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Queensland Government
Queensland Health

Detailed Proposal

Queensland Health
Centre for Skills Development

23 July 2002

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1. Introduction

A business case was initially prepared for the 'Herston Rapid Learning Centre' in 2001. Queensland Health requested that the rapid learning centre concept be broadened to include other skill development programs

This document represents a detailed proposal for the establishment of the Queensland Health Centre for Skills Development, for consideration by the Director-General.

Broadly, the primary aim of establishing a Centre for Skills Development is to enhance the skill base of Queensland Health staff. A secondary aim associated with establishing the Centre is to provide skill training to students of the Centre's partners eg Universities

It is proposed that Centre staff, contractors and partners will work together to efficiently review training material and advise on the best way of delivering specific training

The Centre will: -

- facilitate procedural and technical skill learning whereby clinicians will acquire and enhance their skills in surgical, clinical and anaesthetic procedures, both invasive and non-invasive;
- facilitate health care enhancement activities whereby clinicians will acquire and develop skills in clinical improvement, management, leadership and communication;
- continually evaluate teaching effectiveness, ie. research into teaching methodologies and simulation techniques will occur as well as the development of eHealth initiatives to support distance learning and the activities of the Centre;
- provide a resource to evaluate and accredit related government courses (eg. management courses) relevant to Queensland Health staff; and
- provide a link to 1) current and developing online technology provided by both Queensland Health (QH) and the University of Queensland (UQ) and 2) other partners.

The Centre, to be located on Floors C and D, Block 6 of the Herston campus, will enable a variety of skill development programs to be conducted both onsite (eg. advanced life support) and at other locations across the state via telecommunication devices (eg. endoscopic procedure). Potentially, the facility will enable some programs and initiatives arising out of the existing Quality Improvement and Enhancement Program (QIEP) to be sustained e.g. Collaborative for HealthCare Improvement, after the cessation of project funding in 2003. The Centre will provide a 'virtual hub' for the delivery of a variety of training programs

It is proposed that partnerships will be formed between the Centre and a variety of external bodies including Universities, Learned Colleges and private companies committed to the enhancement of skill development. A potentially exciting component of the facility will be the partnership opportunity between Queensland

Health and the University of Queensland to introduce the use of virtual reality (Haptic) technology infrastructure.

2 Background

Queensland Health does not currently have a single coordination point for skill development and improvement initiatives across the entire organisation. This has resulted in:

- lack of a strategic approach for clinical skill development across the organisation,
- absence of a link between quality systems and Queensland Health training and development initiatives,
- duplication in the development of programs (which are of variable quality), including tender processes, contract negotiations and partnership arrangements with external providers;
- uncoordinated management of the relationships between Queensland Health and educational providers;
- instances of ineffective management of Queensland Health intellectual property, resulting in a loss of intellectual capital,
- ad-hoc and uncoordinated marketing and communication mechanisms for many training and development and organisational improvement initiatives, which results in many staff members being unaware of continuing education and organisational improvement initiatives;
- limited access to training and development opportunities in many smaller District Health Services;
- failure to capitalise on investment infrastructure and failure to realise potential savings through single entity low cost/high volume negotiations; and
- limited dissemination of innovation and evidence based initiatives

Queensland Health has, until recently, invested limited funds in the advancement of clinical quality and learning Resources have consisted of those provided corporately such as the Clinical Improvement Team (within Organisational Improvement) and the Clinical Policy Team (within Procurement Strategy Unit) as well as resources allocated at an individual District level. The Australian Health Care Agreement funded Quality Improvement and Enhancement Program (QIEP) that commenced in 2000 has increased investment in the advancement of clinical quality initiatives and learning. The Quality Improvement and Enhancement Program has created significant opportunities for a coordinated, standardised and effective, evidence based approach to improving the safety and quality of Queensland Health services. An improvement in clinical systems, processes and services as well as development of clinician knowledge and skills has the potential to reduce adverse outcomes of care.

Based on information presented in the Quality in Australian Health Care Study (Wilson et al 1995) adverse events account for 3.3 million bed days across Australian hospitals per year. Of these, 1.7 million (approximately 8% of all bed days) are the result of adverse events that are preventable. From these data it has been estimated that the cost to Queensland Health of preventable adverse events is approximately $95.56 million per year. Assuming there is a 5% reduction in preventable events this would generate a saving of $4.828 million per year for Queensland Health, as well as significant relief of suffering and loss of income experienced by patients and their carers

Over the past year, the development needs of all Queensland Health staff have been identified through three sources of information – the Measured Quality Program Balanced Scorecard, the Queensland Health Patient Satisfaction Survey 2002 and the District Needs Assessment of the Clinician Development Program. The results of each of the aforementioned sources are outlined below. -

- **District Needs Assessment (Clinician Development Program 2000-2001).** - Improvement needs identified through the assessment process are: -
  - communication and multidisciplinary team building;
  - skills and knowledge in the use of evidence and information in decision making;
  - service integration,
  - creation of a blame free, risk management culture, and
  - development of skills in the use of tools and processes to identify, measure and analyse issues related to care delivery.
- **Measured Quality Program Balanced Scorecard 2002:** - The findings of the Measured Quality Balanced Scorecard show areas of significant variation in performance across the State for mortality/morbidity and length of stay for selected procedures
- **Queensland Health Patient Satisfaction Survey 2002:** - The Patient Satisfaction Survey undertaken in 2002 indicates an overall high level of patient satisfaction. However, the results of this survey suggest a need to improve clinician services including discharge planning and the provision of information to patients.

The District Needs Assessment (Clinical Development Program 2000-2001), Measured Quality Program Balanced Scorecard 2002, Queensland Health Patient Satisfaction Survey 2002 and clinical audit results (undertaken by the Office of the Chief Health Officer) identify development needs of Queensland Health staff and hence provide a basis from which activities of the Centre will be focussed

In addition to the above, Queensland Health has a responsibility to ensure that staff acquire the procedural and technical skills required for competent practice. This training is now crucial in a climate where there is rapidity of procedural advances, credentialing requirements, decrease in traditional teaching materials, increased training demands, time constraints, and a need for consistency and standardisation.

The relative lack of competence based training programs and/or limited clinical training opportunities for junior clinicians and other staff has been recognised for many years. Morbidity and mortality within the public health system is often directly linked to inadequate training and supervision of junior medical officers, nursing staff and allied health professionals. The Australian Medical Examination Council (A.M.E C) is now moving towards a requirement for Medical Schools to provide documentation that students have attained competency in clinical skills as well as theoretical knowledge.

Due to demands on the health system, reduced length of stay and changes in clinical practice, junior clinicians now experience minimal assessments and procedures, which were formerly common events. Additionally, many junior clinicians, (including those trained overseas), are often ill prepared for their significant responsibilities in rural and remote positions.

Effective adult learning is promoted when strategies such as simulation, scenario problem solving, rehearsal and discovery are used Imbibing skills by apprenticeship to master surgery is no longer acceptable Patients expect certain levels of competence before they receive care and service demands often overwhelm training opportunities. In an environment where mitigation of clinical risk is a priority, using patients for 'practice' is becoming less acceptable.

