



‘One Health: Three Worlds Apart’

*An exploration of the social determinants of health and inequalities in
the developing world and Aboriginal Australia.*

A case study approach

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of the

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Declaration

I declare that this thesis presents work carried out by myself and does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university and that to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text, and all substantive contributions by others to the work presented is clearly acknowledged.

Signed

Helen Bradley

Date

Dedication

I grew up in Booborowie, a town in mid north South Australia.

Although an Aboriginal name, no Aboriginals lived there.

I never met any Aboriginal people while I was growing up.

I was told about poor people overseas.

I was told nothing of the poor in Aboriginal Australia.

When I learnt about Aboriginal history, I wanted to know why I never knew.

As a nurse I wanted to know why Aboriginal kids were so sick.

As an academic I wanted to know about Aboriginal culture and society.

As a traveller I wanted to know about international health.

I wanted to know why Aboriginal health was compared to the developing world.

The journey had started.

This thesis is dedicated to those who have supported me to continue the journey.

To my husband who has supported me to travel and finish this work.

To my family who imbued in me a sense of justice and equality for everyone.

To my children whose being made me realise the agony of having a child taken away.

To my Aboriginal friends who have taught me about an Australia I never knew

To my Supervisors for being my road map.

You have been my inspiration!

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Glossary and explanation of terms

Aboriginal Australian	This term encompasses all people indigenous to Australia, i.e., Aboriginal and Torres Strait Islander people.
Acute Malnutrition or Wasting	Weight-for-height less than 2 standard deviations below the median of the international reference population
Chronic Malnutrition or Stunting	= height-for-age less than 2 standard deviations below the median of the international reference population.
Developing Healthy Communities Project (DHCP)	A development cooperation project funded by the Government of Australia through Unsaïd and the Government of the Lao PDR.
Developed status	The United Nations sets Income classifications each year (1 July). According to GNI. Countries are grouped by low income (\$905 or less); lower middle income (\$906 - \$3,595); upper middle (\$3,596 - \$11,115) and high income, (\$11,116 or more).
Disadvantaged	Having fewer assets, income or access in comparison to the mainstream population.
Health	A complex concept with multiple dimensions measured by the presence or absence of disease, mortality, morbidity, or perceptions of health and care seeking behaviours
Health Inequalities	Described according to population groupings such as age, sex, race/ethnicity, education, income and geographic area of residence
Health Inequity	The prevalence of differences between differing social groups
Healthy Cities	A WHO program developed in the 1980's
Infant Mortality Rate	The total number of deaths in live-born children under the age of one year in a given year divided by the total number of live births in the same year and multiplied by 1000.
Incidence	The number of new cases of a disease reported in a specific period of time divided by the mid-period population, multiplied by 1000.

...cont'd

Indigenous	Descendants of the earliest populations which survive in the area.
Inequalities	There is a large amount of literature in economics on the measurement of inequality (Anand cited in Evans et al, 2003; Sen 1997). If we take mortality as an indicator and do not account for age, an aging population will have higher death rates, where as a younger population will experience more childhood mortality. Analysis should pinpoint age groups, racial groups and causes of deaths to identify themes.
Maternal Mortality Ratio	The number of deaths of women related to pregnancy and postpartum (42 days) divided by the number of live births in the same period and multiplied by 100,000.
Neonatal Mortality Ratio	The number of deaths in live-born children within 28 days after birth in a given period divided by the total number of live births during the same period and multiplied by 1,000.
Peri natal Mortality	Deaths including all fetal and neonatal deaths of at least 400 grams birth weight or at least 20 weeks gestation
Phenomenon	A fact or occurrence which can be observed; an experience of living which is entails multiple occurrences which is perceived by the human senses.
Poverty	In Australia this is defined a being below the 'Henderson Poverty line'.
Prevalence	The number of new and old cases of a condition at a particular point in time divided by the total population, multiplied by 100.
Rural & Remote	The ABS describes regions in five categories: major cities, inner regional, outer regional, remote and very remote. The Accessibility/Remoteness Index of Australia (ARIA). measures the remoteness of a point based on the physical road distance to the nearest Urban Centre (ASGC 1996) in each of the five size classes Most definitions of rural use the words 'areas outside the capital cities or large regional centres'

...cont'd

Social determinants of health	Social indicators, e.g., education, housing, which affect health.
Socioeconomic determinants of health	Indicators involving income as determinants of health
Socio Economic Status	The social position a person has in a community, gained from both social and economic factors.
Social capital	The amount of community/ family support an individual has.
Total Fertility Ratio	The number of live births (over a five-year period) divided by the mid-interval population of women of a reproductive age.
Traditional	Using ways of living that have been carried on for centuries in the same group.
Under Five probability of dying.	The number of deaths in children under 5 years of age in a specific year divided by the number of live births in the same year and multiplied by 1000.
Underweight	Weight-for-age less than 2 standard deviations below the median of the international reference population.
Unexploded Ordnance (UXO)	Ordnance that has been prepared for use by being primed, fused, and armed and projected, but has not yet exploded.

Acronyms

ADB	Asian Development Bank
AHCSA	Aboriginal Health Council of South Australia
AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Illness
ATSI	Aboriginal and Torres Strait Islander
AusAID	Australian Assistance for International Development
BCG	Bacillus Calmette-Guerin (TB vaccine)
CAR	Cordillera Administrative Region
CBR	Crude Birth Rate
CDD	Control of Diarrhoeal Diseases
CHD	Coronary Heart Disease
CoA	Commonwealth of Australia
CSC	Cordillera Studies Centre
DHCP	Developing Healthy Communities Project
DPT	Diphtheria, Pertussis, Tetanus vaccine
ECD	Early Childhood Development
EPI	Expanded Program for Immunisation
ESRD	End Stage Renal Disease
FAS	Fetal Alcohol Syndrome
GNI	Gross National Income
GDP	Gross Domestic Product
GOL	Government of Lao People's Democratic Republic
HIRC	Health Inequalities Research Collaboration
HIV	Human Immunodeficiency Virus
HREC	Human Research Ethics Committee
IDD	Iodine Deficiency Disorder
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IUD	Intra-Uterine Device
LAHSDP	Lao-Australia Health and Social Development Project
Laos PDR	Laos People's Democratic Republic
LECS	Lao Expenditure and Consumption Survey
LWU	Lao Women's Union
LYU	Lao People's Revolutionary Youth Union
MCH	Maternal and Child Health
MICS	Multiple Indicator Cluster Survey

Acronyms (cont'd)

MMR	Maternal Mortality Ratio
MOH	Ministry of Health
NCCAB	National Committee for the Control of AIDS Bureau
NIPH	National Institute of Public Health
NMR	Neonatal Mortality Rate
NSC	National Statistics Centre
OECD	Overseas Economic Cooperative Development?
ORS	Oral Rehydration Solution
PATS	Patient Assisted Transport Scheme
PMR	Perinatal Mortality Rate
QUT	Queensland University of Technology
RTI	Reproductive Tract Infection
SD	Standard Deviation
SES	Socio Economic Status
SPC	State Planning Committee
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
T/L	Timor Leste
TBA	Traditional Birth Attendant
TFR	Total Fertility Ratio
TOT	Training of Trainers
TT	Tetanus Toxoid
U5MR	Under-Five Mortality Rate
UK	United Kingdom
UNAIDS	United Nations Program on HIV/AIDS
UNDP	United Nations Development Programme
UNFAO	United Nations Food and Agriculture Organization
UNFPA	United Nations Population Fund Activities
UNICEF	University of South Australia
UXO	Unexploded Ordinance
VHV	Village Health Volunteer
WES	Water and Environmental Sanitation
WHO	World Health Organization

Abstract

Although tacitly known for centuries that the poor have the worst health, 20th Century research has confirmed that poverty is actually a catalyst to poor health. The evidence shows that whatever the average income within a community, poor health becomes worse along the social gradient. Within developing countries, regardless of a spectrum of overall low income, it is the minority groups that have the worst health. Globally it is the disadvantaged minorities who suffer the worst health. Within Australia an examination of the spectrum from rich to poor exposes Aboriginal Australians as one of the most disadvantaged groups with correspondingly poor health. Their health is often likened to that of the developing world. Repetition of this theme has created the socially accepted phenomena of Aboriginal Australians having ‘third world health’.

Australians are rated as having health amongst the top ten countries internationally. With Australian Aboriginal health being described repeatedly in the literature (and the media) as ‘third world’, there is a surprising deficit of research examining the issue. Evidence shows this group’s health is bad, but does their situation deserve this description? This study examines the contexts of health in the developing world and provides an understanding of the determinants of their health against the health of Aboriginal Australians.

