

# Manchester Academic Health Science Centre

Academic Health Science Centre Application for  
Designation



MANCHESTER  
1824  
University of Manchester

Salford Primary Care Trust  
The Christie NHS Foundation Trust  
Salford Royal NHS Foundation Trust  
Manchester Mental Health and Social Care Trust  
Central Manchester University Hospitals NHS Foundation Trust  
University Hospital of South Manchester NHS Foundation Trust

NHS

## PART 2: Academic Health Science Centre Application for Designation

### GENERAL INFORMATION

#### 1. DETAILS OF THE PARTNERSHIP AND FORMAL AUTHORISATION

**Name and address of the NHS Trust:**

Central Manchester University Hospitals NHS Foundation Trust  
Trust Headquarters, Cobbett House  
Manchester Royal Infirmary  
Oxford Road  
Manchester  
M13 9WL

**Name, job title, address, email and telephone number of the NHS Trust/Foundation Trust lead for this application:**

Mr Mike Deegan  
Trust Chief Executive

Signature: .....  ..... Date: ..... 17/2/09 .....  
.....

**Name, job title and address of the individual who is authorising this application on behalf of the Trust (e.g. Trust Chief Executive):**

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Trust Chief Executive  
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tel: 0161 276 4755

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.....

**Name and address of the NHS Trust:**

The Christie NHS Foundation Trust  
Wilmslow Road  
Manchester  
M20 4BX

**Name, job title, address, email and telephone number of the NHS Trust/Foundation Trust lead for this application:**

Mrs Caroline Shaw  
Trust Chief Executive

Signature: ..... *shaw* ..... Date: ...17/12/09.....

**Name, job title and address of the individual who is authorising this application on behalf of the Trust (e.g. Trust Chief Executive):**

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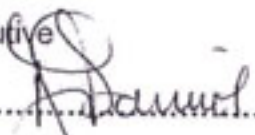
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**Name and address of the NHS Trust:**

Manchester Mental Health and Social Care Trust  
Chorlton House  
70 Manchester Road  
Chorlton-cum-Hardy  
Manchester  
M21 9UN

**Name, job title, address, email and telephone number of the NHS Trust/Foundation Trust lead for this application:**

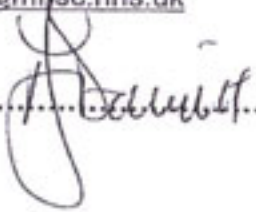
Ms Jackie Daniel  
Trust Chief Executive

Signature: .....  ..... Date: ..17/2/09.....

**Name, job title and address of the individual who is authorising this application on behalf of the Trust (e.g. Trust Chief Executive):**

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Signature: .....  ..... Date: ..17/2/09.....

**Name and address of the NHS Trust:**

Salford Primary Care Trust  
St James's House  
Pendleton Way  
Salford  
M6 5FW

**Name, job title, address, email and telephone number of the NHS Trust/Foundation Trust lead for this application:**

Signature: 

Date: ...17/2/09.....

**Name, job title and address of the individual who is authorising this application on behalf of the Trust (e.g. Trust Chief Executive):**

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Signature: 

Date: ...17/2/09.....


**If other NHS Trusts/Foundation Trusts are also part of a proposed AHSC, please provide the same information (with signature and date) on a separate sheet to be attached to this form.**

**Name and address of the NHS Trust:**

Salford Royal NHS Foundation Trust  
Stott Lane  
Salford  
M6 8HD

**Name, job title, address, email and telephone number of the NHS Trust/Foundation Trust lead for this application:**

Mr David Dalton  
Trust Chief Executive

Signature: .....  ..... Date: ..... 17/2/07 .....

**Name, job title and address of the individual who is authorising this application on behalf of the Trust (e.g. Trust Chief Executive):**

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Signature: .....  ..... Date: ..... 17/2/09 .....

**Name and address of the NHS Trust:**

University Hospital of South Manchester NHS Foundation Trust  
Wythenshawe Hospital  
Southmoor Road  
Manchester  
M23 9LT

**Name, job title, address, email and telephone number of the NHS Trust/Foundation Trust lead for this application:**

Mr Peter Morris  
Trust Chief Executive

Signature: *Peter Morris*..... Date: ....13/2/09.....

**Name, job title and address of the individual who is authorising this application on behalf of the Trust (e.g. Trust Chief Executive):**

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Signature: *Peter Morris*..... Date: ....13/2/09.....

**Name and address of the lead academic partner:**

The University of Manchester  
Oxford Road  
Manchester  
M13 9PL

**Name, job title, address, email and telephone number of the lead from the academic partner for this application:**

Professor R. Alan North  
Vice-President, Dean of the Faculty of Medical and Human Sciences and Director of Manchester Academic Health Science Centre  
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Signature: 

Date: 17/2/09.....

**Name, job title and address of the individual who is authorising this application on behalf of the academic partner (e.g. Vice Chancellor):**

Professor Alan Gilbert  
President and Vice-Chancellor  
The University of Manchester  
Oxford Road  
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M13 9PL  
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Signature: .....

Date: 17/2/09

If other academic partners are also part of a proposed AHSC, please provide the same information (with signature and date) on a separate sheet to be attached to this form.

**SHA support:**

Please confirm the support of the SHA Chief Executive for the NHS partners in your application.

Signature of SHA Chief Executive: 

Date: 17/2/09

# The Manchester Academic Health Science Centre

The **Manchester Academic Health Science Centre (MAHSC)** was created in June 2008 as a formal federated partnership of seven independent institutions working together to provide improved healthcare locally and more widely. MAHSC began with an emphasis on biomedical and health research and will also coordinate teaching and training of healthcare professionals leading to the strategic planning of research-led healthcare provision and management. The ultimate measures of success will be: (a) the demonstrably improved health and healthcare of substantive groups of the population; and (b) the adoption of its discoveries and practices both nationally and internationally.

The MAHSC partners are: Central Manchester University Hospitals NHS Foundation Trust (**Central**); The Christie NHS Foundation Trust (**Christie**); Manchester Mental Health and Social Care NHS Trust (**Mental Health**); Salford Royal NHS Foundation Trust (**Salford**); Salford Primary Care NHS Trust (**Salford PCT**); University Hospital of South Manchester NHS Foundation Trust (**South**); and The University of Manchester (**UoM**). Together these partners employ almost 35,000 people and turn over approximately £2.3 billion per year.

## 1. VISION AND BENEFITS

### A. VISION

Our **vision** is to be a leading centre nationally and globally for the uptake of innovative applied health research and education into healthcare. Our **strategy** is to: (i) assess unmet health need; (ii) expand our integrated approach to research; (iii) implement research findings and support innovation in practice; and (iv) measure the results of what we do.

#### A1. Introduction

Manchester has a combination of excellence in academia, clinical service, research, management and education which serves a population with some of the poorest health in the country. Through a Research Alliance, institutions in Greater Manchester have worked together over several years to realise increasingly the added value that their collective excellence presents for delivery of health and economic benefit. The seven most research-active of these institutions comprise MAHSC.

#### A2. The Present Situation: the Manchester Advantage

(i) **Patients and the Population** ~ MAHSC serves an area of the North West of England with great potential for health and economic gain. The population is large (3 million in Greater Manchester, 11 million within 50 mile radius) and stable (estimated 1.4% change to 2020). It is ethnically diverse (up to 30% black and minority ethnic in some areas) and has some of the poorest health in the country. Rates of infant mortality, cardiac disease, mental health disorders and cancer exceed the national average, and Manchester Local Authority has the lowest average male life expectancy (73 yr) in the UK (*Figure a, Annex I*). MAHSC embraces two of the most deprived Local Authorities in the UK (on Index of Deprivation 2007 Manchester ranked, out of 354, 4th most deprived, and Salford 25th).

(ii) **The University of Manchester** ~ Taken together, its Faculties of Medical and Human Sciences and of Life Sciences, form one of the largest health science groups in Europe. Strengths in biomedicine, clinical science and health service science extend into nursing, dentistry, pharmacy and clinical psychology. Its other Faculties (Humanities, and Engineering and Physical Sciences) also have strong health-relevant expertise in social, economic and managerial sciences, and in materials science and quantitative systems biology.

The breadth and power of research at UoM is a major strength of the partnership.

In the Research Assessment Exercise of 2008, UoM submitted in more Units of Assessment (53) than any other university (*Table*). It ranks equal third in *research power* after Oxford and Cambridge. The University's Business School was ranked first in *research power*.

THE University of Manchester RAE 2008 National Rank - Quality	
<b>1st</b>	Cancer
	Nursing and Midwifery
	Dentistry
	Sociology
<b>2nd</b>	Pre-clinical and Human Biological Sciences
	Primary Care
	Pharmacy
	Development Studies (Brooks World Poverty Institute)
<b>3rd</b>	Biological Sciences
<b>4th</b>	Cardiovascular Medicine

Table

- (iii) **NHS partners** ~ The NHS partners (three Acute Trusts, two Specialist Trusts and one PCT) deliver a broad provision of clinical care, including cancer (Christie), mental illness (Mental Health), primary care, neuroscience and dermatology (Salford and Salford PCT), lung disease (South), maternal and fetal health, cardiovascular and musculoskeletal diseases (Central). Pan-partnership strengths include the management of diabetes, cancer and inflammatory disease. The largest children's hospital in Europe will open on the Central site later this year. Four of the partners are rated as "*double excellent*" for quality of service and use of resources. MAHSC provides 70% of secondary services to a population of three million and tertiary services and 11 nationally commissioned services to a wider population.
- (iv) **Strategic Health Authority** ~ NHS North West is the largest geographically and second largest in population among England's ten SHAs. It comprises 64 NHS organisations and is one of only two SHAs with an R&D department. The SHA is committed to constant improvement and is working with the partners to drive innovation and optimum strategies for uptake into healthcare.
- (v) **Education and Training** ~ Manchester provides a large volume of high quality education and training in healthcare including:
- **Undergraduate health-professional** education involves some 6000 students. They are taught under the unified leadership of one management team, including medicine, dentistry, nursing, pharmacy, and clinical psychology. A further 1500 students study life sciences.
  - **Manchester NIHR Integrated Academic Training Programme** has one of the largest portfolios of academic specialists in training in England, comprising 84 Academic Clinical Fellows and 50 Clinical Lecturers. It is managed by a partnership between UoM and the North West Postgraduate Deanery.
  - **Multi-disciplinary, taught postgraduate programmes** are provided for over 1300 healthcare professionals across all disciplines. These include core curricula covering areas such as research methodology, leadership and management. An excellent example of such a programme is the **UoM Centre for Pharmacy Postgraduate Education**, established in 1991 by the Department of Health (DH), which provides continuing education to over 37,000 community, hospital and specialist (e.g. prison) pharmacists and technicians in the NHS.
  - **Manchester Business School** provides courses in healthcare management, leadership and development, all of which are integral to the translation of research into practice. There are three specialist masters programmes, two commissioned by DH (MSc in Healthcare Management; Master of Public Administration) and the programme for the NHS Management Training Scheme, in collaboration with the University of Birmingham, designed for future NHS leaders.
- (vi) **Exemplars of Partnership Working** ~ MAHSC provides the governance structure and networks to utilise the research strengths of individual partners to maximum effect. We have powerful existing models of partnership working on which we are building the MAHSC vision of rapid translation. These encompass research, infrastructure and the interface between research and clinical care.
- (vii) **Research**
- **Manchester Biomedical Research Centre (BRC)** was awarded by NIHR to Central and UoM in 2008. Its main focus is on translational research in human development and genetics e.g. ocular genetics, and the genetics and comorbidities of arthritic disease. It includes the largest pregnancy disease research group in Europe,
  - **Manchester Cancer Research Centre (MCRC)** is a partnership between UoM, Christie and Cancer Research UK (CRUK). It has already developed new shared research strategies, contributed to our city-wide biomedical imaging strategy, developed tissue banking across all partners, catalysed staff-sharing between organisations, led a new CRUK-funded Drug Development Centre, and together with industry, has developed an integrated scientific-clinical training programme for fellows.
- (viii) **Infrastructure**
- **Phase I Clinical Trials** facilities at Christie (the Derek Crowther Unit which will become the world's largest early cancer trials unit in 2009) and at South.

- **Wellcome Trust Clinical Research Facility** was established in 2000 on behalf of all the partners. It has supported 267 research studies and safely completed 90,000 patient visits – more than any other such UK facility.
- **Comprehensive Local Research Network** (Greater Manchester CLRN) is responsible for coordinating clinical trials (phase I-IV) across the conurbation. The CLRN is second nationally in recruitment of patients to clinical trials. It is strengthened by the local presence of all possible Topic Specific networks, with which it works closely.
- **North West Institute for Bio-Health Informatics (NIBHI)** provides scholarship and e-infrastructure for population-based health research. North-West e-Health is a joint venture between the NHS and UoM. Salford e-Labs, funded by a number of stakeholders, is leading the UK in its ability to link the primary and secondary care sectors using bioinformatics and electronic patient records.
- **Biomedical Imaging Institute** of the University provides coordinated facilities across the partnership for human research imaging with PET and MRI including the Wolfson Molecular Imaging Centre.

