NCEPH: The first twelve years 1988–2000

And lists of all graduates, academic and general staff 1988–2008

Bob Douglas

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Foreword

The National Centre for Epidemiology and Population Health (NCEPH) began in response to a national review of public health teaching and training for the Commonwealth Minister of Health by Dr Kerr L White from the Rockefeller Foundation in 1986. In April 1987, ANU signed a contract with the Commonwealth of Australia to create a new National Centre of Excellence in Epidemiology and Population Health, which initially would be fully funded by a block grant to ANU of $2 million per year. The purposes were:

a) To carry out research of the highest academic standards in epidemiology and population health in close association both with demographers and other social scientists and with biomedical and clinical scientists.

b) To develop research pursuits, in particular in

- **Epidemiology** of communicable and non-communicable diseases and behavioural disorders:
- **Statistics**, including biometry, medical statistics and health and vital statistics:
- **Sociology**, including survey methods, the social welfare dimension, the sociology of medicine, the organization of health services and individual and group perceptions of health:
- **Health economics**, including cost benefit analysis of health care and health care delivery systems and general analysis of the health sector of the economy:
- **Population studies** including studies of fertility, infertility, mortality and the social and economic aspects of demographic change.

c) To provide a supervised experience in research leading to MSc and PhD degrees in the above fields so as to generate leaders in epidemiology and population health, but not to offer degrees in coursework alone and

d) To provide intensive short courses as appropriate.

In his report Dr White proposed that the Centre should be located intellectually and geographically within the Institute of Advanced Studies at ANU in close proximity to the John Curtin School for Medical Research so it could draw on the strengths of the Institute with its wealth of talent and its traditions.

This summary of the first 12 years, during which I was privileged to be the first Director, has been prepared to coincide with the 20th anniversary of the Centre's formation. It clearly reflects my personal bias and cannot do justice to all of the people who contributed to making it such an enjoyable journey.

Bob Douglas
November 2008

Chapter 1 Origins

Public Health in Australia before Kerr White

For trainee doctors like me in the 1950's public health was a diversion from the task of treating sick patients. People who staffed the public health facilities in the State Health Departments around the country were largely trained in the Commonwealth School of Public Health that was based on the campus of the University of Sydney. Most of its graduates were employed by government agencies. The school itself was an arm of the Commonwealth Department of Health and its faculty were public servants answerable to the Commonwealth Minister of Health.

Public Health and Medicine, (which at that time was primarily an arrangement between individual patients and individual doctors) operated in very different environments.

I, and a number of other Australians who went to Papua New Guinea (PNG) to work as doctors in medical services in the 1960's, came away from it, with a new orientation to public health. In that setting public health service needs were very obvious and in a country with a very limited budget, there was always a trade-off between expenditures on treatment services and on public health and preventive activities. In my own case, I left PNG after three years of work as a specialist physician, where large numbers of my patients suffered pneumococcal pneumonia, to work in the United States on development of a vaccine to prevent pneumonia, the leading cause of death in PNG and many other developing countries.

To provide me with the epidemiological skills that I would need to structure large field trials of pneumococcal vaccine, I undertook a Master degree in Demography at the University of Pennsylvania which did not teach epidemiology in those days. Such was the global status of epidemiology in 1971, that in the USA it was taught as a discipline almost exclusively in separate Schools of Public Health, or at the Centres for Disease Control in Atlanta. For Australians, epidemiology was taught at that time, only at the Sydney School of Public Health. People like me had to self-teach and complement our training with whatever was available. For me, the acquisition of formal skills in statistics, economics, computer use and demographic analysis opened my eyes to a very different intellectual world to that which I had experienced during the 12 years of my training as a specialist physician.

The election of an Australian Labour Government led by Gough Whitlam in 1972 resulted in a community re-orientation of the health system and, for medical schools across Australia. Departments of Social and Preventive Medicine and Community Medicine or Community Practice were developed in every medical school. Medical curricula were modified to recognize the importance not only of population health and preventive thinking, but also to provide practitioners with improved skills to enable them to think of the whole population as their patient and hence to pay more serious attention to preventive health care.

Between 1973 and 1986 there were two changes of government and the emphasis on population health first waned and then reappeared under the leadership of Dr Neal Blewett, Minister of Health in the Hawke government.

During the same period, an international revolution was taking place in thinking about health care. The World Health Organization drew attention to the remarkable population health results in countries like China and Cuba, where relatively low health expenditures on what was described as “primary health care” were achieving very considerable benefits. The Alma Ata Declaration of September 1978 expressed the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all of the people of the world.

The Alma Ata declaration, with its catch-cry “Health for All by the Year 2000, was the first international declaration that underlined the importance of “primary health care”. This was defined as “essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-determination”

Alma Ata shifted the focus from the sick patient to the health of the whole population and forced a reappraisal of the entire health care “system”. The science of epidemiology, which had emerged in the 19th century with the work of John Snow on the prevention of cholera, became the central research discipline for population health. Departments of epidemiology and bio-statistics began to flourish in universities around the world and the study methods used by epidemiologists to make inference about the causes of disease and the mechanisms for managing it, became increasingly sophisticated. Health systems and health services became increasingly the subject of analysis.

In Australia, academic staff members in the struggling new departments of Community Medicine and Social and Preventive Medicine in the medical schools were becoming politically active through their developing professional associations, the Public Health Association, the Australian Association of Community Physicians and later still, the Australasian Epidemiological Association. These peak bodies began to interact with government agencies.

Repeated reviews of the School of Public Health in Sydney led to the view that the quite extensive resources invested in that institution might be more effective if they were spread across academic institutions around the nation.

The Kerr White Review

In 1986 the Australian government invited Dr Kerr L. White from the Rockefeller Foundation to review the Sydney School and propose a way forward for public health research and education in Australia.

The result of his report and its implementation was that the Sydney School was disbanded and government funds were made available to establish the Australian Institute of Health in Canberra, and under what became known as the PHERP (Public Health Education and Research Program), to provide support to universities in Canberra, Townsville, Brisbane, Sydney, Adelaide, Melbourne and Perth to permit them to provide training and undertake research in public-health. Kerr White proposed the development of two new national academic centres of excellence, one in Epidemiology and Population Health at the Australian National University and the other in Tropical Health and Nutrition at the University of Queensland.

The Kerr White report, not surprisingly caused intense debate within the Australian public health communities. Its rapid implementation however, led to profound changes in public health education and research capacity around the country.

The injection of new funds into the academic public health enterprise with a specific focus on research and training in epidemiology and population health, enabled the Department of Community Medicine at Adelaide University, of which I was then the Chair, to create five new academic posts to staff a Master Degree in Public Health which we had initiated with support from the South Australian Government shortly before Kerr White undertook his review.

The provision of funding for National Centres in Brisbane (in Tropical Health and Nutrition), Canberra (in Epidemiology and Population Health) and collaborative cross-university training programs in Perth, Brisbane, Melbourne and Sydney and single university programs in Adelaide and Townsville, changed the national workforce capacity very quickly and growing numbers of medical and nonmedical graduates were attracted into postgraduate training in epidemiology and population health.

White's recommendations did not end with the universities. He suggested that as part of Australia's Bicentennial Health Initiative, there should be a National Centre for Health Statistics, a National Centre for Technology and Health Services Assessment, an Australian Institute of Health (which would focus on policy analysis) and an Australian Academy of Health. He also proposed sweeping changes to the National Health and Medical Research Council with the creation of a new funding committee, which would be called the Health Development Committee.

In the event, the Australian Institute of Health took on the functions of the National Centre for Health Statistics but did not take on the policy role that the review had advocated. The Commonwealth Department of Health reserved the policy role and technology assessment for itself and the proposal for an Australian Health Academy was not taken up. Very significant changes were made however in the structures and processes of the National Health and Medical Research Council to enable expansion in research into population health and health services issues.

ANU as a base for the new centre

In his recommendations for the centre at ANU, Kerr White was explicit about the kind of person who should become its Director and the benefits of locating the Centre at ANU and within the Institute of Advanced Studies.

He said that the Centre should "evolve gradually as a strong, dedicated, highly regarded and financially secure entity and not be saddled with either a history associated with other institutions or an excessive vocational teaching load".

He drew attention to the ready availability of excellent resources in the Research School of Pacific Studies, The Research School of Social Sciences, the John Curtin School of Medical Research and a number of dedicated centres in each of the schools directly concerned with health problems. Not only would the new centre be able to collaborate with staff in these schools, but, as proved to be the case it was able to recruit some of its first full-time staff from these schools.

White also argued that the new Research Centre should permit cross-fertilisation of ideas through interaction with a variety of colleagues in the university concerned with research and graduate education relevant to this new field of endeavour. "*Although most of the Centre' studies will be investigator-initiated and curiosity-based, they should take place in the context of a portfolio of clearly defined problem oriented goals and targets and objectives, that are responsive to perceived needs in Australia, the surrounding region and internationally".*

1987–1989

The contract for the new centre was signed by ANU in April 1987 and in September 1988 I was invited to fill the post of Foundation Director.

A particular attraction for me was the fact that Professor John C Caldwell (Jack), was offering to transfer his newly established Health Transition Centre to the new centre and become its Associate Director. Jack was a world leading demographer whose work I had admired since my studies in demography at the University of Pennsylvania, The research focus of this Health Transition Centre was to better understand the interface between the health and demographic behaviours and health outcomes in developing countries around the world.

The Director of the John Curtin School of Medical Research, Professor Bob Porter took on the role of Acting Director of the Centre from the time of signing of the contract to June 1988. Jack Calwell then took over the Acting Directorship until the time of my arrival in January 1989.

Jack brought to NCEPH with him, Dr Gigi Santow a demographer with a particular interest in reproductive health and Dr Alan Gray whose focus was aboriginal health and demography. Caldwell and his wife Pat, an anthropologist who had worked closely with him in studies of the demographic and health transitions in numerous developing countries, were becoming interested in demographic aspects of the rapidly spreading HIV epidemic in Africa. Their networks in the social sciences and Jack's long-standing involvement in ANU's Institute of Advanced Studies proved to be a huge asset, and he was a constant source of inspiration to graduate students and staff in the Centre including me.

Jack had secured funding from the Rockefeller Foundation for the development of an international journal on Health Transition matters that would be based in the Centre, and his personal reputation and prodigious publishing record, meant that the centre had a ready made international reputation.

The university established an advisory panel which was chaired by Professor Paul Bourke, Director of the Research School of Social Sciences at the ANU and included Professor Bob Porter, Director of the John Curtin School of Medical Research, Professor Scott Henderson, the Director of the Social Psychiatry Research Unit, Dr Len Smith, the Director of the Australian Institute of Health, Dr David de Souza, the Chief Commonwealth Medical Officer, Mr Alan Bansemer, Deputy Secretary of the Department of Community Services and Health, Professor Peter Karmel a former Vice-Chancellor of the Australian National University, Professor Bill Doe, Head of Clinical Sciences in the John Curtin School of Medical Research, Professor Chip Heathcote from the Department of Statistics in the Faculty of Economics and Commerce and Professor Frank Jones, Head of the Department of Sociology in the Research School of Social Sciences.

I greatly valued the advice that this distinguished group gave me throughout the early years of staffing the centre and initiating its research and education program.

In June 1988, Ms Barbara Payne was appointed as executive officer for the new centre.

Prior to my arrival, a number of research grants were made by the Advisory panel from the Centre's budget to investigators at the Australian National University to undertake projects that were considered by the panel to be pertinent to the mission of the new centre.

Three of the recipients of these early centre grants, Gigi Santow, Alan Gray and John McCallum became foundation members of the full-time academic staff when the appointments committee met shortly after my own appointment was confirmed. A fourth, Gabriele Bammer, joined the staff soon after my arrival.

On a visit to Canberra, before I took up the post, I was delighted to learn that Dr John Deeble, one of the architects of Australia's first universal health insurance scheme, Medicare, was interested in moving out of government administration where he had led, with Dick Scotton, the implementation of their health insurance vision. John was keen to move back into academia from where he could once again, concentrate on research into the economic operation of the Australian health care system. John was another of our very early academic appointments.

Doctors Sue Wilson and Peter Diggle, bio statisticians with a particular interest in developing models of the rapidly evolving HIV epidemic who were already employed by ANU, transferred across to join the new centre. Patty Solomon. a statistician with interests in HIV and cardiovascular disease joined them from a recent stay in Oxford.

So, thanks to the work of Jack Caldwell and the Advisory committee, within weeks of my appointment, and before I arrived in Canberra, we had designated academic staff members across each of the five disciplines identified by White as core disciplines for the research of the centre.

At this early point, my own discipline, that of epidemiology was the least adequately represented by me alone, and it was clear that we would have some difficulty attracting outstanding epidemiologists to Canberra as the international supply was very tight and they were in great demand everywhere. We would have to grow our own!

Opening Seminar: Health Development: Whose Baby?

To celebrate the inauguration of the new centre, we arranged a national seminar that was held in the Shine Dome, the beautifully appointed and comfortable lecture theatre of the Academy of Science, in Canberra on 22 November 1988.

To that seminar we invited health luminaries from around Australia to consider the topic "Health development — whose baby?" To my delight, the theatre was packed with an excited audience from a wide spectrum of academic, government, non-government and professional organizations.

A star studded cast of speakers addressed this question including Stuart Hamilton the Secretary of the Commonwealth Department of Health and Community Services, Professor Stephen Leeder, Professor of Public Health and Community Medicine at the University of Sydney, Dr David Legge, from the District Health Council Programme in the Health Department in Victoria, Dr Alan Passmore, Secretary General of the Australian Medical Association, Mr Richard Hicks, Immediate past President of the Australian Community Health Association, Professor Tony McMichael, Professor of Occupational and Environmental Health at the University of Adelaide, Dr Ari Rotem Director of the World Health Organisation Regional Training Centre at the University of New South Wales, Senator Peter Baume from New South Wales, Hon John Cornwall MP, Minister for Health and Welfare in the South Australian Government, Hon Peter Shack MP Shadow Minister for Health in the Federal Parliament Ms Louise Sylvan, Coordinator of the Consumer Health Forum and Mr Ron Spratt President of the Australian Institute of Health Surveyors, representing local government in Australia.

I had been the Australian representative at a meeting in Cairo the previous year, convened by the World Health Organization to consider the topic of Health Development. I had returned from that meeting convinced that the concept elaborated in the Cairo discussions was an essential component of the public health enterprise and I saw it as a theme to help guide the agenda for the new National Centre.

Table 1: NCEPH at a glance 1988–2000

Parameter	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Core academics	6	11	13	17	16	16	20	23	19	21	25	29	31
Visiting Fellows	2	15	13	11	31	24	37	39	28	24	34	25	24
Research Students (PhD and M Phil)		7	17	23	24	26 (3c)	27(5c)	33(5c)	44(7c)	46 (5c)	46(4c)	39(3c)	39(6c)
MAE Students				8	15	21 (7c)	32(7c)	30(6c)	31(17c)	24 (8c)	21(6c)	27(6c)	24(5c)
Coursework students Grad Cert, Dip PH. MPH and DrPH,			11	20	25	28	32(4c)	41(4c)	44(13c)	52 (11c)	64 (15c)	38(12c)	28(9c)
Research support staff	7	15	17	43	38	44	29	27	25	51	30	25	26
General admin and IT Staff	5	6	14	14	24	31	29	20	18	18	20	19	21
Grants and consultancies		$0.18m	$2.5m	$1.70m	$0.22m	$0.33m	$2.46m	$1.12m	$1.19m	$2.91m	$1.81m	$1.37m	$2.18m
Peer reviewed book chapters and journal articles	3	20	60	67	61	71	71	101	84	66	72	84	69
Other reports and discussion papers	3	32	28	74	88	82	75	60	58	180	46	64	52
Invited Conference abstracts			31	63	110	86	66	54	Not reported	23	45	85	67

While governments around the world were setting ambitious health targets for their populations as part of the push towards universal primary health care and "Health for all", we agreed in Cairo that there was, everywhere, a very imperfect understanding of how to help a population reach such targets. I saw this as a field ripe for academic scrutiny and multidisciplinary research and I had invited Stephen Leeder and David Legge, two people who were actively engaged in the health development process, to help to set the intellectual scene for the discussion.

I introduced the discussion as follows. *"The health industry is now a megabuck employer and consumer. It is driven by political, economic and professional interests. The managers are now in charge of a massive coalition of public and private systems which are funded by, and theoretically are designed to serve, the preventive and therapeutic needs of an ageing population. The number of actors in the multidisciplinary web has multiplied rapidly as health care has become more complex. No longer do the two original actors, the patient and his or her family practitioner, reign supreme. In simpler days, health care grew out of a contract between these two individuals. That relationship was sacrosanct. All that has now changed…*

"We professionals maintain that we are committed to involvement of the consumer in all of this; that we understand that community involvement and participation in the decisions which allocate resources and define directions for health care are essential. But in fact, we do not know how to do it. Most Australians are relatively uninterested in the complexities of the health system and, provided services are available to them when they become ill they are unfussed. Most of us also find it hard to adopt a preventive ethos when instant gratification is so appealing and so available."

"And yet, if health targets are to be seriously addressed, somehow we must develop a means of sharing responsibility for health with the people whose problem it is and whose money is paying for these activities. I believe that to be the nub of the problem we are addressing in this seminar"

Aspirations for the Centre

I also spent some time at the opening seminar, articulating my own vision for the development of the centre.

