

Eastern Health

Research Strategy

Great research – the basis of great health and wellbeing

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Acknowledgement

Eastern Health Executive, with the support of the Board, has made it an organisational priority to organise and progress research activities so that Eastern Health can become a better research organisation. This Research Strategy has been finalised after feedback and comments on a draft plan was presented to and circulated among Eastern Health's staff. All contributors are sincerely thanked for their input and feedback.

September 2011



Executive Summary

- Research at Eastern Health will be enhanced by building on the level of research activities and clinical expertise already present within the organisation and in collaboration with partners such as the universities.
- Increasing research is consistent with the directions detailed in the Strategic Plan (2010 – 2015) to provide great health and wellbeing.
- This Research Strategy was prepared after considering these strategic directions and reviewing the current research metrics such as publications, research grant income, the number of research students and ethics committee applications.
- From these metrics the current research strengths at Eastern Health are in the fields of:
 - Oncology
 - Drug and Alcohol
 - Endocrinology
 - Neurology
 - Care of the Aged and
 - Gastroenterology.
- The opportunity exists to enhance research by increasing collaborations across Eastern Health and with partners such as the universities in these areas of research strength and those areas with clinical expertise such as:
 - Mental Health
 - Renal medicine
 - Haematology and
 - Community and acute care interface.

Research activities can include clinical trials, multi-professional training and clinical service delivery and health services research. In particular it has been identified that Eastern Health could position itself as a key leader in health services research.

- The improved outcomes will be achieved by increasing research infrastructure and governance and will be evidenced by increased research grant income and increases in the number of publications, research students and clinical trials.
- Improved governance structures and enhanced Eastern Health/university linkages are recommended with the formation of the Research Advisory Committee to complement the Eastern Health-University Academic Council.
- It is recommended that it will be the responsibility of the Office of Research and Ethics to lead and implement the Research Strategy with oversight and direction from the Eastern Health Executive.

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History

Five years ago Eastern Health elected to organise and progress its research activities so that it could become a better research organisation. In 2006 a Manager of Education and Research was appointed. An overarching Education and Research plan was developed, which had as one of its four key strategies that the organisation would:

“...support clinical and translational research that is aligned to existing services and service development, to improve patient outcomes and provide opportunities for staff to participate in programs of research.”

The organisation determined that in order to better understand Eastern Health’s current research profile, all research should be systematically documented. For the past three years, this activity has formed the basis of, and has been reported in, the annual Eastern Health Research Report. This has informed the organisation where its research strengths lie.

In 2010 an organisational strategic plan was created. As part of the planning process the role of education and research was extensively discussed. It was argued that Education and Research were different entities and as such management of these areas would require differing skill sets. It was therefore determined to appoint a dedicated Director of Research who would head an Office of Research and Ethics. The new director was appointed in mid 2010.

Eastern Health recognises that there exist significant research institutes in Melbourne which already have expertise in specific areas of endeavour. Eastern Health does not consider these institutes research rivals; rather they inform the organisation about which areas of endeavour it would be redundant to pursue. It is self-evident that replicating research would not serve the community well. Therefore, Eastern Health is committed to finding its own area of research endeavour which is relevant and which informs the care of our community.

The 2008, 2009 and 2010 Research Reports have clearly demonstrated that Eastern Health staff undertake research in many forms and in many disciplines. The methodology of this research includes literature reviews, survey research, action research, experimental research, evaluation and performance measurement, clinical trials, epidemiological research, qualitative research and quantitative research. In short all known types of research are currently being undertaken at Eastern Health. The nature of the research is equally varied, ranging from laboratory to translational clinical research at the bedside.

The challenge for Eastern Health is to create coherence out of this wealth of diverse research.

Introduction

Eastern Health provides a comprehensive range of high quality acute, sub-acute, palliative care, mental health, drug and alcohol, residential care and community health services to people and communities that are diverse in culture, age, socio-economic status, population and healthcare needs.

We deliver clinical services to more than 700,000 people through seven Clinical Programs from more than twenty-five different locations. Our services are located across 2,800 square kilometres in the east - the largest geographical catchment area of any metropolitan health service in Victoria. We employ over 8,000 people, deliver more than 800,000 episodes of patient care each year and manage a budget approaching \$700m per year.

