

**NMHB Mental Health Scoping Study**  
**Report from the NMHB SPOG Working Group**  
**(January 2005)**

**1. Introduction**

In July 2004 the NMHB Strategy and Portfolio Overview Group (SPOG) convened a small working group to undertake a scoping study of mental health research, in order to consider both the balance of the current MRC portfolio and the future research funding opportunities in this area.

The key drivers behind the exercise were:

- Mental ill health represents a significant burden on health care systems and society (comprising six of the top ten global disease burdens), which needs to be reduced by the provision of improved services based on evidence based practice. However, current levels of investment in mental health research, both in the UK and globally, are disproportionately low compared to diseases of similar burden.
- Improving the wellbeing of people with mental disorders is a major health priority of the UK Government, and a number of key policy documents have identified research in mental health as an essential element for the modernisation of mental health services.
- Advances in basic sciences such as genomics, neuroimaging, cognitive neuroscience and developmental neurobiology, together with increased acceptance of psychobiosocial models of disorders, have opened up the possibilities for significant progress in understanding the aetiology and pathogenesis of mental disorders.
- Engagement in research is not prioritised by the mental health community and this culture is poorly developed relative to other disease areas. Indeed there is evidence that research capacity in this area appears in decline.
- Mental health represents one of five strategic areas in which networks funded by the Department of Health will build clinical research infrastructure, as part of the newly formed UK clinical research collaboration (UKCRC). MRC needs to develop an informed position in relation to this development, so that the MRC research agenda can be optimally aligned with the injection of Government funding into this area.

**2. SPOG working group membership**

Jan Scott (chair) *	(Institute of Psychiatry, Kings College London)
Ed Bullmore *	(Dept of Psychiatry, University of Cambridge)
Jim Hagan	(VP Biology, Psychiatry, GSK, Harlow)
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### 3. Terms of Reference

- To identify the strengths and weaknesses of the current UK and MRC portfolios, and review the progress made over the last five years.
- To identify key international trends in mental health research.
- To advise on research opportunities and priorities for the future.
- To advise on priority areas for co-ordination and co-operation (eg. internationally, with industry, with Department of Health, etc.)
- To advise on emerging issues in MRC support for training, careers and infrastructure.

### 4. Method

The Working Group was convened in July 2004 and held 3 meetings during the summer/autumn prior to completion of this report. The report was compiled after:

- considering strategic reviews of mental health research published in the last 4 years.
- assimilating available portfolio information in relation to MRC's current spend in the mental health area (as well as that of other overseas funding agencies), and trends in funding for clinical trials and fellowships.
- undertaking a questionnaire-based survey of key opinion leaders and stakeholders to gather opinions in relation to the strengths and weaknesses of mental health research in the UK, and opportunities for the future. 29 opinions were obtained, spanning the Health Departments, industry, learned societies, and UK and international academics.

### 5. Background

#### 5.1 **The burden of disease**

In 2001 the World Health Organisation published an influential report (*Mental Health: New Understanding, New Hope*) that identified the burden of mental disorders and their costs in human, social and economic terms. It reported that:

- An estimated 450 million people worldwide suffer from neuropsychiatric conditions, with further increases in the number of sufferers likely in view of the ageing of the population, increased infant survival in developing and restructuring countries (meaning a greater at risk population for adult mental disorders), worsening social problems, and civil unrest.
- Mental and behavioural disorders are estimated to account for 12% of the global burden of disease, yet the mental health budgets of the majority of countries constitute less than 1% of their total health expenditures.
- Six of the top ten global burdens in adults in developed countries are mental disorders disease. By 2020 mental and neurological disorders are likely to account for 15% of the total disability-adjusted life years (DALYs) lost due to all diseases and injuries.
- Unipolar depression ranks 1<sup>st</sup> in adults aged 19-45 years and 4<sup>th</sup> in the list of leading causes of lost DALYs across all ages, with self-harm and alcohol-use disorders also ranking within the top twenty. It is estimated that deaths by suicide in untreated mood disorders are equivalent to those of some cancers and IHD.
- By 2020 global childhood neuropsychiatric disorders will have risen by more than 50% from current levels, to become one of the five most common causes of morbidity, mortality and disability amongst children.

The situation in the UK had been described a couple of years earlier in the report *Saving lives: Our Healthier Nation (Department of Health, 1999)*, which identified:

- Treating mental illness costs the NHS and social services an estimated £7.5 billion every year.
- Suicide is the leading cause of death among men aged 15-24 years and the second most common cause of death among people aged under 35 years. Suicide and undetermined injury cause 4,500 deaths every year and account for 400,000 years of life lost before age 75 years. Over 95% of those who commit suicide had been suffering from mental illness before their death.
- 16% of the adult population suffers from a common mental disorder such as depression or anxiety.
- 12% of children and adolescents suffer from a conduct or emotional disorder.
- At least four people in every 1000 suffer from a psychotic disorder, though this may be an underestimate and rates for schizophrenia and bipolar disorders may be about 1-2% of the general population.

## 5.2 Funding for mental health research

Funding for mental health research in the UK is low relative to the burden of disease. However, this is true in most other countries too, and the proportion of MRC spend on mental health in relation to other disease areas is similar to the situation found in the USA and Canada (between 4.5 and 6.5%).

Comparison to MRC spend in the major disease areas (in £ m):

		Total budget	MH	Cancer	CVD
MRC	2002	418	19 (4.5%)	75 (18%)	24 (6%)
NIH	2004	15,493	1,009 (6.5%)	3,114 (20%)	1308 (8.5%)
CIHR	2004	281	14 (5%)	42 (15%)	32 (11%)
Aus NHMRC	2003	120	15 (12.5%)	32 (27%)	18 (15%)

(% = proportion of total budget. Note that the definitions and categorisation used by the funding agencies may not be directly comparable, and organisations differ in their responsibility for basic research, so the total proportion of spend allocated to disease-specific projects varies )

Within the UK the main research funders are the MRC, the Wellcome Trust, and the Department of Health (including the HTA and SDO programmes). When compared to other major disease areas there is a lack of UK charity support for research in mental health, although the Stanley Biomedical Research Institute, a US-based charity, has supported a number of UK-based programmes in bipolar disorder and associated conditions.

Mental health represents a vast potential market for pharmaceutical companies, but is an area which carries very high risk of failure at R&D or later stages, partly because basic knowledge of aetiology and processes is weak, and animal models are, mainly, absent.

Further detail in relation to the levels of funding of mental health research, both for UK and overseas organisations, is presented in [Annex 1](#).

## 5.3 Research output – bibliometric analysis

In 2001 the Department of Information Science at City University, London was commissioned to undertake a bibliometric evaluation of mental health research as part of the 2002 DH Strategic Review of R&D in Mental Health. The study characterized the outputs of mental health research internationally during the five years, 1996 – 2000, focusing on 14 countries in addition to the UK: Austria,

Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland and USA.

The results indicated that the global lead in MH research is held by the US, particularly in basic research. The USA accounted for 47% of the total output, compared to the UK which came second with 12% (both figures are a little higher than in other fields). When an analysis was made of the proportion of output with the highest impact factor, the US also led the way, along with Finland. The UK was ranked a little above the world average. However it should be noted that such an analysis is very broad, and does not account for the relative differences for impact factors across the disciplines contributing to mental health research.

## 5.4 Mapping the UK research portfolio in mental health

The Mental Health Research Funders' Forum (MHRFF) was formed in 2003 to aid co-ordination and strategic planning amongst the various agencies and charities funding mental health research in the UK. One of the initial MHRFF activities has been to undertake a strategic analysis of UK research in mental health, whereby the portfolios of the Research Councils, the Health Departments, NHS research programmes and the charities supporting mental health research will be examined. By analysing the research projects against agreed frameworks it is anticipated that individual funders will be able to review their own priorities and portfolios, as well as identify the duplications and gaps in mental health research funding. The aim is to develop a more strategically coordinated approach to funding mental health research, which will link in with other initiatives in mental health R&D, notably identifying priority topics.

The project is due to publish its results in 2005. The analysis will capture all peer-reviewed grants that are live at a given date, which will be classified in terms of a Common Scientific Outline, a list of mental health conditions (based upon ICD-10 classifications), and the type of research it is (e.g. animal, clinical, records based etc.). In addition, data will be collected about the research, such as the age group it chiefly relates to, whether or not the project is user-led, and its relevance to ethnic minorities and carers.

## 6 [Findings from the study](#)

### 6.1 Strengths and weaknesses of UK research in mental health

UK strengths, relative to other countries, had previously been identified as:

- psychiatric genetics; developmental psychiatry; behavioural and psychopharmacology; development of psychological therapies; psychiatric epidemiology; health services research (*MRC Council Paper 2001*).
- primary care; learning disability; forensic mental health (*DH Strategic Review of R&D in Mental Health, 2002*).

Similarly, weaknesses in the UK portfolio have previously been identified as:

- the lack of large clinical trials; understanding the neurobiological basis of mental health disorders (*MRC Council Paper 2001*)
- substance misuse; user involvement; dual-diagnosis (*DH Strategic Review of R&D in Mental Health, 2002*).

Our qualitative survey of opinion tended to confirm these earlier assessments. Those consulted felt that the UK had major strengths in:

- genetics, neuroimaging, epidemiology, schizophrenia, antisocial behaviour, developmental psychiatry, CBT and behavioural interventions, health services research.

The qualitative survey of opinion leaders also identified weaknesses in relation to:

- the overall level of funding for mental health research relative to the burden of disease
- the relative lack of research into common psychiatric disorders, eg. Mild depression and anxiety
- the lack of integrative studies, eg. at the biological-clinical and biological–psychosocial interface
- the lack of capacity and research training in mental health in general, and especially in child and adolescent mental health
- strategies for exploitation of the NHS for research
- a weak research culture in psychiatric health care, most marked in child and adolescent care
- links with industry, which were seen as weak relative to those in the USA.

## 6.2 The MRC portfolio in mental health research

An analysis has been undertaken of the distribution of MRC funding for mental health research, as defined by the portfolio of grants within the Programme Manager's mental health patch, and the changes in its balance between 2000 and 2004. Detail is provided at [Annex 2](#), though note that this does not constitute the full dataset which provided the figures for MRC spend in section 5.2. The analysis was performed by categorising the grants live at a certain date within either year, based upon the ICD-10 categorisation criteria. Clearly the data represent a 'snapshot' of the portfolio, and are prone to distortion from the impact of large grants falling in or out of the analysis window as well as by the fact that the research was only classified by virtue of its primary focus.

Mental health research in this instance covers: addictions, ADHD and conduct disorders, anxiety, autism, depression, eating disorders, mood disorders, personality disorders, schizophrenia and other psychoses, stress-related disorders, suicide and self-harm, and CFS/ME. Note that for the purposes of this analysis, mental health does not include studies of neurodegenerative disease, nor neuro-developmental, imaging technology, and pharmacological studies at the basic end of the spectrum.

Key points:

- a) MRC currently funds 59 studies at a total cost of £38.6m. This encompasses 33 research grants, 12 clinical trials (of which 7 are small trial platforms funded under the first call of the Brain Sciences initiative), and 14 training awards. Comparing 2000 and 2004, funding has risen 35% greater than inflation. The number of grants and training awards has changed little, though, and the largest single change in the portfolio is the addition of some large-scale, high cost, clinical trials.
- b) Current major areas of investment are: psychiatric genetics and gene/environment interaction, neuroimaging, schizophrenia, and neuropharmacology of depression. More funding is directed towards schizophrenia research than other areas of greater prevalence eg. depression and mood disorders, anxiety, addictions, OCD . This trend is also seen in the NIMH portfolio (though not that of CIHR), and may reflect the perception that research questions are more tractable in this area.
- c) There is no current support for research into suicide and self-harm or stress-related disorders, while there is only one grant in anxiety.
- d) Collaboration - there is one MRC Centre with a mental health focus (the MRC Social Genetic Developmental Psychiatry Research Centre), and 4 Co-operative groups. There are no MRC Units. Across the whole MRC portfolio there are 33 Units, 6 Centres and 150 Co-operatives.