"Many will recall Kerr White's visit to Australia three years ago and his penetrating question of us all "What is public health?" His recommendations, speedily implemented by a supportive minister, have transformed the public health scene, providing an extensive Australian network of institutions, which are allocating a growing effort to the various elements of the "New Public Health".

Kerr White and others since, have seen this new centre as the hub of the network, providing a close link with the Australian Institute of Health, the Commonwealth Department of Health and Community Services and, and the research institutions of the ANU.

Why do we need an academic hub for all of this activity, and how will the hub relate to the spokes and the other working parts of wheel? We need first to recognize that we are talking about one national public health network and not a series of independent public health research and teaching initiatives… I hope that the centre will be looked upon by public health practitioners around the country as their home as well as ours. I hope that the centre will be a place which stimulates, coordinates, excites, and reflects and that it will draw its strength not only from the calibre of the people working within it, but from the calibre of the people working in the broader networks around the nation…. I hope that we will be seen as a think tank where bold and practical ideas are welcome. The big questions are easy enough to identify. They have been repeatedly identified by the Better Health Commission, the Health Targets Committee and other expert committees. They relate to our national nutritional behaviour, the health of the elderly, aboriginal health, drug abuse, AIDS, injury, cardiovascular

disease and cancer prevention. I hope that the centre will be active in research in each of these areas as well as in the area of health economics and the allocation and management of health care resources."

How did the health development agenda play out?

Stephen Leeder concluded his talk to the seminar with the following *"The new public health is one, but only one, of its (health development's) parents. Health development also involves working in and with communities, listening to them describe their own health needs and problems, and then enabling them to meet those needs. This is the approach to health that suits the coming generation. It does away with the overtones of professional paternalism and maternalism and offers a regional approach to improving health, which will involve much more devolution, much more access to local communities to information about health and health services, and a fair amount of rebellion. It will bring more health research to humanity and more humanity to health research".*

David Legge spoke of his experience with community health councils in Victoria. He preferred to use the term Community Development in Health, but recognized the overlap between this term and Health Development. Legge suggested that health development would come of age when:

- *"We recognize health as an experiential and social construct.*
- *We recognize social relations as being part of the domain of study and change.*
- *We recognize the validity of personal experience as a way of knowing about relationships and about the broader social relations, institutional structures and ideologies.*
- *We recognize the value of personal commitment."*

Tony McMichael who 13 years later would become NCEPH's second Director, concluded his talk as follows: *"health development connotes an active participatory approach to achieving better health for members of the community. This approach emphasises that not only does good health not come commodity like off-the-shelf of the medical care supermarket, but neither does it come, like manna from heaven, from decisions and policies of health authorities and governments… With greater public literacy, new technologies, more vigorous and democratically protected consumerism and stronger commitment to social equity, many of today's health hazards can be tackled by various alliances and strategies grounded within the general community. The lay public, the health professionals and the policymakers must all be enveloped within the process of health development… If the new public health is to be multi-sectoral on the policy front, it must be multi-layered on the social participation front".*

At the 10th anniversary celebration of NCEPH in November 1998, the theme of the meeting was "Developing health." In my opening remarks I said that the following four elements of health development had guided me in my first 10 years as we selected academic staff and developed research projects and postgraduate training activity. They were:

1. A focus on health and illness in identified communities.
2. A commitment to public health practice.
3. Engagement with questions about the sort of society we want to live in.
4. A commitment to framing both questions and practice around the perspectives and interests of the people whose health is at stake.

And at the close of that symposium I said, *"Is health development a useful term? I still think so. Does it have an underpinning theory? I don't think there is yet consensus on that... For me, health development is not an intellectual theory but is about grasping the opportunities that we see around us to test critically, ideas and action for the development of health in the Australian and world community.*

"Our commitment to health development has meant that I and others at NCEPH have spent a lot of effort on things that don't win academic brownie points (that is peer review publications and effective full-time student units). We get mixed up in think tanks, networks, government committees and consultancies. Our brand of applied epidemiology is not only about the elegant analysis and interpretation of data but also about using date to improve or develop health. It has also meant that I tend to get into trouble with my review and advisory committees for spreading our academic resources too thinly… Health development is about seeing the problem through. It is about recognizing the complexity of problems of communities and of people and treating all with genuine respect. And it is about crafting research around the problem to help us better to solve it."

Looking back now with 20 years of hindsight, I think our most successful activities in the first twelve years were those in which we sought to bridge the gap between targets and health outcomes and explored the "nuts and bolts" of empowering groups of consumers and professionals to own and influence the health agenda. Our work on HIV/AIDS, heroin, general practice, communicable diseases, the development of an ACT medical school, water and health inequalities was motivated on my part at least by what I saw to be the health development imperative.

The year 2000, when the world was due to achieve "Health for All" came and went and it did not happen. Indeed, the year 2000 was the occasion for establishing a new set of even more ambitious and comprehensive "Millennium Development Goals" for which the target date is 2015. Half-way there, many, Australians have not yet heard of them.

In 2008, health development and implementation persist as both a national and international challenge.

Academic and general staff and research students 1991.

Chapter 2 The Research Agenda

Demography and the Caldwell tradition

By the time I arrived in Canberra, Jack Caldwell had decided to make a particular emphasis in his own research on the African HIV epidemic. This proved to be a very important decision.

With the editorial assistance of his wife Pat, Gigi Santow, and his huge network of colleagues around the world, the Health Transition Review, published from the new Centre became an international focus for important discussions especially on the HIV epidemic. Jack's outreach to the developing world meant we began to attract a stream of outstanding postgraduate students to work on topics ranging from primary health care systems in developing countries to behavioural aspects of the HIV epidemic in Africa.

A key contributor to our first international symposium on health transition was Professor Stephen Kunitz from Rochester New York. Stephen had extensive experience with indigenous populations in the United States and was particularly interested in parallels with indigenous health in Australia. We struck an arrangement whereby Stephen spent three months of each year for the first few years of NCEPH's existence as a Visiting Fellow. Stephen had made his own personal transition from medicine to sociology and demography. He became a very strong contributor to Australian thinking about indigenous health.

Jack's wife Pat, an anthropologist who had shared in most of his work in the developing world with him, contributed actively to all of the multidisciplinary discussions we had about the changes which were taking place in the health, mortality and fertility in the populations of the developing world and in Australia. She also took a particular interest in the welfare and well-being of our international students.

Having Jack as associate director was a huge asset. He had grown up in Canberra and his lifetime association with the ANU and the Research School of Social Sciences in particular, meant that NCEPH was rapidly accepted into the intellectual culture of the Institute for Advanced Studies.

When Jack reached retirement age in 1996, we held an international symposium to honour his contributions to the study of demography and the demographic transition that was taking place rapidly across the developing world.

The conference entitled "The Continuing Demographic Transition" brought together leading scientists and social researchers from around the world who had been affected by Jack throughout his stellar career. Oxford University Press published a volume by that name incorporating a number of the major contributions to that discussion.

Jack Caldwell is a humble and unassuming national treasure who has contributed in seminal ways to the world's understanding of the relationship between education and fertility and to the determinants of the AIDS epidemic in sub-Saharan Africa.

Shortly before my retirement I was pleased to be involved in the development of a named chair, the John C Caldwell Chair in Population, Health and Development. That Chair is currently occupied by Professor Terence Hull, a man who has contributed solidly in the tradition that Jack began and was originally trained in his department.

Later additions to the demographic side of NCEPH's work were Shail Jain, Gordon Carmichael and Jack's son Bruce, who joined us in the latter years of my time as Director.

The Health Economists

John Deeble and Jim Butler who was recruited from Queensland, kept the health economics research agenda moving strongly throughout the first 12 years of NCEPH's existence. Together they made a formidable team and contributed throughout the 12 years to policy thinking in States, the Commonwealth and non-government agencies.

Both men were in considerable demand as consultants both in Australia and internationally. They possessed complementary skills and contributed prolifically to our publication output, our grant success and the role that the centre played in health development.

Whereas Jim's focus of interest was predominantly on micro economics, including the measurable costs and benefits of various kinds of interventions and mechanisms for funding health innovation such as breast screening and AIDS therapy, John Deeble brought to his research an intimate understanding of the operation of the Federal system and the needs of politicians, administrators and the community for an affordable health care system that delivers. Their presence in the tearoom was a constant source of intellectual stimulation and helped to foster the cross disciplinary exchanges which were a precious part of Kerr White's vision for the centre.

Their papers and public statements often attracted media attention. When the Centre was invited by a Senate enquiry to comment on the 30% private health insurance subsidy introduced by the Howard government, four of us including John and Jim appeared and presented a very strong argument against it. This received substantial media coverage. Our stance apparently angered the government and I soon received warnings from the Minister's office that our public views were not welcome and that our core funding could be at risk. I suspect that the Minister himself was under firm instruction from the Prime Minister on this matter. When I met with the Minister to discuss the incident, he pointed out that our efforts to promote public debate on the issues were to no avail and that Independent Senator Harradine from Tasmania, whose critical vote was needed for the legislation to pass, had already been locked into support it before the senate enquiry took place! Such is the politics of health care!

The Biostatisticians

During the first twelve years, NCEPH was fortunate to attract three waves of outstanding biostatisticians who enriched our interdisciplinary discussions, provided statistical support to our students and brought a new modelling capacity to the Australian public health domain

The first trio were Sue Wilson, Patti Solomon and Peter Diggle. Patti came to us from Oxford and Peter and Sue shared an appointment between NCEPH and the School of Mathematical Sciences at ANU. They all had broad interests but concentrated particularly on modelling the Australian HIV/AIDS epidemic. Their projections attracted national attention and helped to maintain the concerns which led to Australia being one of the first countries in the world to contain the epidemic to manageable proportions.

In 1994, we were successful in attracting Prof Charles McGilchrist, the editor of the international journal Biometrics, from the University of NSW. Charles was a very strong methodologist who attracted many postgraduate students and copious research grants. Charles also contributed actively to the work being done by the epidemiologists and sociologists. We were also fortunate in this middle period to secure the services of Robyn Attawell who assisted our doctoral students and our academic staff with the application of statistical methods and software to their research.

When Charles retired in 1998, we were again fortunate to attract three statisticians of national repute. Professor Niels Becker, Dr Keith Dear and Dr Lynnette Lim joined us at about the same time. Niels had been head of a large statistics department at Latrobe University and Keith head of his department at the University of Newcastle. Niels has an international reputation for his work on modelling the behaviour of communicable diseases and immediately became a major contributor to the Applied Epidemiology Program and the people researching immunization and efforts to control outbreaks of infection.

Lynnette, who had worked on Health Services Research at Newcastle became an important contributor to the groups who were carrying out research into The Social Determinants of Health and Coordinated Care. Keith was appointed jointly to NCEPH and to the ANU Centre for Mental Health Research. With strong research interest in meta-analysis, Keith worked closely with the Cochrane Coordinating group on Acute Respiratory Infections.

The original decision by Kerr White to propose that NCEPH should house five disciplines was an inspired one. The cross-disciplinary discussions that occurred in the morning tea room were absolutely crucial to the kinds of research that emerged. Many of our publications had 2, 3 or 4 disciplinary authors and many of our PhD researchers combined qualitative and quantitative methods and were able to draw on a broad range of expertise within the Centre for their supervision.

Communicable Disease Control

To remedy the national lack of skilled epidemiologists I had formed the view that we should try to build a program in applied epidemiology, modelled along the lines of the Epidemic Intelligence Service at the Centres for Disease Control (CDC) in Atlanta, USA.

In 1950 Alexander Langmuir, then head of CDC had developed the Epidemic Intelligence Service (EIS) in that institution, training national cohorts of bright enthusiastic epidemiological investigators. Langmuir saw the need for epidemiology to be practiced in the field as well as in the universities. Epidemiology was still struggling to identify its role in the American health care system at that time and Langmuir determined that it should be relevant to the day-to-day decisions being made by health administrators around the nation.

Langmuir was already a deeply revered national figure when I met him as a member of the advisory group to the team with which I was working on the development of pneumococcal vaccine at the University of Pennsylvania in 1971. I was at that time teaching myself the basic principles of epidemiology and establishing a series of vaccine trials in various parts of the United States and South Africa. In that context, I had also got to know very well, Marvin Fried, a physician working at the Kaiser Permanente Health Maintenance Organization (HMO) in San Francisco, who was a graduate of the EIS program and helped me to plan a trial of vaccine amongst 12,000 people enrolled in the HMO. Then practicing as an internist, he was able to draw on the skills he had developed as an EIS officer at CDC. Fried excited me with details of the training that he had undertaken as an EIS officer. I had also been deeply impressed by the stunning and rapid success of Field Epidemiology in the elucidation of the cause of an outbreak of Legionnaires Disease July 1976 when an outbreak of pneumonia occurred among people attending a convention of the American Legion in Philadelphia.

So my appointment to ANU provided the opportunity to emulate the American applied epidemiology program. I saw the possibility that this could be a way to provide an exciting epidemiology presence at ANU and at the same time contribute to the development of Australia's health-care system. On my first overseas trip in the post I went to Atlanta to seek assistance from the CDC in developing a curriculum and a process whereby ANU could become the headquarters for this activity. (What I planned for ANU differed from the way this training had evolved in the United States; CDC being a large arm of the Federal Government.) In the US, training did not result in award of a degree but in vocational recognition that graduates were now competent to lead field epidemiology activities anywhere in the nation.

Walter Dowdle, the director of CDC was more than helpful. He agreed to make various members of his staff available to assist us. We planned a workshop in Canberra in June 1999, which was attended by Stanley Music from CDC. We invited Heads of Communicable Disease control from all of the states and from the Commonwealth Health Department including the deputy secretary Mr. Alan Bansemer and two very important federal bureaucrats, Cathy Mead and Robert Hall. My memory of that day also was of important contributions by Scott Cameron from South Australia, Graham Rouch the Chief Medical officer in Victoria, Aileen Plant and Mahomed Patel from the Northern Territory.

That workshop laid the foundations for what became the National Communicable Diseases Network and also endorsed the concept of field epidemiology training as a means of enhancing Australia's epidemiology workforce to underpin the network.

The next step was to write a curriculum for a Master degree. CDC sent Michael Gregg to work with me on the rules for the degree. His writing instructions were that the course should be a facsimile of the EIS training program but must also be able to satisfy the higher degrees committee at ANU that it was worthy of award of a Master degree.

Some of Students in the first two cohorts of the MAE program with Mike Lane and Aileen Plant.

When Gregg had finished his work it was clear that this was a degree unlike anything that ANU had previously offered and that we would have a challenge getting it onto the University's books. The degree award depended on the examination by two external examiners and oral defence of a bound volume which recorded the details of series of investigations into outbreaks, surveillance systems and experience in the field. Gregg helped me to sell the concept to the Deputy Vice Chancellor Max Neutze, who in turn, steered it through the university committees.

By March 1990 we had a degree, which we decided to call the Master of Applied Epidemiology (M App Epid; MAE for short) on the University books, but no funding and no capacity to run it. But forces were at work in the federal bureaucracy led by Alan Bansemer and Cathy Mead to bring the concept to fruition. In late May of 1990 I was told of a $500,000 surplus in unspent budget that The Health Department was willing to commit to such a program if we could sort out all the details and sign contracts within 14 days. Mead and Hall worked furiously at their end in the Commonwealth Department. By June 15th we had the money in the bank to be able to offer two faculty posts and eight two-year scholarship stipends for the new degree.

I immediately rang Atlanta and asked Walter Dowdle to help us to recruit our first program leader. When word spread in Atlanta at what we were doing, I began to get phone calls from some of CDC's best and brightest. Mike Lane who had played a key role in the discovery of the first US cases of AIDS was assigned to help us launch the degree. Matt Gaughwin, an Adelaide colleague with whom I was completing work on AIDS in SA prisons, joined us after a crash course in Atlanta, to assist Mike in mounting the new degree. We advertised in September 1990 for our first students and received an outstanding response.

We copied as a logo from the EIS program, the worn shoe sole, which reminded us all that John Snow wore out the soles of his shoes tramping across London to elucidate the role of faecal contamination of the water supply as the cause of cholera. Field epidemiology is shoe leather epidemiology.

Two weeks before the course was to begin in Canberra, I received a call from Aileen Plant, Chief Medical Office of the Northern Territory, to say that the Mayor of Darwin had died and others were ill with an unusual form of pneumonia and that it seemed possible that Darwin was experiencing an epidemic of meliodosis.

We persuaded Angela Merianos to join the training program two weeks early and begin her fieldwork under the direction of Aileen and Mohamed Patel immediately. Angela had her first outbreak. She was off and running to fulfilment of requirements for her bound volume before the course had begun.

Mike Lane was a marvellous choice. He was deeply committed, charismatic and enormously talented as a teacher and as an applied epidemiologist.

Our first network meeting of Field supervisors from around Australia with whom the trainees would spend most of their two year apprenticeship coincided with the first of two annual residential blocks of coursework. There was an air of excitement in the room that we were beginning something very important indeed.

Mike Lane kept telling me that what we really needed was a major national epidemic to put the program on the front pages of newspapers across the nation. ABC journalist, Pru Goward was brought in to train our students in handling the media when such events occurred.

During study block in September 1991 I came across John Deeble in the corridor at NCEPH looking very unwell. He had that morning flown up from Melbourne. He was one of several thousand airline passengers who had developed acute diarrhoea. We had our national epidemic and our front page news coverage! Tony Watson and Tony Stewart flew to Melbourne to work with Graham Rouch on elucidating through careful case-control and inspection studies that the cause of the outbreak was raw sewage feeding into the water supply of the orange juice supplier to Australia's leading airline.

