



The
University
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Sheffield.



ScHARR Report 2007-2009.

The School of Health and Related Research
University of Sheffield

ScHARR Report 2007–2009.

ScHARR
Report

The School of Health and Related Research University of Sheffield

ScHARR Report

August 2007 to August 2009

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Review:
August 2007
to August 2009



Above: Ron Akehurst, Dean of the School of Health & Related Research.

Once again, I have pleasure in introducing our report that is testimony to a wonderful research and teaching environment. My only regret is that this will be the last time I do it, as I will be stepping down as head of SchARR in July 2010, after setting it up seventeen years ago.

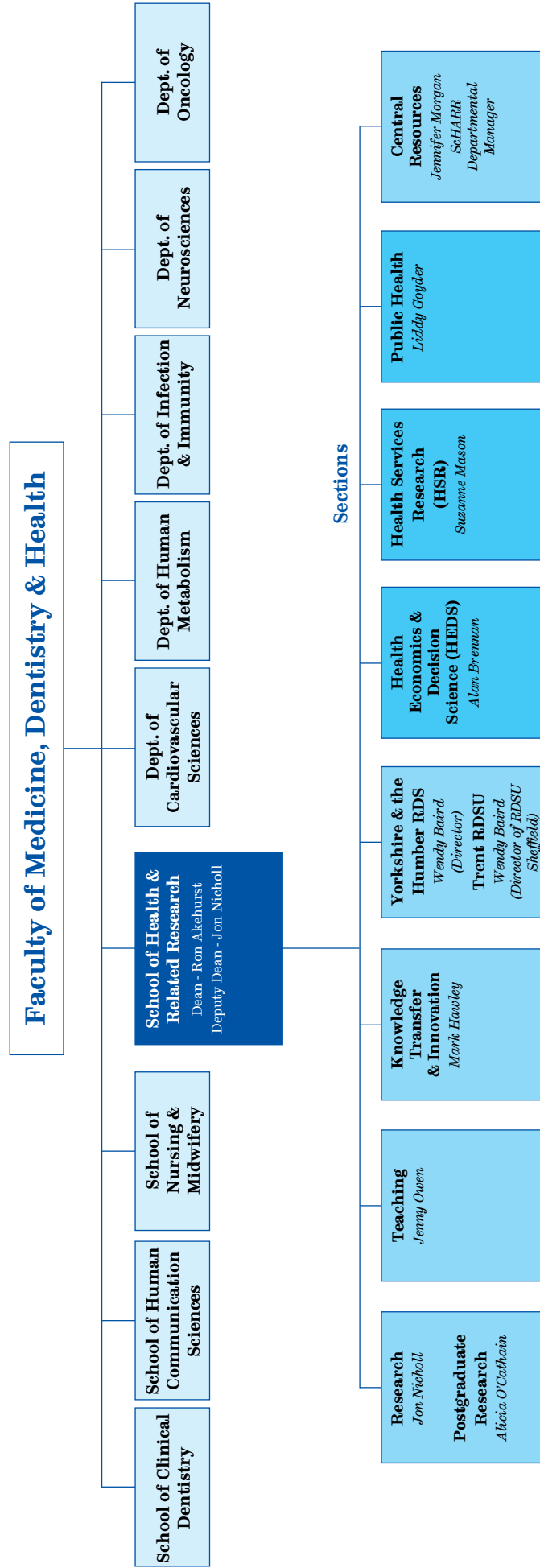
In my last introduction I reported the increase in volume of staff returned in the 2008 Research Audit Exercise (RAE) relative to that in 2001 and its consolidation into a single assessment panel (B7) for Health Service Research. We learned the result in December 2008 and the financial implication in May 2009. We came top of the "Research Power" tables in HSR and, as a consequence, received the largest allocation from the Higher Education Funding Council for England for HSR for any HEI, more than doubling our previous allocation. Grant income has grown strongly over the period and our post graduate teaching programme has expanded markedly while developing further in quality.

The reasons for our strong showing in the RAE are to be seen in the following pages. There is evidence of world class and internationally excellent research in all parts of the School. Our publication output in the best journals has continued to expand and so, importantly, our research has affected policy. We continue to strive to make a difference.

We have capitalized on the excellent environment for research and teaching in HSR we have enjoyed recently. More difficult times lie ahead, but we are well placed to meet them.

Professor R L Akehurst

The academic structure of the School of Health and Related Research in the Faculty of Medicine, Dentistry and Health



Preface

In the following pages we have tried to capture the essence of the activity of the School – how we are organised and what we do. No short report such as this can capture fully the wide range of endeavour, but in the following pages we have tried to reflect the kind of research we pursue; our teaching activities; our contribution to Government and policy at a national and local level and the activities of many talented individuals. In the final sections we set out the key statistics relating to the past years activities. They tell a story of growth built on considerable strengths.



Above: *The School of Health & Related Research, Regent Court, University of Sheffield.*

Major Programmes

Decision Modelling

Decision Modelling sits at the heart of the activities of the Health Economics and Decision Science (HEDS) Section. The aim is to undertake excellent modelling work, to publish in high quality journals, and to make a real difference to healthcare decision making across the world.

From August 2007 to August 2009, we have been involved in over 110 modelling related research and consultancy projects, with around £4 million funding. There are currently 25 staff directly involved in applied model development work to support health research and decision making, one of the largest healthcare decision modelling groups in the UK.

We undertake research, consultancy and training for clients including:

- Department of Health
- National Institute for Health and Clinical Excellence (NICE)
- National Institute for Health Research (NIHR)
- NIHR Evaluation, Trials and Studies Coordinating Centre (NETSCC)
- Research Councils (ESRC etc.)
- NHS Trusts and agencies
- Pharmaceutical Companies
- International government agencies

Over half of our work is collaborative with researchers from other areas including economic modelling alongside clinical trial programmes, systematic reviews and evidence synthesis.

We proactively seek out challenging projects to provide a laboratory for methodology development in the modelling discipline, whilst working in applied projects that make a real difference to decision makers in healthcare, especially in our work as part of ScHARR Technology Assessment Group (ScHARR-TAG) and Public Health Collaborating Centre (PHCC). Examples of modelling projects in the past two years that have a

significant impact on guidelines, health care policy, or commissioning include:

- Modelling the potential impact of pricing and promotion policies for alcohol in England using the Sheffield Alcohol Policy Model.
- Economic evaluation of early high dose lipid-lowering therapy to avoid cardiac events.
- Avoiding and identifying errors in health technology assessment models.
- The cost-effectiveness of a randomised controlled trial (RCT) to establish whether 5 or 10 years of bisphosphonate treatment is the better duration for women with a prior fracture.
- An RCT and cost-effectiveness analysis of antimicrobial silver antimicrobial dressings for venous leg ulcers.
- The clinical and cost-effectiveness of amantadine, oseltamivir and zanamivir for the prophylaxis of influenza.
- Autologous haematopoietic stem cell transplantation for secondary progressive multiple sclerosis: an exploratory cost-effectiveness analysis.
- Cost-effectiveness analysis of different embryo transfer strategies in England.
- Economic evaluation of taxanes for the adjuvant treatment of early breast cancer.
- Economic evaluation of non-pharmacological interventions to reduce the risk of diabetes in people with impaired glucose regulation.
- Modelling the cost effectiveness of interventions, strategies, programmes and policies to reduce the number of employees on sickness absence.
- Clinical and cost-effectiveness of spinal cord stimulation for chronic pain of neuropathic or ischaemic origin.
- Use of a Bayesian mixed treatment meta-analysis to support reimbursement decision-making of phosphate binder therapy in end-stage renal disease.

- Evaluation of the national infarct angioplasty project.
- NICE guideline on the management of rheumatoid arthritis in adults.
- Evaluation of colorectal cancer screening programme in England and Ireland.
- Cost-effectiveness assessment of positron emission tomography (PET) and magnetic resonance imaging (MRI) for the assessment of axillary lymph node metastases in breast cancer.

Table: List of Journals that we have publications in:

Health Economics
Medical Decision Making
British Journal of Surgery
Journal of Operational Research Society
Journal of Simulation
Health Technology Assessment
Value in Health
Addiction
Journal of Bone and Mineral Metabolism
Stroke
Bone Marrow Transplantation

Example 1: Sheffield Alcohol Policy Model

The effectiveness of increasing alcohol prices in reducing population level alcohol consumption and related harm is well supported by international empirical evidence. Policy makers need to consider how policies (e.g. a 40p per unit of alcohol minimum price) would reduce harms at the population level, but are also required to demonstrate proportionality of their actions, which necessitates a detailed understanding of policy effects on different population subgroups.

We have built a model to examine the impact of pricing policies on alcohol spending and consumption and hence on health, crime and workplace (absence and unemployment) harms. The model takes account of differential preferences by population subgroups defined by age, gender and level of drinking (moderate, hazardous, harmful). We consider purchasing preferences for beers, wines, spirits and alcopops, prices paid and the balance between bars/clubs/restaurants and supermarkets/off-licenses. The approach taken is more sophisticated than previous models, allowing estimates of effects by age, sex and level of drinking on beverage preferences, drinking location, prices paid, price sensitivity and tendency to substitute for other beverage types. Pricing policies vary in their impact on different product types, price points and venues, thus having distinctly different effects on population subgroups.



Sir Liam Donaldson, Chief Medical Officer for England, unveils alcohol minimum price recommendation in his 2008 Annual Report.

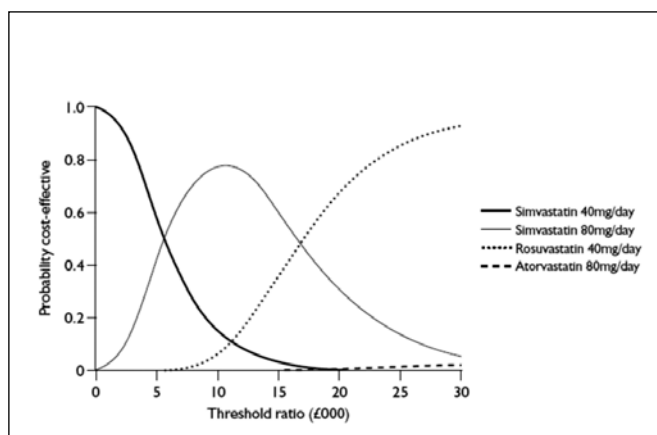
The initial research (funded by the Department of Health), which was associated with high-profile media coverage, had a significant impact on the national debate concerning whether to set a minimum price of alcohol in England. The model has been further developed within a programme of alcohol-related research. The ScHARR-Public Health Collaborating Centre used the model to further analyse a wider range of strategies and policies on behalf of the NICE Centre for Public Health Excellence. A separate project also funded by NICE used the model to estimate alcohol-related traffic injuries and deaths for England and Wales. The model has also been used with Scottish data on consumption, prices, health, crime and employment, to estimate the impact of proposed minimum pricing and off-trade discount ban policies in Scotland.

Example 2: Economic evaluation of early high dose lipid-lowering therapy to avoid cardiac events

Atherosclerotic cardiovascular disease (CVD) is a disorder of the heart and blood vessels, which can lead to cardiovascular events such as heart attack and stroke and is the most common cause of death in the UK (over 208,000 deaths in 2005). The objective of this research, which was funded by the National Coordinating Centre for Health Technology, was to evaluate the cost-effectiveness of high dose versus low dose lipid-lowering therapy in individuals to avoid cardiac events. Data relating to study design, baseline patient characteristics, clinical or surrogate outcome, and adverse events were extracted based on 28 trials. A synthesis of the available evidence was performed using a Bayesian mixed treatment meta-analysis using both direct and indirect evidence. A Markov model was built to explore the costs and benefits associated with a lifetime of the differing treatment regimens.

The model results suggest that simvastatin 80 mg/day should not be recommended because of the high incidence rates of adverse events. If the cost of atorvastatin decreases in line with that observed for simvastatin when the patent ends in 2011, atorvastatin

80 mg/day would be the most cost-effective treatment. If the cost reduces to 25% of the current value, atorvastatin 80 mg/day will be the most cost-effective treatment for thresholds between £5000 and £30,000 per QALY. Model results recommend that large long-term studies reporting effects in terms of clinical events are required to determine the optimum use for subgroups. The recommendations from the research project have a potentially significant impact on clinical guidelines because the model results indicate that currently sub-optimal treatments are prescribed to patients with acute coronary syndrome.



Cost-effectiveness acceptability curve

Modelling of cancer screening, diagnosis and treatment

There has been a stream of modelling projects related to screening, diagnosis and treatment of various cancers. These include a decision model to evaluate the cost effectiveness of population-based colorectal cancer screening programme in Ireland; a model to assess the cost-effectiveness and capacity impact of changes to colposcopy referral guidelines for women with mild dyskaryosis in the UK cervical screening programme; and an on-going project examining the cost effectiveness of screening for prostate cancer in England.

In terms of cancer diagnosis and treatment, we undertook work on a Markov model to examine the cost effectiveness of taxanes for the adjuvant treatment of early breast cancer, which was referenced in the NICE guidelines for the diagnosis and treatment of early and locally advanced breast cancer. Further work was generated from this research including the evaluation of PET and MRI for the assessment of axillary lymph node metastases in breast cancer and additional collaboration with Sheffield Hallamshire Hospital. PhD fellowship projects have included the Bayesian calibration of a natural history model for breast cancer and the use of cancer service simulation modelling to inform clinical policy and resource allocation decisions.

MSc and PhD programme

The MSc in Health Economics and Decision Modelling, which was launched in 2009, is specifically designed to produce professional level health economics modellers in response to the enormous growth in demand. We have an expanding programme of PhD's in decision modelling with students funded through MRC, ESRC, and other organisations.

Areas of recent and ongoing methodological development include

- The use of survival analysis and decision modelling in economic evaluations of advanced cancer treatments.
- Bayesian calibration of a natural history model for colorectal cancer.
- Methodological issues in modelling correlations in diagnostic tests, a case study of liver fibrosis.
- Populating an economic model with health state utility values: moving towards better practice.



Suzanne Mason,
Professor in Emergency Medicine

ScHARR has the leading academic emergency medicine unit in the country. The collaboration between the Sheffield Teaching Hospitals NHS Foundation Trust Emergency Department and the Section of Health Services Research at ScHARR now involves a Professor, Reader, two Clinical Lecturers, four Academic Clinical Fellows and an Academic Foundation Year 2 doctor. Emergency care in ScHARR has attracted over £4million of grant income in the last four years and published internationally important research. Other strong clinical collaborative links exist between the academic emergency care unit and the wider NHS such as the Yorkshire Ambulance Service.

Research interests span the pre-hospital, community, emergency department and acute hospital settings. Most of the studies undertaken involve the evaluation of the costs and consequences of new technologies and evaluating complex interventions such as the impact of new services, organisations or workforces. The unit relies heavily on the support and enthusiasm of NHS colleagues in delivering research projects across multiple clinical and organisational boundaries.

A wide range of research methods reflects the range of issues that need to be addressed to deliver high quality evidence based emergency care. Research methods include single-centre and multi-centre clinical trials, cluster trials, observational studies, organisational evaluations, qualitative research, metaanalysis, modelling and cost-effectiveness analysis. As a result strong academic collaborations have developed both within and beyond ScHARR at the University of Sheffield including the Institute of Work Psychology. These collaborations also extend to other academic institutions nationally and internationally. Currently projects are ongoing with academic colleagues in Australia, Hong Kong, Canada and the United States of America. In addition, collaboration with other UK academic centres of emergency medicine and health

services research include the universities of Edinburgh, Bristol, Leicester, Swansea, Warwick and Manchester.

Clinical academic training is provided at all levels of medical career progression. The academic unit has an excellent track record in hosting medical student modules alongside established projects, one-year intercalated BMedSci degrees, foundation year attachments and full-time MD/PhD research fellowships. The academic unit has been successful in attracting NCCRD funding for both academic clinical fellow posts (ST1-3) and clinical lecturer posts (ST 4-6) in emergency medicine. It is anticipated that these appointments will strengthen our research portfolio and activity and encourage the development of academic emergency medicine within the UK and internationally.

Academic emergency medicine has been supported by funding from a variety of sources including the Medical Research Council, Health Foundation, Department of Health, NIHR Service Delivery and Organisation (SDO) and NIHR Health Technology Assessment (HTA) Programmes, UK College of Emergency Medicine, University of Sheffield (HEFCE), Sheffield Teaching Hospitals Foundation NHS Trust and the UK Clinical Research Collaboration.

Currently funded research includes:

1. The PAINTED study: Pandemic Influenza Triage in the Emergency Department (NIHR HTA)
2. The EDiT Study. National evaluation of junior doctor training in emergency departments (NIHR SDO).
3. The DAVROS Study: Development and validation of risk-adjusted outcomes for systems of emergency care (MRC).
4. The RATPAC Trial: Randomised assessment of treatment using panel assay of cardiac markers (NIHR HTA).
5. The 3Mg Trial of intravenous or nebulised magnesium sulphate in acute severe asthma (NIHR HTA).
6. Cost-effectiveness of diagnostic strategies for minor head injury (NIHR HTA)
7. SAFER 2 Trial. Care of older people who fall: evaluation of the clinical and cost-effectiveness of new protocols for emergency ambulance paramedics to assess and refer to appropriate community based care. (NIHR HTA)
8. SAFETIME Study: Impact of time targets on quality of Accident & Emergency Department care. (BUPA Foundation)
9. Evaluation of community veterans mental health pilots. (Ministry of Defence)

10 Violence towards staff in the ED. (UK College of Emergency Medicine)

Recent major research includes:

1. Evaluation of the National Infarct Angioplasty Pilots (NIHR SDO).
2. PPOPS: RCT of paramedic practitioners (The Health Foundation).
3. The ESCAPE multi-centre trial of chest pain units in the NHS (NIHR SDO).
4. The 3CPO trial of CPAP, BiPAP and standard therapy for cardiogenic pulmonary oedema (in collaboration with Edinburgh Royal Infirmary) (NIHR HTA).
5. Evaluation of the psychological impact of injury (College of Emergency Medicine).
6. Systematic review, meta-analysis and cost-effectiveness analysis of diagnostic tests for DVT (NIHR HTA).
7. UWAIT: A national investigation into the effect of organisational factors upon waiting times (NIHR SDO).
8. NEECaP. A Community Intervention Trial to Evaluate the Clinical and Cost Effectiveness of Emergency Care Practitioners (NIHR SDO)

Looking Ahead

The long-term strategic aim of the academic emergency care unit is to establish an academic centre for emergency medicine. This will facilitate the continued development of our national and international reputation through undertaking research that contributes to improving the delivery of excellent evidence based patient care in our specialty. Current developments in NHS R&D funding, outlined in “Best Research for Best Health”, and in promoting clinical academia offer outstanding opportunities to further develop academic emergency medicine in Sheffield.

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Above: Cindy Cooper,
Director of Clinical Trials Research Unit

Introduction

Sheffield Clinical Trials Research Unit (CTRU) was set up to provide high quality methodological, process and implementation support to clinical trialists. The Unit has expanded rapidly resulting in a team with extensive experience in study design and delivery. We collaborate closely with the Medical Care Research Unit, the Medical Statistics Group and Health Economics and Decision Science.

Work Areas

Our key areas of work fall into four main categories: study design and proposal development; trial management and implementation; data management and statistical analysis; and, randomisation. We frequently work in full collaboration with investigators, taking responsibility for all aspects of trial implementation, but can provide isolated services such as data management or randomisation. A strength of the unit is quality assurance, ensuring that investigators are aware of and compliant with rapidly changing regulatory frameworks governing the implementation of clinical trials. In this way, we provide comprehensive support to academic and NHS investigators.

1. Proposal development

Over 2008 and 2009, we have experienced a significant increase in the demand for assistance in the development of research proposals to grant awarding bodies, in particular to the HTA (Health Technology Assessment) and other NIHR (National Institute for Health Research) programmes. CTRU coordinates the input of the methodological expertise required in the preparation of research grant applications, the collation of CVs and the detailed cost estimates from partner organisations. In 2009 alone the CTRU has collaborated on 13 outline NETSCC (NIHR Evaluation, Trials and Studies Coordinating Centre) grant submissions. Of these, seven outlines were short-listed and one is still under review. Of six full NETSCC submissions this year two have been successful so far and 2 are still under review.

2. Trial management and implementation

Where Chief investigators appoint their own trial manager the CTRU can provide on-going advice on trial implementation and meeting regulatory requirements. This level of support is being provided to two trials funded through the Research for Patient Benefit (RfPB) Programme: CoPE (Corn Plaster Evaluation Study) and CACTUS (Evaluating cost effectiveness of computer therapy compared with usual stimulation for people with long standing aphasia: a feasibility study).

