

**UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST
BOARD OF DIRECTORS
THURSDAY 26 MAY 2011**

Title:	Health Sciences and Technology University Technical College
Responsible Director:	Tim Jones, Executive Director of Delivery
Contact:	Paul Cornick – Director of Strategy at Birmingham Metropolitan College
Purpose:	To request approval from the Board of Directors to act as Employer sponsor to the Birmingham Metropolitan College bid to become a Health Sciences and Technology UTC.
Confidentiality Level & Reason:	None
Annual Plan Ref:	Education & Training – To create a fit for purpose workforce
Key Issues Summary:	UHB has been asked to sponsor a formal application by Birmingham Metropolitan College and Birmingham City University to establish a UTC.
Recommendations:	<p>The Board of Directors is asked to:</p> <p>APPROVE the collaboration with Birmingham Metropolitan College and Birmingham City University to develop a formal application for the establishment of a Health Sciences and Technology UTC; and</p> <p>AUTHORISE the Executive Director of Delivery and the Director of Corporate Affairs jointly and severally to approve and sign the formal application on behalf of the Trust.</p>

Signed:	Date: 11 May 2011
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UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

BOARD OF DIRECTORS

THURSDAY 26 MAY 2011

HEALTH SCIENCES AND TECHNOLOGY UNIVERSITY TECHNICAL COLLEGE

PRESENTED BY THE EXECUTIVE DIRECTOR OF DELIVERY

1. Purpose

The purpose of this paper is to request approval from the Board of Directors to act as Employment sponsor to the Birmingham Metropolitan College bid to become a Health Sciences and Technology UTC.

2. Background

The Department for Education (“DfE”) called for expressions of interest in establishing University Technical Colleges in early 2011. In April 2011, UHB was asked by Birmingham Metropolitan College (“BMC”) to act as employment sponsor for a proposed bid to the DfE to establish a Health Sciences and Technology University Technical College [UTC]. The vision for the UTC was:

‘A Health Science and Technology UTC provides an outstanding vocational technical learning experience for young people (14-19), in generating high aspirations, ambitions and the determination to have a successful career within the NHS, Health, Sciences and Technology related industries.’

The Health Science and Technology UTC will offer a unique pre 16 learning experience, with the capability to fast track learners through GCSEs and up to Foundation Degree level. With a focus on the new and emerging technician and practitioner level roles within the Health and Health Science sector this UTC will offer a highly innovative and flexible vocational curriculum.”

UHB, as Employer sponsor, and Birmingham City University (“BCU”), as a University sponsor, agreed to support the initial Statement of Intent [appendix 1], which was non-binding. The Statement of Intent identified BMC as the main provider of the UTC supported by the Employer and University sponsors. The Statement of Intent was accepted by the DfE, and BMC, together with its partner sponsors UHB and BCU, have been invited to submit a formal application. The proposed start date for the planned UTC would be 1 August 2012.

The application seeks mainly to secure capital funding for BMC and BCU to refurbish and build state of the art facilities on their current campuses. The initial cost of establishing the UTC is estimated to be approximately £16m. A detailed gap analysis is required to determine the actual cost of establishing a UTC. UHB’s contribution will mainly be in kind as set out in section 4 and would be recognised in a memorandum of understanding between the 3 collaborating organisations.

Following the invitation to submit a formal application, further information has been provided with regard to the structure of a UTC. The main change since the initial statement of intent is the requirement for the UTC to be a legal entity in its own right, in the form of a company limited by guarantee. The mandated structure is likely to be similar to that established for free schools and it is envisaged that BMC and BCU will be the founder members of the company, which will have charitable

objects and a board of directors (referred to as Governors), on which UHB will be represented.

The formal application must be submitted by 1 June 2011.

3. Benefits of Employer Sponsor status to UHBFT:

In the Statement of Intent, UHB identified the benefits of collaborating with BMC and BCU to establish a UTC as:

- a) Maximising the potential of the local population and reducing barriers to entry to healthcare careers;
- b) The requirement to develop new roles to meet the changing needs of the healthcare sector;
- c) To widen the base of career opportunities within health for all young people beyond the traditional roles of direct clinical care;
- d) Minimising the fragmentation of the career and educational pathway to allow learners to move seamlessly from education into employment; and
- e) Embedding the role of UHB as a major partner within the local economy and meet its obligation to social regeneration in the Birmingham area.

The ultimate aim is to achieve a sustainable local workforce maximising their potential and actively contributing to UHB's vision to "deliver the best in care".

4. UHB contribution to the UTC:

In the Statement of Intent, UHB outlined the level of support it would provide to the UTC if successful on a number of levels:

4.1 Individual:

- a) Work experience, placements and mentoring for students enrolled in the UTC;
- b) Active assistance in the application of theory to practice and assessment of competence;
- c) Through our Learning Hub provide tailored healthcare support to students seeking to enter the workplace via advice on application forms, CVs and interview technique; and
- d) Facilitate students to join the Trust in house bank to gain work experience where appropriate.

4.2 Organisational:

- a) Support in the development of appropriate curricula to meet the needs of healthcare employers;
- b) Participation where appropriate in the delivery of teaching and assessing of students;
- c) Raise awareness of the UTC in the local health economy; and
- d) Assisting the UTC via the provision of specialist advice where available and access to other organisations through its Trust network eg healthcare suppliers

4.3 Economy wide:

- a) Promote the UTC via the HIEC to other NHS employers;

- b) Utilise its regional position within healthcare to secure further opportunities for the UTC to develop;
- c) Promote the UTC at a national level to large commercial employers such as the pharmaceutical industry to encourage their involvement; and
- d) Raise the profile of the UTC at national forums such as NHS Employers and Foundation Trust Network to identify opportunities for further development of the UTC.

