



**FUTURE DIRECTIONS FOR INDIGENOUS  
ENVIRONMENTAL HEALTH IN WESTERN AUSTRALIA**

**Melissa Stoneham and Mike Daube**

# **FUTURE DIRECTIONS FOR INDIGENOUS ENVIRONMENTAL HEALTH IN WESTERN AUSTRALIA**

Melissa Stoneham and Mike Daube  
Public Health Advocacy Institute Western Australia

## **1.0 What is the Problem?**

In 2001, 3.5% of the total Western Australian population was Indigenous people (ABS 2006). It has been estimated that 25% of Indigenous people live in remote or very remote areas (compared to 2% of non-Indigenous Australians).

Indigenous Australians in general are the least healthy of all Indigenous populations within comparable developed countries and have a significantly lower level of access to appropriate health care than Non-Indigenous Australians. In Australia, chronic diseases are the main cause of early mortality and morbidity in Indigenous Australians (NPHP, 2001). Although the health status of Indigenous Australians is well documented it is still worth noting, in 2002, after adjusting for age differences between the populations, Indigenous Australians were twice as likely to report their health as fair or poor as non-Indigenous Australians (AIHW, 2005). In 2001, life expectancy at birth for an Indigenous male was 59 years, and for an Indigenous female, 65 years. In a similar period, males in the total Australian population had a life expectancy of 78 years and females 83 years.

The 20 year gap between Indigenous and non-Indigenous populations' life expectancies signifies the poor state of Indigenous Australians. Furthermore, respiratory, gastrointestinal, infectious and parasitic diseases are reported as being disproportionately higher among Indigenous Australians, especially the young. Many factors that put Indigenous Australians, especially those residing in rural and remote areas at a higher risk of poor health are related to environmental health determinants such as inadequate housing or harmful levels of community or personal hygiene. A survey of communities in Western Australia reported large problems with water supply and sanitation problems, overcrowding and substandard housing, waste-water disposal problems and the absence of rubbish disposal resulted in a high prevalence of vermin and pests and a lack of hygiene (ABS, 2006).

## **2.0 Setting Direction**

Improvements in environmental health in Indigenous communities in Western Australia are required urgently. This paper provides a brief background on the problem, gives a précis of past environmental health strategies, identifies current gaps and recommends potential future directions for Indigenous environmental health in this state. A brief background describing the problem is provided, followed a précis of past strategies. If adequately resourced, the evidence based strategies recommended are likely to have a positive impact on the quality of life of Indigenous communities.

The two key documents that provided context for the report are: the National Environmental Health Strategy (1999) and the Environmental Health Needs of Indigenous Communities in Western Australia (2004). Research has shown health development structures such as planning, implementing and evaluation of environmental health programs within Indigenous communities will flourish where national policies offer a strong endorsement based on social, economic, political and environmental understanding of health and disease (Baum & Kahassy, 1999).

The national policy platform has been dominated by the COAG announcement to ‘close the gap’. Closing the gap on Indigenous disadvantage is now a key priority for all Australian Governments.

The objectives of the program include:

- closing the life expectancy gap within a generation;
- halving the gap in mortality rates for Indigenous children under five within a decade; and
- halving the gap in reading, writing and numeracy achievements within a decade in a partnership between all levels of government and with Indigenous communities.

The pathways to closing the gap have been inextricably linked to economic development and improved education outcomes.

This report also recognises principles of the National Strategic Framework for Aboriginal Health and Torres Strait Islander Health, the Cultural Respect Framework and elements of the Best Practice Model for Health Promotion Programs in Aboriginal Communities.

Specifically for Indigenous environmental health, the National Environmental Health Strategy recommends that:

- Indigenous communities, Indigenous organisations and government at all levels need to collaborate to address the key environmental health determinants of Indigenous ill health. In particular, the domestic environment (housing and overcrowding), adequate, safe water and food supplies and waste disposal should be priorities.
- Mechanisms to enable better collaboration and integration with key stakeholders and managers need to be developed.
- A national review of the application of Public Health and Environmental Health laws to Indigenous communities needs to be undertaken.