Alternatively, the CTRU can take full responsibility for the conduct and implementation of a study, as is the case for the HTA funded 3Mg (Intravenous Magnesium Sulphate), RATPAC (Randomised Assessment of Treatment using Panel Assay of Cardiac markers) and Booster (Randomised Controlled Trial of “booster” interventions to sustain physical activity) trials. In such a case, dedicated CTRU study managers co-ordinate applications for regulatory approval and undertake staff training, site set up, promotion and site monitoring. Trial oversight committees ensure patient

safety and collection of scientifically credible data. Full data management and statistical support is provided from study inception to close out.

We also welcome involvement with studies as a participating site. In REEACT (a Randomised Evaluation of the Effectiveness and acceptability of Computerised Therapy), we currently co-ordinate a study centre on behalf of York Trials Unit.

3. Data Management

We have recently recruited experienced data managers from industry to help us provide a more comprehensive service, including:

- Case Report Form (CRF) design;
- Data Management and Monitoring Protocol (DMMP) development;
- Database design and development;
- Multi-layered data validation (point-of-entry checks, data verification, batch validation reporting); and,
- Data quality and status reporting.

Central to the data management processes is 'Prospect', our in-house data capture system. This has been developed in collaboration with epiGenesys, a University of Sheffield startup company which specialises in producing bespoke software, database design and dynamic web development. Prospect offers the following key features:

- Flexible web-based data collection, accessible from anywhere with an internet connection
- Comprehensive privileges permit users access only to relevant information
- Encrypted data transmissions ensure safety and security is maintained
- Audit trail records any modifications to the data
- Built-in validation and verification enforce a high standard of data quality

Prospect is in use for a number of our studies including DAVROS, 3Mg, RATPAC, Booster, CoPE, Trio and Painted.

Some of our collaborators require only data management and / or statistical support for instance TABUL (a trial of ultrasound compared to biopsy of temporal arteries in the diagnosis of the treatment of giant cell arteritis) and NEST 2 (Naturalistic study of the short term course of non Epileptic Seizures after communication of the diagnosis). We are also providing data management for the development of a South Yorkshire cohort intended to facilitate recruitment to future trials in the area of obesity reduction.

4. Randomisation service

A custom built, web-based randomisation system has been developed in partnership with epiGenesys. The system allows study sites the option of a 24 hour web-based or telephone randomisation. Security is maintained through password protection and assigning specific functions to different individuals depending on their need to see specific data.

5. QA and Standard Operating Procedures (SOPs)

The University of Sheffield's Research Office frequently acts a 'sponsor', in the technical sense of a person or organisation that takes on ultimate responsibility for the initiation and management of a research study. The CTRU acts as a delegate of the University Research Office in fulfilling its statutory responsibilities: to implement and maintain quality assurance and quality control systems with written Standard Operating Procedures (SOPs) to ensure that trials are conducted and data are generated, documented, and reported in compliance with the protocol, Good Clinical Practice, and the applicable regulatory requirements. Our SOPs are also used by non-University research sponsors in some collaborations.

SOPs have been categorised into the key areas of support we provide:

- Data management
- Statistics
- Project Management
- Study Governance and set up
- Quality Assurance
- Information services
- Regulatory approvals

A full list of our SOPs can be found on our website:

<http://www.shef.ac.uk/ctru/sops.html>

Other Activities

Methodological research

Alongside supporting clinical trials, we are beginning to develop research in two areas of clinical trials methodology. One concerns the projection of recruitment accrual at the study design phase. Many clinical trials in the UK do not achieve their sample size in the allotted time and funding. If the target sample size is never achieved, results will be less reliable. To help researchers plan recruitment more realistically, the CTRU is undertaking qualitative research to record the experiences and views of trialists working in emergency medicine and health services.

Our other area of methods research relates to the functions, design, and conduct of pilot and feasibility studies. We aim to clarify existing terminology, identify the important components and make recommendations for reporting standards in such studies.

SSM Conference

In spring 2009, the CTRU hosted the Society for Social Medicine (SSM) conference in Sheffield. Sessions focused on randomised controlled trials in public health and health services research and it was attended by around 70 candidates from across the country. The conference not only provided an opportunity to discuss and share best research practice but also to showcase some of the work that we are involved with.

Plenary and workshop sessions were attended with a range of topics some of which are highlighted below:

- Trials of complex interventions in a complex environment
- Issues in Non-Inferiority Trials
- Avoiding Biases in Randomised Trials
- Trials and Tribulations: Towards better design and practice in psychological therapy trials

Feedback obtained was positive with delegates stating:

“Good for this to be a regular event” and “I thought the content was excellent and well presented!” Opportunity was provided for researchers to network and build new links with other researchers which may result in closer collaborative working across the group.



Measuring health and well-being for economic evaluation

This programme is concerned with the development and testing of different methods for measuring and valuing the impacts of interventions on health and well-being for use in economic evaluation.

Overview of programme

The last two decades have seen an increasing use of economic evaluation to inform resource allocation in health care systems around the world (e.g. NICE). A core issue for economic evaluation is the way the benefits of health care are measured and valued. A widely used technique of economic evaluation in health care has been cost effectiveness analysis using Quality Adjusted Life Years (QALYs) to assess effectiveness in units that are comparable across health care interventions. Commonly used methods for

putting the 'Q' into the QALY are generic preference-based measures of health, such as the EQ-5D, SF-6D (developed in ScHARR) and the HUI3. These generic measures have been adopted by agencies such as NICE to populate their models of the cost-effectiveness of interventions.

This programme of research is composed of various related projects funded from a range of sources; including: MRC, NIHR and Pharmaceutical companies. The overall aim of the programme is to address the key questions of what should be valued (e.g. health or broader notions of well-being); how health and well-being should be described; how health and well-being should be valued; who should do the valuing and how to develop new measures. The programme is summarised in Box 1.

Box 1. Measuring Health and Well-Being Programme - an Overview

Topic	Research
Generic programme-based measures	International valuation of SF-6D (incl. China, Portugal, Brazil and Australia)
Assessing appropriateness of generic measures in different conditions	Mixed methods studies into the validity of EQ-5D and SF-6D in mental health and diabetes
What to do when generic measures are not available	Map health status measures onto generic preference-based measures (e.g. mental health, vision, hearing)
What should be done if generic measures are not appropriate?	Mixed methods for developing new instruments (including in-depth interviews with patients)(e.g. children, amblyopia, leg ulcers)
	Develop measures from existing instruments using psychometric methods to select items for generating health states (e.g. EORTC QLQ-C30, DemQoL, DHP-18)
Valuation methods	Develop the lead time TTO and using ordinal data to value health states (Ranking, DCE)
	Application of Bayesian methods used to model preference data
Whose values	Comparisons of general population and patient values
	Developing better informed general population programmes
Health and well-being	Micro-studies of patients experiencing change

Generic preference-based measures of health

Following on from the development of the SF-6D (published 2002), research has continued with the replication of this work in countries around the world (China, Japan, Portugal, Brazil, Australia and Singapore). There is collaboration with researchers at Boston University to examine its use in the US health care system. The Sheffield team has also been pursuing new methods for analyzing preference data, including the use of Bayesian methods.

Reviewing the appropriateness of generic measures

Health economists have often favoured generic measures in order to allow cross programme comparison, however this pre-supposes that they are valid and responsive in all groups of patients. We are undertaking a number of reviews of the validity of generic measures in vision, mental health, diabetes and cancer.

What to do when generic measures are not available

Many pivotal studies of new health care interventions do not use one of the generic preference-based measures due to concerns about patient burden or validity, but other non-preference based measures of health (e.g. condition specific measures). One solution to this problem is to estimate functions that 'map' or 'cross-walk' condition specific measures onto a generic preference-based measure. Research at ScHARR has critically reviewed these methods and examined the policy implications of errors in these models. A team at ScHARR also has just completed a research project for MRC examining a new method for mapping based on using preference data.

Development of specific preference-based measures of health

Where generic measures are not regarded as appropriate, then the alternative is to develop a specific measure more relevant to the condition. This can involve either developing new measures from scratch or modifying an existing non-preference based measure for this purpose. Staff at ScHARR have developed measures from scratch for children and people with leg ulcers, and are currently working on a measure for children with Amblyopia. A mixed methods approach including in-depth interviews with patients and psychometric testing has been used to develop the health states.

To make the most of available evidence, a better strategy might be to develop a preference-based measure from an existing and widely accepted condition specific measure. We are currently working on developing preference-based measures in dementia, cancer and mental health and have completed measures in asthma, overactive bladder and incontinence. This work has involved the application of a range of psychometric methods (i.e. Rasch analysis) to derive health state classifications and then surveys to obtain general population values for calculating QALYs. Last year we also obtained a grant from MRC to examine the methodological issues in developing condition specific preference-based measures.

Valuation techniques

Conventional techniques for valuing health states have been Time Trade-Off (TTO), Standard Gamble (SG) and Visual Analogue Scaling (VAS). There are concerns that TTO and SG especially are too complex in vulnerable groups and that the values generated may be distorted by extraneous factors such as time preference and loss aversion that making it difficult to ascertain the value for health per se for calculating QALYs. For this reason we have been looking at the use of ordinal methods, such as ranking and Discrete Choice Experiments (DCE), for valuing health states in this programme. The key contribution has been to develop methods for valuing health states on the full health-dead scale required for calculating QALYs. There have also been concerns with the way states worse than dead are handled in conventional TTO and we have been involved in the development and testing of a new 'lead time' TTO.

Whose values?

Our work has provided further evidence that the values put on health states by members of the general public and patients diverge. The more original contribution has been to show that people experiencing the state (e.g. patients) place a different weight on the dimensions of health to members of the general public trying to imagine what the state is like. One finding, for example, has been that people in the states place a higher relative value on mental health compared to physical health.

The divergence between patient and general public values has been explained in terms of adjustment and coping mechanisms, at least to physical health problems. A PhD has recently been completed exploring the impact on health state values of providing better information to general population respondents on these processes.

Health or well-being?

An important question is whether the NHS should be primarily concerned with promoting health, or some broader notion of well-being. We are collaborating in the development of broader measures, including a preference-based measure of capability (ICECAP) and a measure for social care (OSCAR). We have also examined the relationship between health and broader measures of well-being in a micro-study of patients experiencing health change using mixed methods research. Future work will include the development of a well-being scale that can be used to calculate QALYs.

SCHARR is a major partner in the University Centre for Health and Well-being in Public Policy that focuses beyond conventional health and encourages collaboration between departments in the University in this exciting area of public policy research.



Public projects currently funded:

Use of generic and condition specific measures in NICE decision making

Medical Research Council

Validating generic preference-based measures of health in mental health populations and estimating mapping functions for widely used specific measures

Medical Research Council

Health economic evaluations in epilepsy: developing a preference-based outcome measure

Epilepsy Research UK

Development and testing of methods for deriving preference-based measures from condition specific measures

National Institute of Health Research (NIHR) Health Technology Assessment (HTA) Methods Programme

Generation of preference-based measures from the DEMQoL and DEMQoL proxy for use in economic evaluation

NIHR HTA Methods Programme

Developing a broader measure for economic evaluation

MRC

Developing a preference-based method for mapping between (preference-based) measures of health and quality of life

MRC Methodology and Implementation Programme

Since its inception ScHARR has been involved in research supporting health care decision makers. ScHARR undertakes a large programme of research in support of the National Institute for Health and Clinical Excellence (NICE) to inform guidance on the safety, efficacy and cost-effectiveness of the treatments in the NHS.

Two main programmes of work for NICE within ScHARR cover technology appraisals, undertaken by the ScHARR Technology Assessment Group (ScHARR-TAG), and methodological and capacity support through the NICE Decision Support Unit (DSU). The work is guided by three key elements:

1. To deliver on time scientifically rigorous reviews of clinical and cost-effectiveness which are relevant to the needs of NICE guidance and of the NICE appraisal function.
2. To conduct research within a framework of standards and systems and in the spirit of relevance, high quality science and governance.
3. To be innovative and flexible to further the science of decision-taking and to meet the wider and evolving needs of NICE and NHS research and development.

ScHARR-TAG (Principal Investigators: Professor Ron Akehurst, Dr Eva Kaltenthaler, Dr Matt Stevenson)

ScHARR-TAG is contracted by the Department of Health to provide a total of seven Technology Assessment Report units annually to NICE. This programme of work began in 2001 and the contract has recently been extended through March 2016. Work for NICE includes supporting their Multiple Technology Appraisal (MTA) process through the production of Technology Assessment Reports (TARs) and their single technology appraisal (STA) process with the production of Evidence Review Group Reports (ERGs). ScHARR-TAG continues to undertake methodological work to support both the NICE TAR and STA processes. Current research includes the development of appraisal methods for the NICE diagnostic programme, avoiding and identifying model errors in technology appraisals and the critical appraisal of manufacturer submissions for the NICE STA process.

In addition to the work for NICE, ScHARR-TAG also undertakes work for the NIHR Evaluation, Trials and Studies Coordinating Centre (NETSCC) programme in the form of TARs and short reports.

In fulfilling the contract ScHARR-TAG has a core team of 23 researchers, represented by cost effectiveness modellers, systematic reviewers, information specialists, health economists, statisticians and project administrators. The group also exploits a wider pool of research and clinical expertise through its strong links with the NHS, including large, local teaching hospitals, providing a collaborative network of clinical expertise. ScHARR-TAG draws on the wide ranging disciplinary research expertise of ScHARR to optimise the multidisciplinary mix of skills for each review.

Current disease areas where ScHARR-TAG has an ongoing programme of research are:

- Cardiovascular disease
- Osteoporosis
- Prostate cancer
- Breast cancer

The work undertaken by ScHARR-TAG underpins the decision making process of the NICE appraisal committees and has a major impact on health policy in the UK as well as considerable influence on the development of health policy internationally. Our TARs are among the top downloaded journals on the NETSCC website including:

- Statins for the prevention of coronary events Health Technology Assessment 11(14) with 35,621 downloads during January-July 2009.
- Amantadine, oseltamivir and zanamivir for the prophylaxis of influenza Health Technology Assessment 13(11) with 16,620 downloads during July-September 2009.

ScHARR-TAG work programme:

Box 1 shows some examples from our work programme including current projects and those completed within the past two years.

Box 1 ScHARR-TAG Work Programme

NICE Technology Assessment Reports

- Non-invasive diagnostic tests for the detection of liver fibrosis in primary care for patients with suspected alcohol related liver disease.
- Cilostazol, naftidrofuryl oxalate, pentoxifylline and inositol nicotinate for the treatment of intermittent claudication in people with peripheral arterial disease (PAD)

NICE Evidence Review Group reports

- Trabectedin for the treatment of advanced metastatic soft tissue sarcoma
- Mifamurtide for osteosarcoma
- Bevacizumab in combination with oxaliplatin and either 5FU or capecitabine for the treatment of metastatic colorectal cancer
- Rivaroxaban for the prevention of venous thromboembolism after total hip or total knee replacement in adults
- Febuxostat for the management of hyperuricaemia in people with gout.
- Dabigatran etexilate for the prevention of venous thromboembolism after hip or knee replacement surgery in adults.

NETSCC TARs

- Routine echocardiographic examination in the management of stroke/TIA
- Echocardiography in newly diagnosed atrial fibrillation patients
- The role of enhanced imaging techniques in the assessment of axillary lymph node metastases
- Intensity modulated radiotherapy for treatment of prostate cancer

NETSCC short reports

- The clinical effectiveness and safety of prophylactic retinal interventions to reduce the risk of retinal detachment and subsequent vision loss in adults and children with Stickler syndrome
- Critical Appraisal of Manufacturer Submissions for the NICE STA Process
- Avoiding and identifying errors in health technology assessment models
- Early high-dose lipid-lowering therapy to avoid cardiac events: a systematic review and economic evaluation

ScHARR-TAG is part of a wider collaboration with six units from other regions. The other units are:

- Southampton Health Technology Assessment Centre, University of Southampton;
- Aberdeen Health Technology Assessment Group, University of Aberdeen;
- Liverpool Reviews & Implementation Group, University of Liverpool;
- Peninsula Technology Assessment Group, University of Exeter;
- NHS Centre for Reviews and Dissemination, University of York; and
- West Midlands Health Technology Assessment Collaboration, University of Birmingham.

One member of ScHARR-TAG is currently undertaking a fellowship:

- Mr Paul Tappenden was recently awarded a three year fellowship under the Department of Health Researcher Development Awards scheme. The fellowship entitled “The use of cancer service simulation modelling to inform clinical policy and resource allocation decisions”, will involve the use of simulation techniques to model “the bigger picture” rather than individual segments of the pathway of care (i.e. from presentation through to referral, diagnosis, treatment, follow-up, recurrence, palliative care and eventual death). The project is intended to support consistent decision-making in investment in novel technologies, services and future research across entire cancer services.

More information about ScHARR-TAG can be found on our website: <http://www.sheffield.ac.uk/scharr/sections/heds/collaborations/scharr-tag/index.html>

Decision Support Unit

In April 2003, the National Institute for Health and Clinical Excellence (NICE) recognised the leading position of ScHARR in the field of decision support research, when it commissioned us to establish the NICE Decision Support Unit (DSU). We have since successfully tendered for a new contract that extends finding until 2012 and been awarded an additional increase in funds in 2009 to match the expansion of the NICE technology appraisals programme.

The DSU is based in Health Economics and Decision Science at ScHARR with partners at the Centre for Health Economics at the University of York, and the Department of Epidemiology and Public Health at the University of Leicester. There are additional collaborations with the Department of Probability and Statistics in Sheffield, and other academics at Bristol, Brunel and the London School of Hygiene and Tropical Medicine. A core management group of four academics is responsible for the day to day activities of the unit, with a broader network of academics involved in DSU activities (See Box 2).

The remit of the DSU consists of three streams of activity. The first and largest stream of activity is rapid, responsive analytical support to the NICE Technology Appraisal Programme. Where the analyses provided to the Appraisal Committee in the assessment reports and stakeholder submissions are insufficient to support a decision, the Appraisal Committee can request further focused research from the DSU. The DSU has provided substantive input to more than 20 appraisals, spanning a broad range of disease areas, technical problems and time scales. In some cases the lead times for these projects is less than one week.

The second stream of activity is the development of the methodology for the health technology assessment and appraisal. The DSU played a central role in the development of the NICE Methods Guides in 2004 and again in 2008 and published a series of related papers. DSU is a major contributor to feasibility studies and reports on NICE processes. In collaboration with researchers at the University of York, we undertook a feasibility study of the application of Expected Value of Information methods within the NICE Appraisal Programme. The presentation of the results of this study can be downloaded from the WRIHTA website.¹ In addition, we have conducted feasibility studies into the application of the standard appraisal methods to treatments for extremely rare diseases; often called ‘ultra-orphan’ drugs, and for computerised decision support systems. We conducted an evaluation of the new rapid appraisal process (Single Technology Appraisal) introduced by NICE to evaluate single technologies at or close to license and have conducted a review of software for decision modelling. We have also provided expert technical advice to NICE in their discussions with companies with specific drugs in development with the aim of improving trial design.

The final stream of DSU activity is training in the methods of health technology appraisal. To date the DSU has provided training to the Appraisal Committee, members of the NICE Technical Team, researchers at Technology Assessment Groups, and industry via the Association of British Pharmaceutical Industry (ABPI).

DSU has been involved in a number of important and innovative projects and maintains a key role in supporting the NICE technology appraisals process. Through these projects the DSU has facilitated the development of research collaborations with other research centres at home and abroad. With each project we are extending the network of research collaborators who share ScHARR’s commitment to providing the best possible evidence base to health care decision makers.

1. <http://www.shef.ac.uk/scharr/sections/heds/collaborations/wrihta.html>

Box 2: Academics involved in the DSU work programme

University of Sheffield

Dr Allan Wailoo (Director)
Mr Jon Tosh
Professor Ron Akehurst
Dr Matt Stevenson
Professor Alan Brennan
Mr John Stevens
Professor John Brazier
Dr Jeremy Oakley

University of York

Professor Karl Claxton
Mr Stephen Palmer
Professor Mark Sculpher

University of Leicester

Professor Keith Abrams
Dr Nicola Cooper
Professor Alex Sutton

Others

Professor Tony Ades
Dr Alec Miners
Dr Louise Longworth

ReBiP

ScHARR also houses the **Review Body for Interventional Procedures (ReBiP)** which carries out reviews of the safety and efficacy of new interventional procedures on behalf of the Interventional Procedures Advisory Committee (IPAC) of NICE. ReBiP is a collaboration between ScHARR and the University of Aberdeen; the contract for the review body, which started in 2003, has recently been renewed for a further period until 2012.

