



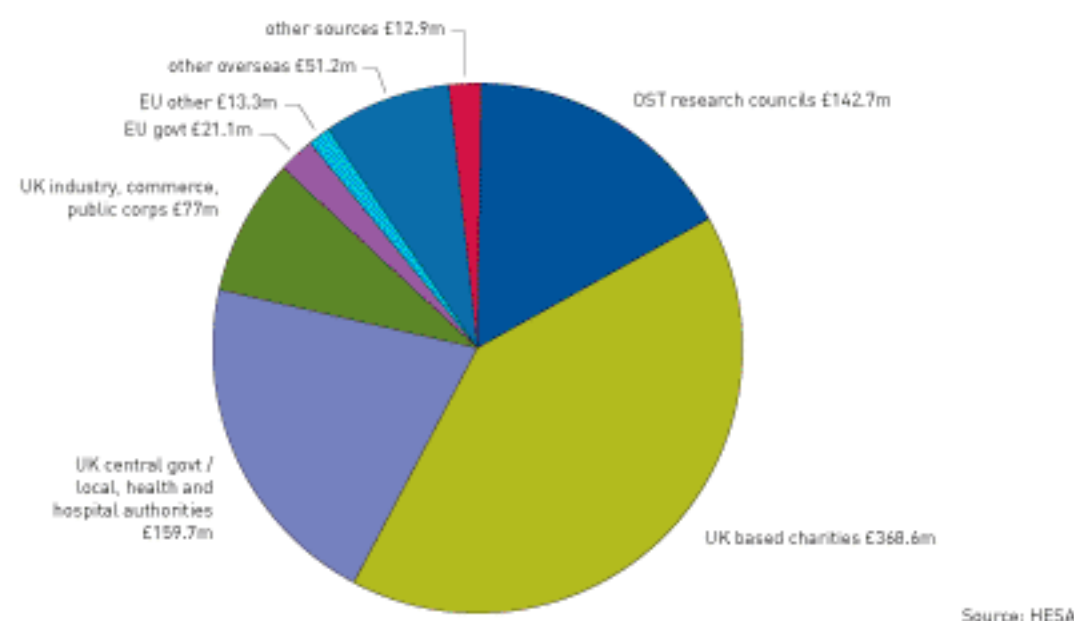
Universities UK

# Partners in care

Universities and the NHS



**Income for higher education institutions from research grants and contracts for medicine, dentistry and health, 2000/01, £847 million**



**Students in higher education institutions, 2000/01**

	Total HE students	Full-time undergrad	Full-time postgrad	Part-time undergrad	Part-time postgrad
<b>Medicine and dentistry</b>	<b>46145</b>	<b>30140</b>	<b>5605</b>	<b>365</b>	<b>10040</b>
Pre-clinical medicine	11420	10550	300	30	540
Pre-clinical dentistry	1925	1815	30	40	40
Clinical medicine	27315	13820	4610	285	8600
Clinical dentistry	3995	2460	660	15	860
Balanced combinations within medicine and dentistry	1495	1490	0	0	0

	Total HE students	Full-time undergrad	Full-time postgrad	Part-time undergrad	Part-time postgrad
<b>Subjects allied to medicine</b>	<b>233320</b>	<b>115670</b>	<b>5210</b>	<b>89875</b>	<b>22540</b>
Anatomy and physiology	6075	4280	805	310	675
Pharmacology	3380	2115	440	130	700
Pharmacy	11030	7085	700	260	2980
Nutrition	2065	1465	285	85	230
Ophthalmics	2720	2115	100	390	110
Audiology	1380	860	90	170	265
Nursing	152355	72085	685	74570	5020
Medical technology	5465	2660	150	1255	1400
Other medical subjects	48325	22525	1950	12680	11170
Balanced combinations within subjects allied to medicine	515	485	0	20	10

Source: HESA, Students in Higher Education Institutions 2000/01



**Martin Harris**  
Chairman Universities UK Health Committee

"Universities make an essential contribution to the NHS. They educate future healthcare professionals, research into cures and treatments, and their staff and students care for patients.

Virtually all healthcare professionals are educated in higher education institutions (HEIs). On completion of their professional education and training, those practitioners move into a range of careers – dietetics, pharmacy, and therapy, as well as nursing, midwifery, dentistry and medicine. They are the future workforce for both the NHS and other independent healthcare providers across the UK.

Universities undertake most UK health research in partnership with the NHS. This underpins evidence-based practice and supports improved patient care.

University staff and students make an often unrecognised contribution to patient care in the NHS – clinical academic staff deliver and often lead patient care alongside their NHS colleagues and healthcare students.

In the NHS Plan, the Prime Minister, Tony Blair says he wants to rebuild the NHS for the 21st Century. This report shows that universities will play a key role in achieving that goal."



**Alan Milburn**  
Secretary of State for Health

"This report is a timely reminder of the partnership between the NHS and the higher education sector and the role it plays in contributing to the nation's health and well-being. A well-trained workforce is central to delivery in the NHS Plan as is the contribution made by higher education. The collaboration must continue to flourish. The establishment of the NHSU, in partnership with existing universities and other education providers, will drive this contribution forward. The foundation is clearly in place – the challenge is to build on it to harness the skills and talents of all individuals in both services."



**Charles Clarke**  
Secretary of State for Education and Skills

"I am pleased and proud of our universities, for their role extends beyond education and continuing professional development for health professionals; they are also the world leaders in pharmaceutical and health-related research, and they develop innovative new drugs and treatments for a range of illnesses. They are able to do this because of the extraordinarily high skills of their staff, and their ability to work in partnership with other stakeholders in the world of health and science."

Universities make an essential contribution to the NHS. Their staff and students make an often unrecognised contribution to patient care

Many people – from patients to politicians – are unaware of the full extent of the partnership between universities and the NHS. This report seeks to fill that gap by offering a few insights into how universities and higher education colleges teach and educate health professionals, conduct research for the NHS and provide patient care.



