Indigenous Research Reform Agenda

A review of the literature

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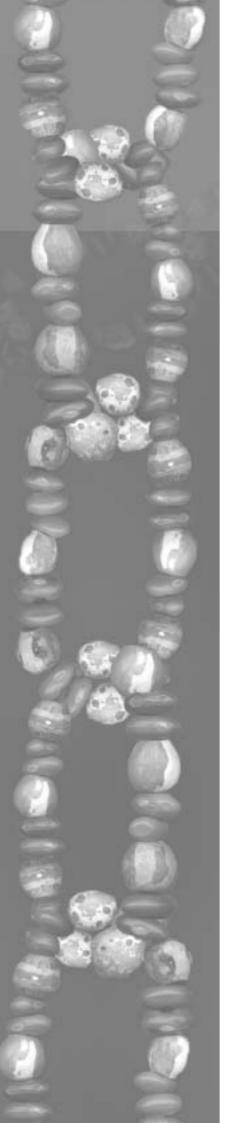# Table of Contents

1. Background

The Cooperative Research Centre for Aboriginal and Tropical Health (CRCATH) was established as a 'public good' CRC in 1997. The Centre brings together a number of Aboriginal groups, service providers, educators and researchers to carry out cross-cultural and multi-disciplinary research to improve Aboriginal health and the health of people living in tropical regions.

An important focus of the CRCATH is to challenge many of the approaches historically underpinning research into Aboriginal health and to facilitate the transfer and dissemination of locally generated health research findings. The Centre is an unincorporated joint venture between six core partners:

- Menzies School of Health Research (MSHR)

- Flinders University

- Northern Territory University

- Danila Dilba Health Service

- Central Australian Aboriginal Congress

- the Northern Territory Department of Health and Community Services.

The LINKS Action Research project, also known as 'Action research for managing, undertaking and disseminating Aboriginal health research for improved health outcomes', is a strategic research initiative of the CRCATH that aims to investigate the current effectiveness of CRCATH procedures associated with undertaking research, managing research and disseminating research findings. It is intended that this review of the literature will provide a broad framework of reference for emerging issues within the LINKS project.

Humphery (2000), in a discussion paper entitled *Indigenous Health and Western Research*, provides support for the proposition that research institutions have an important role to play in the effort to reform Indigenous health research in Australia. Humphery argues that progress toward achieving improved outcomes from research is dependent upon mainstream research and policy establishments adopting:

> … a much more forward-looking exploration of what Indigenous health research as a field might look like in ten or twenty years time both in terms of institutional arrangements and working practices. Addressing this latter issue will involve comprehensively identifying what mechanisms, organisations and programs need to be put in place, or further supported now to ensure that traditionally entrenched ways and institutional sites of identifying, funding, controlling and undertaking research are significantly challenged (Humphery, 2000, p. 24).

Humphery also proposes that it needs to be acknowledged that:

> *…in Australia, this broader effort to institutionally re-position the funding, conduct and control of Indigenous health research away from traditional research establishments and funding bodies is, in international terms, highly underdeveloped. Yet it is clear that if, in a decade's time, the broad field of Indigenous health research is still relying on guidelines and key projects alone to guarantee 'good process and empowerment' then any transformation of the field will have been minimal if not, after thirty or more years of debate, negligible* (Humphery, 2000, p. 25)

In supporting the development of the LINKS project as a strategic research initiative, the management of the CRCATH demonstrates ongoing commitment to critical evaluation of workplace practices and institutional arrangements associated with the conduct of Indigenous health research. As Humphery (2000) points out, the success of the project to reform entrenched approaches historically underpinning research into Indigenous health is dependent upon substantial institutional and organisational re-positioning in key areas. For this to be achieved, critical evaluation of organisational processes needs to be ongoing.

A focus throughout this literature review will be the identification of issues and trends that potentially impact upon the future development of research and management practices both within the organisation of the CRCATH, and within other institutions involved in Indigenous health research. An overriding issue of interest is the extent of alignment between reform proposals and current institutional practices and processes. The literature considered in this review incorporates perspectives from the United States, Canada, New Zealand, Britain and Australia. The databases searched included Ebsco Host, Gales Expanded Academic, Academic Search Elite, VOCED, Cochrane Library, Medline and ATSI Health.

2. Recent Australian health and medical research reviews, policies, reports and initiatives of significance to Indigenous health research

An important milestone in the recent history of Australian public health was the review carried out in 1985 by the eminent Canadian public health academic, Professor Kerr White, who was asked by the Commonwealth Government to report 'on appropriate arrangements for meeting public health and tropical health teaching and research requirements to the year 2000'. White observed that 'Australia needs not just more "public health" workers but more "population-based" thinking throughout the health sciences and the health services...'. In this report, White identified ten generic problems to be considered in developing future institutional arrangements for public health (NPHP 1998a p.4).

The 1989 *National Aboriginal Health Strategy* provided a framework for the whole of the health system to better reflect the social and cultural determinants of Aboriginal and Torres Strait Islander health. It also identified some specific strategies needed to address particular health issues (NATSIHC 2000 p. 11). This strategy advocated for increased levels of funding for Aboriginal health research, increased levels of participation by Aboriginal people in the conduct of research and for increased control over the research project by Aboriginal community controlled organisations.

The 1994 *Evaluation of the National Aboriginal Health Strategy* noted that the 1989 National Aboriginal Health Strategy was never effectively implemented. The evaluation recommended that the strategy be supported by a strategic approach to implementation and including outcome measures related to identified needs for measuring the impact of interventions (NATSIHC 2000 p. 11).

In 1994 the Commonwealth Government commissioned a review of NHMRC operations (Referred to as the Bienenstock Review). In reporting on the findings of the Bienenstock Review, Ragg states that 'Dr John Bienenstock…found the NHMRC to be an organisation vital to the nation's interest' and that 'in addition to finding that the NHMRC had failed to adequately address Aboriginal health issues, the report revealed deficiencies in internal NHMRC mechanisms for determining funding priorities, for providing infrastructure support for research, for distributing information publicly and for monitoring its own activities (Ragg, 1994 p.591)'.

The National Public Health Partnership (NPHP) was established in 1997 in response to an identified lack of co-ordination of public health activity in Australia, and according to Baum (1998), this Partnership 'holds some promise of revitalising Australia's public health effort (p. 51)'. The NPHP holds the position that public health research and development (R&D) receives a disproportionately small share of health and medical research funding in Australia and they use the funding break-up within the NHMRC as an example: 'The NHMRC is the largest single source of funding for public health R&D….health and medical research funding until the last triennium (1994-96) followed recommendations from two separate committees - the Medical Research Committee (MRC) and the Public Health Research & Development Committee (PHRDC). Of the NHMRC's total grants for 1996, which amounted to $135 million, the PHRDC issued grants with a total value of $9 million, and the MRC $126 million (NPHP 1998a p.8).

Since 1997, structural reform within the health sector has been underpinned by the Agreements on Aboriginal and Torres Strait Islander Health (Framework Agreements). The Framework Agreements provide for joint planning forums in each jurisdiction including Commonwealth and State or Territory Government, Aboriginal Community Controlled Organisations and the Aboriginal and Torres Strait Islander Commission. The joint planning forums have undertaken a process of regional planning which has been completed in South Australia, Central Australia, Northern Territory and Queensland, and which identifies the current levels of service and health needs in these regions (NATSIHC 2000 p. 12).

In 1998 the Commonwealth Government commissioned the Health and Medical Research Strategic Review Committee to report on the conduct of health and medical research in Australia. The Report of the Review, which was chaired by Mr. Peter Wills and which hereafter is referred to as the Wills Review, is entitled '*The Virtuous Cycle - Working together for health and medical research*' and was released in May 1999. The report provides a strategic framework for the development of Australian health and medical research into the next decade and beyond, and has been described by Swan (1999) as probably 'the most comprehensive review of Australian medical research ever carried out(p. 119)'. Swan also notes that 'The review's conceptual framework separates fundamental research - essentially investigator-driven work - from what they have called priority-driven research, which "contributes directly to population and evidence-based health care," but it makes little direct reference to public health and health services research (p.119)'. The review includes a strong statement of support for increased levels of employment and training of Indigenous researchers in order to facilitate Indigenous participation and leadership in health research (p. 60).

Following the release of the Wills Review in 1999, the Commonwealth Government doubled the annual NHMRC budget over six years to $350 million per annum by 2005. The Commonwealth Government referred 56 of the Review's 126 recommendations to the NHMRC for action and the response of the NHMRC to these recommendations is contained within the *Health and Medical Research Council Strategic Review: National Health and Medical Research Council Implementation of the Government's Response* (2000).

The Commonwealth Government's response to the remaining Review recommendations is contained within Enabling The Virtuous Cycle. Implementation Committee Report. Health and Medical Strategic Review (2000). The Report supports the adoption of priority-driven research and promotes improved mechanisms for collaboration between research institutions as a way of achieving a more co-ordinated approach to health and medical research (p. 34). Within this context, the Report makes reference to the CRCATH: 'The CRCATH provides a model for the type of collaboration envisaged for other general health fields….Based in Darwin, the Centre has developed links with a wide range of Aboriginal Health Centres and services as well as federal and state government bodies, universities and other CRCs (2000, p. D15)'.

The *Health for Life Report of the House of Representatives Standing Committee on Family and Community Affairs, Inquiry into Indigenous Health, Discussion paper*, (HoRSC) (2000), recommended stronger Commonwealth leadership on Aboriginal and Torres Strait Islander health issues and the need to enhance cross-sectoral action to improve health status (NATSIHC 2000 p.11). The Report argues for a radical restructuring in the management of Indigenous health research and recommends that research in the Indigenous Health area should:

- be developed in conjunction with communities to reflect community priorities

- be focused on achieving benefit to the community and on achieving health outcomes

- provide mechanisms for the involvement of Indigenous people

- provide mechanisms for the transfer of research findings

- provide information that is useful in developing policies and programs. (HoRSC 2000 p.119).

The Committee reported that it was impressed by the approach to research taken by the Menzies School of Health Research and the CRCATH, '[The approach]…which has brought together a number of research institutions and community controlled health services to provide a cross-cultural framework for strategic research, is a very positive step in the Indigenous health research area (HoRSC, 2000 p.125)'. The Report also argues that both these organisations should receive greater support in the allocation of research funds but says that mainstream research institutions also have an important role to play in the Indigenous health research field. Recommendation 35 of the Report proposes that for the next five years, the Commonwealth should ensure that the NHMRC allocates at least five per cent of total annual research funding for Indigenous health research (2000, p.120).

The draft (2000) *National Aboriginal and Torres Strait Islander Health Strategy* (NATSIHC) identifies important 'next steps' in the implementation of key directions suggested in the 1989 National Aboriginal Health Strategy, while focusing effort more specifically on actions that can be implemented within the health sector (p.11). Key Result Area Seven of this Strategy relates specifically to 'Data, Research and Evidence' (p. 85). Within this Strategy the CRCATH is cited as an example of an organisation that 'provides a new vehicle for developing co-operative research relationships, with control given to Aboriginal people, while ensuring that there is access to a broad range of expert advice (p.88)'.

2.1 The history of Indigenous research and proposals for reform

Consideration of the history associated with research involving Indigenous peoples indicates that the outcomes, when measured in terms of 'demonstrable benefit', have been insubstantial and that some research has had negative consequences. In Australia, it is argued that Indigenous health research:

- has documented the extent of Aboriginal and Torres Strait Islander disadvantage but that it has provided a poor focus for improving health conditions for Indigenous peoples (Anderson et. al, 2001)

- has not generally been to the advantage or benefit of Indigenous peoples and that it has been considered 'seriously damaging and harmful' and 'insensitive, intrusive and exploitative' (Johnstone, 1991, Bourke, 1995, Maddocks, 1992, NAHS 1989)

- reflects the exploitative history of colonialism in this country (Thomas, 2001, Humphery, 2000, 2001, Manderson et.al. 1998)

- is designed to serve the academic, political or professional needs of researchers (NAHS 1989).

Within the social science disciplines, related observations have been made:

- Australian Anthropology developed in alliance with the pre-1967- referendum systems of Aboriginal administration, but the political relationship between institutional knowledges such as Anthropology, Aboriginal communities and systems of Aboriginal administration was complex and contested. (Cowlishaw, 1990, cited in Anderson, 1996, p. 154).

- Koorie communities have become highly critical and cynical about research as an activity; and rightly so. Their experience of research has been one of paternalistic probing, of being constructed by disciplines that are presented and portrayed as impenetrable sources of knowledge and power (white mythologies?), of being written about, and of others gaining status on their backs. (Deakin University, 1994, p. 2).

- In whichever discipline researchers have worked - history, sociology, anthropology, psychiatry - most have failed to perceive the insiders' view - how black people themselves perceive and understand their condition. (Langton 1981, p16).

- Indigenous perceptions of Australian research practice have emphasised their subject status, in which academics have been seen to descend on a community, gain peremptory permission to conduct their work, collect their data (biological or social) and leave, with little or no feedback to the community and no lasting benefits to it. (Manderson et al 1998, p223).

Anderson (1996) suggested that the history associated with research has 'had a powerful impact on the collective memories of Aboriginal communities' and that 'within the Aboriginal community there is a growing, though tentative, recognition that research can be a valuable tool if deployed appropriately (p.154)'. Collins and Poulson (1991) provided an example of this positioning when they suggested that 'medical research has brought health to Aboriginal people and we can see how important it is to know why we get sick and what causes sickness. For that reason we believe in research (p.6)'.