ReBiP is contracted to provide four standard systematic reviews a year to NICE. These provide background evidence to enable IPAC to offer guidance on whether procedures should be used in the NHS, and under what arrangements. These reviews have included topics such as laser revascularisation for refractory angina pectoris, and robotic or computer assisted surgery. Moreover, the last two years have seen further developments in the work of ReBiP. We were commissioned to undertake pilot work using NICE methods of evidence synthesis in the field of patient safety. Working closely with NICE and the Patient Safety Agency, the group prepared clinical and cost effectiveness reviews relating to interventions aimed at preventing medication error (medicines reconciliation) at hospital admission, and the prevention of ventilator-associated pneumonia in adults. The draft guidance from the Patient Safety Committee has now been released for public consultation.

Public Health Collaborating Centre (Principal Investigators: Professor Liddy Goyder, Professor Ron Akehurst, Mr Jim Chilcott)

Historically Public Health has delivered some of the most wide reaching improvements in population health. However, getting the right balance in investment in upstream and downstream interventions remains one of the trickiest issues facing healthcare funders today.

Public health interventions tend to be complex interventions in content and setting. Generating evidence of effect is a challenging enterprise. Difficulties in intervention evaluation are exacerbated by the absence of pharmaceutical scale investment in research, development and marketing. Thus public health evidence is frequently absent, patchy and of poor quality. There is increasing focus on ensuring health policy is rigorously evidence based. This creates the danger that Public Health becomes inappropriately disadvantaged to high cost, low impact, but well researched interventions.

The Centre for Public Health Excellence (CPHE) at NICE issues guidance to public health professionals and practitioners and others with a direct or indirect role in public health within the NHS, local authorities, voluntary, community and private sectors aimed at enabling them to achieve the targets set out in the 2004 white paper 'Choosing Health: making healthy choices easier'. ScHARR is home to one of the two Public Health Collaborating Centres (PHCC) in England that support the CPHE in achieving this work. The Public Health Collaborating Centres work closely with public

health colleagues in NICE to produce evidence reviews, economic appraisals and other evidence based products to support the development of guidance by the public health advisory committees of NICE.

The ScHARR–PHCC was established in May 2008 following a national competitive tendering exercise. Feedback obtained from NICE indicated that the successful bid was underpinned by ScHARR's; particular strengths in evidence reviewing, meta analysis and economic decision modelling and its perspective on public health; its knowledge of methods, processes and methodology for supporting national policy making and its tried and tested experience in quality assurance and programme management.

The ScHARR–PHCC is a multidisciplinary organisation within ScHARR involving 28 researchers including mathematical modellers, health economists, quantitative and qualitative systematic reviewers, information specialists and public health specialists. The centre is directed by Liddy Goyder and Jim Chilcott with Nick Payne and Suzy Paisley Associate Directors. The Centre has already been designated a "National Treasure" by the Faculty of Public Health. This designation enables public health trainees from other regions to take advantage of the unique training opportunities provided by the Collaborating Centre in gaining exposure to the process of development and implementation of national public health guidance. Experience covering both the definition of public health decision problems, through development of NICE scopes and research protocols, and undertaking reviews of the evidence and development of economic assessments.



The Centre has contributed international conference presentations focussing on methodological research including an invited keynote talk to the Euro Working Group Multiple Criteria Decision Aiding conference in Canada, and a presentation to The Cochrane Colloquium in Singapore.

Work programme

Two types of project are undertaken: programmes and interventions. Programmes are undertaken over an 18 month period and focus on broad areas of public health concern and consist of a series of reviews across several aspects of that programme. Interventions, by contrast, last 6-8 months and are intended to focus on the assessment of specific public health initiatives. Strong themes for the ScHARR-PHCC work programme are emerging in public health services for children, diabetes/obesity and pregnancy, the full ScHARR-PHCC work programme is detailed in Box 1.

Box 1 ScHARR-PHCC Work Programme

Programmes	
Prevention and early identification of alcohol use disorders	Completed
Physical and emotional health and wellbeing of looked after children	Coming soon
Contraceptive services for socially disadvantaged young people	Coming soon
Prevention of pre-diabetes among high-risk groups	On going
Prevention of type 2 diabetes	Starting 2010
Interventions	
Emotional and social well-being of young people in secondary education	Completed
Promoting well-being at work	Completed
Weight management in pregnancy	Completed
Quitting smoking in pregnancy	Coming soon
Weight management after childbirth	Coming soon

Case study 1 – Contraceptive services for socially disadvantaged young people

This programme guidance examined the provision of contraceptive services for socially disadvantaged young people. The key research questions were: what is the effectiveness and cost effectiveness of interventions to encourage young people, especially socially disadvantaged young people, to use contraceptives and contraceptive services?; what are socially disadvantaged young people and their families' perceptions and relevant service providers, views and beliefs about contraception and contraceptive services?

After a comprehensive mapping review, the evidence of effectiveness was grouped to inform three major evidence reviews: services provided in educational settings; services provided in health settings; services provided in the community settings, with the majority of the evidence emerging from the USA. Examples of effective interventions include: intensive case management to prevent repeat teenage pregnancies; school-based direct provision of contraception; and advanced provision of emergency hormonal contraception. More UK-based evidence was however found to inform a further review of qualitative and quantitative evidence which examined the views of young people and relevant others about contraceptive service provision. A pioneering approach to combine evidence from effectiveness and views was developed.

Health economic evidence for the cost-effective of these services was very scarce, but an innovative health-economic model was developed around components of the effectiveness evidence. School-based contraceptive provision, and advanced provision of emergency contraception were both estimated to be cost saving or at least highly cost-effective in terms of cost per teenage pregnancy averted.

Numerous interesting methodological issues arose in this piece of work which will be developed for peer-reviewed publication.

Case study 2 – Promoting well-being at work

This review investigated elements of the workplace that impact on the mental wellbeing of employees. A previous conventional systematic review had found a lack of evidence to guide decision making, however a decision delayed is a de-facto decision for the status-quo. The Centre was therefore required to develop



innovative methods of review to tackle this important public health issue. An expert group was formed to identify key additional literature ranging from books and book chapters to randomised controlled trials, this literature was used to develop a logic model outlining key concepts and associations between concepts, highlighting points for potential intervention. The approach combined methods from primary qualitative data analysis and systematic reviews to synthesise the data and develop the logic model. The work was presented to the Public Health Intervention Advisory Committee at NICE and was well received being instrumental in moving forward stalled guidance.

Case study 3 – Looked after children and young people

In conducting the effectiveness reviews for the looked after children and young people (LACYP) programme, the main challenge was the apparent mismatch between systematic review methods of the Evidence Based Medicine movement and the social science evidence base. Reporting quality varied by journal and many details of methods, interventions and data analysis that would usually be required for a systematic review were not reported. The apparent methodology-literature mismatch was addressed by conducting a correlates review of factors associated with outcomes, in order to identify topic areas with sufficient evidence to conduct a meaningful effectiveness review. The correlates review examined all quantitative forms of evidence where an association (whether correlational or causal) was identified, including systematic reviews. The aim was to capture the breadth rather than depth of the literature using a data saturation approach. Each association was documented in a map, with concepts relating to factors, outcomes, and the relationship between the two. Many outcomes found were also factors in other studies, and vice versa. In this way a series of maps of documenting the complex interactions between factors and outcomes was developed. An examination of the findings revealed that sufficient evidence was identified to be able to review the effectiveness of interventions in three topic areas, which became the focus of the three effectiveness reviews: (1) transitional support services for LACYP on their adult outcomes; (2) training for carers and other professionals on LACYP wellbeing outcomes; (3) interventions to improve access to services on LACYP's access and wellbeing. This method of scoping by mapping associations to arrive at effectiveness review questions appears appropriate for public health topics with a diverse evidence base.

Methodology

ScHARR-PHCC provides an important contribution to the development of ScHARR's research profile, both directly by undertaking high impact research but also indirectly by providing the motivation for methodological research and providing a test bed for the piloting and development of novel methods. Specifically ScHARR-PHCC has directly supported or given rise to three case studenthip applications, one personal fellowship application and one methodology and two further research proposals.

ScHARR has broken new ground with its creative synthesis of health services and psychological research and continues to give a national and international lead in this field. Psychological aspects of health and health care have gained a high profile in health policy and we have responded by developing a multidisciplinary, multi-method programme in Psychological Services Research (PSR) with the aim of improving decision-making, quality, and outcomes for the people served.

ScHARR researchers have undertaken work on quality of life assessment, outcome measurement, new technologies, evaluation of interventions, systematic reviews, and research on service delivery and organisation. In collaboration with colleagues in the University of Sheffield Department of Psychology, we have established the Centre for Psychological Services Research which was launched in late 2007 under the directorship of Professor Michael Barkham. Professors Glenys Parry and John Brazier co-ordinate this programme within ScHARR. As this is a field with strong theoretical allegiances amongst practitioners where trials are often conducted by enthusiasts for a particular technique, a distinctive feature of our approach is to evaluate psychological health technologies and services from a position of equipoise and we are open to the idea that such interventions can cause harm as well as do good.

We are leading randomised controlled trials of cognitive behavioural and cognitive analytic therapy in Borderline Personality Disorder (SPeDi trial), computerised cognitive behaviour therapy for people with depression and multiple sclerosis (CoSMoS), and are collaborating with the University of York in a multi-site trial of computerised CBT for depression in primary care (REEACT).

When conducting trials we incorporate qualitative work to supplement psychometric outcome measurement. For example, patients who have received treatment in SPeDi have been interviewed about their experiences and a qualitative analysis conducted of treatment acceptability and sources of patient satisfaction. In CoSMoS, participants with multiple sclerosis gave important feedback about the suitability of available computerised CBT programmes for people with neurological impairments.

Service delivery and organisation research includes a three year evaluation of Improving Access to Psychological Therapies, a new service model delivering guided self-help and CBT to people with common mental health problems in primary care. In addition to a comprehensive evaluation of organisational systems, outcomes and the patients' experience, this research tests Professor Lord Layard's proposal that developing such services will be cost-neutral because of savings from reducing the number of people on benefits. We are

also evaluating six new pilot mental health services for community veterans on behalf of the Ministry of Defence, where an objective is to decide whether or not such services can be effectively delivered within mainstream NHS care. Other work includes an evaluation of e-clinics as a way of improving access to psychological care in a rural area and an evaluation of an initiative to improve access to psychological therapies for people from the Pakistani Muslim faith communities through training Imams and other community leaders in principles of mental health and Islamic wellbeing.

Translating the findings of research into better health care practice is the focus of two newly-commissioned projects. IQuESTS (Improving Quality and Effectiveness of Services, Therapies and Self-management in long term depression) tests whether it is possible to improve the NHS care pathway for people with recurrent and treatment-resistant depression by translating research into practice. It aims to integrate research evidence and evidence from people with experience of managing long term depression using a systematic approach which includes mathematical decision modelling. The decision model will enable an informed choice of the best ways to improve the quality and effectiveness of self-management, therapies and services and provide a framework for evaluating new methods of service delivery. This research is part of the South Yorkshire Collaboration in Leadership of Applied Health Research and Care (CLAHRC). Pilot work on Understanding and Preventing Adverse Effects of Psychological Therapies (AdePT) led to a successful bid for Research for Patient Benefit funding, with the main project due to start in 2010. Although it has been known for decades that some people's mental health deteriorates after receiving psychological treatment, little is known about the extent to which psychological therapies may be harming some people, or the causes and risk factors for such harm. This project will investigate the issue of patient safety in psychological therapies through meta-analysis of trials results, multivariate analysis of large outcome datasets and qualitative research with patients and therapists with experience of failed therapies with adverse outcomes. The aim is to develop support tools for service users, practitioners and managers to reduce the risk of harm.

In addition to research collecting primary data, we undertake a wide range of secondary research using extant data. For example, systematic reviews have been conducted of group CBT for postnatal depression and of group analysis and psychodynamic group therapy. Methodological work includes research deriving preference-based measures in mental health, which can be used for economic evaluation, from condition-specific measures. Large datasets of NHS psychological therapies outcomes are being used to explore therapist effects and case mix using multilevel statistical modelling.

Rehabilitation and Assistive Technology Research

With an ageing population, and a rising number of people with long-term conditions, more people will in future require support to enable them to live with independence and dignity in their own homes and communities. Research and innovation is required to develop new user-friendly technologies and technology-supported services and to build an evidence base for their use. This is the mission of the Rehabilitation and Assistive Technologies Research Group.

Many groups of people, including older and disabled people, and people with long-term conditions, can increasingly be assisted to live independently in their own homes, supported by new developments in technology. Under the broad heading of Assistive Technologies, these include rehabilitation technologies, telecare, telehealth and electronic assistive technology. The group carry out research in all these areas.

The appointment of two professors in the past two years has allowed the rapid expansion of this research group, which currently has twenty research staff, four support staff, three visiting professors and three visiting fellows. The research area requires a multi-disciplinary approach and the group consists of health services researchers, engineers, computer scientists, psychologists, therapists and physicists. The sources of research funding accessed by the group reflect its multi-disciplinary nature, with funding from the National Institute for Health Research (NIHR), the Engineering and Physical Sciences Research Council, the Technology Strategy Board, the EU and charities.

The group has strong links into health and social care services, particularly with Barnsley Hospital, PCT and Council, and increasingly with hospitals, PCTs and councils throughout the region and country-wide, as well as with the Department of Health. The introduction of telehealth and telecare services is high on the agenda nationally, with the advent of the Whole Systems Demonstrators, as well as regionally, through plans for the Regional Innovation Funds, and locally, with telehealth implementation in several local communities. Our staff is involved in advising policy makers and practitioners at all of these levels.

Participation in the South Yorkshire Collaborative for Leadership in Applied Health Research and Care (CLAHRC – SY) exemplifies our commitment to our work having impact in society. The South Yorkshire CLAHRC's aim is to improve service provision to people with long-term conditions, with a particular emphasis on promoting self-care, through carrying out and putting into practice excellent research. Within the CLAHRC we carry out a large programme of research in Telehealth and Care Technologies (TaCT). As part of this, we are working with Barnsley PCT to evaluate (using a randomised controlled trial methodology) the

effect of a new telehealth service on quality of life and service utilisation. A positive evaluation is expected to lead to greater use of telehealth in South Yorkshire. In addition, TaCT is working with local health providers, service users and industry to identify health and social care needs for which technology could provide a solution. We will then work with industry to identify ways to meet these needs.

Funding from the NIHR's Invention for Innovation (i4i) programme has allowed us to develop technology for people with severe physical disabilities, often in conjunction with industry partners. We are working together with the University's Computer Science Department and industrial partners to carry out world-leading research in speech technology which will lead, within the next two years, to products which severely disabled people can use to control their homes and to communicate, without the need for carer assistance.

Current research projects include:

- Virtual Extra-care (Virtex), Technology Strategy Board Assisted Living Innovation Platform, £1.03M (2008-10)
- Knowledge Transfer for Extending Quality of Life (KT-EQUAL) EPSRC £1.8M (2009 – 2013)
- South Yorkshire Collaboration for Leadership in Health Research and Care, National Institute for Health Research, £20 million (50% grant funded with match funding from NHS/universities) (2008-13)
- Devices for Dignity (D4D), NIHR Health Technology Co-operative, £1.38M (2008-2012)
- SMART: Self Management supported by Assistive, Rehabilitation and Telecare Technologies, EPSRC (EQUAL programme), total grant £2.9M, (2008-2011)
- Advanced Lifestyle Monitoring System, Department of Health, Health Technology Devices programme £795,000 (50/50 DH grant / industrial match funding) (2006-2010)
- Speech-controlled Environmental Control System – new technologies for disabled and older people, Department of Health, Health Technology Devices programme £630,000 (50/50 DH grant / industrial match funding) (2005-2010)

Looking ahead

There are major opportunities to maintain and extend existing levels of funding and further develop research capability and capacity in this field, which look set to continue for at least the next 10 years. There are major national policy drivers for healthcare technology and service innovation. We will continue to apply to NIHR and EPSRC for technology R&D projects and we will work closely with other groups in SchARR to pursue funding (for example from NIHR and MRC) for evaluation projects, particularly for large-scale trials of technology-supported service provision in the NHS, and for studies to examine the impact of technology introduction into health settings upon service delivery, cost-effectiveness and the workforce.

The Rehabilitation and Assistive Technology Research Group has the ambition to become established as the foremost research group in the UK in this field and a key player internationally. We intend to establish an Academic Centre for Rehabilitation and Assistive Technology, which will be concerned with research, service improvement, technology development and knowledge transfer in assistive technology, telecare/telehealth, and rehabilitation technology. We will collaborate closely with other University Departments (SISA, Human Communication Sciences, Computer Science, Information Studies), with Barnsley Hospital, Sheffield Teaching Hospitals and other local NHS organisations, and with Sheffield Hallam University, other UK universities and industry, through the S Yorks CLAHRC and the NIHR Devices for Dignity HTC, as well as via bilateral relationships. We will also develop international collaborations, initially with Spain and Canada.



Above: Mark Hawley, Professor in Health Services Research

The Sections

Health Economics and Decision Science (HEDS)



Above: Alan Brennan,
Director of Health Economics and Decision Science

Introduction

The keyword for HEDS in 2007-2009 has been growth, in terms of physical expansion, academic advancement and staff development. We have: increased the size of our academic team by 50% through new appointments and the incorporation of two new groups; undertaken challenging policy-influencing research and consultancy; created a new Masters programme; and developed staff through promotions, fellowships and PhDs.

We continue to pursue our aim, which is to promote excellence by influencing national and international healthcare resource allocation decisions and supporting effective implementation through high quality research, consultancy and education.

Academic Staff

The HEDS academic team has evolved into a dynamic, multi-disciplinary sixty strong body of researchers. The scale of the staffing budget in 2008/9 was just over £2.3m, the vast majority funded through contracts for research and consultancy.

The team care deeply about their contribution, and work collaboratively with international and UK colleagues and decision makers in inter-disciplinary networks. Our skills and roles include:

- Health Economists
- Decision Modellers
- Econometricians
- Statisticians
- Psychologists
- Systematic Reviewers
- Information Scientists
- Clinicians

In the last 2 years we have particularly expanded by welcoming two groups into the HEDS structure:

Information Resources Group

Andrew Booth, Suzy Paisley and colleagues are well known internationally for leading edge work around accessing and utilising health research information. The group joined HEDS in 2009. Links with HEDS research activities are already significant, including work for NICE searching for evidence on relevant topics to inform health technology assessment. Further extension of methodological and applied research is planned alongside research, teaching, training and development of e-resources and information services.

Sheffield Vascular Institute

Led by Professor Jonathan Michaels, a vascular surgeon with huge experience in health economics and technology assessment, the group moved into ScHARR in 2009 to further develop the existing collaborations in vascular disease, decision and economic modelling and outcomes research. In addition, winning a series of grants and research programmes over the last 2 years has meant expansion of existing teams and groups within HEDS, some of the highlights are detailed below.

Work Areas

Welfare assessment QALYs, PROMS and Wellbeing

A core component of any economic evaluation is the way the benefits of health care for health and well-being are measured and valued. Further information about health and well-being can be found under 'Major Programmes' in this report.

Economic Evaluation – trials and modelling synthesised

HEDS undertakes many economic evaluations in tandem with clinical evaluations, such as randomised controlled trials. These trial-based economic evaluations now typically incorporate an element of modelling, so that other sources of evidence can be incorporated systematically. Links between modelling and trial-based evaluations are being strengthened to allow trial-based evaluations to become more policy relevant, and for modellers to support design of relevant data collection through trials.

Economic evaluations include those based on trials of:

- psychological training relating to postnatal depression for health visitors, (completed)
- treatments for pulmonary oedema within the emergency department, (completed)
- home-based parenteral antibiotic therapy (completed)
- computer based speech therapy for patients following stroke (recently funded)
- treatment of corn plasters (recently funded),
- patient education for type 1 diabetes (recently funded), and
- exercise therapy for patients with multiple sclerosis (recently funded).

The diversity of our work with clinical collaborators has increased in recent years with the expansion of the Sheffield Clinical Trials Research Unit and the launch of the NIHR Research Design Service for Yorkshire and the Humber which is based in Sheffield, with collaborations with the Universities of Leeds and York. These links are important and they place HEDS at the centre of clinical research within the region, and allow us to influence research design to ensure that the results of maximum usefulness to decision makers.

Systematic Reviewing – clarity from the mass of evidence

ScHARR is a leading UK centre for conducting systematic reviews in the context of decision science and for developments in reviewing methodology. There are currently 14 systematic reviewers in HEDS who contribute to a variety of programmes as well as many others in HEDS who undertake systematic reviewing related activities. We have built extensive national

links with similar centres through InterTASC, the collaboration of academic research groups in England and Scotland who support the NICE Technology appraisal process. International collaboration is showcased through attendance and presentations at Cochrane Colloquia and Health Technology Assessment International (HTAi) conferences. Results are published in peer reviewed journals as well as in HTA monographs. Demand for rapid appraisal of technologies by NICE has necessitated methodological development and ScHARR continues to be a major player in the development of these methods with current research underway in this area.