Currently, Queensland Health does not have a purpose built facility available for the development of effective communication skills Research studies (Stewart 1995, Ong et al 1986) demonstrate correlation between doctor-patient communication and improved patient health outcomes. Furthermore, it has been demonstrated (Beckman 1994) that poor communication contributes to 70% of litigation cases and that more than 50% of patients who sued claimed they were so 'turned off' they wanted to sue before the alleged event occurred (Mangels 1991). Poor communication undermines the process of informed consent and discharge planning and decreases adherence to treatment regime and patient satisfaction. Many Universities and hospitals are now investing in special communication skill training facilities for both their under and post graduate students. Queensland Health must follow suit.

Queensland Health has already made significant investments in telehealth and IT communications such as the Service Delivery Network and the purchase of a licence for the Vettweb training platform. Potential exists to take advantage of existing technology to engage clinicians statewide using on-line learning, procedural demonstrations and training via satellite, and eventually Haptic virtual reality simulations transmitted out to other centres.

In addition, the Queensland Government has made a significant investment in the Visualisation Centre (ViSAC) at the University of Queensland. Accordingly, it is intended that the Centre will forge a partnership with the University of Queensland, ensuring that the two Centres collaborate.

3 Current Situation

A description of Queensland Health's current situation in relation to skill development programs and facilities is provided below.

It must be noted that all Districts currently offer a number of skill development programs. It is intended that once the Centre for Skills Development is operational some skill development programs will continue to be conducted at a local level eg simple clinical skills training Centre staff/contractors/partners will research and create courses as required. Where possible, these courses will be beamed out to other sites.

3.1 Current Clinical Training Programs and Facilities

- Queensland Health currently has a mix of ways to train its clinicians (mainly doctors) in skill acquisition. Most major hospitals (eg. Princess Alexandra Hospital, Townsville Hospital and Royal Brisbane and Royal Women's Hospitals), offer clinical training.

- A central Queensland Health site for skill development is not available. Some facilities for skill development are located in Districts, however, the standard and level of effectiveness varies.

- The Herston campus; for example, is fortunate to possess two main facilities for skill development, namely the Herston Medical Research Centre and a training ward in the Education Centre School of Nursing (formerly Lowson House). The above mentioned facilities are described below: -
  - The **Herston Medical Research Centre** enables undergraduate and postgraduate medical students to practice procedural and endoscopic skills on animals, both living and cadaveric The facility comprises two small theatres and a larger laboratory able to accommodate four to six learning stations. This Centre is used for under and postgraduate surgical training, however space is limited.
  - A training ward, containing six beds, is located on level 3 of the **Education Centre School of Nursing.** The ward is predominantly used for –
    - basic life support (resuscitation), manual handling, fire warden evacuation training, advanced procedures (eg intubation) and general clinical skills training; and
    - three day Early Management of Severe Trauma (EMST) courses conducted every four months, in which clinicians learn how to assess and treat traumatised patients, through a number of simulated sessions.

- There are several internationally renowned 'Rapid Learning Centres' in existence such as the Centre for Medical and Surgical Skills based in Western Australia. These Centres have been established because surgical and medical skills training is moving towards simulated skills training worldwide. With competency assessment becoming a desired approach to ensuring safe care provision, Queensland clinicians are limited in their ability to develop skills and have them assessed using modern simulation models without a specialised facility.

3 2 Current Training Needs

- Many professional bodies, eg Learned Medical Colleges, dictate that training should occur in specialised learning facilities. Queensland Health incurs additional expense when staff travel either interstate or overseas to attend training

- The Australian Health Care Agreement funded Quality Improvement and Enhancement Program ceases in 2003. Some of the initiatives being developed and implemented under the Quality Improvement and Enhancement Program will require ongoing support, such as periodic review and maintenance, after the cessation of funding. As previously discussed, with the investment over the past two years in systems and processes to improve service delivery there is now a beginning momentum and cultural shift, as well as clinical achievements, as an outcome of these activities. A strategy to build on and continue these activities is considered a priority.

3.3 Current Leadership and Management Development Programs

- The Organisational Improvement Unit (based in Corporate Office) currently offers and manages a number of corporate leadership and development programs These programs include: -

  - **The Queensland Health Executive Development Program:** This program centres on a monthly statewide satellite broadcast, in which the Director-General, the Deputy Director-General and the General Manager (Health Services) share information on strategic issues with Queensland Health Executives In addition, Executive Development Workshops and Australian College of Health Service Executive (ACHSE) Interactive Development Sessions are conducted as part of the Queensland Health Executive Development Program.

  - **Queensland Health Management Development Program:** This program aims to increase understanding of organisational behaviour, contemporary human resource management, financial management and operational management. On successful completion of the program, participants are awarded a Graduate Certificate in Management (Queensland Health) from the Queensland University of Technology. The program is principally provided by distance education.

  - **Queensland Health Leadership Development Program:** As way of background, leadership competency standards have been developed for all levels of Queensland Health staff.

  For core and supervisory staff, the National Public Services Training Package (NPSTP) is used as the training package for the attainment of leadership competencies Administrative training against the NPSTP is also available to clinical and operational staff undertaking administrative duties.

  The Open Learning Institute of TAFE Queensland develops materials for Team Leaders and Supervisors and all core staff and awards the qualification of Certificate or Diploma.

  The Queensland Health Leadership Development Program uses an on-line learning system for competency-based assessment and training.

  - **Executive Mentoring Program:** This program is conducted over a one year period for up to 20 middle to senior management staff within the target group of substantive AO5–AO8, Nursing Level 3-5, PO5-PO6, OO7-OO9, TO5-TO6 and Medical Officer. All participants must attend the program orientation and the mid year evaluation workshop and complete an individual development plan. Development opportunities offered through the program include - learning sets/groups, access to relief, secondment rotation and shadowing opportunities, internal workshops, and specific project work. Each program participant is also matched with a Queensland Health mentor.

  - **Graduate Recruitment Program:** Graduates are recruited annually from a number of disciplines including business, finance, information technology and human resource management and placed across a number of areas within

Queensland Health eg. Information Services and the Health Systems Strategy Branch A structured training and development program is developed for all graduate trainees.

4. Description of Proposed Centre

It is envisaged that the Queensland Health Centre for Skills Development will be responsible for three main functions once established -

i) **Procedural and technical skill learning** whereby clinicians will acquire and enhance their skills in surgical, clinical and anaesthetic procedures, both invasive and non-invasive;
ii) **Health care enhancement activities** whereby clinicians will acquire and develop skills in clinical improvement, management, leadership and communication; and
iii) **Teaching effectiveness** whereby research into teaching methodologies and simulation techniques will occur as well as the development of eHealth initiatives to support distance learning and the activities of the Centre

Appendix A contains a list of programs that could potentially be provided by the Queensland Health Centre for Skills Development.

Each of these functions are described in more detail below:

Procedural and technical skill learning will be undertaken in a comprehensive suite of training laboratories enabling prospective and practicing clinical staff to learn, practice and be assessed in a variety of surgical, clinical and anaesthetic procedures

The Rapid Learning Skill Laboratories will include -
- a major invasive laboratory comprising ten operating tables;
- a non invasive/minor invasive laboratory comprising forty learning stations; and
- a ten bed training ward able to be readily altered to mimic different hospital and health care settings (eg. Intensive Care Unit, Dept of Emergency Medicine).