- e) Networking and collaboration may be facilitated through the recent funding of PsyGrid, a £2m e-science programme for the creation of a national infrastructure to accelerate key areas of psychiatric research. Initially this will focus on first-stage psychosis.
- f) Clinical trials – currently 4 of the 5 full trials funded in the mental health area have a psychological treatment focus. There has been an increase in the funding commitment to intervention studies since 2000, reflecting the funding of two major RCTs in CFS/ME in response to a strategic highlight notice and trial platforms under the Brain Sciences initiative.
- g) Training fellowships in mental health are under-represented in the MRC portfolio relative to the burden of disease. This appears to reflect low application rates across all schemes. Application data also indicates that interest in non-clinical fellowships is very low.

The opinion survey was generally supportive of the current balance of funding the portfolio, although the lack of investment in milder psychiatric disorders and the skewed distribution of clinical trials was noted by several.

### **6.3 Other UK funders**

The other major funders of mental health research in the UK are the Wellcome Trust and the Department of Health (DH). It was not possible to obtain detail of these portfolios in time for this report; however, a comprehensive analysis will be provided by the MHRFF portfolio mapping project, due for publication in the summer of 2005 (see section 5.4).

The Department of Health has recently announced the injection of substantial funding for mental health research infrastructure as part of its UK clinical research collaboration (UKCRC). This initiative covers five key health areas, and will be funded to the level of £100m per annum by the end of 2008. The proportion available to aid mental health research is as yet undecided, although it is expected that the Mental Health Research Network programme will undergo substantial expansion.

Several other Department of Health activities are also relevant to the mental health research agenda:

- The National Service Framework (NSF) for mental health
- National Institute for Mental Health in England (NIMHE)
- Mental Health Research Network (MHRN)
- Health Technology Assessment programme (HTA)
- Service Delivery and Organisation programme (SDO)

In addition the devolved Health Departments fund mental health research programmes.

Further detail is provided at [Annex 3](#).

### **6.4 Industry**

The UK remains an important base for multinational pharmaceutical companies and several retain well established R&D bases (Lilly, MSD, Pfizer, Astra-Zeneca, GSK). The therapeutic focus amongst these laboratories is mixed although at least three (Lilly, MSD, GSK) retain a substantial focus on CNS and, in particular diseases associated with mental health. Technological, genetic and genomic advances have substantially changed the landscape for drug development in recent years. Target identification and target validation are both a major focus of attention and investment. This has spawned a number of funding/ investment initiatives which impact on the UK mental health clinical and academic communities (eg. University of

Dundee Kinase Consortium, SNPS Consortium, GSK Depression Network, MRC/GSK Mouse Mutagenesis Project) in addition to funding of specific clinical projects, support for studentships and grant funding for smaller scale projects.

Accurate investment figures are difficult to establish although companies are prepared to invest in supporting technological and scientific developments in business critical areas.

Pipeline attrition remains a major problem for the pharmaceutical and biotechnology sector and whilst failures due to pharmacokinetics have reduced in recent years those due to safety or efficacy issues remain high. High failure rates impact not only the cost structures of drug discovery companies but also patients by slowing the rate at which new medicines can be advanced. Investments are therefore being made in fundamental science to improve our understanding of the pathophysiology in mental health diseases and increase the likelihood of identifying the critical biological pathways and targets. In addition, translational technologies are at a premium and are attracting increasing levels of investment from industry. In this context translational technology encompasses a span from animal models of disease and mechanism (enhancing prediction of efficacy from animals to man) to experimental medicine procedures (eg. imaging technology, cognition test batteries, psychophysical procedures) which provide proof of concept before committing to major Phase II programmes. With an expanding list of novel targets the need for validated translational procedures will grow.

## **6.5 International research trends**

Information is presented in [Annex 1](#) in relation to the portfolios of the US National Institute of Health, the Canadian Institute of Health Research, the Australian National Health and Medical Research Council, and the EU Framework Programme.

Outside of these areas, it proved difficult to collect reliable data in relation to the mental health portfolios of other international funders. This was due to the lack of accessible information on current programmes, as well as the differences in defining what constitutes mental health research. In certain cases, especially in Europe, it has also proved difficult to identify the major funding sources for such research.

The most detailed information was obtained for NIH, the leading funder for mental health research globally (see [Annex 1d](#) for detail). The major focus of investment is in the National Institute of Mental Health (NIMH), where funding has risen by 56% since 1999 to \$ 1.4 billion per annum.

The major strategic direction for NIMH funding has been to establish interdisciplinary supergroups and networks, often linked to industry and with a goal of rapidly translating technological advances to the clinic. Examples include networks such as the NIMH collaborative schizophrenia linkage-study (which includes UK groups), the NIMH brain mapping project, the NIMH STAART autism initiative, and the Matrix project for standardising cognitive test batteries and outcome measures. In addition NIMH has invested in a discipline hopping scheme to attract new thinking into mental health research, and training initiatives to address the pre-clinical /clinical interface.

This approach to strengthening research through co-operation and networking is mirrored elsewhere.

Another notable international network is the GSK Depression Network, which links industry and academic groups in a three-year multi-site study (including UK researchers). The study – which represents the largest collection in the world of patients with recurrent depression - has the primary objective of identifying the susceptibility genes for unipolar depression.

Several European collaborative activities have also been identified:

- German KompetenzNet: led by Wolfgang Gaebel this Government funded initiative has helped forge collaborations between different Universities in a range of topic areas in mental health.
- ZonMw (NL) network in first episode psychosis: led by Rene Kahn this 10 year project is based around 4 centres, and brings together imaging and epidemiology.
- FP6 – funding for 4 major collaborative projects in mental health, all UK led (see [Annex 1g](#)).
- European psychosis network (twin cohort study) – led by Robin Murray at IoP, this collaborative project was established to share cohorts and standardise MR image acquisition protocols across different European Centres (UK, NL, Germany, Denmark, Finland).

## 6.6 Clinical trials

### Funding for MRC trials

MRC currently funds 5 major clinical trials in mental health, as well as 7 trial platforms funded under the first call of the Brain Sciences initiative. DH has recently committed £1m to help fund further trial platforms in priority areas for mental health research under the second call, which is due to reach funding decisions in February 2005.

Data relating to the MRC clinical trials portfolio was extracted from the 2003 MRC review: *Clinical Trials for Tomorrow* (see [Annex 4](#)). This indicated that:

- The number of MRC clinical trials in mental health is low relative to the burden of disease; by number MH trials are placed 4<sup>th</sup> in disease category (behind cancer, infections and CVD), while in terms of funding mental health and behavioural disorders are ranked 7<sup>th</sup>.
- When analysed for intervention type, the number of trials involving psychological therapy are relatively low, ranking 7<sup>th</sup> after drug, radiotherapy, surgery, diagnostic, education and service delivery.
- Data on the success rates of trial applications submitted to MRC between 1997 and 2001 indicates that the number of mental health applications funded is low relative to the number invited to submit full applications, ie. of those having passed the outline review stage. For mental health applications ~ 14% of the invited full applications were funded, the lowest proportion in the major disease categories.

### Other support within the UK

- Previous reviews have repeatedly pointed to the paucity of large scale and definitive intervention studies in the mental health area, recognition of which prompted the formation of the Mental Health Research Network. It is hoped the MHRN will aid trial design and recruitment for multi-centre trials in the UK.
- DH supports many small trials and pilot studies in the mental health area, though it looks to MRC for support of the major studies.
- Charity investment in this area is minimal.
- Industry investment in phase III trials is increasingly looking towards other global locations due, amongst other factors, to the high cost of running trials in the UK. A major aim of the MHRN and the UKCRC initiative is to create a more attractive climate for industry investment.

Other needs have also been identified through the opinion survey:

- Funding for trials of complex interventions, and of combined therapies

- More focus on studies of effectiveness (service delivery in natural settings)
- Support for the development of new methodologies
- Recruitment of statisticians and social scientists to the area
- Improved partnership with industry

## 6.7 Research capacity

### Demand in the community

One question the study wished to address was whether the low number of funded studies in mental health reflected a lack of demand as opposed to a lack of competitiveness. Three indicators are available in relation to this, which taken together, do suggest that demand is reasonable in all areas, and high in some:

a) Applications for clinical trials (see [Annex 4](#)):

The number of applications received between 1997 and 2001 was 71, second only to cancer and ahead of cardiovascular disease. However, the proportion finally funded was low, at approximately 4%, in comparison to 11% for cancer trials.

b) Applications to the Neurosciences and Mental Health Board through the standard response-mode grant schemes (see [Annex 5](#)):

Figures for the past year indicate that research grant applications in the area of mental health have constituted 14% of the proposals submitted to the Board (17 out of 122 proposals considered in 2004). The current November Board meeting received 83 applications under the new research grant scheme, 12% in mental health. This is consistent with the current level of funding in the NMHB portfolio, though it does not suggest growth.

c) The Brain Sciences initiative ([Annex 5](#)):

The most recent indicator of research demand in the neurosciences sector has been provided by the Brain Sciences initiative. This targeted initiative attracted a total of 642 applications over two calls, 42.5% of which were in mental health. Funding decisions have been taken on those received under the first call, where 29/316 proposals were funded, 12 in mental health (41%) – this, and the quality of applications in the recent autism call, suggest there is potential for growth in high quality applications in the right circumstances.

### MRC fellowships

Data have been analysed for awards made in years 2000/1 and 2003/4 ([Annex 5](#)):

- MRC currently funds 14 fellowships/CEGs in the mental health area, compared with 15 in 2000.
- In the most recent award round (2003/4) 5 fellowships were awarded in the mental health area, out of a total award number of 42. This is consistent with sustaining, rather than increasing, the overall level of MRC funding for mental health research in relation to the rest of the portfolio.
- The success rates for the mental health applications were above the average across all areas, although the number of applicants was low.
- It is notable that only one non-clinical fellowship is currently funded in mental health, whilst no non-clinical applications were received in either 2000/1 or 2003/4.

### Council of Heads of Medical Schools report on clinical academic posts

A CHMS report on clinical academic staffing levels was published in 2004. The report found that:

- Psychiatry accounted for 9% of all clinical academic posts, but that the number of positions had declined by 28% between 2000 and 2003.

- There had been shrinkage across all areas, although psychiatry was one of the worst affected disciplines.
- The problem was more acute at lecturer level, where 54% of psychiatry posts had been lost since 2000. This decline was second only to public health.

The lack of encouragement for researchers in the mental health area is also manifested by the number of vacant chairs and consultancy posts in UK psychiatry. The failure to attract sufficient numbers of talented young researchers into mental health research may also reflect the combined effects of service workload and ambivalence towards research in clinical psychiatry.

## **7 Conclusions from the Working Group**

### **7.1 Strengths and weaknesses in the UK**

On the whole, we accept the main recurrent themes emerging from the subjective assessments of UK mental health research offered by the UK and overseas experts we consulted. While there was a strong tendency for each expert to highlight their own areas of interest, we concentrated on the views that recurred, and especially those which were reinforced by previous portfolio analyses or bibliometric data.

