	145	20
AYRSHIRE & ARRAN	129	18
BORDERS	37	5
DUMFRIES & GALLOWAY	53	7
FIFE	110	15
FORTH VALLEY	87	12
GRAMPIAN	149	20
GREATER GLASGOW	329	45
HIGHLAND	77	10
LANARKSHIRE	178	24
LOTHIAN	226	31
ORKNEY	7	1
SHETLAND	8	1
TAYSIDE	134	18
WESTERN ISLES	14	2
<b>total</b>	<b>1,682</b>	<b>230</b>

## Paediatric ITU retrieval

Two national teams operate to coordinate the transfer of critically ill and injured children from local hospitals to paediatric intensive care units. The teams are based at the Royal Hospitals for Sick Children in Edinburgh and Yorkhill, Glasgow.

Depending on the child's location and the severity of its injury or illness, the team may retrieve the child by ambulance or by air. The service is available 24 hours a day, every day, and is responsible for ensuring appropriate care during transfer. Patients are taken either to a paediatric intensive care unit in Edinburgh or Glasgow, or occasionally to a unit outwith Scotland.

The team also provides advice on the appropriateness of transfer to referring clinicians from all over Scotland. In 2004/05, the Edinburgh team took 195 referrals resulting in 154 retrievals and the Glasgow team dealt with 194 referrals (126 actual transfers).

The activity below excludes the 15 referrals received by the teams regarding children from outwith Scotland. The expenditure is the combined total of the two teams.

NHS Board area	referrals 04/05	expenditure 04/05 (£000)
ARGYLL & CLYDE	37	148
AYRSHIRE & ARRAN	33	132
BORDERS	13	38
DUMFRIES & GALLOWAY	10	55
FIFE	27	113
FORTH VALLEY	23	89
GRAMPIAN	35	153
GREATER GLASGOW	35	337
HIGHLAND	27	78
LANARKSHIRE	56	182
LOTHIAN	36	232
ORKNEY	7	7
SHETLAND	3	8
TAYSIDE	30	138
WESTERN ISLES	2	14
<b>total</b>	<b>374</b>	<b>1,723</b>

## Extra-corporeal life support (ECLS)

The extra corporeal life support service was established at the Royal Hospital for Sick Children, Yorkhill, in 1992 and was designated as a national service in 2001.

ECLS provides temporary life support to patients with cardiac or pulmonary failure and is one of only four such centres in the UK. It plays a key role in supporting the national paediatric cardiac surgery service, as children can sometimes require ECLS after their heart surgery.

ECLS was provided to 30 children in 2004/05, of whom 24 were Scottish residents. The duration of treatment can vary - in the year the average time on ECLS was 11 days.

In addition to cardiac cases, ECLS can be necessary for babies and children with conditions such as congenital diaphragmatic hernia or meconium aspiration syndrome.

This highly specialised unit exists as part of a coordinated package of nationally designated services available to critically ill children.

NHS Board area	ECLS treatments 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	3	132
AYRSHIRE & ARRAN	1	117
BORDERS	0	34
DUMFRIES & GALLOWAY	0	49
FIFE	0	101
FORTH VALLEY	1	79
GRAMPIAN	1	136
GREATER GLASGOW	11	300
HIGHLAND	1	70
LANARKSHIRE	2	162
LOTHIAN	4	206
ORKNEY	0	6
SHETLAND	0	7
TAYSIDE	0	123
WESTERN ISLES	0	13
<b>total</b>	<b>24</b>	<b>1,535</b>

National screening services



## Breast screening

The Scottish Breast Screening Programme provides routine breast screening by mammography every three years to women aged between 50 and 70 years and also to women over this age who self refer to the service. The service is commissioned from six host NHS Boards by NSD, who is responsible for the coordination and management of the service.

Women are invited to one of the six screening centres or to a mobile screening unit nearer their locality to make the service as accessible as possible. Well over 100,000 women are now screened each year. In 2004/05 the attendance rate in Scotland was 74.8% and 817 cancers were detected.