The Environmental Health Needs of Indigenous Communities in Western Australia (2004) described eight core indicators that need to be addressed to improve quality of life. These include:

1. Water
2. Electricity
3. Housing
4. Solid Waste Disposal
5. Sanitation
6. Dust control
7. Dog programs
8. Emergency management

Literature on successful strategies to work in collaboration with Indigenous communities to achieve health outcomes was sought to provide guidance for considering different ways of addressing traditional environmental health problems within today’s context. These are discussed in the key findings chapter.

### **3.0 Methods**

A detailed examination was undertaken of the bureaucratic and technical systems that deliver environmental health and housing strategies in Western Australia. The following reports were provided by the Environmental Health Directorate (EHD) and were analysed to identify existing

strategies, barriers to success and gaps in service and program delivery. Due to the age of data provided in the reports, a search of current literature was conducted. This ensured that the recommendations reflect current practice and suggested directions.

- Provision of services to Aboriginal people in Western Australia: An action plan and proposed legislation (January 1997);
- Jalinardi ways: Whitefellas working in Aboriginal communities (1989);
- Comparative Study of Essential Services Delivered to Selected Aboriginal Communities and Remote Townships;
- Report of the Standing Committee on Estimates and Financial Operations in relation to Environmental Health in Aboriginal Communities in the Kimberley Region (1989);
- Report on the Regularisation of Essential Services to 26 Town Reserve Communities (February 2001);
- Guidelines for the development of landfill facilities for Aboriginal communities Malarabah (Derby) region (April 2001);
- Discrimination in government policies and practices: S.82 (b) Report no. 6 Essential service delivery to Aboriginal communities in Western Australia (June 1990);
- Provision of Local Government Services to Looma and Mowanjum (August 2000);
- Better services for local communities: Report of the Australian Local Government Association on the Rationalisation of Intergovernment Administrative Functions (November 1990);
- Inquiry into service and resource provision to remote Aboriginal communities in Western Australia. Volume 1 & 2 (May 1991);
- Local Government Service Delivery to Aboriginal Communities: A report to the Department of Local Government (January 1994);
- Report to the Working Party on Local Health Authority Services to Aboriginal Communities: Assessment of Local Health Authority Service Delivery Needs in Aboriginal Communities (March 1994);
- Report to the Working Party on Local Health Authority Services to Aboriginal Communities: Responsibilities of Local Health Authorities and Legal Entitlements of Aboriginal Communities to Environmental Health Services (October 1995);
- Development of the Health Effects Scale: A trial instrument based on expert judgement for rating the effect of environmental factors on the health of Aboriginal households (May 1994);
- Report to the Working Party on Local Health Authority Services to Aboriginal Communities: Revenue and Resources Implications in the Provision of Local Health Authority Services to Aboriginal Communities (June 1994);
- Report of the Chief Executive Working Party on essential services to Aboriginal communities (June 1995);
- Working Party on Local Authority Health Services to Aboriginal Communities: Report to Minister for Health and Minister for Local Government (November 1995);
- Local Government Services to Aboriginal Communities: An Information Booklet on Service Delivery Obligations and Opportunities (December 1995); and
- Model Local Government Environmental Health Plan (October 1996).

#### **4.0 Findings**

Environmental health does not operate in a vacuum. This is constantly discussed in the reports reviewed. Many factors impact on the success and failure of environmental health programs across the state. This section of the report attempts to highlight the key findings of the review, identify successful strategies and gaps in service delivery.

