THE HAWKE'S BAY MEDICAL RESEARCH FOUNDATION INC.

52ND ANNUAL REPORT 1ST APRIL 2012 – 31ST MARCH 2013

MEDICAL RESEARCH WITH A HAWKES BAY EMPHASIS

HBMRF

WELCOME TO THE ANNUAL REPORT FOR 2013

The year has been relatively quiet for the Foundation. The only change to Council was the appointment of Dr Rob Leikis to replace Dr Jeremy Meates.

Financially 2013 was a much better year than the last few years. This is due in part to a large bequest and an improved return on our investment portfolio (in line with an improvement in the markets). We also saw a modest reduction in our expenses. Overall we had a net operating surplus before grants of more than $280,000, the best result in my time with the Foundation. As with many organisations in the charitable sector, we are totally reliant on our community for funding. I am grateful to our members and also to all those who make donations to help our work.

In line with our normal practice, the Foundation made grants in excess of $40,000 (including 2 studentships). If the Foundation can continue to operate at a surplus I expect that we will be able to make more grants in the future. We are justifiably proud of the research we have funded and thanks must go to our scientific committee led by Cath Kingston for their work in assessing the applications for funding. Reports on the current research projects funded in whole or in part by the Foundation are included in this Annual Report.
I continue to be grateful for the assistance and forbearance of all the members of Council and, in particular, Mrs Judy Baxter (secretary) and Mr Michael Jackson (treasurer) for the assistance they provide.
I am pleased to report that the affairs of the Foundation are in good order.

Andrew Wares – President

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COUNCIL AND OFFICE BEARERS 2013

President	Mr Andrew Wares	
Council	Mr Bill Dalton	Nominee, Mayor of Napier City Council
	Mrs Judith Baxter	Nominee, Mayor of Hastings District Council
	Mrs Di Petersen	Nominee, Mayor of CHB District Council
	Ms Benita Cairns	Nominee, Mayor of Wairoa District Council
	Dr D M Barry	Appointed by Members of the Foundation
	Ms Cath Kingston	Appointed by Members of the Foundation
	Mr Kevin Atkinson	Hawke's Bay District Health Board
	Dr P Hendy	NZ Medical Association – HB Branch
	Dr Rob Leikis	Staff, Hawke's Bay Hospital
	Prof Bob Marshall	Appointed by Council
	Mrs Brenda Fine	Appointed by Council
	Mr Andrew Wares	Appointed by Council
Solicitors	Carlile Dowling – Napier	
Medical Director	Dr D M Barry	
Secretary	Mrs Judith Baxter	
Treasurer	Mr Michael Jackson	

MEMBERS OF COMMITTEES

Scientific and Health Services Committee

Dr D M Barry
Dr Paul Hendy
Dr M Arnold
Cath Kingston (Chair)
Prof Bob Marshall
Judith Baxter

Finance and Investment Committee

Mr Andrew Wares
Mr Michael Jackson
Mr Bill Dalton
Mr Kevin Atkinson
Mrs J Baxter (Secretary)

DONATIONS AND BEQUESTS

For the Year Ended 31st March 2013

D R Atkinson
C M August
P C H Baker
M E & N G Bayliss
G Broadhurst
J D & A P Dine
M Dine
P Dunkerley
C J Fan
D Glenny
R G H Harris
F A B Hosking
M S C Jolly
A Lopdell
B J & M A McLeod
W Thompson
Estate John Lock
J McConnochie
I McQuilliam
D G L Millar
A E McIntosh
D & C Patterson
D Peterson
R Povey
B Ritchie
V Roberts
A Sheppard
B Stark
J K Titchener
C K Tatum
Taradale Medical Centre
D Taylor
J Young
J O'Sullivan