We aspire to be GREAT in everything that we do. We focus extensively on continuously building a high quality health care system for the people we serve and through which we can also attract and retain the best staff. We have an active education and research focus and strong affiliations with some of Australia's top universities and educational institutions. As a progressive, responsive and innovative health service, we demonstrate our commitment to excellence through external accreditation with the Australian Council on Healthcare Standards.

The Eastern Health Strategic Plan (2010 – 2015) contains five overarching strategic directions. Eastern Health aims to be:

1. A provider of great healthcare
2. A great patient experience
3. A great place to learn and work
4. A great partner with our communities
5. A great achiever in sustainability.

Eastern Health has significant research activity in many forms and in many disciplines. The objective of the Eastern Health Research Strategy is to build on the existing research activity to address the strategic directions and to:

- Position Eastern Health as a premier health service engaged in research
- Collaborate with our university partners and others to engage in research, education and training in the disciplines of medicine, nursing and allied health
- Become recognised as a leader in translational research where current and proposed clinical practices are informed and improved by research
- Be a respected source of opinion and advice on health matters and provide a leadership role locally, state wide, nationally and internationally.

The following includes a review of current research activity and details of some of the ways the research plan can be aligned with the strategic directions. The research strategy is for the period 2011 to 2013. The measures of success of the plan will be the development of and embedding of a research culture across Eastern Health. Consequently there will be regular monitoring of the ongoing success and the development of updated strategies as required.

Current research activities

The 2009/10 Eastern Health Research Report was the third research report published. It provided some valuable insights as to the extent of research activity and a number of measures that serve to identify areas of existing research strength. These include the number of ethics applications, grant income, publications and the number of clinical trials.

1. Publications

In 2009/10 there were 285 publications listed in the research report. This figure includes peer reviewed publications (including some which were in press), forty-seven from collaborations (often large multi-centre studies with the lead authors not being from Eastern Health), and communications and presentations (some of which were peer reviewed). Medicine contributed 123 peer reviewed journal articles to the 285 publications.

2. Students undertaking research at Eastern Health

Another measure of the robustness of the research being undertaken at Eastern Health is the number of postgraduate research candidates who are attached to Eastern Health services. In 2010 there were 60 postgraduate candidates undertaking research degrees at Eastern Health (Table 1) through affiliations with 8 universities (Figure 1). These were doctoral, masters and honours degree candidates undertaking either full or part time study.

Table 1. Postgraduate Research candidates in 2010

Degree	Number	EFT
PhD/Doctorate	33	25
Masters	12	9
Honours	15	13.5
Total	60	47.5

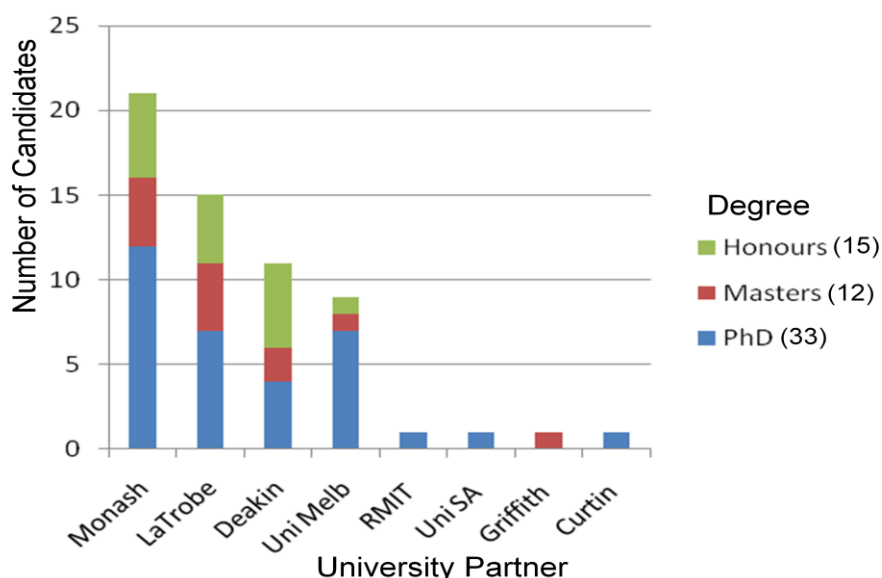


Figure 1. Number of research degree candidates at Eastern Health and their university affiliations.

3. Research Grant Income

The 2009/10 Research Income reported in the 2009/10 research report was \$18,796,722 (Table 2).