**(ix) Interface between Research and Clinical Practice**

- **Manchester Integrating Medicine and Innovative Technology (MIMIT)** is the first international affiliate of the '*Center for Integration of Medicine and Innovative Technology*' in Boston. MIMIT identifies unmet clinical need through "site-miners", and then drives the rapid development of new devices, diagnostics and healthcare treatments.
- **National Primary Care Research and Development Centre (NPCRDC)** is a multidisciplinary, academic centre set up by the DH in 1995 to undertake a programme of policy-related research in primary care.
- **Collaboration for Leadership in Applied Health Research and Care** (Greater Manchester CLAHRC) will carry out high quality applied research into health service delivery and ensures that knowledge gained from this research is implemented to improve services in partner Trusts.

**(x) Exploiting innovation ~ MAHSC partners have a mutually productive interface with industry:**

- The partnership makes over 300 invention disclosures per year, one of the highest in the UK. It boasts the second highest number of start-up companies, and in the past ten years has invested £48 million in new biocubator facilities. Two examples of our success in translating basic research into development for patient benefit are: Renovo, developing anti-TGFβ approaches for scar-free healing, floated in 2006 at £150 million; and Neutec Pharma, developing genetically recombinant antibodies for the treatment of life-threatening infections, which was sold to Novartis for over £300 million in 2005.
- **University of Manchester Intellectual Property Ltd** and **TrusTECH** (acting for UoM and NHS respectively) already adopt a harmonised and incentivised approach to organisational and regulatory issues, including IP management, governed by a formal memorandum of understanding. UoM recently closed on the largest single investment fund (£32 million) of any higher education institution in the UK; this is available to support spin-out companies and commercialisation.
- The **NHS National Technology Adoption Centre** based at Central works with the NHS Innovation Centre to address the barriers and identify the factors that prevent or enable the NHS to rapidly adopt new technologies. Through the Adoption Centre's links with NICE, MHRA and the NHS supply chain we envisage uptake of the majority of our developments into the NHS procurement pipeline.

**(xi) The Challenges to Success**

In his report, "*A Review of UK Health Research Funding*", Sir David Cooksey highlighted Greater Manchester as "an example of good partnership working to deliver world class research for the benefit of patients, with a focus on key stakeholders, including industry and local/regional government". Notwithstanding this history of collaboration between the partners there are still several challenges to optimal working which will be addressed by MAHSC. These challenges are:

- **Integrating research and education** with NHS Trust service commitments.
- **Avoiding duplication of effort** and parochial decision-making leading to outcomes that do not justify the time and resources invested.

- **Improving poor communication and strengthening the brand** by developing a corporate identity for Manchester with education, research and positive health outcomes at the heart of the vision. This will address a lack of information for researchers (and research participants) which limits their awareness of research opportunities and facilities.
- **Making research infrastructure a pan-Manchester asset** with more stable funding.
- **Reducing delay in adoption of innovation.**
- **Bringing quality patient experience and outcome** away from being second place to short-term targets.

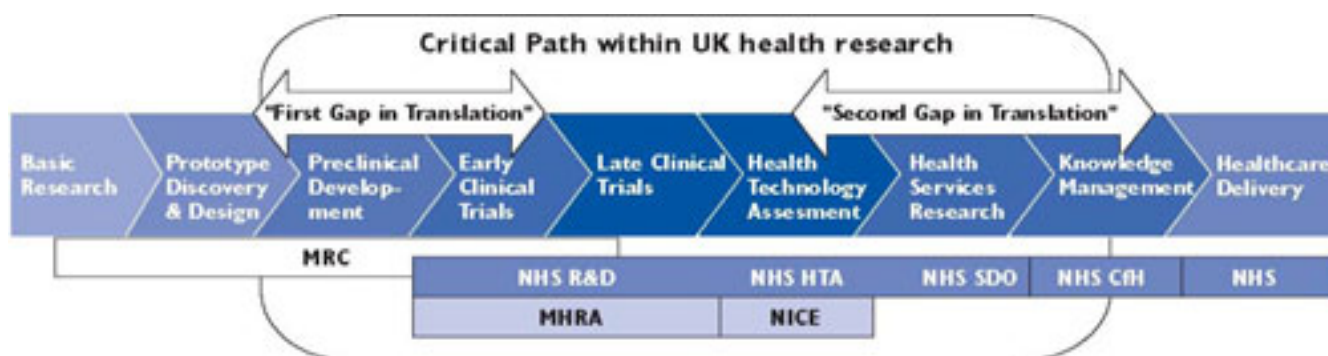
### A3. Delivering the Strategy

Our **Strategy** is to produce a healthcare system across MAHSC in which research and innovation are part of core business, with clinical excellence and patient safety inextricably linked with and driven by research and education. The key features of this strategy are: (a) clear focus on the disease areas in which we have real capacity to make a difference; (b) strong investment in enabling infrastructure; and (c) an internationally competitive academic staff at the forefront of innovation development. These are combined with a reach into, and engagement with, a broad healthcare environment where such innovation can be implemented and assessed.

We will deliver the strategy by:

- Excellence in research for patient benefit.
- Infrastructure to deliver that research.
- Education in the practice and use of research for patient benefit.
- An effective organisational and managerial interface between research and clinical care.

We will focus our aforementioned strengths and expertise on realising the SHA's vision of high quality healthcare and improved population health – *Healthy Horizons for the North West*. By so doing we will bridge the first and second gaps in translation as identified by Cooksey (*Figure 1 and Figure b, Annex 1*). We have a number of specific local examples (Boxes 1 & 2 below) where we have already bridged these gaps and will use this knowledge to address other areas of clinical need.

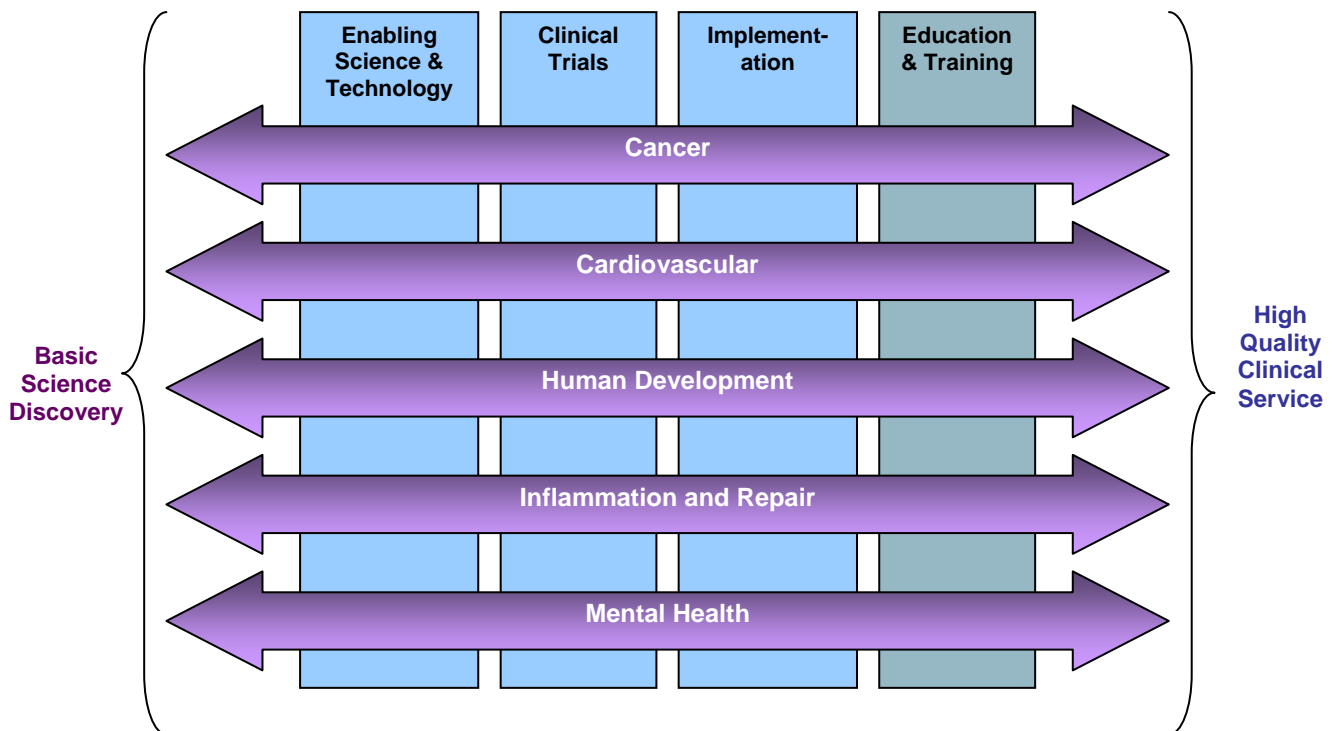


**Figure 1:** The critical path of research from basic science to healthcare delivery identifying the important gaps in translation. From *A Review of UK Health Research Funding*, Sir David Cooksey, December 2006.

#### Box 1 Bridging the First Gap in Translation

- A Manchester group has identified circulating factor(s) that predate the clinical manifestation of pre-eclampsia, using metabolomic and proteomic approaches. An international study is validating their use as biomarkers.
- We discovered that interleukin-1 (IL-1) is a key mediator of cerebral inflammation consequent on cerebral vascular accident. This led to development of a novel immunomodulator IL-1 receptor antagonist. Non-clinical scientists and stroke physicians are now collaborating in clinical trials of this antagonist for management of stroke.

To help realise our strategy we have created nine MAHSC **Academic Sections** (Figure 2). These are divided into: **Clinical**; **Enabling**; and **Education & Training**.



**Figure 2** - MAHSC Academic Sections: **Purple** - Clinical Academic; **Blue** - Enabling; and **Grey** - Education and Training.

### (i) Research

- **The Medical School** has been organised into five **Clinical Academic Sections** set along major disease lines, and which have specific health objectives. These span the continuum of innovation from identification to fulfilment of unmet clinical need and reflect our areas of excellence in research and clinical service. They will provide a strategic and focused bi-directional bridge between basic science discovery and delivery of clinical service. To help achieve closer alignment with basic research these sections will integrate with research groupings in the newly restructured Faculty of Life Sciences. Our research will inform and enhance the quality of patient care by metrics and international benchmarking. The sections draw also on our strengths in Nursing, Dentistry, Pharmacy and Psychology as well as on Medicine and Life Sciences.

#### **Clinical Academic Sections:**

- **Cancer** builds on the existing success of the MCRG (UoM, Christie, CRUK), and will develop further its excellence in lung and breast cancer, in radiation related research, in early phase clinical trials and in biomarker development.
- **Cardiovascular** also embraces diabetes and stroke, and has additional strength in arrhythmias and their management. Cardiovascular health is a major focus of our CLAHRC.
- **Human Development** is the primary mission of our BRC and builds on our strengths in pregnancy research and genetics.
- **Inflammation and Repair** includes particular strengths in airway inflammation (asthma, COPD), inflammatory skin disease and the genetics of arthritis.
- **Mental Health** includes our strengths in neurodegenerative disease: we lead in the genetics of frontotemporal lobe dementia, and the Manchester memory clinic was the first of its kind. Our studies of the antecedents of suicide have shaped national policy and clinical practice.
- Research will become an integral part of Trust core business. Bench-marked metrics such as publications and citations, research income, membership of national bodies such as MRC, and enrolment of patients into clinical trials, will be key performance indicators for all consultant staff.
- A research ethos will enter into general practice, with a cultural change, so that, rather than being unusual, GPs across Greater Manchester see it as their normal practise to engage in

research and have effective support for doing so. This is key to the long-term translational mission.

- Introduce an overarching strategic plan involving research investment from all ten Manchester PCTs, focused on a small number of areas with measurable outcomes such as coronary artery disease, lifestyle cancers, long-term conditions, diabetes and obesity.
- Create a population of "citizen scientists" fully engaged in clinical research for the benefit of future improvements in public health and healthcare.