The MRC's work to reinforce mental health research since 2000 has had some effect, most notably in increased spend on clinical trials and trial platforms, and support for clinical trials which are larger, and involve more challenging and complex interventions. However, in most respects, the pattern of support has not changed, and there has been little growth in other areas with the exception of schizophrenia and depression where funding levels have rise 2.3 fold over the past 4 years.

MRC cannot aspire to support a comprehensive portfolio of research in all areas of mental health in the near future – the funds simply are not available to do this without undermining the strengths we already have. However, we do see a need to broaden the portfolio gradually, where new opportunities arise, or by building out from existing strengths.

### **7.2 Research trends and opportunities**

Internationally and nationally, we would highlight three broad areas of opportunity:

#### a) Psychological treatments and combinatorial interventions

- There are extensive opportunities for greater or better use of psychological treatments, but in many conditions and settings the evidence base to guide development and use is very scant.
- Combination therapies (both psychosocial-drug and drug-drug) are likely to have a major impact on comorbidity, and industry investment in this area will never be significant.
- The UK is an international leader in the development of CBT and psychological treatments.

#### b) Treatment effectiveness

- Better evidence is needed of the effectiveness and acceptability of treatments in realistic settings, and improvements in organisation and networking (eg. MHRN) are making this more achievable.
- The UK has potential to make a distinctive contribution by improving its use of the NHS for studies of treatment effectiveness; for example research in primary care is difficult to undertake in the US. At the same time, we need to accept that in some areas therapy effectiveness will vary according to context, and results may not be internationally generalizable.

- Opportunities also exist to better understand social context and ethnicity.
- c) i) Integrative research
- The interface between biological, psychological and social research is underdeveloped and represents a major opportunity for progress. The USA has already made good progress in developing more integrative programmes and the UK needs to (at least) keep pace. Interdisciplinary research that relates behaviour to pathology, cognitive systems and genetics is likely to have high pay-off. Encouragement is needed for research into functional and pharmaco-genomics with appropriate links to neuroanatomy and development of improved technology platforms.
  - Several UK centres are multidisciplinary in their approach, although most have achieved this by learning appropriate technical skills rather than by attracting researchers from other disciplines into the mental health domain
- ii) Experimental medicine
- Closely related, but with some distinct challenges, is the need perceived in academic medicine and industry to encourage experimental medicine – ie. patient or population based research exploring aetiology or novel treatments (including early stage trials). In part this reflects the international shift in emphasis towards translational research by most major funders.
  - The UK has potential to increase inward investment in this area. This is due to strengths in clinical and psychological research methods, biological analysis, genetics and imaging, which in combination can give better assessments of the likely value of potential new treatments at an early stage, with obvious economic benefits. Options would include: capital investment in clinical research facilities/imaging; the application/identification of technologies allowing for early proof of concept studies in small patient groups; investment in leading edge methodology/training; or broad spectrum support for centres.
  - Unique opportunities also exist in the UK to better utilise past university, MRC and Wellcome investments in epidemiology, as well as the NHS. Existing cohorts could be better exploited, both through improved use of statistical approaches and linkage to genetic data, though data sharing needs to be addressed. Industry is increasingly aware of the potential of such datasets, and inward investment could be encouraged in this area.
  - An enhanced MHRN should help deliver integration and standardisation, as well as patient involvement in study design and conduct

Some other themes that seemed less important, but might still warrant further discussion included:

- Development of better, more predictive animal models of disease
- E-science and web-based interventions
- European collaboration

### **7.3 Obstacles to progress**

We would identify three main obstacles (other than limitation of funds) to improved mental health research, which can and should be addressed by MRC or others:

#### a) An un-supportive service culture in relation to research and training/careers

While it is difficult to prove objectively, we accept the view that the culture in psychiatry has been less supportive of research than in other specialties. The difficulty of patient-caregiver relations, ideological divides, and workloads may all be involved. Prioritisation of mental health research by DH (and the MHRN) represent important opportunities to address this, and MRC should also explore joint working with the Royal College of Psychiatry to develop strategic dialogue, and promote better investment in training at SpR level.

b) Methodological support for trials and population studies

There are not enough trial statisticians, trials support units, or health economists involved in mental health research full time.

c) Expectations of research reviewers

Clinical trials and other complex studies in mental health are particularly easy to fault, either on the details of intervention or study design, or on organisation and recruitment. The recommendations of the MRC *Clinical Trials for Tomorrow* Report may help here, as should MHRN, but careful monitoring will be needed, and alternative funding / commissioning routes may need to be considered if the complexity of the research proves a persistent barrier to success in peer review.

## 8 Discussion at the November 2004 meeting of NMHB

The Board discussed the following issues:

- **Overall funding and MRC strategy**
  - Should funding for mental health research funding be increased?
  - Are opportunities for productive, high quality mental health research better than in the past?
- **Options for strengthening mental health research**
  - How can the breadth of support be improved while sustaining funding in key areas of strength?
  - How can MRC (alone or with others) strengthen integrative research and experimental medicine?
  - How should we monitor changes in clinical trials development and assessment?
  - Is there a case for creating a more explicit funding pathway – from exploratory studies to pilot to definitive trial – and if so, should stronger interactions be nurtured between MRC and the HTA/SDO programmes?
  - Are there particular conditions or sectors that need special approaches in promoting mental health research?
- **Building research capacity**
  - How can clinical research careers in mental health best be promoted, and is targeting needed to specific areas?
  - Do the same solutions work for other professional groups allied to medicine (eg. nurses, pharmacists, occupational therapists)?
  - What should be MRC's objectives for non-clinical research training and careers in mental health?
- **Partnerships**
  - What should be MRC's priorities in improving co-ordination through UKCRC?
  - What steps should be taken to encourage enhanced and more systematic links between academia and industry?
- **Future work**
  - Are there future information needs above a) the MHRFF strategic analysis of UK mental health funding which will deliver comprehensive information on the UK portfolio in Spring 2005, and b) the implementation of more robust mechanisms at MRC to allow for future monitoring of portfolio trends and statistics
  - Should frontier workshops be considered in order to address key barriers to progress?

## UK and international funding for mental health research

### a) MRC

Portfolio information by disease area is most recently available for the year 2001/2.

MRC gross spend for this year was £418m, of which £18.9m was committed for research directly attributable to mental health disorders research (4.5% of total budget).

The following have been included in this analysis: **Addictive behaviours, Behavioural disorders, Cognitive disorders, Language disorders, Neuroses, Personality disorders, Psychoses**, as well as the neurodegenerative diseases **Alzheimers** and **dementia**.

However, the mental health category excludes epilepsy and CJD, as well as studies of normal mental function (eg. memory, perception, learning, behaviour), psychological responses to disease, and children's normal mental and behavioural development.

*Funding for mental health research in relation to the whole MRC portfolio (in £ m per annum)*

<i>Cancer and Cell Proliferation</i>	<i>75.3</i>
<i>Infections</i>	<i>51.6</i>
<i>Neurological Disorders</i>	<i>26.3</i>
<i>Circulatory Diseases</i>	<i>24.1</i>
<i>Reproductive Health</i>	<i>21.4</i>
<b><i>Mental Health Disorders</i></b>	<b><i>18.9</i></b>
<i>Health of Elderly People</i>	<i>18.7</i>
<i>Nutrition</i>	<i>17.1</i>
<i>Asthma and Other Respiratory Disorders</i>	<i>11.4</i>
<i>Diabetes</i>	<i>9.8</i>
<i>Vision and Hearing</i>	<i>9.2</i>
<i>Arthritis and Rheumatism</i>	<i>5.5</i>
<i>Oral Health</i>	<i>1.4</i>
<i>Children and Adolescents</i>	<i>30.2</i>
<i>Other Diseases and Basic Research</i>	<i>87.7</i>

For further detail see: [http://www.mrc.ac.uk/index/current-research/current-overview/current-15\\_research\\_divisions/current-mental\\_health\\_disorders.htm](http://www.mrc.ac.uk/index/current-research/current-overview/current-15_research_divisions/current-mental_health_disorders.htm)

### b) Department of Health

DH funds a significant amount of research in mental health, through its own R&D programmes as well as the HTA and SDO (see [Annex 3](#) for further detail).

The recent DH Strategic Review of R&D in Mental Health, published in 2002, revealed that:

- NHS spends approximately £130m on mental health research
- The majority of activity is small scale research - 40% of projects are described as 'own account' (ie. have no external funding), while very few are collaborative.
- Only 11% of all mental health projects (221 projects) had external funding of at least £150k. This included 31 randomised controlled trials (2% of the total projects analysed).

### c) Wellcome Trust

The most recent portfolio information available indicates that the WT spent some £25m in the field of major mental disorders between 1995 and 2002 through response-mode funding.

This included £7.5m for schizophrenia, £4.5m for major mood disorders, £3m for psychoses research in general and £5m for autism, ADHD and other early onset disorders.

In 2002 WT was funding 6 programme grants, though the majority of awards were short-term project grants or personal awards.

### d) US National Institute of Health (NIH)

The NIH total budget in 2004 was \$ 27.9 billion. Of this, the spend on mental health research was \$ 1.8 billion, equivalent to 6.5% of the total budget.

#### NIH spend by disease area since 2003

FY2003 funding levels for various diseases, conditions, and research areas, based on actual grants, contracts, research conducted at NIH, and other mechanisms of support in FY2003. The FY2004 and FY2005 figures are estimates, and are based on the FY2003 levels, the FY2004 enacted level, and the FY2005 Budget.

Note that this table includes estimates for research in many disease areas which are *also* included under other disease areas, because the research contributes to multiple fields of research. The table is therefore not additive.

<u>Research/Disease Areas</u> (annual spend in \$ m)	<u>FY 2003</u> Actual	<u>FY 2004</u> Estimate	<u>FY 2005</u> Estimate
<b>Cancer Research</b>	<b>5,432</b>	<b>5,605</b>	<b>5,760</b>
<b>Cardiovascular Research</b>	<b>2,286</b>	<b>2,355</b>	<b>2,414</b>
<b>Neurosciences Research</b>	<b>4,711</b>	<b>4,859</b>	<b>4,995</b>
<b>Mental Health</b>	<b>1,762</b>	<b>1,817</b>	<b>1,867</b>
Alcoholism	493	507	523
Alzheimer's Disease	658	680	699
Attention Deficit Disorder (ADD)	103	106	109
Autism	93	96	99
Depression Research	288	296	304
Drug Abuse	1,023	1,050	1,079
Infectious Diseases	2,441	2,732	2,809
Schizophrenia	335	345	354
Substance Abuse	1,462	1,502	1,546
Suicide	31	32	33
Violence Research	111	115	118

## NIH spend by Institute

NIH has four major intramural programmes relevant to mental health

- National Institute of Mental Health (NIMH)
- National Institute of Alcohol Abuse and Alcoholism (NIAAA)
- National Institute of Drug Abuse (NIDA)
- National Institute of Child Health and Human Development (NICHD)

<u>Annual spend in \$ m</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
<b>NIH total budget</b>	<b>15,643</b>	<b>17,821</b>	<b>20,458</b>	<b>23,296</b>	<b>27,067</b>	<b>27,888</b>
NIAAA	295	292	340	384	416	429
NICHHD	749	858	976	1,112	1,206	1,242
NIDA	611	686	781	887	962	991
NIMH	859	973	1,106	1,247	1,341	1,382

## US National Institute of Mental Health (NIMH)

NIMH is one of 27 components of the National Institutes of Health (NIH). In 2003 the NIMH Budget was \$1.3 billion, which corresponds to approximately 5% of the total NIH budget.