#### **4.1 The Role of Government – Indigenous Environmental Health is Everyone’s Responsibility**

There have been many attempts to develop nationally agreed approaches to the provision of health services to Indigenous communities. The 2004 federal initiative of shared responsibility agreements, defined by the government as being agreements in which both governments and Indigenous people have rights and obligations and all must share responsibility, is one example. More recently the Rudd Government committed to closing the life expectancy gap between Indigenous and non-Indigenous people within a generation. Key initiatives include investing \$14.5 million in tackling high rates of smoking in Indigenous communities and the development of a National Indigenous Health Workforce Training Plan.

The Western Australian Government has a strong interest in the health of Aboriginal people and attempts to support that interest with a wide range of services.

Environmental health strives to address health in terms of the complex interrelationships between determinants, sometimes with cross-sectoral implications. This is an approach that requires a broad perspective and partnerships both within and outside the public health system.

A whole of government approach, led by the EHD, using a collaborative and integrated approach for identifying, assessing, managing and evaluating environmental health risks in Indigenous communities is warranted. The volume and complexity of the environmental health risks and the cross-cutting nature of many of the risk issues (e.g. food security, environmental sanitation, housing, etc) make it impossible for a single group to maintain the necessary expertise to deal with all of the environmental health risks. Working in a collaborative manner can increase efficiency, effectiveness and consistency of decisions, reduce duplication of effort and identify gaps in science and policy.

#### **4.2 Evidence Based Approaches to Indigenous Environmental Health**

Success in maintaining and improving environmental health requires an evidence based approach to decision making. The reports identified two primary advantages of using evidence based approaches including addressing public confidence that decision makers are using credible science, and allowing decision makers to be confident that advice is based on a rigorous and objective assessment of all available information.

#### **4.3 Best Practice Methods with Indigenous Communities**

The reports reviewed suggested an area of key importance was the need to plan for self-assessment of environmental health issues. Howie (2004) documented a process where community groups were organised and /or supported in identifying public health issues, and then planned and acted upon strategies for social action/change, resulting in gained increased self-reliance and decision-making power. Other researchers have identified intersectoral linkages within Indigenous communities can contribute to program sustainability (Howie, 2004; Wakeman et al., 2005).

Identified key success factors discussed within the reports included designing programs to be culturally sensitive, that cater for heterogeneity and maximise opportunities for local training. The vast majority of programs reviewed were firmly grounded within a community development paradigm. For example, the Northern Territory Environmental Health Program sought to improve health outcomes for Indigenous Territorians by carrying out its statutory obligations and also by utilising the principles of community development and health promotion to increase the capacity of Indigenous communities to create and sustain health. Another example is the ANU Aboriginal

community governance project that identified using a community development approach as a useful framework for supporting customised and flexible programs.

Literature reviewed to support this paper, highlighted fourteen key themes related to community development programs aimed at improving public health outcomes in Indigenous communities. These included:

1. **Community support** – programs are most effective when the community demonstrates strong support by taking responsibility for the programs direction, implementation and evaluation.
2. **Equitable partnerships** – programs tend to succeed when the community's knowledge, skills and views on how to improve health are recognised and value equally.
3. **Trust** – many Indigenous programs have required long timeframes to develop strong trusting relationships.
4. **Community based** – it is essential programs be implemented within the community using a bottom up approach.
5. **Flexible** – successful programs have recognised that each Aboriginal community is unique and programs must be able to cater to that heterogeneity.
6. **Robust design** – thorough planning and clearly defined activities and outcomes are key factors for successful community based programs.
7. **Well resourced** – evidence has shown Indigenous programs and services that provide adequate budgets, skilled personnel, education and infrastructure for at least 2-3 years to increase community ownership and build trust are successful.
8. **Using existing resources** – a clear theme from the literature was the importance of building on inherent strengths in local communities, enabling local people to have a sense of ownership, together with recognising cultural issues and values. The designation of Aboriginal health workers as cultural brokers is seen as a factor for success.
9. **Providing Feedback** – providing regular feedback to community and following through on commitments has been identified as a key success factor for community-based programs in rural and remote areas.
10. **Issues of community concern** – programs focusing on needs identified by local community members have been shown to have better and more sustained outcomes.
11. **Fun** – programs achieved higher levels of participation activities have included elements of culturally appropriate fun.
12. **Advocacy** – successful programs have been able to raise community consciousness of public health issues and enable community decision-making in identifying priorities.
13. **Acknowledging Elders** - the role of community Elders and the importance of widespread community support is an important focus for local support.
14. **Combination of strategies** - Ensuring and recognising the potential of mixed method approaches in program design has been identified as a key factor of success in Aboriginal health programs (NHMRC, 2003; AIATSIS, 2000; NPHP, 2002; NSW Hlth, 2002; Aust Govt, 2005; C'wealth, 2002; Mikhailovich, Morrison & Arabena, 2007; Smith & Hunt, 2007).