Groups in three developing countries were studied using a determinants of health framework which provided contextual information on their inequalities. Aboriginal Australian health inequalities were investigated through an extensive review of the literature, using the same framework. Much of the data collected related to the reality of everyday life and work. It is here that health is constructed. Evidence from research into the ‘Socio Economic

Determinants of Health’ and the philosophy underpinning the ‘Healthy Cities project’ were used for data collection. The data were then used to develop case studies of the different countries.

The phenomenon of a *developing world health* in Australia suggests that the socio economic gradient is much steeper than in other countries, with the lowest point being way below that of developing countries. This study examines the contexts of health in these situations and the health inequalities in Aboriginal Australians using the same framework to identify similarities and differences. It goes some way to address the information gap on Aboriginal Australians having ‘third world health’.

One Health Three Worlds Apart



CHAPTER 1

Introduction

Chapter 1 Introduction

Regardless of the excellent health of the all Australian population, the health of Aboriginal Australians is worse than any other subgroup in the country. Further, it seems socially accepted that Aboriginal Australians have ‘third world’ health and conditions. However, there is the lack of evidence for this hypothesis. The reason for this research was to investigate why Aboriginal Australians have health likened to the ‘third world’. The study therefore investigates the hypothesis and then makes an analysis of the determinants of health in these contexts.

This chapter provides a background to this study. It contains information of the health problems of Aboriginal Australians and it provides justification for researching both the developed and the developing world to investigate evidence of the phenomena. The frameworks used for the study are introduced, as are the countries studied. It concludes with the limitations or problems and pitfalls of the research processes.

1.1 Background to the study

According to United Nations estimates for 2005-10, Australia's life expectancy at birth is ranked among the highest in the world (cited by the ABS Cat 3302.0). The overall health of Australians is rated within the top ten internationally but Aboriginal and Torres Strait Islanders¹ are listed as having the worst health of any subgroup in Australia. Aboriginal Australians are said to experience health at a level compared to developing countries, with much lower levels of health than all Australians. As an example, a recent article in the Bulletin of the World Health Organisation (WHO) likened the health of Australian Aboriginals to that of the developing world, but without evidence (Dart 2008). It is true that their health is worse than the mainstream population on almost every indicator, with little indication of immediate improvements (Hughes and Warin 2005; Thomson

¹ Here in referred to as ‘Aboriginal or Aboriginal Australian’

2004; Sutton 2001; ABS 2002; AIHW 2002; Woolard, Leeder, Nossal, Hetzel, Stanley, Douglas, Donald, Mathews, Holman and Ring, 1999). This has been so for many decades in spite of policies to rectify their health to mainstream population status. However, that their health is said to be the same as the developing world so consistently is somewhat emotive and not proven.

We are years past the end of the *International Decade of Indigenous Peoples* (1995-2004) and yet there are still glaring differences in the health of Aboriginal Australians when compared to the rest of the Australian population. This has resulted in Aboriginal health being described in the literature (and the media) as ‘third’ or ‘developing’ world.² The term third world was coined in 1952 to describe countries without infrastructure. With examples from the developing world well publicised, the general public are very aware of the poverty and need in these areas. Poor health in these countries has been made into a ‘phenomenon’ with support from the media in order to command attention and gain the world’s assistance. Images depicting hunger, poor housing, poor water supplies and other inequalities are in stark contrast with the developed world. Other information brought to the public’s attention include high mortality rates and low life expectancy. It is these concepts or ‘phenomena’ against which the health of Aboriginal Australia is likened.

Having taught in the area of Aboriginal health and worked with Aboriginal people for some 15 years I am very aware of the poor health of this group. During the nineties I completed my Masters degree on the Pitjantjatjara Lands and have had extensive experience with Aboriginal Health Workers, operating an exchange between nursing students and Health Workers for clinical experience in suburban areas (see Bradley in Fuller et al, 1993) and reviewing the South Australian Curriculum (see Dollard, Blue, Bradley et al 1999). I have published in the areas of Aboriginal housing (see Roberts; Fuller, Bradley et al 2006), and on my experiences of working in remote Indigenous communities (see Bradley 1999). As an academic teaching in the area of Indigenous health, it

² Although used colloquially, the term *third world* is no longer politically acceptable with *developing world* replacing it. It was first coined during the ‘cold war’ to describe those countries unaligned with either the Soviets (Communists) or the West (Capitalists or NATO). The United Nations (UN) has provided a definition delineating *developed* and *developing* countries and this is discussed in section 3.2.

has been a constant source of frustration that Aboriginal health is accepted as *synonymous* with health in the developing world, but such statements are rarely backed by evidence. Most authors use only anecdotal evidence to draw broad assumptions that Aboriginal health is as poor as that in developing countries.

I have worked for the WHO in Jakarta and surveyed the populations throughout Indonesia and knew some of the problems of the developing world. However, like many others I perceived their health was poor from either disasters, wars or political incompetence and wondered why a developed democracy with excellent health in their mainstream population could not improve the health inequalities of their Indigenous people. I wanted to explore the situation in the developing world to identify any similarities for myself and for future scholars.

As the work progressed I found the evidence for the social determinants of health and health inequalities more and more engaging. Two studies were catalysts to the methods of this research; one by Lamberte (1999) and one by Turrell, Oldenburg, McGuffog and Dent (1999). Lamberte studied the connection between public health and human values. She conducted her research within the Philippines and focused on the extent to which public policy had advanced well being, or good health and long life. Lamberte's study illustrated the effects of policy on health as did the work by Turrell et al (1999). These researchers provided evidence that good government policy or upstream interventions are imperative for population health. Their work also introduced me to the extensive research providing evidence that health improves along a gradient of affluence; rich people being healthy and poor people being least healthy. I introduce this work in Chapter 2, *A Sum of the parts*. As in Australia, within the developing world it is the marginalised groups who have the lowest socio economic status (SES). Within the developing countries studied most of the population are 'indigenous' by definition. It is the more traditional groups who have the lowest SES and who are frequently seen in the media campaigns for international aid. These are the most marginalised and the most powerless and in light of their poor situation are the groups commonly compared to Aboriginal Australians. It was these groups who were of interest in this study.

Regardless of the evidence showing that poor health and low SES go hand in hand, social theorists further alluded to contextual issues acting as a catalyst to poor health in marginalised groups. Subsequently, this study sought to provide information from the social, cultural, environmental and political contexts in which these groups live using internationally recognised indicators which were generic regardless of their developmental status. The frameworks I used investigated health from social and environmental factors outside of the individual's control. This *Eco Social* framework posits that policy is the most important determinant of health. However, I needed to better understand the contexts of the developing world and the effects that policy had already had across both Aboriginal Australia and the developing world to determine what created similar health in these situational contexts.

1.2 The Research problem: 'Third World Health' in Australia.

The problem requiring investigation in this thesis has its genesis in the hypothesis repeatedly found in the literature and the media, that Aboriginal Australians experience the phenomenon of 'third world health' in a developed world. We *know that* globally, marginalised and minority groups have similar lives experiences which impact negatively on their health, but it is not enough to report such common knowledge as 'fact'. The problem here is one of *knowing why* this particular group have poor health given the status of their country. The problem is one of being better able to appreciate the complex, interacting factors that contribute to the poor health of traditional groups in comparison to mainstream populations, in particular Aboriginal Australians in a developed country. Understanding is the key to providing appropriate policies to improve their health. Further, the problem is not isolated to simply health, but all of the determinants of health which go to producing the 'phenomena' of the developing world. Although these two 'worlds' are constantly compared, even a cursory glance at the health statistics of the two contexts shows their health states are not the least bit similar.

The United Nations Organisation for Indigenous People define groups such as Aboriginal Australians as 'Fourth World'. This implies they are nations without states and this includes many of the original nations throughout the world,

including the North American Indians, the Sami of Norway and the Maori of New Zealand to name a few.³ Traditional groups in developing countries where the majority of the population are indigenous are also minority groups who tend to be marginalised from mainstream populations, but who cannot be categorised as Fourth World.

It is not new knowledge that in the modern world, traditional communities have unique histories, cultures and experiences that have disadvantaged them and shaped their health. Neither is it new knowledge that other Fourth world nations have poorer health than their mainstream populations but none is as poor as Aboriginal Australians. In an analysis of Aboriginal Australian mortality with other countries, Hill, Barker and Vos, (2007) attempted to reduce numerator, denominator bias caused by poor reporting in some states. They concluded that

...the Indigenous population of Australia is estimated to suffer a life expectancy shortfall of about 13 years, greater than similar gaps in other developed countries

(Hill et al, p580).