NIMH funds research by scientists across the country as well as in NIMH studies in the internal research program. Through its extramural program, NIMH supports more than 2,000 research grants and contracts at universities and other institutions across the country and overseas. Approximately 500 scientists work in the NIMH intramural research program.

The NIMH budget increased 56% between 1999 and 2003. A breakdown of investment in the major MH disease categories is presented below (in US \$ m):

### NIMH Research Funding

	<u>FY 1999</u>	<u>FY 2003</u>	<u>Increase from 1999</u>
Major Depression	113	213	89%
Schizophrenia	197	312	59%
Bipolar Disorder	58	87	50%
Autism	19	51	165%
<b>All NIMH Research</b>	<b>824</b>	<b>1,285</b>	<b>56%</b>

The 56% budgetary increase is smaller than the rise in the overall NIH budget, which has essentially doubled since 1998 by virtue of 15 percent increases for each of the past five years. However, in 2004 the growth slowed to just 2.7 percent, providing a total budget of \$27.9 billion.

## e) Canadian Institutes of Health Research (CIHR)

The total CIHR budget for 2004/5 is \$ Can 662 m (£1 = \$ Can 2.36)

By analysing the portfolio data available on the web (by keyword), the following funding allocations could be determined:

Figures correspond to the annual spend on live grants and fellowships in 2004/05

Area	Funding (in \$ Can m)	No of awards
<b>Mental Health</b>	<b>33</b>	<b>335</b>
ADHD	0.01	1
Autism	3	28
Depression	11	122
Schizophrenia	7	96
<b>Cancer</b>	<b>99</b>	<b>1,008</b>
<b>CVD</b>	<b>76</b>	<b>787</b>
<b>Neuroscience</b>	<b>90</b>	<b>1,083</b>

(Note: Mental health includes some neurodegeneration / neurology, but not Alzheimers)

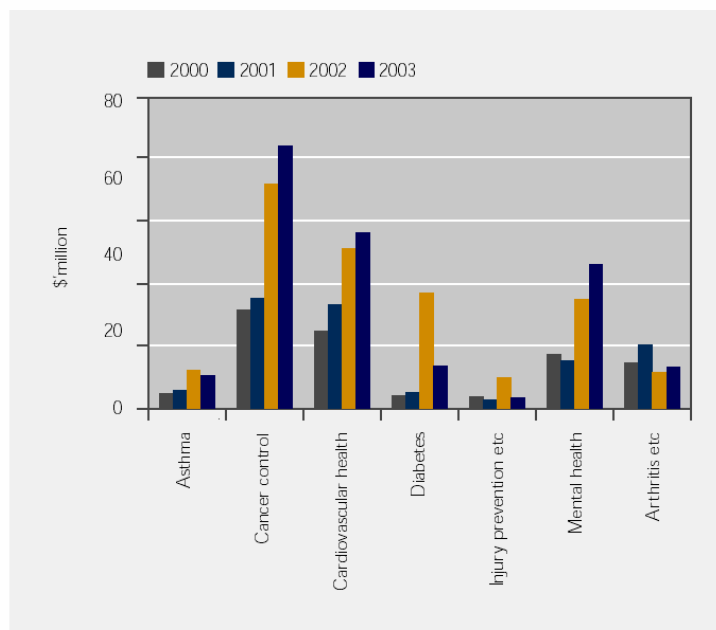
## f) Australian National Health and Medical Research Council (NHMRC)

The total NHMRC budget for 2003 was \$ Aus 300 m (£1 = \$ Aus 2.5)

### NHMRC-funded research in National Priority Areas

The following general portfolio information is available, indicating a 2.5-fold increase in funding for mental health research between 2000 and 2003. A similar increase has been made in the other major areas of investment – cancer and CVD.

Source: NHMRC Performance Measurement Report 2000-2003



## g) EU funding – Framework Programmes

Within Framework Programme 6 (FP6) the main area of interest for neuroscience and mental health lays within Priority 1: "Life Sciences, Genomics and Biotechnology for Health", and comes under the budgetary heading "major diseases".

Currently half way through FP6, 18 research projects have been funded for a total budget of €82m within the major diseases sub-section "Studying the brain and combating diseases of the nervous system". A further mental health-related project was funded under a separate section covering genomic-based therapies. It is envisaged that a similar number of projects will be funded in the second half of FP6.

This would then mean almost a doubling of neuroscience funding from FP5 to FP6. However, compared to FP5, a lower number of projects have been funded, reflecting the focus on large scale "Integrated Projects" and "Networks of Excellence".

Growth of FP funding for neuroscience (including MH):

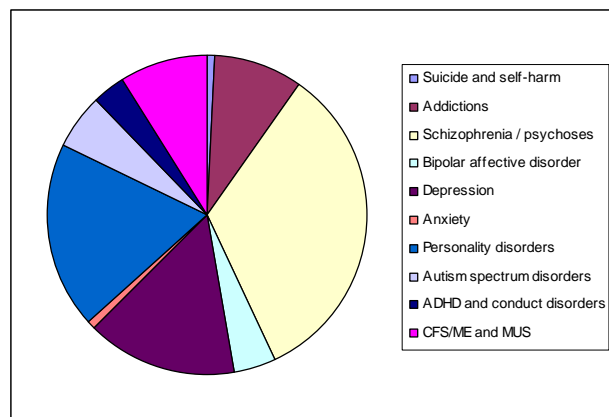
	<u>Budget</u>	<u>No. of projects</u>
FP4 (1994-98)	€ 85 m	114
FP5 (1998-2002)	€ 85 m	86
FP6 (2002- ) <i>projected</i>	€ 170 m	~ 35

FP6 to date:

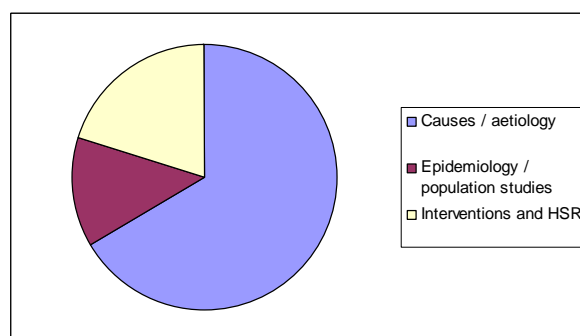
- Total funding for life-sciences under Calls 1 + Call 2: €924m
- This includes €227m for the "Major Diseases" category. Out of that, as mentioned above, around €82m has been allocated to neuroscience projects.
- Within the neuroscience category, 3 out of the 18 projects funded fit our categorisation of mental health research (the others relate to neurodegenerative disease and neurology). All are UK-led:
  - Bill Deakin (Manchester) – mood disorders
  - Ian Kitchen (Surrey) – addiction
  - Tony Bailey (Oxford) – autism
- In addition, the pharmacogenomics project in mental health is UK-led
  - Peter McGuffin (MRC SGDP centre) – drugs for depression

**MRC portfolio: Mental Health Patch; Live Grants, June 2004**

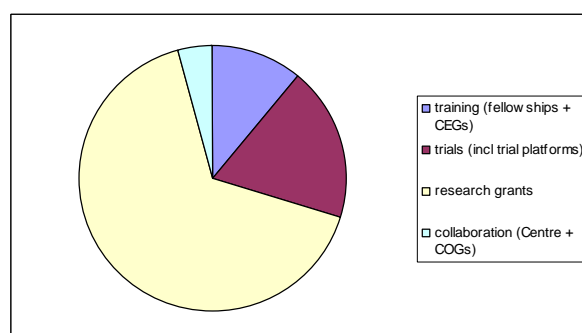
a) Analysis of the primary focus of live grants in mental health, encompassing all grants within the portfolio of the mental health Programme Manager. This constitutes 59 grants with a total funding commitment of £38.6m. Classification has been made based upon the ICD-10 criteria, from a snapshot of relevant grants live at particular time point. Note that this analysis is not directly comparable with the figure for MRC spend on mental health disorders presented in Annex 1, since the mental health patch does not cover Alzheimers and dementia. Also note that research at the basic end (eg. neuro-developmental and pharmacological), as well as cognitive research, health services research, and research centred in primary care, fall under different patches within the NMHB portfolio and are similarly excluded.



b) Sub-analysis of above data providing detail of the research type. For this preliminary analysis grants were only scored in one of the broad categories, whereas many span different areas.



c) Categorisation by grant type (research, collaboration, clinical trial, training).

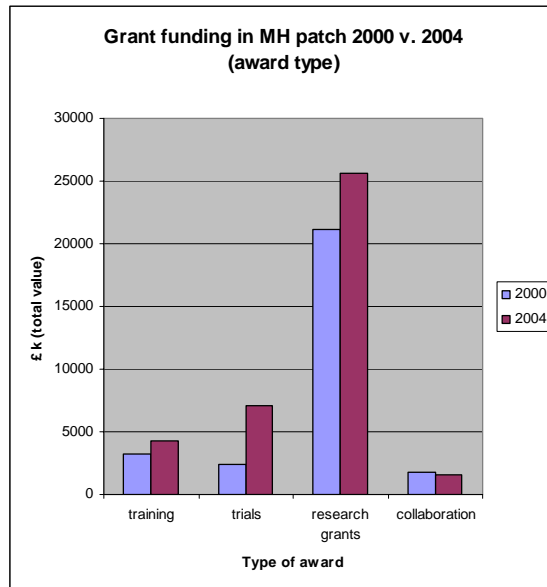


## Trends over the past 4 years – comparison of the MH portfolio

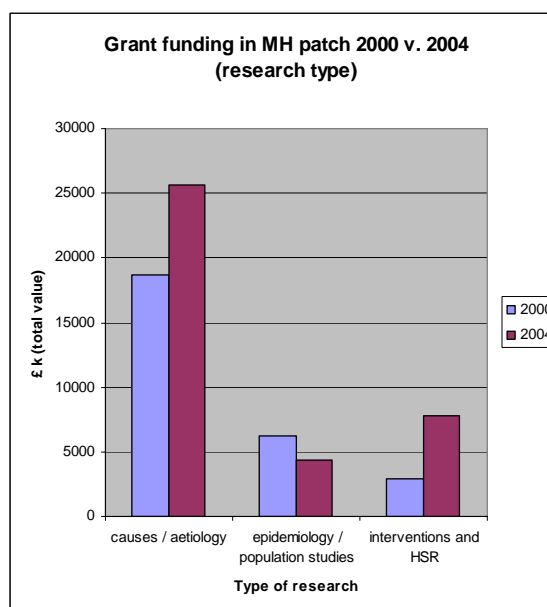
Snapshots have been taken of the MRC MH portfolio by analysing live grants at particular time points in 2000 and 2004.

A comparison between the two data sets indicates that for the MH patch:

- Funding has risen 35% since 2000 (from £28.6m to £38.6m)
- The number of grants and training awards has remained fairly constant
- The increase in RCTs seen in 2004 in part reflects the funding of trial platforms under the first call of the Brain Sciences initiative.