#### 4.4 Housing

Many of the reports highlighted that Indigenous communities generally experience much lower standards of housing than non-Indigenous communities. Poor living or environmental health conditions were associated with increased rates of infectious disease particularly amongst children. Infectious diseases such as diarrhoeal disease, acute respiratory and skin infectious were highlighted as some of the leading causes of hospitalisation for Indigenous infants and children aged less than five years. The repercussions of frequent childhood infections are serious, with

research indicating that chronic and repeated acute childhood infections can lead to chronic adult respiratory disease and some forms of kidney disease in later life (C'wealth, 2006).

Many reports indicated that poor initial construction and poor specification of essential health hardware (e.g. water, taps, soap etc) was a major cause of housing failure in Indigenous communities and needed to be addressed urgently if current programs were to have lasting benefits. The myth “that Aboriginals trash their homes” has been found to be untrue, with the real problem being that appliances provided unsuitable for the environment or the workmanship in construction and/or installation was poor (Torzillo, Pholeros, Rainow, et al. 2008).

A further complication for Indigenous housing is the Building Code of Australia and the Builders Registration Board (WA) do not apply to Crown land. Western Australia has approximately 300 Indigenous communities located on Crown Land.

Armed with the information linking poor health to housing standards, and the recent COAG communiqué identifying that improving housing affordability is a critical element in addressing financial stress and disadvantage, including for Indigenous Australians, there is considerable scope for the EHD to be a major partner in setting and implementing the Indigenous housing agenda. Importantly, COAG has also recognised innovative policy solutions are needed to support improvements in housing affordability and have allocated funding to improving housing supply through release of surplus government land for housing development; providing incentives to construct affordable rental housing; lowering the burden of infrastructure and regulatory costs built into the purchase price of a new home; improving the evidence base for housing policy and program development; and supporting the most needy in society through the joint Commonwealth-State investment in 600 houses and units for homeless people.

#### **4.5 Collaboration**

Each report highlighted that many of the determinants of environmental health lie outside the direct control of health authorities. For example, the provision and maintenance of housing, water services, sewerage and power, which are major influences on the environmental health status of communities, rest with infrastructure agencies.

Many of the documents reviewed discussed the need to promote and enhance collaboration between the health sector and other sectors such as education, agriculture and urban and rural planning. Despite this, there does not appear to be one statewide committee that has a sole focus on Indigenous environmental health. This is an opportunity for the EHD to work outside their traditional hierarchies and organisational partners to form collaborations that are significantly different from traditional working patterns and partners.

#### **4.6 Self-Determination and Self-Management**

Many of the reports consolidated information on concepts including:

- Indigenous communities best knowing their own needs;
- Within Indigenous communities the skills and knowledge to play an effective role in environmental health programs and services already exist; and
- There is a genuine commitment in many communities and service providers to promote environmental health and quality of life in Indigenous communities.