Table 2. Research Income in 2010 as reported in the Eastern Health 2009/10 Research Report

Eastern Health 2009/10 Research Income	
Grant income (\$)	6,632,832
Clinical trials (\$)	3,000,000
Multisite grant income (\$)	9,163,890
Total 2009/10	\$18,796,722

Grant and Clinical trials incomes are the annual values. The multisite grant income is the grant's total value as it is not possible to accurately apportion the value or duration of the project to Eastern Health investigators.

Examination of the internal Eastern Health financial reports reveals that approximately only one tenth of the reported grant income is managed through Eastern Health accounts. The remainder is managed by our university partners, such as through the Monash University's Faculty of Medicine Nursing and Health Sciences Eastern Clinical School and Eastern Clinical Research Unit (ECRU).

4. The number of Human Research Ethics Committee Applications

In 2009/10 there were 198 research ethics applications from all discipline areas (Table 3). Of these 189 were submitted to the Eastern Health Human Research Ethics Committee. This included 101 moderate-to-high-risk projects and 88 negligible or low-risk projects. The remaining nine projects were submitted under the Victorian Single Ethical Review Program (SERP).

Table 3. Number of Eastern Health Ethics Applications to the Ethics Committee and Victorian Single Ethical Review Program from identified discipline/theme in 2009/10

Discipline / theme	No. of Applications
Allied Health	15
Medicine	130
Mental Health	18
Nursing & midwifery	15
Pharmacy	1
Turning Point Alcohol & Drug Centre	19
Total 2009/10	198

The total number of Ethics Committee applications per annum has been reasonably constant over the past few years. The number of moderate-to-high-risk projects submitted to the Eastern Health Human Research Ethics Committee has started to decline due to the worldwide reduction in the number of clinical trials together with the implementation of SERP in November 2009.

Areas of Research Strength at Eastern Health

From the activity measures it is possible to identify 30 separate research groups within Eastern Health. The top 10 research active groups are responsible for 75% of the ethics applications, 80% of the clinical trials and attracting over 86% (excluding multisite income) of research grant income (Table 4). Medicine is well represented in the top 10 research active groups. Oncology and Endocrinology and Diabetes have developed considerable skills in undertaking clinical trials whereas Neurology has attracted significant grant income. By contrast Allied Health and Palliative Care have increased their research activity without major grant income. Turning Point Alcohol and Drug Centre is different to other sections of Eastern Health as it has a smaller focus of clinical service delivery and is instead aiming to continue its recognition as a leading alcohol and drug centre that is based on significant research outcomes.

Table 4. Top 10 research active groups by number of Ethics Committee applications in 2009/10

Activity Rank	Discipline/theme	Research group	Ethics applications		Grant income (\$)
			All	Clinical trial	
1	Medicine	Oncology	24	17	*In combined
2	Turning Point Alcohol & Drug Centre		19	0	2,923,377
3	Mental Health		18	1	0
4	Medicine	Endocrinology	16	15	197,000
5	Medicine	Neurology (MS, Stroke etc)	16	3	543,402 Multisite 5,363,890
6	Nursing & midwifery		15	0	557,310
7	Allied Health		15	0	12,100
8	Medicine	Care of the Aged	9	0	Multisite 1,800,00
9	Medicine	Gastroenterology	9	3	*In combined
10	Medicine	Palliative Care	9	0	0
	Medicine – Clinical trials				3,000,000
	*Combined medicine including ECRU				1,083,100 Multisite 2,000,000
Total (% of Eastern Health) in 2009/10			150 (75.8%)	39 (79.6%)	8,316,289 (86.3%) excluding multisite income

*The Combined figure is the grant income for a number of Medicine groups as it is not possible from the information provided to identify more accurately the grant income reported.

Despite the successes of the past the challenge is to optimise the research activities of Eastern Health to not only increase the research profile but more importantly improve the health and well being of the community by ensuring that the most contemporary health care is delivered by being involved in clinical service delivery research.

Areas of Research at Eastern Health

Currently researchers at Eastern health are involved in quantitative and qualitative research, from double blind crossover interventional studies to observational studies regarding patterns of drug abuse in young people. The top ten research groups by ethics applications (see Table 4) are clearly engaged in fundamental and basic research and include:

- Oncology
- Drug and Alcohol
- Mental Health
- Endocrinology
- Neurology
- Care of the Aged and
- Gastroenterology.