It is acknowledged that the incidence of breast cancer is increasing and that the earlier detection of tumours gives the best possible opportunity for treatment. NHS Scotland has set a target of reducing mortality from cancer in people under 75 years of age by 20% by 2010. The Scottish Breast Screening Programme is an established programme, well positioned to make a significant contribution to the achievement of the targets for reduction in mortality from cancer set by the Scottish Executive.

In 2004/05, the expenditure of the Scottish Breast Screening Programme was £10.07 million.

	Edinburgh	Dundee	Glasgow	Aberdeen	Irvine	Inverness	Scotland
no. of women invited	38,507	13,094	63,513	16,010	19,235	9,250	159,609
no. of women screened	28,439	10,419	44,774	13,566	14,699	7,502	119,399
% uptake	73.9	79.6	70.5	84.7	76.4	81.1	74.8

## Cervical screening

Cervical screening aims to detect and treat abnormal changes in a woman's cervix (the neck of the womb) which, if left untreated, may develop into invasive cervical cancer.

The first stage in cervical screening is a smear test. All women between the ages of twenty and sixty are eligible for a free cervical smear test every three years.

During 2004/05, NSD has continued to project manage the development of the new national call/recall system to support the Scottish Cervical Screening Programme. The Scottish Cervical Call/Recall System (SCCRS) software will be used by NHS Boards, cytopathology laboratories, smear takers and colposcopy clinics in the delivery of a high quality and equitable cervical screening service. The implementation of SCCRS will also ensure equity of access to information at all stages of the programme.

The introduction of liquid based cytology (LBC) has to date resulted in a 4.8% reduction in the percentage of smears reported as unsatisfactory. The current average is 2.2%. This effectively means that fewer women are being called back for repeat smears.

The Scottish Cervical Screening Programme is provided locally and funded via NHS Boards while NSD is responsible for:

- commissioning the cervical cytology training, proficiency testing and EQA schemes
- developing systems and guidelines to ensure a high quality of cervical screening throughout the country
- identifying important policy issues and helping to resolve them
- improving communications within the programme and to women
- ongoing monitoring and evaluation of the effectiveness of the Scottish Cervical Screening Programme
- developing software to support the screening programmes

### % of eligible population screened by NHS Board area\*

ARGYLL & CLYDE	77.6	AYRSHIRE & ARRAN	80.9	BORDERS	86.5
DUMFRIES & GALLOWAY	86.0	FIFE	77.0	FORTH VALLEY	79.4
GRAMPIAN	82.9	GREATER GLASGOW	76.9	HIGHLAND	83.7
LANARKSHIRE	77.8	LOTHIAN	...	ORKNEY	86.7
SHETLAND	87.6	TAYSIDE	76.8	WESTERN ISLES	82.5
				SCOTLAND	79.3 <sup>1</sup>

\*Percentage of eligible female population screened in the last 3.5 years ... not available <sup>1</sup>Excludes Lothian NHS Board (data unavailable/calculated on a different basis)

## Diabetic retinopathy screening

Some people with diabetes can develop a condition affecting the eyes called retinopathy, which can lead to partial loss of vision or possibly blindness. Research has shown that screening for retinopathy in people with diabetes, and treatment for those affected, will reduce the risk of people losing their sight.

In July 2003 the Scottish Executive Health Department announced that each Health Board in Scotland would need to take steps to provide diabetic retinopathy screening to all people with diabetes over the age of twelve.

The national diabetic retinopathy screening service will be an integral part of patients' diabetes care involving a regular eye check using a digital photograph of the retina. An invitation to attend for an eye screen will be sent automatically each year – or more frequently if recommended by the screening programme.

NSD have been given the remit of commissioning software to support the DRS Programme. The software for the DRS programme will be used by graders for grading, screeners for image capture and also by administrators for patient management to ensure that the patients are called for screening annually and referred for treatment where necessary. This software is due to roll out nationally starting January 2006.

NSD also has the responsibility to support and advise on the implementation of the service, for the set up and management of a collaborative network, for producing patient information leaflets, for developing and delivering training for screeners and graders and for establishing a proficiency testing scheme to monitor the standards of the grading service.