Recommendations from some of the reports focused on training and development of individual staff members within communities to build capacity and assist with issues regarding project sustainability and acceptance. Other reports highlighted the importance of participatory practices

to strengthen community ownership and sustainability of an intervention as well as fostering participation and cooperation in evaluation. For example, the Kuwinyuardu Aboriginal Resource Unit Gascoyne Healthy Lifestyle Program showed success with strategies that included training and guidance in the delivery of health promotion plus incorporated support with planning, reporting and evaluation.

A review of the Nindilingarri Environmental Health Action Plan revealed self determination was among the principle tenets, stating the following were key values:

- Prevention of sickness and sores;
- Listening and helpful;
- Working with communities to identify their needs;
- Working with partners;
- Ongoing learning;
- Working as a team;
- Respectful to self and others; and
- Ongoing environmental health awareness (Stoneham & Huppatz, 2006).

#### **4.7 Prevention as the Primary Focus**

The majority of the reports indicated prevention is the key to success with Indigenous environmental health programs and services. This is supported by the promoting good health principle of the National Framework for Aboriginal and Torres Strait Islander Health 2003-2013, that documents health promotion and illness prevention as a fundamental component of comprehensive primary health care and should be a core activity for specific and mainstream health services (C'wealth, 2007). Recent evidence suggests the use of systematic population focused approaches to environmental health will have a greater effect on individual and community health outcomes than individual care, and will be far more financially efficient in the longer term (WHO, 2002; Howie, 2004; Wagner, 2001).

#### **4.8 Acknowledging Potential Delays in Project Implementation**

In adopting community development type approaches in Indigenous communities, many of the reports stressed the importance of ensuring and planning for realistic timeframes. It is unrealistic to expect environmental health programs will have widespread visible impacts on health outcomes in one year. Some programs may have some short-term benefits to community health such as a decrease in stray or diseased dogs or a better maintained refuse tip, but longer-term benefits and outcomes will not evident for many years.

Many of the reports recognised Indigenous communities have to manage and cope with many other commitments as well as family and cultural obligations that will at times, take precedence over one particular program or service.

For positive and sustainable partnerships, the EHD needs to acknowledge delays will be inevitable and unavoidable. Including provisions for such delays in the planning phase for projects and services is important. Advocating to the funding agencies to recognise these cultural and other issues (eg weather characteristics) and ensuring from the on-set programs are planned for a longer-term implementation phase and funding can be guaranteed for an extended timeframe is necessary. In addition, evaluation criteria need to be realistic and measurable. Realistic expectations need to be communicated to field staff, funders and other partners to avoid unnecessary concern about delays in community based interventions due to cultural and environmental aspects.

#### **4.9 Over Consultation**

Another key finding from the reports was Australian Indigenous peoples are the most researched in the world. As a result, Indigenous people are often suspicious of research. Suggestions for overcoming this included planning participatory action research where co-researchers are the 'subjects' who tell their own stories and stipulating the need for the involvement of Indigenous individuals and communities as collaborators in the research (AIATSIS, 2000), designing evaluation protocols that are community driven (NPHP, 2002) and negotiating agreed research plans collaboratively (Aust Govt, 2005). These types of processes reduce the likelihood of external agencies imposing views and suggesting solutions to issues.

#### **4.10 Evaluation**

Few of the reports or programs discussed evaluation techniques. Lack of evaluation is a key gap in Indigenous environmental health programs across Australia. There appears to be a lack of understanding about how to measure program success, particularly in Indigenous settings.

#### **4.11 Difficulty for Local Governments to access Indigenous Communities**

Many of the reports discussed the barriers to effective environmental health service delivery due to the remoteness of Indigenous communities and the lack of resources available to local governments. Rural environments are the interface of various sectoral implications and environmental and public health issues, including distance from population centres, from extensive resources, and from particular economic and environmental conditions. Very few options to overcome these barriers were recommended other than contracting out environmental health audits to Aboriginal Health Services rather than local governments and reducing the amount of written assessments required by the WA Health Department. The reports highlighted the important roles of Environmental Health Workers and more generally, local government Officers in contributing toward the improvement of Indigenous environmental health standards. However, there was much discussion on costs of service delivery and the need for local governments to take a more active role with Indigenous communities in the areas of public health education.