In developing the regulations for the degree, we set the bar high, as we thought, but our first students flew over it with ease. Their productivity was stunning.

Our first eight graduates between them undertook 28 field investigations of outbreaks, published 43 papers in the Communicable Disease Intelligence Bulletin, published 26 papers in peer-reviewed journals, made 50 presentations to national or international conferences and studied 19 surveillance systems at either state or national level.

Aileen Plant became so fascinated with the MAE program that I was able to persuade her to relinquish her job as Chief Medical Officer in Darwin and take a huge pay cut to work with Mike Lane and take over from him as leader of the program for three very exciting years. When Mike Lane left, Aileen attracted Mohamed Patel to join her. Mohamed has played a profoundly important role, not only as a teacher and supervisor in the program, but in exporting the MAE concept to China, India and Malaysia and to build the reputation of the ANU program around the world.

Because it was a new degree, I invited the head of the ANU graduate school to sit in on our first viva examinations. Ray Spears came away from the experience saying that the program not only justified the award of a Master degree but that it could rival a number of PhD programs around the campus for its emphasis on rigour, innovation and development of academic and intellectual skills.

As with the American program, our graduates have moved rapidly to take on senior administrative and academic posts both in Australia and elsewhere. With Aileen, they provided the backbone for Asian control of the SARS outbreak a few years ago. They continue to constitute a collegial network, not only in the field of communicable diseases but in public health and health services research around Australia. Like its American counterpart, the MAE has become a living, breathing network of expertise. After Aileen Plant moved on, Christine Roberts, Craig Dalton and Mary Beers provided outstanding leadership to the program and helped to keep the networks vibrant. Leslee Roberts, one of the early graduates, Cathy Meade and Scott Cameron have spent time as Faculty on the program, which continues to attract strong students under the current leadership of Paul Kelly.

Because NCEPH was involved in a major program on evaluation of general medical practice, we also adapted the degree to the needs of health services research for a separate additional intake of 10 students as described below.

Primary Health Care

To my delight Dr David Legge, a medical visionary who had developed a series of Health Councils in Victoria joined the staff of NCEPH in 1990. David was particularly interested in the broader aspects of primary health care as defined in the Alma Ata declaration. He became a great contributor to all aspects of the Centre's life and took on the role of student coordinator with relish and enthusiasm.

Legge was commissioned by the Commonwealth government to establish a consultation across the nation, exploring primary health care as a policy model; the development of standards and the collection of vignettes of exemplary practice aimed at strengthening health promotion. "Improving Australia's Health," the final report of his investigation, analysed the main barriers and sketched a number of policy strategies directed at improving coordination between local community-based GPs, nurses, pharmacists, local government agencies, volunteers, carers and consumer groups.

This focus on primary health care in its broadest sense helped to provide a balancing focus for the Centre's work on general medical practice on which I became personally very involved.

General Medical Practice

In 1989 there was emerging widespread dissatisfaction amongst Australian general practitioners. Their incomes were falling, community expectations of them were rising and they felt increasingly marginalised by the powerful colleges of specialists which were commanding the mainstream of public attention in health care.

The professional dissatisfaction boiled over and resulted in several national conferences of GP's where it was clear that general practice needed a shot in the arm. Bold new thinking was needed if Australian general practice were to remain the backbone of the nation's primary health care system and meet the needs of the 90's.

An enquiry by the Australian Senate had recently come to the conclusion that a vocational registration scheme should be introduced to enable doctors who met certain standards to be registered and to charge a different scale of fees for their services. To oversee the implementation of this new approach, an Evaluation Steering Group (ESG) was established by the government, which developed plans for an ambitious evaluation program in general practice. NCEPH bid to provide the services of a Technical Advisory Group (TAG) to that program and we were successful.

The funds enabled us to employ some new staff. We were fortunate to attract three medical practitioners with very different backgrounds. Deborah Saltman had been teaching in general practice at the University of New South Wales when we recruited her. Carmel Martin had undertaken her general practice training in the United Kingdom and had also undertaken training in public health. Maxine Whittaker had an MPH from Harvard and had been involved in the evaluation of health care in developing countries. These three young women made a formidable team as we set about developing plans not only to evaluate what was happening in general practice in Australia but also to train people around Australia in evaluation methodology.

The Technical Advisory Group (TAG) and the ESG

The first newsletter of the NCEPH General Practice Technical Advisory Group (TAG) appeared in June 1991. In it, I described the framework for our new activities in which I highlighted *"the need to explore the options which will confront private practitioners, consumers and governments in future decades."* I drew attention to the broad research support on which the group would be able to call within the centre and expressed the hope that the Centre could play a significant role in helping to expand research and evaluation skills across the general practice community.

The primary responsibility of the TAG was to provide the secretariat and support for a grants program administered by the ESG for the Commonwealth Department of Health. In 1991 the TAG worked closely with the recipients of 23 seeding grants and 16 full research grants to general practitioners around Australia. These researchers were providing the evaluation framework for the changes that were beginning to take place in general practice around the issue of vocational registration. Several courses on research methodology and grant writing were conducted and the TAG remained in place for nearly four years.

In those four years, NCEPH we also held national Work in Progress conferences, published their proceedings and played an active role in facilitating the emergence of academic general practice research teams in Departments of General Practice around Australia. I was also involved in assisting the Grants committee in its deliberations and we published several technical volumes relating to evaluative research. When Deborah Saltmann moved back to Sydney, her place in the team was taken by Peter Harris who had extensive experience in postgraduate teaching of general medical practice

The Health Department engaged Professor John Howie of the Department of General Practice at the University of Edinburgh to undertake a review of NCEPH's (TAG) services in May of 1994. In his report, Howie stated that the TAG had provided a conscientious and widely appreciated advisory service. It had been of most value to service doctors with no previous experience in evaluative work.

But he pointed out that the Centre's role as a research grant holder had been the subject of some controversy. There was some feeling within the Commonwealth Evaluation Steering Group (ESG) that some of NCEPH's own research had followed agendas "at a tangent to the aims of the general practice evaluation program and the expectations of the ESG". He added that the TAG had been generally and appropriately regarded as having been a success and that plans for a Master of Applied Epidemiology in general practice evaluation were a creative step towards achieving a future skilled workforce in general practice.

The controversy to which Howie alluded was, that in parallel with the TAG activities, I and others from NCEPH, had embarked on a series of think tanks and discussion papers about the future financing and structure of general medical practice. These reports received substantial visibility within the general practice profession and generated some heated controversy and discussion.

I was quite unapologetic about this and did not see a conflict of interest between undertaking rigorous evaluative research and exploring new ideas for the structure of general practice in Australia. Nevertheless, the view prevailed that the roles of the Technical Advisory Group should be split and devolved to other bodies.

The "tangential" NCEPH General Practice Agenda

Between 1991 and 1995 the Centre published and distributed widely throughout the general practice community twelve discussion papers on the future of general practice in Australia. The first of these was a think tank report based on an audio taped all day discussion between a number of general practice leaders, administrators and health economists. The purpose of the meeting was to identify issues and problems surrounding general practice financing in Australia; to examine various options for change, and to discuss their feasibility and desirability.

There was a sense of urgency among the participants including the then newly elected vice president of the Australian Medical Association, Dr Brendan Nelson and a number of other senior medico political figures in the general practice community. Most of them believed that the situation was critical and that strong measures were needed to restore the health of general practice and to enable general practitioners to provide the kind of care their patients expected and deserved.

In rapid succession between 1991 and 1996,NCEPH published a series of topic specific discussion papers that are listed in Box 2.1.

Box 2.1 Discussion Papers on General Practice pulished between 1991 and 1996

1. General practice financing think tank: ("What are you going to do about Australia in general practice?") Ed by R M Douglas
2. W(h)ither Australian general practice? NCEPH Discussion paper No 1 by R M. Douglas and D C Saltman.
3. Health information issues in general practice in Australia. NCEPH Discussion paper No 2. By Walker DC, Crampton RM., Kidd MR, Adkins P, Carson NE, Cesnik B. Coffey G, Cooper B, Elderfield HK, Flaherty G., Frank OR, Hickson N., Liaw ST, Lord T, McIsaac P, Pradhan M Ravet J, Saltman D. and Talty T.
4. Integrating general practitioners and community health services. NCEPH discussion paper number 3 by Saltman DC, Martin C., and Putt J.
5. Speaking for themselves: consumer issues in the restructuring of general practice. NCEPH discussion paper number 4 by Broome, DH.
6. Too many or too few?: Medical workforce and general practice in Australia. NCEPH discussion paper number 5 by Douglas RM., Dickinson J, Rosenman S. and Milne H.
7. Money matters in general practice: financing options and restructuring. NCEPH Discussion paper number 6 by eale BM and Douglas RM.
8. Every one's watching: accreditation of general practice. Discussion paper number 7 by Douglas RM. and Saltman DC
9. Teaching teaches! Education about and for general practice through the divisional structure. NCEPH Discussion paper number 8 by Douglas RM., Kamien M. and Saltman DC.
10. Rural health and specialist medical services. NCEPH discussion paper number 9 by Stocks N and Peterson C.
11. Advancing general practice through divisions. NCEPH discussion paper number 10 by McNally CA, Richards BH, Douglas RM and Martin CM .
12. Proceedings of the general practice think tank NCEPH Discussion Paper No 11. Edited by Douglas RM.
13. Mixed feelings: satisfaction and disillusionment among Australian general practitioners. NCEPH Discussion paper No 12. By Ross Baillie, Beverley Sibthorpe, Bob Douglas, Dorothy Broom, Robin Attawell and Clare McGuinness.

One of the central issues canvassed in several of these discussion papers was the need for a new form of collegial association amongst general practitioners in a geographic area. Our first discussion paper suggested the early trialling of the notion of area wide "Departments" of General Practice to permit general practitioners to interact more effectively with other segments of the health system. The idea was supported by a large AMA workshop on the future of general practice in 1992 and several months later, the Federal government announced a major initiative to develop "Divisions" of general practice in regions across Australia.

By 1995, the Commonwealth government was providing $71.6 million for 119 divisions of general practice across the nation. Ruth Todd and Beverley Sibthorpe from NCEPH published a number of assessments of the activities and progress in the new divisions.

In August 1995, we made an attempt to document the level of satisfaction amongst GP's in the context of the changes that had taken place during the turbulent period of reorganisation between 1992 and 1995. Nearly 80% of the respondents were by now members of the new Divisions of general practice. 68% of them were satisfied with their current role as a GP but there were significant dissatisfactions voiced with the way some of the changes were being implemented.

In the 16 years since their introduction, Divisions of general practice have certainly met a number of the objectives that were identified for them back in the 1990's. They have given general practitioners a vehicle for effective communication with the rest of the health system. And they have provided them with an organisational framework for continuing education and coordination.

However, as a now very peripheral observer, they have not yet, as far as I can see, provided general practitioners with the kinds of new professional opportunities that we hoped for them. My own vision for them was that they could provide an opportunity for general practitioners to be paid for part of their time to work on tasks with their colleagues that they could not undertake by themselves in the isolation of their fee-for service private practices.

Deb Saltman and I hoped that Divisions could provide GP's with a salary for perhaps two half days per week, in the same way as specialists received payment from public hospitals and we hoped they could be remunerated for engaging in a shared focus on the health of the community of which they are a part and engaging in the coordination of care and teaching of health professionals of all kinds. Instead, I think that Divisions have become something of an extension of the Commonwealth Department of Health out into the community, providing salaries and resources for non-GP coordinators who undoubtedly can support GP's, but do not change the fundamental processes in which the doctors themselves are engaged.

In an address that I gave to the National Press Club in May 1995 on "Australian general medical practice: beyond the year 2000", I listed communication, diagnostic skills, management, insights into sociology and psychology as well as public health, use of information technology and care coordination as central skills for the GP of the future I saw the GP as needing to be *"knowledgeable about available resources and options, networking with community health partners and hospital agencies to ensure that the patients whose health-care he or she is managing receiving what they need and getting from the system the outcome is that they desire… It is in my view premature to reduce medical school intakes at the very time the GPs role is diversifying as it is now. I believe that medical migration has been relatively constrained and as women constitute about 50% of our medical graduates we are capable of developing a saner lifestyle for our doctors. Until we have clarified the GPs role in the system we should not precipitate action that we are likely to regret later."*

At the time I gave that address, I was fighting a losing battle on the Medical Workforce Committee. While the prevailing view which emanated from the Department of Health was that Australia already had enough doctors for our health-care needs and that if anything, the output of medical schools should be constrained, I used the Press Club as an opportunity to put my view. Five years later, the health managers were agreeing with me and expanding both intakes into medical schools and the number of medical schools in an effort to remedy the deficiency of workforce numbers, above all in general practice.

NCEPH continued its focus on general practice and primary health and medical care up until the time of my retirement in early 2001. David Legge, Beverley Sibthorpe, Dorothy Broom, Jim Butler, John Deeble, Carmel Martin, Bronwyn Veale, Ross Bailie, Louis Pilotto, Lyn Arias, Nigel Stocks, Chris Peterson, Clare McGuiness, Karen Gardiner Charles McGilchrist Craig Veitch, Nasrin Dilrubin and Eileen Wilson and a large group of support staff from NCEPH participated in a range of project, contract and doctoral research topics and maintained a continuing stream of papers and presentations on the operation of the Australian general practice and primary health care system.

Coordinated Care Trial

Between 1997 and 2000, under the leadership of Beverley Sibthorpe, and as part of a contract from the Commonwealth and ACT governments, the NCEPH team undertook an ambitious randomised controlled trial of co-ordinated care in the ACT. This was one of a suite of federally funded trials across the country that sought to examine the impact of fund pooling and general practitioner care coordination of clients with chronic complex care needs. All general practitioners in the ACT participated and clients were assigned to either an intervention or a control group. The primary hypothesis under test in that project was that coordination of care of people with multiple service needs, using funds pooled from existing Commonwealth and State would result in improved individual client health and well-being. This was a mammoth undertakings and disappointingly, the intervention had no discernible impact on client health and well-being.

General Practice MAE

The success of the Master of Applied Epidemiology (MAE) in the training of communicable disease epidemiologists led us to explore the utility of this training model to training of researchers into general practice and its evaluation.

In 1994, with funding support from the Commonwealth Department of Health and Family Services, we selected a pilot intake of trainees who were assigned to Departments and Divisions of general practice around Australia to help to provide an evaluation workforce and develop a network of expertise that could strengthen the evaluation of general medical practice.

Drs Beverley Sibthorpe, Louis Pilotto Lyn Arias and Ross Baillie led the adaptation of the MAE model to the needs of general practice research, and with the assistance of colleagues in the placement sites, supervised a group of 10 students whose bound volumes, contained reports of 56 completed projects, 18 published papers, 24 conference presentations and 12 conference posters. The students shared some coursework with their communicable disease colleagues but undertook specific training on research into health services.

An external review of the program July 1995 recommended that the programme should be funded for a further three annual intakes. But funding did not become available and the 10 graduates of this program were the only ones to undertake it. At least four of the graduates have gone on to PhD's and a number have returned to clinical practice, strengthened by their epidemiological training.

Indigenous Health

Several of the early projects supported by NCEPH funds, helped to establish the seriousness of the difference between the health and mortality of indigenous and other Australians. In July 1989 the Centre held a workshop on aboriginal mortality to which researchers from around the country and representatives of aboriginal and government organisations contributed papers to a special volume on the topic.

This work was led by demographer Alan Gray who also prepared a commissioned report for the Royal Commission into Aboriginal Deaths in Custody. Alan drew attention to the very heavy toll on men in particular and the disproportionate representation of aborigines among people in custody of police and prisons.

The annual visit for three months of each year for 9 years, of Visiting Fellow Professor Stephen Kunitz, provided an opportunity to compare indigenous health in Australia with that in Canada, New Zealand and the United States. Each year Kunitz on his visits to Australia also visited indigenous communities and interacted closely with state and federal administrative authorities.

Kunitz noted that the life expectancy of aborigines, particularly men was substantially lower than that of the other three indigenous peoples and that Indians in the United States who had been the subject of his careful study over several decades, had the greatest life expectancy of the four groups. He argued that these differences were the legacy of different patterns of contact and domination in the four societies.

Australia was the only country in which treaties were not signed and in which the indigenous population therefore had to deal primarily with state governments rather than the Commonwealth government. He also noted a substantial difference in the organisation of health care systems for the various populations. In the United States, as a result of treaty obligations, a health service for the American Indians living on reservations had been developed which provided a full range of public and personal preventive and curative programs and services.

In another report in 1992, Kunitz and others from NZ and colleagues from North Queensland showed that aboriginal people living in north Queensland had experienced a very impressive decline in infant mortality over the past 40–50 years. Much of the decline was attributed to preventive and curative medical services. But there was no evidence that life expectancy at birth had improved significantly over that time. The pattern of declining infant mortality and stagnant life expectancy was accounted for by increasing mortality at older ages. The major contributing causes were heart disease, accidents and violence. They also noted that despite the improved survival rates of aboriginal children, their growth trajectories had not improved at the same rate and that their mean and median weights were still well below international standards. The clear implication of all of this was that aboriginal people needed a health system that that addressed their needs across the whole of life and that the piecemeal policies that were being offered were inadequate.

Heath Economist John Deeble, Epidemiologist, Len Smith and Anthropologist Beverley Sibthorpe maintained a steady flow of relevant enquiry into indigenous health and one of out outstanding PhD theses by Maggie Brady won the university prize for her year of submission.