The major invasive laboratory, non-invasive/minor invasive laboratory and training ward will enable: -
- surgical trainees to undertake skills training courses as part of their initial surgical training;
- practicing surgeons who need to learn new skills or require ongoing training to maintain their professional standards,
- anaesthetic training on sophisticated computerised models,
- familiarisation and training with new diagnostic or treatment equipment such as endoscopes;
- multidisciplinary team scenarios and rehearsal for patient management in settings such as Intensive Care, Emergency Department or Operating Theatre,
- complex techniques using advanced technology and equipment for various disciplines e.g radiology,

- provision of courses and advanced skill training, such as advanced cardiac life support in conjunction with medical, nursing and allied health bodies; and
- general staff training for skills such as manual handling and basic resuscitation.

Cadaveric material, animals, simulated models, mannequins and in the future virtual reality techniques will be used for skill development in the training laboratories.

Initially skill-training programs will be provided primarily on-site. Once the Queensland Health Centre for Skills Development is fully operational, it is envisaged that other Centres will be set up within the State with some similar simulation models/materials. With the aid of telecommunications, training will occur remotely, with guidance on skill development provided by the trainer based at the Herston campus.

Potential also exists for the practical assessment of new clinical technology to be undertaken in the Queensland Health Centre for Skills Development by clinicians on behalf of private companies

The collective training activities for **Health care enhancement** relates to clinical innovation and improvement, leadership, management and communication. This training will include skill development in line with clinical policies and strategies developed and established under the Quality Improvement and Enhancement Program and from other Departmental areas e g falls prevention, patient consent, and infection control. Activities will build on clinical initiatives being pursued in Districts, such as the Collaborative for HealthCare Improvement and the sharing of achievements that have a potential for statewide application.

Cultural change activities undertaken by the Clinician Development Program Area such as continuous clinical improvement, clinical leadership and skill development in core areas such as evidence based practice, team building and communication will need to continue after the cessation of Quality Improvement and Enhancement Program funding

A sophisticated communication skill laboratory will be housed in the Centre. This laboratory will be designed so that clinicians can learn and rehearse effective techniques to improve their communication skills. These sessions will be recorded to allow for immediate feedback and constructive assistance. Activities such as rehearsal of patient history taking, management of difficult interactions and obtaining informed consent are examples of skills able to be developed in this laboratory (see 9.1 Physical Resources for description of communication skills laboratory)

Other clinical improvement programs may be developed as the result of a need to minimise risk following the identification of a significant issue as a result of a sentinel event or clinical audit and the subsequent root cause analysis. Clinicians across the State could be alerted quickly to a revised process aimed at preventing the re-occurrence of such an event.

Leadership and management courses, developed both internally and provided by external agencies, will be coordinated and managed by the Centre once established.

Teaching effectiveness activities will be undertaken to support the functions of the Centre and will include developing and advancing teaching methodologies using on-line technology and undertaking research to determine teaching effectiveness.

These activities will enable: -

- support and development of distance learning strategies;
- establishment of an e-learning platform that will allow for web-enabled learning and allow for the ongoing development of learning modules readily accessible by Queensland Health staff including those in remote locations;
- training in and promotion of telehealth used in collaboration with the University of Queensland's Centre for On-line Health for clinical support and diagnosis, and for educational purposes, and
- research activities to be undertaken to assess the effectiveness of new simulation techniques, visualisation technology and the impact of other delivery modes

Broadly, it is envisaged that the Centre will: -

- complement (and not compete with) existing University and other institute research and training facilities;
- harness the already extensive clinical expertise that exists within Queensland Health,
- establish outreach services for staff not residing in South East Queensland to enable skills training to be conducted locally using similar simulation equipment e g. mannequins,
- offer training programs that may involve, on occasions, Rural Health Training Units and District Training Units with heavy reliance placed on already available information technology,
- provide up-to-date material and training, as it is anticipated that a dedicated clinical education and research University department committed to improving educational modalities, simulation and learning techniques will be linked with the Centre;
- offer training resources for use by other agencies such as Universities, Learned Colleges and private corporations on a negotiated fee basis;
- collaborate with similar centres, and
- wherever possible, look to maximise the local and overseas sale of its educational programs and products, as the project should offer numerous export opportunities for developed programs.

5. Objectives

The main objectives for the creation of the Queensland Health Centre for Skills Development are as follows -

- to facilitate the training and competency assessment of all Queensland Health clinicians in -
    - Major invasive clinical procedures
    - Non invasive and minor clinical procedures
    - Effective communication skills
    - Multi disciplinary team skills for specific clinical situations
    - Other associated health care activities and clinical skills;

- to create a single coordination point for delivery of training, establishment of training tenders and negotiation of contracts for Queensland Health;
- to facilitate the development of a culture of risk management through the use of evidence and information that informs clinical decision-making;
- to facilitate the creation of a culture of patient centred care provided by a multi-disciplinary team;
- to provide training experiences in a variety of modes both within the Centre and on an outreach basis for staff in all locations across Queensland Health;
- to develop the leadership and management skills of Queensland Health staff,
- to continue to promote standardised approaches to clinical policy and practice;
- to seek out information relating to enhanced clinical practice to ensure services provided by the Centre are contemporary;
- to undertake clinical teaching research which include new models and techniques of simulation; and
- to forge partnerships with agencies already pursuing highly sophisticated initiatives eg the Visualisation Centre (ViSAC) at the University of Queensland, (this project will complement Queensland's Smart State initiatives)

6. Outcomes

The Centre for Skills Development expected outcomes are as follows: -

- Increased number of clinicians demonstrating technical competence;
- A single coordination point for delivery of training and establishing training tenders and negotiating contracts relevant to the Centre's operations;
- Standardised clinical policy and practices,
- Maintenance of competence for clinicians in areas of low volume services eg rural and remote;
- Clinicians competent and familiar with new procedures and equipment before use with patients;
- Effective communication, management and leadership skills used by Queensland Health staff;
- Statewide dissemination of evidence based processes of care and new initiatives that improve safety and quality,
- Improved patient care, comfort and satisfaction,
- Reduction in adverse clinical incidents arising from inadequately trained staff;
- Ability to rapidly retrain or update staff members returning to the workforce after long periods of absence;
- Improved collaborative approach to multidisciplinary education and research;
- Use of contemporary, effective teaching practices promoting rapid skill acquisition, and
- Mutually beneficial programs with participating partners.

7. Scope

The scope of the project would initially be confined to establishing a Centre for the advancement of:

- skills of Queensland Health staff in the areas of clinical improvement, procedural techniques, use of technology for clinical care, communication, leadership and management skills;
- simulation technology;

- research into effective teaching techniques;
- standardisation of health care protocols and procedures; and
- risk minimisation strategies with Statewide application.