Reports failed to identify almost one-third of Indigenous peoples live in metropolitan regions of Western Australia. Although there is increased access to services and commodities, Indigenous people living in urban environments continue to experience lower levels of health and should be considered in any Indigenous environmental health policy framework.

### **5.0 Recommendations**

The Environmental Health Directorate (EHD) needs to establish itself as the leader in Indigenous environmental health. To achieve this, the following recommendations are offered.

5.1 The EHD collect and collate **evidence** on a range of issues associated with Indigenous environmental health. This evidence would provide guidance and advice on Indigenous environmental health program and service planning and provision for all government agencies. The evidence would include information on the determinants of Indigenous environmental health, environmental health risks, best practice and effective strategies, performance indicators and realistic measures for Indigenous environmental health programs.

The EHD should commit to conducting ongoing **needs assessments** similar to the 2004 Environmental Health Needs of Indigenous Communities in Western Australia. This information would inform the action plan (as discussed in recommendation 5.4), grant applications, program planning and would provide data to enable trend analyses.

5.2 The EHD develop statewide **environmental health policy** directions and work with communities, like-minded organisations and Government Departments to support the introduction of these policies.

The underlying principles of the policies should include:

- Maintaining a focus on prevention;
- Broadening the base of information used for decision making;
- Supporting an evidence-based approach to managing environmental health risks;
- Providing clarity and guidance in terms of processes to be followed, information to be used and how decisions should be made;
- Providing flexibility to address the cultural and geographic issues associated with Indigenous environmental health;
- Finding the balance between promoting self-reliance and encouraging dependence on outside resources;
- Promoting intersectoral collaboration with many partners including organisations such as AMS, local governments, public health units, AHCWA, education, housing, WALGA, tertiary institutions and many others;
- Providing a long-term commitment to expertise and advice on environmental health issues and strategies;
- Extending traditional approaches to Indigenous environmental health beyond the legislative expectations and providing a balance between regulatory and more proactive community development approaches;
- Accessing all Indigenous peoples, whether they reside in rural, remote, regional or metropolitan communities;
- Pre-empting changes in practice due to the introduction of the new Public Health Act that will bind those occupying Crown Land and provide local governments with the opportunity to consider broader aspect of public health and wellbeing, reaching far beyond the traditional approaches to environmental health issues;
- Acknowledging within the evaluation framework, the challenges of working with Indigenous communities in terms of adhering to and meeting timeframes. Flexible planning, funding and measurement processes need to be considered.

Developing clearly articulated policy will benefit the DEH by:

- strengthening the EHD's ability to plan for and evaluate Indigenous environmental health programs and services,
- clarify roles, responsibilities and accountabilities of all policy partners;
- providing greater opportunities for the involvement of interested and affected parties; and
- providing the basis for a systematic, comprehensive, coordinated and cross Departmental approach to Indigenous environmental health action.

5.3 The EHD convene an inter-departmental and collaborative **Indigenous Environmental Health Working Group** to provide expertise in many aspects of Indigenous environmental health that has a limited lifespan of approximately 24 months. This would provide the EHD with an opportunity to work outside their traditional hierarchies and organisational partners to form collaborations that are significantly different from traditional working patterns. There would be many potential members of the group and should reflect service providers (eg local governments), academics, policy drivers, community practitioners, community representatives, funding agencies and Indigenous interest groups. Specific terms of reference and meeting processes would need to be

established. Partners would need to formally acknowledge that Indigenous environmental health is not the sole responsibility of the Health Department, taking responsibility for areas that lie within their core business. The Minister for Health or a high profile, independent and experienced individual should Chair this Working Group. Reporting structures for Parliament would need to be developed and maintained.

Although there is a complex history of interdepartmental working groups which have dealt with Indigenous issues, there is some evidence demonstrating how Committees have had some impact during the first two years.