Proposals for the reform of Indigenous social science and health-related research include reference to the importance of developing a research culture that does not support the marginalisation of individual and collective Indigenous community interests. This positioning is generally framed as a response to the historical links between research and the processes of colonisation. (Tuhiwai Smith, 1999, Humphery, 2000, 2001, Dodson, 2000, Rigney, 1999). It is commonly argued that research approaches that perpetuate the positioning of Indigenous peoples as research 'subjects' and researchers as 'experts' should be rejected. Eleanor Bourke (1995) argued that '…research "of interest" to Indigenous Australians rarely involves Aboriginal or Torres Strait Islander people except as anything more than informants or subjects (p.14)'.

The literature points to an ongoing alignment between the movement to reform the conduct of research involving Indigenous peoples and the broader political struggles associated with increasing the level of Indigenous community control on a number of other fronts (ARC, 1999). Within this framing of issues, Indigenous peoples are positioned as important agents of change. Rigney (1999), for example, in a discussion about proposals for methodological reform within the research project, argued that 'Indigenous people now want research and its designs to contribute

to the self-determination and liberation struggles as defined and controlled by their communities. To do this Indigenous people themselves must analyse and critique epistemologies that are commonplace in higher education (p. 110)'. Similarly, Tuhiwai Smith (1999), a Maori academic, argued that the proposal to reform Indigenous research is essentially political and that the realisation of reform objectives relies on the direct involvement by Indigenous peoples as key players in research activity.

An ARC (1999) research project, *Research of Interest to Aboriginal and Torres Strait Islander Peoples*, investigated the conduct of research involving Indigenous peoples across a range of Social Science disciplines. In the preface to the report it is suggested that research involving Indigenous peoples in Australia has undergone a major transformation in the past three decades, and that this transformation can be related in part to external political factors: 'Political groups which had advocated political advancement moved to advocacy and demand for Indigenous rights (human rights, land rights, minority rights). There was (and is) a continuing demand for Indigenous perspectives and participation in the academy (p. 23).'

The extent of the 'transformation' referred to within the ARC (1999) report remains unclear. What is apparent, however, is that some Indigenous peoples do not accept that the reform process has gone far enough to ensure that the interests of Indigenous peoples are adequately protected. Tuhiwai Smith (1999), for example, argued that:

> *Clearly, there have been some shifts in the way non-Indigenous researchers and academics have positioned themselves and their work in relation to the people for whom the research still counts. It is also clear, however, that there are powerful groups of researchers who resent indigenous people asking questions about their research and whose research paradigms constantly permit them to exploit Indigenous peoples and their knowledges* (Tuhiwai Smith, 1999, P. 17)

Michael Dodson (2000), a former Aboriginal and Torres Strait Islander Social Justice Commissioner in Australia, warned against complacency when considering exploitative research practices as a thing of the past. He detailed the extent to which the human rights and cultural values of Indigenous peoples are potentially compromised within the conduct of the International Human Genome Diversity Research Project (HGDP). He argued that the HGDP 'is little more than a recent example of the colonialism and exploitation which has characterised the clash between Indigenous and non-Indigenous people for centuries' (p.2). Dodson also pointed out that through the project, the dominant discourse of Western Science is asserting its authority over marginalised knowledges such as those of Indigenous peoples.

In tracking institutional responses to the calls by Indigenous peoples for changes to their positioning within the research project, the ARC (1999) suggested that a significant change has occurred at the level of decision-making about Indigenous participation in research. It notes that, '…whereas in the past the gatekeepers were administrators, heads of university departments and other agents of colonial rule, now indigenous people have themselves become the gatekeepers. One could describe this shift as the right to freedom from being researched. Indigenous people becoming gatekeepers has changed the paradigm of research and altered the negotiating regime (p. 25)'.

It is through the development of specific guidelines for the conduct of research involving Indigenous peoples and through the development of Indigenous Ethics Committees (IEC's), that the 'gatekeeping' role of Indigenous peoples has been formalised. The success of these interventions in bringing about anticipated changes to the way research involving Indigenous people is conducted, however, remains contested. Dodson (2000) pointed out that within the Indigenous health research field, local Indigenous Ethics Committees have developed the capacity to filter research project proposals but that there is a lack of Indigenous representation within the construction of national mainstream institutional ethics committees. He also pointed out that although the NHMRC ethics committee has as one of its members 'a person with knowledge of the health needs of Aboriginal communities nominated by the Aboriginal and Torres Strait Islander Commission' there is no Indigenous representative on the Australian Health Ethics Committee (AHEC). According to Dodson, the purpose for Indigenous representation on such a committee is to 'minimise the risk of Indigenous interests being overlooked in any deliberations of ethical and social matters (p.13)'.

In 1992, Lake reported that Aboriginal health research in the preceding decade had been largely 'fragmented and inappropriate' and that the emergence of Aboriginal Health Research Ethics Committees and the NHMRC (1991) *Draft Guidelines for the ethical conduct of Aboriginal health research* represented an opportunity for addressing this situation (1992, p. 16). Barbara Flick (1994), a member of an Indigenous health research ethics committee, also suggested that one of the issues some Indigenous ethics sub-committee members would like to address is the development of their role in 'helping to define research priorities in Aboriginal health (p.103).'

Houston and Legge (1992) suggested that 'if medical and public health research is to contribute toward redressing the health disadvantages of Aboriginal Australians it must recognise itself as being part of the problem, before it can claim to be part of the solution (p.115).' This call for recognition of the research project as 'part of the problem' associated with Indigenous disadvantage and marginalisation, has implications for key stakeholders within the research process. Researchers, research organisations, the academy and higher education institutions are being called upon to justify their involvement in Indigenous health research by detailing how their research activity is expected to impact positively on the achievement of improved health outcomes for Indigenous peoples.

Broader questions about the social impact of health research are emerging within other contexts. In a recent editorial, Richard Smith (2001) of the *British Medical Journal*, raised the issue of the social impact of health research. 'The main aim of health research is to improve the health of people….In an ideal world all research would be of high quality and have considerable social impact by improving health. But in the real world scientific quality and social impact do not always go together (p.1). 'The main problem, as Smith sees it, is that although bodies that fund research with public money want both high quality research and social benefit, current systems for measuring research performance concentrate on scientific quality. To address the problem of a developing imbalance in the research portfolio he reports that a Dutch committee is advocating for the development of a new instrument for measuring social impact that has the potential to be integrated with instruments for measuring scientific quality. Anderson (1996a) conceptualised the problem as 'the ethics of benefit' and suggested that although the problems of the

benefits of research to Aboriginal communities has been raised in discussion of research ethics, that the issue of how this may be assessed with respect to particular projects has not been clearly defined. He argued that this is a moral problem for two reasons:

> *First, in the distribution of research resources questions about benefit cannot be resolved unless differences between alternative value systems are reconciled. Second, Aboriginal communities have such poor health status and poor access to health system resources that it is essential to maximize the potential of all resources. Here, the ethical issues confronted by Aboriginal people are similar to those faced by others who engage with the research establishment from a position of marginalisation and disadvantage* (Anderson 1996, p. 156).

Although researchers are framed as key agents of change within proposals to reform the way research is initiated, conducted and its findings disseminated, the question of how to engage individual researchers in these processes remains unresolved. The ARC (1999), for example, reported that there is evidence of a substantial mismatch between the current nature of research being conducted in a number of social science disciplines in Australia and the ethical and protocol guidelines that have been developed to guide researchers involved in 'research of interest to Indigenous peoples'. These research findings represent important evidence that there has not been much movement on the ground in terms of changed researcher practices and that there are implementation problems associated with ethical and protocol guidelines for researchers involved in research activity that involves Indigenous participation.

Humphery (2000, 2001) traced the history of reform associated with the conduct of Indigenous health research in Australia over the past thirty years. In addition to mapping key milestones in the reform process, he also advocated for ongoing attention to key areas identified as being important to the achievement of fundamental changes to the way Indigenous peoples are positioned within the health research project.

These areas include:

- involvement of Aboriginal communities in the design, execution and evaluation of research

- defining the co-ordinating role of Aboriginal community controlled organisations

- consultation and negotiation defined in practice as ongoing and open to scrutiny

- mechanisms for Indigenous control and transformation of research

- mechanisms for ongoing surveillance of research projects

- processes to determine research priorities and benefit

- determination of ethical processes for the conduct of research in terms of consultation and negotiation

- transformation of research practices from 'investigator-driven' to a re-assertion. of control by indigenous community controlled organisations over the research project and an adoption of a needs- based approach to research

- linkage between research and community development and social change

- the training of Indigenous researchers

- the adoption of effective mechanisms for the dissemination and transfer of research findings

- ownership and control of research findings by Aboriginal communities.

3. Research methodologies

3.1 Indigenous research methodology

Historically, tensions between Indigenous peoples and the broader research community have related to issues of power and control of the research process, and to control over the outputs of research. Research methodology has been significantly implicated in the playing out of these tensions. The work of Tuhiwai Smith (1999) has contributed importantly to the elevation of research methodology as an important site of struggle between the interests of researchers and the interests of Indigenous community members. In her book *Decolonizing Methodologies: Research and Indigenous peoples*, she advocates for the identification of methodologies that have the potential to ensure that research with Indigenous peoples can be 'more respectful, ethical, sympathetic and useful.'(p.9). According to Tuhiwai Smith, the challenge by Maori to the research community that they 'keep out' of researching Maori people and Maori issues has forced academics to proceed with far more caution when they enter the domain of Maori concerns. While Tuhiwai Smith does not support the notion of a moratorium over non-Indigenous involvement in research involving Maori issues, she does argue that the relationship between researchers and Maori communities must be framed very differently in the future. Central to her position is that culturally sensitive research methodologies must be adopted, but she also warns that methods which appear to be qualitative or ethnographic can also be problematic when they are underpinned by invalid assumptions and when research findings are incorrectly interpreted (p.177).

In Australia, methodological reform is also cited as a way of redressing the power imbalance between researchers and Indigenous participants in research activity. The Deakin University Institute of Koorie Education, for example, argued that Koorie research must move from 'a positivistic positioning of Koories as objects of others' enquiries to research paradigms which attempt to redress the oppressed, marginalised "border" reality of Koorie nations in contemporary Australian society and within this society's academic institutions (Deakin University, 1994, p. 4)'.

The concept of Indigenous Research Methodologies is currently being theorised and promoted by Indigenous representatives from within higher education institutions as a guide to the future direction of research involving Indigenous peoples in Australia. Rigney (1999) (an Indigenous lecturer in the Yunggorendi First Nations Centre at Flinders University), in an article entitled 'Internationalisation of an Indigenous anti-colonial cultural critique of research methodologies', adopted the position that the historical application of 'colonial' research methodologies has significantly contributed to the marginalization of Indigenous community interests. Rigney encourages Indigenous researchers to view prevailing mainstream research practices as an extension of the overall project of colonial domination and he argues strongly for the development of Indigenous Research Methodologies to ensure the achievement of Indigenous intellectual sovereignty within the research project. Within this article, Rigney also presented a guide to Indigenous Research Methodology and its principles in Australia.

Since this article was published there have been three significant Indigenous research forums that have extended the boundaries of the discussion surrounding the Indigenous research project. The Umulliko Forum on Indigenous research (1999) was the inaugural forum which brought together Indigenous researchers from around Australia to share their visions for the re-formulation of Indigenous research practices. The second forum was hosted by the Aboriginal Research Institute at the University of South Australia in 2000, and more recently, the forum hosted by the University of Melbourne in 2001 canvassed a proposal for the development of an Australian Association of Indigenous Researchers. Current discussion surrounding the concept of Indigenous Research Methodologies includes reference to:

- the importance of developing Indigenous research capacity

- the importance of approaching cultural protocols, values and behaviours as integral to the research process instead of as a barrier to research (Tuhiwai Smith, 1999 p. 15)

- the adoption of methodological approaches with a demonstrated capacity for incorporating Indigenous community members as key participants in the research process

- the adoption of research approaches which are 'respectful' of Indigenous peoples and their cultures.

Indigenous research reform proponents are not necessarily advocating for the development of new research methods, but instead for the re-positioning of Indigenous peoples within the construction of research. Methodological approaches are included within the Indigenous Research Methodology framework on the basis that they represent a capacity for achieving this aim. For example, Winch and Hayward (1999) identified some methods of qualitative data collection that they claim are preferred by Aboriginal people in Australia. These methods include oral history, ethnography, participant observation, community study and collaborative inquiry (p.25).

The extent to which the application of the newly defined Indigenous Research Methodologies is being supported within mainstream academic and research institutions in Australia remains undisclosed. The existence of postgraduate courses dedicated to the development of research capacity within Indigenous research contexts, however, provides some indication that progress toward the achievement of methodological reform within mainstream higher education institutions is substantial, and likely to be sustained. The Curtin University Centre for Indigenous Research, for example, offers postgraduate courses designed to 'prepare people to formulate and implement modes of inquiry specifically relevant to the social and cultural needs of Aboriginal and other Indigenous peoples…. These courses were specifically formulated on the basis of approaches to research that accept Aboriginal systems of knowledge as central to processes of inquiry and investigation (Abdullah and Stringer, 1997, p. 3)'.