HONORARY MEMBERSHIP

Dr I McPherson
Mr A Train
Mr H Verry
Mr M Collett

LIFE MEMBERS

Mrs M Amyes
Dr P Bannister
Dr D M & J Barry
Dr G Beacham
Dr J T L Beaumont
Mr G W Bennett
Mr S Bentall
Mr & Mrs G J Bowes
Mr & Mrs J A Brownlie
Mr R H Chisholm
Dr D Davidson
Dr D Doig
Dr G Duncan
Dr C H Dykes
Dr J D Eames
Dr R M English
EIT Hawke's Bay
Dr S Foote
Mrs W Forster
Dr B L Gare
Hastings District Council
H.B. Regional Council
Dr M J Houliston
Dr R Henderson
Dr R Janes
Dr S Jessop
Mr L J Knight
Dr J Kerr
Dr D A Lawson
Dr A J Luft
Dr D F C Mason
Medical Association of NZ HB
Dr R J Meech
Dr H Meyer
Mrs A S Munroe
Napier Lions Club
Dr R G Neal
Dr N W Nicholson
NZ Dental Association
NZ Nurses Association
Dr P O'Brien
Dr C Proehl
Dr J A Rose
Dr M J Short
Dr L Smales
St. Paul's Presb Thrift Shop
Dr I Taylor
Dr T J Mason
The Doctors, Hastings
Mrs M Travis
Mr R H Thomson
Dr P Twigg
The Hastings Health Centre
Dr B J Van den Heaver
Mrs J Velvin
Dr J S Wakeman
Dr R Wills
Dr M G Wiggins
Mrs M Wilson

MEMBERS

Dr D R Atkinson
Mr C M August
Dr P Baker
Dr J Bannister
Mr & Mrs N G Bayliss
Dr R & J Benjamin
Mr G Broadhurst
Mrs M Brougham
Mr & Mrs J D Dine
Mrs M Dine
Mr A H Duncan
Mr P Dunkerley
Dr C J Fan
Mrs B Fine
Mr P Gipson
Mrs E D Glenny
Dr E W Gush
Mrs S Hansen
Dr R G H Harris
Dr P Hendy
Mrs F Hosking
Dr M S C Jolly
Mr & Mrs B Lopdell
Mr R Lutter
Mrs J McConnochie
Mrs A E McIntosh
Mr & Mrs B J McLeod
Dr I W McQuillian
Mr & Mrs D Millar
Mr A G H Parker
Mr & Mrs D Patterson
Mrs D Peterson
Mrs R Povey
Dr J Pratt
Dr B Ritchie
Dr V Roberts
Mrs A Sheppard
Dr B Stark
Mrs D Taylor
Mrs C K Tatum
Taradale Medical Centre
Dr W Thompson
Dr J K Titchener
Dr J Vaughan
Mrs J Young

THE FOUNDATION

In November 1960 a small number of people in Hawke's Bay met and discussed the importance of medical research in New Zealand and the feasibility of carrying out worthwhile research in Hawke's Bay.
In particular it was noted that the doctors in Hawke's Bay who had undertaken specialist training overseas found, on coming home, a partial vacuum because of the lack of research facilities available locally. It was agreed that there was a need for facilities to be made available.
The first meeting to establish the Hawke's Bay Medical Research Foundation was held on 16th March 1961 and the Foundation was registered shortly thereafter under the Incorporated Societies Act 1908. The objects of the Foundation are to promote, initiate and support research in all health related fields including medical and health education, knowledge and understanding.
A governing body was set up comprising representatives of the Hospital Board, the medical profession, local authorities and Members of Parliament.
Anyone could become a life member on payment of 100 pounds or a subscribing member on paying 1 pound annually. These rates converted to $200 and $2 by introduction of decimal currency, but from 1 April 1994, became $150 and $10, with corporate membership being $200.
Current rates are as follows: Life Membership $200. Annual Subscription $10. Corporate membership equates to: Gold: $10,000. Silver $5,000 and Bronze $2,000. A framed certificate is presented in appreciation of the grant or donation. Donations over $5, and gifts and bequests are eligible, within limits, for tax exemptions and rebates.
The Foundation receives the wholehearted support of the Local Authorities, Service organisations and people of Hawke's Bay, and continues its role in medical research. Over the years the funds not used for research have been built up by donations, bequests, wise investments and recognition as a charitable organisation for taxation purposes.
Funds have been made available for research into many areas and these include asthma, arthritis, cancer, cot deaths, diabetes leukemia, heart disease, mental health and community health. It is important that the existence of the Foundation should be widely known and that the funds are available to encourage and assist health research and training.
Enquiries as to membership of the Foundation are available by going on-line, click on the home page (Donate Now) button and information on membership, the paying of subscriptions and donations to the Golden Jubilee Fund is available. The bank account number is included for people wishing to make a direct bank deposit. Bequests have been significant in the building up of funds and it can be of advantage to make a gift or legacy for research. A bequest may be made in the following form:

> *I give and bequeath to the Hawke's Bay Medical Research Foundation Inc the sum of (or description of property or assets given) for the general purpose of the Foundation (or other specified purpose) for which receipt of the Secretary of the Foundation shall be a good discharge to my trustee.*

Remember donations in lieu of floral tributes are acknowledged by the Foundation and next of kin or executors can be asked to specify that donations in lieu of floral tributes be made to the Foundation on death. This can be done by including a suitable request in the obituary notice.