The Indigenous MAE

Dr Gray's and Dr Kunitz's work had highlighted the growing health gap between indigenous and other Australians. We recognized the need for the National Centre to apply health development principles and contribute research that could be used across the country to assist the evolution of public health improvement.

In 1993, David Legge and Beverley Sibthorpe began to explore the feasibility of adapting the "learning by doing model" of the Master of Applied Epidemiology to a degree which could meet the needs of indigenous people working in the State and community controlled health sectors. Their efforts were finally rewarded when, in 1997 funds were secured to enable the Centre to recruit a Director and advertise eight scholarships for indigenous trainees.

The first intake of scholars took place in 1998 under the leadership of Susan Blogg and Beverley Sibthorpe. They were assisted by Professor Tony Adams and Dr Carmen Audera. Dr Rennie d' Souza assumed leadership of the program in September 1998. The trainees were located at a range of aboriginal health agencies which provided diverse experiences and opportunities for outbreak investigations and evaluative research.

Like their counterparts in the other MAE streams, to meet the course requirements students were required to complete an outbreak investigation; to undertake a major project that summarised practical epidemiological experience; to evaluate and analyse a surveillance system of a health information system; to undertake a data analysis project; to prepare a critical appraisal of a piece of scientific literature; to support the findings and recommendations of an epidemiological investigation; to submit a late draft of a peer review publication and an article submitted for publication in the communicable diseases intelligence bulletin and to reflect on the various lessons they hade learnt in the field. All trainees were required to participate as educators in the epidemiology training program and to make an oral presentation at a scientific conference.

All of the first intake of scholars graduated and were warmly congratulated on their achievement by the Federal Minister for Health and Age Care Dr Michael Wooldridge. One of the new graduates, Jill Guthrie subsequently joined the academic staff of the program. An external evaluation of the program gave the centre strong applause for the 100% completion rate.

In 1999 a second cohort of six students was enrolled in the degree with three more in 2000. The completion rate for the second and third cohorts was less impressive than the first. It became clear that the supply of candidates capable of meeting the high requirements of the degree was limited, and in subsequent years the intakes have been reduced. Graduates of the indigenous health MAE have, like their counterparts in the other two MAE programs, have gone on to make a very substantial mark in the years that have followed.

The Epidemiologists

The development of the MAE began the process of strengthening Epidemiology in the Centre. Mike Lane, Aileen Plant and Mohamed Patel injected the practical aspects of field epidemiology into our agenda. Erich Kliewer who came from a strong record linkage background contributed through research on large datasets on the health of migrants and cancer studies.

When he reviewed the Centre in 1994, Professor Peter Baume nevertheless expressed his concern that the Centre needed further strengthening in conventional epidemiology.

Charles Guest joined us from Melbourne with a strong interest in Environmental Epidemiology. Shortly afterwards, Wayne Smith came along with a track record in ophthalmic epidemiology and longitudinal studies. By this time also, our own graduates were receiving their PhD's. Rennie D'Souza and Louis Pilotto stayed on the academic staff. Both worked on a range of projects ranging from General practice evaluation, water epidemiology, social determinants of heath and the national eradication of polio. Leslee Roberts and Geetha Ranmutjhagala, who graduated from both our MAE and PhD programs made very valuable contributions to the academic outputs of the Centre in respiratory infections and water epidemiology. Gillian Hall, another of thee NCEPH PhD graduates returned to NCEPH to work on the MAE programs and food safety issues.

Tony Adams who had been a national pioneer in the development of epidemiology in Australia, and had held the post of Chief Medical Officer both in NSW and the Commonwealth, spent the period from 1997 to 2000 contributing extensively to the Centre's health services, indigenous, and water epidemiology programs.

Len Smith who had been the first Director of the Australian Institute of Health and Welfare (AIHW) and with whom I had worked in the formation of the Australasian Epidemiolgocal Association, like Tony, became a Full time Visiting Fellow at NCEPH from where he continued his longstanding interest in aboriginal epidemiology and demography. We were also fortunate for his three-year tenure of the AIHW Directorship to have Professor Bruce Armstrong as a Visiting Fellow who took a particular interest in our doctoral students.

Academic and general staff and research students 1996.

HIV

The HIV/AIDS epidemic first reached public prominence in the early 1980s. By the time NCEPH began to plan its agenda, HIV/AIDS was in full flight around the world.

In Australia, the first case had occurred in Sydney in December 1982. The Federal government had been spurred into action by concerns about the safety of its blood donation system, by a syringe stabbing episode in a prison and by the urgent need to promote safe sex among both homosexual and heterosexual couples. The famous "Grim Reaper" advertisements and several courageous Cabinet decisions meant that Australia was well placed to tackle this problem, using a preventive approach.

Patty Solomon, Sue Wilson and Peter Diggle began work early in 1989, in collaboration with the National Centre for HIV Epidemiology and Clinical Research, to apply statistical modelling to the course of the Australian epidemic. By the end of 1989 1700 cases had been reported in Australia of whom 922 were known to have died. The NCEPH modelling revealed for the first time, the potential magnitude of impact of the epidemic with a prediction that deaths could rise to about 1000 per year in the next four years unless transmission was arrested.

With Matt Gaughwin and a team in Adelaide, I had been studying the prison environment as an incubator for transmission of the virus. In 1990 we joined forces with the Australian Institute of Criminology to hold a national conference and develop a consensus statement on the containment of the spread of the virus within and from prisons. The findings of that meeting were systematically distributed to politicians across the nation and while the issue of condom and clean needle distribution in prisons continues to this day to raise controversy, I think the controversy helped to introduce a preventive ethos into the national mindset on this problem.

The arrival of Mike Lane as the first director of the MAE program injected a strong epidemiological perspective into the centre's work on the HIV epidemic. Mike had been involved in the very early work on HIV in the United States at the Centres for Disease Control. His teaching in the MAE program on HIV was dynamic and inspiring.

Meanwhile, Jack and Pat Caldwell were working with colleagues and students in sub-Saharan Africa, to build a picture of the progress of the epidemic and the sexual networking that was promoting it. Their work pointed to differential rates of HIV in circumcised and non-circumcised populations.

It was undoubtedly concerns about HIV that laid the groundwork for the initiatives on heroin for which the Centre through the work of Dr Gabriele Bammer and her team, received international plaudits. Several of the centre's early PhD theses concentrated on sexual behaviours in young Australians and Africans.

Medical Workforce Issues

Early in the life of the Centre, I was appointed to chair the Australian Medical Workforce Data Review Committee, which was appointed by the Australian Health Ministers Advisory Council to develop data systems and review the implications of changes in the location and supply of doctors. The workforce committee had secretariat support from The Australian Institute of Health and a uniform national data collection was commenced to help to monitor the supply and movement of doctors across states and across professional subgroups.

Medical workforce had become a critical issue in understanding the difficulties being encountered in general medical practice, and proposals for restructuring health systems. A 1988 inquiry into the Australian Medical Education and Workforce by Professor Ralph Doherty had drawn attention to the need for well-informed public policy on the supply of doctors of various kinds. Prior to this, control of the supply had been left by default in the hands of the universities and the profession.

This was another fascinating challenge for me at a time when the challenges were multiplying fast. The prevailing view amongst health economists was that the supply of doctors was a critical contributor to the rapidly increasing cost of the health system. Our workforce committee discussions were vigorous and we undertook a considerable amount of applied research. My own firm view at the time was that the feminization of the medical workforce was leading to a change in the style and practice of medicine and that the constraints on doctor numbers being encouraged by the Department of Health were shortsighted. But mine was at the time a minority view.

Immigrant Health

With the arrival of Canadian epidemiologist, Dr Erich Kliewer the Centre began to develop studies of cancer and migrant health. Erich who had worked with the WA data linkage study in Perth before coming to NCEPH was expert in managing large data sets. He was able to use comparative data from Western Australia, United States and Canada to explore differences in disease of migrants with their cancer risk if they had stayed at home. With John McCallum and Jim Butler, Erich explored differences in hospital utilization between immigrant groups and differences in mortality and risk factors for vascular disease between different immigrant groups.

The Social Scientists

John McCallum was the first of this group. He was one of the early recipients of a grant to work on the results of a cohort study of elderly people in Dubbo. His main research interest was in the care and the welfare of the elderly. This interest extended from understanding better the determinants of frailty, the problem of elder abuse, funding for geriatric services and international comparisons in these matters. His interests were reflected in a continuing stream of publication in a wide range of journals and outlets.

In 1990, Dorothy Broom spent a sabbatical leave with us from her post as Program convenor in Womens studies in the Faculty of Arts.at ANU. She continued her work on a large study of womens health centres in Australlia and editing a volume on women's use of drugs and alcohol. To my delight she liked the centre sufficiently to join us as a full time and fullblooded member of the academic staff. She has won wide plaudits for her scholarship and her firm but gentle advocacy for the role of gender in health and at various times during the past ten years has been named ACT woman of the year, has been awarded Membership of the Order of Australia and elected to the Australian Academy of Social Sciences. Dorothy continues as a pillar of NCEPH to this day. She brings her feminist and strong sociological skills to bear on many of the student projects as well as the discussions in the Centre. In 2000 she took leadership of the Centre's project on work and family health as part of our contribution to the agenda on the social determinants of health.

Another very important addition to our social science team was Beverley Sibthorpe. With a background in aboriginal anthropology and a strong interest in primary health care, Bev became a prime mover in our MAE programs on General Practice Evaluation and Indigenous Health. In the late 90's she took on the monumental task of coordinating the evaluation of the trial of coordinated care in the ACT.

Jane Dixon came to NCEPH fresh from a PhD at RMIT in 1998 to act as coordinator for a national program on health inequalities discussed below. This was to result in number of strands of research and led her into work on the determinants of obesity. Jane also played a key role with Richard Eckersley and me in developing Australia 21 which now occupies much of my own time.

Other important additions to our social science group included Cathy Banwell, Lyndalkl Strazdins and Andrea Whittaker. Cathy came with an interest in drug matters and broadened her agenda to focus on food-borne illness, hepatitis C and community attitudes to health services. Lyndall has played a vital role in the program on work and family health as well as assisting the development of a national longitudinal study of children that is managed by the Australian Institute of Family Studies.

Food Safety

Through most of the year 2000, my last year as Director we knew that Tony McMichael would succeed me. Tony had expressed a strong interest in the possibility of developing a Cooperative Research Centre on Food Safety. Accordingly, the Centre mounted a bid for such a Centre during the 2000 competitive round. The bid was unsuccessful, but we did build a strong collaborative partnership during that year with 18 academic, industrial and government institutions in the effort to articulate the serious need to underpin Australia's food industry with a more systematic approach to research into risk and its management in the handling, marketing and distribution of food. One result of the failed bid was a major surveillance project under Dr Gillian Hall in collaboration with colleagues around the nation.

The Heroin trial that wasn't

Stage 1

In 1991 I was approached by Michael Moore MLA, then an independent legislator in the ACT Legislative assembly, enquiring about NCEPH's interest in exploring alternatives to the current management of the heroin epidemic.

The idea of making heroin available on prescription to addicted people had been suggested by Dr Alex Wodak from the University of New South Wales at hearings in the ACT.

Gabriele Bammer had been appointed to the centre in 1989 to lead our work on drug use and abuse and was engaged at that time on studies of both illegal and legal use of drugs in Australian communities. She already had an international reputation for her work on repetitive strain injury in the 1980s. She accepted Michael Moore's challenge with enthusiasm.

In partnership with the Australian Institute of Criminology, we convened a national advisory committee of experts to advise us and Gabriele quickly assembled a team of local stakeholders to explore the feasibility of a randomised controlled trial as a mechanism for evaluating the costs and benefits of changing the approach to heroin.

The approach to heroin that had been operative throughout the Western world since Richard Nixon's "War on drugs" was essentially to prohibit the supply of drugs especially heroin and marijuana. As with prohibition of alcohol in the thirties, this was a war that was being comprehensively lost.

A new pragmatic approach to management of drug addiction had been operating for some years under the heading "harm reduction programs" and the proposal to test out a heroin prescribing approach was part of this emerging culture.

The rationale for embarking on this new approach was that part of the problem of escalating drug use among young people was its very illegality which led to a huge black market in the drug and a systematic attempt by drug dealers to inveigle more young people into use.

The question that was being asked was "would a different approach whereby the drug was made legally available to those who were addicted to it, minimise the social impact of the heroin epidemic and perhaps make it easier for addicted people to overcome their habit?"

Three months after Michael Moore's question had been asked, Gabriele's team tabled an extensive two-volume report in the ACT Legislative Assembly, outlining what would be involved in testing the feasibility of such a randomised trial.

The report stated that *"A preliminary exploration of legal, ethical, political, medical and logistic issues leads us to the conclusion that it would be feasible to undertake a randomised controlled trial as a test of the policy of expanding the availability of heroin in a controlled fashion for the management of heroin dependent users in the ACT… The purpose of the study would be to discover whether or not a policy of controlled heroin availability could ameliorate the massive burden which illegal heroin use currently imposes on Australian and ACT societies".*

Stage 2

As a result of this Herculean effort by Gabriele and her team, we were able to attract funding support both from the ACT government and the ANU for a detailed exploration of the incredibly complex social, methodological, legal and political issues that would be involved.

A final report which involved well over 100 people as collaborators, assistants and advisers, a series of workshops and seminars and surveys which included soliciting opinions from around 5000 ACT residents, was submitted in June1995 to the ACT government and its Chief Minister Ms Kate Carnell, whose Health Minister was by that time Michael Moore.

Much of the feasibility research involved documenting and analysing the potential risks of conducting a trial, so critics of the proposal were centrally involved. The final report contained a proposal which we believed to be clinically workable, able to be rigorously evaluated and minimised risks.

The work attracted international attention and links were established with investigators undertaking similar explorations in the Netherlands and Switzerland. The work also attracted interest in the United States where the official attitude was strongly opposed to such work.

The political phase

In January 1996 a 29 person task force appointed by Ms Carnell recommended that the ACT government proceed to support a pilot clinical trial, testing the efficacy of heroin prescription as an additional maintenance treatment option for management of heroin dependent people. It also recommended that a steering committee be established to oversee preparations for the pilot and to ensure that objective rigorous evaluation of the pilot occurred.

The debate then moved nationally. When the ACT report was submitted to the National Ministerial Council on Drug Strategy in 1996 it was not supported and was referred back for further consideration to the 1997 meeting of the Council.

Later in 1996, the Federal government changed hands and the new Health Minister, Dr Michael Wooldridge, himself a medical graduate, was sympathetic to the proposal that could not proceed without Federal government support and which also sought to involve three states in moving from the pilot to a more expanded trial of the heroin prescribing strategy. The new Prime Minister, John Howard, was much less interested than his Health Minister in such a strategy.

On July 31, the proposal was considered at the annual meeting of the Ministerial Council on Drug Strategy, a meeting of health and police ministers from each state and territory and the Commonwealth. Six jurisdictions, the ACT, the Commonwealth, New South Wales, Victoria, South Australia and Tasmania supported the proposal to proceed with the first pilot study. Queensland, Western Australia and the Northern Territory opposed the proposal. The proposed pilot study would have allowed prescription of heroin to 40 dependent users for six months. It would have enabled a careful study of the health and wellbeing, social functioning and criminal behaviour of participants.

On 19 August, the Prime Minister and Cabinet took the unprecedented step of overturning the decision of the Ministerial Council and withdrew all cooperation as a Federal government from the pilot study. The reason given was that it would "send an adverse signal" and that this outweighed the potential benefits. Despite demonstrated community support for the proposal, the Federal government's die was cast. Zero tolerance was to be the name of the game and harm reduction was out.

The six years of intense effort invested in this concept by NCEPH and Gabriele Bammer, David McDonald, Phyl Dance Matt Gaughwin, Adele Stevens, and dozens of others from NCEPH, the Australian Institute of Criminology and drug and alcohol institutions around Australia, failed to result in what we saw to be essential rigorous analysis of the question asked originally by Alex Wodak.

The Federal Cabinet decision to withdraw support was taken after several days of an intense and quite scurrilous media campaign mounted by the Murdoch press and a group of Sydney radio talkback hosts. The media campaign began two days after a meeting between the Prime Minister and Rupert Murdoch.

Nutrition

Early in the life of the centre, Professor Tony Worsley a nutritional epidemiologist who had occupied a chair in nutrition in New Zealand joined us for a little less than two years to undertake evaluative research on Australian nutrition habits and behaviour. At the same time, one of our early PhD students, Dr Jennifer Porteous was concentrating her efforts on the factors that both facilitate and inhibit individuals in changing their diet.

Worsley's research concentrated on consumer knowledge and concerns about food and health and their responses to the point of sale information at supermarkets. He took a particular interest in food product labelling and began to study the opinions of key decision-makers within the food system such as agriculturists, processors, retailers, government bureaucrats and scientists about the ways in which the food supply could be made healthier.

Worsley was headhunted for a post in CSIRO that meant that we lost his very considerable energy and skill in this area before it had realised its full potential. His approach and that of Jenny Porteous were firmly in the tradition of health development and their time in the centre added to the breadth and excitement of the issues we were tackling.