**Teaching and learning**

Universities play a vital role in educating and training doctors, dentists, nurses, midwives and other NHS staff. In 2000/01, for example, there were nearly 146,000 full-time undergraduates in a variety of health related subjects including pharmacy, healthcare sciences and audiology.

Nurses and midwives are one of the largest groups of healthcare students. In 2000/01, the NHS spent approximately £640 million on pre-registration education for around 48,000 nursing students and 14,000 health professions students. Most of this was spent in universities and higher education colleges, which are therefore crucial to the NHS meeting its workforce planning requirements.

**Research**

Much research for the NHS is done under university auspices. Many of the lead researchers are jointly employed by the NHS and a university.

Funding may come from the Department of Health/NHS or from Research Councils such as the Medical Research Council (MRC). In 2000/01, 36 per cent (£302,407,000) of higher education institutions' research and grants income for medicine, dentistry and health-related subjects came from UK government bodies, including the research councils.

The remainder is funded from a variety of other sources, including research charities, pharmaceutical companies, charitable foundations, the national lottery, European Union and other international sources.

In fact, over 50 per cent of research carried out in universities is healthcare related.

**Patient care**

University staff care for NHS patients, in addition to undertaking teaching and research. There are over 5,000 clinical academic staff in university medical schools. Medical professors are also working doctors. Of the 27,000 doctors and dentists who work as consultants in the NHS, approximately 3,000 are employed by universities. They are leaders in their field, introducing and implementing innovations in medical care.

All major dental surgery is carried out in university-run dental schools, and universities are substantial providers of pathology services to the NHS.

But doctors and dentists are only one part of the picture. Students in all types of health-related education programmes – from nurses and physiotherapists to occupational and speech therapists – also offer care directly to patients, under supervision, while they are studying.

This report has been produced by Universities UK, the body that represents the executive heads of UK universities. It gives only a brief glimpse of the wide range of initiatives, which underpin the close working partnership between our universities and the NHS.

**Over 50 per cent of research carried out in universities is healthcare related**



Anne Tattersfield is Professor of Respiratory Medicine at Nottingham's City Hospital, dealing with patients who have asthma and chest problems in addition to acute medical emergencies.

She splits her time between clinical and academic work by spending two months doing one and then two months doing the other.

"When I am on the wards, I work like other NHS consultants," she says. "But I still have everything else to do, like running a research team, getting funding or giving talks."

"The two months doing clinical work are challenging as I do ward rounds and am on call like my NHS colleagues. The main problem for academics is the unpredictability of clinical work – suddenly being called to see patients when you have other plans."

"In the two months when I am doing research I still do my outpatient clinic, and some of the research fellows here, who are trained doctors, help in the clinic each week."

**When I am on the wards, I work like other NHS consultants, but I still have everything else to do, like running a research team or giving talks**



Dafydd Walters is another example of someone whose work is split between academia and direct service provision. As Professor of Child Health at St George's Hospital, Tooting, his time is, in theory, split between clinical work and academic teaching and research. But it doesn't always balance out like that.

"It is Friday afternoon and I have just been up on the ward doing a handover before the weekend. I will be on call, so I will be in at 9am on Saturday and Sunday to check how things are going."

"I can get called out in the night, say if a child comes in with meningitis or severe burns. I have been known to spend a whole weekend here because children with burns need close monitoring."

"As far as on call is concerned, it is exactly the same as my NHS consultant colleagues. In any case, if I am expected to set standards I feel I must do what I expect of others."



Higher education institutions educate and train practically all health professionals – doctors, dentists, nurses and allied health professions, such as occupational therapists, medical physicists. They also educate the managers of the health service.

HEIs are a base for lifelong learning. Once qualified, NHS staff will look to universities to keep up-to-date with new developments.

Teaching methods are constantly evolving to keep up with the demands of the modern NHS, for instance, by offering distance learning for people who cannot attend a campus and joint courses to encourage closer liaison between various professions.

In nurse education, a new style Common Foundation Programme (CFP) has been implemented. These provide more flexible routes into the profession through increased use of Accreditation of Prior Learning (APL). This enables recognition of previous, relevant training that has contributed to acquiring the outcomes for progression to a recognised nursing programme.

In order to attract as wide a range of applicants as possible, universities are extending their part-time e-registration programmes and access courses for nursing and midwifery.

Health professions students spend up to half their course in practice. Universities work in partnership with the NHS and other healthcare providers to ensure students get good quality placements that enable students to develop the necessary clinical skills.

There has been a 40 per cent increase in the number of medical school places available over the past four years. These have been accommodated by established medical schools and new medical schools at the University of East Anglia, and the Universities of Plymouth and Exeter (the 'Peninsula Medical School'), the Universities of Brighton and Sussex, and the Universities of Hull and York. Their first cohort of students started in October 2002, and the Universities of Durham, Keele and Warwick are developing new centres for medical education, on a collaborative basis with existing medical schools.

## You could call it a holistic approach – looking at the whole person

### Patient-centred practice in Primary Care

Most medical students learn about what it is like to be a GP by sitting alongside a qualified doctor and learning directly from contact with patients. But they may have little idea of the practical problems a patient faces in following a doctor's advice after leaving the surgery.

At Birmingham University's Medical School they are trying to change all that, with a new style of teaching known as community-based clinical education.

From their first year, students talk to patients about issues like confidentiality of medical records, or how to handle potentially embarrassing problems, like bowel complaints.

"Students often need to develop some of their weaker areas," says Jim Parle, Professor of Primary Care. "Typically these are communicating, negotiating, respecting a patient's autonomy and understanding the long-term place of illness in someone's life. This can be particularly difficult when patients come from very different walks of life to that of the student. It sounds touchy-feely, but in reality it's central to modern medicine."