Our current programme of work includes:

- **NICE Technology Appraisals:** We support the NICE technology appraisal programme through the production of technology assessment reports for multiple technology appraisals and evidence review group reports for single technology appraisals.
- **Other NICE Programmes:**
 - NICE Review of Interventional Procedures programme (ReBIP) programme,
 - the NICE Decision Support Unit (DSU) and
 - the NICE Public Health Collaborating Centre (PHCC) based in ScHARR.
- **NIHR Evaluation, Trials and Studies Coordinating Centre (NETSCC)** HEDS reviewers have contributed to 43 HTA monographs since 2001 as part of the NICE appraisal process alone. We have also been involved in several evidence synthesis projects through NETSCC.
- **Interim Excellence in Decision Making (IEDM):** This programme supports local health care purchasers in their commissioning decisions.
- **Knowledge Transfer:** Systematic reviews are produced for the NHS and the pharmaceutical industry.

Current research interests include:

- Application and development of methods for systematic review and synthesis of qualitative studies.
- Methods for clinical reviewing and the use of mixed methods research to meet the needs of economic model development.
- Indirect comparisons.
- Reviewing for model parameters.
- Evaluation of systematic review protocols.

Recent methodological publications from members of HEDS include a journal article on 14 types of evidence review and their associated methodologies, and book chapters on synthesis of qualitative research which received a Book of the Year award from the American Journal of Nursing.

The HEDS systematic reviewing short course will be held in June 2010. Details for this course and future dates for the course can be obtained by contacting Dr Rachel Jackson (r.jackson@sheffield.ac.uk).

Information Resources – specialist research information service

The Information Resources Group (IRG) recently became part of HEDS whilst retaining its remit to provide a specialist research information service. Suzy Paisley became Head of IRG when Andrew Booth, Director of the Group since its inception, took on the wider role of ScHARR Director of Information in June 2009.

Research over the last 2 years includes high profile evidence syntheses to inform policy-making e.g. the DH *Independent Review of the Effects of Alcohol Pricing* and the Public Health Collaborating Centre (PHCC) supporting NICE public health decisions. The Group continues its collaboration with the TARs



Above: Suzy Paisley
Head of Information Resources Group

Programme, with outputs published in the HTA Monograph series, and has undertaken systematic reviews including *Work-based E-Learning* for the Higher Education Academy (published in *Health Information and Libraries Journal*), and the Evidence Briefings series published by Royal College of Speech and Language Therapists. Important contributions to evidence synthesis and HTA search methods include participation in a Guidance Writing Week in Adelaide with the Cochrane Qualitative Research Methods Group for the *Cochrane Handbook*, joint authorship of chapters in the *Cochrane/Campbell Evidence-Based*

Economics, advice on NICE public health search methods and the development of search methods for decision-analytic models.

IRG teaching has undergone rapid expansion including new modules on the ScHARR Masters in Public Health, Health Informatics by Distance Learning, MSc in Health Economics and Decision Modelling, and co-ordination of the systematic reviews module of the University's Research Training Programme. Training activities continue to bear the hallmark of innovation. E-learning, blended learning and face to face training, including the IRG renowned FOLIO portfolio, have been delivered to clients across the world with developments disseminated at the Health Libraries Group conference, Cardiff.

Delivering forward looking information services continues to underpin the role of the IRG by adapting core services to meet the needs of our expanding clientele, and the development of electronic networks maximises the possibilities afforded by emerging applications. We have contributed to the development of topic-based portals and our own E-learning resources. This work is summarised in *Supporting the Researcher of the Future* (Booth, A, Tattersall, A, 2009), which was presented at the EAHIL Conference, Dublin in June 2009.

External professional activities include the launch of the ISSG search filters website and updating the Health Libraries' Group Core Collection series. We were invited to speak at the NICE Systematic Review Working Party and at a meeting of the NICE Joint Information Group, and are represented on the Editorial Boards of Evidence-Based Library and Information Practice, Journal of Electronic Resources in Medical Libraries and Health Information and Libraries Journal for which Andrew Booth was editor of the 25th Anniversary issue. Several staff recently achieved Chartered status in the Chartered Institute of Library and Information Professionals (CILIP).

Looking ahead IRG will be seeking to focus on its academic strengths and build on the opportunities offered by its involvement in the School's major postgraduate teaching and research programmes. It will continue to develop its collaboration with NHS research partners through its involvement in the Yorkshire and Humber Research Design Service and will further its leading role in training and in support to teaching and research through the innovative exploitation of electronic information resources.

Decision Modelling

The decision analytic modelling team is leading healthcare modelling groups internationally, with a wide ranging, high impact programme of methodological and applied research. Research focuses on Operational Research modelling to support healthcare resource allocation decisions including both health technology assessment modelling and supporting service organisation and delivery. There is specific focus on methods and applications. *(Further information about Decision Modelling can be found under 'Major Programmes' in this report)*

Examples bringing all these skills together:

NICE Decision Support Unit (DSU): In April 2003, the National Institute for Health and Clinical Excellence (NICE) recognised ScHARR as one of the leading centres in the field of decision support research, when it commissioned us to establish the NICE Decision Support Unit (DSU), with an initial investment for three years. Together with our fellow collaborators, we have since successfully tendered for a new contract that extends funding until 2012. The DSU is based in HEDS at ScHARR with collaborators in the Centre for Bayesian Statistics in Health Economics (CHEBS) in Sheffield, the Centre for Health Economics at the University of York and the Department of Health Sciences at the University of Leicester. *(Further information about the DSU can be found under 'Major Programmes' in this report).*

NICE Scientific Advice Programme: In June 2009, we were commissioned to assist NICE in providing scientific advice to pharmaceutical companies and device manufacturers who have products in development. The advice is typically given early in the development programme (i.e. pre phase III trial design) and can be given on many issues connected with the development of evidence for post-regulatory evaluation bodies. The technical team consists of NICE staff, clinical experts and health economists. The advice given may include: interpretation of the NICE technology appraisal methods guidance; research design considerations such as type of study, population, duration of trial, comparator(s) and suitable endpoints; design of economic evaluation such as the form of evaluation, the benefit measurement, relevant trial(s) and approaches to the generation of quality-adjusted life years (QALYs); the selection of instruments or research to derive QALYs, extrapolation of long-term outcomes and planning for indirect comparisons.

University of Sheffield Collaborations and Centres

Economics

HEDS has formal links with the Department of Economics at the University of Sheffield, with Dr Aki Tsuchiya holding a joint post across the two units. There are a number of joint research projects in the area of health and well-being, including the *Independent Review of the Effects of Alcohol Pricing and Promotion* project funded by the Department of Health. The two units share regular joint seminars with external speakers, and PhD students from both sides frequently interact with each other.

Centre for Well-being in Public Policy (CWIPP)

CWiPP was founded by Professor Paul Dolan and collaborators in 2004 and is now directed by Professor John Brazier. The goals of CWiPP are to consider how people's health and wellbeing can be defined, measured and improved in ways that help policy-makers determine the best use of scarce resources, and to investigate the determinants of well-being insofar as these are relevant to policy formulation. The centre is a truly interdisciplinary one, bringing together people from economics, psychology, political science, geography, criminology, animal and plant sciences, public health and mental health. Throughout its activities, the Centre aims to combine theoretical development with policy relevance. It is fully committed to building its research portfolio and becoming a leading international research centre in a major UK University.

CWiPP has a well attended external seminar series and runs occasional workshops across a wide range of topics including wellbeing and the environment, climate change and urban green space. CWiPP also runs a teaching network aimed to encourage collaboration for staff teaching modules that address topics related to well-being, life satisfaction, and happiness.



Left: Recent CWiPP project to inform policy and improve health and wellbeing 'Weight management interventions to prevent excessive weight gain during pregnancy'

The Centre for Bayesian Statistics in Health Economics (CHEBS)

The Centre for Bayesian Statistics in Health Economics (CHEBS) is a research centre within the University of Sheffield combining the strengths of the School of Mathematics and Statistics, internationally respected for its research in Bayesian statistics, and ScHARR, one of the leading UK centres for economic evaluation. CHEBS has various research themes including evidence synthesis, modelling health state preference data, elicitation of experts' probabilities, meta-modelling and Bayesian clinical trial simulation. CHEBS disseminates its research by publishing papers in scientific journals and presentations at scientific meetings, and provides training in the application of Bayesian methods in health economics.

Sheffield Vascular Institute

The Sheffield Vascular Institute is one of the largest Academic Vascular Units in the UK. The Institute has clinical facilities based at the Northern General Hospital site in Sheffield and provides specialist vascular services to the population of Sheffield and many of the surrounding districts including Barnsley and Rotherham. Research takes place within the clinical unit and is allied to the Academic Vascular Unit.

The Academic Vascular Unit merged with ScHARR Health Economics and Decision Science (HEDS) earlier this year. For some years the Vascular Unit has had a major research interest in areas around Technology Appraisal in relation to vascular disease, decision and economic modelling and outcomes research. We have had many collaborative projects in the past with ScHARR and felt that the move to Regent Court would lead to many new opportunities to collaborate in joint areas of interest.

International Health Policy and Management

Over the last 2 years, HEDS was involved in European research and development projects in collaboration with Universities in Holland, France, Spain, Poland, Lithuania, Czech Republic, Hungary, Romania and Macedonia. Educational programmes in European Health Policy for a range of overseas students were led by Malcolm Whitfield, who also engaged in management development programmes for senior decision makers in health systems across Europe. This area has diminished since Malcolm left HEDS in January 2009 to become Director of the Centre for Health and Social Care Research at Sheffield Hallam University (m.whitfield@shu.ac.uk)

Activities

Research

HEDS main focus is research to support decision making. Our culture is one of constant interdisciplinary working with other methodological, clinical and health services research disciplines. We provide analytical skill and awareness – enabling a wide range of skills and strengths to be brought to specific problems. If we need additional skills we build high quality collaborations and increase our own skill base quickly and effectively. Areas of particular strength include:

Health economics and outcomes research

- quality of life and outcomes measurement, wellbeing and equity
- primary economic evaluation in clinical studies, costing studies and service evaluation
- statistical methods in health economics

Mathematical modelling and operational research for decision making

- cost-effectiveness modelling
- modelling healthcare service changes
- pre and post trial modelling

Evidence review and synthesis

- systematic review of clinical evidence
- evidence synthesis e.g. from trials, observational and routine data

The main disciplines involved include; health economics, operational research, systematic reviewing, information science, medical and Bayesian statistics, econometrics and qualitative methods.

Dissemination occurs through publications, workshops, courses, and conferences. In July 2009, HEDS hosted the UK Health Economists' Study Group (HESG) meeting.



Above: Drinks at Chatsworth House, the venue for the HESG conference dinner

Consultancy / Knowledge Transfer

HEDS consultancy is, for the most part, research led, i.e. we provide responsive, problem-solving small and large-scale projects to a broad range of clients, including; health care providers, (NHS Trust, Primary Care Groups / Trusts) decision makers (NHS SHAs, Department of Health), consumer groups and commercial organisations (pharmaceutical companies and medical device manufacturers including recently AstraZeneca, Novartis, BMS, Sanofi, GSK, Merck, Abbott, Shire, Wyeth, Eli-Lilly, Johnson & Johnson, Pfizer and others). Most projects produce both decision support to clients and academic outputs through publications or further development of research methods.

We also provide direct advisory support to decision-makers and researchers on a sessional or daily basis which is 'pure consultancy advice.'

Over the last two years we have transformed our processes to include:

- speedy, structured, prioritisation process to ensure projects we take on meet strategic goals
- clear process for contract agreement
- processes to increase the academic publication output from projects

Teaching Programmes

We have invested substantial efforts in our new course, **MSc in Health Economics and Decision Modelling (HEDM)**, which launched in 2009 with 11 full-time and 3 part-time registered students.

This is the only Masters programme in the UK dedicated to the practical application of mathematical modelling to inform healthcare decision making. It is internationally focused and equips graduates with core health economics and modelling techniques. This course is targeted to the needs of UK and international employers including those in the USA, UK, Europe, Australia and Canada, in the pharmaceutical industry, government or other policy organisations, consultancy, medical research and academia, and for healthcare purchasers and providers. As a result of which, this Masters programme has secured bursaries from NOVARTIS, HERON, IMS and HEDS that could fund four UK or European Union students.

This course includes modules in:

- Introduction to Health Economics
- Economic evaluation
- Advanced economic evaluation
- Health research methods
- Cost-effectiveness modelling for health technology assessment
- Medical statistics and evidence synthesis

- Operational research techniques in health resource allocation
- Advanced simulation methods

For more information please visit the MSc HEDM website at:

http://www.shef.ac.uk/scharr/prospective_students/masters/hedsmc

The **MSc in Economics and Health Economics** is jointly run with the Department of Economics at the University of Sheffield, continues to train graduates (mostly in economics) in the specialist areas of economics for health. Typically, full time students move on to careers in economics or health economics and to academic research. This ESRC recognised course has been awarded 9 NIHR/ESRC/MRC joint studentships starting 2008/9.



Above: A practical session on the two-day short course 'Using utility data in cost-effectiveness models' <http://www.shef.ac.uk/scharr/sections/heds/shortcourses>

Our **MSc in Health Economics and Management**, which ran for thirteen years, closed in 2008 to be refocused as **short course programmes** for senior clinicians and managers within the NHS, responding to needs expressed by health service organisations for shorter, more focussed training. Many of the learning needs covered in the MSc Health Economics and Management are included in the Masters in Public Health (Leadership and Management) and the Health Economics and Decision Modelling Masters courses, which are both more focused to meet industry needs.

HEDS also contributes to the Masters in Public Health (MPH) and the MPH (Health Services Research). In addition, we have led on student exchange programmes within SeHARR and organised undergraduate, post-graduate and doctoral visits for European students through Erasmus and Marie Curie exchange programmes.

PhD Programme

HEDS currently has 20 PhD students, and we aim to double the programme over the next 3 years.

We welcome UK, EU and international students in our areas of strength and are keen to help secure funding through research councils and other funding bodies for students with good qualifications and ideas.

HEDS makes a significant contribution to the management of post graduate training across SchARR. Supervision leading to an MPhil degree or a PhD degree is offered in a wide range of areas of health services research, health economics and decision science, both theoretical and applied.

Full-time or part-time study is available, as is joint and remote location. The PhD programme extends over three years full-time, six years part-time, and the MPhil over one to two years.

A list of HEDS PhD topics and recently completed theses is available at: <http://www.shef.ac.uk/scharr/sections/heds/teaching> and informal enquiries should be directed to:

PhD Admissions Tutor: phdheds@shef.ac.uk



Above: Suzanne Mason
Director of Health Services Research

The staff of Health Services Research form a strong multi-disciplinary team with expertise in clinical medicine, medical statistics, psychology and psychological therapies and assistive technologies. This broad and expanding range of expertise has enabled the Section to attract research funding through project grants from the NIHR, MRC and charities. Through the Clinical Trials Research Unit (CTRU) support for trials is being provided ensuring high quality health services and clinical research is delivered in order to address some of the evidence gaps in health today.

The Section also delivers high quality under- and post-graduate teaching and research training within and beyond the School and University. It has also been successful in collaborating with the NHS to attract clinical academic training posts in emergency medicine.

Work Areas

The aim of the Section is to conduct research that influences health care practice and policy for the benefit of NHS patients and the public. It describes and evaluates services and technologies from a societal point of view, taking into account social and economic implications alongside individual and clinical outcomes. The Section currently consists of five academic groupings: Emergency Care, Medical Care Research Unit, Medical Statistics Group, Clinical Trials Research Unit, Mental Health Group and Rehabilitation Research Group.

Activities

Research

Emergency Care Research

Research interests span the pre-hospital, community, emergency department and acute hospital settings. Most of the studies undertaken involve the evaluation of the costs and consequences of new technologies and evaluating complex interventions such as the impact of new services, organisations or workforces. The unit relies heavily on the support and enthusiasm of NHS colleagues in delivering research projects across multiple clinical and organisational boundaries. Emergency care research is mainly focused on studies of effectiveness and cost-effectiveness in the organisation of, and care provided by, ambulance services and emergency departments. In pre-hospital care we have examined triage and prioritisation of Ambulance Service 999 calls, the benefits of rapid response to high priority calls and the effect of distance to hospital on mortality, as well as use of NHS Direct to manage low priority calls. Findings identified the need for better prioritisation systems, challenged plans to close local Emergency Departments, and led to re-thinking utilisation of NHS Direct. Grants from the NETCCSDO and the Health Foundation have stimulated development and evaluation of new roles in out-of-hours care, and our research on community paramedic practitioners has been widely cited by DH in rolling out the Emergency Care Practitioner scheme.



In the Emergency Department stream work has recently been completed on the diagnosis of deep vein thrombosis, the impact of chest pain units, and on waiting-time targets. With colleagues in Edinburgh we have also recently completed a trial of assisted ventilation in heart failure.

Current projects include methodological work on risk adjustment for observational studies of emergency care (MRC, £950K), a national evaluation of junior doctors working in Emergency Departments (NETCCSDO, £500K), a multi-centre evaluation of the diagnostic value of cardiac markers (HTA, £750K), an RCT of

the cost-effectiveness of magnesium in treating acute asthma attacks (HTA, £1.1m), an evaluation of the cost-effectiveness of diagnostic strategies for minor head injuries (£184K) and in collaboration with Swansea University a trial of new pathways to manage elderly fallers in the community (HTA, £750K). We are also examining the long-term impact of trauma in 1500 injured patients recruited to five MCRU studies conducted during the 1990s (DH, PRP, £290K). (*Further information about Emergency Care Research can be found under 'Major Programmes' in this report*).

Medical Care Research Unit – Policy Research Programme

The Medical Care Research Unit is a Department of Health funded unit focused on supporting the development of policy for improving the emergency and urgent care system.

Over the current five year contract (2006-2010) the Unit has;

- i) developed a 'tool-kit' for local emergency and urgent care systems to assess the experiences and views of patients who use the system.
- ii) studied how local systems can be organised and managed by 'networks'.
- iii) developed key performance indicators for urgent care systems.

The Unit is currently;

- i) measuring change in performance of four urgent care systems which made major changes in 2009.
- ii) developing performance indicators for category B ambulance calls.
- iii) reviewing the evidence base for pre-hospital and out of hospital care.

The MCRU is also linking police and hospital data sets for road traffic accidents, evaluating the processes and outcomes of PCT commissioning, and is involved with a range of research projects undertaken in HSR and SchARR e.g. evaluation of national angioplasty pilots.

Medical Statistics Group

The Medical Statistics group have an international profile, conduct their own research and assist other members of SchARR and the Medical Faculty in the design of studies and analysis of data, also working closely with the Clinical Trials Research Unit (CTRU).

In 2007 the Group hosted the Teachers of Medical Statistics Conference in Sheffield, and in 2009 the MSG and the CTRU hosted the Society of Social Medicine Conference on Trials in Health Technology Assessment. Individuals within the group have published books, and held office within the Medical Section of the Royal Statistical Society (RSS). Representation has also been made on Panel 12, Professions Allied to Medicine, for the 2008 Research Assessment Exercise, the National Institute for Health and Clinical Excellence (NICE)

Public Health appraisal committee and NICE Appraisal Committees C and D.

Members of the Group have given both national and international courses. National courses include the Statisticians in the Pharmaceutical Industry on sample size and the Royal Statistical Society on data display. International courses have been given in Isfahan (Iran), Barcelona, Rotterdam and Paris on cluster randomised trials, displaying data and genetic epidemiology.

The period has seen major changes to the way Medical Statistics is taught, in particular consolidated teaching and the advantages of it. The group have HAR6035, 'Statistics for Consumers' for the MPH students and HAR6036 'Statistics for Doers' for the intercalated medical students and the Research Training Programme (RTP). The MSc in Statistics with Medical Applications, through the Department of Probability and Statistics ran for the first time in 2009. The Medical Statistics Group also teaches statistics to a regular course of Research Registrars.

Mental Health group

Much of the work of the Mental Health Group is in the Centre for Psychological Services Research in conjunction with colleagues in the Clinical Psychology Unit in the Department of Psychology and research-active professionals in the NHS, some of whom hold honorary appointments in the Group.

During 2008 Professor Tantam has been taking sabbatical leave, based in the Section of Developmental Psychiatry at the University of Cambridge.