5. Risks

- a) Financial: the main contribution to the UTC by UHB will be through sponsorship support and benefit in kind by supporting individual students with placements/ mentoring and supporting the UTC by providing access to UHB clinical and managerial knowledge. The UTC will enter into a funding agreement with the DfE for the establishment monies and operating funding. The memorandum of understanding will be worded to reflect UHB's non-financial contribution.
- b) Liability: the primary liability for any actions arising from the UTC will be held by the UTC company. UHB's liability will be limited by the agreed memorandum of understanding.
- c) Reputation: the failure of the UTC to deliver against the DfE contract or the involvement of the UTC in a significant reputational issue would constitute a reputational risk to the Trust. The risk is mitigated to a certain extent by the lead sponsor being BMC and UHB's role being constrained to its non-financial employer sponsor function. UHB's involvement in the establishment of the UTC and the inclusion of a UHB representative on the Board of the company will also provide an opportunity to ensure appropriate standards of governance are established and maintained.

6. Conclusion

This paper outlines the action taken to date in furthering the application to establish a Health Sciences and Technology UTC. The detailed planning to support a full application is currently being undertaken by the three collaborating organisations. Before submitting a full application it is intended that a comprehensive memorandum of understanding is agreed between the 3 collaborating organisations outlining clearly and comprehensively the liability of each collaborator prior to the submission of the bid.

7. Recommendations:

The Board of Directors is asked to:

- 7.1 **APPROVE** collaboration with Birmingham Metropolitan College and Birmingham City University to develop a formal application for the establishment of a Health Sciences and Technology UTC.
- 7.2 **AUTHORISE** the Executive Director of Delivery and the Director of Corporate Affairs jointly and severally to approve and sign the formal application on behalf of the Trust.

Tim Jones
Executive Director of Delivery



Statement of Intent (Sol) template for University Technical Colleges (UTCs):

Project Name: Health Sciences and Technology UTC Birmingham

Local Authority (LA): Birmingham

Proposed opening date: 1 August 2012

Proposed Age Range: 14-19

Proposed capacity: 600

Proposed Vision:

‘A Health Science and Technology UTC that provides an outstanding vocational technical learning experience for young people (14-19), in generating high aspirations, ambitions and the determination to have a successful career within the NHS, Health, Sciences and Technology related industries.’

The Health Science and Technology UTC will offer a unique pre 16 learning experience, with the capability to fast track learners through GCSEs and up to Foundation Degree level. With a focus on the new and emerging technician and practitioner level roles within the Health and Health Science sector this UTC will offer a highly innovative and flexible vocational curriculum.

Proposed Sponsor(s):

Birmingham City University (BCU)

With around 25,000 students, Birmingham City University is one of the major universities in the UK. Situated in Birmingham, the UK’s second city and informal capital of the West Midlands, we have a long history of close interaction with this vibrant region. As a university we have a distinctive focus on education and research for professional and creative practice and on collaboration with business, industry and the public services. We are one of the three long-standing universities in the city of Birmingham.

Strong traditions

Our contribution to the education of the citizens of Birmingham and beyond stretches back through a succession of predecessor institutions for over 160 years. We achieved university status in 1992 as the University of Central England, changing our name to Birmingham City University in 2007, reflecting our commitment to, and pride in, our home city. We are extremely proud of our achievements to date and excited about the possibilities for the future and the contribution we can make to our students, the economy and society.

Professional university

We are a professional institution in many senses of the word. A significant proportion of our undergraduate courses enjoy professional accreditation, including Accountancy, Acting, Architecture, Education, Engineering, Law, Marketing, Nursing, Radiography and Social Work. Our postgraduate provision provides a wide range of opportunities for management and professional development for early and mid-career professionals. Many of our staff boast professional qualifications and bring professionally relevant experience to bear on their teaching practice. We aspire to provide an educational experience of the highest quality, putting our students at the centre of everything we do. We have a strong commitment to flexible and practice-based learning, and place great importance on our ability to develop professionally qualified graduates with skills relevant to contemporary workplaces. Also, we seek to professionalise all our activities through a fundamental core commitment to quality.

Contribution to research and employer engagement

Alongside our commitment to educating our students for creative and professional careers, we have a strongly developing research base with a number of Centres of Research Excellence which received formal recognition in the national Research Assessment Exercise 2008. These centres are involved in world-leading research, innovation and enterprise projects covering the arts, engineering, education, business, humanities and social sciences and sciences. We also aspire to be an exemplar for engagement with employers in all sectors through our programmes of applied research, innovation, knowledge transfer and workforce development. We work with organisations as diverse as the BBC, CISCO, Microsoft, Advantage West Midlands, Arts Council England, Jaguar Land Rover, Jewsons, the Law Society and the NHS.

University Hospitals Birmingham Foundation Trust (UHB)

University Hospitals Birmingham NHS Foundation Trust (UHB) is the leading university teaching hospital in the West Midlands. It is one of the most consistently high performing trusts in the NHS and has been rated "excellent" for financial management and "excellent" for quality of clinical and non-clinical services by the Healthcare Commission.

On 16 June 2010 UHB's new £545 million Queen Elizabeth Hospital Birmingham opened, with Accident and Emergency and inpatients transferring from Selly Oak Hospital and other services moving from the Queen Elizabeth Hospital. More services will transfer during phased moves through to October 2011, with Selly Oak Hospital eventually closing and some services remaining at the old QE, adjacent to the new hospital.