The Centre will: -

- develop relationships with Queensland Universities as a means of influencing the curriculum of health professional programs The inclusion of quality, clinical leadership, evidence based practice, communication and use of information in undergraduate and post graduate programs is key to the development of an appropriately skilled health professional workforce of which Queensland Health is the major employer in the State.
- work in collaboration with other local Centres such as the University of Queensland's ViSAC Lab and Centre for Online Health as there is no intention to duplicate resources. The intent is to build on local expertise.
- facilitate the acquisition of relevant technical skills by undergraduates through collaboration with Universities and post-graduate health care professionals through collaboration with specialist colleges. This will be a key strategy in ensuring that health care graduates are 'work ready' when they commence employment with Queensland Health. In addition, scheduled assessment of competence of clinicians will provide a minimum standard of skill required to work in Queensland Health and will contribute considerably to the quality and safety of services *(see Appendix B: Partnerships and Investments)*

The Centre will not -

- design or develop clinical policy or strategy;
- incorporate training currently provided by Rural Health Training Units or District training facilities;
- be an education facility solely for RBH & RWH staff; or
- rely on funding from external sources for sustainability.

8. Governance

8.1 Board of Management

A Board of Management will be established comprising six to seven members to set policy, oversee the direction of the Centre and monitor its performance The Board will consist of the following representatives:

- Director-General, Queensland Health (Chair);
- General Manager (Health Services);
- District Manager (RBH & RWH & HSD);
- State Manager, Organisational Development; and
- Two to three other people selected on the basis of expertise and enthusiasm.

Chairmanship of the Board of Management by the Director-General ensures that Queensland Health controls the agenda for the Centres activities

The functions of the Board are as follows: -

1) To endorse a strategic direction and operational plan to guide the Centre's operation in terms of education, training and research;
2) To consider advice and recommendations provided by Advisory Committees within the domain of each Committee;

3) To approve the development and conduct of new programs/courses offered by the Centre or by external providers;
4) To ensure that skills development initiatives for Queensland Health staff are responsive to identified risks and promote a quality improvement approach;
5) To align resources, skills and expertise with the delivery of these strategies,
6) To monitor the implementation of the operational plan;
7) To endorse partnership arrangements for the support and development of educational and research activities; and
8) To critically appraise, and incorporate where appropriate, international and national innovations in skill development, particularly in the areas of simulation and visualisation technology, risk management and quality improvement.

The Secretariat to the Board will be sourced from the Centre's resources.

8.2 Advisory Committees

As the functions of the Centre become established a number of Advisory Committees will be formed to assist the Board in its deliberations. The Board of Management will deliberate on advice and recommendations submitted to the Board by the Advisory Committees Notably, representatives of partner organisations may be invited to be members of Advisory Committees Such a move will provide these representatives with an opportunity to air their views on functions and activities of the Centre

In the first few years, the Advisory committees that will be required include:
1. Education and research;
2. IT/ eHealth;
3. Clinical Skills; and
4. Leadership, Management and Communication.

Once fully operational other committees may be required to advise on additional functions of the Centre, e.g. marketing.

It is anticipated that Chairs of Advisory Committees may attend Board of Management meetings as ex-officio or non-voting members.

See Appendix C for the Terms of Reference pertaining to the Board of Management and the initial Advisory Committees

8.3 Organisational Structure

The organisational structure of the Queensland Health Centre for Skills Development may involve a two-stage configuration to accommodate the 'set' up period and the thereafter period. The two models are contained in Appendix D

In the first model, an Executive Director is appointed, on a limited period contract, with the primary responsibilities of managing both the business and clinical education functions of the Centre. This arrangement would facilitate the initial activities of the Centre in which most of the teaching, laboratory maintenance and IT functions would be contracted in. Furthermore, planning for evolvement to the second model can be undertaken while the first model is in place and as the Centre's potential becomes evident.

The second model is designed to accommodate a fully functioning Centre and involves a division of responsibilities with:

- a Chief Executive Officer responsible for the business and promotional aspects of the Centre with the aim of maximising income generation; and
- a Clinical Director responsible for managing and developing the clinical education aspects of the Centre It is proposed that Queensland Health and a University partner could jointly fund this position.

In the second model, as the Centre becomes established it may be advantageous to organise the Centre's main functions into discrete units each reporting to the Clinical Director. These units would include the Rapid Learning Skills Unit, the Healthcare Enhancement Unit and the Teaching Effectiveness Unit.

In both scenarios, the Executive Director/Chief Executive Officer will report to the General Manager (Health Services) for the operational activities of the Centre and to the Board of Management for implementation of the agreed strategic directions of the Centre

The position descriptions pertaining to the Executive Director (model 1), and Chief Executive Officer and Clinical Director (model 2) of the Queensland Health Centre for Skills Development are contained in Appendix E.

The Centre's activities will be provided with personnel with expertise in the areas of clinical skills, service improvement, education, research and IT. Personnel will be contracted/seconded to achieve specific tasks or to develop and conduct training programs External expertise will be sourced/purchased as the need arises for specialised areas of training or development/use of technology.

Certain activities, such as the Collaborative for Health Care Improvement may have additional staffing requirements depending on the level and type of activity in progress; personnel will be seconded on a short-term basis within the limits of available funds.

The Executive Director/Chief Executive Officer, under the direction of the Board of Management will negotiate partnership arrangements with Universities and private companies for all education and training programs offered to Queensland Health staff and manage contract and tender processes in relation to education, training and development provided by the Centre.

9. Timelines

The following is an outline of the timelines of the project required to establish the Centre for Skills Development.

C & D Floor, Block 6

Timelines	Action
July 2002	Finalisation of Detailed Proposal and Submission to the Minister
August 2002	Preparation of Cabinet Submission, lodgement, consultation, and approval
September 2002	Out to tender for consultants to prepare Project Definition Plan/Design Brief (including detailed Room Data Sheets and review/validation of recurrent cost estimates)
October – December 2002	Preparation of Project Definition Plan, review and endorsement (also need to consider any equipment items with very long lead times)
January - April 2003	Schematic Design, Developed Design, documentation
April 2003	Out to tender for fit out contractor
May – August 2003	Detailed fit out of space
September 2003	Commissioning of new Centre
January 2004	Procedural Skills Laboratories open for bookings

10. Resources

10.1 Physical Resources

The Queensland Health Centre for Skills Development will comprise the following physical resources:

- **A purpose designed communication skills laboratory based on a successful overseas design:** Users of this laboratory will include medical, nursing, allied health and administrative staff who interact with patients and carers. The communication skills laboratory, to be located on D Floor, Block 6, will include eight individual modules and be fitted with one-way mirrors and audio visual facilities to enable feedback to learners It is anticipated volunteer "patients" will be recruited for rehearsal of skills, therefore, an associated waiting area will be required
- **A laboratory for non-invasive, minor invasive and general clinical skill development:** This laboratory, to be located on C floor, Block 6, will comprise approximately forty benches for minor and non-invasive clinical skill development, for example, minor surgical procedures on knees or arms.
- **A training ward for general clinical skill development:** The training ward, to be located on C floor, Block 6, will contain ten-twelve beds and be easily transformed to replicate a variety of clinical areas, for example, an Intensive Care Unit, Emergency Department or general ward for the practice of manual handling.
- **A major invasive skill development laboratory:** - This laboratory will contain ten operating tables for major invasive surgery and facilities for anaesthetic skill development and assessment. Facilities will include a sophisticated Simulated

Anaesthesia Mannequin programmed to replicate crisis situations. The major invasive skill development laboratory will be located on Level C, Block 6.