Water quality and treatment

On my return in 1992 from four months long service leave in which I visited large areas of outback Australia with my wife in our four wheel drive campervan, I had developed a strong impression of the need for a focus on the environment and water in particular. It seemed clear to me, that water, its quality, availability and treatment were key public health issues which would be a recurrent Australian problem for the next century. I must confess that at that stage I was completely uninvolved in the concept of climate change but the impact of the vast dry areas of the North associated with some very large rivers and the deteriorating flow of the Murray River which we could see each time we drove across to Adelaide from Canberra convinced me that water for Australian society was a disaster waiting to happen.

Accordingly, with the assistance of Dr Louis Pilotto, a medical graduate who was completing his PhD on gas heaters in student classrooms, I convened a group of people from around Australia to talk about water and public health.

The group included a number of experts who were already active in Cooperative Research Centres on water and in particular, Dr Peter Cullen and Dr Don Bursill. Another key participant in that discussion was Dr Scott Cameron from Adelaide. The upshot of that discussion was our involvement in a successful bid for the development of a CRC on Water Quality and Treatment led by Don Bursill from South Australia.

Loius Pilotto became particularly interested in the issue of blue green algae and their health effects. There had been a major contamination of the Darling River with blue green algae. This was a consequence of drought, low river flows and high nutrient content of the run-off into the river from fertilized land.

We became involved in a national case control study exploring the main symptoms that arose from exposure to blue green algae amongst swimmers and water skiers.

We suggested as part of our contribution to the CRC, that our MAE could be an important resource for supporting investigations of outbreaks of disease suspected of having a water origin. And so it proved, as we became involved in investigations into cryptosporidial outbreaks in swimming pools in Canberra and in the Sydney water supply.

Arising from our involvement with the CRC, I was invited by Geoscience Australia to undertake a consultancy on water issues in aboriginal communities in Central and Northern Australia. With Professor Tony Adams, I visited a number of settlements in central Australia and consulted with government and indigenous agencies.

One of our overriding impressions during that visit was the debility and despair in a number of aboriginal settlements. We were also impressed with the difference we saw at the Santa Theresa settlement, a former Catholic mission where there was a swimming pool which was well maintained and administered by residents. We inferred that it was contributing to the good health and vitality of children in that settlement. Earlier work carried out by Dr Jonathan Carapetis at the Menzies Institute in Darwin had shown that children who were regularly involved in swimming in well maintained swimming pools were less at risk of otitis media and respiratory infections than children in other settlements.

We decided as a Co-operative Research Centre to undertake an investigation of the feasibility of developing swimming pools in aboriginal settlements. A full-time research officer was stationed in the Centre for Appropriate Technology in Alice Springs. A number of papers and technical reports were prepared. To our delight, the issue was taken up by the Western Australian Government and the Child Health Research Institute in Western Australia. A number of swimming pools have been opened in recent years.

Our involvement with the CRC was in my mind a real profit for our research activity. We worked closely during that time with colleagues at the Monash Medical School and formed a close working collaboration with them.

The CRC was also the entry point for NCEPH's involvement in work to establish a public health approach to the arsenic contamination of tubewells in Bangladesh. Wayne Smith, Tony Adams, Geetha Ranmuthagala, Bruce Caldwell and I undertook studies and consultancies with AusAID and the World Bank on this environmental tragedy and work on this issue continued for several years after my retirement with two successful PHD theses on the topic by Milton Hasnat and Kamalini Lokuge and a M Phil thesis by Runaiul Murshed.

The Cochrane Collaboration and Acute Respiratory Infections

On a visit to Oxford in 1993, I met Professor Iain Chalmers, the founder of the Cochrane collaboration who excited me with his vision for a joint global effort to assemble systematic reviews of all of the randomised controlled trials ever undertaken in every field of medicine and health care. His aim was to make the evidence from this research easily accessible and interpretable for health care decision-makers across the world.

This ambitious program was being developed by collaborating groups of scientists who would work together on a clearly defined area of health care in which they had particular expertise.

I realised that my own career experience and contacts would enable me to initiate a section of the collaboration that could deal with the evidence about management and prevention of acute respiratory infections. So in 1994 a group of 15 people met in Baltimore, USA, to establish a new Collaborative Review Group on Acute Respiratory Infections which would be headquartered at NCEPH with me as the Coordinating Editor and Elizabeth Chalker as the Review Group Coordinator.

The task of each of the collaborative review groups was to overview systematically all of the randomised controlled trials that had been carried out in their field of interest during the past 50 years. Our group initially developed links with about 60 scientists from 13 countries to commence this activity. We also recruited a group of Canberra volunteers to help us hand-search 50 years of relevant medical journals in an effort to identify trials which might not have been registered in the normal indexing services. We were fortunate to attract a strong group of retirees including several doctors and medical scientists to assist us in this task.

All of this activity was coordinated on the Internet, so that when our group found trials of interest to other groups, the information was passed on. The Cochrane collaboration provides standard software to assist reviewers in undertaking meta-analysis of the available published information. Each group is responsible for maintaining momentum on the development of a database in their field of expertise, liaising with reviewers and assisting them to write reviews to the required standard for entry onto the Cochrane Library which is updated quarterly. With the assistance first of Elizabeth Chalker and later of Ron D'Souza, I managed the ARI Group from 1994–2001 when I passed over responsibility to Professor Chris Del Mar who is now Dean of the Medical School at the Bond University. The Cochrane library now contains 85 completed reviews of major topics in the care and prevention of respiratory infections and many more are under development.

With four other authors including Finnish epidemiologist Harri Hemila, I have had ongoing responsibility for the last 10 years for a Cochrane review of the role of vitamin C in the treatment and prevention of the common cold. When we updated the review recently, Harri and I received more media attention than I have ever received for any research I have ever done. Our report was one of the top stories in the London Times and appeared on network television across the United States while Harri and I were kept busy with radio interviews on six continents.

In the 15 years since I first met Chalmers his dream has been realised. (**www.cocharane.org**) The Cochrane Collaboration is now providing a vital resource to health care across the world and I am pleased that NCEPH has been a small part of it.

An International conference on acute respiratory infection control

In support of our Cochrane activity, in 1997 NCEPH hosted an international conference on acute respiratory infections that was attended by 300 of the world's experts in this area. A highlight of the meeting was the production of a communiqué and a set of workshop reports which identified the international public health challenges in this field.

A key focus of the meeting was on the use of evidence in treatment and prevention of ubiquitous respiratory infections. We held nine plenary sessions that were addressed by international experts and 33 workshops which were given the task of reaching consensus on what we know and what we need to know and do.

The conference gave our Cochrane group the desired impetus and exposure and considerably expanded international interest and involvement in the development of Cochrane reviews.

Informatics

Through our work on the future of general practice I became interested in health information systems and computers in the service of health care systems. It was already clear in the early 1990s that Australia was lagging somewhat behind other countries in application of computer systems to health and medical information.

It was clear also that the evolving technology now enables all of the information that is required, used and collected by health practitioners of all kinds could, in theory be used to address the planning and evaluation needs of policymakers and public health professionals.

Two PhD candidates arrived at NCEPH in the mid 1990's with complementary interests in this field. Chris Kelman and Chris Mount both came from an engineering background and both were keen to adapt rapidly evolving information technology to the needs of health care. Chris Mount concentrated his efforts on development of a vision for an integrated health record and medical information system, while Chris Kelman explored the linkage of existing data sets held in various data repositories around the nation to make them usable for public health decision-makers.

Both men graduated with excellent theses and went on to work in the Commonwealth Government in posts that have helped to progress record linkage and comprehensive electronic heath records.

In the course of these researches, the two Chrises developed wide ranging discussions with health practitioners and people at the technical cutting-edge of health Informatics and held roundtables and workshops which brought together the people who would be needed to make this thinking operational and the people who could make use of it.

Shortly before I retired I gave the Sax Oration on the topic "Disease Control in the Information Era" drawing upon the insights I had gained from their research. My paper was published in the Medical Journal of Australia, the summary of which said:

"As a result of advances in information technology, there is now a new capacity to manage, interpret and apply data for the benefit not only of individual patients but of the population as a whole. Population health information systems are currently inadequate to meet the needs of disease control in a rapidly changing world. Effective public health action requires timely and efficient data about what is happening in the whole population. As the national effort to harness information technology to the needs of individual patient care begins, it is desirable that the electronic patient record also becomes the building block for public health research and monitoring. Individual healthcare and population healthcare should be two sides of the one coin. Ownership, privacy and access to the contents of the electronic health record should now be addressed in the context that disease control in the whole population will increasingly depend upon an efficient "real time" information system."

Diabetes

The appearance of a cluster of new type 1 diabetics in early childhood in Canberra (my grandson among them) led to a flurry of activity and the possible role that an epidemic of Cocksackie virus may have played in it.

With Charles Guest I formed a working liaison with the International Diabetes Insititute and the Walter and Eliza Hall in Melbourne and with the John Curtin School for Medical Research at ANU to explore the role of specific viruses in contributing to the growing Australian epidemic of type 1 Diabetes.

We prepared a joint bid to become the repository for the National Diabetes Register in the belief that we could structure such a register in ways that would maximize the contribution of epidemiology to this issue. Unfortunately this was another case of failure in a competitive environment and the opportunity was lost as the management of the register went elsewhere.

Dorothy Broom later undertook a sociological study of adults with type 2 diabetes.

The Health Inequalities Research Collaboration (HIRC)

In September 1998, the Commonwealth Health Department invited us to act as facilitators for a national collaborative approach to the study of inequalities in health. Dr Jane Dixon joined us from Melbourne to coordinate this collaboration. So did Richard Eckersley, whose work on young people's wellbeing for the Commission for the Future 10 years earlier had caused something of a national stir. Richard came from a journalistic background and at the time was working as a strategic planner in CSIRO. A transfer to NCEPH on about a quarter of the salary he was earning at CSIRO enabled him to pursue his research passion and he became an integral part of the HIRC. Jane and Richard coordinated a national symposium on the topic, which brought together multidisciplinary researchers from Australia and New Zealand to help to better understand the factors which lead to unequal health outcomes in parallel with socio-economic status.

Jane's appointment was an outstanding success. She combined her strong research background with brilliant networking and entrepreneurial skills to build a national network that placed the social determinants of health squarely on the national research agenda.

A group from the Canadian Institute for Advanced Research were leading the world on this topic. We invited Fraser Mustard from that Institute to help us to generate momentum in this field. Not only did he succeed in stimulating the team at NCEPH on the topic of work, families and health; Mustard also stimulated Jane, Richard and me to establish a rather similar organization to the CIAR here: Australia 21. This new organization which is bringing expertise from diverse disciplines and institutions around Australia to bear on topics ranging from climate change to resilience and ecosystem wellbeing has become my main post retirement activity.

The cohort studies that were and weren't

From the time I was appointed I had wanted to develop a national cohort study that would be ongoing and would involve thousands of Australians in prospective collection of data in relation to their health. I had been impressed with the productivity of the American Nurses Study, which by that time had been running for about 20 years and was producing information of value to health policy makers on a huge range of health questions. The study was being directed by two Australians Graham Colditz and David Hunter from the Harvard Medical School.

During a visit to Boston early in 1989, I invited Colditz to come to Australia and help us in planning such a project. Colditz came for a brief stay and worked with me and demographer Alice Day to begin the necessary planning. We embarked on very extensive (some would say, endless) discussions within the centre on the logistics of the task and the broad ranging questions that it could answer.

But we did not have a full time epidemiologist in those early days to get it under way and I was too preoccupied with other developments in the centre to take on the leadership myself.

One of the best outcomes of HISEC as it became known (The Health Impact of Social and Economic Change) during 1989 and 1990 was the appointment of David Crawford as a research officer to the project. A number of papers resulted from work which David undertook as part of the piloting of questions, with various members of the staff contributing. We undertook preliminary exploration of the linkage of Medicare data to other health data. But we also struck a degree of official discomfort about this issue as many people had been wounded by the earlier "Australia card controversy".

As the centre's agenda expanded in other directions, the opportunity to implement my grand cohort plan evaporated. David Crawford enrolled in a Ph.D. in the centre and himself became one of our very productive and effective graduates.

In 1995 when our epidemiological strength had expanded, with the availability of people like Leslee Roberts and Aileen Plant to support our strong social scientists, statisticians and demographers, we mounted a strong but unsuccessful competitive bid for the National women's longitudinal study.

Two of our most productive staff members, John McCallum and Wayne Smith were able to draw on data for their research from other cohort studies in which they were engaged. In John's case, The Dubbo study of an elderly cohort of residents and in Wayne" a prospective study in the Blue Mountains, mounted with opthalmological colleagues at the University of Sydney proved to be very valuable sources of data for testing hypotheses in their field.

In 2000 as an outcome of the Health Inequalities Research Collaboration, NCEPH combined forces with a number of institutions around Australia to mount a children's cohort study which is now under way at the Australian Institute of Family Studies.

There is immense epidemiological value in well planned and funded cohort studies and I still regret that we never built the Centre around such a study.

The Population Environment Challenge

As my time at NCEPH came to a close, I was becoming increasingly concerned at the spiralling population/environment/economic challenge facing the world, My concerns had begun in the sixties when I read Paul Ehrlich's book, "The Population Bomb".

They had been heightened during my time in Adelaide as a colleague of Professor Tony McMichael while he was writing his classic book "Planetary Overload".

As the time approached for ANU to locate my successor, I made a very concerted effort to interest Tony in the post. By this time he was working at the London School of Hygiene in the premier epidemiology post in the UK and was becoming a world leader on the relation between climate change ad population Health.

To my delight, Tony accepted the challenge and was appointed as my successor early in 2000. That meant we could begin planning for a transition to his preferred agenda and that at the same time I could contemplate my own next steps.

Chapter 3 The training agenda

PhD training

Kerr White's intention was that NCEPH should become a centre for training PhD students. Our first medical PhD students made it clear to us that they needed formal training in the various disciplines which the Centre was embracing. Accordingly, we decided to establish a graduate diploma and masters training in our basic disciplines. These included epidemiology, bio- statistics, demography, social analysis, health economics, health services research and so on. The intention initially was to provide this training for our own PhD students.

But we quickly discovered that there was a substantial market in Canberra for this kind of training. There were many people in Canberra's two health bureaucracies who were expressing interest in this kind of training irrespective of an interest in doctoral research.

One of our early students was Michael Moore, the independent politician in the ACT parliament who got us started on the heroin work. Michael thoroughly enjoyed his studies in public health and subsequently went on to become Health Minister for the ACT. Following his years in the Assembly he left politics and is currently the Executive Director of the Public Health Association of Australia.

Many of our Master and diploma students went on to undertake doctoral studies in the centre.

The doctoral students selected a diversity of topics for their studies. They ranged from pure epidemiology such as the epidemiology of skin cancer to a mixture of epidemiology and the other disciplinary areas. Our annual reports began to make interesting reading for journalists and one well-known journalist wrote in her weekly newspaper column that it was the most interesting annual report she received.

We had students working on topics ranging from the epidemiology of injury, to the sociology of chronic fatigue syndrome, nutrition in general practice, adolescent sexual experimentation, the epidemiology of AIDS in Uganda, computerized medical records systems, attitudes to fertility among Australians and many others.

The continuing stream of Ph.D. enrolments meant that our seminars became fascinating discussion sessions. Each student was required to undertake a six-month and a mid-term review presentation to their peers and their supervisors. We followed these events with champagne in the tearoom.

The ANU requirements were for not just one supervisor for each student but for a supervisory panel. This meant that the students very often had several disciplines represented on their supervisory panels. Several of our students combined conventional epidemiological analysis with qualitative analysis and sociological investigation. The blurring of the disciplines resulted in us needing to appoint thesis examiners from two or more academic disciplines. Surprisingly few examining panels reached dissenting views about the academic quality of the completed theses.

Our students came from a great diversity of backgrounds. A number of them were medical practitioners; others were nurses, psychologists, economists and people with particular strength in bio statistics. Several of our Master of Applied Epidemiology students moved on to doctoral studies in the area in which they were specialising.