The Trust employs around 6,900 staff and provides adult services to more than half a million patients every year, from a single outpatient appointment to a heart transplant. The Trust is a regional centre for cancer, trauma, burns and plastics, and has the largest solid organ transplantation programme in Europe.

Birmingham Metropolitan College (BMET)

BMET is one of the largest colleges in England with over 25,000 learners. With a proud vocational heritage, linked to the city of Birmingham and the broader region, BMET is a leading member of the 157 Group of colleges and is recognised by Ofsted as Good, with Outstanding features.

Working with many high profile employers such as NHS, BMW, Samsung, Cadbury and Jaguar Land Rover the college plays a significant role in underpinning economic development by providing skills that matter, are relevant and of industry standard. For an

example with our strategic partnership with Birmingham Chamber of Commerce group we have secured significant apprenticeship programmes with globally leading manufactures such as Caterpillar Inc.

With over 8,500 16-18 learners the college has outstanding expertise and know-how in engaging, recruiting and supporting young people empowering them to progress and succeed in learning, work and life.

Further, we have recently sponsored and incorporated into our group a 11-18 Academy (Harborne Academy 2010), this was achieved within six months of application which is testimony to our commitment and ability to influence and deliver strategic initiatives within demanding time scales.

Other non-lead sponsors include:

Birmingham Chambers of Commerce Group
Heartlands Birmingham and Solihull Trust
Birmingham and Solihull Mental Health Trust
The Royal Orthopaedic Hospital
Birmingham Women's Hospital
Birmingham Dental Hospital
Birmingham Children's Hospital

Premises/Equipment:

Tentative scoping exercise has suggested that there maybe opportunities to use existing facilities within Birmingham Metropolitan College and Birmingham City University. Pending successful notification of this Statement of Intent, it would be the expectation to commission a full scoping exercise to understand better current resources, UTC expectations and gaps. However, it is envisaged that to create a truly outstanding Health Science and Technology UTC significant modernisation of existing facilities would need to take place.

Working on the basis of need then the Health Science and Technology UTC would require specialist laboratories, health suites and simulation areas to create impact and an inspiring learning environment. Further, the learning environment would need to be supported with state-of-the-art ICT and digital equipment to support video conferencing to bring real life operating procedures into the UTC environment, thus truly creating a unique and rich learning experience. Tentative costings suggests that - and subject to verification - a capital budget of approximately £14 million would be required to significantly reconfigure existing premises and facilities. Further it would be a requirement to secure specialist equipment for example:

ITC and Digital Imaging Suite, including Radiography	£450,000
Video Conferencing	£75,000
Orthodontic Simulation Suites	£450,000
Clinical Dental Equipment and Laboratory	£350,000
Pharmacy Laboratory	£175,000
Industry Standard Operating Theatre and Equipment	£250,000
Chemistry Simulation Laboratory	£250,000
Health Care Simulation Laboratories	£175,000
Total Investment:	£16,175,000

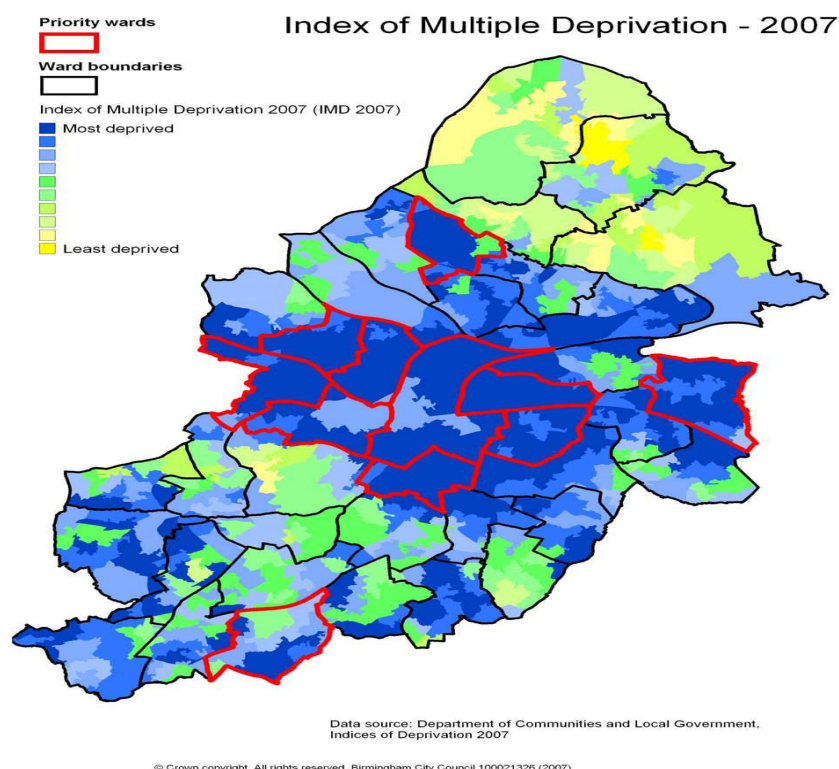
A. RATIONALE FOR PROJECT:

1. Socio-Economic Context and Analysis – Birmingham City

Birmingham as a Place

Birmingham is the second largest city in England and is one of the most diverse places in England in terms of ethnography, demography and wealth distribution. It is ranked first of all English places for income deprivation and employment deprivation and has a high number of wards that are considered to be the most deprived of all English places Map 1 (IMD 2007).