The Mental Health Group has been evaluating the national demonstration sites for 'Improving Access to Psychological Therapies' in Doncaster and Newham and comparator sites in Wakefield, Barnsley and City & Hackney. Funded by the NIHR Service Delivery and Organisation R&D Programme, this is a multi-method evaluation investigating cost effectiveness, the patient experience and the organisational implementation of this major new Department of Health initiative. This is due to be completed by June 2010. Smaller projects have been commissioned by the City of London Digital Inclusion Unit to evaluate e-clinics in North Lincolnshire and by the Yorkshire and Humber Care Improvement Partnership to evaluate the impact of an 'Islamic Well Being' training programme on access to IAPT for the Pakistani Muslim faith community in Leeds and Bradford.

The Ministry of Defence have commissioned an evaluation of six pilot community mental health services for armed services' veterans. These pilots were set up following concerns raised about the lack of specialist provision for the needs of this group within civilian health care. This is due to be completed by April 2011.

A new project has been established within the South Yorkshire Collaboration in Leadership in Applied Health Research and Care (CLAHRC) to improve the health care pathway for people with long-term depression (IQuESTS). This is in collaboration with University of Sheffield colleagues in Psychology, Health Economics, Decision Science and Information Resources, and NHS colleagues from mental health services in Sheffield, Doncaster and Wakefield. The CLAHRC promotes translational research into chronic disease to enable a step change in the way NHS services are provided and to promote user-centred service design and self-management. This project takes these principles into the area of long term depression (also referred to as 'refractory' or 'treatment resistant' depression). It aims to integrate research evidence and evidence from people with experience of managing long term depression using a systematic approach which includes mathematical decision modelling. The decision model will enable an informed choice of the best ways to improve the quality and effectiveness of self-management, therapies and services and provide a framework for evaluating new methods of service delivery. The IQuESTS project has three work packages: 1. System modelling of care pathway in relation to self-management; 2. Understanding self-management by learning from the patient; 3. Testing system improvements.

Other research includes a systematic review of the effectiveness of group analysis and psychodynamic group therapy, pre-protocol research on understanding and preventing the adverse effects of psychological therapies an international project (with colleagues in Spain and Italy) to prevent bullying in schools, based on parental and peer education to foster the establishment of positive relationships within schools.

Rehabilitation and Assistive Technology Research

Many groups of people, including older and disabled people, and people with long-term conditions, can increasingly be assisted to live independently in their own homes, supported by new developments in technology. Under the broad heading of Assistive Technologies, these include rehabilitation technologies, telecare, telehealth and electronic assistive technology. With an ageing population, and a rising number of people with long-term conditions, more people will in future require such support to enable them to live with independence and dignity in their own homes and communities. Research and innovation is required to develop new user-friendly technologies and technology-supported services and to build an evidence base for their use. This is the mission of the Rehabilitation and Assistive Technologies Research Group.

The appointment of two professors in the past two years has allowed the rapid expansion of this research group, which currently has twenty research staff, four support staff, three visiting professors and three visiting fellows. The research area requires a multi-disciplinary approach and the group consists of health services researchers, engineers, computer scientists, psychologists, therapists

and physicists. The sources of research funding accessed by the group reflect its multi-disciplinary nature, with funding from the National Institute for Health Research (NIHR), the Engineering and Physical Sciences Research Council, the Technology Strategy Board, the EU and charities. (*Further information about Rehabilitation and Assistive Technology Research can be found under 'Major Programmes' in this report*).

Clinical Trials Research Unit

The Clinical Trials Research Unit (CTRU) provides advice and practical support to investigators planning or running clinical trials including expertise in the design and operational conduct of trials to international regulatory standards in clinical, community and general practice settings.

Other study designs such as observation studies, patient registers and cohort studies which require significant levels of data management could also benefit from CTRU support. CTRU studies are typically funded through the NETSCC (The NIHR Evaluation, Trials and Studies Coordinating Centre) and NIHR (National Institute for Health Research) programmes.

Expertise and services:

- Trial design and protocol development
- Assistance in seeking funding and preparation of grant applications
- Ethics, Research governance and MHRA support
- Trial management
- Clinical trial implementation
- Randomisation service
- Data management
- Web-based database system design in accordance with FDA standards
- Economic evaluation
- Statistical advice and analysis
- Data modelling alongside trials

(*Further information about the CTRU can be found under 'Major Programmes' in this report*).

Teaching

A major decision by the ScHARR Executive has been to concentrate on postgraduate teaching. The MPH(HSR) led by Professor Stephen Walters shares core modules with the MPH. The course specialises in teaching students a wide range of techniques used for the evaluation of health services and public health interventions.

In addition, the section offers a distance learning MSc in Psychotherapy Studies which is designed to further the Continuing Professional Development of counsellors, psychotherapists and other mental health practitioners.

The Medical Statisticians have developed the MSc in Statistics with Medical Applications, through the Department of Probability and Statistics which ran for the first time in 2009. In addition, staffs in the Section teach short courses through the ScHARR short course unit and contribute to under and post graduate modules on other courses such as the MBChB.

Postgraduate Research

A further key part of our activity is in supervising postgraduate research. Currently in Health Services Research we first supervise around 25 PhD and MD candidates and second supervise many others in ScHARR and other departments. Our students are studying a wide range of topics including the meaning of intimate partner violence in the Pakistani community, effective leadership in healthcare teams, evaluation of urgent care centres, and the relationship between daily activity and health. Recent successful graduates include Dr Clare Relton who developed and tested a new design for pragmatic randomised controlled trials and Dr Spencer Boyle who evaluated physical activity levels amongst adolescents.

In addition, we take an active role in supervising Masters dissertation work for the various ScHARR taught courses and also supervise students undertaking an Intercalated BMedSci from the Faculty of Medicine.

Looking ahead

The Section groups continue to grow and be extremely successful in attracting external funding through grants or consultancy. We believe that there continues to be excellent opportunities for research in the field of Health Services Research given the strong relevance for health care delivery in the modern NHS and beyond. Our strong collaborations with other academic and healthcare organisations will ensure that our research is grounded in clinical need and service improvement.

Within the Section we have groups which are undergoing expansion and development and we anticipate the next five years will provide opportunities for some of those plans to develop further and materialise. In particular, the ScHARR major programme areas embedded within HSR of Rehabilitation and Assistive Technology Research, Emergency Medicine and Therapist Research are key areas of focus for the section. Alongside the Centre for Psychological Services Research (CPSR) we would like to see the development of academic centres for both the Assistive Technologies and Emergency Medicine groups. These centres would strengthen the national and international profiles of these groups, establish key collaborative relationships which would in turn facilitate the delivery of world class academic endeavour in each of the particular areas of medicine.



Above: Liddy Goyder
Director of Public Health

The Section of Public Health is a dynamic multi-disciplinary teaching and research group which has grown substantially and moved into new accommodation over the last two years. The move to Regent Court in February 2008, in order to be fully co-located with the rest of the School after a decade of separation, has provided a major opportunity for the Section. This has ensured that the existing synergies and collaborations across the School have been built on to develop a number of cross-Section collaborations, including major programmes with the ScHARR Clinical Trials Research Unit (*please refer to the Major Programmes in the report*) and the ScHARR Public Health Collaborating Centre which produces evidence reviews and economic modelling for NICE (*refer to Major Programmes*).

The core interest of this group is in improving the health of the public at local, regional, national and international levels. The Section contains individuals with a range of public health skills, including clinical public health specialists, epidemiologists, psychologists, sociologists, information scientists and health services researchers. After almost a decade of leading the Section, through a period of rapid expansion and the development of a new MPH course, Professor Allen Hutchinson took the role of Dean of the Faculty of Medicine from January 2007 until December 2008. From 2007 to 2009, Elizabeth Goyder has led the Section, supported by Paul Bissell, as both Deputy Section Director and Director of the MPH over this period.



Above: Paul Bissell
Deputy Director of Public Health
& Director of the MPH

Work Areas

The Section has expanded and developed over the past decade into a research-led group with wide-ranging interests within five major research areas: health inequalities, obesity, alcohol policy, geographical information sciences and public involvement in research. In the few years, a number of academics with expertise in health psychology and sociology have joined the Section, creating a strong group of social science researchers in Public Health. Within these themes a number of major grants have been won and international collaborations have been developed, allowing the Section to build on its existing strengths. We have built on successful collaborations with a number of other academic departments, notably in the last two years with Architecture and Medicine, Sheffield Institute for Studies on Ageing (SISA) through a EPSRC-funded programme developing an evidence-based tool (EVOLVE) that can identify design and environmental features associated with well-being and higher quality of life in older people.

There are three integrated areas to the work of the Section: research and knowledge transfer, teaching and professional development and support for staff working in the NHS. This includes public health training support and supervision, through both secondments available to all public health trainees and a programme of support for trainees taking Faculty of Public Health membership examinations. ScHARR recently was designated a "National Treasure" by the Faculty of Public Health which enables public health trainees from other regions to take advantage of unique training opportunities. Several Section staff have honorary NHS contracts and provide support at Primary Care Trust and Strategic Health Authority levels.

Activities

• Research

Obesity and inequalities (Leads: Paul Bissell and Elizabeth Goyder)

This period saw the successful completion and publication of a number of research projects contributing to the Leverhulme-funded “Changing Families, Changing Food Programme” which covered themes of inequalities, food choice and obesity. These major research themes have been brought together since 2008 as themes within the NIHR-funded South Yorkshire Collaboration for Applied Health Research and Care (SY CLAHRC). This is a major £20 million, five-year partnership between key NHS stakeholders and the University of Sheffield as well as Sheffield Hallam University. The Section has played a leading role in the development of the SY CLAHRC, leading both the Obesity and Inequalities themes.

The obesity theme activities include setting up a cohort to study the changing nature of weight and health; providing an evaluation service for the NHS in South Yorkshire with particular reference to health, weight and obesity and exploring aspects of childhood obesity. This will allow us to answer important questions of relevance to the NHS in its attempts to deal with overweight and obesity in the South Yorkshire population. The cohort will allow us to track over time, the way in which Body Mass Index (BMI) shifts between normal weight and overweight / obesity, and will allow us to assess NHS (and non NHS) service utilisation amongst overweight and obese patients. The cohort will also provide the basis for a clinical trials facility which will be used to evaluate the effectiveness of new treatments. This will make an important contribution to developing the evidence base in relation to NHS based treatment and for the prevention of obesity. As a “research implementation” theme, the Inequalities theme work programme has employed three full time facilitators to support the use of research evidence in the development and implementation of interventions aiming to reduce health inequalities across South Yorkshire. A number of action research projects are being undertaken to implement change across the four Primary Care Trusts and case studies are being used to explore impact on NHS research culture.

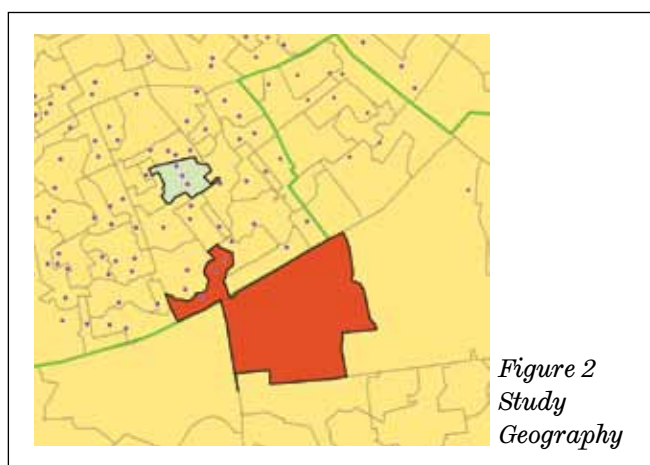
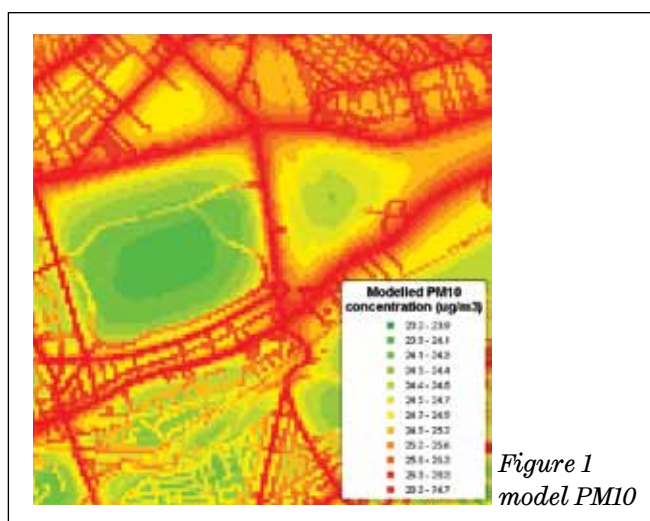
Alcohol Policy Research (Lead: Petra Meier)

The Section takes a lead in ScHARR’s developing research programme on alcohol, funded through the Department of Health Policy Research Programme, the Scottish Government, the National Institute for Health and Clinical Excellence (NICE), the Medical Research Council (MRC), the Nuffield Foundation and the National Institute for Health Research (NIHR) South Yorkshire CLAHRC. We recently carried out a series of systematic reviews and policy appraisals on the effectiveness of alcohol policies, including alcohol pricing interventions, advertising restrictions, restrictions on places and times

of alcohol sales, and the effectiveness of screening and brief interventions in primary care settings, as well as investigating the role of alcohol in adolescent mental health. This research has been influential in informing current policy debate about alcohol policy, especially with regard to minimum unit pricing. Our current focus is on investigating the role of alcohol in creating and maintaining health inequalities and further developing our capabilities to appraise and evaluate alcohol interventions. The Section hosts the multi-institutional MRC Alcohol Policy Research Cluster.

The Public Health GIS Unit (Lead: Ravi Maheswaran)

The Section houses the Public Health GIS Unit, established in 1999 with funding from the Public Health Development Fund. The Unit’s primary research interests lie in environmental epidemiology, spatial analysis and geographical variations in health and healthcare.



There are active research links with the Department of Geography at Cambridge and the Department of Epidemiology and Public Health at Imperial College. The Unit has been engaged in academic research, consultancy work projects and maintaining links with the NHS public health GIS community through its Public Health GIS Network meetings.

The Unit's academic research focused on epidemiological studies designed to investigate the effects of outdoor air pollutants on stroke incidence and survival. A comprehensive stroke case dataset from the South London Stroke Register was used in conjunction with modelled and monitored air pollution data for the Greater London area.

The past two years have seen the Unit develop its capacity for consultancy work. This aspect of the Unit's work programme has resulted in links with a number of public sector organisations and joint working with the Tribal consultancy group. Projects have included examining public access to green space in the London Borough of Barking and Dagenham, health equity work for Ashton, Leigh and Wigan PCT and an evaluation of a Met Office health forecast alert service for chronic obstructive pulmonary disease in the Bradford area.

Public Involvement in Research Theme (Leads: Rosemary Barber & Jonathan Boote)

Public involvement in health, social care and public health research is firmly established in health policies nationally and internationally. The public involvement in research theme addresses a number of key questions: what are the best ways of involving the public in research? What is the impact of public involvement on research, and on key stakeholders? What are the attitudes of researchers to public involvement? We undertake collaborative research with members of the public to address these questions.

Research projects over this period include a study to improve the quality and effectiveness of service therapies and self-management of long-term depression (IQuESTS), part of a mental health theme led by Professor Glenys Parry, within the South Yorkshire Collaboration for Leadership in Applied Health Research and Care (SY CLAHRC). Service user researchers are members of the research team, and have jointly developed the bid and the research protocol. Integrating different perspectives has been found to enrich the research and generate new knowledge, whilst making the research more relevant to the end users of the research.

Research Design Service (RDS) for Yorkshire and the Humber (Director: Wendy Baird)

In October 2008, SCHARR was awarded a five year contract, to work in collaboration with the Universities of Leeds and York to operate a Research Design Service (RDS) for Yorkshire and the Humber. This is one of a national network of Research Design Services, based in each of the English regions, which have been put in place by NIHR to support NHS researchers and others working in partnership with the NHS, who are applying for NIHR funding grants.

The RDSYH is run as a hub and spoke model. Leeds and York operate as spokes of the service and the Sheffield 'hub' is allied to the Section of Public Health. The RDS works closely with the CTRU in Sheffield and at the

spoke sites. The aim of each RDS is to increase the volume and quality of successful grant applications for NIHR, particularly RfPB, funding and other national funding competitions.

Research students in Public Health

We continue to see an increase in the numbers and diversity of PhD students we have welcomed to the Public Health Section. We have seen our first student on the "new route" four year PhD programme (which incorporates the MPH degree in the first year) and our first ESRC-funded student both complete their PhDs. PhD and MPhil topics are wide ranging and cover all the Section's research themes. We also have our first MRC research training fellow who is developing modelling for public health problems, with joint supervision from the Department of Statistics.

• Teaching

The Master of Public Health (MPH) suite at the University of Sheffield (Director: Dr Paul Bissell)

Building on our strengths in applied health research and research lead teaching, SCHARR is now home to an increasing number of courses based around our flagship Master of Public Health (MPH) degree. We now offer MPH pathways in both Health Services Research and Management & Leadership. We also recently welcomed our fourth cohort of EuroPubHealth students. This prestigious two year public health training programme is built around a number of pathways offered by high-ranking institutions in Europe and offering studentships funded by Erasmus Mundus.

Public Health Teaching on the Undergraduate Medical Degree (Director: Dr Ravi Maheswaran)

Following review of the medical undergraduate curriculum by the General Medical Council in 2007, population health sciences teaching is being reviewed and expanded. The teaching has been fully integrated within the core curriculum across the early years of medical training and through joint modular teaching with primary care. Teaching on global health has also been incorporated into the curriculum and is delivered just before students undertake their elective period.

SCHARR Short Course Unit (Director: Dr Wendy Baird)

At the end of 2008, SCHARR established a Short Course Unit to help improve and promote the delivery of short courses to both the private sector and the NHS. The programme of short courses reflect SCHARR's areas of expertise; health services and public health research, and the application of health economics and decision science to the development of health services and the improvement of the public health. In addition to the published programme, SCHARR is also committed to delivering bespoke courses working with commissioning clients to meet the specific and educational requirements of their staff.

Knowledge transfer and consultancy for the NHS

We undertake a varied range of knowledge transfer projects, the majority for NHS organisations and involving evaluation of services to inform commissioning decisions. For example, we were commissioned by Bradford and Airedale PCT to evaluate a severe weather forecasting service for patients with chronic obstructive pulmonary disease (COPD) used during the winter of 2007-2008. We also are the academic partner for the Evaluation of “Breathing Space” which provides innovative community provision for COPD patients in Rotherham and evaluated a new integrated care pathway delivered by community matrons in Doncaster.

Looking ahead

Having experienced both change and growth in recent years, the geographical move to Regent Court represents the culmination of many years of increasing integration of both teaching and research in public health across ScHARR. In the academic year 2009/10, we look forward to further new developments with a new Masters in Public Health (International Health) which has been developed in collaboration with the Department of Geography. In 2010/11, we will be further adding to our suite of courses with an MPH (Disaster Management) programme and a range of new modules focusing on the Social Determinants of Health, the Psychology of Health and Behaviour Change, and Mental Health from an international perspective.

Awards and Achievements

- **Professor Ron Akehurst:**
Appointed as a member of the NICE Methods Review Workshop.

Appointed as a member of the NICE Single Technology Appraisal (STA) Reference Review Group.

Appointed as a Visiting Professor at Corvinus University of Budapest.
- **Professor Pam Enderby:**
Appointed as a member of the Research Quality Assessment Panel, University of Queensland, Australia.

Appointed as a member of the Advisory Panel for the Advanced Care Technologies Programme.

Appointed as joint host and programme organiser for the International Dysarthria Conference, Sheffield.
- **Dr Steven Julious** joined the editorial board of Pharmaceutical Statistics.
- **Dr Suzanne Mason:**
Appointed as a member of the Healthcare Commission Advisory Panel, Urgent Care Review.

Appointed Chair of the UK College of Emergency Medicine Annual Conference.
- **Dr Petra Meier:**
Appointed as a member of the Home Office Advisory Council for the Misuse of Drugs (ACMD) Prevention Working Group, Pathways into Alcohol, Tobacco and Drug Use

Appointed as an Editorial Board member: Drugs: Education Prevention Policy.
- **Dr Alicia O’Cathain:**
Appointed sub-panel member of National Institute of Health Research NIHR Applied Programme grants 2007-2010 for £2million research programmes. Assessment of both outline and full grants.

Associate Editor of Journal of Mixed Methods Research 2007 onwards. An international journal with editors from the United States and Switzerland.
- **Dr Paul Tappenden** was awarded a three year DoH Researcher Development Award.
- **Dr Stephen Walters** was appointed as a judge for the Royal Statistical Society Manchester Student Project Prize.