Information is available on request from:

The Secretary
Hawke's Bay Medical Research Foundation
P O Box 596
NAPIER

Website: hbmrf.org.nz
Phone and Fax: 06 8799199

TRUST FUNDS ADMINISTERED BY THE FOUNDATION

HAWKE'S BAY ELECTRIC POWER BOARD JUBILEE CHILDREN'S FOUNDATION TRUST

This Charitable Trust was formed in 1974 for the purpose of financing and encouraging research into illnesses and handicaps of children, whether caused by disease or accident and financing the care and treatment of children.

In August 1999 the Hawke's Bay Medical Research Foundation was appointed Sole Trustee of the Hawke's Bay Electric Power Board Jubilee Children's Foundation Trust.

A recent donation of $20,000 was made from this Trust to The Hastings Health Centre "Family Violence Intervention Programme" to enable the evaluation of the Programme to continue.

This research is N.Z.'s first comprehensive programme of screening, identification, assessment, support and referral for both partner and child abuse in Accident and Medical and General Practice settings.

GEORGE FORSTER MEMORIAL TRUST

This Charitable Trust was established in 1993 in memory of the late George Forster. The purpose is to further the education of medical and allied staff in Hawke's Bay.

The main aim of the Trust is to sponsor lectures conducted by experts or specialists organized by the Trustees to be held in Hawke's Bay or elsewhere in New Zealand. The lecture or seminar held is known and promoted as the George Forster Memorial Lecture.

A further aim is to support educational programmes and attendance at such programmes by the medical and allied staff (full or part time).

RESEARCH FUNDED BY THE FOUNDATION

BIKES IN SCHOOLS – YEAR 2

Professor Bob Marshall: EIT Hawke's Bay
Hawke's Bay Medical Research Foundation: $18,353

Introduction: The Bikes On Charitable Trust is the brain-child of Paul McArdle and Meg Frater, private individuals who have planned, organized, and supported the majority of the implementation of the Bikes in Schools project at the three initial schools: St. Mary's, Peterhead and Maraenui Bilingual primary schools. Their vision is:

To ensure all junior primary school children have an opportunity to experience the "joy of cycling" and the flow on benefits such as increased health and wellbeing, increased confidence and self health and self esteem, and increased balance and timing skills.

This is achieved by providing the schools with a no-cost "turn-key" solution that offers all pupils regular and equal access to a bicycle, helmet and accompanying bicycle tacks within the school environment.

A group from the Eastern Institute of Technology was initially contracted to evaluate the Bikes in Schools programme at the three intervention schools (Peterhead, St. Mary's and Maraenui Billingual Schools) in 2011. The evaluation was continued for a second year in 2012, the results of which are reported here. In addition, students from Irongate Primary School in Flaxmere were also invited to participate in the study as a control group. Irongate School was not part of the Bikes in School programme in 2012.

At all the four primary schools parents and teachers were surveyed to assess how their children/students travelled to/from school; the effects of the program on student classroom behaviour and family dynamics; as well as attitudes and perceptions around cycling in general. In addition to the survey evaluations, anthropometric and fitness measurements were carried out on a total of 567 students at the three intervention schools and 87 students at the control school. Two sets of measurements were collected approximately five months apart during 2012. Parents at the three intervention schools perceived cycling to be a healthy activity for their children and remained very positive about the project at their school. However, the number of children who biked to school across all the schools was low.

As seen in previous research (Marshall et al., 2012 and 2013) parents expressed on-going concerns about the amount and speed of traffic and overall road safety in the Hawke's Bay. Road safety concerns are also consistently noted in the literature around children cycling to school. However, some teachers and parents did note the positive aspects of the cycle skills part of the programme, with comments suggesting enhanced student confidence and safety. Interest in bike trains was higher at the intervention schools compared to the control school suggesting that the Bikes in Schools programme enhances a favourable view of cycling as a form of transport.