Map 1 – Distribution of wards; Least and Most Deprived



Furthermore, Birmingham has one of the highest unemployment rates in England with over 17% of wards having unemployment rates of in excess of 20%. Moreover, further analysis reveals that Birmingham has the highest unadjusted youth unemployment rate (20.9%) amongst the core cities, significantly above the core city average of 16.2% table 1, 2 and 3 (Birmingham City Council, 2011).

Table 1 – Comparison of Unemployment Rates

Place	Unemployment Rate (%)
UK	5.1%
West Midlands	6.4%
Birmingham	11.4%

Source: BCC/ONS/NOMIS 2010

Table 2 – Ward Unemployment Rates above 20%

Ward	Unemployment Rate
Aston	26.2%
Ladywood	23.1%
Lozells & East Handsworth	24.1%
Nechells	24.6%
Soho	20.8%
Sparkbrook	22.3%
Washwood Heath	27.6%

Source: BCC/ONS/NOMIS 2010

Table 3 – Distributed Youth Unemployment Core Cities Jan 2011

Core City	Unemployment Rate (%)
Liverpool	20 %
Nottingham	17.4 %
Manchester	16.4 %
Sheffield	14.9 %
Newcastle upon Tyne	13.8 %
Leeds	12.6 %
Bristol	9.7 %
Birmingham	20.9%

Source: Birmingham City Council 2011

Birmingham GCSE and Adult Skills Attainment

Compared to the national average, Birmingham lags behind other English places for qualifications and skills attainment. Attainment for pupils at Key Stage 4 (A* - C, including English and Maths) is below the national average, at 54.9% (2009/10). Furthermore, learners attaining a grade C or more in a modern foreign language is also below the national average, whilst by contrast however those learners achieving two good science GCSEs is significantly above the national average Table 4 (Department for Education, 2010).

Table 4 - Attainment at GCSE 2009/10

Place	A* - C (English and Maths)	A* - C (Modern foreign Language)	Two Grades A* - C in Science
Birmingham	54.9%	25.7%	67.5%
England	55.2%	28.6%	61.6%

Source: Department for Education 2010.

With regards to post 16 skills stocks, like attainment at Key Stage 4, Birmingham lags behind the broader West Midlands regional average and the national average more generally, notwithstanding those people who hold no qualifications. For those people without any qualifications Birmingham has an eight percentage point lead which complements the pattern of high unemployment for young people and adults (Table 5) (Birmingham City Council 2011).

Table 5 – Post 16 Qualifications and Skills Attainment

	Birmingham (%)	West Midlands (%)	Great Britain (%)
NVQ4 and above	24.6	24.8	29.9
NVQ3 and above	41.7	43.8	49.3
NVQ2 and above	56.4	60.9	65.4
NVQ1 and above	69.3	75.6	78.9
No qualifications	20.6	16.2	12.3

Source: ONS/NOMIS 2009

2. Regional Health Profile, Health Science Workforce Characteristics and Employment Opportunities

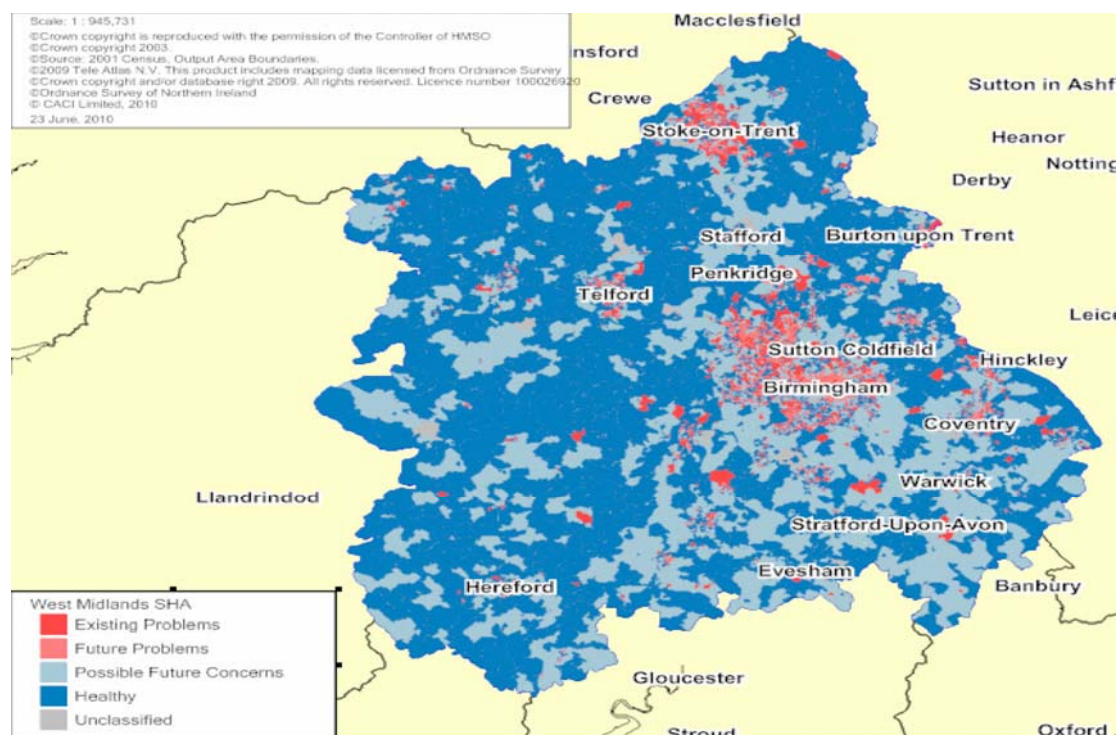
The West Midlands health profile, compared to the English average, has more people with existing health concerns, future health problems and less people who are considered 'healthy' (Table 6). Additionally, the geographic focus of those people who have existing and future health concerns are very much linked to the region's urban areas, in particular Birmingham and its associated demography (Map 2) (Skills for Health 2010) (University of Birmingham, 2007).