- **Audio-visual facilities**: Notably, all laboratories and the training ward will be fitted with audio-visual facilities to assist with the competency development of trainees and broadcasting sessions to other locations. Laboratories housed in the Centre will be electronically linked to other facilities eg. (a) the University of Queensland's Centre for Online Health and ViSAC and (b) other research facilities to avoid the replication of expensive facilities.
  Key elements to be included are·
  - Haptic bench facilities, ie AV/Haptic 'Cave', with AARNET/internet2 links
  -Telehealth linkage to other Queensland/Australian/International sites
  -Audio-visual/video conferencing facilities
  -CD ROM DVD library
- **Office space, teaching areas and storage**: The Centre will require a number of rooms for administrators, technicians and teaching staff as well as some areas for tutorial work and storage

10 2 Financial Resources

10.2.1 Capital and Equipment Costs
Estimates of Queensland Health financial resources required for capital and equipment costs are as follows: -

C floor Block 6 (1640m^2): -
- Major skills laboratory
- Minor invasive skills laboratory
- Support facilities eg. seminar rooms, audiovisual control rooms, computer laboratories and Haptic technology

COST: $8.398 million comprised of $2.6 million building capital and $5.798 million for equipment

Note· It may be possible for some equipment to be donated by industry.

D floor Block 6 (1582m^2) Fitout and equipping of refit. Key elements·
- Communication skills laboratory
- Training ward
- Support facilities eg seminar rooms, waiting areas and audiovisual control rooms

COST: $2.45 million comprised of $1.7 million building capital and $0.75 million equipment

The General Manager (Health Services) has indicated that there are sufficient uncommitted funds available through the Quality Improvement and Enhancement Program ($8.5 million) and unallocated Rollover Funds ($5 million) to cover the $10.848 million cost of infrastructure and equipment for the Centre (C Floor $8.398M plus D Floor $2 45M) as well as recurrent funds (to be discussed in the next section) to contribute to the budget in the first five years of the Centre's operation.

See Appendix F for a summary of available funds.
See Appendix G for break down of capital costs.

10 2 2 Recurrent Costs
The Centre would require the following funding from the Unallocated Rollover Funds to ensure ongoing sustainability for provision of services, travel, administration and maintenance of building and equipment:

Year 1 2002/2003	$250,000
Year 2 2003/2004	$500,000
Year 3 2004/2005	$750,000
Year 4 2004/2005	$1,000,000
Year 5 & ongoing	$1,250,000

The Centre will set up and begin to operate the procedural skills laboratories in its first year of operation (2003/2004). Other functions and activities of the Centre would gradually increase over the next two years until full functioning is achieved within the 2005/2006 FY. During establishment, it is anticipated that a small core group of full time staff will be employed to administer the activities of the Centre. The key services of the Centre would be developed and provided by staff seconded on short term arrangements with other expertise, not readily available within Queensland Health, purchased or leased from preferred external providers.

10 2.3 Phased approach to Centre Operation
With construction of the Centre scheduled for completion in September 2003, the appointment of the Executive Director and an Administrative Officer would occur several months prior to completion to allow for arrangements related to equipment purchases and finalisation of the fitout.

From September 2003, the initial activities will focus on establishing and operating the procedural skill laboratories, establishing an on-line learning facility and other information technology components of the Centre

From July 2004, clinical improvement programs commenced by the Clinician Development Program Area and the Collaborative for Health Care Improvement will be incorporated following completion of these programs. Communication, leadership and management programs can be commenced at any stage once the technology within the Centre is set up and functional.

10.2.4 Base level costs incurred on an annual basis to operate the Centre

The costs associated with operating and providing the key functions of the Centre have been estimated for the next five years.

This is based on several assumptions and includes the use of contingency funds to allow activity to commence in the earlier years of operation as set out below:

Item	2002/3	2003/4	2004/5	2005/6	2006/7
	$'000	$'000	$'000	$'000	$'000
Recurrent funds available	250	500	750	1000	1250
Rollover		135			
Revenue					
Total	**250**	**635**	**750**	**1000**	**1250**
Labour costs (permanent staff) - Educational management & administrative functions	99	319	425	448	471
'Buy –in' teaching /expertise**	-	147	78	293	507
Non Labour costs	16	168	247	259	271
Total	**115**	**634**	**750**	**1000**	**1250**

The assumptions on which the above table has been developed include:

- Capital funds are not shown (see Appendix F)
- **Contingency funds remaining from capital allocation will be used to source additional teaching/expertise in the first four years
- The Centre does not receive any revenue
- Partners are not providing any teaching/expertise in-kind

The above assumptions were included as conservative measures For example, from initial discussions with potential partners, it is likely that partnering Universities will provide teaching/expertise in-kind In addition, the Centre will receive revenue, as non-partners will pay a return on investment component when using the Centre's resources

10.2.5 Non Labour Recurrent Costs

Non-labour related recurrent costs have been estimated and include repairs and maintenance, cleaning, electricity, computer levy, clinical and non-clinical consumables, travel costs and administrative supplies The estimate of non-labour costs once the Centre is fully functional is $271K. However, the potential exists for a proportion of these costs to be recovered as part of user-pays arrangements.

10.2.6 Funding from External Sources

Funding from external sources, eg. Universities, is anticipated but not essential for Queensland Health to achieve its desired outcomes. Contributions from external sources may be made available in a number of ways – from partners as funds or 'in-kind' contributions, as donations from interested parties, as grants made for specific research and as revenue for the use of facilities by non-partners. External funding will assist the Centre to pursue breakthrough type opportunities for learning which rely on unproven technology. It is anticipated that management personnel would actively pursue such opportunities.

10 2.7 Revenue/Cost Recovery
Services provided to external agencies would be on a 'user pays basis' while services provided within Queensland Health would be at no cost except for travel, accommodation and consumables, which would be funded by the sponsoring District.

Non contributing parties who wish their staff and or students to have access to the Centre and programs will pay to meet all necessary costs including an amount to ensure an appropriate return on investment

There is an expectation that the Centre will generate significant revenue from use of the Skills Laboratories by non-partners. The quantum of revenue is difficult to assess at this stage. However, this source of funds will enable the 'buy-in' capability for clinical expertise to be extended and to increase support for the research activities that are envisaged.

10 2.8 Commitment to a Financial Breakeven Position
There is an expectation that the Centre and its training programs will breakeven through prudent fiscal management and that all respective partners committed to the Skills Centre, will accordingly contribute appropriately to meet their own respective costs.