The development of research capacity within the Indigenous community is proposed as central to the achievement of methodological reform. Tuhiwai Smith (1999) observed that when Indigenous peoples become researchers and not merely the researched, the activity of research is transformed:

- *questions are framed differently*

- *priorities are ranked differently*

- *problems are defined differently*

- *people participate on different terms* (Tuhiwai Smith, 1999 p.193)

3.2 Collaborative and participatory research methodologies

Collaborative and participatory research methodologies are generally identified as being compatible with the goals of the emerging agenda for reform of research involving Indigenous peoples in Australia and internationally. Stillitoe, in an analysis of research approaches in developing countries, argued that the increasing focus on bottom-up participatory approaches to development in many countries has stemmed from the failure of centralized or top-down approaches to deliver sustainable improvement to the lives of people who have been the subjects of research. He also stated that:

> *It is now generally agreed that understanding the incorporation of indigenous knowledge and practices central to local ecological and social systems is essential if we are to achieve sustainable development. ….The shortfall in achieving the goals of many thousands of government, non-government, and donor-funded projects aiming at poverty alleviation and agricultural development has been ascribed to the lack of participation of the target populations or beneficiary stakeholders* (Stillitoe, 1998 p.22).

In other situations, including Public Health research activity in Indigenous community contexts, there is increasing recognition that the historical marginalisation of local Indigenous knowledge and perspectives has met with similar lack of progress toward sustainable community development.

Anne George *et al* (1998) suggested that the growing acceptance of collaborative approaches to research may be related to the 'impatience of communities, non-academic organisations and lay groups who seek to use research to achieve their action agendas and who feel that most university-based research has not been sufficiently responsive to their needs (p.182)'.

The following evidence presented by Mr. Johnny Liddle (former chairperson of the Central Australian Aboriginal Congress) to a House of Representatives Standing Committee on Family and Community Affairs Inquiry into Indigenous Health, illustrates this positioning:

> *…what we are trying to do, what I am trying to do, is to get health research focused and make it useful research, which are the words that I usually use. I consider that a lot of research has been airy-fairy type research and it is basically for the individual researcher and sometimes it is of little use to communities* (HoRSC, 2000, p. 125).

Participatory research methodologies are promoted for application within Indigenous community contexts because these methodologies 'emphasize respect for the individual and a commitment to social change (St. Dennis, 1992. p.51)'. Participatory Action Research (PAR) is described by Henry and McTaggart (1996) as '…an alternative philosophy of social research (and social life) often associated with social transformation in the Two-thirds World (p. 6)'. They outline three common PAR attributes as follows:

- *shared ownership of research projects*

- *community-based analysis of social problems*

- *an orientation towards community action.* (Henry and McTaggart, 1996, p. 6)

Action Research remains a diverse and still evolving field (Henry and McTaggart, 1998 p.3) and the variations on participatory research methods and techniques used to gather and share information are endless (Williams 1996 p. I). Williams (1999) also pointed out that 'the goal of participatory research is to make every effort to ensure that methods complement rather than supplant local forms of expression, communication, discussion and decision-making (p. I)'.

Activist Participatory Research is used to refer to '…a family of approaches and methods which use dialogue and participatory research to enhance people's awareness and confidence, and to empower their action. Activist participatory research in this sense owes much to the work and inspiration of Paulo Freire… and to the practice and experience of consciencitisation in Latin America (Chambers 1992, p. 2)'.

The potential for combining research, education and social action through Participatory Action Research is regularly emphasised. PAR is also cited as being well suited to the philosophies and theories underpinning community-based health education and health promotion. (Anne George *et al* 1998, Daniel & Greene, 1999).

A problem with the application of Participatory Action Research approaches has been identified as being related to 'the lack of uniformity between (and sometimes within) projects that identify as applying Action Research principles' (Anne George *et al* 1999, p. 182). The authors also suggest that the lack of a shared language to describe processes and approaches within projects makes it difficult for proponents of Participatory Action Research to argue their case for support from funding agencies and auspicing organisations. To address this problem they have produced 'Guidelines and categories for classifying participatory research protocols in health promotion'. It is suggested that these guidelines may assist institutions in deciding if proposed Action Research projects stand up to scientific scrutiny and if they represent a potential for resulting in improved health outcomes within participating communities.

Baum (1998) pointed out that 'the process of negotiation in participatory action research makes it a long and complicated process, which often conflicts with the needs of funding bodies. It is not easy to reconcile these conflicting demands (p.172)'.

Although Action Research approaches are promoted as being important to the achievement of a balance between the interests of researchers and the interests of minority or disadvantaged groups, an extensive debate has emerged about the realities of this claim. For example, in a consideration of Action Research as an empowering research strategy with South Asian women, Bowes (1996) pointed out that commentators now question the extent to which Action Research methodologies can create new kinds of power relationships. He cited Silverman (1985) who is critical of the 'many extravagant claims to moral rectitude made by some proponents of Action research' and Opie (1992), who questions the 'tendency of some feminist writers to "impose their own view of the world on their respondents, silencing those who depart from such a view" (1994, p.13)'. Bowes (1996) concluded by suggesting that 'Action Research over-emphasizes experience, and should be required to discuss the nature of its research element more reflexively and in relation to the maintenance of a sociological analysis (p.15)'.

Advocates for Indigenous research reform emphasise the importance of ensuring that research initiatives can be sustained by the community in the absence of professional researchers. Sustainability of research initiatives is an integral characteristic of research with a community development focus and yet the experiences of researchers indicate problems associated with the development of 'communities of interest' within Indigenous community contexts (Brady, 1990).

In a discussion of Indigenous community representation within the framing of official Government policy, Rowse (1992, p.55) suggested that Aboriginal people's traditional modes of social integration do not necessarily lend themselves to community-building. Rowse cites the experience of Brady (1990) to support his contention that 'Aboriginal people may, in comparative terms, be among the most refractory raw material from which to mould "community" mandates'. Brady (1990) identified problems her research team encountered when applying an Action Research approach to an investigation of youth alienation and substance abuse within an isolated Aboriginal community in South Australia. According to Brady, the 'community' did not represent a homogeneous group, there was no shared concern about the 'problems' identified by the researchers as requiring action and there was no shared perspective on the possible 'solutions'. She concluded by suggesting that 'The rhetoric of community empowerment and action research in Australia could perhaps be more critically examined than it has been up to now….(p. 20)'.

From his analysis of action research projects in educational contexts, Henry (1990) concluded that the emancipatory potential claimed by some proponents as integral to action research was most likely to be thwarted at the outset of the research projects.

The emancipatory 'problem' of education action research can now be seen as an outcome of the practice of educational researchers attempting to promote a shift towards communitarian forms of educational practice in others while being in the contradictory position of having their research projects, in their most essential elements, defined by the individualist paradigm (Henry, 1990, p. 278).

3.3 Cross-disciplinary research

Traditionally, tension has existed between advocates of biomedical and social science research approaches in the public health and Indigenous health research fields. Some commentators argue that bio-medical research methodologies have taken insufficient account of local Indigenous community knowledge and values, and the political, physical and social constraints in evidence at the local community level (Maddocks, 1992, Dodson, 2000).

In a (1985) report on the state of health and medical research in Australia, Professor Kerr White identified the dominance of bio-medical research as one of ten problematic issues.

> *The perceived dominance of the reductionist, mechanistic, so-called 'medical' model of health and disease…contrasted with the probabilistic, 'psycho-biological' model which recognises the existence of networks of causal factors in the genesis of healthy and unhealthy states* (White 1985, cited in NPHP 1998a p.4).

Baum (1998) identified four main applications of qualitative research methods to public health: (originally outlined within NHMRC 1995, p.13):

• *to study and explain the economic, political, social and cultural factors that influence health and disease*

• *to understand how people interpret health and disease and make sense of their health experiences*

• *to elaborate causal hypotheses emerging from epidemiological and clinical research*

• *to provide contextual data to improve the validity and cultural specificity of quantitative survey instruments* (Baum, 1998, p. 149).

Ezzy (2001a) described the tension between social science and medical research approaches as being related to fundamental differences between 'qualitative' and 'quantitative' research methods. He suggested that qualitative methodology is often misunderstood by researchers with backgrounds in science and positivist methodology. Positivist methodologies attempt to avoid the influence of subjective interpretation whereas qualitative methods focus on interpretation. Ezzy also suggested that the current health research literature demonstrates that the 'unhappy marriage' between qualitative methods and natural science epistemology is becoming increasingly problematic (p.297). Chapman (2001) responded to Ezzy by arguing that his concerns were a 'storm in a qualitative teacup' (p.470) and Ezzy (2001b) in turn argued that 'It is precisely this sort of dismissive attitude which leads to the sort of misunderstandings I describe (p.471)'.

Similar tensions are evident when the relative merits of biomedical or ethno-medical approaches to health care service delivery in Indigenous community contexts are discussed. An ethno-medical approach to health and medicine includes a holistic perception of health that incorporates family and community well being, the maintenance of relationships and social responsibilities, and behaving appropriately (O'Donoghue 1995, cited in Ivanitz, 2000, p.54). According to Ivanitz (2000), biomedical definitions of health take into account 'only the physical

manifestations of illness (p. 53)'. In a discussion of the most appropriate approach to adopt within Indigenous health service delivery settings, Ivanitz (2000) suggested that 'Given that both approaches are valid and that the cultural meanings attached to illness impact directly on both the effectiveness of biomedicine and the utility of ethno medicine, it is necessary to develop an interface between the two culturally based models (p.55)'.

Recent emphasis on the issue of health inequalities and the associated project to identify the social determinants of health (in the UK and Australia) has given rise to increased interest in identifying the most effective research approaches to explore these issues. Wilkins (2000) maintained that 'Rather than trying to understand the social determinants of health from the very partial viewpoint of an individual discipline, it is necessary to follow the issues across interdisciplinary boundaries, wherever they lead (p.581)'. In commenting on the health research situation in the United Kingdom, Oliver and Cookson (2000) pointed out that although multidisciplinary collaboration in health research has occasionally been undertaken, successful collaborations of this kind remain the exception rather than the rule.

> *Many groups of specialists in the area of health inequality work more or less independently of others, partly owing to professional barriers and the reward system. The resulting ignorance and misunderstanding of relevant knowledge from other disciplines is a major obstacle to progress in the study of health inequalities, with a particularly weak area being the interface between the investigation of the causes of inequality and the evaluation of policies to tackle them. The potential rewards from more active and wide-raging collaboration across disciplines is considerable* (Oliver and Cookson, 2000, p. 565).

Within the area of Indigenous health research in Australia, progress toward the development of an 'interface' between bio-medical and social science research is ongoing. While accepting that some health issues such as renal disease and ear health do call for 'disease-oriented' research approaches, Houston and Legge (1992) argued that;

> *The main barriers to improving the health of Aboriginal and Torres Strait Islander people are not deficiencies in the understanding of biomedical mechanisms and therapeutics. The main barriers are in the application of existing biomedical and public health knowledge in contexts which also recognise Aboriginal aspirations and the wealth of existing Aboriginal community knowledge* (Houston and Legge, 1992, p. 115).

The NPHP (1998a) advanced a similar position when it identified the adoption of a disease-based framework in public health research as problematic:

> *Public health research that develops our understanding of effective public health interventions requires a broader focus and framework than that provided by focusing on disease as the starting point. Instead there is need for better integration of the health problem, the knowledge needed for action and the fields of productive research* (NPHP, 1998b, p. 10).

The NPHP also suggested that the fundamental question to be asked in relation to resource allocation for health and medical research is;

> *Where will the greatest health gain be made? Is continuing to allocate large amounts of funding to curative and basic medical research achieving value for money compared to spending limited funds on public health research and its outcomes?* (NPHP, 1998b p.8)

The adoption of research approaches that involve a combination of qualitative and quantitative methodologies is proposed as a positive way forward in the area of Indigenous health research in Australia. In an overview of the approach adopted by the Menzies School of Health Research, Mathews (1998) suggested that the success of this institution could in part be attributed to its capacity to encourage cooperation between diverse disciplines (p. 626).

3.4 The development of reflexive research practice

Troyna (1994) suggested that it is only in the last couple of decades that 'being reflective' has figured in the research literature in Britain and that even now it is most commonly found in feminist accounts of research. Although he argued that the term is inadequately defined by researchers, Troyna still maintained that 'reflexive' research approaches and 'reflexive' accounts of research are useful because they 'question the hegemonic status of technicist and prescriptive approaches to the social sciences' and that these approaches ensure that the technicalities of research are no longer 'artificially detached from the political, ethical and social arena (p.6)'. Troyna did, however, express doubts about the usefulness of 'reflexive' accounts of research when they are imposed on researchers as essential aspects of practice. He argued that the end result might be 'sanitised' public versions of the research experience. This might be particularly so for inexperienced and contract researchers who may feel compromised by the need for openness about problematic aspects of their research.

Humphery (2001) reported that non-Indigenous people engaged in Indigenous health research in Australia did not begin to publicly ask serious questions about the process and use of that research until the early 1980s (p.11). He also suggested that the 'ethos of reflection' in Aboriginal health research mirrored the rise of a similar movement toward reflecting on research practice within other disciplines. In the Education field, for example, particular attention has been given to the importance of maintaining a critical approach to pedagogies and research practices designed with the purpose of 'empowering' minority or marginalised groups within society.

In an analysis of attempts by teachers and administrators to institute 'critical pedagogy' within schools, Ellsworth (1989) questioned the assumption that a commitment to minimising the oppression of students is enough to ensure that the oppressive and marginalising influences of education are reduced. She argued that:

> *…the literature offers no sustained attempt to problematize this stance and confront the likelihood that the professor brings to social movements (including critical pedagogy) interests of his own race, class, ethnicity, gender and other positions. S/he does not play the role of disinterested mediator on the side of the oppressed group* (Ellsworth, 1989, p.309).

Ellsworth (1989) concluded by suggesting that 'critical pedagogues are always implicated in the very structures they are trying to change (p.310)'. Similarly, it is argued that the adoption of collaborative approaches to research does not provide sufficient guarantee that 'empowering' consequences will flow to marginalised or minority communities. Henry's (1990) analysis of educational action research supports this argument. He claimed that:

> ...if the occupational group involved in action research is, given the bureaucratism of institutionalized education, an oppressed group, then interventions by researchers as facilitators to the others' action research praxis will be fictive and duplicitous (Henry, 1990, p.277).