Table 6 – West Midlands Health Profile

	West Midlands		England	
	Data	%	Data	%
Existing Health Problems	948,740	17.4	7,011,380	13.5
Future Health Problems	733,434	13.5	6,231,293	12.0
Possible Future Health Concerns	1,892,892	34.8	18,174,048	35.0
Healthy People	1,821,070	33.5	19,987,231	38.5
Unclassified	41,421	0.8	479,950	0.9
Total	5,437,557		51,883,902	

Source: ACORN profile methodology, developed by CACI Ltd and reproduced by Skills for Health 2010.

West Midlands Dominant Health Group Map 2



Source: Skills for Health 2010

The West Midlands' health profile, and in particular Birmingham's health profile, influences health provision within the region. Further, and taking a broader view of health; then health matters. And it matters significantly not least because of the region's health profile, but health and its related sectors play a significant part in underpinning the region's economy supporting and sustaining significant economic growth, employment, research and development and the international reputation of the region for 'Health Sciences' (WMRO, 2010). The Health Science sector is therefore of significant strategic importance to Birmingham and the economic and physical well being of its residents.

In terms of employment at the regional level over 158,000 people are employed within the health science sector meaning that there is 1 health employee for every 34 people resident in the West Midlands. The health science sector is, furthermore, highly feminised with 81% of the workforce female with a significant number of the workforce part-time (43%). And at the sub-regional level, Birmingham has over 41,000 people employed within the health science sector with 68% of these employed in a hospital setting. In terms of occupational profile 68% of the workforce is classified as Associate Professional & Technical, Administrative & Secretarial and Personal Service Occupations and 17% are classified as Medical and Dental practitioners (Table 7) (Skills for Health 2010).

Table 7 – Major Occupational Profile for Health Science

	West Midlands	
	Health %	Whole Economy %
Managers and Senior Officials eg Hospital and health service managers, Health Practice Managers, Finance Managers	7	15
Professional Occupations eg Medical & Dental practitioners	17	13

Associate Professional & Technical eg Nurses, Midwives, Paramedics, Lab technicians	37	13
Administrative & Secretarial	11	11
Skilled Trade Occupations	0	11
Personal Service Occupations eg Ambulance staff	20	10
Sales & Customer Service Occupations	0	7
Process Plant & Machine Operatives	0	8
Elementary Occupations eg Hospital porters	6	12

The health science sector is highly qualified with 60% of the health science sector workforce of the West Midlands holding a level 4 or above qualification. This is a unique characteristic of the health science sector workforce, compared to other industries within the economy. Notwithstanding this however, 11% of the health science workforce do not hold a level 2 qualification (Table 8) and over 24% of health establishments report **skill gaps** in their current workforce around technical, practical and customer handling skills (Skills for Health 2010).

Table 8 – Qualifications Held in the Health sector and broader Economy

	West Midlands	
	Health %	Whole Economy %
NVQ Level 4 and above	60	30
NVQ Level 3	11	19
NVQ Level 2	14	20
Below NVQ Level 2	8	14
Other Qualifications	4	8
No Qualifications	3	9

Looking forward, labour market projections (Working Futures III) for 2007-2017 suggests that, 29,000 (14.5%) net new jobs will be created as a result of growth within the health science sector. And more significantly replacement demand for the same period is forecasted to generate 79,000 job opportunities (Table 9).

Table 9 - Changes in the Regional Workforce across the Sector by Main Occupation Group 2007-2017

	2007 (000s)	2017 (000s)	Estimated Growth 2007-2017 (000s)	Estimated Retirements 2007-2017 (000s)	Net Requirement 2007-2017 (000s)
Corporate/Senior Managers	19	26	7	7	15
Health Associate Professionals	49	59	10	20	30
Caring Personal Services Occupations	54	64	10	22	32
Health Professionals	11	12	1	4	5
Science/Technical Professionals	3	5	1	1	2

Teaching & Research Professionals	2	3	0	1	1
Business/Public Service Professionals	10	12	2	4	6
Administrative Occupations	11	9	-2	5	3
Secretarial	5	3	-2	2	1
All other occupations	35	35	0	13	13
Total Workforce	198	227	29	79	108

Source: Working Futures III 2009 reproduced by Skills for Health 2010

3. Summary of Rationale for a Health Science and Technology UTC

The empirical evidence base to support a Health Science and Technology UTC is a strategic, strong and a compelling one. The Health sector is a significant employer accounting for a broad range of existing technical and professional occupations as well as new, emerging and exciting roles eg assistant practitioner, healthcare scientist and health support technicians. Moreover, Birmingham is a place of high level deprivation, unemployment and unequal health/wealth distribution thus given rise to market failures within the employment arena. It is the assertion of this Statement of Intent that a Health Science UTC backed by a world leading Health Science employer, university and college will transform the life chances of the young people for Birmingham who aspire for a career within the NHS and or Health Science Technology sectors.