- 5.4 The EHD develop a Western Australia Indigenous environmental health action plan that outlines **common goals and objectives** for improving environmental health in Indigenous communities. This cross departmental and collaborative plan would be developed using consensus theory, would conform to the Cultural Respect Framework and be developed in consultation with key stakeholders and community representatives. The action plan would provide direction on how to address Indigenous environmental health issues from a community development approach and would include:

- A strong rationale;
- Prioritisation of issues to be addressed based on available evidence,
- Realistic and measurable objectives and strategies;
- Partnership approaches (including internal and external partners);
- Resources and capacity building options; and
- An evaluation framework.

As the lead development agency, this action plan would enable the EHD to establish cross departmental priorities and reporting frameworks, demonstrate accountability for action and ensure the wise planning and use of resources.

It is strongly suggested the action plan extend beyond the regulatory requirements of the *Health Act 1911* and consider Indigenous environmental health from a community development approach using equity as a key policy driver.

Specific action plans focusing on statewide Indigenous issues such as the eight core indicators as described in the Environmental Health Needs of Indigenous Communities in Western Australia (2004) would be developed as one component of this statewide policy.

There may be a need to **build capacity** of the relevant EHD staff members in relation to appropriate evaluation techniques for Indigenous communities and projects. Utilising critical appraisal tools to improve the quality of evaluation designs, mixed method approaches and a broader range of qualitative methods including ethnography, case studies, narrative approaches or arts based methods need to be considered in association with the more traditional quantitative measures.

- 5.5 The EHD take on the role of facilitating a stronger and more robust approach to **housing** issues within Indigenous communities. It is recognised although the Health Department is not the lead agency in this area, there is scope for greater involvement by the EHD. It is proposed that the EHD assist in the planning and development of large-scale housing and environmental health infrastructure projects using the COAG communiqué as a guide for action. This would require the provision of advice, proactive approaches and discussions at many levels of government.

- 5.6 The EHD allocate a budget to develop a comprehensive **communication strategy**. A review of the existing EHD website, revealed little information about service provision, policy direction or evidence based strategies for Aboriginal environmental health.

The objectives of this strategy would be to (but not limited to):

- Advise stakeholders and communities on the Indigenous environmental health priorities;
- Provide clear, accurate and relevant information to Government departments in a timely manner, using a format that is useful and easily accessible;
- Disseminate regular and innovative information pertaining to the business of EHD related to Indigenous environmental health;
- Advertise any relevant grants that could assist communities and stakeholders to plan, develop and implement community based Indigenous environmental health programs;
- Provide professional support to community based Indigenous Environmental Health Workers;
- Acknowledge service providers that are offering innovative and proactive Indigenous environmental health programs;
- Provide feedback to stakeholders and communities on Indigenous environmental health outcomes achieved through the EHD; and
- Distribute useful resources.

- 5.7 The Environmental Health Directorate continue to provide support and training to **Environmental Health Workers**. Avenues to recruit and retain additional Environmental Health Workers should be pursued in partnership with relevant professional associations and tertiary institutions.

- 5.8 The Environmental Health Directorate maintain sufficient **in-house expertise** to support policy making, to implement relevant regulations, to set standards and to respond to emerging Indigenous environmental health issues.

## **6.0 References**

Australian Bureau of Statistics (2006) National Aboriginal and Torres Strait Islander Health Survey 2004-05. Canberra: ABS.

Australian Government (2005) Keeping research on track: a guide for Aboriginal and Torres Strait Islander peoples about health research ethics. Canberra: Australian Government.

Australian Health Ministers' Advisory Council (2004) Standing Committee on Aboriginal and Torres Strait Islander Health Working Party, AHMAC Cultural Respect Framework for Aboriginal and Torres Strait Islander Health 2004-2009. South Australia: Department of Health South Australia.