Staff focus group were carried out in 2011 and the beginning of 2012 and have previously been reported (Marshall et al., 2012). Follow-up comments were invited via email in March 2013 to assess any change in terms of staff attitudes, benefits to the students or any other issues since the initial focus groups were held.

All the intervention schools reported that the previous comments were still applicable and the teachers of the intervention schools continued to have an enthusiastic attitude towards the Bikes in Schools programme, maintained excellent incorporation of the Bikes in School programme into the 2012 curriculums, and continued to report flow on benefits into the classroom with regards to learning abilities (increased physical fitness, motor skills and coordination) in the students from the programme.

BIKES IN SCHOOLS – YEAR 2 (CONTINUED)

This was supported by the data collected which showed an increase in estimated VQ 2 max (a measure of aerobic fitness) across the two testing rounds. These are encouraging observations as the health benefits of physical activity in children have long term implications for chronic disease prevention (Sothern et al, 1999; Warburton, Nicol and Bredin, 2006) while sedentary behaviour has been associated with increased health risks (Schofied, Quigley & Brown, 2009).

For all the schools studied, the number of children outside of the normal BMI range was higher than reported New Zealand averages for the population aged 2 – 14 years (21% overweight, 10% obese; Ministry of Health 2012). However, for each of the intervention schools, the percentage of obese children dropped from 2011 to 2012, with a concurrent increase in the proportion of overweight children (presumably the obese children lost weight and fell back into the weight category). This goes against the national trend which has seen childhood obesity increase by 2% from 2006/7 to 2011/12 (Ministry of Health, 2012) and is an encouraging result.

Irongate School is not part of the Bikes in Schools Programme and was included in the year 2 study as a control school. While it as deemed appropriate to compare the results of Irongate with Peterhead given they have the same decile rating, are from the same area and share a similar ethnic mix of students, Irongate was not considered a good control match for Maraenui (decile 1 but predominantly Maori -97.5% or St. Mary's (decile 4, predominately Pakeha – 60.5%).

However, financial and time constraints as well as the willingness of a school not in the programme to participate in this study prevented each of the intervention schools to be control matched. Furthermore, the students from the intervention schools were familiar with the evaluation testing procedures whereas during the Round 1 data collection Irongate School were not. Thus, the improvements seen between Round 1 and 2 for Irongate School may be exaggerated due to the effect of learning and therefore may not provide a valid comparison for Peterhead School.

RECOMMENDATIONS TO ENHANCE THE BIKES IN SCHOOL PROJECT

1. Positive responses from parents at both primary schools suggest that implementation of bike trains for the older students may be appropriate. This could have several positive effects, including fitness of both children and parents, increased interaction between parents and school programmes, and reduced vehicle traffic around the schools.

2. Improvements in physical fitness are directly related to the amount of physical activity undertaken by the children. Therefore, where possible increasing the number of regularly scheduled and impromptu cycling times is important. It is also important to ensure installation and use of a long fitness track at future facilities to maximize fitness gains.

3. The number and percentage of overweight and obese children across all of the primary schools is a serious concern, and the implementation of a 'healthy eating' programme alongside the cycling programme is worth considering.

4. The Bikes in Schools programme has the potential to increase interaction with the wider community. For example, activities such as parent/child cycling times could be arranged, and the tracks could be made available to outside groups and individuals for activities such as Iron Maori and triathlon training.

MAORI MENTAL HEALTH RECOVERY: SUCCESS STORIES OF NON-MAORI CLINICIANS

Inez Awatere-Walker: Studentship
Hawke's Bay Medical Research Foundation: $5,000

Introduction: Maori make up a significant proportion of the patients receiving care at the DHB 'mainstream' mental health service (27%).

The 'mainstream' clinicians identify predominantly as Non-Maori (25 of 28%), however clinical observation and feedback suggests that Maori patients are successfully assisted to recovery by these teams. This research is seeking to focus on what is being done and how it is effective by interviewing clinicians and former patients who identify as Maori.

Hermeneutic analysis is the chosen methodology for this research. The philosophical underpinnings of hermeneutics are:

1. Self-knowledge is a necessary starting place for understanding the other;

2. We cannot come to an understanding of the other's point of view unless we come with our prejudices (or pre-judgments) self-understood;

3. When engaged in dialogue, two parties bring their already existing prejudices to the issue at hand;

4. Hearing the other's voice with out own preconceived ideas intact, creates new understandings or 'a fusion of horizons' whilst preserving our own worldview.