## (ii) Infrastructure

- **Enabling Academic Sections** ~ These provide essential support and services that intersect with, and contribute to, the focused missions of the clinical academic sections:
  - **Enabling Science and Technology** coordinates and invests in *repositories* (genomics, DNA, protein, tissue, images, clinical phenotype), drives the development and use of *imaging* across modalities, leads the development of *informatics*, and provides a one-stop shop for *research support* (single office, statistics, health economics, grant writing, governance).
  - **Clinical Trials** is responsible for coordination of clinical trials across the partners and derives from our existing strengths in statistical methodology and in the CLRN. It will create an integrated single portal of entry for clinical trials including governance, management, and streamlining of operational arrangements and training.
  - **Implementation** is based on our strengths in health economics and health services research, and in primary care. This section will be responsible for assessing changes in quality of patient care and public health by metrics and international benchmarking.
- The provision of further, early-phase, clinical trials facilities at Central and Salford.
- Highly developed interactions and collaborations with industry, particularly in the area of clinical trials and health service management.
- North West e-Health will provide advanced data management and statistical tools on top of anonymised health records to the population of Greater Manchester.

## (iii) Education

Through MAHSC, the University will integrate input from NHS partners (and the SHA) into educational developments:

- **Undergraduate**
  - Commit to the education of healthcare personnel who have a mastery of their clinical discipline and have the ability to deliver healthcare as part of a team.
  - Coordinate the provision of all levels of healthcare education, across the disciplines of medicine, nursing, dentistry, pharmacy, audiology, speech and language therapy, optometry and clinical psychology.
  - Develop core curricula which include main themes based around leadership, NHS management, entrepreneurship in health care, sociology, ethics and citizenship.
  - Increase lay input into the development of new curricula and selection of undergraduate and postgraduate students.
  - Increase the proportion of our students who enter our programmes as graduates.
- **Postgraduate ~ Education and Training Academic Section**
  - Build on our strength in the NIHR Integrated Academic Training Programme. In conjunction with the North West Postgraduate Deanery, MAHSC will take a leadership role for all academic clinician training and target them to our clinical academic sections.
  - Support our academic clinicians beyond their fellowships.
  - Train clinicians in how to use research with a particular focus on the "what" (clinical innovations) and the "how" (embedding innovation into practice).
  - The North West Leadership Fellowship programme will train NHS clinician leaders of the future.
  - Develop our Workforce Development programme through lifelong learning.
  - Develop partnership working with the proposed new Health Innovation and Education Clusters (HIECs) for delivery of education.
  - Provide a seamless transition from undergraduate to postgraduate education including specialty training and CPD.

#### (iv) Interface between Research and Clinical Care

We will:

- Improve the relevance of research, using the MIMIT model, by targeting research expertise and discovery to unmet clinical priorities.
- Use the Business School's proven methodology to enhance active implementation of research findings into NHS practice.
- Optimise strategies for uptake of innovation into clinical practice based on the CLAHRC approach to cardiovascular disease.
- Link to SHA strategic priorities, for example: targeted prevention strategies for identifying patients at high risk of developing long-term conditions; and access to high quality mental health services which are researched and evidence based.
- **Improve the First Translational Interface by:**
  - Moving discovery from bench to bedside using our “know how” from existing partnerships including our well developed vehicles for exploitation of innovation.
  - Partnerships with industry, in the context of the current application for designation, MAHSC has received letters of full support for partnership working arrangements from the global headquarters of three pharmaceutical companies, as well as commitments from Medilink Northwest and UK Trade and Investment.
- **Improve the Second Translational Interface by:**
  - Embedding evidence-based innovations in clinical services.
  - Obtaining positive outcomes on patient satisfaction from trials of planned interventions. Subsequent embedding of these interventions into routine NHS care, with consequent improvements in patient outcomes, will be evidenced through action research assessments.
  - Clinical Pathway Groups of key clinicians developing guidelines and protocols to permit and support changes in practice. These align with the SHA's strategic recommendation for service delivery across eight areas which include *staying healthy, long-term conditions and mental health (see Figure c, Annex I)*.
  - Rationalising provision of services by partner Trusts building on existing successful templates. Examples of these are: Stroke Services, a comprehensive arrangement for provision of acute stroke services between Salford, South and Bury; Neurosciences, a hub and spoke provision with the hub at Salford; and Radiotherapy Services with the hub at Christie.
  - Development of interactive simulation models to assist commissioners in assessing the likely impacts that changing care pathways and services will have on NHS costs and patient outcome.
  - Using workforce development plans to support redesign of care pathways and services, including training programmes for practitioners. This will improve NHS responsiveness to the needs of individual patients.
  - Increased capacity to plan and implement evidence-based changes to service delivery. This will be assessed through external evaluation by research commissioned through the NIHR Service Delivery and Organisation programme.
  - Developing local NHS capacity to plan and implement evidence-based changes to care pathways for patients, through close working and knowledge transfer between University researchers and NHS providers and commissioners. This will be achieved in part by embedding “knowledge transfer agents” whose remit is to identify and implement a research evidence base in PCTs.
  - Sustaining innovation through PCT commissioning.
- **Higher Quality Clinical Care** ~ The MAHSC partners are committed to the SHA's Advancing Quality agenda. Salford is leading nationally on NHS QUEST and two other MAHSC partners are involved (Central and South) out of 30 nationally.
- **e-Health** ~ A coordinated informatics strategy for MAHSC, implemented by all partner Trusts, and backed by methodological development and evaluation within UoM will bring direct benefits to patient care. This initiative will be harmonised with all “Connecting for Health” developments. Data from these integrated clinical systems can then be combined with other data within the local NHS, such as mortality rates, area-based deprivation scores etc. for the development of better NHS services to the local community.

## **Box 2**

### **Bridging the Second Gap in Translation**

- *The Manchester National Primary Care Research and Development Centre (NPCRDC) developed methods for measuring the quality of care in general practice now used by the Government as the basis of payment for general medical services in the NHS.*
- *The Oral Health Unit of the NPCRDC demonstrated that dental screening did not improve population health and was likely to increase health inequalities. As a result the DH issued new guidance asking PCTs to consider discontinuing local screening programmes.*
- *We demonstrated that patients attending “rapid access” transient ischaemic attack (TIA) clinics in North West England have a very low incidence of subsequent stroke following TIA. This fed directly into the NICE acute stroke and TIA guideline, and the recommendation that patients with acute stroke need to be assessed immediately not 1-2 weeks later as outpatients. CLAHRC is now implementing the guideline across Greater Manchester.*

## **B. BENEFITS**

### **B1. Outputs and Impacts**

#### **Interface between Research and Clinical Care**

The goals of MAHSC are to achieve and measure improvements in: (a) the quality of patient care and; (b) the health of the local population. We are well placed to do this from several perspectives, particularly customer focus.

#### **(i) Benefits to patients**

- Improved quality of care:
  - The objective is to achieve unprecedented levels of improvement in each of the five quality improvement domains: mortality reduction, harm reduction, reliable delivery of evidence based care, improved patient satisfaction, and improved productivity. These will be assessed by the development of common measures for each of these domains of quality improvement; our goal is to operate at the upper quartile of each.
  - Other outcomes will use NHS performance metrics including patient satisfaction and the metrics embedded in the CLAHRC approach.
- Better Health will be assessed by:
  - Standard NHS metrics, further developed by informatics.
  - Outcomes of clinical trials.
  - Reduced inequalities in health and healthcare.
- Clinical Pathway Groups benefits will accrue from this initiative and examples include:
  - Improving and standardising outcomes from stroke.
  - Reducing the overall gap in life-expectancy by 11% for men and 16% for women.
  - Focusing on personalised care for long-term conditions so that the patient is at the centre, as the expert.
  - Living a healthier lifestyle by reducing levels of smoking and increasing participation in physical exercise facilitated by delivery of NHS promotion and treatment services using “social marketing”.
  - Reducing inequalities in patient access to services, as measured by informatics tools.
- Access to research protocols as described in our Citizen Scientists initiative.
- Develop clear partnership working with HIECs to promote the implementation of clinical/service innovations targeted to local population needs.

#### **(ii) Benefits to the NHS Partners**

The NHS partners will benefit in several ways. For example:

- The embedding of a research culture will attract, retain and develop a highly motivated staff that values and applies measurement and evidence.

- Uptake of research into clinical practice for example, clinical improvement initiatives.
- MAHSC will play a significant role in the appointment of all consultant staff in our partner Trusts and with PCTs in the recruitment and development of General Practitioners.

### (iii) **Benefits to The University**

The University will benefit by:

- Attracting a new cadre of clinical scientists and healthcare professionals that is committed to the application of research-based innovation to deliver societal benefit.
- The development of common governance structures that will facilitate and strengthen research management.
- The success of MAHSC becoming a case study for the University's Institute of Science Ethics and Innovation.

### (iv) **Dissemination of Benefits**

#### • **Local and Regional**

Engagement already underpins research and its translation into patient benefit across the partners and MAHSC has established a Workforce and Community Engagement group. This will be facilitated through existing partnership working with a range of organisations in the city and North West region, including: the Centre for Genetics in Healthcare which provides a key contribution to public engagement; Manchester Knowledge Capital through its Science City programme; Local Research Network consumer groups; and the North West Patient Involvement Regional Advisory Group: 1-5 years.

The UoM is developing a strategic framework for public involvement led by Professor Dame Nancy Rothwell (Deputy President of UoM) and in engaging hard-to-reach audiences, such as people with poor health and poor education. It is the lead partner for a HEFCE Beacon for Public Engagement initiative: 1-5 years.

MAHSC will support implementation of these and other evidence-based interventions in collaboration with all NHS Trusts across Greater Manchester so improving patient health and reducing inequalities in health care provision. It will work closely with other University and clinical partners across the North West to further develop existing collaborations: 5 years.

#### • **National**

MAHSC proposes a national network of AHSCs to share initiatives and compare effectiveness: 1-5 years.

The presence of a National Institute for Health and Clinical Excellence (NICE) office in Manchester is a key opportunity for dissemination as is NHS Evidence, which also will be located in the city: 5 years.

In partnership with one or more HIECs, MAHSC would support the development of educational courses for providers and commissioners to spread successful innovations (from MAHSC, CLAHRC, BRC etc) to the wider healthcare system regionally, nationally and internationally. For example, MAHSC will prioritise the CLAHRC approach to implementation and extend it to cover all five clinical academic sections. At present, the CLAHRC is focused on only one – cardiovascular disease: 5 years.

#### • **International**

MAHSC is a member of the American Association of Academic Health Centers and will join the European group when it is established this year. MAHSC has an agreement to partner with an established and integrated AHSC in Europe. We are discussing with a US AHSC mechanisms to benchmark our effectiveness and share best practice: 1-10 years.

## (v) **Measurement of Impact**

### • **Research**

Success will be measured by:

- Quality informed by publications, citations, income and esteem.
- Increased inward investment, particularly from NIHR, industry and Research Councils.
- Relevance of the research to the NHS as measured by MIMIT outcomes and the SHA's priorities.
- Increasing the number of disclosures, including patents and spin-out companies, by 10% year on year.
- Renewal and expansion of the BRC in 2011.

### • **Infrastructure**

Success will be assessed by:

- Enhanced efficiency: for example, a one-stop shop for clinical trials in Manchester.
- Auditing patient engagement: with research design/delivery.
- Doubling, at a minimum, the number of patients recruited into clinical studies as required by the NHS Constitution.
- Reducing, using the MCRC model, the time taken from study protocol finalisation to R&D approval by 50%.
- Establishing and communicating the MAHSC brand.

### • **Education**

Success will be assessed by:

- Student satisfaction survey.
- Achieving organisational changes at undergraduate and at postgraduate level.
- Increasing the number of postgraduate students per FTE member of staff.
- Increasing the number of externally-funded fellowships awarded to our healthcare trainees.
- Gaining NHS management leadership roles for clinicians.
- Enhancing clinician engagement with research:
  - 1% of clinicians leading research
  - 10% of clinicians conducting research
  - 100% of clinicians supporting research

## **2. GOVERNANCE**

### (i) **Introduction**

The UoM has four devolved Faculties: Medical and Human Sciences; Life Sciences; Humanities; and Engineering and Physical Sciences. The heads of these Faculties are also Vice-Presidents of the University. The University has 11,700 employees; the 2007/08 financial year closed in balance with a turnover of £684 million. The partner Trusts comprise four foundation Trusts, one Primary Care Trust, and the Mental Health and Social Care Trust. They have 23,000 employees and a combined annual turnover of £1.6 billion.