The programme is due to be rolled out nationally by March 2006. £1.2 million has been allocated nationally to fund the software required for retinal screening. Other costs are met locally by NHS Boards.

## Pregnancy and newborn screening & newborn hearing screening

NSD have an ongoing role in the national multi-disciplinary steering groups to monitor and evaluate the pregnancy and newborn screening programmes and in producing training and information material, in partnership with NHS Health Scotland, to support the programmes.

We have also worked in collaboration with NHS Quality Improvement Scotland in developing national standards for the programmes, which are expected to be published in winter 2005.

In Scotland, screening is routinely offered for the following conditions:

- **Pregnancy: Down's syndrome, neural tube defects and communicable diseases**
- **Newborn: phenylketonuria, congenital hypothyroidism, cystic fibrosis and hearing screening**

NSD also continues to work on the phased implementation of a laboratory management information system. This has now been installed in the newborn and pregnancy screening laboratory in Glasgow. Work is now focused on the second phase of implementation. In addition, at the request of the SEHD, we are conducting a review of current laboratory arrangements for screening in pregnancy including assessing and costing the impact of proposed developments within the Scottish programme.

In newborn hearing screening, we have continued to collaborate with individual NHS Boards to implement the national programme. Full implementation has now taken place in twelve of the areas and the programme should be fully implemented by the end of October 2005. NSD has also been leading contract negotiations on behalf of the Boards to procure a national IT solution to support the newborn hearing screening programme.

## Colorectal cancer screening

The Scottish Colorectal Cancer Screening Pilot has been running since April 2000, inviting all men and women between the ages of 50–69 and registered with a GP in Grampian, Tayside (lead Board) and Fife. The third round of the pilot (phase one of rollout) commenced in May 2005 for a further two year period.

Following the success of the pilot the Health Minister has announced the rollout of the programme commencing in March 2007, with the remaining NHS Boards being phased in over a two and a half year period. The target age range for rollout will be 50-74 years following EU recommendations.

Approximately 650,000 individuals will be invited for screening per annum. The screening centre will send the test kit along with information and instruction leaflets to the individuals' home. Following completion the kit will be returned to the laboratory for testing and results will be issued.

Any individual with a positive FOBT (faecal occult blood test) result will be referred to their local hospital for assessment and further investigations.

National Services Division will take the lead in coordinating the rollout in collaboration with NHS Boards. Following completion of local plans the national plan can be confirmed. NSD will require to work with a number of NSS divisions and external organisations to facilitate rollout including Scottish Healthcare Supplies to procure the test kits and equipment, Information Services to continue monitoring the effectiveness of the programme, Central Legal Office in relation to contractual and legal aspects of the programme, the Cancer Networks for data collation, NHS QIS to produce quality standards and NHS Health to develop national information material.

Transplantation



## Cardiothoracic transplantation

Cardiothoracic transplantation services for Scottish residents are provided from several different locations. The Scottish service, based at the Western Infirmary in Glasgow, provides heart transplants for adults only. The majority of adults requiring lung or heart/lung transplants are treated at Freeman Hospital in Newcastle, and children's services are provided from Freeman and Great Ormond Street Hospital in London.

Advances in cardiac treatments mean that transplantation is now only one of a range of options for patients with heart failure, and work is progressing on the integration of the Scottish transplant service with a new, centralised advanced heart failure service.

This service aims to provide not only heart transplantation but all aspects of care for patients with severe heart failure, from epidemiology, through medical assessment and drug treatment, to advanced non-transplant interventions.

NHS Board area	heart transplants 04/05	cardiac transplant expenditure 04/05 (£000)
ARGYLL & CLYDE	0	202
AYRSHIRE & ARRAN	0	179
BORDERS	1	51
DUMFRIES & GALLOWAY	0	74
FIFE	1	154
FORTH VALLEY	1	121
GRAMPIAN	0	208
GREATER GLASGOW	2	458
HIGHLAND	2	107
LANARKSHIRE	0	248
LOTHIAN	0	315
ORKNEY	0	10
SHETLAND	0	11
TAYSIDE	1	187
WESTERN ISLES	1	20
<b>total</b>	<b>9</b>	<b>2,345</b>

## Liver transplantation

In 2004/05 The Scottish Liver Transplant Unit (SLTU) performed 51 transplants for Scottish patients. Patients being considered for transplantation fall into two categories - those with chronic disease such as cirrhosis, and acute patients who require to be transplanted as soon as possible.