Other research active areas such as Renal Medicine and Respiratory and Sleep have attracted grant income which positions them to contribute to the world literature.

Research Themes

The following schematic illustrates how Eastern Health’s disciplines intersect with the themes of research and work of the organisation (Figure 2).

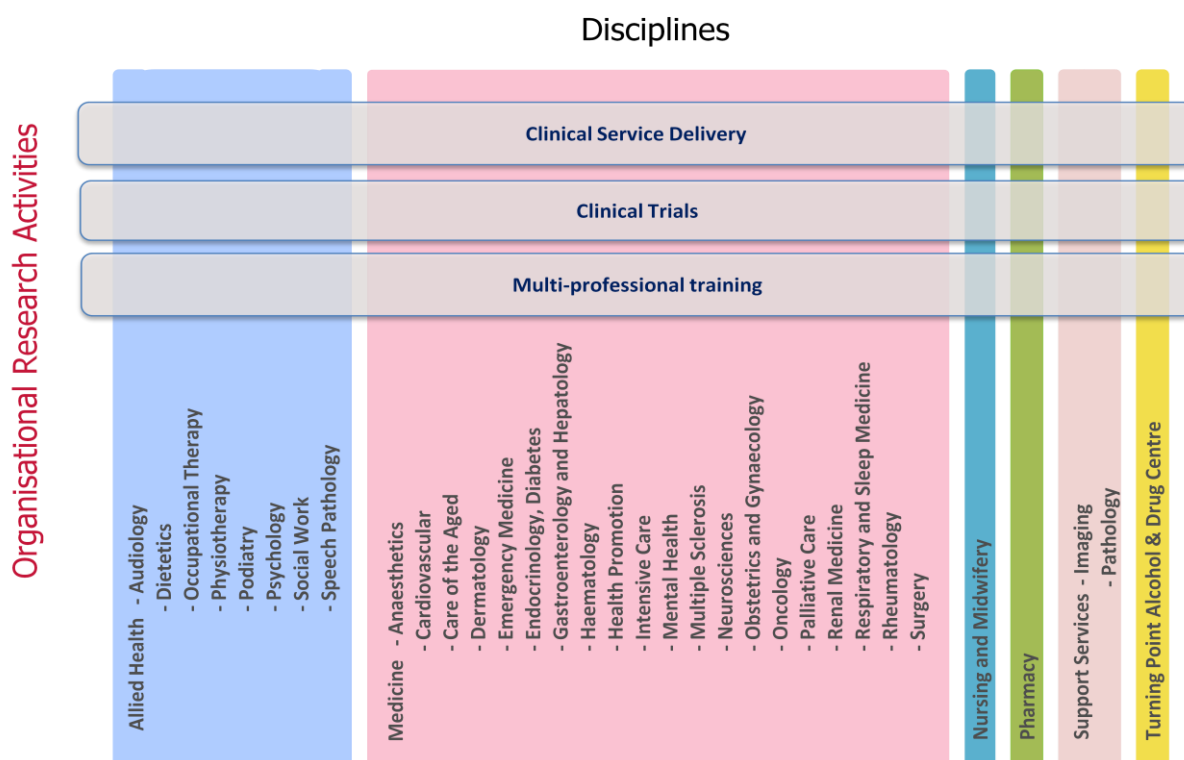


Figure 2. The diversity of the themes and disciplines within Eastern Health and collaboration with internal and external partners.

Clinical Trials

An area of research strength is clinical trials as evidenced by the number of clinical trials being undertaken at Eastern Health. It is also an acknowledgment from external pharmaceutical companies that Eastern Health’s clinical work is a valuable resource in itself. Whatever research focus is taken it would seem sensible to support this area of research endeavour if only because its profitability supports, in turn, other areas of research.

Multi-professional training

Multi-professional training is becoming an emerging strength and can be enhanced further. For example the Victorian Managed Insurance Authority (VMIA) is partnering with Eastern Health to implement a world renowned multidisciplinary team work training program for obstetric emergencies. The Practical Obstetric Multi-professional Training (PROMPT) pilot project involves joint training with obstetricians and nursing and midwifery practitioners. Complications of child birth are a major source of claims to the VMIA. Ineffective teamwork is widely recognised as a significant causative factor in obstetrics incidents. This is further compounded by fragmented training for the multidisciplinary team. The program, developed in the UK, uses a 'train the trainer' model to roll out the program across four major Victorian Hospitals.