### (ii) **Federated vs Integrated AHSCs**

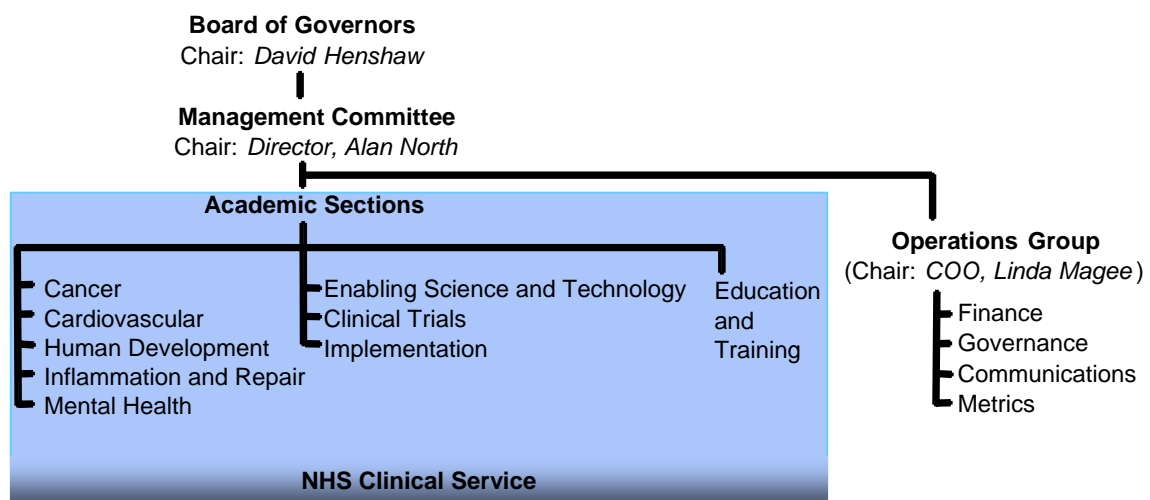
Models for AHSCs around the world range from federated (such as the Harvard associated hospitals, or Yale University) to integrated (for example UPMC, Singapore, or Nijmegen). The geographical coverage of healthcare delivery organisations is a relevant factor here. In some large cities the "footprint" of the healthcare organisation matches the scale of the city. In Manchester, however, the population is served by a number of separate NHS Trusts. Therefore, the desire to prosecute world-class research across a range of disciplines, combined with the wish to diffuse advances into the community, made it impractical to partner with a single Trust. Moreover, we had a strong history of working together and documented complementarity among clinical and scientific areas of expertise. Furthermore, these Trusts already see a necessity to collaborate more closely in the development and delivery of care across the city-region.

There are **clear advantages to a federation** of otherwise autonomous organisations. The first relate to **mission**. The mission of the UoM (as is clearly articulated in its strategic plan, *Towards Manchester 2015*) is research and education in the broadest sense. This includes scholarship in its widest remit, the discovery and the application of knowledge: a subset of such application is directed towards the human condition in general, and sick humans in particular. The mission of our partner Trusts is unequivocally the optimal and cost-effective care of patients and the population. A full integration of such organisations may risk losing the broader input of scholarship and innovation that a large University can bring to the organisation. **Agility** and responsiveness is a second advantage of a federated organisation; smaller operating units can more easily introduce and trial change which can then be progressed through the organisation. A third advantage is **engagement**. The diffusion and adoption of research outputs can best be done through a broad range of partners, and particularly PCTs each with their own networks. Fourth, the federation promotes the **collegiality** that is critical for creative innovation.

### (iii) Governance

MAHSC partners considered a range of organisational models, and took extensive legal advice. We elected to form a non-profit, charitable *Company Limited by Guarantee (CLG)*. The articles of association and members' agreement for the CLG have been jointly agreed and signed by the seven members. The Board of Governors, chaired by Sir David Henshaw (Chairman of the North West SHA), includes the Chief Executives of the NHS Trusts, the President of The University of Manchester (UoM), the Director of MAHSC and three non-executive members. The SHA has pledged strong support for MAHSC. MAHSC is directed by Professor Alan North, Vice-President of UoM and Dean of its Faculty of Medical and Human Sciences (Figure 3).

The CLG Board sets strategic direction, approves annual plans and budgets, agrees priorities for major bids/investments, appoints and appraises the Director, monitors performance against strategy, and ensures proper accountability. It therefore provides the mechanism to integrate, intellectually and operationally, the research and innovation potential of the partners. As a distinct legal entity, MAHSC can develop a strong brand and identity and, as necessary and agreed by its Board, it can in the future bid for funding, enter into contracts, own assets and employ staff. This will complement the strong and deeply-rooted governance arrangements of each of the partner organisations and will provide assurance with respect to the delivery of research quality and clinical innovation.



**Figure 3.** The management structure of MAHSC

### (iv) Management

Our Management Committee chaired by the Director of MAHSC, includes: a dedicated Chief Operating Officer (COO); leaders of the MCRC, CLRN, BRC and CLAHRC; Trust R&D Directors and the senior managers of the Medical School.

In the initial stages of MAHSC, five working groups have developed five-year visions for: (i) clinical trials; (ii) infrastructure (consent, obtaining, storage, tracking, analysis, reporting); (iii) implementation and assessment; (iv) communication and engagement; and (v) education and training. These visions are now informing our strategic plan.

Nine academic sections are currently being formed as detailed in our strategy. Their heads report to the Director. The Chief Operating Officer chairs each of four operations groups: Finance; Governance; Communications and; Metrics.

#### (v) **Financial Management**

Members have confirmed with each other their intention to provide the CLG such finance as to be reasonably necessary to support its short- and long-term development objectives. Funding either from research or from other sources will continue to be awarded to the partner institutions. Funding awarded to the CLG from third parties will as far as possible be awarded to individuals and/or research groups in such a way that the funding can be credited to their employer (i.e. in proportion to their contribution). The financial management of the majority of income will therefore continue within the well-established financial management processes of the partner institutions. The annual sum awarded by the partner institutions towards the running costs of MAHSC will be managed through the UoM and the university's financial regulations applied. The budget will be set and managed through the CLG.

#### (vi) **Risk Management**

The federated model adopted limits the risk which MAHSC is exposed to. The limited risks which MAHSC is exposed to are:

1. Failure of the partners to work together - **mitigation:** the members' agreement associated with the CLG.
2. Failure of MAHSC to attract additional research income - **mitigation:** development of a research strategy together with key performance indicators which will be monitored by the Board of Governors; investment in (a) grant writer to support key researchers in writing large and complex grant applications; (b) research operations manager to streamline research administration; (c) communications to raise the profile of MAHSC; bid for accreditation by the Department of Health.
3. Failure of MAHSC to implement change - **mitigation:** establishment of working group to bring about cultural change, drawing on existing skills and knowledge in CLAHRC, SHA, PCTs and other AHSCs.

### **3. FINANCIAL AND OPERATIONAL SUSTAINABILITY**

The business case for MAHSC has been considered and agreed by the Transitional Board which was established to oversee the operation of MAHSC whilst the CLG was being developed. The Transitional Board<sup>1</sup> agreed that each of the seven partners would contribute an annual sum over the next five years to pay for the small number of core administrative staff who have been/will be recruited to run the operation of MAHSC and to cover the running costs of this office. Hence, the financial risk for MAHSC is limited. The Transitional Board accepted this risk. The federated model limits the organisational risk of each partner to this commitment. The CLG ensures that the partner organisations accept the ongoing commitment of recruiting the small number of core staff.

The financial business case for MAHSC is based on the limited cost of MAHSC core costs and the future growth of research income.

The 2008/9 research income of MAHSC is £185 million. We anticipate that the total research income to MAHSC will increase by 10% in the first year of operation and then by 15% year-on-year for the following four years, giving an increase in research income of £355 million by the end of the fifth year of operation. The integrated and strategic approach MAHSC is taking to research, together with the infrastructure it will establish to support health research, will make the organisation more attractive to research funders such as NIHR, MRC, and industry. We also anticipate that MAHSC will attract funding from the North West Regional Development Agency. The charitable research income to UoM will attract additional quality-related research income (QR) from HEFCE and the additional NIHR funding to Trusts will attract additional Flexibility and Sustainability funding. We are therefore confident that the research income target of £355 million is both realistic and achievable. We anticipate that in addition to the growth in research income there will be a 10% year-on-year enhancement of income streams arising from the exploitation of innovation, and postgraduate taught courses.

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<sup>1</sup> The Transitional Board, which comprised the Chief Executives of the six partner Trusts and the President of the University, Chaired by Sir David Henshaw, has transformed into the Board of Governors with the addition of three non-executive members and the Director of MAHSC now that the CLG is in operation.

Figure a

**The North West Compared to Other Regions and England**

**Highest rate for:**

- Deaths from heart disease and stroke
- Long term mental health problems
- Alcohol related hospital stays
- Hospital admissions for depression, anxiety disorders and schizophrenia
- Drug misuse
- Self-reported violence
- Violent injuries serious enough to require hospital treatment
- Claiming incapacity benefits for mental and behavioural disorders.

**Second highest rate for:**

- Deaths from cancer and smoking related illnesses
- Death rate from suicide and injuries of undetermined intent in males
- Reported levels of feeling in poor health.

**And:**

- 9% (400,000 people) of the working age population on incapacity benefit, largely for preventable or manageable conditions
- 16% of people on benefits
- Nearly a quarter of children live in poverty
- 23% of adults are binge drinkers.

Figure c

**Healthier Horizons for the North West**

**Clinical Pathway Groups**

- Staying Healthy
- Birth
- Children
- Urgent Care
- Planned Care
- Long Term Conditions
- Mental Health
- End of Life Care

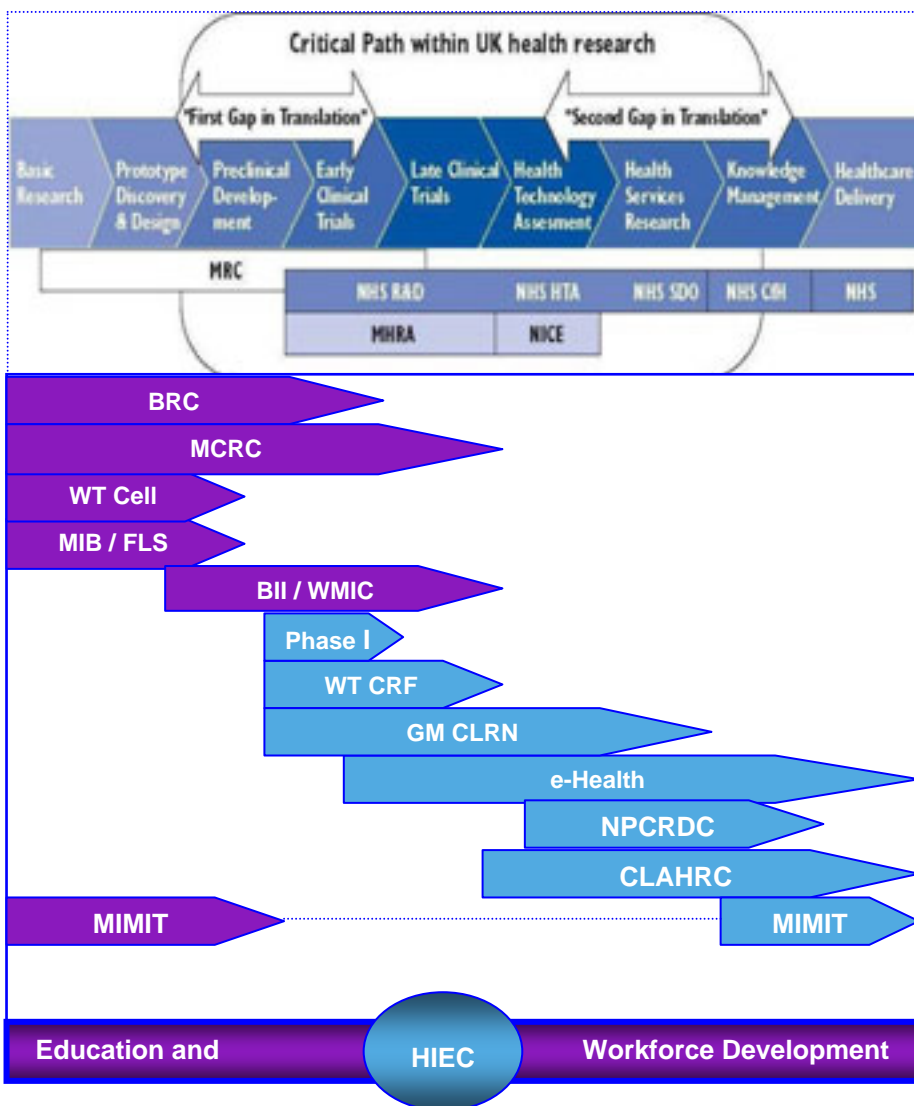


Figure b

**Examples of existing models of Partner working addressing First & Second Translation Gaps**

**Glossary:**

- BRC - Biomedical Research Centre
- MCRC – Manchester Cancer Research Centre
- WT CELL - Wellcome Trust Centre for Cell- matrix Research
- MIB - Manchester Interdisciplinary Biocentre
- FLS - Faculty of Life Sciences
- BII - Biomedical Imaging Institute
- WMIC - Wolfson Molecular Imaging Centre
- Phase 1 – Phase 1 Clinical Trials Unit
- WT CRF - Wellcome Trust Clinical Research Facility
- GM CLRN - Comprehensive Local Research Network
- e-Health (data management)
- NPCRDC - National Primary Care R&D Centre
- CLAHC - Collaboration for Leadership in Applied Health Research and Care
- MIMIT - Manchester Integrating Medicine and Innovative Technology
- HIEC - Health Innovation and Education Clusters