Within this study I essentially argue that Aboriginal Australians are unlike those in either developed or developing countries; that although Fourth World people, they are in a smaller proportion, and have a culture in such stark contrast to their mainstream population, they were ignored as a nation which prejudices their opportunities, magnifies their disadvantage and acts as a catalyst to the phenomena of developing world conditions. I contend that too often this group are conceptualised as ‘third world’ and provided with political strategies for improved health which might apply to that ‘world’, or those which have a particular political motivation, such as electioneering.

Various authors have published widely in the area of health inequalities of Aboriginal Australians (see Couzous and Murray 1999, Cummings 2002, Thomson 2004 and Devitt, Hall, Tsey, 2001) and just as the WHO seeks to improve the health of the developing world, there are many varying opinions on how to improve the health of this minority group. Thomson’s book on the health of Aboriginal Australians (Thomson 2003) details similar, and in some

³ A Fourth World website emanates out of the University of Colorado and can be found at <http://carbon.cudenver.edu/fwc/>

cases worse, situations in which this group found themselves at the end of the 20th Century when he wrote his Masters thesis on the same subject. The last paragraph of that thesis reads:

Unless Governments and the Australian people are prepared to commit themselves fully to achieving social and health justice for Aborigines, the standard of Aboriginal health will still be a national calamity in the year 2000, and beyond.

(Neil Thomson, 1989, p.283).

In 2003, the Weekend Australian reported:

In 1967 the state of the Native [Aboriginal] Reserve was nothing short of a scandal. Sadly even today, little has changed.

(Gaffney, 2003:4).

The journalist went on to state that Indigenous people are poorer, less educated, less employed, are more likely to live in low quality housing with poor access to clean water and sanitation, and more likely to live further from health services than non-Aboriginal Australians. In 2008 similar descriptions came from the WHO (Dart 2008).

In terms of comparing Aboriginal Australians to the developing world researchers have differing opinions. One researcher I spoke to felt that the mortality statistics of Aboriginal Australians are the same as in the developed world but their illness patterns are substantially different (personal communication epidemiologist R Taylor, 2000). Others contend it is the living conditions of Aboriginal Australians which are worse than those of the developing world, and which precipitate poor health (Baum 1998; Gracey & Williams 1998; Baillie & Runcie 2001; Torzillo & Pholeros 2001; Torzillo and Dart 2008). Regardless of these beliefs there is little information examining the conditions of the developing world and Aboriginal Australians in the same light.

Decades ago nations such as Canada, United States and New Zealand with ‘original nations people’ within their populations managed to improve the life expectation of their indigenous people. Canada has reported an increase in the life expectancy of their First Nations People to six years less than their non-

Indigenous counterparts. New Zealand has been able to increase the life expectancy of the Maori people some 27% to 55 years for males and 70 years for females (Bramley et al 2005). Poorer nations in their own right also perform better than Australia's Indigenous groups. Although categorised as a developing country, Cuban health is far better than that of some of the developed countries (Mustard F 2007, International Monetary Fund 2008), and far better than Aboriginal Australia (see the World Health Chart p32). Australia as a developed country has good economic growth, good health systems and social support for the disadvantaged. Regardless, such attributes have done little to balance the inequalities in health that Indigenous Australians suffer. Aboriginal Australians have the lowest SES and are a socially excluded minority within their own country (Marmot 2005).

However, this focus on health states (actually illness), often deflects attention from the wider environment. Although the social contexts in which people live have long been thought to have a direct bearing on health, there is now scientific evidence that 'health states' are socially produced and distributed. As a source of ill health, policy makers can no longer ignore these concepts (Marmot 2001; Berkman and Kawachi 2000). This is particularly so for Aboriginal Australians, where successive Australian Governments have tried unsuccessfully to improve the health of Aboriginal people through funding allocated mainly to illness care and related services (Palmer and Short 2000).

In 2005-06 Australia spent 9% of the Gross National Product (GDP) as health expenditure (AIHW 2008). However there are significant differences in the expenditure on health between Aboriginal and non-Aboriginal people (AIHW 2001). Between 1989-99 and 2000 – 2001 health expenditure in Australia rose by 22% per person, with most of this rise being spent in the areas of private hospitals and specialist care—services that are not utilised by Aboriginal people. Commissioned by the Australian Medical Association to do an audit on Aboriginal Health, Deeble (2001) argues that Aboriginal people deserve comparative equity of this money because of their poorer health.

Regardless of how much was actually spent on health care, there is scientific evidence to show that improvement in a nation's health has little to do with the

funding of health (Turrell et al 2000, Baum 1998, Gwatkin 2000, Asia Development Bank 1999). If the latest evidence is taken into account, the socioeconomic determinants of health should be examined more closely with a view to understanding the causes of and improving health in the long term.

International research into poor health over the last 50 years has shown that health is distributed in a hierarchical fashion, with the higher socio economic status (SES) groups having the best health and the lower SES having the worst health (this is discussed in further detail in Chapter 2). Within countries health is distributed likewise or on a gradient (see the Black Report 1988, Acheson Inquiry 1998, The Solid Facts 2002, and the report of the Commission for Social Determinants of Health 2008). The groups in this study regardless of country, had little access to the determinants of health which have been shown to be crucial to good health such as education, employment and housing. For the participants in this study, the determinants of health remain way below the accepted norms of developed nations.

Aboriginal Australians who live in regional and remote areas reflect the worse income and social status of all Australians (ABS 2006). It is these groups more so than the urban Aboriginal Australians, whom the media often identify with the developing world. In the light of the research evidence attesting to the fact that the gradient of poverty is a significant determinant of health within a population, it is understandable that as an Aboriginal people as a disadvantaged group have the worst health of any subgroup in Australia. However, the health of all Australians is excellent and global economists have argued that overall health is improved by the higher income group gaining per capita income, with the rest of the population gaining accordingly, actually raising the level of health for those in the lower groups (Feachem 2000). That Aboriginal Australians should have health likened to the developing world seems anomalous as the gradient would have to be much steeper in Australia for low SES to be the cause. The question is whether the poor health which these groups experience has similar determinants, regardless of the developmental context.

The *goal* of this study was to identify *why Aboriginal Australians have health that it is likened to the 'third' or developing world when they live in a first world*

country. Philosophically this could not be addressed until the hypothesis that Aboriginal Australians actually have health worse than the ‘third world’ could be supported. The purpose of research is to test such hypothesis. Such tacit knowledge provided without evidence requires investigation. The evidence may be there in isolated information, but a study of the different contexts using the same denominators sought to produce information previously not examined. If Aboriginal Australia has worse health, then the question ‘why is this so’ can be applied.

The contexts of the international groups were investigated through their environment and the social determinants of their health. I aimed to provide an understanding of how they experienced their lives; to know what had the most impact. The literature on Aboriginal inequalities was placed into the determinants of health framework to provide a ‘level playing field’. Once similarities and differences between the groups could be identified, I could analyse and seek reasons for these. How is it that the Government has been unable to improve the inequalities for Australia’s first people? This group are from a developed country whose policies should have some impact on their lives and their health. What is it that politicians are missing to improve the situation for Aboriginal Australians. To assist me with the problem I needed to answer the following questions.

- What are the similarities between the contexts of the developing world and Aboriginal Australians (particularly the upstream contexts)?
- If Aboriginal Health similar to the developing world why is it so?
- What evidence is there for policies which will improve the health of Aboriginal Australians?

1.3 Justification for the research

The importance of this research is in the lack of evidence into the reasons for the hypothesis that Aboriginal Australians have health commensurate with the developing world. The knowledge will provide an insight into a fourth world nation in a ‘first world’ country in comparison to third world contexts. A lack of

literature suggests that this is the first time any meaningful research has been attempted to substantiate the statements connecting Aboriginal health to the developing world. The illustrative paradigm used here provides the reader with the ability to gain an understanding from the contextual perspective. Its usefulness will be as evidence for the ways in which we describe the health of Aboriginal Australians as well as the ways in which the results may be interpreted and further studied in order to develop policies to improve Aboriginal health.