Table 2: NCEPH PHD Graduates and their Thesis Titles 1988–2008

2008	
Isaac-Toua, Geethanjali	Methadone program evaluation: urban versus rural comparisons
Korda, Rosemary	The relationship between mortality, morbidity and inequality in income distribution in Australia
2007	
Hinde, Sarah	A social and cultural examination of car-related practices in Australia
Leung, Caleb	Random component models in geographical and temporal variation disease incidence
Lokuge, Kamalini	Interventions for arsenic mitigation in Bangladesh and their effect on childhood diarrhoeal disease
Rahman, Md Saifur	Reproductive health of women complaining of vaginal discharge
Rashid, Sabina	An ethnographic study on reproductive health among married and unmarried female adolescents in an urban slum in Bangladesh
Sun, Xiaoyun	Community health financing in rural Shandong China: the New Cooperative Medical Schemes and its impact on health care provision and financial protection
2006	
Currie, Marian	Postnatal depression in the Australian Capital Territory
Davies, Robyn	Protective factors for adolescent drug use
Ford, Rosemary	Injecting drug-users and nurses in the ACT: understanding the issues
Hasnat, Milton	Randomised controlled trial of the effectiveness of Dugwell and Three Pitchers Filter as sources of arsenic free sage drinking water in Bangladesh
Nishigaya, Kasumi	Women's risk of HIV/AIDS: A case study of female garment factory workers in Cambodia
2005	
Walker, Agnes	Modelling the links between socio-economic status and health
Lucas, Robyn	SocioEconomic Status and Health: exploring biological pathways
Crompvoets, Samantha	Breast reconstruction and definitions of 'health'
Berry, Helen	Community participation and psychological distress
Trevillian, Leigh	Barriers to effective child spacing in Cambodia
2004	
Andrews, Ross	Free pneumococcal vaccination for the elderly: evaluation of a public funded program
Gardner, Anne	Health status after bacterial and fungal infections
Gibson, Brendan	Strangers in the night? An exploration of the relationship between research and policy in public health in Australia
Woodruff, Rosalie	Environmental and personal factors for the prevention of Ross River Virus disease.
2003	
Nancarrow, Susan	If health outcomes are the answer... what is the question? The role of health outcomes in measuring health service accountability

2002	
Butler, Colin	Inequality and sustainability
La Sen, Michelle	Childhood mortality regimes of the Koronadal B'la-an, Southern Mindanao, the Philippines
Lintzeris, Nicholas	The use of buprenorphine in the management of heroin withdrawal
Wilson, Eileen	Realities of practice: development and Implementation of clinical practice guidelines for acute respiratory infections in young children
2001	
McGuiness, Clare	Client perceptions: A useful measure of coordination of health care
Stevenson, Chris	A microsimulation study of the benefits and costs of screening for colorectal cancer
Ranmuthugala, Geethanjali	Disinfection by-products in drinking water and genotoxic changes in urinaru bladder epithelial cells
Mauldon, Emily	Damaging sex: hormones as a point of convergence in the construction of medical bodies
2000	
Hafeez, Muhammad	Gender and other differences in health: findings from urban and rural sites in Lahore and Bahawalnagar, Pakistan
Hsu, Edmond	Inferential problems in generalised mixed models
Kelman, Chris	Monitoring health care using national administrative data collections
Marshall, Richard	A study of Vietnam Veterans' Mental Health and Healthcare Consumption
Mount, Chris	An Australian Integrated Health Record and Information System (IHRS)
Muange, Vincent	Sexual networking and response to HIV/AIDS among the Luo of Kisumu District, Kenya
Nasrin, Dilruba	Effect of antibiotics on respiratory illness and antibiotic resistance in children
Taft, Angela	Lifting the lid on Pandora's Box
1999	
Brady, Maggie	Difference and indifference
Martin, Carmel	The care of chronic illness in general practice
Mui, Suet-Lam	A cardiovascular disease policy model for Australia using a microsimulation approach
1998	
Chowdhury, Sadequr	Analysis of generalised mixed models for categorical data
Dance, Phyll	Scene changes, experiences changes: a longitudinal and comparative study of Canberrans who use illegal drugs. Vol 1 & Vol 2
Hussain, Rafat	The demographic, health and social implications of consanguinity in Pakistan
Roberts, Leslee	Infection control measures reduce diarrhoeal and acute respiratory infections in child care: a randomised control trial
Tursan D'Espaignet, Edouard	Sudden infant death syndrome: following up on the 1991 Reduce the Risk campaign

1997	
Clarke, Phillip	Valuing the benefits of health care in monetary terms with particular reference to mammographic screening
D'Souza, Rennie	Household determinants of childhood mortality: illness management in Karachi slums
Hall, Gillian	Regional and temporal variation in nutritional status in rural Bangladesh, 1990-1994
Plummer, David	Becoming homophobic: aspects of the formation of modern male self
1996	
Fleming, Jillian	The relationship between child sexual abuse and the develoment of alcohol dependency in women
Im-Em, Wassana	Partner relations and AIDS in Chiang Mai villages
Saei, Ayoub	Random component threshold models for ordered and discrete response data
Veale, Bronnie	Continuity of care and general practice utilisation in Australia
1995	
Bennett, Jennifer	Child survival and maternal health-seeking behaviour
Crawford, David	Weight-control behaviours and beliefs of adults
Ferroni, Paola	The effects of gynaecological conditions and hysterectomy for reasons other than cancer on psycho-social and sexual health
Shaw, Janis	Discourses of teenage sexuality
Yau, Kelvin	Random effects in survival analysis
1994	
Johnson, Maree	Chronic leg ulcers: illness burden and healing factors in older Australians
Kavanagh, Anne	Accounts of abnormal pap smears
McClure, Rod	The public health impact of minor injury
McMurray, Chris	Child mortality and growth attainment in Burundi, Uganda and Zimbabwe
Pilotto, Luis	Indoor nitrogen dioxide exposure and respiratory illness in children
Rahman, Naila	Conflict, stress and coping in caring for the elderly at home: proposal for intervention
1993	
Fritschi, Lin	Assessment of sun exposure
Porteous, Jennifer	The determinants of dietary change
Veale, Anthony	Chronic lung disease in Australian Aborigines
Woodward, Ros	"It's so strange when you stay sick": the challenge of chronic fatigue syndrome
1992	
Shadbolt, Bruce	Health, social roles and the life course: a study of Australian women born between 1926 and 1966

Completion rates of PhD students

A perusal of table 1 which lists the numbers of students and graduates, shows that during our first 12 years we had many more doctoral students than we have had graduates. While a significant number of these students graduated in subsequent years, a significant number also withdrew in the course of their candidacy.

This is perhaps not surprising because a PhD is huge commitment that often stretches candidates, families, finances and patience. The PhD's who have completed their studies at NCEPH have gone on to make their mark across Australia.

That is also true of the graduates of our other degrees. A number of them now occupy Chairs or Associate Chairs in Public Health or Epidemiology, senior administrative posts in the health bureaucracy and still other have returned to clinical specialities where they are using their public health skills to inform their practice.

The role of the MAE in the teaching research interface

There is no question, looking back, that the MAE initiative was the most important of our first twelve years. Not only has it filled a gap in the nation's epidemiologic workforce, but it established an ethos and a style of investigation which was not previously present in Australia.

Graduates of the three streams of the program now form an active, breathing network of expertise which came to the fore at the time of the global SARS epidemic. Aileen Plant the first Australian Director of NCEPH's program, became the pivot around which the global response to SARS was crafted. She drew heavily upon her network of MAE alumni and at the time of the epidemic NCEPH graduates were active in a number of the Asian capitals.

The other major accomplishment of this program was our involvement with nearly every public health department in the nation, providing them with workforce, to help to undertake their task. The block teaching at ANU which occurs twice a year is an occasion when all the postgraduate students mix together and share experiences over barbecues and morning teas. It is also an occasion when the expertise in the various NCEPH disciplines is available to the students before they returned to their fieldwork placement.

The other particularly pleasing aspect of the MAE program was its high completion rate and the productivity that it generated both with respect to publishing and presentation skills.

I had always greatly admired the Atlanta CDC program for its capacity to produce leaders in the field of public health. I think that by adapting their program to an academic institution and the requirements that went with it, we added value to the CDC program model.

Certainly that has been the view that has prevailed in several Asian countries, where, with assistance from Mahomed Patel, our modification of the US program has been adopted to train applied epidemiologists. As chair of a WHO task-force which helped to establish such programs in China, India and Malaysia, Mahomed played a vital role as international ambassador for the MAE.

The Grad Cert, DPH, MPH and DrPH

It was never our intention to embark on coursework teaching when the Centre commenced. The need for some coursework was made clear to us by our early PhD students. When we mounted it, we discovered there was a real demand in Canberra where two bureaucracies, Federal and Territory, needed trained people to staff their health workforces.

The demand for graduate certificates, graduate diplomas, masters, and finally for doctorates which had a strong coursework as well as research input led us to place all these on the ANU repertoire and to mount the necessary teaching for them.

This was not however what the academic staff had hoped for and not all particularly enjoyed it. As the demand tailed off and as the need was met increasingly by a Canberra based corporate MPH delivered from other state universities, the NCEPH offerings were scaled back.

The corporate MPH

In 1997, The Commonwealth expressed interest in teaching an MPH program as part of vocational training within its own department. NCEPH was invited to pilot the concept using the background of our own degrees.

The concept proved exceedingly attractive and in order to embed it in a more permanent way the department invited tenders from around the country to implement the concept. NCEPH worked with nine other institutions to bid for the role, but a more attractive offer was a made by a consortium of two other universities. Pressure on NCEPH to meet the local demand for public health coursework teaching diminished.

The development of medical training in the ACT

I devoted a considerable amount of my time during the first three years as Director of NCEPH, to what proved to be a successful attempt to establish medical training in the ACT. I regarded this as a health development opportunity in which I was coincidentally in the right place at the right time.

At the time I arrived in Canberra, ACT was becoming self-governing, having previously been a Territory administered by the Commonwealth Department of Territories. Self Government would bring with it fiscal responsibility and the checks and balances of “statehood” with its own representative parliament. In preparation for self-government, the Minister for Territories, in 1988, had commissioned a report on health services in the ACT by Dr Brendan Kearney a senior medical administrator from South Australia.

In 1988 I had been Dean of the Medical School in the University of Adelaide during a year of turmoil and upheaval in universities and medical education. In that post I had to do a great deal of thinking about where medical education in Australia was heading. Two of my own children were medical students in different universities and I had been a member of the Accreditation Committee of the Australian Medical Council, which was developing an accreditation process for medical schools across Australia.

I had also been a member of the Board of the Royal Adelaide Hospital, which was administered by Kearney. So, it was perhaps no surprise that I was proposed by Kearney to be a member of the newly developed Interim Hospitals Board in the ACT, which he recommended as one of a wide ranging set of actions to improve its health services. Kearney's report expressed the firm view that with the onset of self-government, the ACT should develop its own medical training program.

Another key recommendation of the Kearney report was consolidation of Canberra's hospital system. This ultimately resulted in closure of the Royal Canberra Hospital and concentration of sophisticated medical care at the Woden Valley Hospital, while the Calvary Hospital was maintained as a community hospital.

The new interim hospitals board met for the first time a few weeks after my arrival in Canberra and I found myself in the centre of major discussions about the future development of services in the ACT.

We recognized as a board, that if hospital closure, restructure and rebuilding was going to occur, it would be important to develop Woden Valley as a University Teaching Hospital if we hoped to develop a medical school in the longer-term. Synchronizing these two activities was a task I undertook to work on with Dr. Tony Clarke, a gastroenterologist who had played a vital role in proposals for hospital re-structurung.

We were all well aware that an earlier attempt to establish a medical school at the Australian National University had foundered in the 1970s. The story of that attempt has been carefully documented by Professor Malcolm Whyte, who spearheaded it. Then In the 1980's, Professor Bob Porter, Director of the John Curtin School for Medical Research (JCSMR) had worked with Professor Bill Doe, Head of Clinical Sciences at the JCSMR to develop an undergraduate medical presence in the hospitals of the ACT through arrangements with the University of Queensland Medical School and the University of New South Wales Medical School. This arrangement had given clinicians in Canberra a taste of undergraduate teaching and had also assisted in the recruitment of medical staff to the Canberra Hospitals.

Kearney was proposing that Canberra should now move to "grow its own" doctors and was suggesting that the halfway point to a medical school might be the formation of a clinical school that would train doctors for the last clinical years of their training.

Bill Doe was overseas on sabbatical leave during 1989 and Bob Porter left Canberra for a post as Dean of Medicine at Monash University shortly after my arrival. So in my first months in Canberra at a time, when the ACT was becoming politically independent and its health system was under reconstruction, I was charged with the responsibility of initiating proposals and new structures for medical training.

Professor Doe returned to Canberra in August of 1989 and he and I worked closely together as a team for the next two years, with the strong support of the ACT Board of Health and the Australian National University, to lay the groundwork for what became first the ACT Clinical school of the University of Sydney and later in 2004 The Medical School at the Australian National University.

It was clear from the outset that a number of things would need to happen if Kearney's recommendation were to be realised. The first was that there must be a shared vision for a medical school between the ANU and the government health sector. The second was that support for the development of medical training in the ACT would be needed from Federal Health and Education authorities. A third requirement was that the medical profession would be supportive of such a development. Finally, there would be substantial new funds needed to move the ACT health system to a teaching health system.

My "day job" was to develop a new postgraduate initiative in public health and not to train undergraduate doctors. Nevertheless, I saw the two tasks as being complementary and believed that a future medical school that had a strong public health focus could be a real asset to the national capital and I saw the task as essentially a health development challenge.

At the 13th March meeting of The Interim Hospitals Board, I was appointed to chair the Patient Care Review Committee and it was agreed that a subcommittee of The Patient Care Review Committee should be a research and education subcommittee, which later became a full committee of the Board. The subcommittee had the following terms of reference:

- To report on current state of research and teaching activities in hospitals:
- To recommend to the board desirable future developments in research and teaching;
- To monitor the quality of research and teaching; and
- To propose a committee structure to the board which will strengthen research and teaching.

Keith Powell has published a book on "Canberra's health from 1950 to 1994". It is a fascinating story of professional and bureaucratic tensions and manoeuvrings and it provides some of the underpinning background to the medical school development.

In my role as chair of the patient care committee and of the research and education committee for the hospital board, I found myself immediately engaging in the hurly-burly of Canberra's medical politics. Not all of the doctors who had established their practices in Canberra were supportive of the development of a clinical school. Indeed, some were strongly opposed to it and I recall some vigorous discussions with a number of my medical colleagues.

In the sequence of events described in Box 3.1, Bill Doe and I worked closely together, developing discussion documents for the university and the hospital board. We commissioned a review of research and teaching by the former Dean of the Flinders Medical Centre, Professor Gus Fraenkel who proposed a model for development of the ANU clinical school that was vigorously opposed by Deans of the other medical schools around Australia. They saw the development of a stand-alone clinical school at ANU such as had been proposed by Fraenkel as threatening to their own student numbers on which their funding depended.

Box 3.1. Sequence of Events in development of the ANU Medical School

30 November 1988	Dr Brendan Kearney submits his report.
6 January 1989	Interim Hospital Board (IHB) established.
March 1989	IHB appoints Douglas to Chair Patient Care Committee and Teaching and Research Committee of the Board.
11 May 1989	ACT becomes self-governing with its own Legislative Assembly and Health Minister in a minority Labour government.
6 August 1989	Interim Hospital Board invites Professor Fraenkel to report on research status and advise on teaching issues.
August 1989	Hospital Steering committee recommends Woden Valley Hospital be the principal hospital.
December 1989	Liberal party supported by two crossbenchers forms the "Alliance" government and replaces Labour as the government of the day.
February 1990	The Fraenkel report on medical research and teaching submitted.
27 March 1990	Alliance government declares Woden Valley Hospital will be the principal hospital.
14 June 1990	Planning committee established for hospital redevelopment.
July 1990	Interim Hospitals Board becomes the ACT Board of Health.
November 1990	Australian Committee of Deans and Commonwealth Government oppose the Fraenkel proposal for a stand-alone ANU clinical school.
8 February 1991	Sydney University expresses interest in a Canberra clinical school.
10 April 1991	Meeting between Bill Doe, John Young, Bob Douglas and John Bissett to discuss details.
June 1991	Labour deposes the Alliance team and Rosemary Follett becomes chief minister. Suspends construction of the principal hospital..
30 July 1991	Canberra visits by Sydney University team.
August 1991	Labour government accepts recommendation to close RCH and principal hospital redevelopment proceeds.
2 September 1991	Formal proposal for the establishment of a clinical school in Canberra sent to ACT Board of Health by the University of Sydney.
October 1991	Professor Nick Saunders visits and appraises costs of a clinical school for the Board of Health.
November 1991	Royal Canberra Hospital vacated and closed .
27 November 1991	Douglas invited to address the Canberra Business Council on the clinical school option.
16 December 1991	Cabinet approves clinical school development .
Early 1992	Negotiating team led by Jim Service to explore all elements of the clinical school.
December 1992	Negotiating team recommends clinical school be established.
2 March 1993	MOU signed between ACT Government and University of Sydney.
December 1993	Paul Gatenby appointed Associate Dean Canberra Clinical School of Sydney University.
April 1994	Gatenby commences work.
January 1995	First students commence their course at the Canberra clinical school.

Working with Sydney University

The deadlock caused by the other medical school Deans was broken eventually by the offer by Professor John Young, Dean of the Medical School at the University of Sydney to establish a clinical School at ANU as part of the University of Sydney but with the clear understanding that this would be the forerunner of a stand alone medical school in Canberra. The concept was developed at a dinner meeting on 10 April 1991 between the CEO of the ACT Health, John Bissett, Bill Doe, John Young and myself.

But it was not to be plain sailing politically. The ACT government changed hands twice during the critical discussion phase which involved not only the other medical school Deans, but also the Commonwealth Department of Health, which was at that stage, very concerned about the possibility of training too many doctors. When the ACT Labour government returned to take control from the Alliance in June 1991, the new Minister for Health, Wayne Berry was at first unconvinced about the desirability of a medical school development and the offer from Sydney University lay on the table for some months.

However, there was now growing pressure from the community for such a development and the Canberra Business Council weighed into the discussion. In Dec 1991 The ACT cabinet agreed to establish a negotiating team to discuss details, building on a report that had been prepared for the Research and Education Committee by Professor Nick Saunders, then a Professor of Medicine at Newcastle University and now its Vice-Chancellor.

Two years later, in December 1993, the University of Sydney appointed Professor Paul Gatenby to be the first Associate Dean of its Canberra Clinical School and in January 1995 fourth year students from the Sydney program began their clinical training in Canberra.

With the development of the clinical School, I and several other academics at ANU became adjunct professors in the University of Sydney and I became actively involved in the public health teaching and curriculum for the Sydney students.

When, in 1999, the Commonwealth government became convinced of the need to expand the medical workforce, especially in rural areas, the Canberra-based clinical School of the University of Sydney became the axis for development of the new ANU medical school.