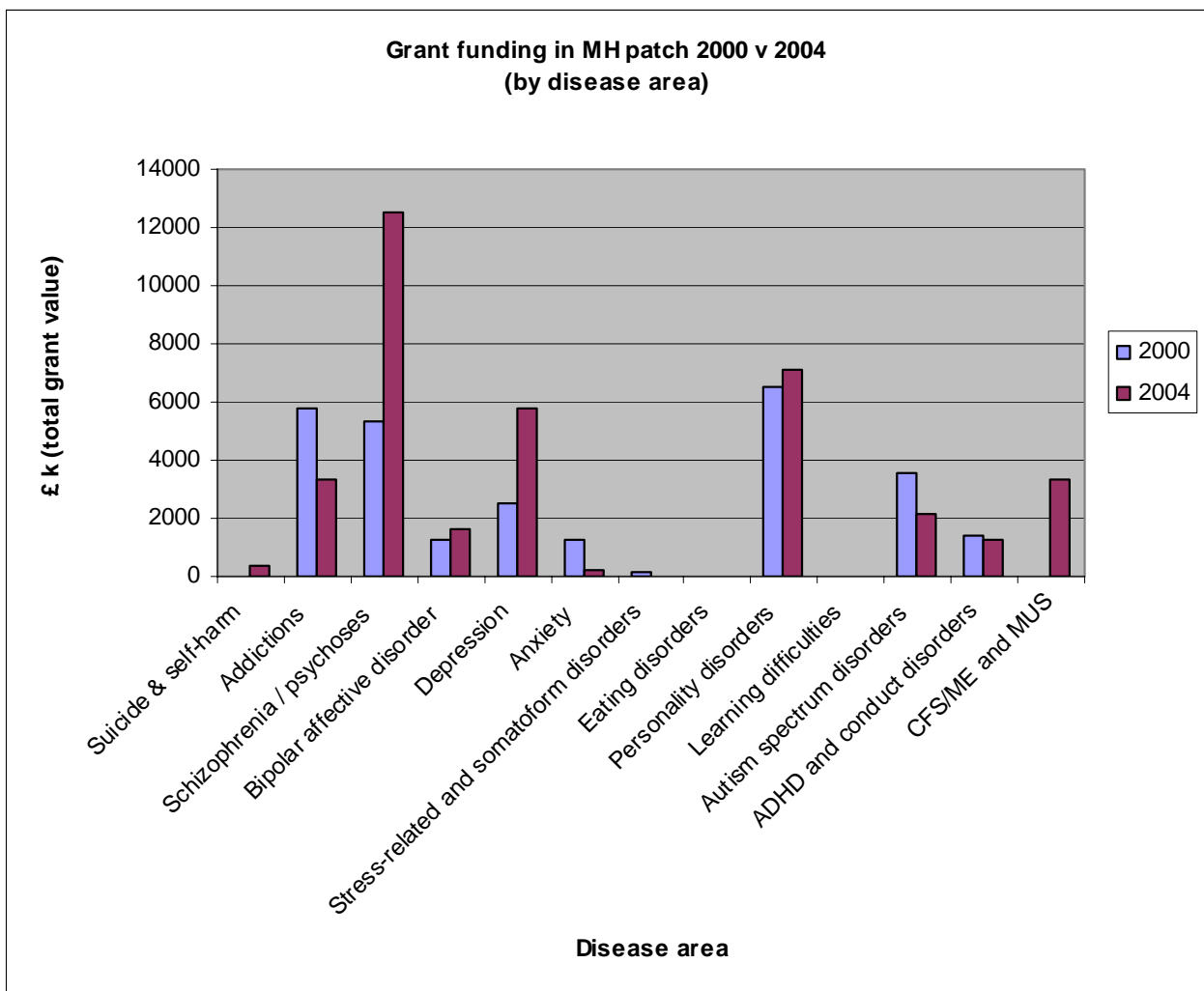


Analysis of the type of research funded within the MH patch indicates a relative drop in epidemiological studies since 2000, with an increased commitment to interventions and HSR. This reflects the funding of 2 large trials in CFS/ME and trial platforms under Brain Sciences.



When comparing funding changes by disease area (see below), the key differences are:

- Funding for schizophrenia/psychosis has risen 2.35 fold, with a doubling in the number of grants
- Funding for depression has risen 2.3 fold. This reflects an increase in the number of grants funded, though the number of fellowship has dropped
- Funding for addiction has dropped 40%
- Funding for anxiety has dropped 80%, though this only reflects the loss of one grant
- Funding for ASD has dropped 40%, which in part reflects the closure of the MRC Child Psychiatry Unit. Note that recent awards for ASD research are not included in the 2004 data.
- CFS/ME research was not funded in 2000.



## Department of Health

Several DH activities are relevant to the mental health research agenda:

### **a) The National Service Framework (NSF) for mental health**

The National Service Framework (NSF) was published in 1999 and set out 7 standards in 5 distinct areas. The NSF focuses on the mental health needs of working age adults up to 65 years of age. The Framework also addresses the needs of children and young people, highlighting areas where services for children and adults interact. The NSF included a section on research and development with the explicit aim: *'To develop the knowledge-base for mental health services, making the knowledge accessible to clinicians, practitioners, managers, service users and carers, and others making decisions about mental health services.'*

The 2002 DH Review of R&D in Mental Health identified several areas of the NSF that were neglected by researchers, namely research into health promotion, access to care, and services to support carers.

### **b) National Institute for Mental Health in England (NIMHE)**

NIMHE was launched in June 2002 with the aim of bringing together the research, development and dissemination functions of the full range of mental health services in order to improve the quality of life for people of all ages who experience mental distress. NIMHE is concerned with primary, specialist and tertiary care organisations in both health and social care, and aims to connect mental health research, development, delivery, monitoring and review.

NIMHE is led by the National Director for Mental Health (Professor Louis Appleby) and has four elements:

- a small administrative centre
- 8 regionally based Mental Health Development Centres
- a series of time-limited work programmes
- a National Mental Health Research Network (MHRN), as a standing NIMHE programme (*see below*)

### **c) Mental Health Research Network (MHRN)**

The MHRN was established in 2002 as a network designed to provide a research infrastructure to support large scale, high quality research in mental health and social care. In addition it aims to provide a central point of information and reference, connecting service users and carers to researchers and mental health professionals. It is hoped the MHRN will create a culture of large-scale studies relevant to key problems in mental health and that the knowledge within the Network will become a useful resource for less experienced researchers. MHRN's initial budget was £600k per annum but the recent allocation of DH funding to form UKCRC is likely to lead to a significant rise in the MHRN budget and activity.

The MHRN is a core component of NIMHE and is managed by a partnership between the Institute of Psychiatry and University of Manchester. Professor Til Wykes (IoP) is the Director, with Professors Shon Lewis and Max Marshall (Manchester) the Associate Directors.

The principal aims of the MHRN are:

- To organise and deliver large-scale research projects to inform policy and practice as it develops, and to help services implement change.

- To broaden the scope and capacity of research, including full involvement of service users and carers in commissioning and delivering research.
- To help identify the research needs of mental health (particularly in health and social care), working with frontline staff, service users and carers.
- To develop research capacity through a range of initiatives at a local, regional and national level.

The Network currently consists of:

- 7 research hubs which have clinical, academic and service user components, with an 8<sup>th</sup> just added in the NE of England.
- 18 Universities, 26 NHS Trusts, and more than 40 PCTS
- research expertise in primary, secondary and social care
- many disciplines, including social sciences and health economics
- coverage of 35% of the population of England (18 million people)

The MHRN has also established a number of multidisciplinary research groups to generate research ideas in priority areas, thereby developing capacity and widening access to the Network.

The Network hosts research but does not fund individual projects. To date the MHRN has adopted 14 funded research studies, including 3 major projects funded by MRC:

- MIDAS: An evaluation of motivational interviewing plus cognitive behaviour therapy for schizophrenia and substance misuse
- GENPOD: Genetic and clinical predictors of treatment response in depression
- PsyGrid (cross-Council e-science project)

The other 11 are:

- Outcomes of Involuntary Hospital Admissions (funded by PRP)
- National study of mental health professionals' information sharing practices with carers of persons with mental health problems (funded by SDO)
- Feasibility study of enhanced relapse prevention by key workers for people with bipolar disorder
- Evaluating the development and impact of early intervention services in the West Midlands (EDEN)
- A collaborative study to identify genes associated with susceptibility to anorexia nervosa
- Neuroleptics in adults with aggressive challenging behaviour and intellectual disability (NACHBID)
- A randomised controlled trial of adolescent anorexia nervosa including assessment of cost effectiveness and patient acceptability
- What in-patient alternatives to traditional in-patient care exist, and how effective, cost effective and acceptable to users and carers are they?
- The impact of treatment foster care on the outcomes for young people looked after by the authorities
- Primary prevention of cardiovascular diseases in people with severe mental illnesses: Development and feasibility of complex interventions in both primary and secondary care
- Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services.

#### **d) Health Technology Assessment programme (HTA)**

The HTA Programme is a national programme, dedicated to evaluation, which responds to the information needs of those people who use, manage and provide care in the NHS. The programme is funded from the National Health Service Research and Development Section, and works alongside the Service Delivery and Organisation (SDO) and New and Emerging Applications of Technology (NEAT) Programmes

The HTA Programme commissions about 30 research projects each year, following suggestions from NHS policy makers, managers, practitioners and users. Prioritisation of topics is performed by three HTA advisory panels, which include MRC representation. By the end of July 2004, almost £102m had been allocated to 360 projects, 30 of which relate to mental health.

The HTA Programme works closely with the National Institute for Clinical Excellence (NICE), and has the role of commissioning review groups to carry out the independent assessments on behalf of NICE. To date 132 such projects have been commissioned.

### **e) Service Delivery and Organisation (SDO)**

The NHS Service Delivery and Organisation (SDO) Programme was launched in 2000 as a national research programme to consolidate and develop the evidence base on the organisation, management and delivery of health care services. The SDO Programme operates via commissioned research – MRC is represented on the SDO programme board.

SDO currently funds 13 programmes in the mental health area at a total cost of £2m.

### **f) Devolved Health Departments**

The Health Departments of Scotland, Wales and N Ireland also fund research relevant to mental health, though detail of the programmes, and the budget, is currently unavailable.

#### Scotland

The Chief Scientist Office (CSO, part of the Scottish Executive Health Department) supports and promotes high quality research aimed at improving the services offered by NHS Scotland, and the health of the people of Scotland. CSO commissions work in specific priority areas, supports research initiated by the research community in Scotland, and advises the Scottish Executive Health Department on how research contributes to improvements in health and healthcare.