Inherent in the social determinants theory of health is the value that inequities between societies or groups are unfair and unjust and that all people have the right to good health. Within the literature it is abundantly clear that health is socially determined (Acheson 1980, Black 1988, Marmot & Wilkinson 1999, Turrell et al., 1999, Kawachi 2001, and Berkman and Kawachi 2001). Aboriginal Australians have poor health statistically, and Aboriginal communities in Australia have been described as having a similar appearance to those in the developing world (Pilger 1992; Australian Broadcasting Commission 1994; Gracey and Williams et al 1997 and Baum 1998 Hughes and Warin 2005). Fran Baum (1998, p222) writing on public health from an Australian perspective, notes many of the causes of Aboriginal ill health are due to the same poor infrastructure which exists in developing countries; contaminated drinking water, poor sanitation, overcrowded housing, and unavailable nutritious food. This reinforced work by Gracey and Williams et al (1997). Further research by Baillie & Runcie (2001) described a large housing survey in the Northern Territory and Western Australian rural and remote areas. They found significant sanitation problems, no waste facilities and serious housing problems occurred with alarming regularity. Considering how widespread such tacit knowledge is regarding Aboriginal health in Australia, research into any similarity between the health patterns or determinants of poor health between developing communities and Aboriginal people is surprisingly absent!

Regardless of the understanding that socioeconomic factors are the fundamental cause of poor health, there has been little research done examining this

phenomenon in Aboriginal Australians other than isolated statistical comparisons. For example, Marmot (2005) discussing countries generally, said Aboriginal Australians statistics look unhealthy even in India. In an extensive review of the literature few studies were found comparing health in the developing world to that of the Australian Aboriginal. One by Carapetis & Currie (1998) was specific only to rheumatic fever. Dart (2008) also uses only disease specific anecdotes to compare the two states of health. A more important study was one by Paradies & Cunningham (2001) who found low life expectancy of Aboriginal Australians is caused by high adult mortality, not high infant mortality as in the developed world. Little such as this could be found discussing health or the social determinants across these communities.

Regardless, I postulate here that in some ways Aboriginal Health is managed in the same way that the developing world is managed. Some of the policies to improve the health for this group have been similar to support for the developing world. Such policies have not improved their health. Where similar strategies have been used they have failed (see McDonnell (1999) on the feasibility of introducing Grameen Bank micro credit financing into ATSI communities).

Up until the late 20th Century research in the public health area was scientific and quantitative in nature (Baum 1999) and did not provide a sociological understanding of causal relationships. In a review of over 200 empirical studies into the socio economic determinants of health Turrell et al., (1999) acknowledged the poor health of Aboriginal Australians. While they felt that the causes were most likely socio economic, they could not find any research studies relating the SES of Aboriginal people to their health. They pointed out that their method of investigation did not contribute to detailed understandings of the relationships between cause and effect stating:

We need to approach the problem of health inequalities from a multi-methodological perspective, using both a qualitative and quantitative research

(Turrell et.al., 1999 p88).

The authors reinforced the need to link people's social and economic position to see how it impacts on their health status and that there should be a focus on where they live, work and play. Levy and Sidel (2006) believe the real challenge is to find out the impact of experiences of social injustice on health. This may be more pertinent to the groups in this study than is realised.

Despite much money and multiple policies endeavouring to improve the health of Aboriginal Australians, there has been no improvement over the years (Thompson 2003, Deeble 2001). With their health substantially worse, much money goes directly into health services, but with what we know about the social determinants of health it is time to aim policies directly at the causes of health inequalities.

There is much we do not understand about the contexts of the lives of the more traditional peoples globally. There is also much we do not understand about those who have been Westernised, but still relate to their traditional heritage. Although these groups have been studied in depth previously, the two worlds have never been studied simultaneously using the same parameters. It is hoped this research will clarify the similarities and differences between their contexts. Although philosophically it is hoped to clarify if Aboriginal Australians have health similar to the developing world, if this is the case, it is also hoped to uncover the reasons why. Such understanding may provide improved insights for strategies and policies to improve health in this group.

The gaps in the literature support the aims of the study.

1.4 Frameworks

The research methodology is multifaceted using both primary and secondary sources to develop illustrative case studies from which to understand the contexts of life of these groups. The data were collected using the social determinants of health and the healthy cities indicators as frameworks to provide an eco sociological perspective. The data were analysed using case study theory complimented by the philosophical premises of eco sociological theory. These are introduced here, with more explicit details to follow in Chapter 2.

The socio economic determinants of health (or health inequalities)

The first of the frameworks used for data collection was the streams or levels of socio economic determinants of health according to Turrell, et al (1999).⁴ This framework is described in section 2.4.1. These were deemed a suitable tool to traverse culturally disparate groups at an international level using the same indicators.

‘Healthy Cities’

The second framework gave an ecological perspective, and was that of the ‘Healthy Cities Project’ (Ashton 1992). Introduced by the WHO in the 1980’s, the framework relies on principles of access and equity to facilities and services to determine whether a geographical area or environment is conducive to health or not. This was particularly important in the collecting of data as an observer. Importantly this framework provided for history in the analysis as these groups cannot be investigated without taking history into account. It was important in across the countries to be able to include the historical trauma and dispossession that has shaped the contexts of their social and health status.

The survey instrument developed using these frameworks as a guide to develop an *eco social* framework for data collection are attached as Appendix 8. Data were generated using the instruments in focus groups, interviews, and non-participant observation. A great deal of statistics came from collections on line, and other data gained through local newspapers.

Case Studies

Case studies are multi-perspective analyses which serve to successfully illuminate complex social situations, giving a voice to the participants (Feagin, Orum, & Sjoberg, 1991). The case study method provided knowledge for a greater understanding of the developing world.

Many authors contend case studies offer possible best practice to inform public health practice (Baum 1998, Yin 1994). Yin is a prolific theorist advocating

⁴ These can be found in Appendix 6..

case study method (1994) and along with other authors (Richards 1990, Ashton 1992, Evans 1998) supports this method of research because of its descriptive capacity and ability to involve more than one investigative approach. The belief that case studies provide insights into human situations, and that relationships can be drawn from similar configurations was among the reasons for using this method of research. Analyses require studying a number of cases and generalizing to identifying common significant characteristics. More details of the Case Study method can be found in section 2.4.3. In order to more easily identify the relationships between cause and effect, an eco social theory was used.

Eco Social Theory

An Eco Sociological theory was developed to collect data as it provides insights into how the world works. The frameworks link aspects of a phenomena seeking to find if relationships exist. Several types of social theories purport to explain health inequalities and their relation to SES (Bonney, Morgan & Kelly 2007) however an *eco sociological* theory by Krieger (2001) examines the nexus between social justice and public health. This latter theory was discovered after the initial research commenced, and it fitted nicely with the composite frameworks already proposed (Appendix 8).