# **Manchester Academic Health Science Centre**

## **Annex II**

### **Financial Performance and Forecasts of the NHS Partner Trusts:**

Central Manchester University Hospitals NHS Foundation Trust (**Central**)

The Christie NHS Foundation Trust (**Christie**)

Manchester Mental Health and Social Care NHS Trust (**Mental Health**)

Salford Royal NHS Foundation Trust (**Salford**)

Salford Primary Care NHS Trust (**Salford PCT**)

University Hospital of South Manchester NHS Foundation Trust (**South**)

## Central Manchester NHS Foundation Trust - Financial Performance and Forecasts

### I&E Account

	2007/08 £'m	2008/09 £'m	2009/10 £'m	2010/11 £'m
<b>Income</b>				
NHS Clinical Income	446.6	497.8	511.4	538.0
Non NHS Clinical income	6.9	7.3	7.4	7.6
Education and Training	37.3	39.3	40.1	41.0
Research & Development	17.1	28.0	28.8	19.6
Other income	40.2	35.9	35.3	33.5
PFI Specific income	19.3	8.0	18.2	1.5
<b>Total income</b>	<b>567.5</b>	<b>616.2</b>	<b>641.2</b>	<b>641.1</b>
<b>Expenditure</b>				
Pay Costs	(318.7)	(324.4)	(321.4)	(327.3)
Drug costs	(58.6)	(62.4)	(67.7)	(73.6)
Clinical supplies and services	(64.1)	(66.5)	(69.0)	(72.3)
Other Costs	(71.5)	(86.8)	(73.3)	(60.6)
PFI specific costs	(29.7)	(43.8)	(53.6)	(46.1)
<b>Total costs</b>	<b>(542.5)</b>	<b>(584.0)</b>	<b>(585.1)</b>	<b>(579.8)</b>
<b>EBITDA</b>	<b>24.9</b>	<b>32.2</b>	<b>56.1</b>	<b>61.3</b>
<b>EBITDA margin</b>	<b>4%</b>	<b>5%</b>	<b>9%</b>	<b>10%</b>
Profit / loss on asset disposals	0.0	0.0	0.0	0.0
Fixed Asset impairments	0.0	0.0	0.0	0.0
Total Depreciation & Amortisation	(16.5)	(17.6)	(30.7)	(30.8)
Total interest receivable	0.8	0.5	0.6	1.0
Interest payable on Loans	0.0	(0.3)	(16.6)	(22.9)
PDC Dividend	(9.0)	(9.0)	(8.9)	(7.8)
<b>Net Surplus/(Deficit)</b>	<b>0.3</b>	<b>5.8</b>	<b>0.5</b>	<b>0.7</b>
<b>Net margin</b>	<b>0.1%</b>	<b>0.9%</b>	<b>0.1%</b>	<b>0.1%</b>

## Balance sheet

	At 31 March 2008 £'m	At 31 March 2009 £'m	At 31 March 2010 £'m	At 31 March 2011 £'m
<b>FIXED ASSETS</b>				
Tangible + Intangible Assets	167.4	169.7	722.8	704.8
PFI Residual interest	2.7	4.4	7.0	9.8
PFI Deferred Assets	124.6	121.2		
<b>Total Fixed Assets</b>	<b>294.7</b>	<b>295.3</b>	<b>729.8</b>	<b>714.6</b>
<b>CURRENT ASSETS</b>				
Stocks & Work in Progress	7.8	7.8	7.8	8.0
NHS Trade Debtors	19.4	25.5	25.4	27.0
Non NHS Trade Debtors	7.7	8.9	9.8	7.6
Other Debtors	5.0	5.0	4.9	4.9
Prepayments	2.9	2.6	2.6	2.6
Cash at bank and in hand	1.5	7.0	12.3	28.1
<b>Total Current Assets</b>	<b>44.4</b>	<b>56.9</b>	<b>63.0</b>	<b>78.3</b>
<b>CURRENT LIABILITIES (amounts due in less than one year)</b>				
Trade Creditors	(31.9)	(20.3)	(21.0)	(20.1)
Other Creditors	(6.3)	(6.9)	(6.4)	(6.8)
PDC dividend creditor	0.0	0.0	0.0	0.0
Capital Creditors	(4.3)	(3.5)	(1.5)	(1.5)
Interest payable creditor	0.0	0.0	0.0	0.0
Payments on Account	(12.4)	(7.4)	(6.3)	(6.3)
Accruals	(2.5)	(2.6)	(2.6)	(2.6)
Fiance Lease creditor			(7.1)	(3.4)
Deferred Income	(6.2)	(3.6)	0.0	0.0
<b>Total Current Liabilities</b>	<b>(63.7)</b>	<b>(44.4)</b>	<b>(44.9)</b>	<b>(40.7)</b>
<b>NET CURRENT ASSETS (LIABILITIES)</b>	<b>(19.4)</b>	<b>12.6</b>	<b>18.1</b>	<b>37.6</b>
Long term Debtors	1.7	1.7	1.7	1.7
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>	<b>277.1</b>	<b>309.6</b>	<b>749.6</b>	<b>753.9</b>
Creditors: Amounts falling due after more than one year	(12.1)	(8.1)	(8.1)	(8.1)
Fiance Lease creditor			(400.4)	(407.5)
Provisions for liabilities and charges	(7.2)	(10.6)	(4.7)	(4.1)
<b>TOTAL ASSETS EMPLOYED</b>	<b>257.9</b>	<b>290.9</b>	<b>336.5</b>	<b>334.3</b>
<b>LOANS</b>				
Working capital bridging loan	0	20	20	20
Capital loans	0.0	0.0	20.0	17.8
<b>TOTAL LOANS</b>	<b>0.0</b>	<b>20.0</b>	<b>40.0</b>	<b>37.8</b>
<b>TAXPAYERS' EQUITY</b>				
Public dividend capital	169.4	171.7	171.7	171.7
Income and expenditure reserve	27.2	33.0	27.5	28.2
Revaluation reserve	57.7	58.4	76.4	77.7
Donated asset reserve	3.4	7.5	20.5	18.6
Other Reserves	0.3	0.3	0.3	0.3
<b>TOTAL TAXPAYERS EQUITY</b>	<b>257.9</b>	<b>270.9</b>	<b>296.5</b>	<b>296.5</b>
<b>TOTAL FUNDS EMPLOYED</b>	<b>257.9</b>	<b>290.9</b>	<b>336.5</b>	<b>334.3</b>

## Cash flow

	2007/08 £'m	2008/09 £'m	2009/10 £'m	2010/11 £'m
<b>EBITDA</b>	<b>24.9</b>	<b>32.2</b>	<b>56.1</b>	<b>61.3</b>
Excluding Non cash I&E items	2.8	2.7	40.9	41.4
<b>Movement in working capital:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Stocks & Work in Progress	0.2	(0.0)	0.0	(0.2)
NHS Trade Debtors	19.8	(6.1)	0.1	(1.6)
Non NHS Trade Debtors	1.0	(1.2)	(0.9)	2.2
Other Debtors	(5.0)	0.0	0.0	0.0
Accrued Income	0.0	0.0	0.0	0.0
Prepayments	(0.6)	0.3	0.0	0.0
Trade Creditors	(4.6)	(11.6)	0.7	(0.8)
Other Creditors	0.4	0.6	(0.6)	0.4
Payments on Account	5.0	(5.0)	(1.1)	0.0
Accruals	(3.3)	0.1	0.0	0.0
Deferred Income	0.3	(2.6)	(3.6)	0.0
Provisions & Liabilities	3.5	3.5	(6.0)	(0.6)
<b>Cash Flow from Operations</b>	<b>44.4</b>	<b>12.9</b>	<b>85.7</b>	<b>102.0</b>
<b>Capital Expenditure</b>				
Capex spend	(21.1)	(15.2)	(28.7)	(10.8)
PFI residual interest	(1.3)	(1.7)	0.0	0.0
Cash receipt from asset sales	0.0	0.0	0.0	0.0
<b>Cash Flow before Financing</b>	<b>22.1</b>	<b>(4.0)</b>	<b>57.0</b>	<b>91.2</b>
Movement in LT Creditors	(6.7)	(4.0)	0.0	0.0
Interest (paid) on loans and leases	0.0	(0.3)	(1.6)	(1.9)
Interest (paid)/rec'd on cash balances	0.8	0.5	0.6	1.0
Drawdown of loans and leases	0.0	20.0	20.0	0.0
Repayment of loans and leases	0.0	0.0	(62.2)	(66.6)
Public Dividend Capital received	10.6	2.3	0.0	0.0
Public Dividend Capital repaid	(16.9)	0.0	0.0	0.0
Dividends paid	(9.2)	(9.0)	(8.9)	(7.8)
<b>Net cash outflow/inflow</b>	<b>0.5</b>	<b>5.5</b>	<b>4.9</b>	<b>15.9</b>
<b>Opening cash balance</b>	<b>1.3</b>	<b>1.9</b>	<b>7.4</b>	<b>12.3</b>
<b>Closing cash balance</b>	<b>1.9</b>	<b>7.4</b>	<b>12.3</b>	<b>28.1</b>

## The Christie NHS Foundation Trust - Financial Performance and Forecasts

### I&E Account

		2007/08	2008/09	2009/10	2010/11
		£'m	£'m	£'m	£'m
<b>Income</b>					
NHS Clinical Income	+	104.58	110.65	116.92	126.02
Non NHS Clinical income	+	8.75	8.85	9.61	10.38
Education and Training	+	4.49	3.09	3.16	3.25
Research & Development	+	4.14	4.48	4.60	4.71
Other income	+	23.62	25.18	25.68	26.19
PFI Specific income	+				
<b>Total income</b>		<b>145.58</b>	<b>152.25</b>	<b>159.97</b>	<b>170.55</b>
<b>Expenditure</b>					
Pay Costs	-	(67.7)	(73.8)	(76.2)	(80.1)
Drug costs	-	(31.1)	(35.7)	(38.0)	(40.5)
Clinical supplies and services	-	(7.6)	(7.3)	(7.3)	(7.5)
Other Costs	-	(22.6)	(20.1)	(20.9)	(21.7)
PFI specific costs	-				
<b>Total costs</b>		<b>(129.05)</b>	<b>(136.91)</b>	<b>(142.45)</b>	<b>(149.80)</b>
<b>EBITDA</b>		<b>16.53</b>	<b>15.34</b>	<b>17.52</b>	<b>20.75</b>
<b>EBITDA margin</b>		11%	10%	11%	12%
Profit / loss on asset disposals	-	(0.17)	0.00		
Fixed Asset impairments	-	(0.86)	0.00		
Total Depreciation & Amortisation	-	(7.34)	(8.66)	(8.61)	(9.06)
Total interest receivable	-	0.96	0.90	0.51	0.51
Interest payable on Loans	-		0.00	(0.26)	(1.02)
PDC Dividend	-	(3.83)	(4.02)	(4.02)	(4.02)
<b>Net Surplus/(Deficit)</b>		<b>5.29</b>	<b>3.56</b>	<b>5.14</b>	<b>7.16</b>
<b>Net margin</b>		<b>3.6%</b>	<b>2.3%</b>	<b>3.2%</b>	<b>4.2%</b>