Clinical Service Delivery

In terms of clinical service delivery, many disciplines are now actively examining their therapeutic interventions with a view to determining best practice. An example of an activity which is aligned with Clinical Service Delivery is the determination by the Eastern Health General Practitioners Liaison Committee to prioritise three strategic targets to work towards. These include improving electronic communication for and with local General Practitioners, to further develop educational opportunities at Eastern Health for local General Practitioners, and to identify at least one chronic disease group which could benefit from closer cooperation between the health service and the GP community. Similarly Care of the Aged and Turning Point Alcohol and Drug Centre both have significant interactions with external partners such as Ambulance Victoria and the Department of Health.

It is clear, that the reason for Eastern Health's existence is for the provision of care to the patients who attend its service. The organisation's efforts are systematically directed, from every unit, laboratory and office, to the ultimate goal of delivering clinical care to the citizens who receive care. While all efforts are made to deliver the best care possible it is to be acknowledged that the outcomes are not systematically scrutinised. Given the diversity of its clients and its engagement with the community, Eastern Health is ideally placed to undertake operational research around Clinical Service Delivery and potentially involve multiple disciplines (Figure 2).

Health Service Clinical Research

As a large health service Eastern Health is well positioned to undertake health service clinical research. In addition "in-hospital" clinical research programs can more immediately inform and change current clinical practice.

The literature is replete with articles related to how new drugs, techniques or therapies impact on patient outcomes. What is missing from the literature is a body of work describing how effective or damaging are our currently accepted care practices. Many of these have arisen out of custom and habit, and remain unexamined. It is recommended that Eastern Health develop expertise in observational, descriptive and epidemiological research so that evaluation of treatment and care practice become a major theme for the organisation to pursue. This would constitute a fundamental change in how research is conducted at Eastern Health and involves an alteration in the organisation's research culture.

Another research opportunity for Eastern Health is to systematically engage with its community partners to examine the "border lands" of care between the community and the hospital. Why patients present at acute care services and what can be done to avert these presentations remains largely unexamined. Eastern Health could cooperatively work with its community partners to facilitate research which informs planning toward improved service integration and continuity of care.

Eastern Health Research Directions

In summary, Eastern Health's research endeavours should mirror the clinical work it undertakes and target the issues concerning our funding agencies. It is recommended that organisational themes of basic clinical research be developed in the areas of:

- Care of the Aged
- Mental Health
- Acute Care of the medically unwell
- Drug and alcohol dependency
- Community and acute care interface.

In addition, recognition should be given to specific chronic conditions around which Eastern Health has developed a significant research capability which has informed and enhanced care. These include:

- Gastroenterology - Chronic inflammatory bowel disease
- Oncology/haematology – clinical trials related to new treatments
- Neurology such as multiple sclerosis
- Renal medicine.

Conclusion

Eastern Health's strength in research must grow out of its main business of delivering care to patients. Eastern Health should not prescribe what type of research a researcher can undertake. It should nevertheless, in the interest of efficiency, highlight to staff areas of strategic research strength. While laboratory based research is not to be discouraged when it is undertaken by an expert researcher who has adequate funding, this should not compromise the organisation's strategic research goals which must be based in the main work of the organisation, the care of the acute and chronically unwell patient population.

Attachment 1 - Research Strategy Implementation Plan

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1. Expand research infrastructure support

Research activities within Eastern Health have been conducted within different departments and divisions with only minor organisational infrastructure support. The organisational support thus far has come from the Eastern Health Human Research and Ethics Committee, the Library and Information Technology Services.

Expanding the existing infrastructure support through the Office of Research and Ethics would yield an increase in research outputs as it would encourage more investigator initiated research. The most active groups are those that can access additional infrastructure resources provided by university partners, drug companies or research (grant) income. For example the activity displayed by oncology is a direct consequence of their ability to conduct clinical trials as well as (with the exception of breast cancer) being part of Eastern Clinical Research Unit (ECRU) within the Eastern Health Clinical School of Monash University's Faculty of Medicine Nursing and Health Sciences.

Turning Point Alcohol and Drug Centre is different again in that until recently it was a relatively independent organisation which had developed its own research support and infrastructure systems.