Invited Presentations

- **Professor Ron Akehurst** was invited to speak on: ‘Improving the health of the public: A multifaceted problem requiring multidisciplinary solutions’ and ‘Application of Health Technology Appraisal: Current Status and future Direction’ at the Quality in Public Health Education Conference, Krakow.
- **Professor John Brazier** was invited to present at the ISPOR 10th Annual European Congress held in Dublin on ‘Using PROs in assessing cost effectiveness’.
- **Professor Pam Enderby:**
Invited to speak at the British Aphasiology Society Conference, Edinburgh, on ‘Evidence of What?’

Invited to speak at the Parkinson’s disease 2007 Conference, Today’s challenges tomorrow’s opportunities, London, on ‘Dysarthria in Parkinson’s Disease’.

Invited to speak at the Scottish NMAHP Research into Practice Conference, Edinburgh, on ‘Angels and Demons of Rehabilitation Research’.

Invited to speak at the RAATE Conference, Sheffield, on ‘Outcome Measurement and Assistive Technology’.
- **Dr Steven Julious:**
Invited to speak at the ASA-FDA Conference, Washington, on ‘Dichotomisation in clinical trials: Issues and concerns’.

Invited to speak at the Statisticians in the Pharmaceutical Industry (PSI) Scientific Meeting on Design, London, on ‘Seven useful designs’.
- **Dr Petra Meier** was invited to give a presentation to the Association of Chief Police Officers (ACPO) – MAGNET Gun Crime Interventions Project.
- **Dr Allan Wailoo** was invited to present to the NICE Appraisals committee away day on ‘Review of the NICE Single Technology Appraisal (STA) Process’ in Manchester.

Awards and Achievements

- **Professor Ron Akehurst:**
Appointed as a member of the Research Funding Board – National Institute for Health Research (NIHR) Public Health Research Programme.
Appointed Joint Chair of the Scientific Review Committee, European Conference of International Society for Pharmacoeconomics and Outcomes Research, Athens, November 2008 for the period 2007 – 2008.
- **Alan Brennan** was awarded a PhD.
- **Mr Jim Chilcott** was appointed Technical Director of the new NICE PHCC.
- **Ms Pat Coleman:**
999 EMS Research Forum Conference, Nottingham, JRCALC prize for research most likely to influence practice for 'Emergency Care Practitioners: Shaping a new type of practitioner from existing NHS clinical roles'.
- **Dr Simon Dixon:**
Appointed to NICE Technology Appraisal Committee A for three years. Awarded a PhD.
- **Professor Pam Enderby:**
Appointed Editorial Board member for The Journal of Communication Disorders.
- Appointed as a member of the Scientific Committee for the 5th World Congress of Neuro Rehabilitation, Rio-de-Janeiro.
Appointed as a member of the Professorial Appointment Committee, University of Oulu, Finland.
Appointed as a member of the International Association of Logopaedica and Phoniatria Motor Speech Disorders Committee.
- **Dr Elizabeth Goyder** was appointed as a member of the international SALVE panel convened by the Academy of Finland to assess collaborative grant applications funded by the Academy in collaboration with the MRC and other national funding agencies in Canada and Europe.
- **Dr Steven Julious** was Chair of Drug Information Association European Statistics meeting, Slovenia.
- **Dr Myfanwy Lloyd-Jones** contributed two chapters to "Reviewing research evidence for nursing practice: systematic reviews", which won a Book of the Year 2008 award from the American Journal of Nursing.
- **Dr Suzanne Mason:**
Appointed Member Executive Group South Yorkshire Comprehensive Local Research Network 2008-2009.
Appointed as a member of panel of experts to the NIHR HTA.
- **Dr Petra Meier:**
Invited to be an expert witness to the Health Select Committee, House of Commons, Inquiry on Alcohol.
Invited to give a presentation to the Prime Minister's Special Advisors at No 10. Project: Independent Review of Alcohol Pricing and Promotion.
Invited to give a briefing to the Scottish Ministerial Advisory Committee on Alcohol Problems.
Invited to give a presentation to the Committee on National Alcohol Policy and Action (CNAPA). European Commission DG Health and Consumers.
Invited to be an expert on the Westminster Panel Debate on Alcohol Pricing.
Invited to be an expert panellist on Alcohol Affordability: EU Commission .
Invited to give a briefing for the Chief Medical Officer and Regional Directors of Public Health. Project: Independent Review of Alcohol Pricing and Promotion.
- **Professor Jon Nicholl:**
Appointed to the MRC Methodology Research Panel.
Appointed to the DH Health Reforms Evaluation Advisory Panel.
Appointed to the NICE Evidence Advisory Board.
Appointed to the Editorial Advisory Board – Journal of Health Services Research and Policy.
Gave Evidence to House of Commons Health Select Committee.
- **Dr Alicia O'Cathain:**
Invited member of international telehealth and telecare emergency expert panel. 'A rapid review of telehealth contributions to emergency department and discharge operations.' British Columbia Ministry of Health's Emergency and Health services Commission.
Invited member of expert panel in England to develop guide 'Involving patients and the public in the early and ongoing development of urgent care services'. The National Centre for Involvement.
- **Dr Suzy Paisley** was appointed joint Associate Director of the new NICE PHCC.

- **Prof Glenys Parry:**
Appointed as a member of the NICE guideline development group for Borderline Personality Disorder.
Appointed as a member of the South Yorkshire Comprehensive Local Research Network Executive Group.
- **Tarang Sharma** was awarded an MSc in European Public Health.
- **Dr Matt Stevenson** was appointed to the NICE Technology Appraisal Committee.
- **Dr Mark Strong:**
Awarded the “Statisticians in the Pharmaceutical Industry Prize” for “outstanding performance” in the University of Sheffield’s Statistics MSc dissertation.
Awarded the “Gani Prize” for the best overall performance in the University of Sheffield’s MSc in Statistics.
Achieved a distinction in the University of Sheffield’s Statistics MSc dissertation.
- **Dr Patrice Van Cleemput** was invited by the Equality and Human Rights Commission (EHRC) and the UK Government Equalities Office to participate in a specialist consultation to select indicators for the Equality Measurement Framework.
- **Dr Stephen Walters was appointed as a member of the Nice Public Health Interventions Advisory Committee (PHIAC).**

Invited Presentations

- **Andrew Booth:**
Invited to speak at the Cochrane Qualitative Methods Group in Norway on ‘Formulating qualitative questions and searching for studies’.
Invited to speak at CONUL/SCONUL seminar in Dublin on ‘Giving researchers what (we think) they want: prescriptive versus descriptive approaches to information literacy’.
Invited to give opening keynote address at the Canadian Health Libraries Association/ABSC in Halifax, Nova Scotia ‘Three wheels on our (band) wagon: Can EBLIP meet the challenges ahead?’
Invited to speak at the Cochrane Qualitative Methods Group in Adelaide, Australia on ‘Searching and Presenting Data’.
- **Professor John Brazier** was invited to give a plenary talk at the Scientific Institute of the Techniker in Hamburg on ‘Status quo and trends within the field of QALYs’.
- **Professor Pam Enderby:**
Invited to speak at the Scottish Speech and Language Therapy Conference, Edinburgh, on ‘You only live twice’.
Invited to make the keynote address at WAP 25th Annual Congress, Amsterdam, on ‘Belief in research: Angels and demons’.
Invited to speak at the Speech and Language Therapy Service Planning Meeting, Bristol, on ‘You only live twice’.
Invited to speak at the CLRN Conference, Newcastle upon Tyne, on ‘A Marriage of Convenience’.
Invited to speak at All Party Parliamentary Group on Stroke, Stroke Meeting on Communication Difficulties, House of Commons, London.
Invited to speak at The 5th World Congress of Neurological Rehabilitation (WCNR), Brazilia, on ‘Communication Aids and Environmental Controls’.
Invited to speak at the British Geriatrics Society Autumn Meeting, Birmingham, on ‘A multi-centre randomised controlled trial (RCT) of home based versus day hospital rehabilitation’.
- **Dr Steven Julious:**
Invited to give plenary talk at the Statisticians in the Pharmaceutical Industry (PSI) Conference, Brussels, on ‘Analysis of safety data’.
Invited to speak at the Statisticians in the Pharmaceutical Industry (PSI) Meeting on Sample Sizes, London, on ‘Sample size calculations with multiple “and” endpoints’.
- **Nicholas Latimer** was invited to speak at the British Society of Rheumatology and the British Health Professionals in Rheumatology in Liverpool on ‘The NICE Osteoarthritis Guideline and Health Economics’.
- **Dr Suzanne Mason:**
Invited to speak at the 999 EMS Research Forum, Nottingham, on ‘NEECaP Trial: National Evaluation of Emergency Care Practitioners’.
Invited to speak at the Masters in Public Health, Sheffield, on ‘Emergency Care Research in ScHARR’.
- **Dr Petra Meier** was invited to teach at an expert seminar on Alcohol and Drugs on the International Global Health Module in Krakow University, Poland.
- **Professor Jon Nicholl:**
Invited to give a keynote talk to the HSRN/SDO Annual conference, Manchester, on ‘Reconfiguring Emergency Care – What Direction of Travel’.
Invited to give the annual Health Services Research lecture at London School of Hygiene and Tropical Medicine, on ‘Reconfiguring Emergency Care – What Direction of Travel’.

- **Dr Matt Stevenson:**

Invited to speak at MASHNet in London on 'Are single use neurosurgical and posterior eye instruments cost-effective in stopping iatrogenic vCJD transmission?'

Invited to deliver a short course for the Society of Medical Decision Making Conference, Philadelphia on 'Cost-effectiveness analysis for decision making: NICE Appraisal Methods in Philadelphia'.

- **Dr Allan Wailoo:**

Invited to present at ISPOR/AHRQ in Toronto, Canada 'What did the Medicare Replacement Drug Demonstration teach us about the role of cost-effectiveness analyses in public policy? The Sheffield view'.

Invited to present on 'The cost-effectiveness of the National Infarct Angioplasty Project Pilots' at British Cardiovascular Intervention Society in Manchester.

Staff Promotions

- **Dr Simon Dixon** was awarded a Readership.
- **Dr Nick Fox** was awarded a Personal Chair.
- **Dr Jenny Freeman** was promoted to Senior Lecturer.
- **Dr Petra Meier** was promoted to Senior Lecturer.
- **Dr Stephen Walters** was awarded a Readership.

Visitors

- **Dr Ignacio Abàsolo** from the Universidad de La Laguna, Tenerife visited to collaborate with Dr Aki Tsuchiya on the analysis of further data collected on 'Analysis of health related social welfare function properties'.
- **Ms Suzi Alves Carney** from the University of Rio Grande do Sul, Porto Alegre, Brazil visited to work with Professor John Brazier on a collaborative project to establish the SF-6D in Brazil.
- **Professor Ben Craig** from the Moffat Cancer Center and University of Florida visited to present a seminar which was titled 'Removing Bias from United Kingdom Values of EQ-5D States'. This was followed by an eight week secondment to SchARR to work with Professor John Brazier on the SF-6D instrument.
- **Professor Lara Nobre Ferreira** from the Universidad do Algarve, Portugal visited to work with Professor John Brazier on a collaborative project to establish the SF-6D in Portugal.
- **Professor Pedro Lopes Ferreira** from the Universidad de Coimbra, Portugal visited in 2008 to work with Professor John Brazier on a collaborative project to establish the SF-6D in Portugal.
- **Ms Luciane Nascimento Incruz** from the University of Rio Grande do Sul, Porto Alegre, Brazil visited to work with Professor John Brazier on a collaborative project to establish the SF-6D in Brazil.
- **Ms Dionne Kringos**, a Visiting Scholar from the Netherlands Institute for Health Services Research (NIVEL) to collaborate on the PHAMEU project with Professor Allen Hutchinson looking at developing a European Primary Care Monitor that will be implemented in 31 countries.
- **Dr Salamun Sastra**, a Visiting Professor, from Indonesia funded through the EU Erasmus Mundus Programme. His areas of expertise were Ophthalmology, Oncology, Drug Abuse, HIV/AIDS Problems and Family Planning.
- **Professor Ellen Weber**, a Visiting Professor from the University of California, San Francisco, to collaborate on a study evaluating the impact of the four-hour emergency department target on patient care.

Awards and Achievements

- **Professor Ron Akehurst** was appointed as an Honorary Member of the National Institute for Health Research Faculty.
- **Ms Pat Coleman** was invited to be a member of the 999 EMS Research Forum Board.
- **Dr Steven Julious:**
Appointed to Appraisal Committee D of NICE.
Joined the editorial board of Statistical Methods on Medical Research.
- **Dr Suzanne Mason:**
Appointed as a member UKCRN National Specialty Critical Care Group.
Appointed Academic Lead, Yorkshire Regional Board, UK College of Emergency Medicine.
Elected Vice Chair of the UK College of Emergency Medicine Research and Publications Committee.
- **Professor Jon Nicholl** was awarded DSc, Faculty of Medicine, University of Sheffield.
- **Dr Alicia O’Cathain:**
Invited editor of special issue of International Journal of Multiple Methods Approaches, with US co-editor. Special issue on mixed methods research and novice researchers published in 2009.
- **Katherine Stevens** was awarded a PhD.
- **Dr Patrice Van Cleemput:**
Awarded the RCN Research Society Akinsanya Award for Doctoral Scholarship in Nursing.
Invited to an academic experts round table at the Cabinet Office on a joint study with the Department of health on primary health care and social exclusion.
- **Professor Stephen Walters:**
Appointed as External Examiner for Newcastle University’s MSc in Public Health and Health Services Research.
Made a member of the conference organising committee for the Royal Statistical Society (RSS).

Invited Presentations

- **Professor Ron Akehurst** was invited to speak on ‘HTA in the UK, What is the role of HTA and what is the benefit? Lessons to be learned by Hungary during the economic recession’ at the Corvinus University of Budapest.
- **Andrew Booth:**
Invited to speak at the Campbell Methods Symposium, Leuven, Belgium on ‘Finding qualitative research and synthesising qualitative research’.
Invited to speak at the EAHIL workshop in Dublin on ‘Supporting the health researcher of the future’.
Invited to speak at the Chartered Institute for Library and Information Professionals Umberalla Conference in Hatfield, UK on ‘User and practitioner narratives from qualitative research: Are they an antidote to evidence based library and information practice’.
- **Professor John Brazier** was invited to give a keynote address at the SAKK Semi-Annual Meeting in Basel on ‘Measuring health benefits for economic evaluation – the case for QALYs in Cancer’.
- **Professor Alan Brennan:**
Invited to present at iHEA in Beijing on ‘Alcohol policy modelling: moving beyond a healthcare perspective to include alcohol attributable crime and employment outcomes’.
Invited to give keynote address at AES Association of HE in Spain, Malaga on ‘The importance of the methods of modelling for economic evaluation for NICE’.
- **Jill Carlton** was invited to present her work on ‘Quality of life issues in amblyopia’ at the Third Rotterdam Amblyopia Meeting and the British and Irish Orthoptic Society in both Leeds and Bristol.
- **Professor Pam Enderby:**
Invited to give the keynote address at the Swedish Congress of Logopaedi, Sweden, on ‘Guidelines in Speech and Language Therapy’.
Invited to speak at the European Stroke Conference, Sweden, on ‘Management of Communication Problems’.
Invited as Programme Chair of Innervate Limited, Life Psychol Programme, Birmingham.
- **Professor Nick Fox** was invited to be a plenary speaker at the Hellenic Sociological Society international conference, Athens, on the topic: ‘Lifestyle drugs and the domestication of pharmaceutical risk’.

- **Dr Steven Julious** was invited to present a session on the 'Reporting of Clinical Trials' at the Statisticians in the Pharmaceutical Industry (PSI), Brighton.
- **Dr Suzanne Mason:**
Invited to speak at the Emergency Care Conference, London on 'Implications of the four-hour target for patient care'.
Invited to speak at the EMS Chiefs of Canada Conference, Niagara Falls, Canada, on 'Community paramedicine – the UK experience'.
- **Dr Alicia O’Cathain:**
Invited to give the keynote presentation at the Alcohol Epidemiology Conference, Copenhagen, on 'Mixed Methods Research – challenging the traditions'
Invited to give the keynote presentation at the Mixed Methods Annual Conference, Harrogate, on 'the quality of mixed methods research'.
- **Prof Glenys Parry** was invited to speak on how to make clinical guidelines in the psychological therapies both credible and useful at the national conference Psychological Therapies in the NHS: Science, Practice and Policy.
- **Dr Matt Stevenson:**
Invited to speak at Association of British Pharmaceutical Industry in London on 'Analysis of uncertainty and presentation of results'.
Invited to speak at Health Technology Assessment International in Singapore on 'The cost-effectiveness of RCT comparing alendronate with Vitamin K1'
Invited to speak at the Hong Kong Shanghai International Liver Conference in Hong Kong on 'Telbivudine is a cost-effective first-line oral treatment of patients with chronic hepatitis B (HbeAg+) in the UK'.

Staff Promotions

- **Dr Paul Bissell** was awarded a Readership.
- **Dr Alan Brennan** was awarded a Personal Chair.
- **Mr Jim Chilcott** was awarded a Readership.
- **Jo Cooke** was promoted to Senior Research Fellow.
- **Dr Jenny Owen** was promoted to Senior Lecturer.
- **Dr Suzy Paisley** was promoted to Senior Research Fellow.
- **Dr Paul Tappenden** was promoted to Senior Research Fellow.
- **Dr Stephen Walters** was awarded a Personal Chair.

Visitors

- **Dr Ruth Hew**, a Visiting Director of Emergency Care Training from the Sunshine Hospital, Melbourne with an interest in Emergency Medicine in collaboration with Dr Suzanne Mason and Professor Steve Goodacre.
- **Ms Anna Mygind**, a Visiting PhD student from the Department of Social Pharmacy at the University of Copenhagen to discuss her PhD research with Dr Paul Bissell.
- **Dr Masahiro Shirotaki** from the Ritsumeikan University and the Japanese Society for the Promotion of Science visited between January 2009 and January 2010 to carry out research on 'A Study on Constructing Mechanism of Residents' Emotional Bonding to Cultural Heritages' under the supervision of Dr Aki Tsuchiya.



Above: Jenny Owen
Director of Teaching

In line with the University of Sheffield's wider vision and strategy, ScHARR aspires to provide excellent teaching and learning opportunities, drawing on the School's multidisciplinary base and its strong links with policy and practice networks. The recent period has been one both of growth and of continued innovation in programme design and delivery.

Since the last annual report, ScHARR has continued to consolidate and expand an extensive teaching programme. The emphasis remains on delivering excellent, research-led teaching, drawing on the many distinct disciplines represented in the School. Between 2007 and 2009, ScHARR further developed its postgraduate programme, with consequent year-on-year growth in numbers of taught and research students. We collaborate closely with the School of Medicine, to deliver the undergraduate medical degree, particularly in terms of public health, behavioural sciences, critical appraisal and research methods. In 2008, we launched the ScHARR Short Course Unit (led by Dr Wendy Baird), which provides professional education and training to staff in the NHS, social care, and health care industries. New postgraduate programmes have been launched successfully since the last report, and more are in the pipeline for September 2009. The emergence of a stronger and more devolved faculty structure in the University has meant that ScHARR will play a central role at faculty level in governance, curriculum and quality assurance development. In the following sections, we provide

an overview of current course provision and recent developments, and then look ahead to future plans.

We need to preface this, however, by noting some personnel changes. First of all, a number of staff who played key roles in the coordination of Teaching and Learning activities during the period covered by this report left ScHARR in 2009. Professor Nick Fox, our long-standing Director of Learning and Teaching, left to work on new projects; however, he remains in touch as honorary Professor of Sociology. Ms Carolyn Murray had the brief for ensuring the quality of the postgraduate student experience; she has taken up a post at the University of Leeds. Dr Paul Naylor, who formerly had the role of tutor for postgraduate research students, has also left. Mrs Judith Taylor, who coordinated the Teaching Support Unit as lead administrator, has taken up a post in Sociological Studies within the University.

The ScHARR Executive Group would like to express its thanks here to Nick, Carolyn, Paul and Judith, for their hard work and their invaluable contributions, both to the School's Learning Teaching and Assessment Strategy and to the smooth running of the teaching programme.

Dr Jenny Owen is now Director of Learning and Teaching (DLT), working closely with Dr Paul Bissell, who remains Deputy DLT. The brief for ensuring quality in the postgraduate experience has been taken on by Dr Caroline Dryden. Professor Alicia O'Cathain is now Director of Postgraduate Research Studies, which encompasses the role of postgraduate tutor. Our new lead administrator in the Teaching Support Unit is Ms Jane Spooner, who brings with her the extensive expertise gained in her previous post in Learning and Teaching Services (LeTS) within the University. The TSU team are now established in new open plan accommodation on level 1 of Regent Court, as envisaged in the last ScHARR report.