11. Benefits
The establishment of the Queensland Health Centre for Skills Development will provide numerous benefits: -

Queensland Health Benefits -
- A greater level of assurance that health personnel are appropriately trained in current and new major invasive and non invasive/minor invasive procedures;
- Reduction in hospital costs from more controlled introduction of new technology by a better skilled workforce,
- Likely reduction in the costs of procedure-related and poor communication skills related mishaps and their resultant medico-legal settlements;
- Enhanced reputation as a quality employer that provides quality training (both clinical and non-clinical) to its employees,
- Enhanced integration of multi-disciplinary clinical education;
- Reduced duplication of resources ie. clinical material and people,
- Opportunity to influence tertiary course design and development that ensures new graduates are 'work ready';
- Enhanced opportunity for joint ventures/research regarding clinical skills attainment;
- Opportunity to share/enhance clinical skills attainment with external clinicians eg. through audiovisual technology linkages;
- Medical emergency assessment planning, implementation and evaluation opportunities enhanced in a controlled clinical skills laboratory setting,
- 24-hour per day option for on-line learning;
- Improved knowledge management through the sharing and dissemination of clinical systems improvements and innovations, and
- Standardised approaches to clinical care provision.

State Government Benefits -

- Acquisition of a world class training and research facility will ensure that Queensland Health has a highly skilled workforce which facilitates continuing professional development, positioning Queensland as the Smart State,
- The ability to deliver clinical education using simulated environments with a direct impact on the promotion of safety in health care delivery,
- The ability to provide sophisticated continuing education to staff throughout Queensland, using the Centre's state-of-the-art facilities and its extensive telecommunications facilities;
- The creation of a collaborative research centre for simulation technology;
- Confidence that health professionals are trained to a world class standard in the latest surgical techniques;
- The reduction in costs of surgical complications and their resultant medico-legal settlements, and
- Opportunity for better surgical treatment for patients that is accurate and less invasive This may reduce length of stay in hospital and reduce the overall cost of the whole episode of care.

University Benefits -

- Partnership opportunities,
- Integration of a major element of postgraduate health education;
- The opportunity to create a major site for the development of high level computer based simulation for health training, with all the opportunities for collaboration with other university facilities in information technology – discussions have already begun with the University visualisation centre; and
- Improved competence of graduate clinicians

Other External Body Benefits (eg. Learned Colleges, Equipment Companies) -

- Partnership opportunities;
- Equipment tested in a controlled environment,
- Ability to train clinicians in use of specific equipment;
- Ability to bring external clinicians to Centre for training in a specific manufacturer's equipment; and
- Accreditation/credentialing requirements enhanced and upheld.

Community Benefits (particularly accruing to Queensland Health patients)

- The whole community benefits as health workers servicing both the public and private sector will be trained in the facility; and
- Opportunity to involve consumers in the communication skills laboratory, ie use of consenting patients or volunteers for education/learning sessions.

12. Risks

Risks associated with the Queensland Health Centre for Skills Development include.

- Inability or refusal of various stakeholder groups to collaborate and coordinate ideas, resources and learning opportunities;
- Difficulty in reducing uni-disciplinary behaviours as opposed to collaborative integrating multi-disciplinary approaches;

- Diverse stakeholder perceptions regarding access to the clinical skills laboratories versus 'ownership';
- Demands for clinical skills acquisition outweigh physical ability to resource laboratory in terms of space and equipment;
- Lack of planning, policy development and management of the Centre resulting in improper access to the resources;
- Lack of recognition of critical benefits that learning and research brings to clinical practice;
- Increasing technological advances and complexity of patient care/clinical skill acquisition demands not matched by resources available;
- Centre not able to be financially sustainable;
- Universities purchase laboratory hours which the Centre can not realistically meet;
- Difficulty in engaging staff in training programs that are off site;
- Difficulty in sourcing skilled staff for only short term activities;
- Resistance by senior surgeons to use of simulation technologies as opposed to humans/animals/cadaveric material, and
- Ethical issues in relation to use of animals/animal parts in the laboratories

13. Consultation

Consultation has occurred with. -

- Project Control Group – Queensland Health Centre for Skills Development,
- Professor Yellowlees & Professor Wootton - Centre for On-line Health, UQ;
- Dr Michael Ward – Project Sponsor, Collaborative for HealthCare Improvement;
- Professor William Egerton – Director, Post Graduate Medical Education (RBH & RWH & HSD);
- Dr Rob Boots – Staff Intensivist (RBH & RWH & HSD)
- Barry O'Loughlin – Director, Surgical Division (RBH & RWH & HSD);
- Richard Ashby – Executive Director, Medical Services (RBH & RWH & HSD);
- Kate Copeland – Manager, Capital Works Branch;
- Susan Mahon – Manager, Organisational Improvement;
- Anita Hansen – Program Area Manager, Patient Complaints and Surveys;
- Mary Montgomery – Executive Director, Nursing Services (RBH & RWH & HSD);
- Dr John Menzies – District Manager (RBH & RWH & HSD)
- Fiona Krause - Program Area Manager, Incident Monitoring; and
- Elizabeth Garrigan - Program Manager, Quality Improvement and Enhancement Program.

14. Critical Success Factors

Queensland Health Centre for Skills Development critical success factors are listed below -

- Full commitment to a collaborative integrated strategy for skills development for multi-disciplinary groupings and other staff;
- Full endorsement and support from Queensland Health Corporate Office, the Herston campus and key stakeholders / investors;
- Full funding of capital, equipment and staffing;

- Mitigation of risk factors;
- Full compliance with policy and legislative imperatives;
- Full compliance with the quality assurance and evaluation imperatives that apply to the centre;
- Detailed communication/consultation with identified stakeholders during establishment of the Centre,
- A comprehensive marketing strategy and roll out;
- Ongoing sustainable funding / revenue generation for ongoing investment in high tech equipment /teaching personnel;
- The evolvement of a robust skills education and research Centre with University, Learned Colleges and private company affiliates; and
- Ongoing research into effective clinical teaching practices

15. Evaluation

The following criteria will be used to assess the success of the Centre's operations: -

- Number of participants per course (in person days) undertaking skill development (a) on-site (b) by remote access;
- Utilisation rate of the Centre's major facilities;
- Proportion of participants rating respective training experiences at a high level;
- Number of clinical graduates deemed competent following competency testing,
- Number of telehealth consultations for diagnosis and treatment;
- Reduction in proportion of patient complaints and litigation cases citing poor communication as a contributing factor,
- Reduction in proportion of adverse events as a direct result of procedural or equipment mishap,
- Proportion of research completed on time and within budget;
- Number of successful research projects with outcomes adopted and used to enhance training;
- Number and nature of partnership agreements where there is a contribution (financial or in kind toward the operational aspects of the Centre);
- Utilisation levels by each participating partners of the Centre's facilities;
- Operational timelines and financial commitments met within budget; and
- Level of revenue generated.

16. Reference List

Beckman, H.B , K M Markais, et al (1994). "The doctor-patient relationship and malpractice: Lessons from plantiff depositions." Archives of Internal Medicine 154(June): 1365-1370.

Ong, L.M.L , J C.M. DeHaes, et al (1995). 'Doctor –patient communication: A review of the literature." Social Science & Medicine 40(7).903-918.