The importance of research infrastructure support is also evidenced by the progress Allied Health have made through the establishment of the Allied Health Research Committee and strengthening links with La Trobe University which enables access to their research infrastructure.

Expand research infrastructure

- Enable research activities by providing education, training and advice in:
 - Research methods
 - Research integrity and ethics
 - Biostatistics
 - Epidemiology
 - Literature review methodology, bibliography management.
- Provide grant application support:
 - Identify grant opportunities
 - Liaise with partners to develop research proposals
 - Establish a small grants scheme
 - Work with Eastern Health Foundation to identify funding opportunities.
- Monitor the number of staff involved in research and their research activity as:
 - Dedicated research only (RO) or
 - Clinical, teaching and research (CTR), fellowships.
- Record in an ongoing and standardised manner the details of research activity and research projects including the financing, staffing, ethics applications, publications and outcomes
 - Establish organisational monitoring systems that allow accounting of research finances and by better accounting determines the true cost of research at Eastern Health.
- Complete individual Memorandum of Understanding with appropriate partners to provide evidence of desire and preparedness to enter into collaborative research programs.
- Enhance communication by:
 - Website – intranet
 - Research at Eastern Health Newsletter
 - Eastern Health Research Seminars
 - Enhance connectivity with university partners.

Outcome:

- Updated Research and Ethics website
- A data base of Eastern Health researchers searchable by research interests and expertise
- A calendar of research grant opportunities
- Eastern Health Small Grants Scheme
- Eastern Health Foundation support for a project
- Eastern Health Seminar Program with topics alternating between Research Methods Education and Research Presentations
- A list of research costs to assist researchers budget for research projects
- Review and establish where necessary Memoranda of Understanding with research partners
- Appropriate data bases to record research activity, including but not limited to ethics applications, grants, publications and clinical trials

2. Increase the number of Eastern Health Publications

Although there is a reasonable correlation between the number of projects and the number of publications emanating from that research, in some areas there seems to be a disconnect whereby investigators are either slow to convert research into publications or in some cases do not publish at all. At the very least it is an inefficient use of limited resources not to maximise outcomes by publishing and therefore adding to knowledge or improving delivering of clinical services. In addition the contribution of participants is not fully acknowledged and rewarded if results are not appropriately disseminated.

Increase the number of Eastern Health Publications

- Encourage greater conversion of the outcomes of research to be disseminated in the most contextually appropriate form
- Ensure Eastern Health is acknowledged, such as in the by-line
- Provide bibliographic resources/tools (for example, Endnote®) and training delivered through the library

Outcome:

- Number of Eastern Health publications increased

3. Increase the number of research students

There is an existing level of research studies being undertaken within Eastern Health which would be enhanced by increasing the number of both full and part time research students. This would both create the opportunity for staff to increase their research skills and qualifications and also contribute to a research culture across Eastern Health.

Increase the number of research degree candidates at Eastern Health

- Promote research opportunities
- Provide scholarships to undertake research degrees
- Increase profile and attractiveness of Eastern Health as a site to undertake research degrees
- Strengthen university linkages by increasing the number of adjunct academic appointments

Outcome:

- Increased number of research students
- 3 research scholarships awarded in 2012 - 2013

4. Apply for certification of the Ethics Committee

Certification and accreditation of the Ethics Committee would provide recognition of the expertise and diligence within the Office of Research and Ethics as well as enable the Ethics Committee to review multisite applications such as those submitted under the Victorian Single Ethical Review Program (SERP).

- Apply for national certification in the next round of certification in July 2011
- Establish a panel of medical reviewers to provide expert advice to the Ethics Committee
- Propose to the Victorian Consultative Council for Human Research Ethics for accreditation of the Ethics Committee. Accreditation currently requires an invitation from the Consultative Council.

Outcome:

- National certification the Eastern Health Ethics Committee
- Accreditation of the Ethics Committee by the Victorian Consultative Council for Human Research Ethics

5. Governance

Research governance and relationship with university partners

Eastern Health and its university partners have education and research as common activities, although they account for different proportions of their respective total activities profile. Clinical services delivery is the predominant function of a health service whereas education and research are the major functions of a university. The governance of the Eastern Health's education and research partnerships with a number of universities needs to be considered alongside Eastern Health's responsibility for clinical service delivery. Furthermore in view of the number of partners it is appropriate for Eastern Health to maintain the current research governance independence.