4. Aims and Objectives of Health Science Technology UTC Birmingham

The aim of the Health Science and Technology UTC Birmingham is to cement an outstanding partnership between a leading employer, university and a further and higher education college to create the next generation of health science technicians, assistant practitioners and health support professionals that will be highly prized and sought after by health science technology employers and thus reduce worklessness amongst young people.

By providing outstanding and demand led learning opportunities, the Health Science and Technology UTC will transform educational opportunities for the young people of Birmingham. Building on the world leading expertise of University Hospital Birmingham, together with the international reputation and track record of Birmingham City University and Birmingham Metropolitan College, the Health Science and Technology UTC will transform learning outcomes for hundreds of young people (14+) seeking a high quality vocational education up to the age of 19. The health science sector is a bedrock sector of the regional economy, providing high value added and substantial employment opportunities – not least with an average 8000 people who retire from the health sector each year. The Health Science and Technology UTC will become the provider of choice for those learners and parents who are ambitious and determined to develop a successful career within the Health and Health Science sector.

It will be the mission of Health Science and Technology UTC Birmingham to build on the expertise and know how of its partners to fulfil the following objectives:

- To embed ambition and aspiration to all of its learners and encourage success;

- Provide world leading vocational technical learning opportunities, of industry standard, through world leading learning resources and partnership;
- To embed 'world of work' principles throughout the learning curriculum and offer;
- Drive up learning outcomes, added value and success rates, beyond national averages;
- Provide robust sector specific Information, Advice and Guidance for Health Science;
- Provide outstanding progression pathways, especially apprenticeships to higher levels of study;
- Give learners access to sector related and meaningful work experiences; and
- Supply the next generation of Health Science professionals, assistant practitioners and technicians.

5. Learning Offer and Recruitment Strategy

Curriculum Offer

From joining the UCT each learner will follow a core curriculum that will introduce key concepts around health science, with the opportunity to experience real occupational linked activities provided by University Hospitals Birmingham. Furthermore practical learning opportunities will be provided by Birmingham City University and Birmingham Metropolitan College to complement and enrich the learning experience eg Orthodontics, Pharmaceutical Technology, Podiatry, Radiography, Ultrasound and Perioperative care. From year 10 each learner will be expected to study a Health Science related Diploma with core subjects of:

- GCSE English
- GCSE Maths
- GCSE Science (all learners to undertake a minimum of three science GCSEs)
- GCSE Modern Foreign Language (Spanish, German, French and Italian)

Further enrichment modules will be available for all learners to undertake eg

- Physical Education
- Citizenship
- Critical Thinking Skills
- Personal, Health and Social Education

All programmes will fully embed the transferable core competences of verbal and numerical reasoning, written communication and team working within the curriculum delivery model.

From 16 onwards, learners will be offered a range of sector pathways that will have progression at their core. Opportunities to study up to higher level apprenticeships, including linking into foundation degrees (with the option to fast track progression) with a health science focus will be a staple part of the learning offer. Using the extensive reach of partnership networks learners will be supported to follow their personal ambitions to secure high value and professional work.

Recruitment Strategy

Birmingham is a place that is achieving better science based GCSE attainment than the national average (67.5% and 61.6% respectively). Birmingham is also a place of great diversity in terms of ethnography and demography, yet also suffers the worse for youth and adult unemployment (Birmingham City Council, 2011).

Appealing to those learners and parents who are highly attracted to a successful career in the Health Science sector, Health Science UTC Birmingham will use the gravitas of its founding partners: University Hospital Birmingham, Birmingham City University and Birmingham Metropolitan College to inspire, engage and recruit learners to an outstanding, rich and memorable learning experience that will deliver enhanced life chances for hundreds and thousands young people over its lifetime.

By communicating the message of hard work, great expectations and outstanding achievements Health Science UTC Birmingham will transform vocational learning opportunities for young people between the ages of 14-19. We will capitalise on the existing rich diversity of the workforces within UHB, BCU and BMET and the health science sector in Birmingham to reach disadvantaged and under represented cohorts.

A highly specialised learning institution, providing technical vocational learning pathways, Health Science UTC Birmingham will market itself city wide and especially to those wards of high youth and adult unemployment. With a target cohort of 125 learners per year, it is the expectation that the Health Science UTC Birmingham will have over 600 learners on roll by 2017. With its learner offer heavily influenced by a leading Health Science employer, this UTC will set the pace for vocational and technical learning within the UK.

B. RATIONALE FOR SPONSORS:

The sponsors of Health Science and Technology UTC Birmingham are: Birmingham City University (BCU), University Hospitals Birmingham (UHB) and Birmingham Metropolitan College (BMET). All sponsors are strategic institutions of the city of Birmingham and provide outstanding services to the citizens of Birmingham with regards to Health and Health Sciences.

BCU

Birmingham City University has valuable experience of developing 14-19 provision as co-sponsor with the Ormiston Trust of Birmingham Ormiston Academy (BOA) - a regional digital, performing and creative arts academy based centrally in Birmingham which opens September 2011. Staff from our Ofsted 'outstanding' rated School of Education have been involved in this project and will be able to use their expertise and experience to support the new UTC.

Birmingham City University's will commit the time, enthusiasm and expertise of its staff to support the development of the UTC and, importantly, the ongoing relevance of its curriculum.