During the course of the year the team also undertook 56 liver retrievals.

Funding has now been approved by Board Chief Executives and the SEHD for the commencement of a live liver donor programme, due to begin in 2006. With advances in transplant surgery, it is now possible for a living donor (usually a close relative) to donate a part of their liver to their sick relative. This will be the first such programme in the UK, and the team from SLTU are currently looking at other centres around the world and formulating protocols for the Scottish service.

NHS Board area	transplants 04/05	expenditure 04/05(£000)
ARGYLL & CLYDE	9	281
AYRSHIRE & ARRAN	2	250
BORDERS	0	71
DUMFRIES & GALLOWAY	1	104
FIFE	1	215
FORTH VALLEY	6	169
GRAMPIAN	3	289
GREATER GLASGOW	8	639
HIGHLAND	3	149
LANARKSHIRE	6	345
LOTHIAN	9	439
ORKNEY	0	14
SHETLAND	0	15
TAYSIDE	2	261
WESTERN ISLES	1	27
<b>total</b>	<b>51</b>	<b>3,268</b>

## Simultaneous kidney/pancreas transplantation

Although renal transplantation is not nationally funded, a small number of patients (usually diabetics) can require a simultaneous kidney/pancreas transplant, and in a few cases, a pancreas only transplant. This service is nationally designated and operates from Edinburgh's Royal Infirmary.

In February 2005, the Edinburgh unit hosted the first national (UK) meeting of pancreas transplant units. It is hoped that this will now become an annual event rotating around the UK centres from year to year.

During the year there were 16 admissions for transplant, from 46 referrals for assessment.

NHS Board area	expenditure 04/05 (£000)
ARGYLL & CLYDE	39
AYRSHIRE & ARRAN	35
BORDERS	10
DUMFRIES & GALLOWAY	15
FIFE	30
FORTH VALLEY	24
GRAMPIAN	41
GREATER GLASGOW	90
HIGHLAND	21
LANARKSHIRE	48
LOTHIAN	62
ORKNEY	2
SHETLAND	2
TAYSIDE	37
WESTERN ISLES	4
<b>total</b>	<b>458</b>

## Transplant coordination

NSD funds a network of transplant coordinators, managed through the national organisation UK Transplant. The coordinators manage the logistical aspects of organ retrieval, donor matching and donor/family care, and work to promote awareness of organ donation through education and publicity.

For this year, a pilot programme has been in place for a multi-organ retrieval team which has rationalised retrieval arrangements and provided anaesthetic support, at consultant level, with the aim of reducing pressure on the donor hospital's staff and resources and allowing for more dedicated donor care. The pilot is currently being evaluated and recommendations for the ways forward in organ retrieval will be published next year.

NHS Board area	expenditure 04/05 (£000)
ARGYLL & CLYDE	40
AYRSHIRE & ARRAN	35
BORDERS	10
DUMFRIES & GALLOWAY	15
FIFE	30
FORTH VALLEY	24
GRAMPIAN	41
GREATER GLASGOW	90
HIGHLAND	21
LANARKSHIRE	49
LOTHIAN	62
ORKNEY	2
SHETLAND	2
TAYSIDE	37
WESTERN ISLES	4
<b>total</b>	<b>460</b>

## Specialised services provided in England

Since 2001/02, NSD has provided a risk-sharing arrangement on behalf of NHS Boards for cross-border referrals to specialised services. Unlike designated national services within Scotland, NSD does not commission these services directly. Decisions on referral are taken locally and approved by the Director of Public Health for the patient's NHS Board of residence. NSD's role is in ensuring that appropriate funding mechanisms are in place to allow these referrals to be processed easily.