Critical reflection on practice, however, is seen as an important way of ensuring that research approaches designed with the aim of 'empowering' communities and individuals do not ignore the powerful and potentially marginalising influence of 'researcher interests'. The application of what Ellsworth (1989) described as a 'persistent critique' may contribute toward increasing recognition of the impact of 'researcher interests' and ongoing attention to the influence those 'interests' may have on the conduct and outcomes from research.

Baum (1998) pointed out that within the Public Health research field, the incorporation of new methods and methodologies has brought with it a greater emphasis on reflection in research practice and a greater emphasis on involving people more actively in research endeavours (p.111). In particular, the increasing incorporation of Participatory Action Research approaches by Public Health researchers has brought with it increased attention to the fundamental importance of ongoing critical reflection on research practice.

An example of critical reflection on practice within the context of research involving Indigenous peoples in Australia is provided by Wilkins (1992). Wilkins conducted linguistic field research in Central Australia and his account of the research experience highlights some of the complexities he encountered in doing research under the control of an Aboriginal organisation. In writing this account Wilkins detailed particular issues he confronted and methodological adjustments he made in response to the concerns raised by Aboriginal community representatives. In addition, he outlined a draft 'Research Policy for Central Australia' (1992) which was developed in consultation with the Combined Aboriginal Organisations of Alice Springs. Both parts of this document provide useful insights for other researchers working under the direction of Indigenous peoples.

In another example of critical reflection on research practice, Brady (1990) described problems she encountered when attempting to implement an Action Research approach within a remote Aboriginal community in Australia. This account critically analyses the assumptions embedded in the Action Research approach and also the disjunctions between the positioning of the researchers and the positioning of the Aboriginal community members on key issues.

4. The development of guidelines for the ethical conduct of Indigenous health research in Australia

Over the past two decades ethical guidelines for the conduct of Indigenous health research have been formulated and implemented in Australia. Extended debate about the adequacy of these guidelines and questions about the level of institutional and researcher commitment to them, continue to dominate in the literature. This situation is mirrored by the New Zealand experience where Maori representatives have been advocating for substantially different ways of framing research, and this has included extended discussion about the ethics of research across a range of disciplines. According to Tuhiwai Smith (1999), a Maori academic, an outcome of this has been a move toward research which is '…more ethical, and concerned with outcomes as well as processes'. It has also meant that those who choose to research with Maori people have more opportunities to think more carefully about what this undertaking may mean (p.177). Tuhiwai Smith also pointed out that many Maori communities have extended the boundaries for ethical consideration of research beyond research involving human subjects to include research involving the environment, archival research and any research that examines ancestors, either as physical remains (extracting DNA), or using their photographs, diaries or archival records (1999 p.191). According to Tuhiwai Smith, the conceptualisation of research ethics for Maori communities goes beyond issues of individual consent and confidentiality to a consideration of ethics that is underpinned by the concept of 'respect' both in terms of human relationships and also in relation to the environment (p.120).

In 1991 the National Health and Medical Research Council (NHMRC) produced draft *Guidelines on ethical matters in Aboriginal and Torres Strait Islander health research.* This document provides guidelines on issues relating to community consultation, community involvement in, and ownership of, research findings and publication of research data. The critical commentary relating to these guidelines has focused mainly on their effectiveness as a vehicle for promoting and supporting fundamental changes to the way Indigenous health research is conducted in Australia. Commentators have investigated stakeholder interpretations of 'consultation', 'community involvement', 'intellectual property rights' and 'community control' within the context of Indigenous health research activity (Maddocks, 1991, Eades and Read, 1999, Baume, 1992, Anderson, 1996a). In addition to displaying ongoing uncertainty and disagreement about the interpretation and practical applications of these concepts, the current literature reveals an emerging emphasis on a broader range of factors that potentially inhibit the achievement of Indigenous health research reform initiatives. Humphery (2001) argued that an over-emphasis on the nature of guidelines for the ethical conduct of research may have the effect of masking other more pressing issues that pose potential barriers to reform in the Indigenous health research field. Over-emphasis on guidelines 'tends to encourage the procedural observance of rules rather than a more dynamic movement towards fully reconceptualising research practice (p.200)'. Instead of considering Indigenous health research guidelines in isolation from practice, commentators are calling for evidence-based research that considers what ethical processes are being supported by institutions and in turn, being implemented by researchers (Humphery, 2001, Eades and Reade, 1999).

The most significant criticisms of the NHMRC (1991) draft Guidelines on ethical matters in Aboriginal and Torres Strait Islander health research are outlined in the following assertions.

* *Current guidelines do not adequately represent the positioning of Indigenous health research reform advocates*

During the nineteen eighties, Indigenous representatives advocated for significant changes to the way health research was being conducted in their communities. It is generally acknowledged that the 1991 NHMRC guidelines were developed in response to these concerns (Gray, 1991, Humphery, 2000, Humphery, 2001, Houston and Legge, 1992, Maddocks, 1992) although some commentators argue that important omissions occurred when these issues were translated into the final document. Humphery (2001) claimed that lost in the translation was the insistence on Aboriginal control of research funds and the rights of censorship and veto over publication of research results by those who have been researched (p.200).

* *Current guidelines contain inadequate prescription for the monitoring and management of research*

Humphery (2001) argued that the absence within the guidelines of mechanisms to ensure ongoing surveillance of research projects has led to the situation where the guidelines 'have developed primarily as a gateway process for obtaining ethical approval (p. 200)'. On this basis he argued for the development of institutional processes to facilitate the ongoing surveillance of research projects once they are inside the perimeter of ethical approval. Current indications are that these mechanisms are inadequately developed across the research spectrum in Australia. McNeill et al investigated the operation of mainstream institutional research ethics committees (RECs) and their findings revealed evidence that some researchers deviated from their approved proposals without seeking approval for those deviations from an REC. In addition, they found that monitoring of research by RECs currently relies on the self-report of researchers on the ethical conduct of their research and that overall, the active monitoring of research by RECs was minimal (1992, p,318). Although the NHMRC (2000) *Health and Medical Research Strategic Review* includes a plan to revise the Interim *Guidelines on Ethical Matters in Aboriginal and Torres Strait Islander Health Research* (2000, p.59), it does not include specific reference to the need for investigating ways of improving the monitoring of research once it has gained ethical approval.

* *Current guidelines pose a threat to academic 'truth' and have the potential to inhibit research*

In referring to the NHMRC (1991) guidelines, Eades and Read (1999) suggested that 'In our experience the guidelines are useful as a broad guide to issues, but require specific application in the unique circumstances of each community (p. 433)'. To this end the authors describe the process surrounding the development of a document to ensure the ethical conduct of a research project, ('Bibbulung Gnarneep') in Western Australia. Interestingly, the positioning of the authors on the issue of Indigenous community ownership and power of veto over research findings drew a hostile response. In a letter to the editor of the *Medical Journal of Australia*, Professor Max Kamien (1999) argued that there was a fundamental contradiction between guidelines that privileged 'community ownership' and the power of veto over publication, and the culture of research that is to report the 'truth' (p.23).

Maddocks (1992) reported that Aboriginal research guidelines are 'worrying to many scientists because they are seen to have the potential to prevent the pursuit of important scientific questions arising in the course of research, and to stop publication of research findings; cutting across the free exchange of information which is the very life-blood of science (p.554)'.

- *Current guidelines perpetuate the dominance of non-Indigenous stakeholders in the Indigenous health research field*

Humphery (2001) suggested that although a sense of struggle over the formulation of research guidelines continued during the 1990's, current NHMRC ethical guidelines for the conduct of Aboriginal research 'preserve a white institutional dominance over health and medical research funding (p.22)'. It has long been argued that very little research funding is channelled through Indigenous community controlled organisations and that this perpetuates the dominance of non-Indigenous approaches to research and non-Indigenous control over the research agenda (Anderson 1996, 2001, Houston and Legge, 1992). The implication being that without a prescription for more direct control of funding by Indigenous community organisations, it is unlikely that the main aims of ethical guidelines for the conduct of Indigenous health research will be achieved.

5. Institutional arrangements for the management of Indigenous health research

The Indigenous Health Research Reform Agenda is informed importantly by a range of policies and by developments within agencies and institutions involved in Indigenous health care delivery, and in the management and conduct of Indigenous health research. In a discussion of institutional reform in the area of Aboriginal health generally, Anderson and Saunders (1996) pointed out that institutional arrangements for the provision of Aboriginal health care are complex: 'Given this complexity, it is perhaps not surprising that when public concern is periodically aroused about the persistent poor status of Aboriginal people's health, institutional arrangements do themselves attract considerable attention and criticism (p.1)'. Anderson and Saunders also argued that Aboriginal self-determination in health should not be read as an opportunity for governmental disengagement. Aboriginal people's efforts need to be supported by appropriate resources and expertise but this support must be provided in ways that respect Aboriginal people and organisations as full partners in the process:

> *Aboriginal participation and priorities need to be seriously and concertedly addressed. This, it appears to us, is the crucial challenge in linking Aboriginal health and institutional reform within Australian federalism, linking Aboriginal self-determination with wide spread responsibility sharing* (Anderson and Saunders 1996, p. 24).

While it is generally agreed that it is time to move beyond defining the problem of health inequality to taking action, there is a lack of agreement about the specific actions required. Humphery (2001) argued that the health research reform process is dependent upon 'Comprehensively identifying what mechanisms, organisations and programs need to be put in place or further supported now, in order to ensure that entrenched ways of identifying, funding, controlling and undertaking research are significantly challenged (p. 201)'. This suggests that a strategic response to the problems within Indigenous health research is required. In both the Indigenous health service delivery and health research areas, it is increasingly being recognised that the required response to the significant problems associated with the poor health status of Indigenous peoples in Australia is necessarily complex and that 'system-wide' action is called for. (Bowen *et al* 2001, Tsey, 2001, Anderson and Saunders, 1996).

Angus and Lea (1998) argued that it is important to consider who has the most to lose from current proposals for the reform of a range of interventions aimed at achieving better health outcomes for Indigenous peoples in Australia.

> *Everywhere today there is talk of collaboration, partnership agreements, evidence-based research, strategic planning, consultation, advisory groups and the like. They all operate on the understanding that programs cannot function alone. In the development of the best practice model you must investigate who has a stake in the program or partnership - including those with a role to advise, consult or plan strategically- and who has the most to lose as a result of change. This model differs from past practices and we suspect that it is far too threatening for most non-Indigenous Australians to accept* (Angus and Lea, 1998. p.636).

5.1 Priority-driven and strategic research

The NPHP (1998a) pointed out that fundamental and strategic research differ with regard to the source of research ideas, but the distinction between these two types of research is not always clear-cut.

> *While strategic research is always intended to be applied, fundamental research is also often conceived with a potential application. Strategic research is not synonymous with commissioned research; strategic research is often undertaken in the absence of an explicit commission or directive. Both fundamental and strategic research may encompass the full range of research fields, from biology, chemistry and physics, through the biomedical and clinical sciences, to epidemiology, the social sciences, and research on health services. Both intervention development and evaluation and dissemination and implementation research are invariably driven by strategic objectives* (NPHP, 1998a, p.2).

In commenting on the Wills Review (1999), The Virtuous Cycle - Working together for health and medical research, Swan (1999) outlined the tension that exists between conflicting constructions of 'priority driven' and 'strategic' health research:

> *The Review's conceptual framework separates fundamental research-essentially investigator driven work- from what they have called priority driven research which 'contributes directly to population and evidence-based health care' but it makes little distinct reference to public health and health services research. The reason for this, claimed cancer epidemiologist and committee member Bruce Armstrong, MD, is that all areas of research can contribute to population health or better health services. "It's not the sole province of public health or health services researchers, just as fundamental research isn't just for researchers who work with rats and chemicals in laboratories"* (Swan, 1999, p.119).

A purpose for the adoption of a priority driven approach to health research in Australia is outlined by the NHMRC as follows:

> *Priority driven research aims to ensure the results of Australia's health and medical research are translated and applied to the health system, to realise the benefits of greater knowledge* (NHMRC, 2000 p13).

The Public Health Association of Australia (1996) supported the adoption of priority driven public health research. The PHA made this resolution at the 1996 PHA National Conference:

> *Conference urges PHA to advocate for a priority setting approach for applied and contract health research that is policy driven, consultative and accountable. This would be a system that prioritises the researchable uncertainties at the centre of policy debate; the dilemmas of public health practice and the uncertainties that constitute obstacles to the achievement of public health goals. The proposed Public Health Partnership could provide a framework for deriving such a policy and practice oriented approach to priority setting* (PHA 1996 p.3).

A framework and methodology for priority driven research is outlined within *Enabling the Virtuous Cycle. Implementation committee report, Health and medical research strategic review.* (2000).

> *Priority driven research is used to encompass strategic research and development and evaluation research using the World Health Organisation (WHO) definitions. Strategic research generates knowledge about specific health needs and problems. These may be conditions, risk factors, or sources of inefficiency and inequality in health systems. Development and evaluation research creates and assesses products (vaccines, drugs, diagnostics, prostheses or equipment) interventions (public or personal health services, and instruments of policy) that improve on existing options. This is research that contributes directly to the Health of the Australian population and well-functioning, evidence-based health promotion and health care* (Commonwealth of Australia. 2000, p.D4).