Table 3. Graduates of NCEPH's Non PhD Programs 1988-2008

Title	First Name	Surname	Degree	Date graduated
Ms	Liz	Metelovski	Dr Popn Hlth	30/10/02
Ms	Bonnie	Abraham	GDPH	22/04/99
Mr	Jonathan	Abrahams	GDPH	23/04/93
Mr	Michael	Badham	GDPH	29/09/95
Mr	Stephen	Begg	GDPH	24/04/97
Ms	Christine	Benger	GDPH	24/04/97
Dr	John	Bickmore	GDPH	24/04/92
Ms	Karen	Bishop	GDPH	22/04/99
Ms	Margaret	Blood	GDPH	17/12/03
Mr	George	Bodilsen	GDPH	10/03/06
Ms	Evon	Bowler	GDPH	02/10/92
Ms	Helen	Brewer	GDPH	22/04/94
Dr	Helen	Cameron	GDPH	23/04/93
Mr	Robert	Carter	GDPH	24/04/92
Ms	Margaret	Cox	GDPH	17/12/03
Mr	Tian	Dai	GDPH	22/04/99
Ms	Natasha	Davidson	GDPH	27/10/01
Ms	Anne	Develin	GDPH	22/04/99
Mrs	Dianne	Diprose	GDPH	20/04/00
Ms	Elspeth	Douglas	GDPH	09/03/00
Ms	Ann	Duffy	GDPH	24/04/97
Dr	Tian	Erho	GDPH	22/04/99
Ms	Lyndall	Finn	GDPH	19/04/98
Ms	Frances	Fischer	GDPH	04/10/02
Ms	Bronwyn	Fouracre	GDPH	20/04/00
Dr	Edith	Gray	GDPH	24/04/97
Mr	Brian	Haddy	GDPH	23/04/93
Dr	Helen	Hanson	GDPH	28/09/01
Ms	Jenny	Hargreaves	GDPH	04/06/02
Ms	Gillian	Hazleton	GDPH	01/06/01
Dr	Rona	Hiam	GDPH	22/04/99
Ms	Sarah	Hinde	GDPH	29/07/04
Miss	Galawezh	Jones	GDPH	02/10/98
Ms	Carol	Kee	GDPH	22/04/99
Dr	Isimel	Kitur	GDPH	22/04/99
Ms	Rosemary	Korda	GDPH	04/06/02
Mr	Matthew	Legge	GDPH	08/09/00
Ms	Sharon	Leigh	GDPH	20/04/95
Mrs	Chrisanti	Martin	GDPH	24/04/97

Title	First Name	Surname	Degree	Date graduated
Mr	David	McDonald	GDPH	24/04/92
Ms	Deborah	Mckay	GDPH	22/04/99
Ms	Genine	McNeill	GDPH	17/04/98
Mrs	Hillary	Middleton	GDPH	20/04/00
Mr	Geoffrey	Millard	GDPH	17/04/98
Ms	Lynelle	Moon	GDPH	29/07/04
Ms	Leanne	Mundy	GDPH	05/03/04
Ms	Tracey	Newbury	GDPH	17/12/03
Ms	Victoria	Newman	GDPH	24/04/97
Mrs	Manisha	Nijhawan	GDPH	01/10/99
Ms	Catherine	Patterson	GDPH	23/04/96
Ms	Judith	Perry	GDPH	30/09/94
Dr	Susan	Radford	GDPH	24/04/92
Dr	Indra	Ramasamy	GDPH	30/04/08
Ms	Camille	Raynes-Greenow	GDPH	24/04/97
Dr	Patricia	Rodgers Ludowyk	GDPH	26/10/01
Dr	Judith	Ryan	GDPH	23/04/96
Mr	Fazel	Saikal	GDPH	22/04/94
Mr	Geoff	Sims	GDPH	29/07/04
Dr	Tuck Meng	Soo	GDPH	30/09/94
Ms	Karyn	Stamp	GDPH	24/04/97
Ms	Mieke	Van Doeland	GDPH	04/10/02
Ms	Anne-Marie	Waters	GDPH	23/04/96
Ms	Kim	Werner	GDPH	29/07/04
Mr	David	Witteveen	GDPH	23/04/96
Ms	Suzanne	Woodward	GDPH	29/09/95
Dr	Sofia	Yusuff	GDPH	27/09/96
Ms	Karen	Adams	M App Epid	12/07/05
Mr	Kazi	Alam	M App Epid	11/07/06
Mr	Paul	Armstrong	M App Epid	17/12/03
Dr	Margaret	Ashwell	M App Epid	30/09/94
Miss	Jennifer	Barralet	M App Epid	29/07/04
Mrs	Sheila	Beaton	M App Epid	27/09/96
Ms	Mary	Beers Deeble	M App Epid	27/09/96
Ms	Jane	Bell	M App Epid	30/09/94
Mr	Alan	Bell	M App Epid	26/09/97
Dr	Catherine	Bennett	M App Epid	08/09/00
Dr	Philippa	Binns	M App Epid	11/07/06
Ms	Frances	Birrell	M App Epid	04/10/02
Ms	Julianne	Brown	M App Epid	01/10/99

Title	First Name	Surname	Degree	Date graduated
Dr	Ann	Bull	M App Epid	04/10/02
Ms	Sandra	Campbell	M App Epid	17/12/03
Mr	Condy	Canuto	M App Epid	08/09/00
Ms	Kylie	Carville	M App Epid	12/07/05
Dr	David	Cheah	M App Epid	01/10/93
Miss	Hazel	Clothier	M App Epid	12/07/05
Dr	Benjamin	Coghlan	M App Epid	11/07/06
Dr	Robert	Condon	M App Epid	01/10/93
Dr	Scott	Crerar	M App Epid	26/09/97
Dr	Audrey	Deemal	M App Epid	28/09/01
Ms	Karen	Dempsey	M App Epid	17/12/03
Mr	Luis	Dos Reis	M App Epid	17/12/03
Dr	Christina	Drummond	M App Epid	01/10/99
Ms	Francine	Eades	M App Epid	13/07/07
Mr	Keith	Eastwood	M App Epid	29/07/04
Ms	Chris	Evans	M App Epid	28/09/01
Dr	Dan	Ewald	M App Epid	08/09/00
Ms	Ruth	Fagan	M App Epid	08/09/00
Mr	James	Fielding	M App Epid	12/07/05
Dr	Simon	Firestone	M App Epid	13/07/07
Dr	Neil	Formica	M App Epid	08/09/00
Ms	Christine	Franks	M App Epid	08/09/00
Dr	Gerard	Gill	M App Epid	27/09/96
Dr	Marisa	Gilles	M App Epid	27/09/96
Dr	Nicky	Gilroy	M App Epid	08/09/00
Mr	Simon	Graham	M App Epid	30/04/08
Dr	Jane	Greig	M App Epid	04/10/02
Ms	Jillian	Guthrie	M App Epid	08/09/00
Ms	Linda	Halliday	M App Epid	28/09/01
Ms	Lorian	Hayes	M App Epid	28/09/01
Dr	Timothy	Heath	M App Epid	26/09/97
Dr	Ana	Herceg	M App Epid	29/09/95
Ms	Wendy	Hermeston	M App Epid	11/07/06
Ms	Moira	Hewitt	M App Epid	01/10/99
Mr	David	Hogan	M App Epid	29/07/04
Ms	Kirsty	Hope	M App Epid	11/07/06
Miss	Rebecca	Hundy	M App Epid	17/12/03
Dr	Andrew	Jeremijenko	M App Epid	27/09/96
Dr	Fay	Johnston	M App Epid	26/09/97
Ms	Jocelyn	Jones	M App Epid	08/09/00

Title	First Name	Surname	Degree	Date graduated
Dr	Shashi	Kant	M App Epid	02/10/98
Ms	Therese	Kearns	M App Epid	07/08/02
Dr	Cathryn	Keenan	M App Epid	01/10/99
Mr	Martyn	Kirk	M App Epid	26/09/97
Dr	Ilisapeci	Kubuabola	M App Epid	12/07/05
Dr	Sophie	La Vincente	M App Epid	18/07/08
Dr	Stephen	Lambert	M App Epid	02/10/98
Dr	Glenda	Lawrence	M App Epid	28/09/01
Mr	Christopher	Lawrence	M App Epid	12/07/05
Mr	Traven	Lea	M App Epid	08/09/00
Dr	Chin-Kei	Lee	M App Epid	01/10/99
Mr	Dallas	Leon	M App Epid	17/12/03
Ms	Janet	Li	M App Epid	30/10/02
Mr	Raymond	Lovett	M App Epid	11/07/06
Dr	Douglas	Lush	M App Epid	27/09/96
Mr	Daniel	McAullay	M App Epid	08/09/00
Dr	Louise	McDonnell	M App Epid	29/09/95
Dr	Suzanne	McEvoy	M App Epid	28/09/01
Dr	Virginia	Mclaughlin	M App Epid	26/09/97
Dr	Lachlan	McPhail	M App Epid	13/07/07
Ms	Michelle	McPherson	M App Epid	13/07/07
Dr	Jackie	Mein	M App Epid	08/09/00
Dr	Angela	Merianos	M App Epid	01/10/93
Dr	Megge	Miller	M App Epid	29/07/04
Mr	Cameron	Moffatt	M App Epid	13/07/07
Ms	Halijah	Mokak	M App Epid	08/09/00
Dr	Rosanne	Muller	M App Epid	12/07/05
Mrs	Sally-Anne	Munnoch	M App Epid	12/07/05
Ms	Lesley	Nelson	M App Epid	21/12/07
Dr	Eddie	O'Brien	M App Epid	26/09/97
Ms	Bridget	O'Connor	M App Epid	11/07/06
Ms	Kerry-Ann	O'Grady	M App Epid	01/10/99
Dr	Kerry	O'Regan	M App Epid	27/09/96
Mr	Christopher	Oxenford	M App Epid	11/07/06
Ms	Cynthia	Payne	M App Epid	14/12/06
Mr	Michael	Pearce	M App Epid	01/10/93
Mr	Albert	Pilkington	M App Epid	21/12/07
Dr	Jane	Pirkis	M App Epid	27/09/96
Dr	Robyn	Pugh	M App Epid	28/09/01
Mrs	Helen	Quinn	M App Epid	12/07/05

Title	First Name	Surname	Degree	Date graduated
Mr	Ram	Ramakrishnan	M App Epid	31/07/03
Dr	Shanti	Raman	M App Epid	27/09/96
Prof	Tom	Riley	M App Epid	29/09/95
Miss	April	Roberts	M App Epid	18/07/08
Dr	Monica	Robotin	M App Epid	17/12/03
Dr	Katrina	Roper	M App Epid	18/07/08
Mr	Alexander	Rosewell	M App Epid	30/04/08
Dr	Jill	Rowbottom	M App Epid	30/09/94
Dr	Alan	Ruben	M App Epid	22/04/94
Miss	Gina	Samaan	M App Epid	12/07/05
Ms	Mohinder	Sarna	M App Epid	04/10/02
Dr	Wendy	Scheil	M App Epid	02/10/98
Dr	John	Scott	M App Epid	30/09/94
Ms	Sue	Selden	M App Epid	29/09/95
Dr	Linda	Selvey	M App Epid	27/09/96
Dr	Sanjaya	Senanayake	M App Epid	12/07/05
Dr	Sarah	Sheridan	M App Epid	30/04/08
Ms	Sanchia	Shibasaki	M App Epid	28/09/01
Ms	Jessica	Shipp	M App Epid	11/07/06
Dr	Sue	Skull	M App Epid	02/10/98
Dr	Michael	Sladden	M App Epid	27/09/96
Dr	Vicki	Slinko	M App Epid	18/07/08
Dr	Simon	Spedding	M App Epid	27/09/96
Dr	Jenean	Spencer	M App Epid	28/09/01
Ms	Heather	Stafford	M App Epid	01/10/99
Dr	Peter	Stanley-Davies	M App Epid	27/09/96
Dr	Tony	Stewart	M App Epid	01/10/93
Dr	Cate	Streeton	M App Epid	29/09/95
Mrs	Christine	Sturrock	M App Epid	13/07/07
Dr	Elysia	Swingler	M App Epid	18/07/08
Ms	Helen	Thomas	M App Epid	04/10/02
Dr	Albert	Tiong	M App Epid	11/07/06
Dr	Ruth	Todd	M App Epid	27/09/96
Ms	Nola	Tomaska	M App Epid	14/12/06
Dr	Siranda	Torvaldsen	M App Epid	02/10/98
Dr	Hassan	Vally	M App Epid	29/07/04
Dr	Mark	Veitch	M App Epid	29/09/95
Dr	Julie	Wang	M App Epid	12/07/05
Dr	Antony	Watson	M App Epid	01/10/93
Dr	Rosalind	Webby	M App Epid	12/07/05

Title	First Name	Surname	Degree	Date graduated
Prof	Philip	Weinstein	M App Epid	01/10/93
Mrs	Shellee	Williams	M App Epid	13/07/07
Dr	Joanne	Woodgate Williams	M App Epid	26/09/97
Mr	Michael	Wright	M App Epid	29/07/04
Mr	Kefle	Yohannes	M App Epid	17/12/03
Ms	Jenny	Cahill	M Phil	11/07/06
Dr	Rubaiul	Murshed	M Phil	29/07/04
Mr	Casey	Quinn	M Phil	15/12/05
Ms	Jennie	Roe	M Popln Hlth	01/05/99
Mr	Aaron	Briscoe	M Popln Hlth	28/09/01
Dr	Tanya	Caldwell	M Popln Hlth	22/04/99
Dr	Paul	Craft	M Popln Hlth	29/09/95
Ms	Nicole	Druhan-McGinn	M Popln Hlth	17/12/03
Ms	Karen	Gardner	M Popln Hlth	04/10/02
Dr	Brian	Harrison	M Popln Hlth	23/04/96
Ms	Lisa	Hillsdon	M Popln Hlth	08/09/00
Ms	Clara	Jellie	M Popln Hlth	23/04/02
Ms	Karen	Lees	M Popln Hlth	
Mr	Ian	Marshall	M Popln Hlth	22/04/99
Mr	Michael	Moore	M Popln Hlth	26/09/97
Mr	David	Muscatello	M Popln Hlth	13/07/99
Ms	Margaret	Palmer	M Popln Hlth	13/10/99
Ms	Prudence	Power	M Popln Hlth	01/10/99
Ms	Sharon	Sweeney	M Popln Hlth	27/09/96
Dr	Owen	Tinnion	M Popln Hlth	22/04/99
Ms	Trish	Jacomb	MSc	20/04/95
Ms	Jessica	Nakiyingi	MSc	17/04/98

Chapter 4 The Staff

Executive Officers

In its first twelve years, NCEPH had the benefit of service from five outstanding Executive Officers, Barbara Payne, Stuart Pell, Peggy Daroesman, Anna Weiderman and Alison Humphries.

Barbara was the first appointment to NCEPH. She brought with her a wealth of experience in various parts of the ANU and a clear vision of what was ahead. She carried the entire responsibility for the planning and refurbishment of the premises on the corner of Mills and Eggleston Roads. She recruited strong general staff to support her and I have nothing but admiration for the role she played in getting the Centre off to a strong start. When she moved to the Vice Chancellor's office it was a clear recognition of her skills as an administrator.

Stuart Pell came to NCEPH with a strong public service background. For that reason I suspect he was less comfortable with the academic environment in general and my own particular style of operation in particular. I found him stimulating, constructive and helpful. His own personal circumstances made it difficult for him and he resigned after twelve months.

To fill the breech I proposed an almost unthinkable promotion for Peggy Daroesman who was at the time working as my personal assistant. The idea of promoting someone eight rungs on the administrative ladder in one step was a little hard for the administration to swallow. Peggy proved to be brilliant at the job and after four years she went on to other senior administrative posts in the university. By 1999 competition for the post was very strong. Annabel Weiderman, immensely respected and experienced in the ANU administration took the helm for the 18 months leading up to her retirement. Alison Humphries who had worked closely with both Peggy and Annabel, was able to make a seamless transition and the strong support tradition established by Barbara was maintained.

The role of a Director at ANU can be remarkably lonely. For the twelve years in that post I had 5 people whom I deeply respected and who kept the wheels of the organization turning, at the same time promoting a close link between the academic staff and those who provided the essential support for the mission of the centre.

They also kept my feet on the ground.

Strong General staff support

A perusal of the table of staff indicates that research and administrative support staff outnumbered the academic staff by about 2:1. Public Health Research is very personnel intensive. It draws heavily on IT systems and on maintaining the nuts and bolts of surveys, literature reviews, databases and above all the politics of collecting information from people. I have always asserted to my students that epidemiology is 10% science and 90% politics.

The large numbers of research assistants who participated in the various studies led by academics at NCEPH included both people who were available to move between projects and others who were recruited for short periods on projects on which they could contribute special skills.

Management of the postgraduate teaching programs was also demanding of strong people skills. Among a large group of people who helped to make NCEPH tick, I want to single out Kaye Devlin (finance officer) and Ros Hales (who performed a number of administrative roles) as two "treasures" who stayed for many years and promoted goodwill wherever they went, and with whomever they talked.

Kaye was the prime mover for most of our Christmas parties and Ros the main promoter of the choir (known as The Confidence Intervals), which performed at all NCEPH social events.

Ros's masterpiece was "The Salmonella Chorus" set to the tune of the Hallelujah Chorus and my favourite of the many adaptations and compositions of the group. It's performance was a high point of my memorable retirement party held in a restaurant aptly titled "The Abbey" with a pulpit and dummy organ console at which Mary Beers-Deeble, then head of our Communicable Diseases Program and, herself an accomplished musician) pretended to accompany the choir with dramatic flourishes.