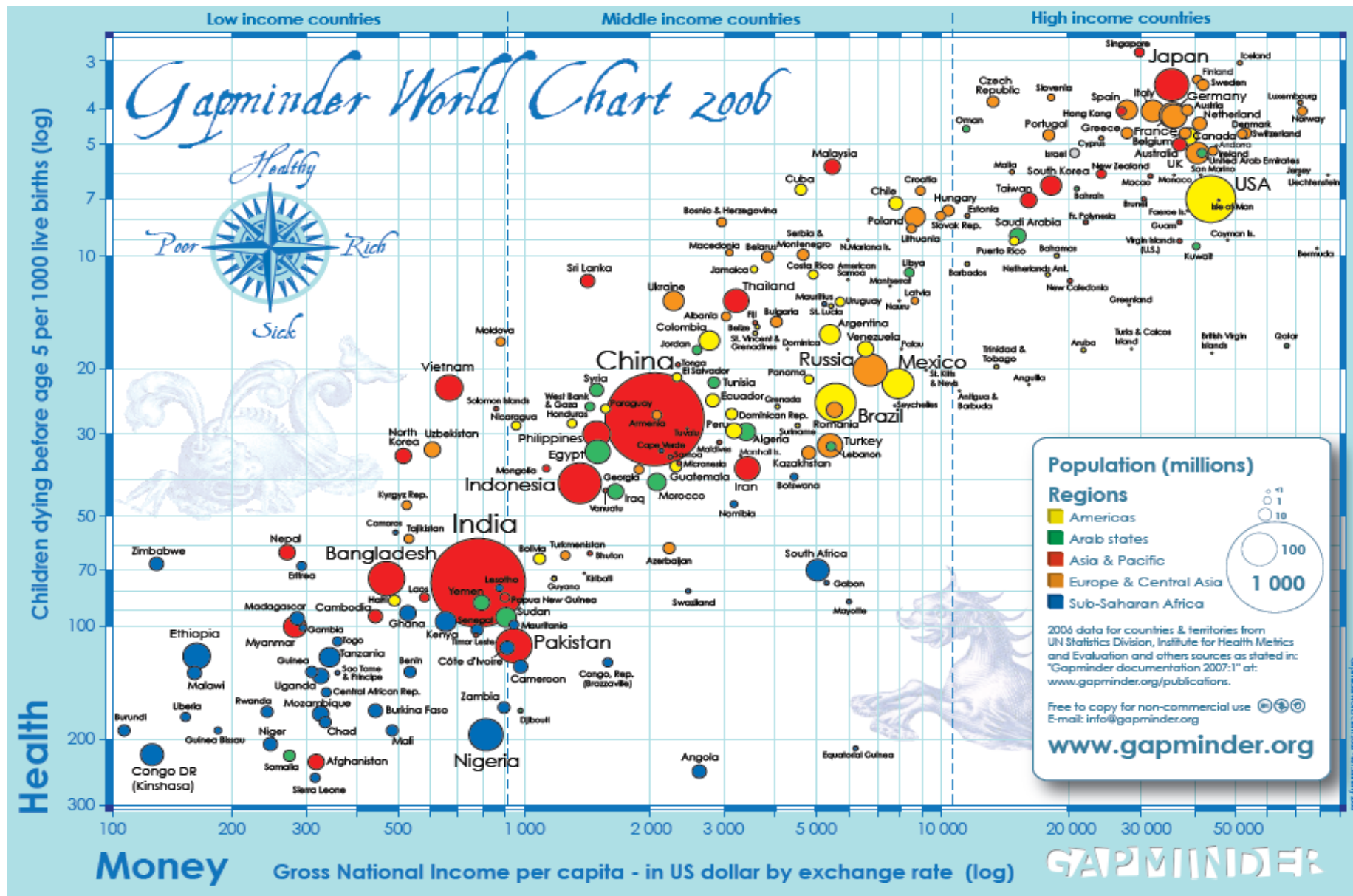
1.5 Participants

As well as Aboriginal Australia, the countries included in this research were the Philippines, the Laos People's Democratic Republic (PDR) and the Democratic Republic of Timor Leste. These nations were chosen due to their proximity to Australia, their history of occupation and the characteristics which defined them as a developing country. The latter definition includes indicators such as income, education, health and poverty statistics (for a definition of development see Appendix 13). The parameters for this definition are provided in detail in Chapter 3, and positions of the countries in comparison to the rest of the world can be seen on Figure 1: The World Chart over the page.

Criteria for inclusion of countries

Laos PDR and Timor Leste are classified by the United Nations and the International Monetary Fund (2008) as least developed countries with Australia being a developing country. The Philippines is still developing, but a middle income country. The groups in each country were chosen because they had population characteristics similar to that of the Australian Aboriginal people. That is, they were indigenous to the country; maintained much of their traditional culture even though in touch with western influences; could clearly define their heritage and lived mostly in regional areas. As subgroups, all the participants in this study were disadvantaged minorities in their own country, chosen as these are the groups targeted for media images which portray the phenomena of the developing world.

FIGURE 1: WORLD CHART 2006: DEVELOPED STATUS AND HEALTH

Source : Gapminder. http://www.gapminder.org/wp-content/uploads/2008/11/gapminder_world_chart_2006.pdf accessed 20/4/09

1.5.1. The Philippines

Research commenced initially in the Philippines within the Cordillera Studies Centre in Baguio through affiliation with the University of the Philippines. The population living in the Cordillera were chosen as they maintain many traditional way of life, and live in metropolitan, regional and remote areas. Working from the Cordillera Studies Centre in Baguio, I was supported by the academic staff who provided me with contacts through whom to find participants.

1.5.2. Democratic People's Republic of Laos

The opportunity to focus on the Democratic People's Republic of Laos came to fruition through approaching AusAID in Vientiane. They were happy to have a PhD student working with them, and I was offered a range of programs from which to choose. A program running in the province of Phongsali was chosen as the people in that province met the *criteria for inclusion* above.

1.5.3 Timor Leste

The third country included was Timor Leste. It was opportune that I had been invited to conduct a Community Needs assessment in the regional area of Emera. As a consequence of providing information to the district, I had the cooperation of the people. The population in this district met the criteria for inclusion and had experienced similar inequalities to groups in both Laos and the Philippines.

Case Studies on these countries are found in chapters 5, 6 and 7. The profile of each drew on the framework of the Healthy Cities Project. Each produced from statistical data sources such as census, major surveys, health reports and local newspapers from the countries as well as observation.

1.5.4. Aboriginal Australia

The health inequalities of Australian Aboriginal people were examined through an extensive review of the literature. The major inequalities in their socio economic status were initially identified against the non Aboriginal population. The review was then examined using the same generic frameworks as the developing countries.

1.6 Outline of the report

- 1.6.1** Chapter 1 is an overall introduction to the study and the methods used. It provides justification for the research.
- 1.6.2** Chapter 2 provides an overview, or sum of all the parts that are important background to an understanding of the socio economic determinants of health and the problem of Aboriginal health. It provides the evidence in the literature which shows that the health of people within any population is directly related to their socio economic status and environmental situation. This Chapter outlines the history of research into this area of health and the implications for the future health of populations. The research supporting the case study method can be found here.
- 1.6.3** The methodology of the research can be found in Chapter 3. The study uses the socio economic determinants of health and the WHO's Healthy cities project as frameworks to identify the causes of poor health in these groups and develop case studies. Detail of these concepts and how they are used as indicators is described in detail. This chapter also discusses the philosophical aspects of the study including the ethical considerations.
- 1.6.4** The international nature of this thesis required detailed illustrations of the contexts of the participants lives gained in each country, using the Case study methodologies and frameworks described in Chapter 3. This resulted in the following 4 chapters.
- 1.6.5** Chapter 4 details the health inequalities and the known social determinants of health in Aboriginal Australians. The context has been reported here through an extensive review of the literature and configuring the information through the same framework as the Case Studies.
- 1.6.6** Chapters 5, 6 and 7 data are Case Studies from the Philippines, Laos PDR and Timor Leste. These Case Studies provide a picture of the country and a profile of their populations. The

data collected illuminates the world in which they live, their history, cultures and lifestyles. Each chapter provides an understanding of their lifestyles and the contexts in which their health has developed.

1.6.7 Chapter 8 contains the findings and a summary of chapters 4, 5, 6 and 7.

1.6.8 Chapter 9 concludes with the findings of the research and what this study contributes to new knowledge.

1.7 Delimitations of the scope of the research

This study has proved to be more elongated and difficult than previously planned. The further I travelled on the research journey, the more I felt I had to find. Researching three countries and describing the contexts of their lives is similar to writing three mini theses. There could have been much more extensive information and description due to the very nature of the study, but efforts to provide as wide a survey as possible, constrained as it was by time and resources was accomplished. Because of its very nature an international study of this kind had to be contained to a degree of manageability. While the countries used for this study are all in the Asian region, it is acknowledged that there are many other developing countries. Whereas it may have been beneficial to complete a wider cross sectional study on more countries, such a survey was impracticable from both a time and economic point of view. Within the three countries there were cultural, political and economic issues which had to be considered, all of which took time and patience.

It is important to understand the limitations of the ability to extrapolate the findings from this study to entire populations. It was difficult to use a sampling strategy to ensure that each community/ village was characteristic of the greater population. The groups studied were chosen for the nature of their geographical situation and the maintenance of their cultural mores. As wide a cross section example of the groups in the wider regions as was possible, was taken.

Health and illness in itself is an endless concept and much more information could have been added about these aspects of the groups. I have added as much as I thought was practicable without dwelling of this aspect for its own sake.

1.7.1 Time constraints

The constraints on time meant there were difficulties in travelling at the appropriate times to collect the best data. Within the Philippines and Laos, it was the wet season over the Australian mid semester break in June, but in Timor the wet season comes around the Christmas holidays. Other times were often unsuitable as teaching was necessary during the rest of the year. These constraints meant that less time than optimal could be spent in living in the areas for participant observation, and in the number of sample sizes obtained. Costs also became a factor in the time spent in country. Budget constraints meant that a limited amount of countries could be visited. Time taken without pay could not be sustained for more than 4 weeks at a time, subsequently requiring repeated visits. Holidays were used, but this became unpopular with my family.

Such constraints have placed necessary limitations on the Case Studies. It was not possible to spend equal amounts of time in each country. Out of necessity, this has provided the reader with Case Studies of differing intensity. Where I was able to stay longer, as the Philippines, the description is richer. Where my original plans went awry, as in Laos, I was forced with the decision to include them or not. I concluded that some investigation was preferable to none. There can never be a direct comparison of any culture made with another as there are too many variables involved. This study attempts to provide an insight into three different developing contexts and Aboriginal Australia and does not profess to be definitive.