## Balance sheet

		At 31 March 2008 £'m	At 31 March 2009 £'m	At 31 March 2010 £'m	At 31 March 2011 £'m
<b>FIXED ASSETS</b>					
Tangible + Intangible Assets	+	148.36	168.62	214.83	212.67
PFI Residual interest	+				
PFI Deferred Assets	+				
<b>Total Fixed Assets</b>		<b>148.36</b>	<b>168.62</b>	<b>214.83</b>	<b>212.67</b>
<b>CURRENT ASSETS</b>					
Stocks & Work in Progress	+	1.14	1.14	1.14	1.14
NHS Trade Debtors	+	6.72	6.72	6.72	6.72
Non NHS Trade Debtors	+	0.00	0.00	0.00	0.00
Other Debtors	+	5.43	5.43	5.43	5.43
Accrued Income	+	0.00	0.00	0.00	0.00
Prepayments	+	0.00	0.00	0.00	0.00
Cash at bank and in hand	+	19.98	14.53	10.20	14.44
<b>Total Current Assets</b>		<b>33.27</b>	<b>27.82</b>	<b>23.49</b>	<b>27.73</b>
<b>CURRENT LIABILITIES (amounts due in less than one year)</b>					
Trade Creditors	-	(6.20)	(6.20)	(6.20)	(6.20)
Other Creditors	-	(5.80)	(5.80)	(5.80)	(5.80)
PDC dividend creditor	-	0.00	0.00	0.00	0.00
Capital Creditors	-	(2.31)	(2.31)	(2.31)	(2.31)
Interest payable creditor	-	0.00	0.00	0.00	0.00
Payments on Account	-	(1.46)	(1.46)	(1.46)	(1.46)
Accruals	-	(4.87)	(4.87)	(4.87)	(4.87)
Deferred Income	-	(0.94)	(0.94)	(0.94)	(0.94)
<b>Total Current Liabilities</b>		<b>(21.58)</b>	<b>(21.58)</b>	<b>(21.58)</b>	<b>(21.58)</b>
<b>NET CURRENT ASSETS (LIABILITIES)</b>		<b>11.69</b>	<b>6.24</b>	<b>1.91</b>	<b>6.15</b>
Long term Debtors	+				
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<b>160.05</b>	<b>174.86</b>	<b>216.74</b>	<b>218.82</b>
Creditors: Amounts falling due after more than one year	-	(3.95)	(3.95)	(3.95)	(3.95)
Finance leases	-	0.00	0.00	0.00	0.00
Provisions for liabilities and charges	-	(1.03)	(1.03)	(1.03)	(1.03)
<b>TOTAL ASSETS EMPLOYED</b>		<b>155.07</b>	<b>169.88</b>	<b>211.76</b>	<b>213.84</b>
<b>LOANS</b>					
Working capital bridging loan	+				
Capital loans	+			21.00	20.00
<b>TOTAL LOANS</b>		<b>0.00</b>	<b>0.00</b>	<b>21.00</b>	<b>20.00</b>
<b>TAXPAYERS' EQUITY</b>					
Public dividend capital	+	52.48	52.48	52.48	52.48
Income and expenditure reserve	+	7.28	10.84	15.98	23.14
Revaluation reserve	+	39.40	39.40	39.40	39.40
Donated asset reserve	+	55.91	67.16	82.90	78.92
Other Reserves	+	0.00	0.00	0.00	0.00
<b>TOTAL TAXPAYERS EQUITY</b>		<b>155.07</b>	<b>169.88</b>	<b>190.76</b>	<b>193.94</b>
<b>TOTAL FUNDS EMPLOYED</b>		<b>155.07</b>	<b>169.88</b>	<b>211.76</b>	<b>213.94</b>

## Cash flow

	2007/08	2008/09	2009/10	2010/11
	£'m	£'m	£'m	£'m
<b>EBITDA</b>	<b>16.53</b>	<b>15.34</b>	<b>17.52</b>	<b>20.75</b>
Excluding Non cash I&E items	(3.24)	(4.08)	(4.08)	(4.08)
<b>Movement in working capital:</b>				
Stocks & Work in Progress	(0.03)	0.00	0.00	0.00
NHS Trade Debtors	(3.19)	0.00	0.00	0.00
Non NHS Trade Debtors	(0.03)	0.00	0.00	0.00
Other Debtors	11.21	0.00	0.00	0.00
Accrued Income	0.00	0.00	0.00	0.00
Prepayments	0.54	0.00	0.00	0.00
Trade Creditors	0.09	0.00	0.00	0.00
Other Creditors	3.98	0.00	0.00	0.00
Payments on Account	0.39	0.00	0.00	0.00
Accruals	0.28	0.00	0.00	0.00
Deferred Income	(0.27)	0.00	0.00	0.00
Provisions & Liabilities	0.00	0.00	0.00	0.00
<b>Cash Flow from Operations</b>	<b>26.26</b>	<b>11.26</b>	<b>13.44</b>	<b>16.67</b>
<b>Capital Expenditure</b>				
Capex spend	(3.78)	(15.09)	(35.00)	(6.90)
PFI residual interest				
Cash receipt from asset sales		1.50		
<b>Cash Flow before Financing</b>	<b>22.48</b>	<b>(2.33)</b>	<b>(21.56)</b>	<b>9.77</b>
Movement in LT debtors				
Movement in LT Creditors	0.10			
Interest (paid) on loans and leases			(0.26)	(1.02)
Interest (paid)/rec'd on cash balances	0.96	0.90	0.51	0.51
Drawdown of loans and leases			21.00	
Repayment of loans and leases				(1.00)
Public Dividend Capital received				
Public Dividend Capital repaid				
Movement in Other grants/Capital received				
Dividends paid	(3.83)	(4.02)	(4.02)	(4.02)
<b>Net cash outflow/inflow</b>	<b>19.71</b>	<b>(5.45)</b>	<b>(4.33)</b>	<b>4.24</b>
<b>Opening cash balance</b>	<b>0.27</b>	<b>19.98</b>	<b>14.53</b>	<b>10.20</b>
<b>Closing cash balance</b>	<b>19.98</b>	<b>14.53</b>	<b>10.20</b>	<b>14.44</b>

Manchester Mental Health and Social Care Trust - Financial Performance and Forecasts

I&E Account

		2007/08	2008/09	2009/10	2010/11
		£000	£000	£000	£000
<b>Income</b>					
NHS Clinical Income	+	65,660.0	68,211.0	69,901.0	70,854.0
Non NHS Clinical income	+	12,270.0	13,383.0	13,715.0	13,902.0
Education and Training	+	5,596.0	5,843.0	5,960.0	6,079.0
Research & Development	+	2,120.0	2,247.0	2,080.0	2,134.0
Other income	+	3,802.0	3,987.0	4,287.0	4,114.0
PFI Specific income	+	0.0	0.0	0.0	0.0
<b>Total income</b>		<b>89,448.0</b>	<b>93,671.0</b>	<b>95,943.0</b>	<b>97,083.0</b>
<b>Expenditure</b>					
Pay Costs	-	(58,485.0)	(62,947.0)	(64,348.0)	(64,819.0)
Drug costs	-	(1,314.0)	(1,947.0)	(2,177.0)	(2,407.0)
Clinical supplies and services	-	(155.0)	(123.0)	(127.0)	(128.0)
Other Costs	-	(28,999.0)	(27,893.0)	(28,166.0)	(28,604.0)
PFI specific costs	-	0.0	0.0	0.0	0.0
<b>Total costs</b>		<b>(88,953.0)</b>	<b>(92,910.0)</b>	<b>(94,818.0)</b>	<b>(95,958.0)</b>
<b>EBITDA</b>		<b>495.0</b>	<b>761.0</b>	<b>1,125.0</b>	<b>1,125.0</b>
<b>EBITDA margin</b>		<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>
Profit / loss on asset disposals	-	0.0	0.0	0.0	0.0
Fixed Asset impairments	-	0.0	0.0	0.0	0.0
Total Depreciation & Amortisation	-	(391.0)	(477.0)	(536.0)	(536.0)
Total interest receivable	-	410.0	250.0	0.0	0.0
Interest payable on Loans	-	0.0	0.0	0.0	0.0
PDC Dividend	-	(59.0)	(89.0)	(89.0)	(89.0)
<b>Net Surplus/(Deficit)</b>		<b>455.0</b>	<b>445.0</b>	<b>500.0</b>	<b>500.0</b>
<b>Net margin</b>		<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.5%</b>

## Balance sheet

		At 31 March 2008 £000	At 31 March 2009 £000	At 31 March 2010 £000	At 31 March 2011 £000
<b>FIXED ASSETS</b>					
Tangible + Intangible Assets	+	1,621.0	1,599.0	2,599.0	3,099.0
PFI Residual interest	+	0.0	0.0	0.0	0.0
PFI Deferred Assets	+	0.0	0.0	0.0	0.0
<b>Total Fixed Assets</b>		<b>1,621.0</b>	<b>1,599.0</b>	<b>2,599.0</b>	<b>3,099.0</b>
<b>CURRENT ASSETS</b>					
Stocks & Work in Progress	+	0.0	0.0	0.0	0.0
NHS Trade Debtors	+	1,781.0	1,991.0	2,000.0	2,000.0
Non NHS Trade Debtors	+	1,205.0	1,347.0	1,300.0	1,300.0
Other Debtors	+	0.0	0.0	0.0	0.0
Accrued Income	+	145.0	162.0	150.0	150.0
Prepayments	+	0.0	0.0	0.0	0.0
Cash at bank and in hand	+	510.0	1,010.0	510.0	510.0
<b>Total Current Assets</b>		<b>3,641.0</b>	<b>4,510.0</b>	<b>3,960.0</b>	<b>3,960.0</b>
<b>CURRENT LIABILITIES (amounts due in less than one year)</b>					
Trade Creditors	-	(3,519.0)	(4,194.0)	(4,505.0)	(4,821.0)
Other Creditors	-	(127.0)	(151.0)	(150.0)	(150.0)
PDC dividend creditor	-	0.0	0.0	0.0	0.0
Capital Creditors	-	0.0	0.0	0.0	0.0
Interest payable creditor	-	0.0	0.0	0.0	0.0
Payments on Account	-	0.0	0.0	0.0	0.0
Accruals	-	(2,116.0)	(2,522.0)	(2,500.0)	(2,500.0)
Deferred Income	-	0.0	0.0	0.0	0.0
<b>Total Current Liabilities</b>		<b>(5,762.0)</b>	<b>(6,867.0)</b>	<b>(7,155.0)</b>	<b>(7,471.0)</b>
<b>NET CURRENT ASSETS (LIABILITIES)</b>					
Long term Debtors	+	3,233.0	3,732.0	4,121.0	4,437.0
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<b>2,733.0</b>	<b>2,974.0</b>	<b>3,525.0</b>	<b>4,025.0</b>
Creditors: Amounts falling due after more than one year	-	0.0	0.0	0.0	0.0
Finance leases	-	0.0	0.0	0.0	0.0
Provisions for liabilities and charges	-	(553.0)	(349.0)	(400.0)	(400.0)
<b>TOTAL ASSETS EMPLOYED</b>		<b>2,180.0</b>	<b>2,625.0</b>	<b>3,125.0</b>	<b>3,625.0</b>
<b>LOANS</b>					
Working capital bridging loan	+	0	0	0	0
Capital loans	+	0.0	0.0	0.0	0.0
<b>TOTAL LOANS</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>TAXPAYERS' EQUITY</b>					
Public dividend capital	+	1,497.0	1,497.0	1,497.0	1,497.0
Income and expenditure reserve	+	661.0	1,106.0	1,606.0	2,106.0
Revaluation reserve	+	22.0	22.0	22.0	22.0
Donated asset reserve	+	0.0	0.0	0.0	0.0
Other Reserves	+	0.0	0.0	0.0	0.0
<b>TOTAL TAXPAYERS EQUITY</b>		<b>2,180.0</b>	<b>2,625.0</b>	<b>3,125.0</b>	<b>3,625.0</b>
<b>TOTAL FUNDS EMPLOYED</b>		<b>2,180.0</b>	<b>2,625.0</b>	<b>3,125.0</b>	<b>3,625.0</b>

## Cash flow

	2007/08	2008/09	2009/10	2010/11
	£000	£000	£000	£000
<b>EBITDA</b>	<b>495.0</b>	<b>761.0</b>	<b>1,125.0</b>	<b>1,125.0</b>
Excluding Non cash I&E items	0.0	0.0	0.0	0.0
<b>Movement in working capital:</b>				
Stocks & Work in Progress	0.0	0.0	0.0	0.0
NHS Trade Debtors	3,391.0	(210.0)	(9.0)	0.0
Non NHS Trade Debtors	(262.0)	(142.0)	47.0	0.0
Other Debtors	0.0	0.0	0.0	0.0
Accrued Income	76.0	(17.0)	12.0	0.0
Prepayments	0.0	0.0	0.0	0.0
Trade Creditors	(3,546.0)	675.0	311.0	316.0
Other Creditors	(425.0)	24.0	(1.0)	0.0
Payments on Account	0.0	0.0	0.0	0.0
Accruals	1,589.0	406.0	(22.0)	0.0
Deferred Income	0.0	0.0	0.0	0.0
Provisions & Liabilities	23.0	(204.0)	51.0	0.0
<b>Cash Flow from Operations</b>	<b>1,341.0</b>	<b>1,293.0</b>	<b>1,514.0</b>	<b>1,441.0</b>
<b>Capital Expenditure</b>				
Capex spend	(406.0)	(455.0)	(1,536.0)	(1,036.0)
PFI residual interest	0.0	0.0	0.0	0.0
Cash receipt from asset sales	0.0	0.0	0.0	0.0
<b>Cash Flow before Financing</b>	<b>935.0</b>	<b>838.0</b>	<b>(22.0)</b>	<b>405.0</b>
Movement in LT debtors	(509.0)	(499.0)	(389.0)	(316.0)
Movement in LT Creditors	0.0	0.0	0.0	0.0
Interest (paid) on loans and leases	0.0	0.0	0.0	0.0
Interest (paid)/rec'd on cash balances	410.0	250.0	0.0	0.0
Drawdown of loans and leases	0.0	0.0	0.0	0.0
Repayment of loans and leases	0.0	0.0	0.0	0.0
Public Dividend Capital received	0.0	0.0	0.0	0.0
Public Dividend Capital repaid	(276.0)	0.0	0.0	0.0
Movement in Other grants/Capital received	0.0	0.0	0.0	0.0
Dividends paid	(59.0)	(89.0)	(89.0)	(89.0)
<b>Net cash outflow/inflow</b>	<b>501.0</b>	<b>500.0</b>	<b>(500.0)</b>	<b>0.0</b>
<b>Opening cash balance</b>	<b>9.0</b>	<b>510.0</b>	<b>1,010.0</b>	<b>510.0</b>
<b>Closing cash balance</b>	<b>510.0</b>	<b>1,010.0</b>	<b>510.0</b>	<b>510.0</b>