Current programmes and recent developments

ScHARR staff work with approximately 800 undergraduate medical students and 300 postgraduate taught and research students each year. Staff also provide short courses for more than 600 participants from healthcare organisations, primarily in the NHS. Below, we outline the key developments in this provision during the period covered by this report.

Undergraduate provision: a change of emphasis

Our last report noted the School's decision to close its undergraduate BMedSci in Health and Human Sciences, in order to focus on specialist postgraduate provision and its collaboration with the Medical School in educating undergraduate medical students. We are pleased to be



able to report that the final cohort of BMedSci students graduated in summer 2009, and that the programme has now been transferred to the School of Nursing and Midwifery. Feedback in the National Student Survey from these final Health and Human Sciences students was extremely positive; confirming the quality of education and support throughout their time with us. Active student representatives from this year group also played a significant part in the planning and consultation processes that ensured a smooth transition process for the degree programme to its new base.

ScHARR staff continue to work closely with colleagues in the School of Medicine, in delivering courses for Phases 1, 3a and 3b of the undergraduate medical curriculum, as well as in planning and curriculum development. Professor Fox convened a workshop in May 2008, designed to engage a broad group of School staff in reviewing approaches to teaching about public health within the undergraduate curriculum. Following this, two particular developments have taken place. First, Dr Rachel O'Hara and Dr Ravi Maheswaran, who lead on ScHARR contributions to Phase 1 and Phase 3 of the curriculum respectively, have redesigned some aspects of ScHARR teaching about public health, in order to integrate it more closely into the programme as a whole. Second, and complementing this, ScHARR staff have expanded the repertoire of specialist options that they offer to medical students, both through short research attachments and through the new 'Masterclass Integrated Learning Activities' (ILA) programme. The Masterclass ILAs were introduced in the Medical School in 2008, following the 2007 GMC review. Topics offered by ScHARR staff through this programme include Health in Developing Countries, Public Health Ethics, Drug Use and Misuse and Inter-professional Collaboration in Child Welfare. Finally, ScHARR continues to provide research methods training for medical students who intercalate a BMedSci within their studies.

Postgraduate provision: Continued expansion in taught programmes

The period from 2007 to 2009 has seen continued expansion in the School's range of postgraduate provision, as well as in student numbers. The most recent figures show that the School exceeded its targets for

PGT recruitment significantly. While our home student target was 59, we achieved an intake of 71 students. Our overseas target was 58 students; we recruited a remarkable 79. This success was the result of excellent collaboration between academic and administrative staff, ranging from in-depth market research and innovative advertising campaigns to rapid, streamlined responses to applications. In addition, successful engagement with the NHS strategic health authority initiative to fund staff to undertake postgraduate training enabled 17 UK students to register under this scheme.

In our last report, we noted the growth in the multidisciplinary Master of Public Health (MPH) programme, since its inception in September 2004. The model of building a suite of distinct course pathways within the MPH programme has proved very successful, and now includes the following:

- MPH (Master of Public Health)
- MPH (Health Services Research)
- MPH (Management and Leadership)
- MPH (International Development) (from September 2009)
- The two-year, full-time 'EuroPubHealth' programme, delivered in collaboration with partner universities in Europe.

As noted in the last ScHARR report, the MPH programme attracts a very wide range of UK, EU and other international students, and therefore offers excellent opportunities for critical debate and collaborative learning. Many MPH students arrive here with a strong track record of work in public health, which has generated particular themes and questions that they want to examine through in-depth study.

Alongside the Master in Public Health, the School hosts two additional PGT programmes, both by distance-learning: the MSc Health and Social Care Research and the MSc Psychotherapy Studies. These, too, continue to attract a mix of international students and UK-based students who wish to combine part-time study with full-time or part-time employment. Four further MSc programmes launch in September 2009: these are described later under 'Future Plans'.

Since the last report, ScHARR staff have consolidated joint work with colleagues in other departments, and three further PGT programmes are now offered on a joint basis:

- MSc in Economics and Health Economics, delivered jointly with the Department of Economics
- MSc in Health Informatics (distance learning), delivered jointly with the Department of Information Studies
- MSc Management (Health Management), delivered jointly with the School of Management
- MSc in Statistics with Medical Applications, delivered

jointly with the Department of Probability and Statistics.

As part of the on-going renewal of our programme, we will close our distance-learning MA in Psychoanalytic Studies over the next period. No further students will join the course from 2009, although staff continue to support current students while they complete their studies.

Postgraduate provision: Continued innovation and development

Our last report noted the importance of investing in curriculum development for an international student intake, in line with the University-wide Learning, Teaching and Assessment Strategy. We have taken this forward both by reviewing the content and delivery method of core modules, and by developing additional specialist modules. So, for example, during 2008-9 the core 'Introduction to Public Health' module within the MPH programme was revised and redesigned, in order to become 'Key Issues in Global Public Health'. This new emphasis facilitates critical discussion and comparison of theoretical perspectives and case-study examples from around the world. At the same time, a new module in 'International Health Systems' has also been introduced; this uses inquiry-based learning in order to facilitate in-depth study of health systems in three different countries. A revised Research Methods unit and a new Qualitative Research Methods unit were also introduced.

The last report also noted a need to develop some cross-programme modules, in order to avoid duplication and to make best use of staff expertise. This has been achieved, particularly with reference to research methods. However, the growth in student numbers, noted above, has prompted us to continue to review and develop teaching methods in core areas of the curriculum such as research methods and statistical techniques. We will continue to use large group lectures for some features of delivery, but will also ensure that these are complemented by seminars and workshops, through which students can apply and consolidate their learning.

Following up a further point made in the last report, we have continued to address the needs for generic skills development among students, both through an expanded induction programme and through a pilot scheme to introduce 'action learning sets'. The rationale underlying the use of action-learning sets is that these can both provide an avenue for enhanced study skills support, and can also facilitate critical debate and discussion throughout a PGT programme. In 2008-9, action-learning sets were offered to a small sub-set of MPH students. Based on the positive evaluations received, the scheme is due to be extended to all MPH students. There will be a continuing review process, in order to ascertain whether or not it should be extended to the other PGT programmes in the School.

Finally, there have been two further initiatives in relation to improving quality in teaching and learning. First, in January 2008, the School ran a day workshop on assessment and feedback, to address one of the areas that students across the University often criticise. The workshop was facilitated by Professor Phil Race of Leeds Metropolitan University, and was well-attended. One specific outcome has been the appointment of Dr Jenny Freeman as Examinations and Assessment officer, providing support and leadership in terms of assessment design and implementation.

Between 2007 and 2009 a set of seventeen specific learning and teaching benchmarks were developed by the School Teaching Committee. These benchmarks are aspirational, and are intended to enable evaluation of current practice against standards derived from University and School guidance and procedures. They are public documents and have been published on the School's current students' web pages. A rolling programme of evaluation is in place, led by the ScHARR Teaching Committee.

Postgraduate provision: Graduate research

In the last report, we noted that ScHARR had continued to expand the recruitment of postgraduate research students. At that stage, there were approximately 70; this has now increased to over 80. The School has successfully gained studentships from the Economic and Social Research Council (ESRC), the MRC and the EPSRC, as well as internal University studentships. In 2009 16 new candidates joined us and 10 of our existing students gained PhDs and MDs. As a sign of our commitment to the importance of postgraduate research in ScHARR we have established a new role of Director of Postgraduate Research Studies, working with a committee which monitors quality and progression, the student experience and the numbers of research students studying at ScHARR.

One of the challenges of continued success is accommodation: we have a dedicated open-plan room for PGR students in Regent Court, and the PGR population is already outgrowing this space. This is a matter for continued consideration by the School Facilities group, working closely with student representatives.

Continuing Professional Development: The Short Course Unit

The Short Course Unit, launched in 2008, has developed ten specialist courses in its first year, and also offers the option of designing bespoke courses jointly with interested organisations. Courses already developed include introductory programmes for health care professionals in areas such as systematic review techniques, statistical analysis and writing for publication. There are also more specialised courses, including, for example, evidence synthesis in qualitative research and the use of utility data in cost-effectiveness modelling. The SCU Director liaises closely with

colleagues in the East Midlands and Yorkshire and Humberside Strategic Health Authorities. Both SHAs have provided substantial financial support to NHS staff to undertake SCU courses as well as PGT and PGR programmes.

Future Plans

Our strategy for 2009-10 and beyond is based on consolidating the existing teaching programme, adding further programmes within our specialist areas of expertise and continuing to develop innovative teaching and learning approaches. As ever, the emphasis is on working with partners – including local and regional NHS organizations and our own alumni – to develop our ideas, our teaching and learning expertise and our course content.

In terms of our collaboration with Medical School colleagues in teaching undergraduate medical students, we need to note here that the GMC has completed a comprehensive review of the 2003 ‘Tomorrow’s Doctors’ framework, and published an updated edition in 2009. This will have implications for the curriculum from 2011-12 onwards. Dr Ravi Maheswaran, Dr Rachel O’Hara and Dr Jenny Owen are working closely with colleagues to make appropriate plans. Tomorrow’s Doctors places a strong emphasis on various aspects of multi-disciplinary public health teaching, and so we anticipate that the School will be well-placed to respond to these changes.

At postgraduate taught level, four new programmes have been approved for delivery from September 2009. The MSc in Health Economics and Decision Modelling (the first course of its type in the UK) will be led by ScHARR’s specialist staff in health economics and decision science, and will offer education and training to meet the needs of governments, healthcare organisations and the pharmaceutical industry.

The other programmes are all collaborative initiatives with other University departments. The MSc Clinical Research is a dedicated programme for doctors, nurses, dentists and allied health professionals, providing a thorough grounding in research methods. It has developed with colleagues from the School of Medicine and the Sheffield Teaching Hospitals NHS Foundation Trust. Substantial NHS research funding has been secured for health service staff release to join this programme. (The MPH (International Development) is a welcome addition to the MPH suite, and will be delivered jointly with the Department of Geography. The MSc in Statistics with applications to Medicine will be offered in conjunction with the Department of Probability and Statistics, and will offer a more specialised training route than those already available in that department or in ScHARR .

Overall, an enormous amount has been achieved between 2007 and 2009. At a School level, we have continued to increase both student numbers and the range of PGT programmes and short courses, whilst also making new strides in terms of innovative teaching techniques and materials. Our teaching spans the range from short courses with a policy and practice emphasis to in-depth Masters and postgraduate research initiatives. Some of these initiatives have resulted in awards and grants: for example, Dr Jenny Freeman gained a Senate award as a rising star in teaching and learning in 2008.

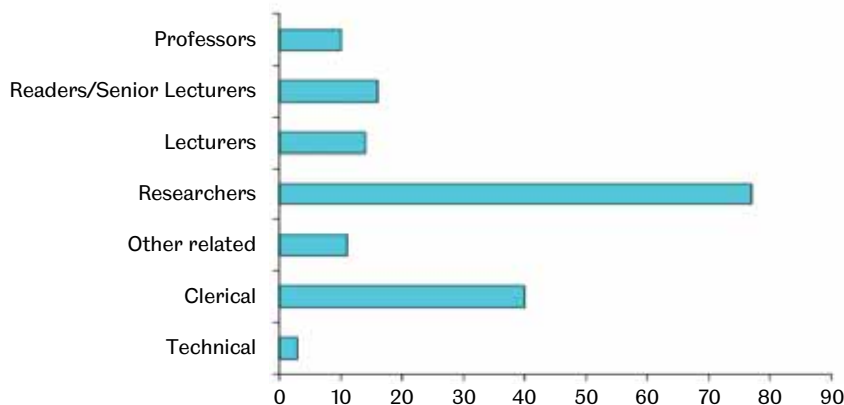
We leave the final words in this section to two of our recent graduates: Sarah Cuthbertson, who completed the MPH programme in 2008 and published a paper based on her dissertation in the Journal of Public Health, and Robert Akparibo, who completed the two year EuroPubHealth programme in 2009:

“As well as being tremendously beneficial in improving my skills and knowledge to support my role as a health intelligence analyst, the MPH also allowed me to develop an interest in other areas of public health.” (Sarah)

“Having worked in the field of public health for five years in different countries in Africa, after my undergraduate degree, I have come to better appreciate the complex and integrated nature of many of the health problems developing countries face. This realisation reinforced my interest in public health... I see the public health programme being offered in the University of Sheffield to be one of the best in the world.” (Robert)

Staff numbers by type (WTE)

(At 31st July 2008)

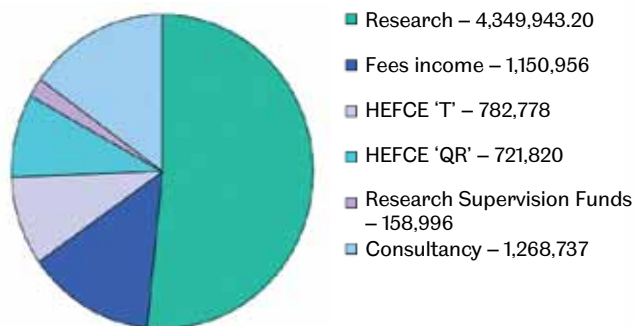


Student numbers by type WTE

- **Undergraduate**
 - MBChB service teaching – 71.65 (Home 66.09, Overseas 5.56)
 - BSc Health and Human Sciences – 49.67 (Home 48.67, Overseas 1)
 - Other service teaching – 7.85 (Home 7.65, Overseas 0.2)
- **Postgraduate taught students** – 122.65 (Home 53.26, Overseas 69.39)
- **Postgraduate research students** – 30.54 (Home 23.04, Overseas 7.5)

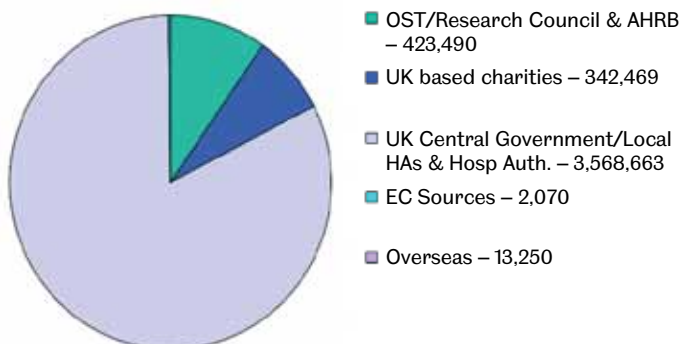
Income for 2007–2008

Income



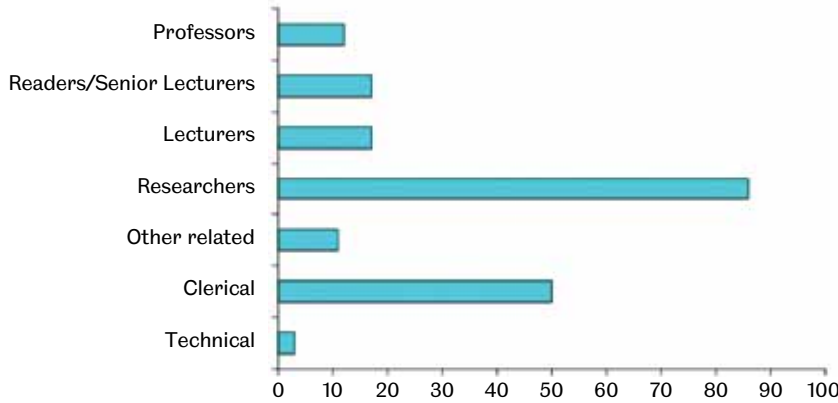
Research Spend for external grants

Gross Spend – 4,349,942



Staff numbers by type (WTE)

(At 31st July 2009)

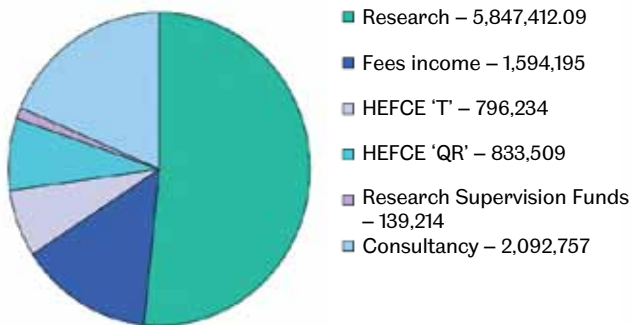


Student numbers by type WTE

- **Undergraduate**
 - **MBChB service teaching** – 75.64 (Home 70.76, Overseas 4.88)
 - **BSc Health and Human Sciences** – 25 (Home 25)
 - **Other service teaching** – 12.8 (Home 12.4, Overseas 0.4)
- **Postgraduate taught students** – 147.92 (Home 63.69, Overseas 84.23)
- **Postgraduate research students** – 28.96 (Home 19.63, Overseas 9.33)

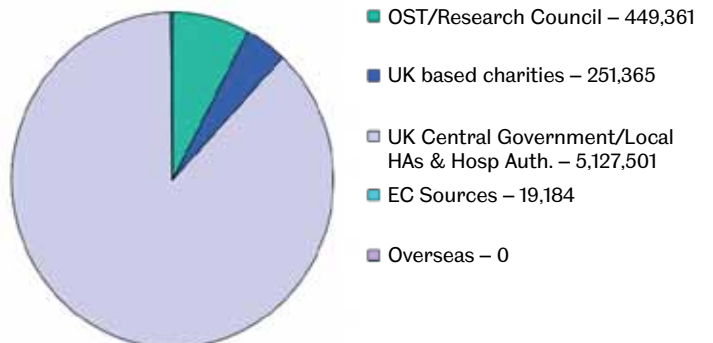
Income for 2008–2009

Income



Research Spend for external grants

Gross Spend – 5,847,411



Staff of the School at 1st of August 2009

Professor R L Akehurst, BSc (Econ) (London), HonMFPHM
Dean of the School of Health & Related Research

Professor J P Nicholl, BA, (Bristol), MSc (CNA), DSc (Sheffield),
CStat, FFPH, **Deputy Dean and Director of Medical Care
Research Unit**

Central Resources Group

S M Ward, MBA (Leeds) *Head of CRG and School Administrator
(Left June 09)*

J M Taylor, BA (Birmingham) *Teaching Administrator*

M J Jacobs, *RDSU Manager*

M Barton, *Trent RDSU Administrator*

J Bennett, *Short Course Administrator*

S Bray, *Course Administrator*

C Clarke, *YH RDS Secretary/Clerical Officer*

N A Croft, *Senior Clerical Officer*

A Firth, *Course Administrator*

J Foers, *Finance Officer*

S A Greenhough, *Course Administrator/Secretary*

J Hinchcliffe, *Course Administrator*

C Hollins, BSc (Sheffield), *Postgraduate Research Administrator*

M Johnson, BA(Hons)(Sheffield Hallam), *Course Administrator*

B Keally, *Clerical Officer*

A E Kitchin, *Finance Assistant*

S Mansbridge, *SCHARR Receptionist*

C A Oliver, *Clerical Officer*

S N Preston, *Clerical/Finance Officer*

P J Qanem, *Trent RDSU Administrator*

V L Rodgers, *Personal Assistant*

S Shahid, *Secretary*

L Thompson, *Clerical Officer*

G Toon, *Course Administrator (Left June 09)*

L Trueman, *Course Secretary (Left Oct 08)*

S I Walker, *SCHARR Receptionist (Left April 08)*

M Williams, *Course Administrator*

K Woodhead, *Secretary/Clerical Assistant, Dean's Office*

D Hoyland, *Network Manager*

S Whittaker, *Senior IT Technician*

M Tinker, *IT Technician*

Health Economics and Decision Science

Alan Brennan, BSc, MSc (London), ARCS (London), PhD
(Sheffield) *Director of Section, Professor of Health Economics and
Decision Modelling*

R Ara, BSc (Sheffield Hallam), MSc Hons (Sheffield), *Senior
Research Fellow*

C Beecroft, BA (Loughborough), DPS (Loughborough), MA
(Sheffield), *MCLIP Information Specialist*

L Blake BSc, CDipAF, MSc, *PhD Research Associate*

A Booth, BA (Reading), MSc DipLib (Aberystwyth), MSc (Wales),
MCLIP, *Reader in Evidence Based Information Practice and
Director of Information*

J E Brazier, BA (Exeter), MSc (York), PhD (Sheffield), *Professor of
Health Economics*

F Campbell, RGN, HV, DN, BSc (King's College), MPH (Sheffield)
Research Associate