Current progress: To date ten interviews have been recorded and transcribed with clinicians and former patients who identify as Maori. Each interview ran for between 30 and 70 minutes. Participants were asked to describe times when they experienced positive interactions and new understandings with their culturally different patients or clinician. The interviews have yielded rich data which the researcher is analysing, being mindful of the principles of hermeneutics.

The emerging themes show that in positive cross-cultural mental health interactions the parties entered the engagement with a well-developed worldview and openness to the worldview of the other. The important elements of cross-cultural understanding emerging from the data: being seen as a person in their own right with their own personal history; being given time to develop confidence in the relationship; having a clinician who is 'real', sincere and authentic; being open to learning about one another; not prying or prodding but waiting for information to be given like a gift; being assertive and persuasive about different views; being treated in a way that preserves one's mana; not having assumptions made based on stereotypes; and being willing to modify therapies that do not 'fit' that person.

FUTURE PLANS

1. The data will be analysed more deeply during 2013.

2. The research will be written up as a doctoral thesis and journal articles in 2014/2015.

3. The insights from the research is intended to extend and enhance current knowledge about the process of recovery for tangata whaiora in the mainstream mental health service.

SECOND EMERGENCY DEPARTMENT ANAPHYLAXIS STUDY – INFUSION TRIAL (EDA-IIB)

Dr Craig Ellis
Hawke's Bay Medical Research Foundation: $11,500

Introduction: Anaphylaxis is a commonly encountered resuscitative emergency. Of patients who die from anaphylaxis 60% will die during their first episode and of those nearly 50% will do so within 15 minutes of symptom onset. A consequence of this is that early aggressive management can be potentially lifesaving. Andrenaline (Epinephrine) is the accepted first line agent for the treatment of anaphylaxis. Despite this, in patients with anaphylaxis the population who benefits from andrenaline and in what circumstances has never been clearly defined. There has been ongoing debate over the best route of administration, a recent Cochrane systematic review found no high quality studies identifying the optimal route or dosing of adrenaline in anaphylaxis. There are two widely used approaches to the initial administration of adrenaline in Emergency Departments and Ambulance Services throughout Australasia.

Hypothesis: Is that a dilute intravenous adrenaline infusion is more efficacious and as safe as intramuscular adrenaline in moderate to severe anaphylaxis. This will be a pilot study preceding a larger trial to be undertaken in the pre-hospital environment. The Centre for Clinical Research in Emergency Medicine at the West Australian Institute for Medical Research, University of Western Australia will co-ordinate this trial.

Progress Report: "The Emergency Department Anaphylaxis Study – Part 2" has finished recruiting. We have recruited 7 patients in New Zealand and approximately 18 patients in Australia. The Australian samples are currently been analysed and the NZ samples are due to be sent to Australia for analysis in October. From the provisional examination of the clinical data collected, an intravenous infusion appears to be more efficacious and consistent than IM injections. Once all the laboratory data is available it will be pharmacokineticly modelled as a pooled data-set with previously obtained data from EDA-I. This is an attempt to quantify blood concentrations of adrenaline against the response to treatment. This is going to occur next year and should be presentable in an abstract form toward the middle of the year.

EDA2 is part of a wider PhD project for Dr Craig Ellis which has resulted in several related publications and conference abstract presentations around the epidemiology and management of anaphylaxis. This year he has presented work at the Annual Scientific Meeting of the Society for Academic Emergency Medicine in Atlanta and in October he will present at the American College of Emergency Physician's Annual Research meeting in Seattle.

PROJECTS THAT HAVE RECEIVED FUNDING BUT ARE NOT YET COMPLETE

Talking to Babies in a Neonatal Intensive Care Unit The impact of verbal soothing	Lucie Zwimpfer
Examining the neuropsychological profiles of children who have pre-natal alcohol exposure	Andi Crawford
How do patients with multiple long-term conditions self manage their health	Helen Francis
Perinatal vitamin D status - childhood respiratory infections and food allergy	Cameron Grant
The Home First Study	Rachael Walker
A nurse Led Skin Cancer-Screening Programme	Dr Claire Harvey
Clinical and social determinants of outcome for the treatment of severe substance use-disorders	Dr Giles Newton-Howes