The largest single area of expenditure is in specialised mental health provision, where costs for individual patients often exceed £200K per year. While some individuals require long-term inpatient provision over many years, others have relatively short stays of a few months while appropriate support closer to home is put in place.

Just under £1 million was spent on specialised paediatric services at Great Ormond Street Hospital, Birmingham Children's Hospital and Manchester Sick Children's Hospital. Most paediatric referrals are for services which cater for extremely rare conditions such as Hurler-Scheie Syndromes, also known as MPS I (mucopolysaccharide type I) and primary pulmonary hypertension (for which there is a designated adult service in Scotland). Almost all treatment is provided on a shared-care basis, with children being seen primarily at one of the Royal Children's Hospitals in Scotland, only travelling to England for specific inpatient treatment.

Due to current reporting arrangement with English trusts, it is not possible to give a precise breakdown by service for each NHS Scotland Board. However, the table below shows the expenditure on individual specialisms within the largest single area of expenditure, that of mental health provision.

Service	cost 2004/05 (£000)
Eating disorders intensive care	571
Mental health services for deaf adults	312
Inpatient learning difficulties	101
Child/adolescent psychiatry	86
Low secure forensic	68
Psychotherapy	33
Affective disorders	18
<b>Total</b>	<b>1,188</b>

## List of services

### Service

Adult cystic fibrosis services

Amyloidosis  
(diagnosis and advice on management -  
not drug costs)

Brachial plexus injury

Breast cancer screening

Cardiothoracic transplantation:  
Heart transplantation/advanced heart failure

Heart, heart /lung and lung transplantation  
including adult ventricular assist devices

Cervical screening

Choriocarcinoma:  
Diagnosis of hydatidiform moles  
Treatment

Clinical scientist training schemes

### Location

Aberdeen Royal Infirmary  
Western General Hospital, Edinburgh  
(includes outreach service in  
Dundee)  
Western Infirmary, Glasgow

\* Royal Free Hospital, London

Victoria Infirmary, Glasgow

Ayrshire Central Hospital, Irvine  
Foresterhill, Aberdeen  
Nelson Mandela Place, Glasgow  
Raigmore Hospital, Inverness  
Ardmillan House, Edinburgh  
Ninewells Hospital, Dundee

Glasgow Royal Infirmary (adult)

Freeman Hospital, Newcastle (adult and child)  
Papworth Hospital, Cambridge (adult)  
Harefield Hospital, London (adult)  
Great Ormond Street Hospital, London  
(child)

Aberdeen Royal Infirmary (slide circulation EQA)  
Ninewells Hospital (proficiency testing EQA)  
Monklands Hospital (Technical EQA)

Ninewells Hospital  
*Charing Cross Hospital, London*  
*Weston Park Hospital, Sheffield*

Ninewells Hospital, Dundee (Molecular  
Geneticists, Biochemists, Cytogeneticists)  
Royal Infirmary of Edinburgh (Microbiologists)  
Aberdeen Royal Infirmary (Medical Physicists)

Cochlear implantation	Crosshouse Hospital, Kilmarnock (adult and child) Royal Infirmary, Edinburgh (adult)
Colorectal cancer screening pilot - second round	Ninewells Hospital, Dundee Aberdeen Royal Infirmary Victoria Hospital, Kirkcaldy
Combined renal and pancreatic transplantation	Royal Infirmary, Edinburgh
Craniofacial surgery	<i>Great Ormond Street Hospital, London</i> <i>Radcliffe Infirmary, Oxford</i> <i>Birmingham Children's Hospital</i> <i>Royal Liverpool Children's Hospital, Alder Hey</i>
Cystic fibrosis audit database	University of Dundee
Donor transplant coordination	Donor coordinators are based in Aberdeen, Dundee, Glasgow, Edinburgh and Inverness, but work throughout the country
Endoprosthetic replacement for primary bone tumours (in England - primary malignant bone tumour service)	Western Infirmary, Glasgow <i>University College London NHS Trust</i> <i>Royal National Orthopaedic Hospitals NHS Trust, Stanmore</i> <i>Royal Orthopaedic Hospitals NHS Trust, Birmingham</i> <i>Newcastle-upon-Tyne Hospitals NHS Trust</i> <i>The Robert Jones and Agnes Hunt Orthopaedic and District Hospitals NHS Trust, Oswestry</i> <i>North Bristol NHS Trust</i> <i>Nuffield Orthopaedic Centre NHS Trust, Oxford</i>
Epidermolysis bullosa services (paediatric)	* Great Ormond Street * Birmingham Children's Hospitals
Gaucher's disease (diagnosis and management)	* Addenbrooke's Hospital, London (adults) * Royal Free Hospital, London (adults) * Great Ormond Street Hospital, London (child) * Royal Manchester Children's Hospital (child)
Gynaecological reconstruction	*Queen Charlotte's Hospital, London
Histopathology EQA	Ninewells Hospital
HIV/HCV specialist laboratory tests	Regional virus laboratories in Edinburgh and Glasgow
Hyperbaric medicine	Aberdeen Royal Infirmary