CSO is headed by the Chief Scientist (Professor Roland Jung) and invests in excess of £49 million per annum in NHS related research. At any one time CSO is funding around 190 research projects, and also has a sole in

- sponsoring research training initiatives
- supporting a number of research units across Scotland
- encouraging multidisciplinary, collaborative research
- defining research priorities and building a research strategy for NHS Scotland.
- promoting a strong evidence base for primary care
- promoting dissemination and implementation of research findings

#### Wales and Northern Ireland

No information available

#### Northern Ireland

No information available

## Clinical Trials in Mental Health

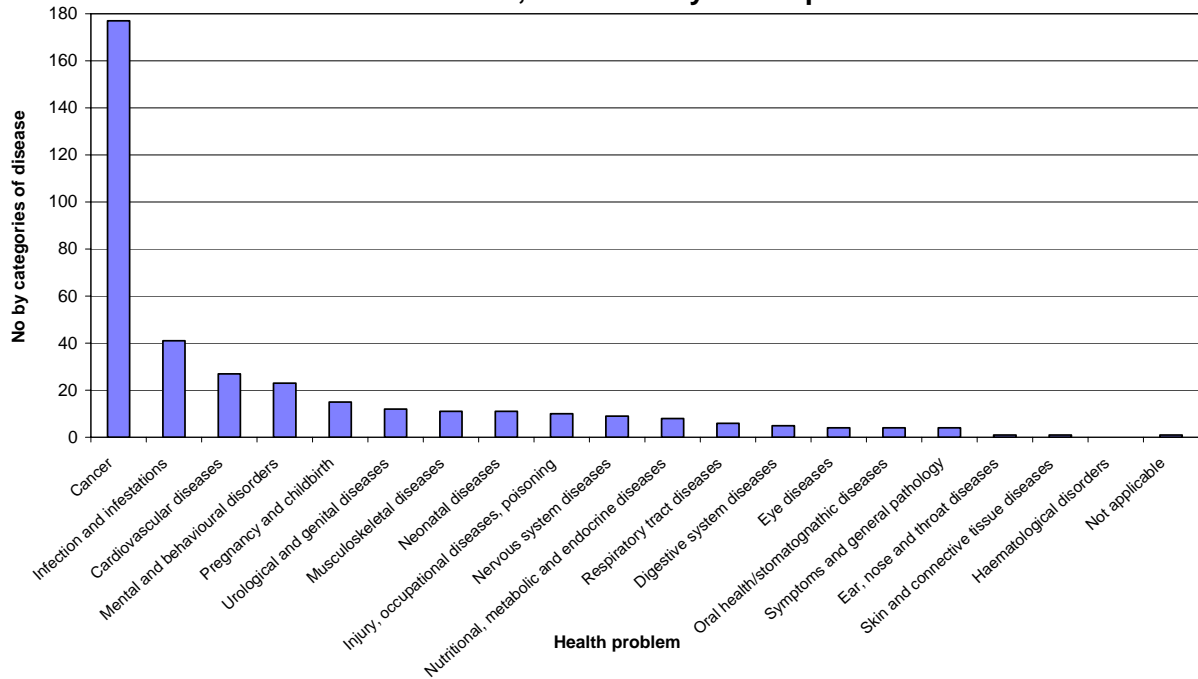
Data was extracted from the analysis of the MRC clinical trials portfolio undertaken for the 2003 MRC review: *Clinical Trials for Tomorrow*.

This data is presented graphically on the following pages, and indicates:

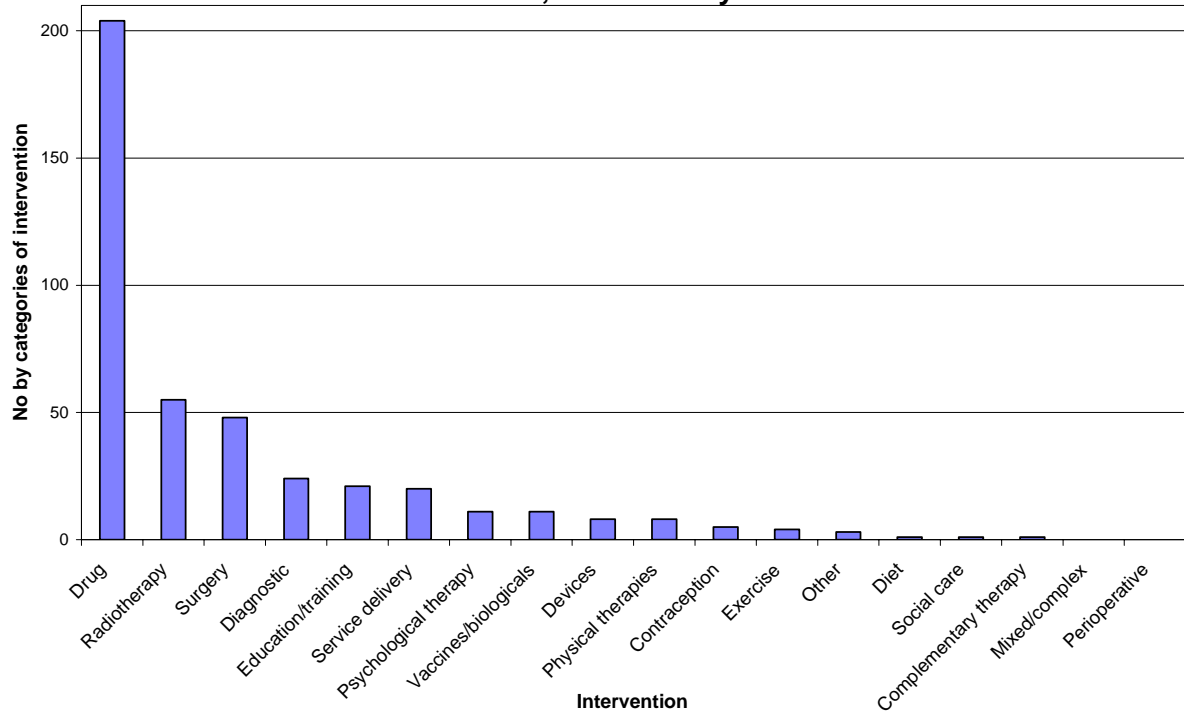
1. When an analysis is made of the number of MRC clinical trials funded since 1980, trials in mental health are ranked 4<sup>th</sup> in disease category, behind cancer, infections and CVD, and above, for example, musculo-skeletal, reproductive and respiratory disorders.
2. In terms of funding levels for RCTs, mental health and behavioural disorders are ranked 7<sup>th</sup>.
3. When analysed for intervention type, the number of trials involving psychological therapy are relatively low, ranking 7<sup>th</sup> after drug, radiotherapy, surgery, diagnostic, education and service delivery.
4. Data on the success rates of trial applications submitted to MRC between 1997 and 2001 indicates that the number of mental health applications funded is low relative to the number invited to submit full applications, ie. of those having passed the outline review stage. For MH applications ~ 14% of the invited full applications were funded, the lowest proportion in the major disease categories.
5. Success rates analysed by intervention type similarly indicates that applications involving psychological therapy have the lowest success rate (along with diagnostic trials) when comparing those passing the outline review stage to those finally funded.
6. DH funds a far higher number of trials in mental health than MRC, as it does for all areas except cancer, infections and neonatal diseases. Note that many are small trials however. Charity investment in this area is minimal.
7. Similarly, DH funds far more studies involving psychological therapy than MRC.

Further background to this review is available at: [http://www.mrc.ac.uk/index/current-research/current-clinical\\_research/current-clinical\\_trials/current-clinical\\_\\_\\_\\_\\_trials\\_\\_\\_\\_\\_for\\_tomorrow.htm](http://www.mrc.ac.uk/index/current-research/current-clinical_research/current-clinical_trials/current-clinical_____trials_____for_tomorrow.htm)

**New MRC RCTs, 1980-2001**  
**Numbers, classified by health problem**



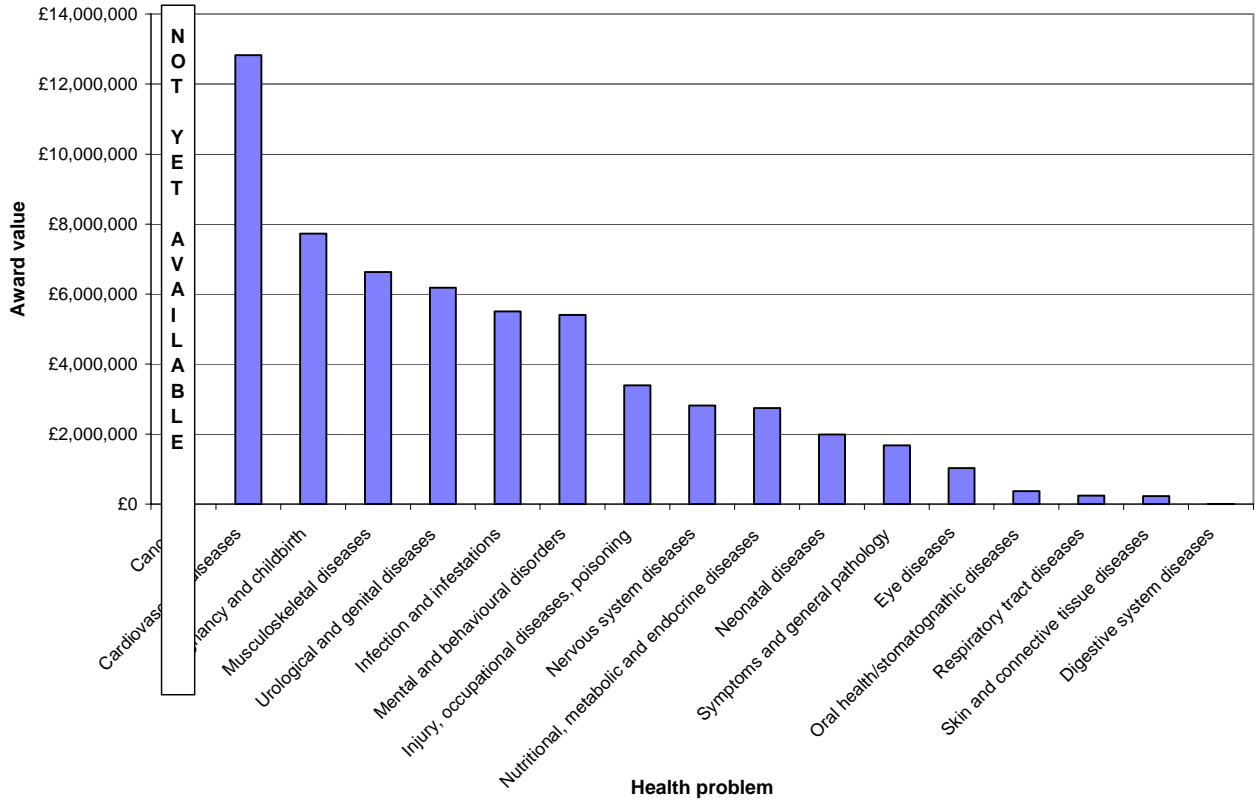
**New MRC RCTs, 1980-2001**  
**Numbers, classified by intervention**