Alex Heazell, who graduated as a medical student last year and is now a house officer in Dudley, found it very rewarding: "In hospital you are not really seeing the real person at all. They sit around in pyjamas and do what you tell them. But here we were seeing real life, the effect of things like poverty and homelessness, which can be immensely psychologically damaging.

"Patients gave us an appreciation of what it was like to live with a condition. You could call it a holistic approach – looking at the whole person."

Phil Bickley, a GP tutor in Handsworth, Birmingham, says it is a massive improvement since he trained, twenty years ago. Then, all they spent was three weeks attached to a GP's surgery in their final year.

"There is a big difference learning in a non-hospital environment, one where you are not afraid to ask," he says. "When I trained, there was no talk about what happened when you left hospital or how an illness developed to the point where someone had to be admitted to hospital. This way, students see what is happening in a lot more depth."



### Workplace based lifelong learning

Specialist training is needed to care for premature babies. At Liverpool John Moores University they are working in partnership with the Neonatal Unit at the Liverpool Women's Hospital to develop specially designed courses for nurses in the unit, as part of the hospital's strategy for lifelong learning.

The hospital's existing induction programme is being accredited by the University and now will lead to a Certificate of Professional Development.

The University has also been developing a modular diploma course which allows students to study part-time, with 'step-on' and 'step-off' facilities, enabling them to take breaks from their studies and come out with intermediate awards.

It is also working on a competency-based Neonatal Degree which would give nurses credits for previous experience and competences.



Left to right:  
Sue Snowdon,  
Liverpool John Moores  
University; Sandra  
Bissaker, Sister in  
Neonatal Unit;  
Jeanette Mahon,  
Nurse in Neonatal Unit



Student midwives Jane Carney (left) and Jane Woollam (second from right) with Balquis Akhtar (centre, interpreter) and Midwife (right) after a birth while they were in Sahiwal, Pakistan in June 2000

### Caring in a multi-cultural society

A population prediction for one of the Trusts that Salford University links with is, that by the year 2005, 40 per cent of the births will be to women of Asian descent. Under a twinning arrangement the University's Midwifery Directorate has teamed up with the Government in Pakistan to provide specialist training to agencies there. It is a two way process – the experience of working in Pakistan has helped staff and students in the UK to understand issues for Pakistani women here and impacted on UK working practices.

“Working in a different culture brings with it an awareness of one's

own culture” says Margaret Chesney, Director of Midwifery. “You are far more appreciative of the values and beliefs of others”. Margaret is helping the Pakistan Government to formulate a teaching programme to train 'Dais' (Birth attendants).

Further developments have taken place following a successful bid to the British Council to bring trained midwives from Lady Dufferin Hospital in Karachi to study at Salford and to work at Oldham. Midwives from Oldham will be visiting Pakistan to undertake a review as soon as the political climate there settles.

### Working in a different culture brings with it an awareness of one's own culture

### Cancer care

According to the cancer charity Cancer Research UK, there are on average 719 new cases of cancer diagnosed every day in the UK.

Caring for someone with cancer requires specialist skills. Many health authorities have developed specialist cancer care services, with universities providing the necessary training.

The University of Northumbria now offers either a part-time degree or a diploma in cancer care practice, available on an open learning basis, as well as the more traditional campus-based package. The courses are based around specific types of cancer, allowing nurses to specialise in, say, lung cancer or breast cancer.

“That is different from the rest of the country,” says Lynne McAloon, one of two senior lecturers in oncology and a trained nurse. “We still focus on the generic cancer skills, but we do allow students to develop a bespoke service. In that way, it is mirroring what is happening in the health service.”



## Inter-professional education helps to increase mutual understanding



### Meeting minority needs

Prime Minister Tony Blair said in the NHS Plan for England that he wanted a service redesigned around the needs of patients. That means one that is responsive to the needs of different groups and individuals and challenges all forms of discrimination.

Universities already aim to reflect the diversity of British society by encouraging students from minority backgrounds. Of the 2001 medical school intake, 27 per cent of students described themselves as non-white. Nine per cent were Indian; four per cent Pakistani; two per cent Chinese and two per cent black African.

But all health professionals, not just doctors, are working in a multi-cultural society. They need to provide services which are culturally sensitive and which reflect the needs of the communities they serve. That may mean providing an interpreter,

or it may mean a more fundamental examination of the way a service is provided, to ensure it reaches people who might not otherwise seek help.

The Centre for Caribbean Medicine at King's College, London, has just launched a unique MSc in Healthcare and Ethnic Minorities to meet these developing needs.

Students will look at diseases that affect specific ethnic groups disproportionately, like sickle cell disease and hypertension. They will also look at planning and delivering services in a multi-cultural context.

“We are trying to find out how best we can make a difference in providing culturally relevant services,” says tutor Dr Farah Khan. Her own work has been around oral hygiene, working with communities where chewing paan, a betel-nut extract which can cause oral cancer, is common.

### Learning and working together

The importance of working together is one of the Government's key messages to all health and social services professionals.

A growing body of evidence suggests that inter-professional education helps to increase mutual understanding and may help promote team working.

St. George's Hospital Medical School and Kingston University in London are offering a foundation course for medical students, physiotherapists, biomedical scientists, midwives, radiographers and nurses, which covers basic anatomy and problem-based learning and other study modules.

“The borderlines between the different professions have been too rigid for a long time,” says Kath Start, Deputy Dean of the Faculty.

A similar approach has been adopted at Southampton and Portsmouth Universities within the New Generation Project, where medical students, nurses, occupational therapists and physiotherapists from one faculty work and study together for certain parts of the course.

Dame Jill Macleod Clark, Professor of Nursing, said “There is a growing overlap between the jobs of health professionals – we need to take a fresh look at how we prepare students for their roles.”



## Giving patients and carers greater say and control is one of the key issues in healthcare



### Living with pain

Living with long-term pain can be incredibly debilitating, as anyone with a condition like arthritis will tell you. It can often lead to depression as well.