Inpatient psychiatric service for deaf children and adolescents	*Springfield Hospital, London
Interventional fetal therapy	Yorkhill Hospital
Intestinal failure	*St Mark's Hospital, London *Hope Hospital, Salford n.b. see Managed Clinical Network below for home parenteral nutrition in Scotland
Liver transplantation	Royal Infirmary, Edinburgh (adult) <i>St James Hospital, Leeds (adult)</i> <i>University Hospitals, Birmingham (adult)</i> <i>Birmingham Children's Hospital (child)</i> <i>King's College Hospital, London (child)</i> <i>Royal Free, London (adult)</i> <i>Addenbrooke's Hospital, Cambridge (adult)</i> <i>Freeman Hospital, Newcastle (adult)</i>
Molecular genetics	Aberdeen Royal Infirmary Ninewells Hospital, Dundee Western General Hospital, Edinburgh Yorkhill Hospital, Glasgow
Newborn blood spot screening	Yorkhill Hospital (Scottish Neonatal Screening Laboratory)
Ophthalmic oncology (includes proton beam treatment where necessary)	Western Infirmary, Glasgow (proton beam at Clatterbridge Hospital, Liverpool)
Paediatric bladder extrophy	* Great Ormond Street Hospital * Manchester Children's Hospital
Paediatric cardiac services (cardiac surgery, interventional cardiology, neonatal cardiology)	Yorkhill Hospital, Glasgow * Birmingham Children's Hospital
Paediatric extracorporeal life support (ECLS)	Yorkhill Hospital, Glasgow * Newcastle-upon-Tyne NHS Trust * University Hospitals of Leicester NHS Trust * Great Ormond Street Hospital for Children NHS Trust
Paediatric renal transplantation	Yorkhill Hospital, Glasgow
Paediatric spinal surgery	Royal Hospital for Sick Children, Edinburgh

Photobiology	Dundee Teaching Hospital
Pre-implantation genetic diagnosis	Glasgow Royal Infirmary and Yorkhill Hospital, Glasgow
Primary pulmonary hypertension adults children	Western Infirmary, Glasgow * Great Ormond Street Hospital
Prion disease service	*St Mary's Hospital, London
Psuedomyxoma peritonei of the appendix	*North Hampshire Hospital, Basingstoke
Pulmonary thromboendarterectomy	*Papworth Hospital, Cambridge
Rare neuromuscular disease	*Hammersmith Hospital, London *Institute of Genetics, Newcastle *John Radcliffe Hospital, Oxford *National Hospital for Neurology and Neurosurgery, London
Recombinant and commercial coagulation factors	*Glasgow Royal Infirmary *Royal Infirmary, Edinburgh
Reconstructive surgery for congenital malformations of the female genital tract	* Queen Charlotte's Hospital, London
Retinoblastoma	*St Bartholomew's Hospital, London *Birmingham Children's Hospital
Secure forensic mental health services for adolescents	* Roycroft Unit (Newcastle) * Gardener Unit (Salford) * Ardenleigh (Birmingham)
Severe combined immunodeficiency and related disorders (SCIDs)	* Newcastle General Hospital for Sick Children * Great Ormond Street Hospital, London
Small bowel transplantation (service evaluation)	* St James Hospital, Leeds (adult) * Addenbroke's Hospital, Cambridge (adult) * Birmingham Children's Hospital (child)
Specialist paediatric liver disease service (including Kasai procedure)	*King's College Hospital, London *Birmingham Children's Hospital *St James University Hospital, Leeds