Stewart, MA (1995). "Effective physician-patient communication and health outcomes · A review." Canadian Medical Association Journal 152(9): 1423-1433

Wilson et al (1995). "The Quality in Australian Health Care Study"

17. Appendices

Appendix A

Potential Centre Programs

Programs that may be delivered through the Centre once infrastructure is established:

Procedural Skills Training

Aim: To assist clinicians and undergraduates to develop and maintain technical clinical competence in the following areas:

	Brief Notes
▪ Advanced trainees in medicine	This training requires ready access to reusable learning resources e.g. haematology slides, nuclear medicine scans.
▪ Advanced cardiac life support team training	All disciplines require training in the team approach to acute medical and surgical emergencies.
▪ Otorhinolaryngology (ENT) skills	▪ Rural Medicine - management of common ENT disorders – by distant learning techniques supplemented by workshops. e g. packing the bleeding nose, removal of nasal foreign bodies. ▪ Basic ENT skills for general clinicians – indirect laryngoscopy, examination of head and neck.
▪ General Surgery training offered to basic surgical trainees, advanced trainees and practising surgeons	▪ Mastering different skills required for laparoscopic surgery practice in a simulated environment. ▪ Advanced techniques practised by leaders in the field can be demonstrated and practised in both simulated and animal models.
▪ Anaesthetic training	▪ Critical events programmed for training purposes to enable operating teams to practice individual and team responsibilities
▪ Emergency Medicine training	▪ Clinical Skills Program for Critical Care Course ▪ Regular sessions for Intern, JHO, SHO & Registrars ▪ Consultant Maintenance of Professional Skills (MOPS) ▪ Early Management Severe Burns (EMSB) ▪ Disaster and major incident training for all personnel
▪ Skills update and competency assessment	Programs developed as needs arise for all clinical disciplines
▪ Skills courses established in other sites which could take advantage of the Centre's facilities	Royal Australasian College of Surgeons Courses: ▪ Early Management of Severe Trauma (E.M S.T.) ▪ Surgeons as Educators ▪ Basic Surgical Skills Course ▪ Critical Care Surgical Patient ▪ Critical Literature Education and Research.

Health Care Enhancement Programs

Current health care enhancement programs are listed below:

Aim	Programs
To assist multidisciplinary teams and individual clinicians to understand, implement and evaluate the collection of data and use of information	▪ Evidence based practice programs ▪ Outcome indicator development programs ▪ Clinical pathway and protocol development ▪ Quality use of medicines
To assist clinicians to understand, implement and evaluate audit processes and audit tools	▪ Clinical Indicator development and application ▪ Continuous quality improvement ▪ Clinical audit processes ▪ Data analysis techniques
To assist clinicians to understand, implement and evaluate resource allocation and manage demand	▪ Cost centre management ▪ DSS and FAMMIS use ▪ Integrated bed management ▪ Demand management
To assist clinicians to understand, implement and evaluate good communication processes	▪ Team brief ▪ Doctor patient communication ▪ History taking ▪ Negotiating with patients ▪ Case conferencing ▪ Consumer participation ▪ Patient education ▪ Video conferencing skills ▪ Team building
To assist clinicians to understand, implement and evaluate clinical governance and risk management	▪ Adverse events and incident monitoring ▪ Informed consent ▪ Health legal issues ▪ Clinical supervision and mentoring ▪ Clinical risk management ▪ Service integration ▪ Discharge planning

Appendix B

Partnerships and Investments– Commercial in Confidence

Potential Investor/Partner	Estimated Investment Amount	Potential Education & Other 'return' on Investment Benefits
1 Queensland Health- Corporate Office	Approx $13.5million up-front contribution (plus recurrent growth funds of $250,000 per year for five years)	• State of the art clinical education facility for State • Minimised clinical and corporate risk • Enhanced clinical outcomes • All sectors benefit eg. Rural and provincial areas.
2 University of Queensland - Main involvement training of medical and allied health students	TBA	• Opportunity to offer state of the art clinical training and assessment facilities • Access for students to state-of-the-art facilities and clinical teaching • Ability to meet proposed Australian Medical Examination Council (A M.E.C) accreditation requirements • Ability to leverage existing investments in online health and ViSAC • Opportunity to develop programs for transmission to overseas medical students • Clinical research opportunities
3 Queensland University of Technology - Main involvement training of nursing and allied health students	TBA	• Similar benefits as for the Univ of Qld. • Opportunity to develop new courses
4 Other universities within and outside Australia eg. Griffith	TBA	• Similar benefits as for above two Universities
5 Medical Information Technology development component	TBA	• Opportunity to develop products in conjunction with clinical, teaching and research experts • Advertising rights • Strategic opportunities

6	Learned Colleges eg., R.A.C.S	TBA	• Key stakeholder involvement in Surgical Training Program for both training and existing specialists • Advisory role to Board – strategic partnership • Opportunity to develop new programs for both Australian and Overseas trained specialists • Reduced expense for trainees and rural and remote practicing clinicians • Clinical research opportunities
7	Philanthropists and other donors		• Philanthropic donations supporting education and research • Advertising rights– strategic opportunities
8	Medical Equipment / Companies	TBA	• Opportunity for companies to have their equipment assessed and showcased • Advertising and/or sponsorship opportunities
9	Other	?	• Strategic business partner opportunities

Appendix C

Terms of Reference

Queensland Health Centre for Skills Development

Board of Management

The Board of Management – Queensland Health Centre for Skills Development is responsible for establishing the strategic direction for the Centre, to monitor the operation and achievements and to nurture advancements in education research designed to support skill development of all Queensland Health staff.

Terms of Reference

- To endorse a strategic direction and operational plan to guide the Centre's operation in terms of education, training and research,
- To consider advice and recommendations provided by Advisory Committees within the domain of each Committee,
- To approve the development and conduct of new programs/courses offered by the Centre or by external providers;
- To ensure that skills development initiatives for Queensland Health staff are responsive to identified risks and promote a quality improvement approach;
- To align resources, skills and expertise with the delivery of these strategies;
- To monitor the implementation of the operational plan;
- To approve research activities designed to evaluate effective teaching techniques and use of simulation technologies;
- To endorse partnership arrangements for the support and development of educational and research activities; and
- To critically appraise, and incorporate where appropriate, international and national innovations in skill development, particularly in the areas of simulation and visualisation technology, risk management and quality improvement.

Proposed Membership:

- Director-General, Queensland Health (Chair);
- General Manager (Health Services);
- District Manager (RBH & RWH & HSD);
- State Manager, Organisational Development; and
- Two to three other people selected on the basis of expertise and enthusiasm.

Queensland Health Centre for Skills Development

Advisory Committee – Clinical Skills

The Clinical Skills Advisory Committee is responsible to the Board of Management - Queensland Health Centre for Skills Development for advice related to the planning, implementation and evaluation of all programs provided within the domain of clinical procedural and technical skill acquisition and associated learning infrastructure.

Terms of Reference

- To serve as an advisory group providing comment, guidance and recommendations in relation to the development and implementation of programs within the domain of clinical procedural and technical skill acquisition and associated learning infrastructure;
- To assess and provide advice on programs for development of skill acquisition in relation to procedural and technical skills and related simulation technology,
- To consider and advise on the value of contributions by external providers of skill development programs in order to maximise opportunities to share resources and collaborate on programs;
- To advise on the development of clinical skills required for contemporary health service delivery;
- To act as a clearinghouse for all proposals for new and expanded services in clinical skills education from internal and external sources;
- To advise on and monitor the development of the Rapid Skills Laboratory infrastructure and operating policies;
- To advise on policy development in relation to use of live animals and cadaveric materials within the Centre;
- To continually monitor advances in technology for the delivery of procedural skill education and advocate for adoption as appropriate; and
- To continually monitor the impact of competency testing and feedback from clinicians on their performance following skills education, training and assessment.