At the Pain Management Research Centre, based at the University of Abertay in Dundee, director Dr David McNaughton and his staff offer a variety of short courses for nurses and other healthcare professionals on what causes pain, methods of reducing it and the way painkillers work.

“We explain what happens when someone is in pain and look at why therapies like hypnotherapy and aromatherapy can help alleviate the problem,” he says.

During the one-week residential course, students from all over the UK are also taught the basics about

setting up a pain clinic.

District nurse Rosemary Showell has started a clinic in Cumbernauld, near Glasgow, after attending the course.

“It’s about being Sherlock Holmes,” she says. “We find out what makes the pain worse, how compliant patients are with medication and look at their lifestyle.”

“I’ve been watching people suffering for years with things like osteoporosis, rheumatoid arthritis and back pain. They have had every tablet known to man. As a result of attending the clinic, their pain scores are down by more than half.”

The course is also available by distance learning. There are six units, each taking a month, which allow the students to study at their own speed.

**It’s about being Sherlock Holmes – We find out what makes the pain worse**

### Empowering patients and carers

Empowerment – giving patients and their carers greater say and control – is one of the key issues in healthcare. The NHS Plan says that, all too often, patients feel talked at, rather than listened to. But how do you turn that dream of empowerment into a reality?

At the University of Sunderland, they have taken the innovative step of inviting people with Parkinson’s disease and their carers to teach professionals about life with the illness.

Carole Ions, whose husband Victor, aged 52, has had Parkinson’s disease for 20 years, regularly lectures on a short course for doctors, nurses, physiotherapists and social workers.

“I thought I couldn’t do it,” she says. “I’ve dealt with doctors and nurses and they think they know it all. But they really listen to us.”

Carole also helps with the assessments. Not only has it helped the professionals, it has helped her too: “I was just a carer for 20 years, but this has given me much more confidence.”

The course has been praised by the Royal College of Physicians, the British Geriatric Society and the Parkinson’s Disease Society for including people with the illness and their carers in the teaching.

“We are delighted that this innovative approach to learning has been recognised,” says Course Co-ordinator Rita Bell.



Carol Ions, who lectures about Parkinson’s Disease and carers’ needs on a University of Sunderland Professional Development Programme for Nurses

### Nurses

Nurses are increasingly expected to take on greater responsibilities than in the past. The NHS Plan talks of the need to break down the hierarchical ways of working and develop more flexible approaches. Already, many nurses are taking on new clinical responsibilities that would once have been a consultant or GPs’ role. For example, taking on responsibility for prescribing drugs.

These enhanced responsibilities to practice autonomously have led to the development of new nurse grades, ‘Nurse Consultants’ and ‘Nurse Practitioners’. But they need proper training to ensure that they do these new jobs effectively.

The University of Central Lancashire has worked with Wigan and Leigh NHS Trust to develop training modules for all nursing staff, covering professional development, clinical leadership and how to put their new skills into practice.

The first module was aimed at junior members of staff, while the final one, though not aimed specifically at managers, was geared to nurses who often found themselves having to take the lead.

Tracy Williams, staff nurse at Billinge Hospital, near Wigan, has found the course enormously useful:

“I feel it has assisted in giving me an underpinning knowledge of leadership styles and values, which has increased my confidence at ward level. This has also enhanced my ability to use leadership skills effectively in my clinical area.”



**Many nurses are taking on new clinical responsibilities that would once have been a consultant or GPs’ role**

### Training occupational therapists

The University of East Anglia is at the forefront of training occupational therapists (OTs) – a group of professionals who are very much in demand at the moment. In fact, the Government wants to see a further 4,450 therapists and other key professional staff, including physiotherapists and occupational therapists, entering training by 2004.

The University graduates 50 OTs each year and is constantly seeking the very best and widest range of clinical placements for students, especially those which reflect today’s emphasis on caring for people in the community.

“It is very important that fieldwork education reflects the areas where health and social care are being delivered, therefore we are using many more community based placements for our students,” says Catherine Wells, a qualified OT and a lecturer on the course.

For Mitch Neville, who trained at the University between 1995 and 1998, her clinical placements have had an enormous bearing on her career.

She now works as an OT for Norfolk Mental Health Care Trust, after various mental health placements – including a stint at Broadmoor High Security Hospital.

“The first placement was in Norfolk Mental Health Trust and I did another in an acute psychiatric unit in Bury St Edmunds. I chose to go to Broadmoor as mental health was an area I was interested in. It was a wonderful experience and one I’ll never forget.”

“Maybe if I hadn’t had such positive experiences, it wouldn’t have shaped the areas I wanted to go into quite so much. I learnt an awful lot from these placements.”





Research and development is a fundamental factor in ensuring up-to-date and fit-for-purpose service delivery in the NHS. Most of the medical and health related research in the UK is carried out within universities, much of it funded by and in partnership with the NHS.

Universities also receive funding from the MRC and other research councils, medical research charities, pharmaceutical companies' charitable foundations, the national lottery, the European Union and other international sources.

Both the Department of Health and the NHS fund a range of research and development activities. They also provide funding to support the infrastructure necessary for the high quality research activities conducted in the NHS but funded by research councils and major research charities. Research includes a wide range of subject areas in fields of health technology assessment, service delivery and organisation, and innovation for health. The Department also supports, in collaboration with the MRC, the Higher Education Funding Council for England (HEFCE) and others, an active programme to increase the research capacity of a number of professional groups.

Some of the greatest medical advances, like keyhole surgery, started out as research projects in university departments. And research means not only medical developments and clinical trials: it includes examining the effectiveness of services offered by the NHS, developing new equipment and dressings, working with pharmaceutical and other industries to develop new products for the benefit of patients and assessing the effectiveness of public health strategies.



Evaluation of an Edinburgh community-based intervention to promote non-smoking

### Tackling smoking

Smoking kills 120,000 people a year. It is responsible for about a third of all deaths from cancer alone.