Organisational Structure

The organisational structure needed to efficiently manage research activities involves consideration of the major organisational activities of Eastern Health and its university partners. A proposed organisational structure is shown in Figure 3.

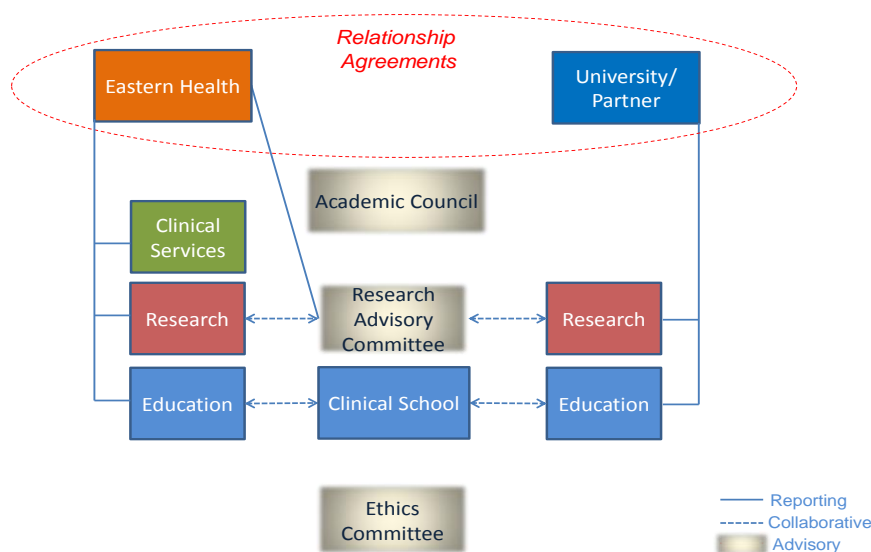


Figure 3. Proposed organisational structure between Eastern Health and its university partners.

In this structure the three primary functions of Eastern Health complement and underpin those of the Universities. The governance between the organisations allows for organisational autonomy with coherence of purpose achieved by cooperation. The Eastern Health University Academic Council is the overarching body where issues are addressed, commonalities established and policies agreed. This council is where universities are given the opportunity to advise and formally express their positions in relation to research and education at Eastern Health. With each of its eleven university partners Eastern Health has cemented these relationships by:

- Memoranda of Understanding or Relationship Agreements
- Student placement Agreements
- The Eastern Health Clinical School and
- Shared employees whose work is governed by mutually agreed position descriptions – e.g. clinical professors.

Eastern Health will remain independent and will maintain oversight of all research undertaken in Eastern Health's name and be the final arbiter regarding the organisation's strategic research directions which will be implemented by the Office of Research and Ethics. Governance through the Office of Research and Ethics will enable the monitoring of risks associated with research.

Research Advisory Committee (RAC)

It is proposed that the "research link" between Eastern Health and the universities will be the Research Advisory Committee (RAC) which in turn would be advised by the Eastern Health-University Academic Council. The Research Advisory Committee's principal function would be to assist with strategic planning and the identification of research priorities. The Research Advisory Committee would report to the Chief Medical Officer. The Research Advisory Committee could have a membership comprising researchers who represent their professional groups and who also have an appointment or affiliation with a university. The membership would be supplemented by delegates representing the management of the Universities, Eastern Health and relevant stake holders.

The Office of Research and Ethics will be responsible for the implementation of agreed procedures to:

- distribute scholarships
- distribute funds to promote agreed upon research strategies
- investigate breaches of research protocol and complaints, and
- make recommendations regarding the disciplining of researchers who have breached research protocols.

This structure would strengthen collaboration while maintaining separation of funding and accountability for academic and clinical functions.

Outcome:

- Research Advisory Committee established

Summary

The Eastern Health Research Strategy will be implemented during 2011 to 2013. It is a long term strategy that aims to build on the existing research activity and develop a research culture in a health service. Having a longer term timeframe would restrict the organisations ability to take advantage of opportunities to address needs and advances in technologies. Consequently the research strategy will be under regular review by the Research Advisory Committee who in turn will advise the Eastern Health Executive. The Office of Research and Ethics will implement the strategy. The enhanced infrastructure and governance planned will enable Eastern Health to maximise the research opportunities in collaboration with the universities and other partners.