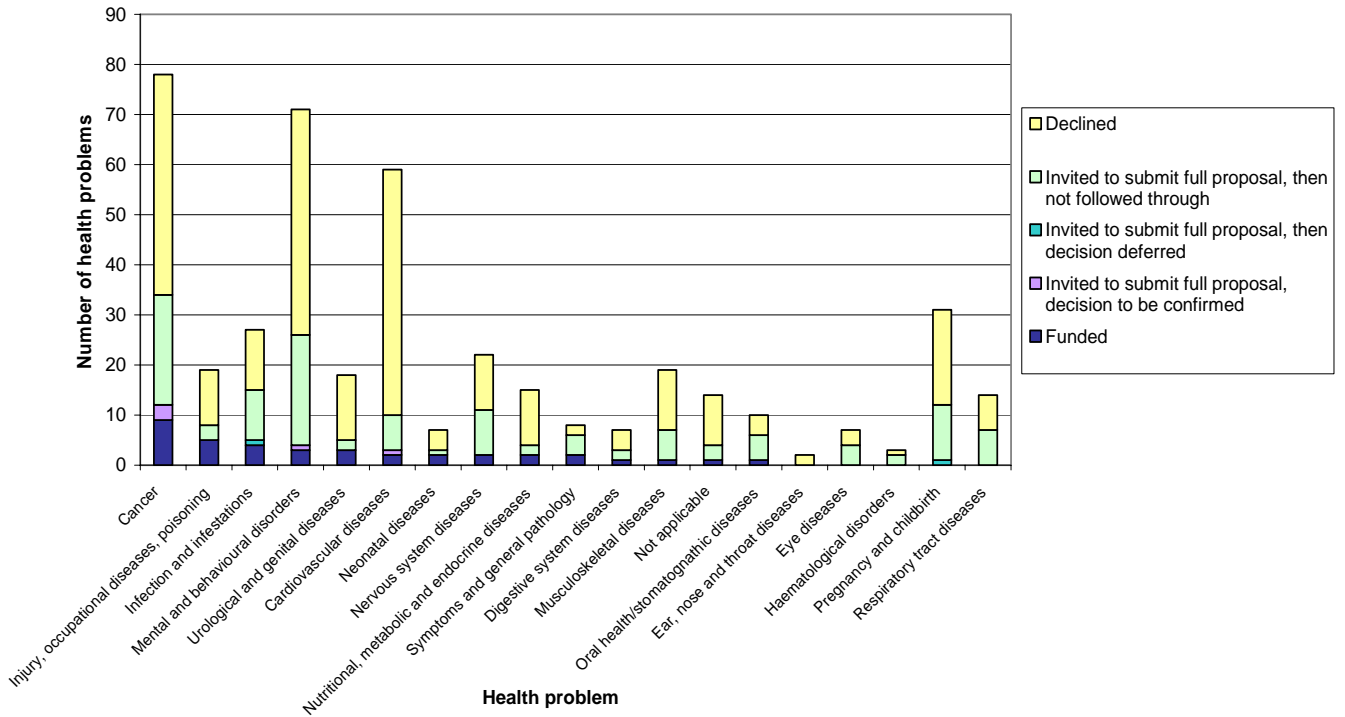
**MRC investment in RCTs, 1997 - 2001**

**Value of MRC awards for RCTs, by health problem, (excluding cancer awards)**

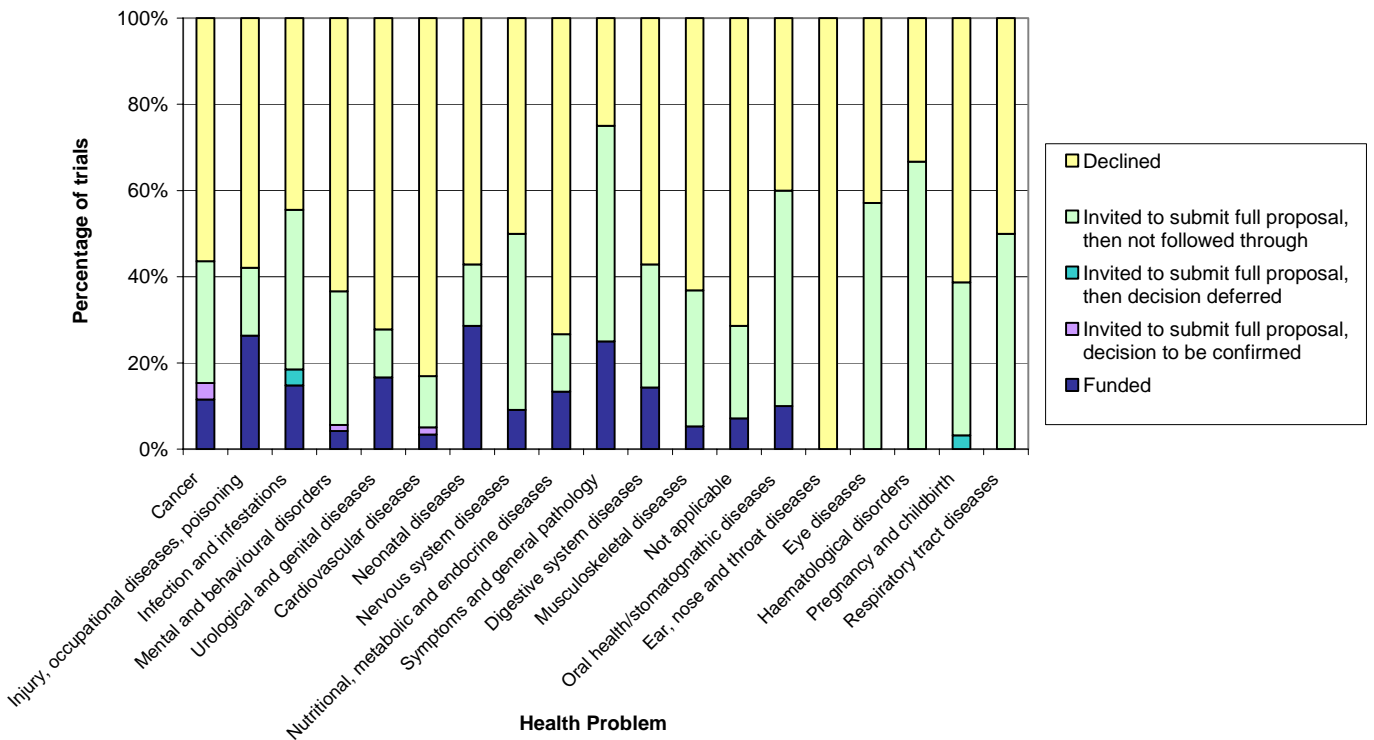
NB Awards have been allocated only one health problem category to prevent double counting of awards



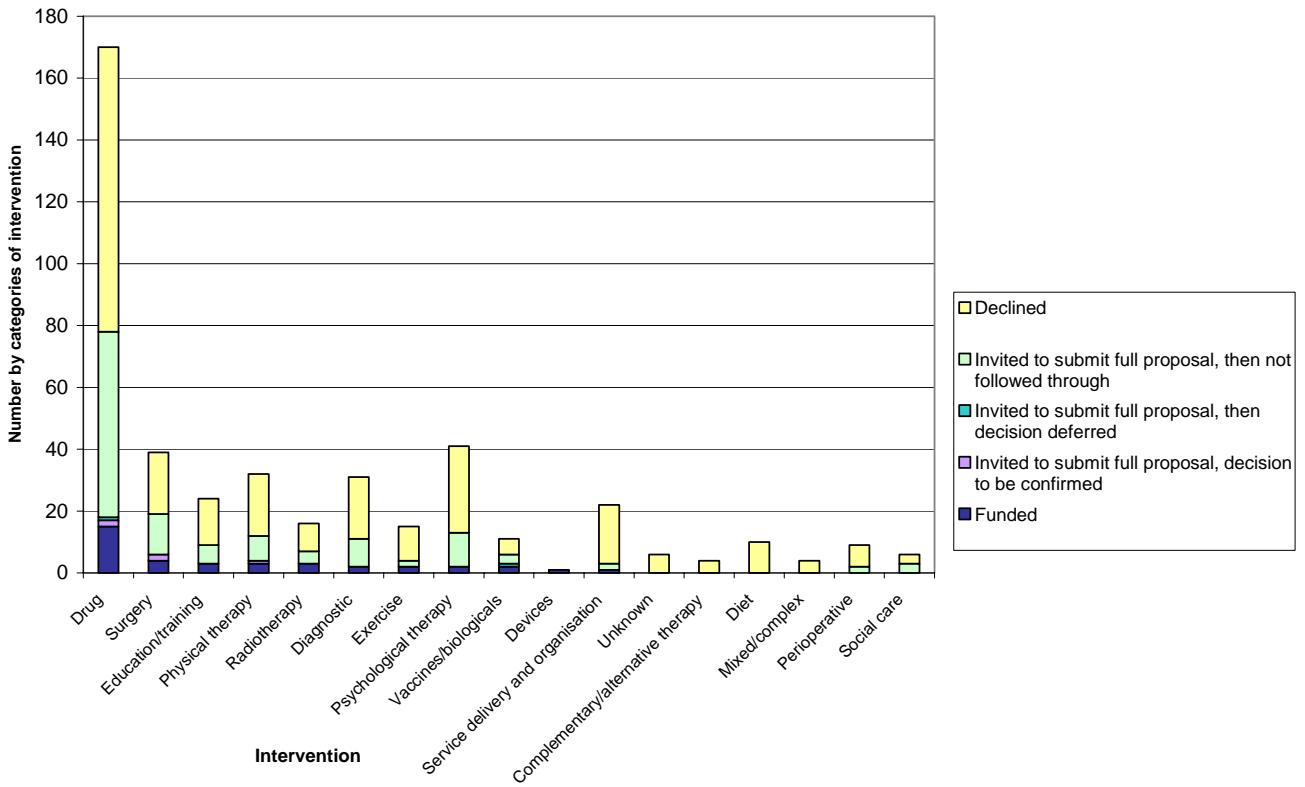
**Outcome of RCT funding applications to MRC, 1997 - 2001**  
**Numbers of RCTs applications funded/declined, categorised by health problem**



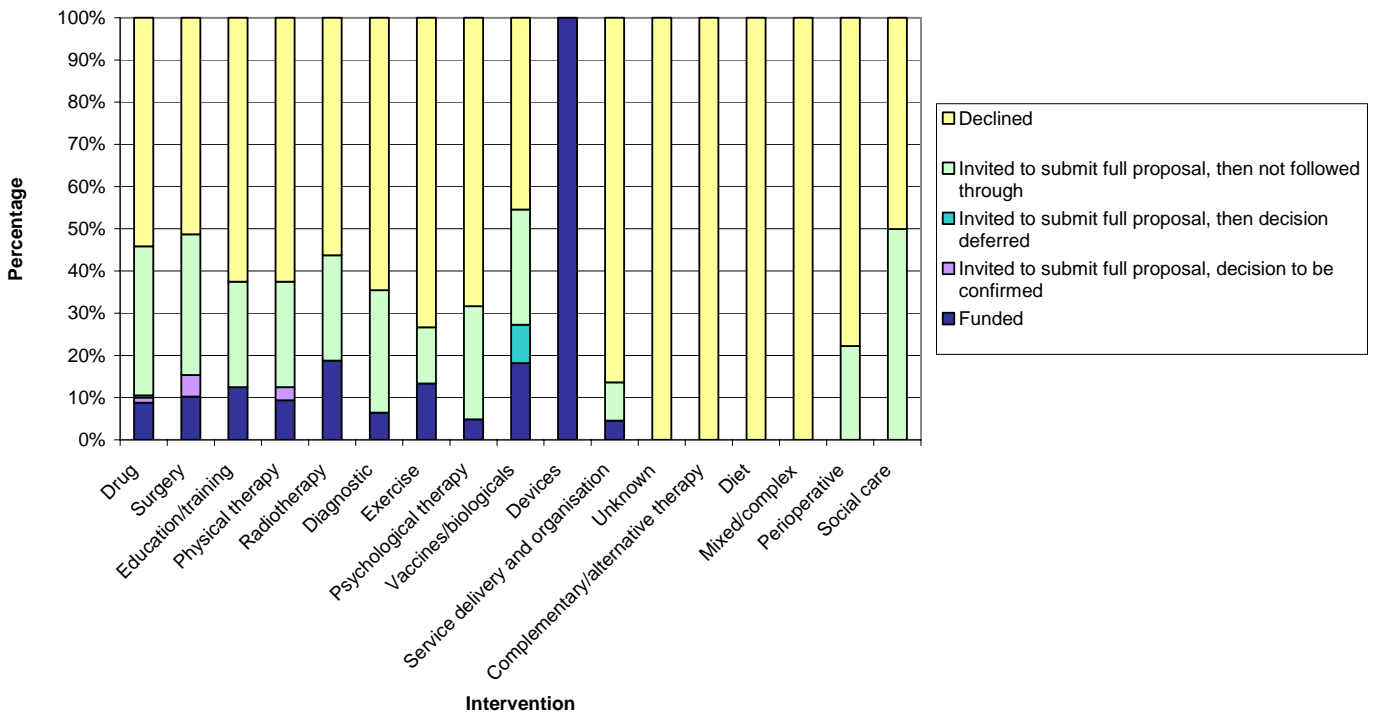
**Outcome of RCT funding applications to MRC, 1997 - 2001**  
**Proportion(%) of RCT applications funded/declined, classified by health problem**