Proposed Membership:

Queensland Health Centre for Skills Development

Advisory Panel – Education and Research

Education and Research Advisory Committee is an advisory group responsible to the Board of Management - Queensland Health Centre for Skills Development for advice on educational strategy and evaluative research associated with skill development programs offered by the Centre.

Terms of Reference

- To serve as an advisory group providing comment, guidance and recommendations in relation to the development and implementation of new educational strategies and research into effective teaching techniques;
- To assess and provide advice on educational techniques and evaluative research designed to assess effective teaching strategies;
- To consider and advise on the value of contributions by external providers of programs in order to maximise opportunities to share resources and develop educational resources;
- To advise on the direction for the advancement of educational techniques and innovations that support the development of a pro-active learning culture;
- To develop relations with external providers of clinical training and ensure the coordination of development activities;
- To continually monitor advances in technology for the delivery of education and learning and advocate for adoption in appropriate disciplines; and
- To investigate research opportunities and partnership alliances for consideration by the Board of Management for advancing education, skill development and related research.

Proposed Membership:

Queensland Health Centre for Skills Development

Advisory Committee - Leadership, Management and Communication Skills Development

The Leadership, Management and Communication Skills Development Advisory Committee is responsible to the Board – Queensland Health Centre for Skills Development for advice relating to the planning, implementation and evaluation of all education and learning provided within the domain of leadership and management competence and effective communication skill acquisition.

Terms of Reference

- To serve as an advisory group providing comment, guidance and recommendations in relation to the development and implementation of programs within the domain of leadership and management competence and effective communication skill acquisition;
- To assess and provide advice on educational programs for development of skill acquisition in relation to leadership and management competence and effective communication skill acquisition,
- To consider and advise on the value of contributions by external providers of skill programs in order to maximise opportunities to share resources and develop relevant programs;
- To advise on policy development in relation to use of volunteers and/or actors within the context of effective communication skill rehearsal,
- To act as a clearinghouse for all proposals for new and expanded services in communication, leadership and management from internal and external sources; and
- To continually monitor the impact of interventions on service delivery as identified in the results of Measured Quality Outcomes and statewide Patient Satisfaction Surveys.

Proposed Membership:

Queensland Health Centre for Skills Development

Advisory Committee – IT and e-Health

The *IT and e-Health Advisory Committee* is responsible to the Board – Queensland Health Centre for Skills Development for advice relating to the planning, implementation and evaluation of all education and learning provided using information technology, telehealth and skill acquisition using e-health techniques.

Terms of Reference

- To serve as an advisory group providing comment, guidance and recommendations in relation to the development and implementation of programs using information technology innovations (telehealth, Internet, broadband and satellite medium) for provision of education and training,
- To assess and provide advice on the value and use of technology innovations that support skill development and the delivery of training programs,
- To advise on and monitor the purchase and development of the e-learning platform including management controls and operating policies;
- To consider and advise on the value of contributions by external providers of health and information technology in order to maximise the opportunities to share resources and develop cohesive programs;
- To assess and advise on new initiatives in the area of simulation and visualisation technology provided by universities and other Centres involved in the delivery of eHealth information systems,
- To act as a clearinghouse for all proposals for new and expanded skill development information systems from internal and external sources; and
- To continually monitor advances in technology for the delivery of education and learning and advocate for adoption in appropriate disciplines.

Proposed Membership:

Appendix D

Structure of the Centre

Appendix E

Position Descriptions

Appendix F

Queensland Health Centre for Skills Development - Capital and Equipment					
Total funds available to cover initial capital & equipment costs					
QIEP	8,500,000				
Growth	5,000,000				
		$ 13,500,000			
Expected capital & equipment costs in 2002 prices					
Capital	4,300,000				
Plus equipment	6,548,000				
Total expected capital and equipment costs in 2002 prices		**$ 10,848,000**			
Difference between total funds available to cover capital and equipment costs and expected capital and equipment costs		**$ 2,652,000**	**CONTINGENCY FUNDS***		
Expected use of funds available to cover	**2002/3**	**2003/4**	**2004/5**	**2005/6**	**2006/7**
capital and equipment costs	10,848,000				
Future capital and equipment costs beyond 2002/3**		?	?	?	?
Assumptions					
Equipment/capital funds and recurrent funds must be kept separate.					
No standard equipment will be donated by industry					
Cutting edge technology (eg. Haptic Bench) will be funded by partnership arrangements					
*Contingency funds may be used to purchase additional equipment, buy-in expertise/teaching to supplement lower level of recurrent funds initially					
**Future capital and equipment costs will be dependent upon approval of business cases					

Appendix G

Detailed breakdown of costs

Capital Cost of the Construction/Fit Out of Floor C & D Block 6.

Initial estimates without a completed functional brief, indicate the following costs for construction / refurbishment - approximate $4.3 M.

The estimate for construction costs as stated above, as at July 2002, has been supplied by the RBH & RWH HSD redevelopment architects, more specifically Davis Langdon Australia, as an indicative *order-of-magnitude* cost only.

Capital Cost of Teaching Equipment

The Centre requires:

- Sophisticated mannequins upon which staff can practice and secondly, electronic/computer assisted training devices including virtual reality methodologies underpinned by a robust e-learning platform.

- Generic Clinical Skills training equipment necessary to teach bedside procedural skills, basic / advanced CPR, rural readiness, recognition of pending clinical disasters, infection control, x-ray, ECG programs etc

  Dedicated surgical skills equipment could include but is not restricted to:
  - Dissection tables
  - Endoscopic stack systems
  - Surgical instruments – open surgery
  - Endoscopic instruments – disposable and reusable
  - Diathermic generators and accessories
  - Operating microscopes
  - Operating lights

- The scope of audio visual technology installed should allow for local, interstate and international live transmissions via fibre optic and satellite links, in addition to video conferencing, video projection, dual slide projection and PC presentations

- E-learning Platform

- Communications laboratory technology

- Administrative equipment – photocopier, facsimile machine, desks etc

- 'State-of-the-Art' – Haptic Bench (not included in costings as it is anticipated that 'cutting edge' technology will be sourced through partnership arrangements)

Building and Equipment Capital Cost for Floor C and Floor D Block 6

Clinical Skills Area Floor C Block 6	
Capital Building Construction	$2.6 million
Generic Clinical Skills Equipment	$4 million
Specialist Surgical Skills Equipment	$0.6 million
Audio Visual Technology	$0 8 million
E-learning Platform	$0.2 million
General Teaching Equipment	$0.158 million
Admin equipment and chairs/tables etc	$0.04million
Sub-Total C floor	**$8.4 million**
Communication Skills Area and Support Services Floor D Block 6	
Capital Building Construction	$1.7 million
Communications laboratory technology	$0.5 million
Audio/visual/office equipment	$0.25 million
Sub-Total D floor	**$2.45 million**
Total- C & D floors	***$10.85 million***