Australian Institute of Aboriginal and Torres Strait Islander Studies (2000) Guidelines for Ethical Research in Indigenous Studies. Canberra: Australian Institute of Aboriginal and Torres Strait Islander Studies.

AIHW (2005) Chronic kidney disease in Aboriginal and Torres Strait Islander people. Canberra: AIHW.

Australian National University (2008) Indigenous Community Governance Project. Centre for Aboriginal Economic Policy Research. Available at [http://www.anu.edu.au/caepr/ICGP\\_home.php](http://www.anu.edu.au/caepr/ICGP_home.php) (Accessed 6 Aug 2008).

Baum F & Kahassy H (1999) Health development structures: an untapped resource. In Kahssay H & Oakey P (1999) Community involvement in health development: a review of concept and practice. WHO Geneva.

Commonwealth of Australia (2007) National Strategic Framework for Aboriginal and Torres Strait Islander Health 2001-2013. Canberra: Commonwealth of Australia.

Commonwealth of Australia. (2002) The NHMRC Road Map: A strategic framework for improving Aboriginal and Torres Strait Islander health through research. Canberra, ACT: National Health and Medical Research Council.

Commonwealth Dept Health & Ageing (2006) Indigenous Environmental Health - Report on the 5<sup>th</sup> National Conference. enHealth Report. Canberra.

Commonwealth Dept Health & Ageing (1999) National Environmental Health Strategy. AGPS, Canberra.

Environmental Health Needs Coordinating Committee (2004) Environmental Health Needs of Indigenous Communities in Western Australia – The 2004 Survey and its Findings. Dept of Health, Perth.

Howie, R.J (2004). Formative Evaluation of the Kuwinyuwardu Aboriginal Resource Unit Gascoyne Healthy Lifestyle Program. The University of Western Australia.

Howie, R.J (2004) A best practice model for health promotion programs in Aboriginal communities. Perth: Western Australian Department of Health.

Mikhailovich K, Morrison P, Arabena K (2007) Evaluating Australian Indigenous community health promotion initiatives: a selective review. Rural and Remote Health 7 (online), 2007: 746. Available from: <http://www.rrh.org.au>

National Health and Medical Research Council (2003) Guidelines on ethical matters in Aboriginal and Torres Strait Islander health research. Canberra: NHMRC.

National Public Health Partnerships (2001) Preventing chronic disease: a strategic framework - background paper. Canberra.

National Public Health Partnership (2002). Guidelines for the development, implementation and evaluation of national public health strategies in relation to Aboriginal and Torres Strait Islander peoples. Melbourne: NPHP.

NSW Health (2002) Principles for better practice in Aboriginal health promotion: the Sydney Consensus Statement. (Online) Available: NSW Health (Accessed 1 August 2008).

Smith D & Hunt J (2007) Indigenous Community Governance Program – Key Research Findings. Available at [www.anu.edu.au/caepr/ICG\\_home](http://www.anu.edu.au/caepr/ICG_home) (Accessed 3 August 2008).

Stoneham M & Huppartz C (2006) Environmental Health Planning at Nindilingarri Cultural Health Services. InTouch; 23 (7): 7-9.

Torzillo P, Pholeros P, Rainow S, Barker G, Sowerbutts T, Short T & Irvine A (2008) The state of health hardware in Aboriginal communities in rural and remote Australia. ANZJPH; 32(1):7-11.

Wagner, E., Austin, B., Davis, C., Hindmarsh, M., Schaefer, J. and Bonomi, A. (2001) Improving chronic illness care: translating evidence into action. Hlth Affairs; 20: p. 64-78.

Wakerman, J., Chalmers, E., Humphreys, S., Clarence C., Bell, A., Larson, A., Lyle, D, and Pashen, D (2005) Sustainable chronic disease management in remote Australia, MJA; 182(Supp 10): p. 64-68.

WHO (2002) Innovative care for chronic conditions: Building blocks for action. Geneva: WHO.