A J Cantrell (nee Wilkinson), BA, MA (Sheffield), *MCLIP
Information Specialist*

J Carlton, BMedSci, MMedSci (Sheffield), *Research Associate*

C Carroll, BA(Hons) MA (London) MSc (Sheffield) PhD (Cantab),
Research Fellow

J B Chilcott, BSc (Manchester) MSc (Strathelyde), CMath (MIMA),
Senior Research Fellow, *Technical Director of Public Health
Collaborating Centre*

K Cooper, BSc, PhD (Sheffield), *Research Fellow*

C Czoski-Murray, MA, PGCE, RGN (Edinburgh), MSc (Sheffield),
Research Fellow (left October 2009)

S Dixon, BSc (Southampton), MSc (York), PhD (Sheffield),
Professor of Health Economics

A Duenas, BSc, MSc (Texas), PhD (Sheffield), *Research Fellow*

M Essat, BSc, MSc, *PhD Research Associate*

P Fitzgerald, BAppSc (WAIT), PhD (Western Australia), *Research
Fellow*

M Gillett, BSc (Sheffield), CIMA, *Research Fellow*

L Guillaume BA, MSc, PhD (Sheffield), *Information Specialist*

S Harnan, BSc (Sheffield), MSc (Bath), *Research Associate*

P Hemingway, RGN, RSCN, BSc (Hull), PhD (Nottingham)
Research Fellow

M Hernandez, *PhD Research Fellow*

K Herrmann, MSc (Sheffield), *Research Associate (left April 2009)*

M W Holmes, BSc (Sheffield Hallam), *OR Analyst*

S P Holmes, BA (Dunelm), MHSM, DipHSM, *Business Manager/
Research Fellow*

S Hummel, BSc (Birmingham), MSc (Lancaster), *Research Fellow*

R Jackson, BSc, PhD (Sheffield), *Research Associate*

R Jones, BSc (Sheffield Hallam), MSc (Sheffield) *Research Associate*

E C Kaltenthaler, BSc, BGSU (Bowling Green State), MSc, PhD
(London), Senior Research Fellow, *Managing Director of SCHARR
Technology Assessment Group (SCHARR-TAG)*

J Karnon, BA (Leeds), MSc (York), PhD (Brunel), *Senior Research Fellow (left November 2007)*

K Kenjegalieva, MSc (Loughborough), PhD (Loughborough), *Cost Effectiveness Modeller (left September 2007)*

N Latimer, BSc (Nottingham), MSc (York), *Research Fellow*

C Lynch, BA (Leicester) PG Dip, MCLIP, *Information Services Manager (left early 2008)*

M Lloyd-Jones, BA, M Phil, DPhil (Oxford), MSc (Sheffield), CHSM, *Senior Research Fellow*

L Longworth, BA, MSc (York), PhD (Brunel) *Senior Research Fellow*

J Madan, MA (Cambridge), MSc (York), MSc (Salford), *Research Associate (left July 2009)*

Y Meng, MSc (Warwick), *Research Associate*

J Michaels, BA, MB BChir MA (Cantab), FRCS (Ed), MChir (Cantab), *Professor of Vascular Surgery*

Y Oluboyede, BA (Liverpool), MSc (Sheffield), *Research Associate (left May 2008)*

S F Paisley, BA (Liverpool), MA (Loughborough), ALA, *Senior Research Fellow*

S Palfreyman, BSc (Sussex), RN, MSc (Sheffield), *Research Nurse/Honorary Lecturer*

A Pandor, BSc (Oxford Brookes), MSc (Aberdeen), *Research Fellow*

T Peasgood, BA (Leicester), MSc (Oxford), PhD (Imperial), *Research Associate*

D Papaioannou BChD Hons (Leeds), MSc (Edinburgh) MCLIP, *Research Associate*

H Pilgrim, BSc (Sheffield), MSc (Lancaster), *Research Associate*

E Poku, MSc (Sheffield), *Research Associate*

R Purshouse, MEng, PhD (Sheffield), *Research Fellow*

R Rafia, MSc (Paris), *Research Assistant*

J Ratcliffe, BA (Manchester), MSc (York), PhD (Brunel), *Senior Research Fellow in Health Economics (left November 2007)*

A Rawdin, BSc (Sheffield Hallam), MRes (York), *Cost-Effectiveness Modeller*

A Rees, BA (Loughborough), DPS (Loughborough) MA (Sheffield), MCLIP, *Information Specialist*

J R Roberts, BA (CNAAB) (Bristol), MSc, PhD (Leeds), *Professor of Health Economics (left October 2007)*

D Rowen, BA, MSc, PhD (Sheffield), *Research Fellow*

A Scope, PhD (Sheffield), *Research Associate*

E Simpson, BSc (Sheffield), PhD (Reading), *Research Fellow*

P Shackley, BA, MSc, PhD, *Senior Lecturer in Health Economics*

T Sharma, MSc (Sheffield), *Research Associate (left July 2009)*

X Shi, BSc, MSc, *Statistician in Health Economics and Decision Science (left October 2008)*

J Stevens, BSc Hons (Brunel), Lecturer, *Director of the Centre for Bayesian Statistics in Health Economics (CHEBS)*

K Stevens, BSc, MSc (York), PhD (Sheffield), *Research Fellow*

M Stevenson, BSc, PhD (Lancaster), *Senior Research Fellow*

P A Sutcliffe, BSc (York), DPhil (Oxon), *Research Fellow (left April 2008)*

A Sutton, BA(Hons) (Worcester), MA(Sheffield), MCLIP *Information Specialist*

P Tappenden, BA (Nottingham Trent), MSc (Sheffield), *Research Fellow*

A Tattersall, BA, MSc (Sheffield), *Information Specialist*

S Thomas, MBBS (London), MRCP (UK), FRCR, MSc, *Senior Lecturer and Consultant Radiologist*

J Tosh, BA (Leicester), MSc (LSE), *Research Associate*

A Tsuchiya, MA, MEcon, PhD (Kyoto), *Reader in Economics and Health Economics*

A Wailoo, BSc (Bradford), MA (DeMontfort) PhD (Open), *Senior Lecturer in Health Economics*

S E Ward, BA (Durham), *Senior Research Fellow*

M D Whitfield, MBA (Keele), RGN, RMN, MISBM, *Senior Research Fellow (left Jan 2009)*

S Whyte, MMath (Warwick), PhD (Birmingham), *Research Associate*

H Buckley Woods, BA, MSc (Sheffield), MCLIP, *Research Associate*

T Young, BSc (UEA), MSc (Southampton), CStat, PhD (Brunel), *Lecturer in Health Economics and Medical Statistics*

KA Aleixos, *Section Administrator*

J Dunn, BA, DipBJ (Liverpool), *Section Secretary*

A Hilton, *PA to A Brennan*

S McEvoy, *Section Secretary*

T Mead, BA (Essex), DipLib (Wales), *Information Officer*

E Metham, *PA to J Brazier*

C Molina Hall, *PA to J Brazier (left Dec 2007)*

S Rizzo, BA (Sheffield City Polytechnic), *Information Officer*

G Rooney, BA (Sheffield Hallam), *ScHARR-TAG Publications Officer/Project Administrator*

A Shippam, *PA to E Kaltenthaler, Programme Administrator*

C Watson, *DSU Administrator (left May 2009)*

K Wilson, *PA to J Michaels*

V Wright, *Finance Officer*

Health Services Research

S Mason, MBBS (London), FRCS (Glasgow), MD (Sheffield), FCEM (UK), *Director of Section and Reader in Emergency Medicine*

M Hawley, BSc (Sheffield), PhD (Sheffield) MIPEM, CSci, Hon FRCSLT, *Deputy Director of Section and Professor of Health Services Research*

J Arnold, RGN, ENB, *Research Fellow (left December 07)*

S Ariss, BA (York), PhD (York), *Research Associate*

R Bacigalupo, BA (Greenwich), MSc (Sheffield), PhD (Sheffield), *Research Fellow*

S J Blackburn, BSc (Sunderland) MSc (Stratchclyde), *Research Associate*

C M Blackmore, BSc (Sheffield), MA (Sheffield), DipCouns (Sheffield), *Teaching Fellow*

M Bradburn, BSc (Newcastle), MSc (Southampton), CStat, *Research Fellow*

S Brownsell, BSc (Bangor), PhD (Abertay), *Research Fellow*

J Burr, BA (Lancaster), MA (Keele), *Lecturer (left February 09)*

M J Campbell, BA (York), MSc (Sheffield), PhD (Edinburgh), CStat, *Professor of Medical Statistics*

F Cardinaux M.SC (Dijon France), PhD (Lausanne Switzerland) *Research Associate*

T Chater, BSc (Leeds), *Research Associate*

A E Clarke, BA (Sheffield), MA (Sheffield), PhD (Sheffield), PGDip (Health Education) (Sheffield Hallam), RGN, *Lecturer*

J Cohen, BSc (Leicester), PhD (Sheffield), *Research Fellow*

P Coleman, BA (Sheffield), Graduate Diploma in Law (Huddersfield), *Research Fellow*

J Cooke, BNurs (Manchester), MA (Sheffield), RGN, NDN, HV cert, *Director Trent RDSU (left March 09)*

C L Cooper, BSc (Manchester), PhD (Nottingham), *Head CTRU, Senior Research Fellow*

J Coster, BA (Manchester Metropolitan), MSc (Sheffield), *Research Associate*

S Creer, BA (York), MSc (Edinburgh), *Research Assistant*

P A Cudd, BSc (Sheffield), PhD (Sheffield), *Senior Research Associate*

E Croot, PGDip (Leeds), MMedSci, PhD (Sheffield), *Research Fellow*

E A Cross, BA (Sheffield Hallam), MA (Sheffield), *Research Associate*

K Dent-Brown, DipCOT, BSc (York St John), PhD (Hull), *Research Fellow*

M Diamairo, BSc Hons (Zimbabwe), MSc (LSHTM), *Research Assistant*

K Doran, BA Hons (Oxon), MA Hons (Melbourne), Grad. Dip. Psychology (Bolton), PCHE (Sheffield), AHEA, *Research Associate*

C Dryden, BSc (Bristol), PhD (Bristol), Cpsychol, AFBPsS, *Lecturer*

P E Enderby, DipCST, MSc, PhD (Bristol), *Professor of Community Rehabilitation*

L B Ellis, BA (Sheffield Hallam), MSc (Sheffield Hallam), PhD (Sheffield), *Senior Lecturer (left April 09)*

D Fitzsimmons, BA (UCLAN), MHSc, (Toronto), PhD (UCLAN), PQIA (UCLAN), *Research Fellow*

N J Fox, BSc (Bristol), MSc (London), PhD (Warwick), FHEA, *Reader, Director of Teaching (left October 09)*

J V Freeman, BSc (London), BA (Manchester Met), MSc (London), PhD (London), CStat, *Senior Lecturer*

C Gibson, BSc, PhD (Sheffield), *Research Associate (left April 09)*

S Goodacre, MBChB (Leicester), MRCP (London), Dip IMC, FCEM, MSc, PhD, *Professor of Emergency Medicine*

R Hadrill, BSc (Sheffield), MA (Sheffield), *Research Midwife*

A Haywood, BSc (Sheffield Hallam), PhD (Sheffield), *Research Associate*

D Hind, BA (Cambridge), MA (Sheffield), PhD (Sheffield), *Research Fellow*

T. Houghton, MEd (Huddersfield), Cert. Ed (Huddersfield), Cert CosN (Manchester), *Lecturer*

R Hutten, BA Hons (Cambridge), MA (Bradford), *Research Associate*

R M Jacques, BSc (Hull) MSc (Sheffield), PhD (Sheffield), GradStat, *Research Associate*

M. Johnson, BSc (Sheffield Hallam), *Research Associate (left Sept 07)*

G Jones, MA (Cambridge), MSc (Sheffield Hallam), MPA (Warwick), *Lecturer (left March 09)*

G L Jones, BA (Humberside), DCH, MA (Kent), DPhil (Oxford), *Lecturer*

S A Julious, BSc (UMIST), MSc (Reading), PhD (London), *Senior Lecturer*

E Knowles, BSc (Salford), MA (Sheffield), *Research Fellow*

D Lee, BSc (Cardiff), PhD (London), *Research Associate*

A Loban, BSc (Preston), PhD (Sheffield), *Data Manager*

C Maguire, BSc (Sheffield), *Research Associate*

J Martindale, BSc Hons (Coventry), *Data and Quality Assurance Manager*

Y Meades, RGN (Bradford), *Research Nurse*

A Metcalfe, BA (Leeds), MA (Warwick), PhD (Lancaster), *Research Associate (left December 07)*

A Moran, BAppSci (Sydney), *Research Associate*

G Mountain, PhD (Leeds), MPhil (Leeds), DipCOT (Derby School of Occupational Therapy), *Professor of Health Services Research (Assisted Living Research)*

S Nancarrow, BA (Queensland), MA (Queensland), PhD (Australian National University), *Trent RDSU Research Co-ordinator*

J P Nicholl, BA, (Bristol), MSc (CNAA), DSc (Sheffield), CStat, FFPH, *Professor of Health Services Research and Director of Medical Care Research Unit*

A O'Cathain, BSc (Southampton), MSc (Southampton), MA (Nottingham), CStat, PhD (Sheffield), *Senior Research Fellow*

C O'Keefe, BA (London), MA (Manchester), *Research Associate*

A O'Rourke, MBChB (Sheffield), MSc (Sheffield), *Lecturer (Left March 09)*

J Owen, BA (Cambridge), PhD (Hallam), *Lecturer (Left February 09)*

R Palmer, BA (Reading), *Research Associate*

A Pickering, MB, ChB University of Birmingham, MRCS (Glasgow), MD, (Hull), *Clinical Lecturer in Emergency Medicine*

C Pickstone, LCST (DeMontford), MA (Keele), PhD (Sheffield), *Research Fellow (Left October 2007)*

C Relton, BA (Newcastle), *Research Associate (left 09)*

F Sampson, BA (Liverpool), MSc (Sheffield Hallam), *Research Fellow*

M Santarelli, BSc (Leeds), RGN, *Research Nurse*

D.Saxon, BSc (Birmingham), MSc (Sheffield), *Research Associate*

N Shephard, BSc (Sheffield), MSc, *Research Associate*

G A Shipton, BA (Nottingham), DipCOT, DipPsych, Dip HE, MIPIPA, *Senior Lecturer (left August 08)*

G R Smith, BA, PhD (Stirling), MA (Essex), *Lecturer (Left September 09)*

M Szollosy, BA Hons (Toronto), MA (McGill), PCHE, PhD (Sheffield) *Lecturer*

M D Teare, BSc (Sheffield), MSc (Sheffield), PhD (Manchester), *Lecturer in Genetic Epidemiology*

A Thake, BSc (Essex), *Research Assistant*

J K Turner, BSc (Sussex), MSc (Sheffield), RN, *Research Fellow*

S J Walters, BSc (Keele), PCGE (Keele), MSc (Leicester), PhD (Sheffield), CStat, *Professor of Medical Statistics and Clinical Trials*

R Wilson, BA (Liverpool John Moores), MA (Manchester), MSc (London), *Research Associate*

H J Wood, PGDip (Liverpool John Moores), RGN, *Research Nurse*

M Hassall, BEd (Sheffield), *Section Administrator*

K Beck, BSc (Open University), *Administrator CTRU*

A Blinston, BA (Newcastle Northumbria), *Clerical Assistant*

J Casson, *Clerical Assistant*

M Chattle, BA (Sheffield), MA (Sheffield), *Clerical Assistant*

A Constantine, BA Hons (Derby), *Personal Assistant to Glenys Parry*

M G Jane, *Clerical Assistant*

A Keys, *Personal Assistant to Mark Hawley*

M Lidster, *Personal Assistant to Pam Enderby and RCGP Administrator*

K Paulucy, *Clerical Assistant*

S Proctor, *Clerical Assistant*

J Turner, *MCRU Secretary*

G A Willoughby, *Personal Assistant to Jon Nicholl*

D White, BMus (Edinburgh), *Clerical Officer*

Public Health

E Goyder, MB, BCh (Cambridge), MD (Leicester), *Director of Public Health & Reader in Public Health Medicine*

P Bissell, BA, MA, PhD (Manchester), Reader, *Deputy Director of Public Health & Director of MPH*

W Baird, BSc, PhD (King's College London), MSc (Leicester), *Senior Research Fellow (Director for NIHR Research Design Service for Yorkshire and the Humber)*

S Barnes, BA (Hons), PhD (Sheffield), *Lecturer*

S K Baxter, BSc (Leeds Metropolitan), MSc (Greenwich), M.Ed (Sheffield), PhD (Sheffield), *Research Fellow*

L Blank, BSc (Birmingham) PhD (Sheffield), *Research Associate*

J D Boote, BA (Cambridge), MSc (Bedfordshire), PhD (Bedfordshire), *Research Fellow*

J A Burr, BA (Humberside), MA (Keele), PhD (Lancaster), *Lecturer (Transferred from HSR Feb 09)*

J Carlisle, BA, (Open University), Dphil (York), *Research Associate (Retired June 09 – awarded title of Honorary Research Fellow)*

A E Clarke, BA (Sheffield), MA (Sheffield), PhD (Sheffield), PGDip (Health Education) (Sheffield Hallam), RGN, *Lecturer (Left Nov 08)*

J Cooke, BNurs (Manchester), MA (Sheffield), RGN, NDN, HV cert, *Director Trent RDSU (Left March 09 – awarded title of Honorary Senior Research Fellow)*

R J Cooper, BSc (Sunderland Polytechnic), LLB Law (Leeds), MA (Leeds), PhD (Nottingham), *Lecturer*

E S Everson-Hock, BSc (Leeds), MSc (Leeds), PhD (Sheffield Hallam), *Research Associate*

N J Fox, BSc (Bristol), MSc (London), PhD (Warwick), FHEA, *Professor of Sociology & Director of Teaching (Transferred from HSR Feb 09)*

Professor A Hutchinson, MB, BS, FRCGP, FFPHM, DCH, DObstRCOG, *Professor in Public Health*

R Jackson, BSc (Sheffield) PhD (Sheffield), *Research Associate (Left Aug 07 – transferred to HEDS)*

M Johnson, BSc (Sheffield Hallam), RGN, ENB, *Research Associate*

G Jones, MA (Cambridge), MSc (Sheffield Hallam), MPA (Warwick), *Lecturer (Transferred from HSR Mar 09)*

A C K Lee, MB ChB (Edinburgh), MSc (London), *Clinical Lecturer*

R Maheswaran, MB, ChB, MD (Sheffield), MRCP, MFPHM, *Clinical Senior Lecturer*

A McIntosh, BA, MSc, MPhil, *Senior Research Fellow (left June 08)*

P S Meier, MSc (Hertfordshire), PhD (Manchester), *Senior Lecturer*

J Messina, BA (McMaster, Canada), MA (McMaster, Canada), *Research Assistant*

R A O'Hara, BSc (Ulster), MSc (Belfast), PhD (Sheffield), *Lecturer*

C Relton, BA (Newcastle), MSc (Sheffield), PhD (Sheffield), *Research Fellow*

A J O'Rourke, MBChB (Sheffield), MSc (Sheffield), *Lecturer (Transferred from HSR Mar 09)*

J Owen, BA (Cambridge), PhD (Sheffield Hallam), *Senior Lecturer (Transferred from HSR Feb 09)*

T W Pearson, BSc (Liverpool), MMedSci (Sheffield), *Research Associate*

D M Pickin, MB ChB (Bristol), DCH, DRCOG, MRCP, MFPHM, MD, *Clinical Senior Lecturer*

T Smith, BA (Middlesex), PGCE (London), PGCert (Sheffield Hallam), MSc (Sheffield Hallam), *Research Fellow (left March 09)*

M Strong, BSc (Durham), MB ChB (Sheffield), MRCPCH, *Research Fellow*

P Van Cleemput, SRN, RSCN, RHV, PhD (Sheffield), *Research Fellow*

S J Lincoln White, BSc (Bath), MSc (Liverpool John Moores), *PhD (Nottingham), Lecturer*

B Anderson, *Secondment*

M Bond, *Secondment*

J Burrows, *Secondment*

P Dickens, *Secondment (left April 09)*

I Duckworth, *Secondment (left June 09)*

M Elhassan, *Secondment (left Sep 07)*

J Gladwin, *Secondment*

N Payne, *Secondment*

S Stirling, *Secondment (Moved to Honorary Senior Clinical Lecturer Mar 09)*

J Thompson, *Secondment (left June 08)*

C Grinold, *Section Administrator & PA to Dr Goyder & Dr Bissell*

L Hazlehurst, *Part-time Secretary (Retired May 08)*

E Marsden, *Part-time Secretary (left April 08 – transferred to HEDS)*

V Walker, *Co-ordinator for NICE Public Health Collaborating Centre*

S Wilson, *Section Secretary*



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