1.7.2 Language Differences

Language differences created multiple challenges. Interpreters had to be used in most situations of data collection. In the Philippines the majority of the data was recorded on tape with the presence of an interpreter who delivered the questions. Notes were recorded on paper as the focus groups were in process, using the comments reported by the translator, but the majority was recorded. As data was recorded in the local dialect, it then had to be interpreted to English by the typist. This required having project officers who were native speakers of the exact dialect, who were also good typists. In each country, dialogue had to be translated from English to the dialect in use, and then to English through the interpreter to the researcher during the survey to check for validity. In Timor Leste, data was

obtained in the same way. In Lao PDR, an interpreter was used just to visit the community and gain information regarding the geography and environment. This process in itself may have created some inconsistencies in data reporting but was required as I had to rely on the use of primary data from AusAID as secondary data. To build on this I had to obtain contextual information on the area.

Interpretation Difficulties

Although interpretation problems were expected, they unexpectedly reduced the amount of information gained from the study. Within the Philippines, few of the interpreters had ever been involved in a research project previously. Within Timor Leste, the interpreters had not carried out any research previously. Despite the training provided, cultural issues often prevented adequate questioning. A number of the researchers had difficulty enquiring about certain behaviours such as nutrition through breast-feeding, birthing practices and family planning. Sometimes questions had to be ‘re-framed’ to get an adequate response.

The answers to the questions often came back through the interpreter so different from what would be expected, it was thought the actual question was not being asked. Where the focus groups were recorded this information could be checked on the transcripts. However, where the data was recorded to hard copy this was validated by repetitive, summative questioning.⁵ The latter method proved more useful to gain accurate data.

Developmental issues

The lack of infrastructure in several of the countries provided some angst. There was a need to use the computer to record data daily. However, power was only available for limited times. A lack of communication facilities (telephones) elongated preparation times as requests to visit villages had to be done personally prior to a suitable timeslot. Further to this, poor roads and transport meant visits which in Australia would have only taken a few hours, took whole days or even several days. Sometimes the translators did not want to spend such periods away from home and this meant delays.

⁵ This was frequently a source of annoyance to the translators who could not see the point of repeating questions. One wonders if they actually asked the questions repeatedly.

1.7.3 Ethics

One of the major limitations of this study was the constraint placed on researching indigenous groups in Australia. Although I obtained ethics approval from the University of South Australia HREC, to research Aboriginal people, a study into the determinants of Indigenous health was not supported by the Aboriginal Health Council of South Australia (AHCSA). In an effort to gain approval, the proposed study was put forward several times. The emphasis was changed on the advice of my Aboriginal supervisor to 'the effects of policy on health', but this was still not successful. More information on this limitation is found in 3.4.4 of this document.

The difficulty obtaining ethics approval from the Aboriginal Health Council was the catalyst to a decision to utilise secondary sources to inform the study. One of the limitations of this was the use of 'end' views, where this study is aimed at the contextual view of life and health. Consequently, the study contains a large amount of information regarding the health inequalities of Aboriginal Australians. I have tried to include this information in the same format as the other countries but the information has provided a long chapter. The same types of research were not available for the other countries

My previous experiences of working with Aboriginal Australians and researching in Aboriginal communities provided a clear understanding and background to the problems in the literature, and although attempts have been made to remain objective, this may have provided some bias.

1.7.4 Reporting Difficulties

Because the research took place over an extended period of time, the statistical information became a major issue to update during the final write up. Further to this, the statistics on world health are changeable depending on where they are sought. Some countries do not have adequate data so only parts are published. This is especially so for Timor Leste. To provide some consistency the WHO and other major organisations have been used for international figures with the Australian Bureau of Statistics being the main

source for Aboriginal Australia. Some other agency figures were widely discrepant with the WHO who may not be the most accurate, but their use at least provides some consistency. With the internet being an up to date resource, even the 2007 figures had been published at the time of completion, requiring a third adjustment in the data, and making cross checking of all the material extremely difficult.

1.8 Summary

This chapter has summarised the background and the justification for this study. I have discussed the reasons for use of the social determinants of health and the Healthy Cities approach to data collection, outlined the construction of the report as well as the limitations which had the potential to affect the outcomes.

The public perception of Aboriginal health in Australia has been shown to be similar to the Australian perception of health and conditions in the developing world. A lack of research or literature into these phenomena has been identified. The need to investigate the developing world to identify any bearing on reality has been explained. The importance of surveying internationally but providing a framework generic to groups internationally was central to the success of the study and the tools for these can be found in the appendices.

There were difficulties in gaining ethics approval to conduct research into Aboriginal peoples. This was brought to the attention of the reader and it is noted that this had an effect on the way in which the social determinants of health in this group were identified. The health inequalities of Aboriginal Australia were identified from a review of the literature with as much contextual information being derived from it as possible.

The methodology has been briefly overviewed. Data from three Asian countries were derived through use a combination of methods to develop case studies. Aboriginal Health inequalities were reviewed extensively and those factors (the determinants of health) shaping these inequalities were put into the same contextual framework as those from Asia. Analysis of data emanating from both Australia and Asia was then used to identify various issues which bore similarities in determining the health of these populations.

In gaining the data from different cultures, there were language barriers and cultural inhibitions which had to be addressed in order to gain the maximum information. To record and validate the data many barriers are mentioned here which had to be negotiated and which will be discussed further on in the report.

The streams of the socio economic determinants of health and the WHO 'Healthy Cities Project' form the framework for these Case Studies and contribute to the construction of the social reality which impinges on and shapes the health of the people. It is hoped that this report will provide a rich tapestry of information adding credibility to the intention, on which the reader can form their own opinions.

One Health Three Worlds Apart



CHAPTER 2

A Sum of the Parts

Chapter 2 A Sum of the Parts

This chapter provides an overview of the parts important to this study. All of which need to be understood in order to understand the sum of the parts. The aim here is to better understand social phenomena, thus the contextual development of health in these communities. The following points are all important to the understanding of population health and the way in which this study is structured. It will allow the reader to gain appreciation of the area and better understand the reasons for the research to have proceeded the way in which it did.

2.1 History of Health Inequalities research

As far back as 1897, Durkheim related patterns of mortality (in particular, suicide) to social origins (Berkman & Kawachi; 2003). The relationship between ill health and its social aetiology began mid 20th Century, but in earnest with the commissioning of a report on *Health Inequalities* by the British Government in 1977. This, the Black Report (Black D et al 1980) into poverty by the Working Group on Inequalities in Health was published in the UK in 1980.⁶ When progress on the Black Report recommendations were published, it was argued that although the evidence pointed to lower socio economic groups having poorer health, it was not life style factors which accounted for it. The authors clearly showed that policies incorporating improvements in living and working environments would make a substantial difference to the health of the population, not health care.

A plethora of research into the evidence of these convictions followed. A longitudinal study reported by Marmot (1999, p 212) reported that death rates for males in lower social classes in manual occupations were higher than those in professional higher-class occupations. These results were consistent over both Western and Communist countries, but higher for the latter. Other studies into differences in mortality by occupational and social classes (Kunst 1997,

⁶ The full contents of The Black Report: *Health Inequalities* can be found at the Social Health Association website <http://www.sochealth.co.uk/history/black.htm>

Mackenbach et al. 2003) reported similar results. In Australia, studies by the Royal Australian College of Physicians et al (1999) clearly showed that those from lower occupational status have poorer health outcomes than higher status occupations. In the 21st Century it is well established that socio economic status is a direct influence on health in individuals; that inequality is a catalyst to poor health.

In 1992 Dr Geoffrey Rose had published a short concise book on the Strategies of Preventative Medicine in which he also stressed the importance of putting social contexts into explanations about why some people stay healthy and why others get sick. Simultaneously with Rose (1992), the National Health Strategy for Australia was published by the Federal Government, which reviewed, research available outlining *how income and environments can make you sick* (National Health Strategy 1992). It reported on inequalities in health utilising recent research showing that health was influenced by the social status of people, in particular the income and place of residence.

By 1997, the World Health Organization⁷ called for a package providing information on the solid facts on the social determination of health from which policy-makers could take their lead. The resulting package was the report on the social determinants of health – *The Solid Facts* by Richard Wilkinson and Michael Marmot. Later Marmot sat on the board of the Acheson Report (1998) commissioned by the British Government into the inequalities of health. This report has clearly shown a causal relationship between socio economic status and health. The researchers argue the primary determinants of disease and inequalities are mainly economic and social. Rose had also contended that remedies must be economic and social (Rose 1992) and not based in health services.