In a response to the recommendations contained within *The Virtuous Cycle: The Report of the Wills Health and Medical Strategic Review*, the Federation of Australian Scientific and Technological Societies (1999) applauded the report's support for fundamental research as well as for priority-driven research (p.1).

Although the NHMRC currently includes priority driven research as an important future strategic focus across all areas of research activity, the extent of support for this approach to research within other institutions involved in Indigenous health research, remains unclear. The university sector, for example, is involved substantially in the conduct of Indigenous health and medical research but there is no current analysis of this sectors positioning in relation to priority driven research. There are indications, however, of growing support for priority driven approaches to research in other areas. Smith (2001) General Manager of the National Centre for Vocational and Education Research (NCVER) described the process associated with reforming vocational education and training (VET) research in Australia over the past ten tears. This process has involved a substantial institutional commitment to the principles of priority driven research. In 1993 a commissioned report described VET research as 'a fragmented activity that was under funded and had little or no relevance to policy or practice (Smith, 2001 p.1)'.

A reversal of this situation has been achieved through a large increase in Commonwealth funding within the VET research sector and through the adoption of a priority driven research framework. Smith described investigator driven research as 'supply-side' research and priority driven research as 'demand-side' research. In this analysis he proposed that 'supply-side' research:

- is investigator driven

- is characterised by a lack of responsiveness to priorities

- includes quality control only at the proposal stage

- provides opportunities for upfront peer review but does not necessarily include provisions for the dissemination of research findings.

In contrast, Smith proposed that 'demand side' research;

- is user driven

- responds to priorities set through a national strategy

- includes opportunities for quality control throughout the research process

- includes a high emphasis on dissemination of research findings.

The Australian Housing and Urban Research Institute (AHURI, 2001 a, b) has adopted a process for priority driven research that is similar to the NCVER model. In collaboration with key stakeholders, the Institute develops an annual research agenda that is organized around nine main themes. Within these nominated themes, specific research areas are identified. For each research area a description of the policy issues and an indication of the 'funding priority status' is indicated on the organisation's website. This status reflects AHURI's view of the relative importance of the research area and the extent to which the topic is addressed by research underway. AHURI gives high priority to effective dissemination of research findings and is active in ensuring that research outputs are of value to policy makers and practitioners. To this end specific outputs are nominated by AHURI as being required, and staged payments are made to researchers on the basis of their completion. These outputs include:

- a positioning paper (up to 15,0000 words to be published on the AHURI website) comprising a review of the academic and policy literature, a methodological statement, identification of knowledge gaps and an outline of proposed dissemination processes

- a work in progress report including a brief management report and a written paper to support a seminar or conference presentation

- a research and policy bulletin (2000 words published in hard copy and posted on the AHURI website) setting out the main findings from the research project

- a final report (up to 15,000 words) detailing what has been found out. The emphasis of this report is to identify the contribution of the findings to housing and urban studies rather than a descriptive account of what the project has done.

5.2 The setting of research priorities

A problem associated with the adoption of priority driven research approaches within the context of public health research in Australia was identified by the NPHP (1998b) as being related to the issue of priority setting. In their view:

> *Priority setting mechanisms for research in public health are not well developed and debate about the methods to be utilised has tended to generate a number of different lists of priorities rather than agreement as to method. Common priority setting methods such as measuring the impact of particular determinants on health status may be useful but in some people's hands could tend to bias priorities away from research in health systems. Because public health activity is highly policy and practice driven, priorities for research will vary depending*

upon the policy imperatives of each jurisdiction. However, there needs to be a process by which funding bodies can come together to discuss common priorities. (NPHP 1998b, p.14).

Fragmentation of the health and medical research enterprise is recognised by the NHMRC as a barrier to the achievement of a co-ordinated approach to priority setting. It points out that the Strategic Research Development Committee (SRDC) of the NHMRC has conducted extensive community consultations to arrive at the currently nominated research priority areas. There is, however, no detailed outline of the consultation processes employed. Within the NHMRC Strategic Plan (2000-2003), nominated priority research areas include:

- The health of Indigenous Australians

- Mental health

- Nutrition and food safety

- Consequences of physical inactivity and obesity

- Assisted reproductive technology and the use of cloning technology

- Biotechnology

- Emerging and re-emerging diseases

- Rural and remote health care

- Non-evidence-based clinical practice

- Health inequalities including social and economic determinants of health

- Safety and quality in health care.

While 'the health of Indigenous Australians' is nominated as one of the NHMRC research priority areas for the next triennium, the SRDC process relates only to grants issued by the NHMRC. The NHMRC notes that this decision 'does not impact on the majority of research in this field which is carried out by universities, hospitals and state funded health organisations (NHMRC, 2000 p. D7)'.

Anderson *et al* (2001) argued that research and evaluation should contribute to developing the capacity of primary care services to deliver effective and efficient care to Indigenous peoples, and they outline existing policy initiatives designed to achieve this goal.

> *In general there is a need to strengthen the link between research and reform in Koori primary health care policy and practice. Over the last triennium the National Health and Medical Research Council (NHMRC) has worked to develop a framework and methodology for priority-driven research in Aboriginal health. (NHMRC 1998). Emphasis has been given to the development of research priorities that build collaborations between the research sector, ACCHS and communities, and those involved in Aboriginal and Torres Strait Islander health policy* (Anderson *et al* 2001, p.35).

Although the *National Aboriginal Health Strategy* (1989) and the currently proposed *National Aboriginal and Torres Strait Islander Health Strategy* (2000) include reference to priority areas and preferred processes for Indigenous health research, there is no evidence to suggest that the achievement of a co-ordinated national approach to Indigenous health research priority setting is close to being achieved. This problem is not specific to the setting of Indigenous health research priorities but relates closely to the achievement of co-ordination between State, Territory, Commonwealth and Indigenous community-controlled health service providers on a broad range of Indigenous health service delivery issues. A significant problem with the formulation of a National Indigenous health research agenda is the potential for the marginalisation of regional Indigenous community interests. This is also a recognised problem in the setting of a mainstream community national agenda for Public Health research and education. Kerr White (1985) argued that there was a need 'to balance a centralised national focus for public health research and education with regional requirements.'(NPHP 1998a p. 4). The contentious history of negotiations associated with achieving agreement on a National Aboriginal Health Strategy provides some indication of the difficulties associated with achieving consensus about priority areas for action within the Indigenous health research field. Leeder (1997), in commenting on his participation in an evaluation of the National Aboriginal Health Strategy in 1995, reported that 'A more depressing, angry experience I cannot imagine. Every unpleasant human attribute was exhibited as the appalling reality that this strategy had gone nowhere came onto the table. Acrimony, deceit and blustering were the order of the day (1997, p.2)'. Commenting on the 1989 National Aboriginal Health Strategy, Baum (1998) suggested the following:

> *It recognises the inextricable link between issues of dispossession, land rights and the history of colonial domination, and argues strongly for indigenous control of health services and research. While this document is an excellent needs assessment, it has not led to any concerted action to improve Aboriginal health status* (Baum, 1998, p.49).

On the basis of their consideration of the current draft of the National Aboriginal and Torres Strait Islander Health Strategy (2000), Houston and Mooney (2001) stated that 'We cannot find either a strategic framework or appearance of strategic thinking as to how progress will be made (p. 477).' The authors were particularly concerned with Key Research Area Seven of the Strategy that looks at Indigenous health research:

> *There is no overview, no strategy: simply a listing of some good ideas. Implementation? Can we not have an Aboriginal and Torres Strait Islander Health research Strategy or Council? Could some thought not be given to a* **national** *training strategy to build research capacity among Aboriginal and Torres Strait Islander People? Can there not be some strategy for encouraging partnerships between Aboriginal communities and academic and other institutions?* (Houston and Mooney, 2001, p.477).

While it is suggested that the setting of research priorities must relate directly to the potential benefit of research to Indigenous peoples and communities (Anderson 1996), a range of institutional, political and contextual factors impact on decisions about which research is ultimately supported. Houston and Legge referred to this when they stated that:

The health disadvantages of Aboriginal people reflect their place (now and in the past) within the broad structures of Australian society. Research funding bodies, academics and other research institutions, and the socialisation of researchers are part of these structures (Houston and Legge, 1992 p.115).

In this analysis, Houston and Legge indicated that the issues of institutional and researcher responsiveness to proposals for the reform of Indigenous research prioritisation processes, and for the development of associated health strategies, are influenced by broader political factors.

In a 1992 Report on relations between the Menzies School of Health Research and Aboriginal people, Opportunity and Benefit, Baume raised the issue of research priority setting within the organisation. He suggested that it was likely that there will be differences in priority set by scientists and by Aboriginal communities and that there was evidence that differing groups of Aboriginal people held differing perceptions of problems. On this basis he recommended that the very process of priority identification should be studied systematically to yield more understandings of benefit to all parties (p.50). In his opinion, organisational response to this issue was important because '…it is likely that co-operation with the School researchers will be greatest where there is a sense of common purpose and shared concern about problems. Further there is a positive need to try to match School activities to Aboriginal priorities (1992, p. 47)'.

It is argued that Indigenous health ethics committees are well positioned to input into the setting of research agendas at the local community level (Flick, 1994, Anderson, 1996), but institutional commitment to the development of the role of ethics committees that extends beyond a gate keeping function has been questioned. (Anderson, 1996, Humphery 2001a, b, Eades and Read 1999, Flick, 1994, Maddocks, 1992). It is also argued that Aboriginal community-controlled organisations should have greater control over the research agenda because their role in providing health services at the local community level places them in a unique position to determine local health research needs, and to assist in the brokerage and conduct of subsequent research activity (Anderson 1996, Humphery 2001a, b, Houston and Legge, 1992). Anderson argues that:

> …given that the Aboriginal health services are community controlled agencies, it means that the most appropriate organisational connection between research processes and community processes currently receives proportionately less funding for research than any other agency…With the current distribution of funds, the link between research and social change is seriously undermined (Anderson 1996a p.163).

More recently, Humphery has suggested that there is evidence of a transformation of research practice from 'investigator-driven' to a re-assertion of the centrality of community-controlled health services in participating in and transforming research practice (2001, p.201).

The adoption of a National VET research agenda is cited as a key aspect of the successful implementation of a priority driven research strategy within the VET sector. Currently, a national VET research and evaluation strategy is developed on a three-year rolling basis. This strategy includes extensive consultation with nominated stakeholders and the proposal of jointly agreed research priority areas

for the next triennium. The National Centre for Vocational Education and Research then formulates 'research themes' around these agreed priority areas and tenders from interested researchers are called for. The National Research and Evaluation Committee (NREC) assess submissions from researchers through a process of 'peer review'. Support is awarded to those projects which are considered most likely to address agreed priority issues. 'In addition, NREC also run a large *open* category for 'investigator driven proposals, which regularly attract around 25% of the available funding in each round (Smith, 2001 p.4).'

Matthews (2001), in a discussion of the currently adopted priority setting processes within the CRCATH, noted that: 'The establishment of criteria for setting priorities, and on policies and processes for application of these criteria, has been a major issue for the CRCATH since its establishment in 1997 (p. 34)'. The 1999-2004 CRCATH Strategic Plan provides a broad framework for setting research priorities and provides a clear statement on general approaches to research supported by the CRCATH. The *research focus areas or priority health conditions* nominated in the current plan include:

- **Social and emotional well-being** - substance misuse, stress, youth suicide

- **Infectious diseases** - including respiratory scabies and other skin diseases, otitis media

- **Chronic diseases** - integrated approach to chronic disease prevention and management

- **Maternal and child health** - including antenatal care, child growth.

Matthews (2001) reported that these *research focus areas* were identified through a process involving 'wide-ranging discussion and debate'. These focus areas are considered with reference to three major priority-setting criteria:

- potential health benefits to be derived from focusing on the health issue or problem

- potential ability to translate research outcomes into changes to health policy and service-delivery

- feasibility of the CRCATH achieving identifiable research and health out-comes in the area within the time frame of the centre.

In a commissioned report for the CRCATH, *Report on the links between Aboriginal health research, policy and practice*, 2001, Jenkin *et al* recommended that the CRCATH '… should agree on criteria for setting priorities within its overall research program, and on policies and processes for the application of these criteria. (p.34)'. In support of this recommendation, Jenkins et al proposed a detailed 'schema' for considering Indigenous health research priorities (p. 26).

5.3 Quality control

The NPHP (1998b) suggested that it is important for a range of outcomes from research to be considered when the issue of accountability for research and development expenditure is examined. While they accept that there is a responsibility for reporting on how much is spent, what it is spent on and what is achieved as a result of the expenditure, the NPHP argue that the impetus to measure outcomes must be tempered with

> *…a recognition that research and development outcomes range from research results or findings to the incorporation of research results in policy or practice to changes in health outcomes or health status. Research outcomes also include the outcomes of dissemination processes and the development of interventions. The impact of research and development on health status is at one end of a spectrum of potential outcomes* (NPHP 1998b p.18).

When an 'outcomes' approach to research is adopted, then proposed outcomes need to be identified and mechanisms for tracking the achievement of these outcomes need to be in place. Institutional arrangements for monitoring and evaluating health and medical research outcomes vary. The NHMRC (2001) states that 'The development of mechanisms to monitor and report on the outcomes of research is recognised as an important step toward efficiency and accountability by research funding organisations worldwide (p. 1)'. The *Research Outcome Evaluation Framework* currently adopted by the NHMRC 'will form the basis of performance reporting for research funds managed by the NHMRC for the conduct of health and medical research (NHMRC 2000b, p.13)'. The monitoring outcomes are measured through proposed *Performance Information measures*. The three broad outcome areas are identified by the NHMRC as:

- world class knowledge creation

- world class research capacity

- translation of knowledge for the benefit of the Australian community (NHMRC 2000, p. 14).