The Government is supporting various initiatives to help people give up, including specialist smoking cessation services. By 2010, its goal is for at least 1.5 million smokers to have given up.

At Cardiff University's School of Social Sciences, Dr Laurence Moore is leading a project to try to stop young people from smoking. The Cardiff team has run a pilot project in six schools and is now, in association with a team from Bristol University, running an extended trial of the project in more than sixty schools.

The programme is based on an American health promotion strategy,

where the most popular and influential members of a class are selected and trained about the risks of smoking. They are then able to pass on this message to other pupils.

So far, they have tried out the idea on both Year Eight (12 year olds) and Year Nine. But they found that it was most effective early on – by Year Nine it did not reduce smoking levels. The initiative seemed to stop those who had smoked in the past from starting smoking again.

The project is known as action research – a type of research where the researchers are actually responsible for intervening and trying to bring about change, rather than just evaluate an existing scheme.

**Action research – a type of research where the researchers are actually responsible for intervening and trying to bring about change**

Edinburgh University has completed an evaluation of an intervention designed to promote non-smoking in a low income households in Edinburgh. University researchers discovered that over a two year period, changes in local attitudes towards smoking did not differ from those in areas which had not been exposed to the community-based programme. Professor Stephen Platt, Director of the University's Research Unit in Health, Behaviour and Change, draws attention to the need for more effective partnership working between different agencies and local residents if community-level action to tackle smoking is to succeed.



**Medicines Management research**

Medicines Management research has become a key tool in ensuring the NHS is operating as effectively as possible. Keele University's Department of Medicines Management is running a number of projects to ensure the effective use of medicines. It provides in-depth analysis every six weeks for health authorities and primary care trusts in the West Midlands about doctors' prescribing patterns. For the first time ever it links that information to the conditions that the drugs are used to treat. This has revealed that doctors are routinely using proton pump inhibitor drugs for indigestion, although this may not be the most effective treatment. Ongoing research in Staffordshire will examine whether a drug for lowering cholesterol is as effective as the drug's manufacturer claims. They have also looked at how to make best use of pharmacists in ensuring patients take their drugs properly.



**University pathology departments not only provide a service to the NHS, they help the police too, in tackling crime**

**Forensic work**

University pathology departments not only provide a service to the NHS, they help the police too, in tackling crime.

Dr Martin Evison of Sheffield University's Department of Forensic Pathology was called in to help identify a decomposed body found in a bag in Attercliffe, Sheffield, early in 2000. The victim had obviously been dead for several years.

He discovered that the man had severe osteoarthritis in the neck and lower back. From the remains of the skull, he constructed a clay head. Within a week, the man was identified and two suspects arrested and charged with murder.

This painstaking work combines skills in anatomy with an artistic background in sculpture. But, because this technique cannot account for ethnicity, obesity or age, Dr Evison and his colleagues have devised computer programmes which generate 3D images of how the person would have looked at various stages in their life. They can also be altered to reflect ethnic origin, gender and build.

"A positive identification from facial reconstruction work happens in only 50 per cent of cases," says Dr Evison. "To achieve this result after such a long time is exceptional."



Above and above left: Facial reconstruction of the Attercliffe murder victim, University of Sheffield

**We are trying to be the cutting edge of healthcare**



Dr Kevin Docherty of Aberdeen University

**Diabetes**

Diabetes affects about 1.4 million people in the UK. There is no cure: people with Type I diabetes have to inject themselves with insulin several times a day. People who get the disease in later life, known as Type II diabetes, can sometimes control it through diet, though many of these patients may also eventually need injections.

At Aberdeen University, Professor Kevin Docherty, of the Department of Molecular and Cell Biology, is at the forefront of research into a new way of tackling the disease.

He is currently undertaking experiments to see if an implant can be used to introduce new cells to the body and reinstate normal insulin secretion. The project has National Lottery funding.

He is also working on research into a new DNA injection which could eventually do away with the need for insulin injections every day, replacing them with just one every three months.

Professor Docherty started his work more than twenty years ago, in 1980. Both projects will involve several more years' work before they can be considered for use by NHS patients, but the prospects are promising.

"We're all very excited about these recent developments," says Professor Docherty. "In my view, the approaches we are taking in genetic engineering and gene therapy are the ones most likely to bring results in the near future."

**Evidence-based practice**

In modern healthcare, it is vitally important that the healthcare team (doctors and other professionals) and managers are aware of how effective an operation, treatment or service is or will be – what evidence there is that it will work, what impact it will have on health, and whether it is an effective use of resources.

Many universities are looking at the effectiveness of various treatments. For example, Huddersfield University's Centre for Evidence Based Medicine worked with NHS Trusts in Dewsbury, Calderdale and Huddersfield to look at success rates of operations to remove the prostate gland.

According to their findings, prostate removal is only worthwhile where symptoms are moderate to severe. Mild cases show no significant improvement.

"We are trying to be the cutting edge of healthcare," said Director Anthony Palmer who also held a job share position as Director of Nursing at Calderdale Healthcare NHS Trust. "We offer a multi-skilled one-stop-shop for practitioners interested in evidence-based healthcare and best practice. It is a genuinely collaborative initiative between the University and the local Health Authority (as was), primary care trusts and NHS trusts."

### Ageing and dementia

People are living longer. So, by 2020 more people in Britain will be aged over 65 than under 18.

Unfortunately, many older people have problems with memory, including Alzheimer's disease. This is a major cause of disability.

OPTIMA, the Oxford Project to Investigate Memory and Ageing, began in 1988. Headed by Professor David Smith of the University Department of Pharmacology, OPTIMA sees about 300 volunteers each year, to study what determines memory problems in old age.

OPTIMA has discovered dietary and constitutional risk factors for Alzheimer's disease. Zsuzsa Nagy, a Fellow of Wadham College, is studying how these risk factors could damage brain cells in the manner characteristic of Alzheimer's disease.