## Salford Primary Care NHS Trust - Financial Performance and Forecasts

### I&E Account

		2007/08	2008/09	2009/10	2010/11
		£000	£000	£000	£000
<b>Income</b>					
NHS Clinical Income	+	409,779.0	420,170.6	461,020.0	483,649.0
Non NHS Clinical income	+	5,595.0	5,692.0	5,792.0	5,892.0
Education and Training	+	138.0	140.0	142.0	144.0
Research & Development	+				
Other income	+				
PFI Specific income	+				
<b>Total income</b>		<b>415,374.0</b>	<b>425,862.6</b>	<b>466,812.0</b>	<b>489,541.0</b>
<b>Expenditure</b>					
Pay Costs	-	40,312.0	46,700.0	47,917.0	48,894.0
Drug costs	-	42,960.0	42,000.0	48,064.0	49,987.0
Clinical supplies and services	-	331,129.0	336,162.6	373,389.0	389,660.0
Other Costs	-				
PFI specific costs	-				
<b>Total costs</b>		<b>414,401.0</b>	<b>424,862.6</b>	<b>469,370.0</b>	<b>488,541.0</b>
<b>EBITDA</b>		<b>973.0</b>	<b>1,000.0</b>	<b>(2,558.0)</b>	<b>1,000.0</b>
<b>EBITDA margin</b>		<b>0%</b>	<b>0%</b>	<b>-1%</b>	<b>0%</b>
Profit / loss on asset disposals	-				
Fixed Asset impairments	-				
Total Depreciation & Amortisation	-				
Total interest receivable	-				
Interest payable on Loans	-				
PDC Dividend	-				
<b>Net Surplus/(Deficit)</b>		<b>973.0</b>	<b>1,000.0</b>	<b>(2,558.0)</b>	<b>1,000.0</b>
<b>Net margin</b>		<b>0.2%</b>	<b>0.2%</b>	<b>-0.5%</b>	<b>0.2%</b>

## Balance sheet

		At 31 March 2008 £000	At 31 March 2009 £000	At 31 March 2010 £000	At 31 March 2011 £000
<b>FIXED ASSETS</b>					
Tangible + Intangible Assets	+	21,101.0	24,079.0	24,079.0	24,079.0
PFI Residual interest	+				
PFI Deferred Assets	+				
<b>Total Fixed Assets</b>		<b>21,101.0</b>	<b>24,079.0</b>	<b>24,079.0</b>	<b>24,079.0</b>
<b>CURRENT ASSETS</b>					
Stocks & Work in Progress	+	0.0	0.0	0.0	0.0
NHS Trade Debtors	+	3,986.0	4,019.0	4,019.0	4,019.0
Non NHS Trade Debtors	+				
Other Debtors	+	3,636.0	3,636.0	3,636.0	3,636.0
Accrued Income	+				
Prepayments	+	2,561.0	2,561.0	2,561.0	2,561.0
Cash at bank and in hand	+	13.0	24.0	24.0	24.0
<b>Total Current Assets</b>		<b>10,196.0</b>	<b>10,240.0</b>	<b>10,240.0</b>	<b>10,240.0</b>
<b>CURRENT LIABILITIES (amounts due in less than one year)</b>					
Trade Creditors	-	(19,917.0)	(19,981.0)	(19,981.0)	(19,981.0)
Other Creditors	-				
PDC dividend creditor	-				
Capital Creditors	-	(794.0)	(794.0)	(794.0)	(794.0)
Interest payable creditor	-				
Payments on Account	-				
Accruals	-	(5,224.0)	(5,224.0)	(5,224.0)	(5,224.0)
Deferred Income	-				
<b>Total Current Liabilities</b>		<b>(25,935.0)</b>	<b>(25,999.0)</b>	<b>(25,999.0)</b>	<b>(25,999.0)</b>
<b>NET CURRENT ASSETS (LIABILITIES)</b>					
Long term Debtors	+				
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<b>5,362.0</b>	<b>8,320.0</b>	<b>8,320.0</b>	<b>8,320.0</b>
Creditors: Amounts falling due after more than one year	-				
Finance leases	-				
Provisions for liabilities and charges	-	(966.0)	(638.0)	(638.0)	(638.0)
<b>TOTAL ASSETS EMPLOYED</b>		<b>4,396.0</b>	<b>7,682.0</b>	<b>7,682.0</b>	<b>7,682.0</b>
<b>LOANS</b>					
Working capital bridging loan	+				
Capital loans	+				
<b>TOTAL LOANS</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>TAXPAYERS' EQUITY</b>					
Public dividend capital	+				
Income and expenditure reserve	+				
Revaluation reserve	+	5,546.0	6,326.0	6,326.0	6,326.0
Donated asset reserve	+				
Other Reserves	+	(1,150.0)	1,356.0	1,356.0	1,356.0
<b>TOTAL TAXPAYERS EQUITY</b>		<b>4,396.0</b>	<b>7,682.0</b>	<b>7,682.0</b>	<b>7,682.0</b>
<b>TOTAL FUNDS EMPLOYED</b>		<b>4,396.0</b>	<b>7,682.0</b>	<b>7,682.0</b>	<b>7,682.0</b>

## Cash flow

	2007/08	2008/09	2009/10	2010/11
	£000	£000	£000	£000
<b>EBITDA</b>	<b>973.0</b>	<b>1,000.0</b>	<b>(2,558.0)</b>	<b>1,000.0</b>
Excluding Non cash I&E items				
<b>Movement in working capital:</b>				
Stocks & Work in Progress				
NHS Trade Debtors				
Non NHS Trade Debtors				
Other Debtors				
Accrued Income				
Prepayments				
Trade Creditors				
Other Creditors				
Payments on Account				
Accruals				
Deferred Income				
Provisions & Liabilities				
<b>Cash Flow from Operations</b>	<b>973.0</b>	<b>1,000.0</b>	<b>(2,558.0)</b>	<b>1,000.0</b>
<b>Capital Expenditure</b>				
Capex spend				
PFI residual interest				
Cash receipt from asset sales				
<b>Cash Flow before Financing</b>	<b>973.0</b>	<b>1,000.0</b>	<b>(2,558.0)</b>	<b>1,000.0</b>
Movement in LT debtors				
Movement in LT Creditors				
Interest (paid) on loans and leases				
Interest (paid)/rec'd on cash balances				
Drawdown of loans and leases				
Repayment of loans and leases				
Public Dividend Capital received				
Public Dividend Capital repaid				
Movement in Other grants/Capital received				
Dividends paid				
<b>Net cash outflow/inflow</b>	<b>973.0</b>	<b>1,000.0</b>	<b>(2,558.0)</b>	<b>1,000.0</b>
<b>Opening cash balance</b>		973.0	1,973.0	(585.0)
<b>Closing cash balance</b>	<b>973.0</b>	<b>1,973.0</b>	<b>(585.0)</b>	<b>415.0</b>

## Salford Royal NHS Foundation Trust - Financial Performance and Forecasts

### I&E Account

		2007/08	2008/09	2009/10	2010/11
		£'m	£'m	£'m	£'m
<b>Income</b>					
NHS Clinical Income	+	227.2	249.3	244.4	254.7
Non NHS Clinical income	+	1.8	1.8	1.8	1.9
Education and Training	+	21.8	22.1	22.2	22.7
Research & Development	+	2.9	6.4	7.7	7.8
Other income	+	16.5	11.6	9.9	12.2
PFI Specific income	+	0.0	0.0	0.0	0.0
<b>Total income</b>		<b>270.3</b>	<b>291.1</b>	<b>286.0</b>	<b>299.3</b>
<b>Expenditure</b>					
Pay Costs	-	(157.7)	(174.1)	(173.4)	(175.1)
Drug costs	-	(31.5)	(31.4)	(33.7)	(36.6)
Clinical supplies and services	-	(24.2)	(22.7)	(26.2)	(26.3)
Other Costs	-	(38.1)	(47.9)	(31.8)	(35.4)
PFI specific costs	-	0.0	0.0	(6.4)	(6.5)
<b>Total costs</b>		<b>(251.5)</b>	<b>(276.2)</b>	<b>(271.5)</b>	<b>(279.9)</b>
<b>EBITDA</b>		<b>18.9</b>	<b>14.9</b>	<b>14.6</b>	<b>19.4</b>
<b>EBITDA margin</b>		<b>7%</b>	<b>5%</b>	<b>5%</b>	<b>6%</b>
Profit / loss on asset disposals	-	0.0	0.0	0.0	0.0
Fixed Asset impairments	-	(19.2)	(7.1)	(1.0)	(0.9)
Total Depreciation & Amortisation	-	(8.3)	(8.8)	(8.6)	(8.9)
Total interest receivable	-	1.9	1.5	0.9	0.9
Interest payable on Loans	-	0.0	0.0	0.0	0.0
PDC Dividend	-	(5.5)	(5.9)	(6.0)	(6.1)
<b>Net Surplus/(Deficit)</b>		<b>(12.3)</b>	<b>(5.3)</b>	<b>(0.2)</b>	<b>4.4</b>
<b>Net margin</b>		<b>-4.5%</b>	<b>-1.8%</b>	<b>-0.1%</b>	<b>1.5%</b>

## Balance sheet

		At 31 March 2008 £'m	At 31 March 2009 £'m	At 31 March 2010 £'m	At 31 March 2011 £'m
<b>FIXED ASSETS</b>					
Tangible + Intangible Assets	+	166.7	172.8	176.4	177.9
PFI Residual interest	+	0.0	0.0	0.0	0.0
PFI Deferred Assets	+	0.0	0.0	0.0	0.0
<b>Total Fixed Assets</b>		<b>166.7</b>	<b>172.8</b>	<b>176.4</b>	<b>177.9</b>
<b>CURRENT ASSETS</b>					
Stocks & Work in Progress	+	2.4	2.4	2.6	2.8
NHS Trade Debtors	+	13.2	10.0	10.4	10.9
Non NHS Trade Debtors	+	3.9	3.3	3.4	3.5
Other Debtors	+	0.0	0.0	0.0	0.0
Accrued Income	+	0.0	0.0	0.0	0.0
Prepayments	+	4.9	0.5	0.5	0.5
Cash at bank and in hand	+	30.0	19.8	16.0	18.6
<b>Total Current Assets</b>		<b>54.3</b>	<b>36.1</b>	<b>32.9</b>	<b>36.4</b>
<b>CURRENT LIABILITIES (amounts due in less than one year)</b>					
Trade Creditors	-	(13.0)	(10.0)	(10.2)	(10.4)
Other Creditors	-	(12.3)	(7.9)	(8.1)	(8.4)
PDC dividend creditor	-	0.0	0.0	0.0	0.0
Capital Creditors	-	(1.5)	(1.5)	(1.5)	(1.5)
Interest payable creditor	-	0.0	0.0	0.0	0.0
Payments on Account	-	(0.5)	(0.5)	(0.5)	(0.5)
Accruals	-	(4.5)	(4.8)	(4.8)	(4.8)
Deferred Income	-	0.0	(0.3)	0.0	0.0
<b>Total Current Liabilities</b>		<b>(31.7)</b>	<b>(24.9)</b>	<b>(25.1)</b>	<b>(25.5)</b>
<b>NET CURRENT ASSETS (LIABILITIES)</b>					
Long term Debtors	+	1.0	1.0	1.0	1.0
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<b>190.3</b>	<b>185.0</b>	<b>185.3</b>	<b>189.8</b>
Creditors: Amounts falling due after more than one year	-	0.0	0.0	0.0	0.0
Finance leases	-	0.0	0.0	0.0	0.0
Provisions for liabilities and charges	-	(6.2)	(5.5)	(6.0)	(6.0)
<b>TOTAL ASSETS EMPLOYED</b>		<b>184.2</b>	<b>179.5</b>	<b>179.3</b>	<b>183.9</b>
<b>LOANS</b>					
Working capital bridging loan	+	0	0	0	0
Capital loans	+	0.0	0.0	0.0	0.0
<b>TOTAL LOANS</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>TAXPAYERS' EQUITY</b>					
Public dividend capital	+	111.3	111.9	111.9	111.9
Income and expenditure reserve	+	(1.3)	(6.7)	(6.9)	(2.4)
Revaluation reserve	+	66.6	67.0	67.4	67.7
Donated asset reserve	+	7.5	7.2	6.9	6.6
Other Reserves	+	0.0	0.0	0.0	0.0
<b>TOTAL TAXPAYERS EQUITY</b>		<b>184.2</b>	<b>179.5</b>	<b>179.3</b>	<b>183.9</b>
<b>TOTAL FUNDS EMPLOYED</b>		<b>184.2</b>	<b>179.5</b>	<b>179.3</b>	<b>183.9</b>