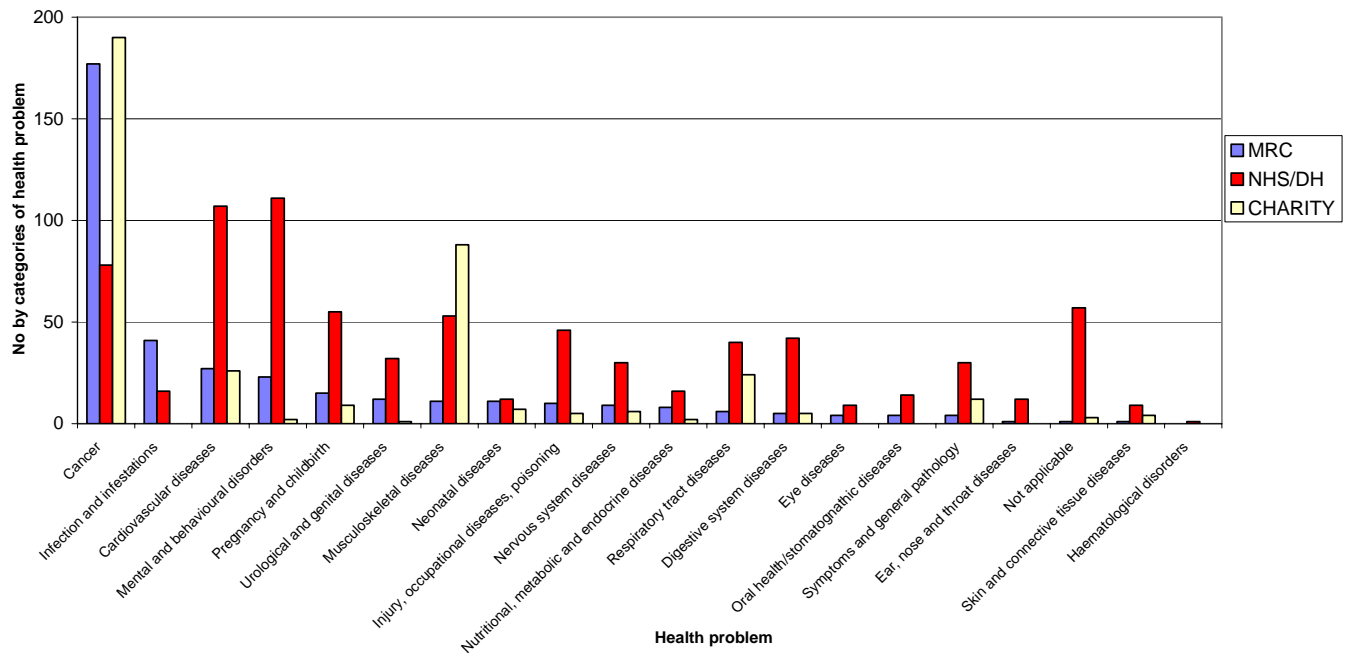
**Outcome of RCT funding applications to MRC, 1997 - 2001**  
**Numbers of RCT applications funded/declined, classified by type of intervention**



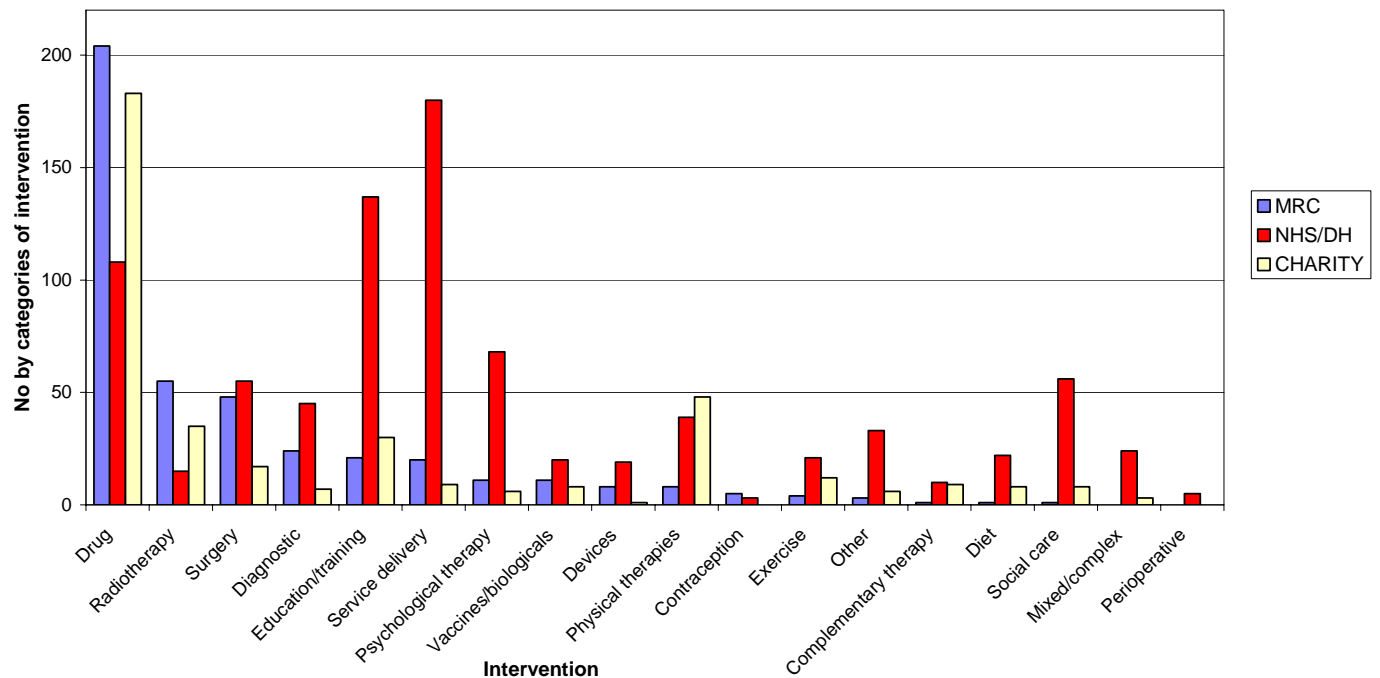
**Outcome of RCT funding applications to MRC, 1997 - 2001**  
**Proportion(%) of RCT applications funded/declined, classified by type of intervention**



**Comparison of MRC RCTs with RCTs funded by NHS/DH and charities  
by health problem, 1980 - 2001**



**Comparison of MRC RCTs with RCTs funded by NHS/DH and charities  
by type of intervention, 1980 - 2001**



## Demand and Capacity in Mental Health Research

### MRC application rates

#### a) Research grants submitted to NMHB in 2004

Applications received by the NMHB for the 2004 meetings have been grouped into broad research areas (reflecting the Programme Manger patches). Applications span the introduction of the new grant schemes in the summer of 2004; therefore the surge in applications for Nov 2004 represents proposals submitted under the new research grant scheme. Applications considered at the January and May Board meetings were for Programme grants and Strategic grants. Grants received under the DH-funded autism initiative in May 2004 have not been included in the dataset.

	Jan 2004	May 2004	Nov 2004
<b>Mental health</b>	<b>1 (8%)</b>	<b>6 (22%)</b>	<b>10 (12%)</b>
<b>Neurology</b>	0	6	13
<b>Basic neuroscience</b>	3	8	24
<b>Neurodegeneration</b>	5	5	19
<b>Cognition</b>	3	2	17
	<b>12</b>	<b>27</b>	<b>83</b>

#### b) Brain Sciences initiative

The Brain Sciences initiative has involved 2 separate calls for 2 year, £250k projects. When the application data is split into broad research area, it can be seen that 131 (42.5%) applications were in the mental health area.

	1st call 2003	2 <sup>nd</sup> call 2004
<b>Mental health</b>	<b>131 (41%)</b>	<b>142 (44%)</b>
<b>Neurology</b>	74 (23%)	72 (22%)
<b>Basic neuroscience</b>	55 (17%)	40 (12%)
<b>Neurodegeneration</b>	33 (10%)	45 (14%)
<b>Cognition</b>	23 (7%)	27 (8%)
	<b>316</b>	<b>326</b>

Funding decisions have been taken on those received under the first call, where 29 out of 316 proposals were funded, 12 in mental health (41%).

## MRC Fellowships / Training

### a) 2003/4 session

Data from the 2003/4 round of fellowship applications indicates the following success rates:

Fellowship scheme	Mental health applications	Total applications across all areas
Clinical Research Training Fellowship	2 funded (out of 7 applications)	25 funded (out of 219 applications)
Clinician Scientist Fellowships	2 funded (out of 4)	7 funded (out of 36)
Health Services Research Fellowships	1 funded (out of 4)	10 funded (out of 42)

No applications were received for non-clinical fellowships.

When compared to the overall award rate for the 03/04 session, the award rates for MH grants were above average (although the nos. of MH applications were low).

### b) Trends over the past 4 years

The success rate across the schemes from 2000 to 2004 is presented below (for all areas of the MRC portfolio). Broadly speaking the no. of awards per year has remained steady for each scheme, except for a higher number made in 2000/01.

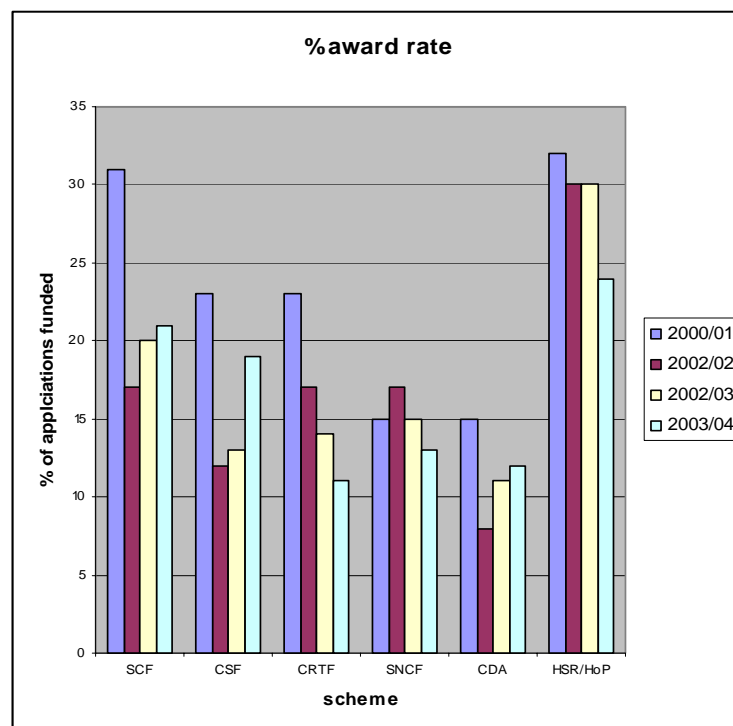
Unfortunately data for awards made in the MH area is not readily available for years other than 2003/4.

#### MRC fellowships - % award rates

	2000/01	2002/02	2002/03	2003/04	2003/4 no. awards
Senior Clinical	31	17	20	21	3
Clinician Scientist	23	12	13	19	7
Clinical Research Training	23	17	14	11	25
Senior Non-clinical	15	17	15	13	5
Career Development	15	8	11	12	9
HSR/HoP training awards	32	30	30	24	10

#### Mental health

2003/4	2003/4 no. awards
50	2
28	2
25	1



## Key documents consulted during the scoping study

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6. Clinical Trials for Tomorrow  
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7. Clinical Academic Staffing Levels in UK Medical and Dental Schools  
Council of Heads of Medical Schools, 2004
8. The National Service Framework for Mental Health  
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