Furthermore, Birmingham City University has a significant and growing reputation locally and nationally for the innovation and excellence in Health Education. It is one of the largest health faculties in the UK and the largest provider in the West Midlands of Nursing and Allied Health Professional education. It has a proven record for graduate recruitment and is the region's leading provider of qualified staff for the NHS and social care professions. It provides sub-degree, degree and postgraduate

education in Nursing; Midwifery; Speech & Language Therapy; Diagnostic and Therapeutic Radiography; Health & Wellbeing; Social Work; paramedic education and Rehabilitation Work for the Visually Impaired. We also provide a vast range of post-registration and learning beyond registration courses which are used by all the local NHS and private health providers to up-skill and develop their employees clinically and educationally. The Faculty is proud to be at the forefront of virtual technologies with its first-class Learning Facilities. Students learn in cutting-edge, simulated environments that are vital for developing the skills required in the health and social sector. We have always striven to support the local health economy and the development of a University Technology College would provide the opportunity to positively influence aspiration and provide route of progression into the health and social care professions for the local population.

Birmingham City University will bring acknowledged expertise in Health Education. The quality of its provision has been repeatedly evaluated as excellent through QAA assessments [Health Specific assessment 2006] and University level Assessment [2010]. Our provision is regularly reviewed by professional and statutory bodies such as the Nursing and Midwifery Council, and the Health Professions Council. Reports of our reviews are freely available on the respective websites of these organisations. These reviews frequently highlight areas of outstanding and good practice.

Birmingham City University will provide an insight, experience and opportunities to allow students to begin their career in the health sector. Learners will benefit from access to first-class learning facilities, extensive support provision, a supportive academic team that consists of experienced clinical practitioners and partnerships across health and social care providers both within the UK and internationally. We are also the only University in the UK to train RAF, Navy and Army health care students, within the Defence School of Health Care Studies.

BCU's state-of-the-art facilities, located on City South campus, contain its Skills and Simulations equipment and facilities. These facilities, which allow learners to practise their skills in a safe, simulated environment that mirrors the settings, they could face when they go on placement or once they have qualified. Facilities also include lecture theatres equipped with high-tech AV facilities, classrooms and meeting rooms of various sizes.

Our dedicated Specialist Clinical Skills Faculties at our City South Campus include:

- The Hospital Ward suite contains two, six-bedded wards. One can be modified to replicate a paediatric ward and both environments can be adapted from a low care to high dependency care environment with the necessary monitoring equipment. An integral part of this is our SIM baby, Mega code kid, SIM men (and female, paediatric) patients with voice software, which are used to replicate real symptoms, and are enhanced by the manipulation of monitors for extra realism. There are also nursing manikins for fundamental skills teaching and various equipment to support essential skills teaching, such as blood pressure monitoring venepuncture and cannulation equipment.
- High fidelity simulation facilities and software developed in house allowing full support and low risk education opportunities in 2D and 3D.
- Fully functioning X-ray/diagnostic radiography imaging suite
- VERT facilities - virtual reality suite for radiotherapy treatment planning and simulation
- Mock operating theatre - ideal for simulating a theatre environment and comes equipped with the relevant equipment, such as a theatre table, anaesthetic machine surgical instruments and other equipment you would see

in this environment. This environment supports the teaching of multidisciplinary teams, ODP staff and paramedics.

- The Home Environment suite is set up to simulate a birthing suite or a home delivery. Its equipment includes a birthing simulator and various pelvic manikins. This is the perfect setting for teaching communications skills, particularly effective for midwifery students.
- Birthing room fitted out as a real maternity ward, including all of the apparatus associated with birth, pregnancy and mothers
- Plaster room/Biochemistry/Anatomy/Physiology Laboratory facilities
- An extensive IT suite and widespread wireless network with laptop loan facilities.
- The largest dedicated Health and Social Care reference library in the country.
- All the clinical rooms, including the home environment, are equipped with the latest audio technology which records and displays to a work station in real time, within the control room. Audio can also be streamed to a classroom or lecture theatre to be shown to large audience if appropriate. Each room has a ceiling mounted camera and microphone. Each camera has a 360-degree pan tilt and a sensitive microphone, which allows the operator to talk directly to the trainee or the patient. We are also able to download recording to be viewed later for feedback and teaching purposes. There is also a mobile recording unit available. Equipment is managed by specialist technical staff who set up rooms as required and provide technical support for the AV equipment.

UHB

University Hospitals Birmingham NHS Foundation Trust (UHB) is the leading university teaching hospital in the West Midlands. The Trust runs two hospitals - the Queen Elizabeth Hospital and Selly Oak Hospital - which provide adult services to over 640,000 patients every year, from a single outpatient appointment to a heart transplant. The Trust is a regional centre for cancer, trauma, burns and plastics, and has the largest solid organ transplantation programme in Europe.

The Trust also hosts the Royal Centre for Defence Medicine, which provides medical support to military operational deployments. It also provides secondary and specialist care for members of the armed forces. The Trust employs around 6,900 staff and is currently building Birmingham's first new acute hospital in 70 years. The £545 million hospital opened its doors to patients in June 2010.

UHB is one of the largest and most successful teaching hospitals in the UK and achieved the highest rating of excellent and excellent for quality and financial management in the CQC Annual Health Check 2009-10. UHB's vision is "to deliver the best in care" to its patients. Quality in everything it does underpins this vision – ranging from the direct care provided by its clinical staff, to the support services offered by its Hotel Services and Patient Administration, through to Finance and Human Resources. Delivering high quality services has to be a team effort supported by its staff, governors, volunteers and members. This will be achieved by delivering its vision and key purposes which are to provide the highest possible clinical outcomes, the highest quality patient experience, high quality research and education.