## Cash flow

	2007/08	2008/09	2009/10	2010/11
	£'m	£'m	£'m	£'m
<b>EBITDA</b>	<b>18.9</b>	<b>14.9</b>	<b>14.6</b>	<b>19.4</b>
Excluding Non cash I&E items	(0.3)	(0.3)	(0.3)	(0.3)
<b>Movement in working capital:</b>				
Stocks & Work in Progress	(0.3)	(0.1)	(0.2)	(0.2)
NHS Trade Debtors	(5.4)	1.9	(0.4)	(0.5)
Non NHS Trade Debtors	(2.9)	2.2	(0.1)	(0.1)
Other Debtors	0.0	0.0	0.0	0.0
Accrued Income	0.0	0.0	0.0	0.0
Prepayments	(4.1)	4.3	0.0	0.0
Trade Creditors	0.9	(3.0)	0.3	0.1
Other Creditors	0.7	(4.4)	0.3	0.3
Payments on Account	(0.1)	0.0	0.0	0.0
Accruals	(0.7)	(0.0)	0.0	0.0
Deferred Income	0.6	(0.3)	(0.3)	0.0
Provisions & Liabilities	1.9	(0.1)	0.3	0.0
<b>Cash Flow from Operations</b>	<b>9.2</b>	<b>15.2</b>	<b>14.2</b>	<b>18.7</b>
<b>Capital Expenditure</b>				
Capex spend	(27.2)	(21.6)	(13.4)	(11.5)
PFI residual interest	0.0	0.0	0.0	0.0
Cash receipt from asset sales	0.0	0.0	0.0	0.0
<b>Cash Flow before Financing</b>	<b>(18.1)</b>	<b>(6.4)</b>	<b>0.7</b>	<b>7.2</b>
Movement in LT debtors	(0.1)	0.0	0.0	0.0
Movement in LT Creditors	0.0	0.0	0.0	0.0
Interest (paid) on loans and leases	0.0	0.0	0.0	0.0
Interest (paid)/rec'd on cash balances	1.9	1.5	0.9	0.8
Drawdown of loans and leases	0.0	0.0	0.0	0.0
Repayment of loans and leases	0.0	0.0	0.0	0.0
Public Dividend Capital received	23.7	0.6	0.6	0.6
Public Dividend Capital repaid	(2.0)	0.0	0.0	0.0
Movement in Other grants/Capital received	0.0	0.0	0.0	0.0
Dividends paid	(5.5)	(5.9)	(6.0)	(6.1)
<b>Net cash outflow/inflow</b>	<b>(0.1)</b>	<b>(10.2)</b>	<b>(3.8)</b>	<b>2.6</b>
<b>Opening cash balance</b>	<b>30.1</b>	<b>30.0</b>	<b>19.8</b>	<b>16.0</b>
<b>Closing cash balance</b>	<b>30.0</b>	<b>19.8</b>	<b>16.0</b>	<b>18.6</b>

**University Hospital of South Manchester NHS Foundation Trust - Financial Performance  
and Forecasts**

**I&E Account**

		2007/08	2008/09	2009/10	2010/11
		£'m	£'m	£'m	£'m
<b>Income</b>					
NHS Clinical Income	+	230.2	247.3	255.5	261.2
Non NHS Clinical income	+	1.5	1.1	1.2	1.2
Education and Training	+	23.3	24.0	24.9	25.4
Research & Development	+	2.9	3.9	3.5	3.6
Other income	+	29.1	29.4	28.0	28.0
PFI Specific income	+				
<b>Total income</b>		<b>287.0</b>	<b>305.8</b>	<b>313.0</b>	<b>319.4</b>
<b>Expenditure</b>					
Pay Costs	-	(166.9)	(179.6)	(184.4)	(188.4)
Drug costs	-	(14.8)	(17.5)	(18.8)	(20.3)
Clinical supplies and services	-	(38.1)	(36.1)	(33.4)	(30.6)
Other Costs	-	(24.2)	(29.5)	(32.0)	(34.2)
PFI specific costs	-	(23.6)	(25.7)	(25.8)	(26.7)
<b>Total costs</b>		<b>(267.6)</b>	<b>(288.3)</b>	<b>(294.4)</b>	<b>(300.2)</b>
<b>EBITDA</b>		<b>19.4</b>	<b>17.5</b>	<b>18.6</b>	<b>19.2</b>
<b>EBITDA margin</b>		7%	6%	6%	6%
Profit / loss on asset disposals	-	0.0	0.0	0.0	0.0
Fixed Asset impairments	-	(0.2)	0.0	0.0	0.0
Total Depreciation & Amortisation	-	(7.2)	(8.5)	(9.4)	(9.8)
Total interest receivable	+	1.3	0.9	1.1	1.3
Interest payable on Loans	-	0.0	0.0	(0.4)	(0.4)
PDC Dividend	-	(6.4)	(6.4)	(6.6)	(6.8)
<b>Net Surplus/(Deficit)</b>		<b>6.8</b>	<b>3.4</b>	<b>3.3</b>	<b>3.4</b>
<b>Net margin</b>		<b>2.4%</b>	<b>1.1%</b>	<b>1.0%</b>	<b>1.1%</b>

## Balance sheet

		At 31 March 2008 £'m	At 31 March 2009 £'m	At 31 March 2010 £'m	At 31 March 2011 £'m
<b>FIXED ASSETS</b>					
Tangible + Intangible Assets	+	189.3	192.6	193.7	193.0
PFI Residual interest	+	5.5	6.5	7.4	8.4
PFI Deferred Assets	+	0.0	0.0	0.0	0.0
<b>Total Fixed Assets</b>		<b>194.9</b>	<b>199.0</b>	<b>201.1</b>	<b>201.4</b>
<b>CURRENT ASSETS</b>					
Stocks & Work in Progress	+	4.1	4.2	4.3	4.4
NHS Trade Debtors	+	7.7	9.7	10.1	10.5
Non NHS Trade Debtors	+	0.6	0.7	0.7	0.7
Other Debtors	+	2.2	1.6	1.6	1.6
Accrued Income	+	0.1	0.1	0.1	0.1
Prepayments	+	1.8	1.6	1.6	1.6
Cash at bank and in hand	+	31.5	17.7	18.5	19.8
<b>Total Current Assets</b>		<b>47.9</b>	<b>35.5</b>	<b>36.9</b>	<b>38.6</b>
<b>CURRENT LIABILITIES (amounts due in less than one year)</b>					
Trade Creditors	-	(19.7)	(15.9)	(16.8)	(17.8)
Other Creditors	-	(5.9)	(6.0)	(6.0)	(6.0)
PDC dividend creditor	-	0.0	0.0	0.0	0.0
Capital Creditors	-	(3.5)	(3.1)	(3.1)	(3.1)
Interest payable creditor	-	0.0	0.0	0.0	0.0
Payments on Account	-	0.0	0.0	0.0	0.0
Accruals	-	(7.3)	(5.4)	(5.4)	(5.4)
Deferred Income	-	(7.2)	(2.6)	(1.4)	(1.3)
<b>Total Current Liabilities</b>		<b>(43.7)</b>	<b>(33.0)</b>	<b>(32.7)</b>	<b>(33.6)</b>
<b>NET CURRENT ASSETS (LIABILITIES)</b>					
Long term Debtors	+	20.9	23.1	24.8	26.2
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<b>219.9</b>	<b>224.7</b>	<b>230.0</b>	<b>232.5</b>
Creditors: Amounts falling due after more than one year	-	(0.3)	(0.4)	(0.3)	(0.2)
Finance leases	-	0.0	0.0	0.0	0.0
Provisions for liabilities and charges	-	(11.2)	(10.8)	(11.7)	(11.1)
<b>TOTAL ASSETS EMPLOYED</b>		<b>208.4</b>	<b>213.4</b>	<b>218.0</b>	<b>221.2</b>
<b>LOANS</b>					
Working capital bridging loan	+	0	0	0	0
Capital loans	+	0.0	5.1	6.3	6.0
<b>TOTAL LOANS</b>		<b>0.0</b>	<b>5.1</b>	<b>6.3</b>	<b>6.0</b>
<b>TAXPAYERS' EQUITY</b>					
Public dividend capital	+	113.1	114.4	114.4	114.4
Income and expenditure reserve	+	16.0	19.4	22.6	26.1
Revaluation reserve	+	70.7	66.0	66.5	67.0
Donated asset reserve	+	8.7	8.6	8.2	7.8
Other Reserves	+	0.0	0.0	0.0	0.0
<b>TOTAL TAXPAYERS EQUITY</b>		<b>208.4</b>	<b>208.4</b>	<b>211.7</b>	<b>215.2</b>
<b>TOTAL FUNDS EMPLOYED</b>		<b>208.4</b>	<b>213.4</b>	<b>218.0</b>	<b>221.2</b>

## Cash flow

	2007/08	2008/09	2009/10	2010/11
	£'m	£'m	£'m	£'m
<b>EBITDA</b>	<b>19.4</b>	<b>17.5</b>	<b>18.6</b>	<b>19.2</b>
Excluding Non cash I&E items	(0.4)	(0.6)	(0.8)	(0.8)
<b>Movement in working capital:</b>				
Stocks & Work in Progress	(0.2)	(0.1)	(0.1)	(0.1)
NHS Trade Debtors	3.9	(2.0)	(0.4)	(0.5)
Non NHS Trade Debtors	0.3	(0.1)	0.0	0.0
Other Debtors	(1.0)	0.6	0.0	0.0
Accrued Income	0.0	0.0	0.0	0.0
Prepayments	0.4	0.2	0.0	0.0
Trade Creditors	4.4	(3.8)	1.0	1.0
Other Creditors	0.5	0.1	0.0	0.0
Payments on Account	0.0	0.0	0.0	0.0
Accruals	3.2	(1.9)	0.0	0.0
Deferred Income	5.4	(4.6)	(1.2)	0.0
Provisions & Liabilities	0.9	(0.3)	0.9	(0.6)
<b>Cash Flow from Operations</b>	<b>36.8</b>	<b>4.9</b>	<b>17.9</b>	<b>18.2</b>
<b>Capital Expenditure</b>				
Capex spend	(22.7)	(17.4)	(10.7)	(9.3)
<b>PFI residual interest</b>				
Cash receipt from asset sales	0.0	0.0	0.0	0.0
<b>Cash Flow before Financing</b>	<b>14.1</b>	<b>(12.5)</b>	<b>7.3</b>	<b>9.0</b>
Movement in LT debtors	(2.4)	(2.2)	(1.7)	(1.4)
Movement in LT Creditors	(0.1)	0.1	(0.1)	(0.1)
Interest (paid) on loans and leases	0.0	0.0	(0.4)	(0.4)
Interest (paid)/rec'd on cash balances	1.3	0.9	1.1	1.3
Drawdown of loans and leases	0.0	5.4	1.6	0.0
Repayment of loans and leases	0.0	(0.4)	(0.3)	(0.4)
Public Dividend Capital received	17.4	1.3	0.0	0.0
Public Dividend Capital repaid	0.0	0.0	0.0	0.0
Movement in Other grants/Capital received	0.0	0.0	0.0	0.0
Dividends paid	(6.5)	(6.4)	(6.6)	(6.8)
<b>Net cash outflow/inflow</b>	<b>23.8</b>	<b>(13.8)</b>	<b>0.8</b>	<b>1.2</b>
<b>Opening cash balance</b>	<b>7.7</b>	<b>31.5</b>	<b>17.7</b>	<b>18.5</b>
<b>Closing cash balance</b>	<b>31.5</b>	<b>17.7</b>	<b>18.5</b>	<b>19.7</b>