OPTIMA now aims to test whether modifying these risk factors in healthy old people will prevent the onset of memory problems and Alzheimer's disease.



Above: The underside of a nettle leaf. The swollen base of the stinging hairs (on the spine of the leaf) can be seen clearly  
Left: Young growing shoots of common stinging nettle (Urtica dioica) in Cornwall



### A cure for arthritis

Stinging nettles may have a pleasant side effect: reducing the pain of arthritis, sometimes for weeks on end.

That is the finding of researchers at Plymouth University, where Dr Colin Randall has been testing out an old wives' tale that stinging nettles really could ease arthritis pain.

As a GP, Dr Randall had heard from a couple of patients that the sting eased their arthritis, so he did some background reading and found they had been used as pain killers since Roman times. He set about researching whether it really did work.

There were 27 patients with osteoarthritis in the trial: some were given stinging nettles to rub into their thumb joint; the other used a placebo, white deadnettle. He found the stinging nettles not only reduced pain significantly, but that they were better than existing treatments.

"We don't yet know why it works," he says. "As far as we know, we are the first people to test it."

### An old wives' tale claims stinging nettles really can ease arthritis pain, they have been used as pain killers since Roman times

### Mental health

Clinical academics were among the leaders of a complete overhaul of the way mental health services are provided in Manchester.

The shake up followed concerns that the old method of providing services – split between acute trusts, a community psychiatric service and primary care groups – left patients with very different standards of service from one part of the city to another.

What emerged in October 2000 was a single group, known as the Manchester Mental Health Partnership, and subsequently from April 2002 the Manchester Mental Health and Social Care Trust. This includes health and local authority representatives, and has a large input from university staff, particularly in developing a research programme covering key areas required for the National Service Framework for Mental Health. Professor Francis Creed is Director of Research and Development for the Trust and is linking strategies for research in mental health across the North West. Locally he is introducing a system for increasing service user and carer involvement in research.

"It became the obvious way forward and we tried to make sure that all along the way the research element was one of the key headings," said consultant and clinical lecturer Dr Frank Margison, who is Director of Service Governance and Medical Director with the Health and Social Care Trust.

The joint developments with the University will build on existing research projects carried out in the area, including work by Professor Bill Deakin on schizophrenia and Professor Shon Lewis on anti-psychotic treatments.

"It is still early days, but we see ourselves as trying to put developments from our research projects into local practice. From the university point of view the close links with the NHS strengthen our position for obtaining NHS research grants and for delivering the research in a real clinical environment. This, in turn, makes the research as relevant and generalisable as possible."

### We are trying to put developments from our research projects into local practice



### Keyhole surgery

Keyhole surgery is one of the most exciting developments in medicine in the last 20 years. It took years of research and experimentation before the technique could be used.

Professor Sir Alfred Cuschieri from the Department of Surgery and Molecular Oncology, University of Dundee, started his research in 1972, initially at Liverpool University.

"For a long time, people thought we were crazy," he says. "But I have never had any doubts."

The first operation using the radical technique was performed in 1986 to remove a gall bladder. Rather than opening up the body cavity, a tube is inserted through the stomach wall and a microscopic telescope, or endoscope, with a camera attached, is passed down that tube. The surgeon performs the operation watching live images transmitted to a TV screen.

Dundee University set up a skills laboratory in 1991 and now trains as many as 300 surgeons a year from all over the world. The technique is used for a wide variety of procedures, from heart to lung surgery.

Sir Alfred believes far more operations could be done using keyhole surgery – saving the NHS money and patients discomfort.

"A gall bladder operation by open surgery means a stay of five days minimum at £300 a day. Doing it with keyhole surgery, the patient is only in hospital one day."



Patient care is at the heart of the NHS. It is the reason why all healthcare professionals train, enter and continue to work within it, either as practitioners, researchers, educators or managers. Often staff take on all these roles. It is the key motivator for pushing boundaries in all healthcare-related research and an essential element of the NHS Plan. Tony Blair announced the NHS Plan in the House of Commons as follows – “The aim is clear: to redesign the health service system around the needs of the individual patient.”

Universities are often involved in directly providing care for patients. We have already shown how many academics also hold a clinical case load. But students from all disciplines will also be providing care during their training. Patients attending some NHS clinics may also be offering academics the chance to carry out research.

### Specialist eye testing

Getting your eyes tested is a pretty straightforward matter – unless, that is, you don’t have language skills.

Young children who cannot yet read, or adults with learning disabilities, cannot have a conventional eye test. But the special assessment clinic at Cardiff University’s Department of Optometry is finding new ways of testing eyesight which avoid using language skills.

For example, the clinic uses grey cards with light and dark images, which are only visible to a sighted person. Once they have established the patient can see something – the eye movement shows this – they then show different image cards to find out exactly the extent of the patient’s sight impairment.

It has made a remarkable difference for Dennis Morgan, 38, from Powys, who is deaf, partially sighted and has learning difficulties. He has become much more independent since he had glasses.

“He can indicate to us when he wants a drink, which is something he couldn’t before,” says Jackie Sheehy, team leader with Community Opportunities Consortium, which runs Dennis’ home. “Now he just points at his mug on the rack. And while he used to just sit in the chair and wait to be led to the toilet or dining table, now he will make his own way.”

## The university setting provides real life situations for participants to explore issues and practice skills

### Multi-agency partnerships

Aphasia is a disorder of spoken language, speech comprehension, and reading and writing. It is most common after a stroke. The issues faced by people with aphasia change over time and encompass the communication disorder and its impact on life participation and well-being.

The Leeds Communication Group is an example of multi-agency partnership. It developed between a university, an NHS speech and language therapy service, a social service, and a modernisation team to provide support for people experiencing the longer term effects of aphasia. Research to evaluate the provision and opportunities for student placement experience are also integrated within the partnership.