The current monitoring and evaluation processes within the CRCATH are closely attenuated to agreed 'critical success factors' for the conduct of Indigenous health research outlined within the CRCATH Strategic Plan 1999-2004. The Strategic Plan says the CRCATH values and promotes research that:

- involves collaboration in the design, management, evaluation and dissemination phases of the research

- results in changes in policy, service and delivery and peoples behaviour

- includes a focus on communicating research findings in cross-cultural and non-academic contexts

- strengthens Indigenous research capacity

- encourages multi-disciplinary and cross-cultural skills and perspectives

- seeks to address problems through evaluation of health interventions and practices, rather than further demonstrating the nature and scale of problems.

In an analysis of institutional approaches to quality control processes, Smith (2001) argued that the big funding agencies such as the Australian Research Council (ARC) and the NHMRC have traditionally depended on the process associated with assessing research funding proposals as the main vehicle for quality control. He suggested that these organisations consider the highly competitive nature of the funding process and the associated peer review system as adequate safeguards against poor quality research. Smith was critical of this approach and suggested that after projects have been funded by these organisations there is little follow-up and almost no review during the life of projects. In addition, when the research is over, there are no identified processes for disseminating findings to users except through academic journals and monographs. 'This represents a supply-side model of research in which research issues are framed by the researchers themselves and quality assurance is an entirely front-end process (Smith 2001, p.4).' In contrast he points out that the approach to quality control adopted within the VET research sector is closely aligned with the processes associated with the priority-driven research model. Quality control within the NCVER includes processes for peer review of research grant applications and Internal Review of projects in progress.

In Australia, the extent of involvement by ethics committees in the monitoring of research activity is not significant (McNeill *et al* 1992). In particular, institutional ethics committees in the field of Indigenous health research have assumed a minimal role in monitoring research activity after ethical approval has been granted. Baume (1992), however, proposed that the 'monitoring of researcher adherence to conditions agreed between them and the Ethics Committee at the time approval is given' should be an important function of Ethics Committees (p. 330).

5.4   Research partnerships/collaboration

The need to rationalise limited research resources, together with growing support for cross-disciplinary research approaches in the public health research sector, has resulted in increased interest in processes for developing effective mechanisms for cross-institutional collaboration. Although the collaboration framework is generally regarded as a positive future direction, there is limited analysis of the problems associated with the achievement of successful collaborations between institutions involved in Indigenous health research. Tsey (2001) pointed to some difficulties associated with establishing and maintaining collaborative research partnerships:

> *If research organisations are to become more relevant to the needs and aspirations of Indigenous Australians, then there is a need to enter into collaborative partnerships with Indigenous organisations and communities. Genuine collaborative research involving several organisations and individuals, each with their own interests and agendas, however, requires a lot of time, commitment and hard work. It requires that the roles, responsibilities as well as the potential benefits for all parties concerned are clarified and made as transparent as possible from the outset.' He also makes the point that such an approach requires 'a longer term approach to Indigenous health research, including the development of strategic alliances to attract resources on a more sustainable basis* (Tsey, 2001, p.23).

Both the Commonwealth of Australia (2000) and the NHMRC (2000, 2001) supported the development of a coordinated approach to health and medical research in Australia. The recommended strategic approach involved both nominating and supporting the development of centres of research excellence in key priority areas and supporting the development of collaborative research partnerships between institutions. It was proposed that through this initiative, increased levels of information sharing between institutions, the building of research partnerships and strengthened institutional research capacities would evolve. It was also proposed that this initiative would reduce the level of research duplication. Within the Commonwealth's response to the 1999 Health and Medical Strategic Review (*Enabling the Virtuous Cycle: Implementation Committee Report 2000*), the CRCATH is nominated as a centre of research excellence in the Indigenous health research area. Particular reference is made to the collaborative structure of the CRCATH and the opportunities this represents for the development of research involving cross-institutional perspectives (Commonwealth of Australia, 2000 p.D15).

5.5 Research cultures

Indigenous representatives in higher education institutions in Australia are advancing a research reform agenda premised on the position that historically, university based researchers have appropriated Indigenous cultural knowledge to their own advantage and that higher education sponsored research continues to contributes toward the marginalisation of Indigenous community interests. (Deakin University, 1994, Winch and Hayward, 1999, Abdullah and Stringer 1997). The Deakin University Institute of Koorie Education (1994) argued that Koorie Research must move from 'a positivistic positioning of Koories as objects of others' enquiries to research paradigms which attempt to redress the oppressed, marginalised "border" reality of Koorie nations in contemporary Australian society and within this society's academic institutions (p.4)'.

Winch and Hayward (1999) suggested that the dominant approach to research in academic institutions still involves the classification of societies into categories, and the comparison of societies through standard models and systems of representation (1999, p. 26). They proposed an alternative approach that relies on the application of Indigenous Terms of Reference (Described in more detail in Curtin University, *Aboriginal Community Management and Development Plan,* 1997). This way of looking at issues of importance to Indigenous peoples emphasises the connection between the individual and cultural settings. Winch and Hayward also commented on institutional resistance to the project to assert Indigenous control over the representation of Indigenous issues within Curtin University:

> *We are continually put under pressure to perform and to produce information to appease the Academic Monster. We are at odds with both the University and student funding body. As with all new ideas coming in contact with established institutions we come up against a brick wall in establishing our voice. Others are keen to embrace a new paradigm for research* (Winch and Hayward, 1999, p.27).

Tuhiwai Smith (1999) made similar observations in relation to the more general situation for Indigenous reform proponents within universities. She suggested that universities are generally regarded by Indigenous students as:

> *...major bastions of Western elitism…. It is not surprising then that many Indigenous students find little space for Indigenous perspectives in most academic disciplines and most research approaches* (Tuhiwai Smith, 1999 p129).

6. Transfer and dissemination of research findings

Research transfer is defined by the NPHP (1998a) as 'the synthesis of bodies of knowledge and their dissemination and uptake into practice, management and policy.' (p. 16). Matthews *et al* (2001) suggested that:

> Research transfer is predicated on the use of research results and processes to inform policy, practice and behaviour, and vice versa. It therefore entails people - whether they are researchers or decision-makers or members of a community- doing something with the information arising from the research (Matthews, *et al.* 2001, p.16).

The term '***research dissemination'*** is often applied with reference to two established definitions:

- The process through which target groups become aware of, receive, accept and utilize disseminated information, its goal being the improvement of 'patient care, patient outcomes and quality of life (The United States Department of Health and Human Services' agency for Health Care Policy and Research p. 2)'.

- Rogers (1983) refers to diffusion and dissemination interchangeably as the intended and unintended consequences resulting from the dispersion of novel information. He states that diffusion is 'the process by which an innovation is communicated through certain channels over time amongst members of a social system (p.5)'.

The literature identifies three main purposes for the dissemination of health research findings:

- to inform health policy, including resource allocation decisions

- to facilitate appropriate changes in the professional practice of health service providers and health systems

- to facilitate positive health-related changes in peoples' behaviour (Investigations in this area are commonly referenced within the Health Promotion literature).

6.1 Transfer and dissemination of research findings within Indigenous health research contexts

Practices associated with the dissemination of health and social science research findings have been criticised by Indigenous representatives in Australia (Todd *et al* 2000, Jenkin *et al* 2001). A commonly expressed concern is that research findings are not presented to Indigenous communities in an accessible form, and that delays in feedback of research findings reduce their potential usefulness (Kimberley Aboriginal Health Workers 1992, Miller and Rainow 1997, Hunter 1992, ARC 1999). Hunter (1992) argued that problems occur when the users of research are not directly communicated with, and when a range of methods for feedback to communities are not utilized. He also suggested that 'the same scientific rigor that is applied to the research process itself should be encouraged in disseminating findings to the subjects of the research (p.21)'.

Anderson (2000) suggested that there is an overall lack of analysis about barriers to the achievement of improved Indigenous health research transfer and dissemination outcomes in Australia. Investigation of the literature supports this position and reveals that consideration of transfer and dissemination issues in the Indigenous health field has historically relied upon developments in mainstream Public Health research. There is, however, a growing body of literature dedicated specifically to the issues within Indigenous health research contexts.

The New South Wales Department of Health Aboriginal Health Information Management Group is currently developing an *Aboriginal Health Information Strategy*. This document will potentially open up a range of issues for consideration and provide some guidance to those who are concerned with finding ways of increasing the extent of uptake of Indigenous health research findings into policy and practice.

In 1999, the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) undertook a review of research considered to be of significance to Aboriginal and Torres Strait Islander peoples (*ARC, 1999, Commissioned Report No.59*). Following an analysis of 40 research projects, the reviewers noted that 'most outcomes of the research (of interest to Indigenous communities), are conventional academic products (reports, articles, theses, books), probably a response to institutional requirements. For most research projects, Indigenous feedback was not planned or specifically facilitated by the researcher'. The reviewers concluded that 'indirect, ad hoc, or intermittent Indigenous feedback is not likely to result in meaningful evaluation by those with most at stake in the research (1999 p.65'). The AIATSIS Review recommended some key principles to guide future research and management practices associated with Indigenous research. These principles recognised the importance of disseminating research findings through a process of ongoing communication during the research process, and through the dissemination of Plain English and other non-academically oriented research products. The AIATSIS Review argued that the additional expense associated with ensuring ongoing communication with Indigenous peoples, and in the preparation and delivery of results in an appropriate format, should be fully factored into research funding.

Anderson (1996) emphasised the importance of ongoing dissemination throughout the life of a research project. He suggested that 'the benefits of a research project can be maximised if the process of dissemination of research findings is conceived to be integral to the entire process of research. (p.121)'. Anderson also pointed to the importance of tailoring dissemination processes to the research approach, stating that '…strategies for the communication of research results… (with Indigenous people and communities)…depend on the type of project being conducted (p.121)'.

Scougall (1997) nominated the influence of research funding bodies as a problem within Indigenous research contexts. In particular, he argued that the lack of flexibility in responding to emerging issues of concern within Indigenous communities is problematic for the long- term achievement of research transfer. This lack of flexibility includes pressures from research funding bodies to adopt unaccustomed modes of rapid decision-making and processes for accountability.

On the issue of research transfer, Jenkin et al. (2001) suggested that:

> *The problems of research transfer in Aboriginal health are otherwise analogous to those described in the wider health and medical research literature and in the education and social sciences literature. The problems centre on the differing needs, aspirations, imperatives, expectations and modes of communication that exist between researchers and the users of research, that is policy-makers, practitioners, communities and consumers* (Jenkin *et al* 2001, p.22).

Jenkin *et al* 2001) also argued that strategies to improve transfer from research should be 'developed with regard to the history of Aboriginal peoples and the impact of socio-economic factors that contribute to the disadvantage faced by Aboriginal communities (p.22)'. The authors concluded by suggesting that achievement of health research transfer in Aboriginal community contexts relies on:

- an understanding of the possible uses for, and types of, research

- an understanding of how these differ for the different user groups and for the stages of research transfer (awareness, adoption and institutionalisation) and their relative importance for different user groups
  (Jenkin *et al.* 2001, p.22).

6.2 Institutional involvement in the transfer and dissemination of research findings

The Australian and international literature indicates persistent concern about the extent of uptake of health research findings by policy makers and practitioners. While it is generally agreed that researchers should facilitate the transfer process by developing a plan for the dissemination of their research findings, the brokerage role of institutions in this regard remains substantially undefined. Research institutions are clearly implicated within emerging proposals for improving the level of uptake of health research findings into policy and practice. Commentators argue that improved outcomes can be achieved through:

- careful selection and targeting of research products and reports (Lomas, 1999, Stocking, 1995)

- effective planning and management of research by the commissioners of research (Harries 1999)

- involvement of policy and service delivery personnel in developing the question/s and methodology (Rothman, 1980, Stocking, 1995)

- the adoption of a pro-active approach to ensuring that research findings are considered by policy makers. This includes the briefing of key policy makers and advisors and the provision of research findings in summary form. (*pers comm.* Chris Robinson 31/10/01).

Within the broad Australian research context, there are indications that some institutions are considering ways of facilitating effective transfer and dissemination of research findings into policy and practice. The National Centre for Vocational and Education Research (NCVER), for example, has instituted the following processes:

- the development of an extensive VET research data base which includes both national and international literature and project reports.(VOCED database http://www.ncver.edu.au/voced.htm)

- making all NCVER supported research reports available free of charge through their website

- the publication of selected research reports. These reports are offered for sale through the NCVER. (The NCVER loses money from this operation)

- the publication of three newsletters to promote VET research

- 'Research at a Glance': a short publication on research themes

- 'Insight': A regular newsletter summarising the findings of key VET research.

- email newsletter: an electronic newsletter with advance warning of important research

- support for formal and 'no frills' conferences to support the dissemination of research findings

- hiring professional public relations/media consultants to promote selected research reports. This includes arranging radio and television coverage of issues and research findings.

- briefing of key stakeholders and Government representatives prior to the release of key research reports
(Smith, 2001, *pers comm* Chris Robinson 31/10/01).

In a recent report commissioned by the CRCATH, Jenkin *et al* 2001) consider the role of institutions in achieving successful transfer of research findings within Indigenous health research contexts. They suggest that successful research transfer:

> *…depends upon the choice of research themes and topics that have significant implications for Aboriginal health. It depends on the acceptability of the research to individuals and communities, and upon professional and community recognition of the competence of the research process* (Jenkin *et al* 2001, p. 24).

In this analysis, institutional processes for research priority setting are framed as central to the ultimate achievement of effective transfer of research findings into policy and practice.