Consequently, in recent years inequalities in health have become a major political issue. However, one of the difficulties for Governments is structural. Many of the issues affecting health, such as housing, education and public infrastructure lay outside of the health portfolio. It is in the governments best interests to minimise such inequalities should they occur, but if this is not possible, at least support them so they can function sustainably within society. The Australian Government also

⁷ The WHO is the Regional Office for Europe's Centre for Urban Health

placed enough importance on the social determinants of health to fund the Health Inequalities Research Collaboration or HIRC (2003).⁸

2.2 Population Health – Biomedical versus Social Determinants

The terminology used in population health has a wide range of definitions and terminology. In order to describe inequalities, indicators against which the inequality is being measured must be identified. Inequalities between groups in small geographical divisions can accentuate differences very clearly. Further, the biomedical model tends to describe inequalities in terms of disease states (internal indicators), whereas the social determinants model refers to education, housing and employment (or external indicators).

Although a topic for debate over many years, there is now an established body of literature substantiating the theory that social conditions affect population health. During the 20th Century many researchers and epidemiologists have provided empirical data to strengthen the hypothesis (Acheson 1998, Barker 1997; Barker 1997; Berkman and Kawachi 2000; Black 1988; Coburn 2000; Eckersley, Dixon Douglas 2001; Feachem 2000; Gwatkin D 2000; Kawachi and Kennedy 2001 and Wilkinson and Marmot 1998). This marrying of methods or the empirical genesis of social problems provides proof to the unbelievers and has had some effect on health policy at Government level.

Previously, the biomedical explanation of disease and the human condition had permeated the psyche of both the public and their policy makers. Although the focus of public health since the early 20th Century has been concentrated on efforts to improve the environs of people through a good water supply, adequate calories, improved working conditions and housing, societies main understanding of 'health' has been that it is constructed within the 'health system'. White (2002:49) writing on the sociology of health contends that the medicalisation of health has made us believe that illness is

*...the product of nature - of genetics, or biological dysfunction,
or an innate characteristic of the individual. In other words the*

⁸ HIRC was to develop of a national research agenda into Health Inequalities in Australia with evidence intended to contribute to policy, program and practice development. It was however disbanded only a few years later, with research being done at individual department levels.

problems are understood in such a way as to make the social environment that produced them disappear.

White (2002:49)

In the meantime money has been poured into medical research (internal indicators), the salaries of medical staff and acute care services, and the emerging social determinants (external indicators) of population ill health have been largely ignored as they have been regarded as unquantifiable. However, the Black Report, commissioned by the Government of the United Kingdom (1988) recognised that improvements in health were not resultant on improvements in health care facilities or medical know how. Instead the report recognised the importance of the social and cultural environment to health (Raftrey 2006). Throughout the 20th Century the impact of socioeconomic inequalities on health gained momentum, and must now be considered carefully by policy makers (Marmot & Wilkinson 1999; Raftrey 2006). Governments ignore this at their peril as a healthy population increases production and thus GNI.

Those who have researched socio-economic status and how it affects population health have developed strong reputations for their work in this field (Marmot 1992 Marmot & Wilkinson 1999, Acheson 1998, Berkman & Kawachi 2000, WHO 2002). Marmot and Wilkinson's edited work *The Social Determinants of Health* (1999) is a summary of available research evidence that is useful to policy makers. More recently Berkman and Kawachi have edited *Social Epidemiology* (2000). The writers in this book quote study after study where all manner of research, both empirical and qualitative provides evidence to further consolidate the theory that social situations determine health. Kawachi himself establishes the links between income and health pointing out that the gap between rich and poor matters and appears to stand for data internationally. He cites studies which show that the more equitable income distribution of a country is, the higher the life expectancy (Berkman and Kawachi 2000). Mackenbach et al (2003) also report on social behaviours impacting on health, and concludes that low income populations benefit less from efforts to change their behaviour than higher income groups and social contexts must be taken into account if such change is to be affected successfully.

2.2.1 Poverty

One of the major inequalities within any country is the level of poverty some groups have in relation to the mainstream population. The 1948 Universal Declaration of Human Rights, article 25.1 declares that

Everyone has the right to a standard of living adequate for the health and well being of himself and his family... and the right to security in the event of unemployment, sickness ... or circumstances beyond his control

(United Nations General Assembly 1948)

Essentially people in poverty are unproductive and a drain on the economy. Such international treaties impose responsibilities on Governments to provide the social determinants of health. Regardless of their income, these include housing, a clean water supply and safe environment in which to live (Gray and Baillie 2005).

Poverty is an indicator of low socio-economic status (SES) and a low SES is directly related to poor health (Turrell et al 1999). Throughout the 20th Century, in terms of policy, Australia opted for economic growth at all costs. In theory this provides for a trickle down effect where eventually the benefits should reach the poor. Evidence has been cited that shows economic development does not necessarily improve health outcomes (Wilkinson and Marmot 1998; Berkman and Kawachi 2000; Turrell et al 1999). The result may be a rise in inequality over the short term creating a wider income distribution and a higher poverty rate (Gwatkin 2000 p.78). The WHO (1999) and Marmot (2005) have shown that the wider the income distribution in a country the harder it is to reduce poverty.

Turrell and his colleagues showed that for the middle classes, the causes of poor health status were predominantly behavioural. Among the lower social classes they were structural in nature i.e., related to housing, education, employment, nutrition and so forth (1999, p.70). These are all controlled in a major way by government policy. With evidence indicating that deprivation in early life is reflected in increased risk of cardiovascular disease, respiratory disease, and some cancers in adulthood (Marmot & Wilkinson 1999, Couzous & Murray 1999, Kawachi Kennedy & Lochner 1997) governments ignore this at great cost.

As far back as the 1992 Australian National Health Strategy titled *Enough to make you sick: How income and environment affect health* revealed that men

from disadvantaged groups were 67% more likely to die prematurely than those from the least disadvantaged groups (HIRC 2002:5). This report implied that upstream or policy approaches are very important in tackling health inequalities in the population and is supported by all of the writers in this field (Acheson 1998; Marmot & Wilkinson 1999; Berkman & Kawachi 2000; Rose 1992; Brunner 1997). Marmot (2001) argues there is a legitimate case for the focus of policy to be directed to reducing health inequalities and Labonte (1997) points out that many socio economic health risks can only be changed through government policy. In particular, educational performance is crucial to health and is profoundly affected by government policy. However with the answers to improved health seemingly so transparent, Wilkinson (2005) in his book on how to reduce inequality, laments;

Instead of attracting urgent government attention in every country, remarkably few governments have pursued policies intended to reduce the tens of thousands of extra deaths lower down the social hierarchy that contribute to health inequalities.

(Wilkinson, 2005 p.58)

2.2.2 Maternal and Infant Health

Maternal and infant health is an important indicator of a countries health. The care of a mother and her baby guarantees the best possible outcomes for population health. However, the evidence shows that the higher a girls education, the more healthy their children will be (Marmot 1999, WHO 2005a). International research also shows poor maternal and infant health outcomes to be associated with poverty, lack of access to basic care, age, parity, and poor nutrition, most of which is due to illiteracy. The risk increases for those pregnancies in women “too young” (adolescent and still growing); “too old” (aged 40-49); “too close” (having less than a 2 year pregnancy interval); and “too many” (more than 4 children) (Fathalla 1990; WHO 2002).

2.2.2.1 Breastfeeding

Investing in young children’s health in the early years has the most impact on health in future populations. Barker (1993) has shown that poor nutrition in utero and infancy are crucial to health for the rest of the lifespan. As low birth weight and birth weight at one year is associated with adult disease, Barker (1992) has

shown that the health of a female prior to conception and during pregnancy profoundly affects birth weight and the health of the individual throughout life. For this reason, some authors call for governments to make the health of young women and girls a priority for a healthy population (Marmot & Wilkinson 1999). Wennemo (1993) has shown through her research into the effects of public policy that distributing income more equally has a marked effect on the infant mortality rate of a country. In a review of policies in 18 countries spanning 35 years she found that:

High levels of universal family benefits are linked to relatively low rates of infant mortality.

(Wennemo 1993 p442)

Developing countries have no family benefits or social support income. However, developed countries provide social security and, using Wennemo's (1993) findings above, this could account for the lower IMR in developed countries.