Spinal injuries (including high dependency home ventilation)	Queen Elizabeth National Spinal Injuries Unit, Southern General Hospital, Glasgow
Stem cell transplants for children with severe rheumatoid arthritis	*Great Ormond Street Hospital, London *Freeman Hospital, Newcastle
Supra-renal and thoraco-abdominal aortic aneurysms	Royal Infirmary of Edinburgh
Transport of critically ill children	Royal Hospitals for Sick Children, Edinburgh and Glasgow

## National Managed Clinical Networks

The administrative costs of the following National Managed Clinical Networks are supported nationally but the costs of treatment coordinated through the networks are funded locally.

Network	Network office location
Bone & soft tissue sarcoma	Western Infirmary, Glasgow
Cleft lip and palate	Perth Royal Infirmary
Home parenteral nutrition	Perth Royal Infirmary
Paediatric renal medicine	Yorkhill Hospital
Pancreatic and hepatobiliary cancer	Western Infirmary, Glasgow
Phototherapy	Perth Royal Infirmary
Scottish muscle group	Yorkhill Hospital

### Key

Normal type – services funded at listed locations for residents of Scotland by National Services Division. These are the designated Scottish national specialist services.

Locations in italics – services funded on UK basis by Department of Health in England (open to all residents of the UK).

\* Service funded via National Services Division from pooled NHS Board funds.

## Financial statement

The funded values quoted for each of the services in this report show the contribution made by each NHS Board towards that service, by the Arbuthnott formula. Figures in the report are rounded to the nearest £1000. Where a main activity driver is identifiable, e.g., number of procedures or referrals, this has been included to give an indication of national patterns of service usage.

	Budget (£000)	2004/05 Actual (£000)	Variance (£000)	2003/04 Actual (£000)
NSD support costs	1,116	1,045	71	1,261
Out of area treatments	4,300	4,613	-313	4,609
Healthcare agreements	56,292	56,952	-660	50,417
Recombinant	19,500	20,124	-624	18,832
	81,208	82,732	-1,526	75,119

The figures throughout this report take into account a number of pressures facing National Services Division and the rest of the NHS in Scotland. The impact of the new consultant contract was more pronounced in NSD's commissioned services due to the majority of them being consultant led. The provision made in last year's accounts of £850,000 and the full year effect of £1,400,000 in 2004/05 for consultant contract is in line with original calculations done by NSD and has been included in the budgets for both financial years.

The £1,526,000 overspend arose mainly from three areas, firstly a £313,000 overspend from the admission of patients to English hospitals for specialist treatment unavailable in Scotland, under what is termed 'out of area treatments'. Health Board Chief Executives have approved an increased allocation in 2005/06 linked to forecasted patient admissions to England. Secondly, under Healthcare Agreements, the allocation required for the implementation of age extension of breast screening from age 65 to 70 was short by £650,000. This was the amount identified as capital charges linked to the £5,200,000 capital investment made in breast screening services for age extension. Discussion is ongoing with the SEHD to ensure approved developments are fully funded. Thirdly, under recombinant and commercial factor concentrates, which is a financial risk share that NSD undertakes on behalf of all the Health Boards in Scotland, the budget allocation should normally equal the actual outturn. However the £624,000 overspend was attributable to being advised of increased usage of product at the financial year end as a result of an error on a database at a haemophilia centre. The centre has now taken the appropriate action to correct the database and increased checks and balances have been implemented by the service to verify the quality of the data. NSD will cover the costs of this overspend within the allocation provided by the Health Boards in 2005/06.

The NSD budget allocation for 2005/06 will take account of the £1,526,000 overspend and it is the intention of NSD to break even by the financial year end assuming all approved developments are funded.