In response to internal investigations of institutional procedures relating to processes for the dissemination and transfer of research findings, the CRCATH is examining a range of pro-active support strategies aimed at maximising utilisation of its research. The approach (outlined within an internal briefing document, CRCATH 2001 and explained in more detail for researchers in 'Thinking Beyond the Project 1-3' CRCATH 2002) acknowledges that each research project may need to activate and engage a range of individuals and systems (audiences) if research findings are to be utilized. Key strategies outlined within the newly defined approach to facilitating transfer and dissemination of research findings include:

- research project leaders encouraged to consider a range of dissemination/ transfer 'products': ministerial briefings, academic papers and reports, media launches/releases/interviews, Plain English reports, workshops, inclusion in academic courses, electronic dissemination, flip charts, newsletter promotion, opportunistic promotion etc

- collaborative development of research ideas/proposals to maximise relevance

- identification of key 'audiences' for the research, and each audience's information needs

- the inclusion of a costed research transfer and dissemination plan in each project proposal

- the provision of advice and assistance with approaches to communication whilst the research is being undertaken (eg preparation of educational materials, briefings, consultation meetings, videos etc)

- meeting between project leader, program leader and research transfer and communication coordinator about six months prior to the conclusion of each project to develop a coherent research transfer and dissemination plan for each research project

- the adoption of processes for collecting and storing all research products

- Ongoing advocacy and opportunistic promotion of research products when political or media issues have the potential to generate interest in the research

- the establishment of a Links/Transfer sub-committee, now part of the Development Working Group, to oversee research transfer and dissemination processes.

The NPHP (1998a) nominated research transfer as an important future area of concentration in Public Health research and development in Australia. They proposed that this would involve 'a cultural shift in approaches to health and medical research, sustained support for the systematic synthesis of research results through initiatives such as the Cochrane Collaboration, and the development of a capacity for brokerage between researchers on the one hand and practitioners, managers and policy-makers on the other. (1998a p.16)'. The NPHP also suggested that:

> *Traditional mechanisms for disseminating research results often fail to engage practitioners and policy-makers, who may not be attuned to research, and who operate in a paradigm which is very different from that of researchers. Thus research transfer tends to be slow and ineffective* (NPHP, 1998a p.13).

Measuring the extent of transfer of research findings into policy and practice is generally recognized as problematic. Effective transfer can take a long time and cannot easily be linked to specific research findings. A process adopted by the NCVER for measuring the effectiveness of its research transfer and dissemination strategies includes the hiring of media monitors to collate evidence of uptake of NCVER sponsored research within mainstream media commentary and within Government policy. A quarterly report on this evidence is provided to the NCVER Board of Management. (pers comm Chris Robinson 30/10/01)

Note. Issues associated with the transfer and dissemination of health research findings within Indigenous community contexts are considered in detail within:

CRCATH Occasional Paper No. 4, 2001, Matthews S, Jenkin R, Frommer M, Tjhin M and Rubin G, '*When research reports and academic journals are clearly not enough. Strengthening the links between Aboriginal health research and health outcomes'*

CRCATH (2002) Links Monograph Series: 4. Matthews S, Scrimgeour M, Dunbar T, Arnott A, Chamberlain A, Murakami-Gold L and Henry J, '*Indigenous Research Reform Agenda: Promoting the use of health research'*

7. Capacity building

Indigenous control over all aspects of research affecting Indigenous interests is an overriding aim of the broad-based Indigenous Research Reform Agenda. There is, therefore, considerable support for ensuring that Indigenous communities and individuals develop the necessary capacity to execute and control research within Indigenous domains. There remains persistent concern among Indigenous representatives that the application of the term *capacity building* implies deficiency in Indigenous knowledge, skills and perspectives. To avoid this perception, the terms *capacity development, capacity strengthening and community development* are preferred in this review.

Application of *capacity building* initiatives within research contexts is substantially underpinned by theories relating to organisational change, knowledge transfer, social action, systems theory, behavioural science, public administration and community psychology. In recent years the term *capacity building* has been applied with broad reference to a range of issues within the Public Health field and this has resulted in confusion and disagreement about its strategic intent. In commenting on this situation, Leeder (2000) claimed that the generic nature and lack of concreteness of both 'capacity' and 'building' beg more questions than they answer. To assist in the development of a shared understanding of the concept of *capacity building* within Public Health contexts, Leeder proposes the following definition:

> *…an approach to development that seeks to enhance the potential that programs will be sustainable or that the experience of working on a program will give people and organisations a greater ability to address new health challenges, whatever those challenges may be. (Capacity Building) also refers to the development of systems, such as communities or organisations that are able to address health problems, and in particular, problems that arise out of social inequity and social exclusion* (Leeder, 2000 p.1).

Within Leeder's definition, *capacity building* is framed as a strategy for improving individual and community capacity to deal with health issues and as a strategy to be employed by institutions to address issues of social inequity and social exclusion. This representation of the three main purposes for capacity building provides a framework for analysis of trends associated with capacity building initiatives in the field of Public Health in Australia.

7.1 Capacity building as an institutional framework for dealing with health inequality

Currently emerging capacity building theory in Australia has been substantially developed within mainstream health systems as a framework for addressing health equity issues. For example, a capacity building framework developed by the New South Wales Health Department proposes a set of practical actions using the five focus areas of organisational development, workforce development, resource allocation, partnerships and leadership (Bowen *et al* 2001, p.57). In a discussion of this framework, Bowen et al pointed out that 'a capacity building approach by itself will not provide the mandate and framework for the action that needs to be taken to address health inequality, but it helps to ensure that once potential solutions are identified the health system has the capacity to respond (p.56)'.

7.2 Capacity building to increase the level of engagement between individuals and the research process

Increasing the research capacity of Indigenous peoples is proposed as a central way of ensuring the necessary transfer of control over the research process from the non-Indigenous to the Indigenous sector. The Wills Review (1999, p. 60) supported this position by arguing that participation and leadership by Indigenous people in health research is an important requirement for this research to be effective in providing solutions to health problems. The Review made reference to a submission from the then Territory Health Services, Darwin (now the Department of Health and Community Services) that underlines a key issue frustrating the achievement of Indigenous control over the research process;

> *The current role of Aboriginal Health Worker as "cultural broker" is crucial for the success of community based research but this is not a central position in the research team. It is difficult for Aboriginal people to set the research agenda when the vast majority of those with requisite skills to undertake the research are non-Aboriginal* (Wills Review, 1999, p. 60).

O'Donoghue (1999), in her inaugural address as chairperson of the CRCATH, argued that few if any tangible benefits have flowed from health research activity to Indigenous peoples. In her opinion this situation can be attributed to the fact that researchers have 'defined the problems and sought solutions that they have seen as the correct "scientific" way to go (1999, p.1)'. Within the 1999 -2004 *CRCATH Strategic Plan*, the commitment of the CRCATH to challenge many of the approaches that have underpinned research into Aboriginal health is underlined. A central proposal within the Strategic Plan is a commitment to increasing the research capacity of Aboriginal people to control and manage Aboriginal health research (1999, p. 1). This conceptualization of the purpose for *capacity building* infers a connection between 'empowerment' and increased collective and individual research capacity. In a commentary on his participation in a CRCATH-funded research project that applied an 'activist' research model, Boughton (2001) suggested that the concept of 'capacity-building' is a more recent transformation of the notion of 'empowerment' introduced by the Brazilian educator Paulo Freire.

7.3 Developing community capacity to influence the achievement of improved health outcomes and to manage change

Advocates for Indigenous research reform emphasise the importance of ensuring that research initiatives can be sustained by the community in the absence of professional researchers. University researchers involved in a Canadian PAR project described by Chrisman (1999) defined community *capacity* as 'the (community's) ability to effectively develop, mobilize, and use resources to manage change (1999 p.135)', and they concentrated on research capability as the first step in achieving this broader aim. 'Establishing the tribe's ability to gather, analyze and present data is a significant step toward more general community capacity (1999 p.135)'. The researchers also point out that the success of this PAR project was attributable to the *community development or community organisation* components. The principles of *community organisation* that guided the project strategy were drawn from Kinne *et al* (1989).

These principles include;

- a clear definition of the relevant community

- the involvement of community members and community resources in defining the problems, proposing solutions, and making changes happen, using methods with which they are familiar

- sustainability of the project in the absence of the organizer.

Boughton (2001) outlined a similar approach to research adopted within the context of a CRCATH-funded systematic review project aimed at investigating the links between education and health issues in Central Australian Indigenous community contexts. This discussion paper provides a critical overview of the 'activist' research approach adopted to achieve the project goals. In his introduction Boughton argues that 'research tends to consolidate the power of researchers and their institutions, rather than building the power of the communities and their organisations who are being researched'. Within this context he poses the question 'If this is so, how might the CRCATH break with this pattern?' Boughton reported that:

> *What we have discovered along the way is the need to integrate capacity development, or community development, into the process of research project development itself. Within such a model, a research program or project in its development phase is an active intervention in a community, and is designed to strengthen the community's capacity to deal with any problems which it identifies* (Boughton, 2001, p. 9).

Tsey (2001) represented capacity-building as an essential aspect of developing partnerships between researchers and Indigenous communities and he emphasised the need to identify and prioritise research capacity building within the context of research activity. He also suggested that these objectives can be facilitated through training, mentoring and other forms of institutional support.

Current indications are that research organizations involved in research of interest to Indigenous peoples outside of the health research field also realize the value of research based training and Professional Development initiatives. AHURI (2001b), for example, endorses a research principle stating that 'research should support education and training to increase the capacity of indigenous researchers, communities and organizations (AHURI, 2001b p.2)'.

7.4 Institutional research capacity development, work-force capacity and professional development

An identified system-wide problem in the Public Health research field is the lack of a critical mass of researchers with appropriate Public Health research training (NPHP p.1998a 1998b). The NPHP suggests that a cause of the current problem associated with inadequate levels of institutional research capacity can be linked to the fragmentation associated with the dispersal of adequately trained researchers among too many research institutions and Public Health Units within universities in Australia. Developing institutional research capacity is an identified priority area for action within the Public Health research field (Wills, 1998), and a critical area for strategic focus by research institutions. It is argued that without the development of a critical mass of adequately trained researchers, opportunities

for implementing the proposed multi-disciplinary and collaborative approaches to Public Health research will be limited. This situation has important implications for institutions and organizations involved in Indigenous health research because currently proposed *capacity building* initiatives involving Indigenous researchers and communities rely on mentoring and collaborative support from expert Public Health researchers. If Public Health researchers lack the requisite skills to provide mentoring and collaborative support to Indigenous research participants then the project to achieve a transfer of control from the Indigenous to the non-Indigenous sector is compromised.

Professional development and education and training initiatives are identified strategies for achieving institutional change in regard to achieving improved workforce capacity. There is an apparent increasing level of commitment to developing a more systematic approach to Professional Development and Workforce Development across a range of Australian research institutions. Some current initiatives include:

- the Australian Vocational Education Training and Research Association working party on Professional Development

- the National Public Health Partnership working party on Aboriginal research capacity

- the National Public Health Partnership workforce development working group

- NHMRC grants specifically tied to the development of institutional research capacity in the public health research sector.

In a recent report on Professional Development, the Australian National Training Authority (ANTA) (1997) noted that Professional Development programs have 'attempted to close the gap between what Professional Development is currently available and what is required in the future to operate successfully in the environment envisaged by the training reform agenda' (p.6)'. In this context, Professional Development activity is represented as a key process through which organisational responsiveness to reform initiatives can be achieved. The report authors concluded that within the VET sector, Professional Development is not yet sufficiently appreciated, or planned and implemented, as a strategic activity (p6.). A key finding of the report was that Professional Development programs were more likely to succeed when recorded as a strategic activity, involving highly skilled managers and facilitators, and operating in workplaces with a committed senior management (p.7).

The historically narrow definition of 'workforce' applied to the framing of Professional Development and Training programs is problematic for those concerned with ensuring that non-professional Indigenous participants in research have adequate access to training opportunities. The Wills Review (1998) proposes two levels of training for Indigenous people. The first level applies to training for Indigenous health workers to enable them to participate in and contribute to research studies and the second level involves university level training for Indigenous health professionals and scientists to enable them to play leadership and independent investigator roles (p. 60). While this two-tiered approach makes reference to Indigenous health professionals and para-professionals, the training needs of other Indigenous participants in the research process are not addressed.

Narrow Professional Development and Training frameworks do not take advantage of capacity building opportunities that arise within the context of research activity. In reviewing Professional Development programs within the VET sector, ANTA (1997) noted that successful Professional Development outcomes have derived from Action Research projects in the field. Grundy (1995) suggests that the Professional Development potential within Action Research approaches has not been fully realized in Australia.

8. Summary

This literature review represents part of the scoping phase of the LINKS Action Research project. This project is a strategic research initiative of the CRCATH and its aim is to investigate the current effectiveness of CRCATH procedures associated with undertaking research, managing research and disseminating research findings. The purpose of the review has been to provide an historical background to the research question and to highlight current trends and policy developments against which the current performance of the CRCATH can be measured.

Since its inception in 1997, the CRCATH has expressed a commitment to challenge many of the approaches historically underpinning research into Aboriginal health. While it has since been recognized as a centre of research excellence in the Indigenous health research field, the management of the CRCATH recognizes that ongoing adjustment to its management procedures and workplace practices is necessary in order to adequately support the implementation of Indigenous health research reform proposals. Support for broad based reform in this area stems from the well documented and ongoing poor track record of Indigenous health research when its value is measured in terms of improved health outcomes.