Early on in the life of NCEPH, Barbara, our executive officer had emphasised to me the importance of the tea room as an academic resource. So under Barbara's direction, the tea room became the pleasantest part of the centre. When Barbara suggested a morning tea lady I at first demurred. But the appointment of Blanka Baric to that role proved Barbara correct. Morning and afternoon tea times became a source of great exchange between postgraduate students and general and academic staff and of convivial conversation. Every Wednesday, Blanka would bring in buttered buns and the tea room would be abuzz. Blanka performed a number of other jobs in the centre but at tea breaks, she was available to prepare tea and coffee for students and staff as they arrived and to make conversation with them. Despite the fact that her English was very poor she purveyed a spirit of delightful good humour, which carried on into the tea-time discussions.

An NCEPH Melbourne cup party.

The parties and the people

One of the things that made NCEPH precious to me was the parties. Melbourne Cup day was always an occasion for some levity. The departure of an academic was an excuse for a convivial dinner. Christmas parties were always a mystery until the last moment when Kaye told us where we were going when we got off the bus.

Every month a special morning tea was held to recognize birthdays for that month. Births, bereavements, hospitalizations and major life events were the occasion for cards to be signed at the reception desk.

I had nothing to do with instituting any of this. It happened because shared respect that staff (both academic and general) and students, felt for each other.

Visiting Fellows and Centre Visitors

Each year of the first twelve years, NCEPH played host to about 30–40 visiting academics. For some of them we provided salary; for other they came as part of their sabbatical entitlements from their own universities. They were absolutely central to the operation of the centre. They injected new ideas, enthusiasm and offered valuable critiques on what we were doing. Some of them kept coming back over the years and their contribution to the centre was huge.

Deceased Academic Staff members

Aileen Plant

Aileen Plant spent only three years at NCEPH. But her impact on the place was immense. She was a lady larger than life. While at NCEPH she began and completed an excellent PhD thesis in the stunning time of 9 months. This, while managing a very busy teaching program and being unstinting with her students and embedding herself in the Communicable Disease Network around the nation.

Aileen always called a spade a spade. She was quite unapologetic about the fact that she was interested in improving the world. Her students loved her and were inspired by her. She died suddenly in Indonesia after attending a WHO meeting in 2007.

Alan Gray

Alan also spent a relatively short time at NCEPH. With Aileen he shared a passion for changing the parlous situation with aboriginal mortality. He played an important role a Coordinator of graduate s students for at least 2years and in his quiet and self effacing way made a vital contribution to the productivity of the Centre.

Pat Caldwell

Pat was a Centre Visitor for the whole of the first twelve years. She and husband Jack were a truly formidable combination. Together they had worked across the world as a loving couple and intellectual sparring partners. She had been an anthropologist by prior training and superbly complemented Jacks more empirical background.

Pat was a regular participant in Seminars and took a particular interest in the welfare and wellbeing of overseas students. A large crowd of Canberrans gathered to respect her memory at her funeral in 2008 and the International community of population scholars also saluted her contribution.

Chapter 5 Through the Retrospectoscope

Reviews and focus

During the twelve years of my directorship, the Centre underwent five full academic reviews of our performance with teams of external reviewers spending up to a week with us discussing our activities and intentions. In addition, several of our individual innovative programs had a separate review of their accomplishments. This was par for the course in academia of the 1990's Competition and accountability were the buzzwords of the time and anyone who accepted money from the government of the day had to live with this reality.

So we were always under observation, which was both beneficial and a distraction. Beneficial because it forced us repeatedly to review our priorities and the way we were tackling them. A diversion because we seemed to be endlessly preparing evaluative reports and responding to the comments of the review groups.

Most of the reviews were complimentary. But a repeated criticism was of our failure to focus our efforts on two or three overarching big issues which we could tackle in a major way. Many of the reviewers saw us dissipating our energies on too many issues. This was a legitimate comment although I think few of these reviewers understood or accepted the health development theme which underpinned all of my thinking about the research agenda and much of the discussion that took place around our faculty meeting table.

In our defence I think that the Centre made significant inroads into Primary Health and General Practice Care, The Control of Communicable Diseases in Australia, Harm reduction strategies in the management of heroin abuse; HIV epidemiology in Africa and Australia, Meta-analysis of interventions on Acute Respiratory Infections and through our involvement in the Cooperative Research Centre on Water Quality and Treatment. I think we left an enduring legacy on the issue of swimming pools in indigenous communities. I also like to think that every one of the academics and postgraduate students who passed through our doors felt empowered to develop their own personal contribution to a better world. Our graduates and former staff are in senior positions in public health in many parts of Australia.

Funding Issues

NCEPH came into existence at the height of the era of micro-economic reform instituted by the Hawke Labor Government. Competition policy was being enacted across the economy. Accountability for expenditure of tax dollars was becoming more and more rigorous. Evaluation of outcomes was essential. Universities were developing biblio-metric techniques to meet the growing demand for outcome and quality.

The Australian National University at the time we joined it was in effect, two universities, The Institute for Advanced Studies and The Faculties. The Institute had a primary responsibility for research and research training and was funded on a large block grant over which the Vice-Chancellor had full control, while the Faculties operated as a more conventional teaching and research university and was funded under the newly enacted Dawkins formulaic arrangements. The Commonwealth Government, fresh from its Dawkins reforms was less than comfortable treating ANU differently from any other university and the Institute's core grant was constsntly under threat despite stunning reviews of its international research performance.

Ours was a privileged beginning with our own block grant of $2 million a year for the first five years. In the subsequent funding cycles, the government held back some of our core grant and forced the ANU to pick up the balance. Initially we were precluded from applying for federal research grant monies but this was relaxed in the later stages of the Centre's life, when we competed well.

As table 1 makes clear we attracted considerable funds over and above our core grant funding, and as our coursework student load and research output grew, we generated significant funding for the ANU under the formulaic funding arrangement which all of the universities had with the Commonwealth Government. Our students and academic staff also attracted Grant and consultancy money from many sources and out special initiatives in teaching in the Master of Applied Epidemiology attracted additional funds from the Commonwealth Department of Health.

Our University Centre status gave us headaches as well as genuine benefits. The principal benefit was that we were, as a unit, responsible for our own academic destiny. This had the effect of generating genuine esprit de corps. The headaches came from the uncertainty of our survival as the competition for constricting dollars became fiercer amid what in retrospect was a surfeit of accountability.

"The Confidence intervals" singing the Salmonella Chorus at my retirement party 2000.

Preparing for the Transition

In preparing for the next stage of the Centre's development, we held several faculty discussions in 2000, which established that the Centre now had real strength in Communicable Diseases, Environmental Health, The Social Determinants of Health, and Research into Health Systems. Each of those programmatic areas, we recognized, had a series of cross cutting themes that determined the focus of our research. One of these themes was "Estimating the attributable and preventable burdens and costs of disease". A second was "Identifying high risk groups and populations". A third was "Studies of cause and prevention" The fourth was "Social dimensions and context" including "Perceptions, experiences, social relations and behaviours" and "Large scale transitions in epidemiology, demography, sustainability and health". The fifth cross cutting theme was "The need to be open to new and integrative research methods" in studying each of these areas.

There would be a gap of eight months between my retirement from the paid academic staff and the arrival of my successor, Tony McMichael. My deputy, Gabriele Bammer, became Acting Director for the transition period. Gabriele had played a leading role in NCEPH's early development, and had chaired a number of the Centre's planning retreats.

Closing comment

In retrospect I count myself as a very fortunate person to have been offered the post of Director of NCEPH at such an opportune time in the development of Australian Public Health Research and Education. Kerr White's report was both visionary and transformative of the entire Australian Public Health System.

Since my retirement I have been a Visiting Fellow at NCEPH and have chaired the Advisory group of the Anton Breinl Centre at James Cook University in Townsville, another of the PHERP centres that commenced in response to the Kerr White's report. That centre and NCEPH are just two of about a dozen developments that are continuing to influence the Australian Health Care System.

Thanks to that report and the actions which followed from it across Australia, I think we can now confidently say that public health has entered the mainstream of Australian academic endeavour.

Table 4. Academic, Visiting Academic, Research Support and Administrative and Clerical staff 1988 to 2008

1. People who held academic posts at NCEPH for varying periods between 1988 and 2008.

Adams	Tony
Alarcon	Mildred
Arias	Linda
Audera	Carmen
Bailie	Ross
Bambrick	Hilary
Bammer	Gabriele
Banks	Emily
Banwell	Catherine
Barnes	Belinda
Becker	Niels
Beers Deeble	Mary
Berry	Helen
Blogg	Suzanne
Blumer	Charlie
Bock	John
Bracher	Michael
Buckley	Nicholas
Buetow	Stephen
Butler	James
Butler	Colin
Byrne	Anne
Caldwell	John
Caldwell	Bruce
Caley	Peter
Carmichael	Gordon
Clarke	Philip
Clements	Mark
Crawford	David
D'Souza	Rennie
Dalton	Craig
Dance	Phyllis
Day	Alice
Dear	Keith
Deeble	John
Diggle	Peter
Dixon	Jane
Douglas	Robert
Dugdale	Paul
Earle	Jennifer
Eckersley	Richard
Fordham	Graham
Friel	Sharon
Gaughwin	Matthew
Gibson	Brendan
Gilchrist	Charles
Glass	Kathryn
Gray	Alan
Greig	Jane
Guest	Charles
Guthrie	Jillian
Hales	Simon
Hall	Gillian
Hall	Robert
Halliday	Linda
Harris	Peter
Heffernan	Colien
Hull	Terence
Jain	Shailendra
Kelman	Christopher
Kjellstrom	Tord
Kliewer	Erich
Korda	Rosemary
Lane	John
Larson	Anne
Legge	David
Levy	Michael
Li	Zheng
Li	Lei
Lim	Lynette
Lucas	Robyn
Mackisack	Margaret

Martin	Carmel
McCallum	John
McDonald	David
McGilchrist	Charles
McGuiness	Clare
McMichael	Anthony
Merianos	Angela
Mira	Michael
Patel	Mahomed
Peterson	Christopher
Pilotto	Louis
Plant	Aileen
Ponsonby	Anne-Louise
Ranmuthugala	Geethanjali (Geetha)
Renne	Elisha
Roberts	Christine
Roberts	Leslee
Rodgers	Bryan
Salim	Agus
Saltman	Deborah
Santow	Marjorie
Setel	Philip
Sibthorpe	Beverley
Sidorenko	Alexandra
Sleigh	Adrian
Smith	Len
Smith	Wayne
Smith	Julie
Solomon	Patricia
Stocks	Nigel
Strazdins	Lyndall
Thompson	Jane
Thomson	Neil
Utev	Sergey
Utomo	Iwu
Vally	Hassan
van Kerkoff	Lorrae
Varga	Christine
Veitch	Craig
Whittaker	Andrea
Whittaker	Maxine
Wilson	Eileen
Wilson	Susan
Worsley	Francis

2. People who held Visiting academic posts at NCEPH for varying periods between1988 and 2008.

Aitkin	Irit
Anarfi	John
Armstrong	Bruce
Attewell	Robyn
Awusabo-Asare	Kofi
Babatola	Olantunji
Bartlett	Ben
Blakemore	Tamara
Briscoe	Gordon
Brookmayer	Ronald
Broom	Dorothy
Brown	Malcolm
Brown	Kaye
Burrows	Colin
Butlin	Andrew
Cameron	Colin
Cameron	Alexander
Car	Nicholas
Chevalier	Barbara
Cliff	Julie
Condon	Robert
Daly	Joanne
Davis	Peter
Dean	Margaret
Denton	Barbara
Doyle	Kevin
Dugdale	Ann
Elvy	Geoffrey
Falconer	Ian
Fett	Michael

Fleming	Jillian
Flood	Michael
Freund	Deborah
Gajanayake	Indra
Gaminiratne	Kiri
Gardner	Pamela
Garner	Graeme
Graham	Janne
Green	Adele
Griew	Robert
Hamilton	Clive
Hartland	Nicholas
Hartley	Margaret
Hawkins	Simon
He	Yiqing
Healy	Judith
Humes	Glenda
Hutchison	Allen
Jones	Michael
Kasl	Stanislav
Khuda	Barkat-e-
Kim	Jong-In
Kulinskaya	Elena
Kunitz	Stephen
Lambert	Stephen
Lee	Vivien
Leung	Caleb
Liang	Jersey
Liao	C
Liu	Chaoying
Lopez	Carmen
Marshall	Julie
Martina	Alan
Mead	Cathy
Mudge	Peter
Nichol	Willilam
Nicholson	Jan
Ntozi	James
Olson	Leslie
Orubuloye	Olantunji
Peavey	James
Powell	Keith
Raju	Kankipati
Reddy	P
Ruben	Fred
Rutnam	Romaine
Sansoni	Jan
Singh	Mohan
SinghYadava	Kedar
Smith	Ken
Thomson	Jennifer
Trussell	James
van Weel	Chris
Wadsworth	Yoland
Wang	Gujie
Woodward	Roslyn
Zadoroznyi	Maria
Zick	Cathleen

3. People who held Research Support posts at NCEPH for varying periods between 1988 and 2008.

Ahmed	Syed
Algert	Charles
Anderson	Iain
Bathgate	Stephanie
Biglia	Beverly
Boyce	Betty
Braid	Jennifer
Brown	Roslyn
Burton	Jillian
Campbell	Dorothy
Chalker	Elizabeth
Churchill	Susannah
Coles	Rita
Colombo	Rachel
Coppin	Jodi
Cosford	Wendy

Courtenay	Jacqueline
Cozens	Zoe
Crocker	Bryan
D'Souza	Ronald
Davies	Robyn
Dharmalingam	A
Dickson	Nathalie
Dixon	Tracy
Doust	Jennifer
Edberg	Roger
Egan	Jack
Fazekas de St Groth	Camilla
Gardner	Karen
Gerrard	Grayson
Grealy	Sarah
Grey-Gardner	Robyn
Hanigan	Ivan
Healy	Patricia
Hill	Peter
Hill	Alison
Hinde	Sarah
Howarth	Ann
Hull	Cordelia
Ibrahim	Omar
Kavunenko	Anne
Khalidi	Noor
Littleton	Judith
Lonergan	Joan
Majumder	Kashem
Malbon	Rodney
Marck	Jeff
Martin	Mary Jo
Martin	Sarojini
Matiasz	Sophia
McCulloch	Colin
Miller	Jenni
Minogue	Peter
Mirza	Tanjina
Missingham	Bruce
Moor	Patricia
Mui	Suet-Lam
Murphy	Susan
Neil	Amanda
Nguyen	Tuan
Nisa	Meherun
Oni	Jacob
Ostini	Remo
Patulny	Roger
Pearce	Stefanie
Powell	Idona
Quiggin	Patricia
Raymond	Chris
Ridgway	Alexa
Rosenberg	Barrry
Schindlmayr	Thomas
Sengoz	Ayse
Smith	Bettina
Smith	Victoria
Snape	Kathryn
Spencer-Herrera	Leslie
Tunnicliff	Deborah
Vesper	Joan
Wand	Handan
Wang	Dong
Woodruff	Rosalie
Xing	Jifu
Yau	Kelvin
Zeller	Ruth

4. People who held Administrative and/or clerical posts at NCEPH for varying periods between 1988 and 2008.

Almassy	Alena
Amerikow	Suzanna
Avery	Christine
Ballantyne	Matthew
Baric	Blanka
Bell	Kylie
Benger	Christine
Boardman	Prashant
Bowen	Catheryn
Braybrook	Nicola
Brennan	Glen
Broers-Freeman	Daphne
Burgess	Julie
Carnegie	Michelle
Crosse	Diane
Cutler	Lisa
Daroesman	Peggy
Dennett	Christopher
Devlin	Kaye
Drummond	Deanne
Eicholzer	Albert
Elliott	Jennifer
Fardell	Jodie
Foster	Elilzabeth
Gallagher	Valda
Gentry	Yvonne
Goddard	Sandra
Goodall	Patricia
Goodban	Amanda
Goodwin	Melissa
Grant	Neil
Gresham	Jane
Hales	Ros
Hardy	Jean
Harkin	Olivia
Harrod	Duncan
Harvey	Rowena
Healy-North	Jo
Hepp	Bonny
Hinton	Claire
Hollings (nee Napper)	Elaine
Hood	Patricia
Hoorweg	Leonie
Humphreys	Alison
Joveska	Vera
Karjalainen	Tuula
Kingsland	Sally
Koh	Ling
Law	Mandy
Lawley	Helen
Lee	Colleen
Levy	Helen
Lindsay	Susan
Longstaff	Duncan
Lovell	Elizabeth
Low	Rebecca
Markey	Janet
McIntosh	Stuart
McIntyre	Heather
McKinlay	Gillian
Nobleza	Elena
Norden	Paul
Payne	Barbara
Pell	Anthony
Ramsay	Sylvia
Richardson	Belinda
Rickett (Fardell?)	Jodie
Riddle	Virginia
Savory	Robyn
Searle	Joy
Sime	Judith
Smethills	Susanne
Steele	Jaqueline
Stinson	Anne
Taylor	Susan
Tunks	Margaret
Van Breukelen	Margaret
Wallbank	Naomi
Watson	Coral
Weidemann	Annabel
Whybrow	Damian

Academic and general staff and research students 2000.