Funding by the then Leeds Health Authority and the partner agencies for a two-year period in the first instance has made the provision available since September 2001.

“The provision is based at the University, which offers an accessible central city location with a community focus in an education

rather than a health setting. The Personal Care Assistants support participants to access the University facilities and transport to and from the venue is provided where required,” says Alison Ross, Head of Speech and Language Therapy, Faculty of Health and Environment at Leeds Metropolitan University.

The provision offers an extended, relevant and accessible provision for people with aphasia that would not otherwise be available. The university setting provides real life situations for participants to explore issues and practice the skills identified by groups.

Alison adds, “The development creates additional student placements with opportunities for shared learning and support. It provides many speech and language therapy students with first-hand experience of people with aphasia, current and innovative practice, and working with personnel from other backgrounds.”

The evaluation of the provision contributes to the development of practice and provision for people with aphasia.



The Leeds Communication Group at work



### Taking on the superbug

Infections in hospital are one of the biggest worries nowadays. The so-called superbug, Methicillin Resistant *Staphylococcus Aureus*, or MRSA, is one of the most devastating infections and has no known treatment.

Glasgow University has the only laboratory in the world devoted to studying the characteristics of MRSA, its spread and how it can be dealt with.

It provides an up-to-the-minute picture of the incidence and spread of MRSA in Scotland and investigates hospital outbreaks. In particular, the laboratory discovered two isolated incidents of a new strain that had not previously been seen in the UK and are also resistant to vancomycin, the first-line antibiotic. The lab warned the hospitals concerned and was able to help eradicate the bug.

**Dentistry**

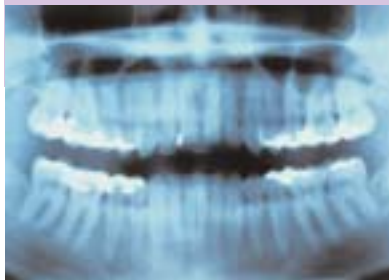
Although university dental schools are primarily there as a training ground for dentists and other members of the dental team, in doing so, they are also providing a service for NHS patients.

There are 13 undergraduate dental hospitals in the UK and, in England alone, they provide 1.2 million outpatient attendances a year. The majority of consultant staff in these schools are university funded.

The schools' senior staff deal with more complicated dental cases requiring major surgery, such as patients with cleft palates, people with cancer of the head and neck, or those needing implants. Some clinical disciplines are not found elsewhere in the NHS.

But students also need to deal with routine work. At Leeds Dental Institute, for example, students carry out check-ups on NHS patients who would otherwise have to get their treatment from a conventional dentist in general practice.

"The importance of having strong schools of dentistry cannot be overstated," says Professor William Hume, Director of Leeds Dental Institute. "They train the dental workforce for the UK and are responsible for instilling the skills and attitudes of dentists in the future."



The NHS is not the only healthcare provider in the UK – the independent sector, comprising private and voluntary organisations, is also a major employer of graduates and uses higher education services as well.

**What is the alternative?**

Until very recently, so-called 'alternative therapies' have been viewed with scepticism by the medical profession. However, more doctors and nurses are now recognising that these treatments can and do work.

Chiropractic, a system of treating disorders by manipulation of the vertebrae in the spine, is primarily used for low back pain, neck pain and headaches. But it has also been shown to help in asthma and with painful periods.

The Welsh Institute of Chiropractic at the University of Glamorgan offers the only publicly funded undergraduate course leading to a BSc degree. It has an outpatients' department and students also see patients at NHS hospitals. There is also an exchange programme with students at Odense University in Denmark.

"We have to charge at the moment," says the Head of the Institute, Dr Susan King, "but we hope to offer a service to GPs and employers at a reasonable rate."



Chiropractic skills training instruction at the Welsh Institute of Chiropractic at the University of Glamorgan



**Giving Britain a sporting chance**

Several of Britain's Olympic athletes have used the National Stadium Sports Medicine Centre in the National Stadium, Hampden Park, Glasgow to help overcome their injuries. The Centre is a joint venture between the University of Glasgow, the University of Strathclyde, Glasgow Caledonian University and the Scottish Football Association.

"A lot of GPs in Glasgow will suggest their patients come here," says Robert Campbell, Senior Lecturer and a podiatrist. "Although patients pay to come here, we are helping the NHS because people can get quick treatment. Otherwise a straightforward injury can become a long-term problem, which would take up additional NHS resources."

Universities are heavily engaged with the communities around them, and the wider world of innovation. This report shows how closely they engage with the NHS.

Less obvious, though, is the fact that many university employees are often extremely influential in shaping Government policy.

Some academics are household names, such as Lord Winston, Professor of Fertility Studies at the University of London, and Baroness Susan Greenfield, Professor of Pharmacology at Oxford University.

People like Dr Jonathan Miller, famed for his work in television, opera and the theatre as well as in medicine, is a research fellow in neuro-psychology at the University of Sussex and Professor Anthony Clare, known for his 'In the Psychiatrist's Chair' radio programme, is also Clinical Professor of Psychiatry at Trinity College, Dublin.

There are others with a high public profile: Louis Appleby, the Government's mental health tsar, is Professor of Psychiatry at Manchester University, Valerie Beral, Professor at the Cancer Research UK's Epidemiology Unit at Oxford University is Chair of the NHS Advisory Committee on Screening for Breast Cancer and Maggie Pearson, Deputy Director of Human Resources Directorate, Head of the Learning and Personal Development Division at the Department of Health is Professor of Health and Community Care at the University of York.

Four of the fourteen Health Commissioners (members of the Commission for Health Improvement) work in universities: Professor David Kerr, Professor Julian Legrand, Professor Ian Cameron and Professor Sir Martin Harris.