A consideration of Institutional reform in the area of Indigenous health research must take into account the broader commentary surrounding Indigenous self-determination. Anderson and Saunders (1996b) argue that Aboriginal self-determination in health should not be read as an opportunity for governmental disengagement. Aboriginal people's efforts need to be supported by appropriate resources and expertise but this support must be provided in ways that respect Aboriginal people and organisations as full partners in the process.

> *Aboriginal participation and priorities need to be seriously and concertedly addressed. This, it appears to us, is the crucial challenge in linking Aboriginal health and institutional reform within Australian federalism, linking Aboriginal self-determination with wide spread responsibility sharing* (Anderson and Saunders 1996, p.24).

In the same way that Anderson and Saunders argue that the crucial challenge associated with promoting Aboriginal self-determination in the field of health is dependent on responsibility sharing involving appropriate support, funding and expertise, it is also crucial that institutional reform in the area of Indigenous health research is framed on the basis of widespread responsibility sharing and that this process respects Indigenous peoples and organizations as full partners.

There is increasing support for the position that it is time to move beyond the rhetoric of reform to a situation where institutional responsibilities for the actualization of the Indigenous health research reform agenda are clarified. Humphery (2000), for example, argues that progress toward achieving improved outcomes from research is dependent upon mainstream research and policy establishments adopting 'a much more forward-looking exploration of what Indigenous health research *as a field* might look like in ten or twenty years time both in terms of institutional arrangements and working practices.' In his analysis, Humphery (2000) outlines a range of unresolved issues which he argues are within the realm of institutional responsibility and which are critical to the advancement of the Indigenous health research reform agenda. These issues include:

- involvement of Aboriginal communities in the design, execution and evaluation of research

- coordinating role of Aboriginal community controlled organizations

- consultation and negotiation is ongoing and open to scrutiny

- mechanisms for Indigenous control and transformation of research

- mechanisms for ongoing surveillance of research projects

- questions of research priorities and benefit

- what ethical processes in terms of consultation and negotiation might actually be in practice

- evidence of transformation of research practices from 'investigator-driven' to a re-assertion of control by indigenous community controlled organisations over the research project

- linkage between research and community development and social change

- development of mechanisms to support the successful transfer and dissemination of research findings

- adoption of a needs- based approach to research

- the training of Indigenous researchers.

A barrier to the achievement of a co-ordinated approach to institutional reform is the widespread dispersal of Indigenous health research activity in Australia. Research is spread across a range of jurisdictions and is conducted through interventions directed by non-government organisations, industry, universities and government funding agencies. To inform and support this broad range of organisations and institutions to bring about a transformation of Indigenous health research activity is a difficult undertaking. Another barrier to achieving a co-ordinated approach to reform is represented by the range of recent reports, reviews and policies directly impacting upon arrangements for the management and conduct of Indigenous health research. Institutions involved in research activity are expected to conform to a range of funding regimes and policy imperatives that potentially conflict with the achievement of reform initiatives relating to the conduct of Indigenous health research. Reform proponents, however, should be encouraged by the extent of alignment between recent reports and policies which support:

- increased levels of Indigenous health research funding

- increased levels of Indigenous community control over all aspects of the research project

- consolidation of the research effort involving increased levels of institutional collaboration and co-operation, and the adoption of a priority-driven approach to research

- methodological reform aimed at achieving improved health outcomes from research through the intervention of cross-disciplinary perspectives and inclusive research practices.

The literature reveals that substantial headway has been achieved through the formalisation of the Indigenous health research reform agenda over the past twenty years. All institutions engaging in research of interest to Indigenous peoples have adopted formal guidelines and protocols to guide researchers. Current commentary, however, indicates an impatience with the proposition that the formalisation of guidelines for the ethical conduct of Indigenous health research has been enough to ensure that the rights and interests of Indigenous participants in research activity are adequately represented. There is evidence to suggest that these guidelines do not mandate for substantial changes to the way researchers operate and that currently, inadequate institutional mechanisms are in place to monitor the activity of researchers once formal Ethics Committee approval has been granted.

The movement to reform Indigenous health research activity has foreshadowed the formalisation of a more recent and broad-based Indigenous Research Reform Agenda in Australia. This agenda has strong Indigenous community support and is currently being theorized and promoted by Indigenous representatives across a range of disciplines within higher education institutions and research organizations throughout Australia. An important focus of the Indigenous research reform agenda is the formalisation of Indigenist research philosophies, principles and practices. The project to identify and promote research methodologies deemed compatible with the goals of the emerging agenda for research reform is underpinned by an overriding commitment to decolonize existing Western research traditions. The current positioning of reform proponents includes a commitment to:

- rejecting institutionalized research approaches which have historically marginalized the knowledge, perspectives and values of Indigenous peoples

- adopting research approaches which represent a capacity for sustainable community development

- adopting research approaches which are more respectful of Indigenous values and inclusive of Indigenous knowledge and world views

- supporting the development of Indigenous research capacity and the development of systems to ensure that the management of research is under Indigenous community control.

The emergent formalisation of a cross-disciplinary Indigenous agenda for the reform of research in Australia has very positive implications for those involved in the effort to reform Indigenous health research activity. There is obvious alignment between these two agendas and it is possible that broadening of the support base for reform of Indigenous research activity will increase the momentum for change within universities and other mainstream research institutions involved in research of interest to Indigenous peoples.

Priority driven research is represented as an effective mechanism for ensuring institutional responsiveness to community identified issues of importance and as an important way of achieving broad-based rationalization of research resources. Priority-driven research is supported by those who argue that the historical prevalence of 'investigator-driven' research has resulted in insubstantial improvement to Indigenous health outcomes. It is also argued that the adoption

of a priority driven approach to research increases the potential for inserting improved institutional processes for quality control and for the effective transfer and dissemination of research findings. Within the Public Health research field in Australia, processes for the setting of research priorities are generally recognized as being under-developed. The development of appropriate processes for priority setting and for the evaluation and monitoring of research activity are regarded as key areas requiring institutional attention. Reform proponents argue strongly that the establishment of Indigenous health research priorities should be located within the control of the community based Indigenous health sector. In this way a closer alignment between the interests of researchers and the interests of Indigenous peoples may be achieved.

Support for methodological reform currently emanates from two quite different quarters. Indigenous research reform proponents argue for the adoption of methodological approaches with a demonstrated capacity for incorporating Indigenous community members as key participants in the research process (collaborative and participatory research methodologies are commonly referred to in this context). In the Public Health research field there has been a shift away from epidemiological research, to research involving a range of Social Science disciplines over the past decade. Multi-disciplinary research requires the adoption of different methodological approaches and it is generally recognized that this transition has been difficult for researchers. According to Baum (1990), the 'New Public Health' imposes on institutions a responsibility for ensuring that adequate capacity for the achievement of methodological reform is realized.

While the problem of insufficient numbers of adequately trained Public Health researchers is identified as a major obstacle to the achievement of broad-based methodological reform in the Public Health research area, there is no evidence of a national plan of action to address this issue. Proposals for change aimed at increasing levels of individual Indigenous and community research capacity rely substantially on the achievement of methodological reform, which in turn relies on the expert intervention of trained Public Health researchers. Achieving substantial improvement to current levels of institutional research capacity or workforce capacity looms as a major challenge for institutions involved in Indigenous health research. In addition, institutional processes for strengthening Indigenous research capacity also require improvement. Traditional approaches involving Professional Development and training programmes have failed to address the training needs of non-professional Indigenous participants in the research process. Increasingly, it is being proposed that research capacity strengthening can be achieved through mentoring and training within the context of research activity and through the development of methodological approaches which adopt a community development focus.

The NPHP argue that the impetus to measure outcomes must be tempered with 'a recognition that research and development outcomes range from *research results* or *findings* to the *incorporation of research results in policy or practice* to *changes in health outcomes* or *health status.* Research outcomes also include the outcomes of dissemination processes and the development of interventions. The impact of research and development on health status is at one end of a spectrum of potential outcomes (NPHP, 1998b p.18). This position aligns with that of Indigenous health research reform proponents who argue that research has historically delivered insubstantial benefit to Indigenous peoples and that the focus for evaluation of

research must extend beyond the production of research findings. The achievement of successful transfer of research findings into policy and practice is required if the full benefit of research is to be realised. Increasingly, it is proposed that institutions should play a more pro-active role in the achievement of improved research dissemination and transfer processes. It is also proposed that more effective transfer outcomes can be achieved when dissemination of research findings occurs throughout the life of a research project. Evidence is also emerging to support the contention that positive changes to health policy and professional practice can be achieved through engagement in Action Research and participatory research activity.

The unresolved issues on the Indigenous Health Research Reform Agenda (identified by Humphery, 2000 and outlined on page 46 of this paper) are directly concerned with increasing the benefit of research to Indigenous peoples. The resolution of these issues is dependent upon:

- Indigenous control of the research agenda,

- Indigenous control of the research process

- Improved processes for quality control

- Improved processes for consultation and negotiation of research,

- Improved processes for transferring research findings into policy and practice.

The achievement of these reform proposals is dependent upon substantial institutional intervention and the co-operation of Public Health researchers. Specific institutional action is required to:

- support the adoption of cross-disciplinary research approaches

- support the adoption of collaborative and participatory methodologies

- support the development of research priority setting processes that substantially reflect the positioning of Indigenous community controlled organizations

- support the development of professional development and training approaches that address the training needs of all Indigenous participants in research activity

- support community development objectives through research activity,

- improve processes for quality control

- improve processes for the transfer and dissemination of research findings

- support Public Health researchers in their newly defined roles as mentors trainers and participants in the community development process

- support the brokerage of research between indigenous communities and researchers.

9. Glossary of terms

Public health deals with the *determinants* of health, and the contexts in which these determinants operate. Public Health action is concerned with the *management* of the determinants and the interactions between determinants and contexts. In contrast to clinical practice (which focuses on individual patients), Public Health deals with collective problems in society and seeks collective solutions. The achievements of public health are different from the achievements of clinical practice because public health uses people-based approaches to develop and implement solutions to collective problems (NPHP, 1998a, p.1).

Research and development research is the creation of new knowledge through systematic enquiry. *Development* refers to the effective transfer of the outputs of research into practice, management, policy, or production. Insofar as development may itself entail carrying out research on how to use the outputs of research, R&D may be considered to be a continuum of innovation (NPHP, 1998a p. 2).

Public health research is research that 'contributes to our understanding of the design, delivery, cost and effectiveness of interventions (NPHP 1998b, p.4)'. The goals are to reduce the amount of disease, premature death, and disease-produced discomfort and disability in the population. Collective or social action is implicated in the achievement of these goals (University of Sydney, 2001, Baume, 1998).

Fundamental research is research that seeks to discover new knowledge about conditions and is discovery oriented. (The Health and Medical Strategic Review 1999) *Fundamental (or basic)* research is directed towards advancing the frontiers of knowledge, without regard to the potential strategic application of the findings. Fundamental research is usually investigator driven (NPHP, 1998a p.2).

Strategic research involves priority-driven research efforts in medical areas in which a country faces unique or unusually serious problems (The Health and Medical Strategic Review 1999). *Strategic research* is done to address specified gaps in knowledge needed for the development of health policy or practice. Strategic research may be investigator driven, but more often it is initiated in response to an identified policy, operational or healthcare need (NPHP, 1998a p.2).

Intervention development and evaluation research involves the application of research findings in service delivery settings and involves assessment of their efficacy and value (The Health and Medical Strategic Review 1999). This research creates and assesses health related material products (drugs, vaccines, equipment including tools for public health, prostheses and diagnostics), public health and personal health service interventions, and instruments of policy that encourage or discourage specific behaviours or interventions (NPHP, 1998a, p.2).

Health outcome-oriented research supports evidence-based changes to health services policy, practice and delivery that are considered necessary for the improvement of health outcomes. Efforts to determine and answer critical policy and service delivery questions are, therefore, given a high priority in a health-outcomes research environment. (Matthews *et al* 2001 p.3)

Health services research is concerned primarily with the production of knowledge and understanding which can contribute to the improvement of the delivery of health care. It deals with problems, opportunities in the organisation, staffing, financing, delivery and utilization and evaluation of health services (University of Sydney. Dept. of Public Health and Community Medicine, 2001).

Research into dissemination and implementation of research-based knowledge involves research that identifies (or develops), applies and evaluates methods of transferring research-based knowledge into practice, management and policy (NPHP 1998a, p1).

Evaluation research seeks to determine whether a health-care intervention or policy achieves its intended effects, and to provide feedback leading to improvement, continuation, intensification or cessation of particular initiatives (Jenkin *et al* 2001, p. 15).

10. Abbreviations

AHURI	Australian Housing and Urban Research Institute
AIATSIS	Australian Institute for Aboriginal and Torres Strait Islander Studies
ANTA	Australian National Training Authority
ATR	Aboriginal Terms of Reference
ACCHS	Aboriginal Community Controlled Health Service
AHS	Aboriginal Health Strategy
AHEC	Australian Health Ethics Committee
ARC	Australian Research Council
CBPR	Community-Based Participatory Research
CRCATH	Cooperative Research Centre for Aboriginal and Tropical Health
FASTS	Federation of Australian Scientific and Technological Societies
HGDP	Human Genome Diversity Project
IEC	Indigenous Ethics Committee
MSHR	Menzies School of Health Research
NAHS	National Aboriginal Health Strategy
NATSIHC	National Aboriginal and Torres Strait Islander Health Council
NCVER	National Centre for Vocational and Educational Research
NHMRC	National Health and Medical Research Council
NPHP	National Public Health Partnership
PAR	Participatory Action Research
PHA	Public Health Association
REC	Research Ethics Committee
SRDC	Strategic Research Development Committee
WHO	World Health Organisation

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