To ensure the Trust delivers this Vision it has clearly outlined its Values which provide the framework for staff to use in directing their daily work. Staff must always act with respect for their patients, their carers and relatives and to each other. Staff must take responsibility for their own actions and for those working with them. Staff must always act with honesty to ensure they are transparent in their actions and that they have a duty to innovate to ensure they are delivering the best in care not only

today but in the future. UHBFT is a major employer within the Birmingham area and also a well established and pro-active organisation within the West Midlands. UHBFT, due to its large Teaching and Education role within health, has developed an extensive network of collaboration with other healthcare providers and education establishments. Birmingham Metropolitan College (BMET) and UHBFT have been developing a strategy to resolve a number of issues affecting the local economy:

- Maximising the potential of the local population and reducing barriers to entry to healthcare careers.
- The requirement to develop new roles to meet the changing needs of the healthcare sector.
- To widen the base of career opportunities within health for all young people beyond the traditional roles of direct clinical care.
- Minimising the fragmentation of the career and educational pathway to allow learners to move seamlessly from education into employment.
- Embed the role of UHBFT as a major partner within the local economy and meet its obligation to social regeneration in the Birmingham area.

The ultimate aim is to achieve a sustainable local workforce maximising their potential and actively contributing to UHBFTs vision to “deliver the best in care”.

UHBFT is a major provider of education and training services via both its collaboration with HEIs in providing education and clinical placements for pre and post graduate students. UHBFT has taken an active role in facilitating access to healthcare careers through its Learning Hub and Apprenticeship Programmes which have assisted a significant number of local people including over 1,000 long term unemployed back into a variety of careers such as direct clinical care, administration, logistics and finance. As a major employer it is committed to further developing its own workforce at all levels to maximise their contribution to the Trusts overall vision “in delivering the best in care”. UHBFT is also a partner in the Birmingham and Black Country Health Innovation and Education Cluster [HIEC].

UHBFT in its role as sponsor aims to add value to the UTC on a number of levels:

Individual:

- Work experience, placements and mentoring for students enrolled in the UTC.
- Active assistance in the application of theory to practice and assessment of competence.
- Through our Learning Hub provide tailored healthcare support to students seeking to enter the workplace via advice on application forms, CVs and interview technique.
- Facilitate students to join the Trust in house bank to gain work experience where appropriate.

Organisational:

- Support in the development of appropriate curricula to meet the needs of healthcare employers.
- Participation where appropriate in the delivery of teaching and assessing of students.
- Raise awareness of the UTC in the local health economy.
- Assisting the UTC via the provision of specialist advice where available and access to other organisations through its Trust network eg healthcare suppliers.
- Economy wide:
- Promote the UTC via the HIEC to other NHS employers.

- Utilise its regional position within healthcare to secure further opportunities for the UTC to develop.
- Promote the UTC at a national level to large commercial employers such as the pharmaceutical industry to encourage their involvement.
- Raise the profile of the UTC at national forums such as NHS Employers and Foundation Trust Network to identify opportunities for further development of the UTC.

BMET

BMET is one of the largest FE colleges in England with over 25,000 learners. A recognised regional centre for Science, Technology, Engineering and Mathematics (STEM) subjects and a proud vocational heritage, linked to the city of Birmingham and the broader region, BMET is a leading member of the 157 Group of colleges and is recognised by Ofsted as Good, with Outstanding features (2011).

Working with many high profile employers such as Caterpillar, NHS, BMW, Cadbury and Jaguar Land Rover the college plays a significant role in underpinning economic development by providing skills that matter, are of relevance and of industry standard.

With over 8,500 16-18 learners, and the principal sponsor of the Harborne Academy, the college has outstanding expertise and know-how in engaging, recruiting and supporting young people empowering them to progress and succeed in learning, work and life.

BMET has state-of-the-art and some unique healthcare facilities within FE. For example at the Matthew Boulton campus we have a fully functional podiatry clinic that serves the public and enhances the local healthcare provision within Birmingham. This clinic incorporates an industry standard operating theatre to strengthen the learning experience of our under-graduate programmes. Podiatry provision is regularly reviewed by the Health Professions Council. Facilities at our Matthew Boulton campus also include pharmaceutical and dental technology laboratories with BMET being one of the few and outstanding providers of education and training for these technical occupations.

The role of BMET, with regards to the development and delivery of this project, will be to use its expertise in engaging with young people and its proud vocational heritage linked to health sciences to lead and coordinate the Health Science and Technology UTC.

Working with its strategic partners BCU and UHB, BMET will coordinate, project manage and provide overarching support to make the Health Science and Technology UTC happen. Building on its previous experience with the Harborne Academy, BMET will provide the necessary human, physical and financial resources to ensure the delivery of this proposal is timely, comprehensive and sustainable.

The strategic partnership of UHB, BCU and BMET brings together workplace skills and expertise, with a curriculum focussed on providing highly relevant vocational education with embedded progression pathways to ensure high attainment and achievement for every learner. It is the ambition of BCU, UHB and BMET to make the Health Science and Technology UTC an outstanding venture for young people and the city of Birmingham.

C. RISKS AND ISSUES:

This is still significant policy work that needs to be completed to support a Health Science and Technology UTC. For example it will be necessary to fully consult with the local authority re admissions rounds/criteria and the potential impact on existing school recruitment patterns.

Furthermore, a full scoping exercise will need to be commissioned to understand better the gaps between existing accommodation and the planned UTC start date of 1st September, 2012. And finally a Memorandum of Understanding would need to be signed by all three partners detailing the specifics of Governance, roles and accountabilities.