**Universities are heavily engaged with the communities around them, and the wider world of innovation**

Academics are also contributing to the NHS modernisation process and other health related organisations. They include:

Professor Albert Aynsley-Green, Clinical Director at Great Ormond Street Hospital;

Professor Alison Blenkinsopp of Keele University's Department of Medicines Management;

Professor Bob Fryer, Chief Executive and Vice-Chancellor Designate, NHSU

Professor Peter Homa, Chief Executive of the Commission for Health Improvement;

Professor Dame Jill Macleod-Clark, Head of the School of Nursing at Southampton University;

Professor Sir Michael Marmot, University College London;

Professor Sir John Pattison, Director, Research, Analysis and Information, Department of Health;

Professor Sir Michael Rawlins, Chairman of the National Institute for Clinical Excellence;

Professor Sashi Sasidharan, Medical Director of North Birmingham Mental Health Trust.

Fourteen of the 18 Presidents of Medical Royal Colleges are clinical academics. Thirty one trusts have professorial directors.

There are also a large number of academics who, in a private capacity, are members of their local health or primary care trust. All Strategic Health Authorities (StHAs) must have a university representative on their board.





This is an exciting time for the NHS and the higher education sector – both are undergoing major structural changes, as they adjust to meet new demands and expectations from patients and students. The challenges are not dissimilar.

In the Health Service, new organisational structures such as Strategic Health Authorities, Workforce Development Confederations and Primary Care Trusts have been introduced to support the NHS Plan. It is hoped that these new organisations will build on the extensive, effective and well established university-NHS partnerships that thrive all over the UK, at all levels of activity.

There will be a new model of community care as Primary Care Trusts establish themselves and focus their planning on local needs. This will lead to new educational contexts, although it is clear from the case studies in this report, that partnerships and joint programmes are already developing to address immediate priorities and develop linkages with social care as well.

It is hoped that with the new Social Work education programmes, new opportunities for collaboration between health and social care will arise, facilitating the development of the truly multi-professional healthcare team.

The NHSU is another opportunity to build on the university-NHS partnership, as it looks to the existing expertise and knowledge in UK universities to deliver its mission.

Universities do more than educate doctors and nurses. Universities are educating all types of healthcare professional, from health service managers through to laboratory technicians and occupational therapists. They also provide post-registration training for healthcare professionals and are developing foundation degrees to support existing and new roles for healthcare staff.

They are doing so in new ways to reflect the new look NHS, where working together and listening to patients are essential.

As this report shows, universities are key to ensuring the NHS really can offer a service fit for the 21st century.

#### Useful websites

##### Universities UK

[www.universitiesuk.ac.uk](http://www.universitiesuk.ac.uk)

##### Council of Deans

[www.councilofdeans.org.uk](http://www.councilofdeans.org.uk)

##### Standing Conference of Principals

[www.scop.ac.uk](http://www.scop.ac.uk)

##### Strategic Learning and Advisory Group for Health and Social Care (StLAR)

[www.dfes.gov.uk/stlar/](http://www.dfes.gov.uk/stlar/)

##### NHSU

[www.nhsuniversity.nhs.uk](http://www.nhsuniversity.nhs.uk)

##### Council of Heads of Medical Schools

[www.chms.ac.uk](http://www.chms.ac.uk)

##### Research Councils UK

[www.research-councils.ac.uk](http://www.research-councils.ac.uk)

##### Wellcome Trust

[www.wellcome.ac.uk](http://www.wellcome.ac.uk)

##### Institute for Learning and Teaching in Higher Education

[www.ilt.ac.uk](http://www.ilt.ac.uk)

##### Learning and Teaching Support Network – Centre for Health Sciences and Practice

[www.healthltsn.ac.uk](http://www.healthltsn.ac.uk)

##### Higher Education Funding Council for England

[www.hefce.ac.uk](http://www.hefce.ac.uk)

##### Scottish Funding Council

[www.sfc.ac.uk](http://www.sfc.ac.uk)

##### Welsh Funding Councils

[www.wfc.ac.uk](http://www.wfc.ac.uk)

##### NUS Online

[www.nusonline.co.uk](http://www.nusonline.co.uk)

##### Quality Assurance Agency for Higher Education

[www.qaa.ac.uk](http://www.qaa.ac.uk)

##### Universities and Colleges

##### Admissions System

[www.ucas.ac.uk](http://www.ucas.ac.uk)

##### General Medical Council

[www.gmc-uk.org](http://www.gmc-uk.org)

##### General Dental Council

[www.gdc-uk.org](http://www.gdc-uk.org)

##### General Social Care Council

[www.gsc.org.uk](http://www.gsc.org.uk)

##### Health Professions Council

[www.hpc-uk.org](http://www.hpc-uk.org)

##### Nursing and Midwifery Council

[www.nmc-uk.org](http://www.nmc-uk.org)

##### Royal Pharmaceutical Society of Great Britain

[www.rpsgb.org.uk](http://www.rpsgb.org.uk)

##### General Optical Council

[www.optical.org](http://www.optical.org)

##### Department of Health reform of social work

[www.doh.gov.uk/swqualification/overview.htm](http://www.doh.gov.uk/swqualification/overview.htm)

##### Department of Health common learning site

[www.doh.gov.uk/hrinthenhs/learning/section1by/leading4clsites.htm](http://www.doh.gov.uk/hrinthenhs/learning/section1by/leading4clsites.htm)

##### Department of Health learning and personal development division

[www.doh.gov.uk/hrinthenhs/learning/index.htm](http://www.doh.gov.uk/hrinthenhs/learning/index.htm)

##### Workforce Development Confederation's Standing Conference

[www.wdc.nhs.uk](http://www.wdc.nhs.uk)

##### Department of Health research and development

[www.doh.gov.uk/research/rd3/nhsrandd/rd3index.htm](http://www.doh.gov.uk/research/rd3/nhsrandd/rd3index.htm)

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**page 12** forensics: Ian M Spooner  
**page 13** Kevin Docherty: Stuart Wallace, The Sunday Times  
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