For many years there has been mounting evidence that coronary heart disease; hypertension, diabetes and stroke, may originate from foetal adaptations to malnourishment during pregnancy (Barker 1994, Barker & Fall 2001). Likewise, airway and alveolar growth, and insulin resistance are affected by poor nutrition during crucial stages of foetal development (Sjajeem 1997, Barker 1997, Hales 1997, cited in Marmot and Wilkinson 1999). Poor nutrition has been also been seen to impair cell size of the kidneys and the integrity of the lining of the lung. This enhances the chance of kidney disease, and respiratory disease in later life (Barker 1997). These issues and breast-feeding have particular significance in the prognosis of population health. Science and technology have provided quick meals, dietary supplements and challenged traditional beliefs about food, in particular breastfeeding.⁹

Breastfeeding for 13 weeks has been shown to reduce the incidence of gastrointestinal and respiratory illness up until 1 year (Howie cited in Marmot 1999 p188). By bottle feeding, mothers contribute to ear infections and commit many infants to pay the price of poor hearing and learning difficulties for the rest of their life. Marmot (1999) states the numbers in thousands of babies who could

⁹ In one African country intercourse was taboo during breastfeeding. When baby formula was marketed in that country, the men bought it so the women would not breastfeed (Marmot & Wilkinson 1999).

be saved from such infections if breastfed. Putting a baby on formula has the same effect as giving a person heroin. Once they start, they are reliant on formula as the mother loses her milk supply. Catastrophically, New Zealand studies have shown formulae fed infants susceptible to an increase of sudden infant death syndrome (Mitchel et al 1991) and other studies into the benefits of breastfeeding have demonstrated an improved IQ level over bottle fed infants (Roden and Gladden 1993 and Lucas et al 1993).

Breastfeeding also assists with bonding between mother and child. Even prior to 1998 and 1999, bonding immediately at birth was recorded as being of paramount importance to the development of children for long term psychological stability. Studies by Walker (1994) and Mercer (1985) have shown maternal and infant bonding have a significant impact on children's socio-emotional development in childhood and later life. The attitude that parents display toward their baby play an integral part in the development of the baby's sense of identity (Goulet 1998). For example, a mother who is attached to her baby and confident is more likely to recognise her baby's signals and actions, and respond accordingly. This has been shown to create a more secure and confident child later in life (Mercer, 2004).

2.2.3. Early Childhood Development (ECD)

Dr Fraser Mustard (2007) respected Canadian authority on childhood development has recently placed another dimension on early child development and health. He cites studies which show that nurturing in the early period of a child's life provides life long stability. This sets the trajectory for literacy and learning capacity. Mustard cites reports from Cuba where studies on childhood development centres for 0-6 year olds have shown conclusively a dramatic rise in the level of literacy according to the OECD international literacy levels (Mustard 2007). Cuba, a small developing country is way above Canada, Australia and America on this indicator (Young 2007). Subsequently this can be seen in Figure 1 *The World Chart for 2006*, that even though they are a middle income country, Cuba has health commensurate with high income countries such as Taiwan, New Zealand and the USA. Australia rates only marginally better than Cuba.

Further to this, Mustard cites longitudinal studies, which illustrate the long term effects on health of maternal deprivation, include autism, antisocial behaviour and depression. Mustard uses Teicher's (2002) comparative studies on early

development in children from Great Britain and Romania. On every indicator including IQ and behaviour, the Romanians, orphaned during the Chauchescu Period, had extremely poor results. These children were not badly treated, but had little physical contact or stimulation of any kind. In his studies Stattin (1993) found significant co-relationships between a lack of nurturing in early childhood and teenage criminality. Marmot (1999) and Karolyn et al. (1998) contend that one of the most effective ways of improving long-term health is to implement parenting and early childhood intervention programs. The authors contend these should be aimed at improving educational achievement, health and parenting skills. Outcomes have been shown to be extensive and provide well being and success in later life.

2.2.4 Nutrition - an underestimated link to health

As we have seen in 2.2.2.1 infant nutrition has vast implications for long term health. Increasingly research shows that nutrition is an underestimated determinate of health. Why people eat what they do is both an educational and an economic issue, but consumption depends on individual or a group's cultural and family traditions. Marmot (1999) reports that a seven-country study illustrated high fat red meat and low vegetable consumption contributed to heart disease and that vitamins and flavonoids in vegetable and fruit minimized heart disease. Various nutritionists testify that fruit and vegetables can protect against cancer especially in smokers who increase their intake of fruit and vegetables.

During the war in Sarajevo (1992-95) and a subsequent weight loss by the population, WHO reported a 30% reduction in need for oral hypoglycaemics and insulin (cited in Marmot & Wilkinson 1999). During this time blood pressures returned to normal and hypotensive medications were reduced. Likewise, a study by Bailey, Yarmirr, O'Dea and Mathews (1994) in which diabetic Aboriginal Australians returned to a subsistence lifestyle and diet resulted in their diabetes disappearing. Access however, is a major factor controlling what people eat as well as the nutritional value of food. As Robertson, Brunner and Sheiham (1999) explain, contemporary food choices are influenced by supermarkets, what they sell and how much it is sold for. Robertson et al (1999 pp179-210) argue that food is a political issue. Chronic disease from obesity and poor nutrition is the impending catastrophe of the 21st Century (WHO 2007) Food is becoming such a political

issue world wide as both over consumption and under nutrition, produces chronic illness which in the long term costs governments money either in terms of health care or lack of production. The evidence linking poor nutrition to high mortality is extremely important and should not be underestimated in importance and it is recognised that many problems commence in childhood.

In 2002 Australia held an inquiry into ways to improve all children's health and well-being. In the introductory document, the Hon. Minister for Child and youth Affairs is quoted:¹⁰

There is no doubt that early childhood development and experiences have a direct impact on future educational, career and health outcomes. There is also a strong case for getting it right in the early years to avoid reliance on welfare, substance misuse and becoming entangled in the criminal justice system. We are talking about our country's most important future economic resource. Today's children are our future parents, workers, consumers and taxpayers.

(Commonwealth of Australia 2002a: p1)

2.2.4.1 Marketing of food

Although it is often argued that marketing has little effect on the consumption of food products, advertising continues unabated. Breast-feeding is influenced by access to formulae and marketing of it (WHO 2002). In Norway promotion of artificial infant feeding does not occur and 98% of mothers leave hospital breastfeeding. After 3 months 90% of women are still doing so (Marmot 1999). Much marketing is aimed at children and an international consumer's survey in 1996 found that

The highest level of food advertising was in Australia; 29 adverts an hour: double that of some European countries and 15 times that of Sweden and Norway.

(Robertson et al cited in Marmot 1999 p 197)

The high sales of carbonated, highly sugared soft drinks are an example of how advertising works to the detriment of health. The high phosphate levels decrease

¹⁰ <http://www.aph.gov.au/house/committee/fca/childwellbeing/>

calcium levels causing osteoporosis and high sugar content promotes dental caries in children. Dental caries are sugar induced and more expensive to treat than cancers and CHD (Marmot 1999). This provides a justification for a reduction of sugar in all available foodstuffs. Many people purchase ‘ready to go’ foods and many people have neither the time nor the expertise to cook.

Food skills, purchasing and cooking are important but the reality for many people is a lack of role models. However, a longitudinal project (the Nth Karelia project - 20 years) demonstrated its effectiveness through a rise in health from a curriculum where children were educated to keep gardens and cook (Pushka P, Tuomilehto; Nissinen and Variiaianen (1995)).¹¹

2.2.5 ‘Social capital’

The amount of involvement people have in their community is a contributing factor to health. The term ‘social capital’ was first introduced into sociology back in 1983 when Bordieu published his text ‘Economic Capital, Cultural Capital, Social Capital’ (Falk 2002). Capital is a term used to describe a collection or resources. Social Capital is the phenomena of civic engagement or level of involvement citizens have within a community (Coleman cited in Kawachi & Kennedy et al 1997, Putman cited in Kawachi and Berkman 2000, p179), which enable people to cooperate for mutual benefit (Woolcock,1998). The World Bank define it as ‘...norms and social relations in the social structure of societies that enable people to coordinate action to achieve desired goals’ (Welch 2000 p6).

There is considerable evidence that high SES within a community is associated with good health (Wilkinson & Marmot 1999, WHO 2002, Turrell, Oldenburg, McGuffog & Dent 1999, Berkman & Kawachi 2000). Many of these authors argue that social capital can be a catalyst to high SES. This concept can be distinguished from the social networks of individuals, in that it is usually characteristic of collectives or communities. This ‘social cohesion’ provides support for the community members and prevents them from becoming isolated (Kawachi & Berkman 2000). Because of its reported relationship to health promotion, social support and health generally, there has been much research in

¹¹ There has been replication as well as critique of the project in recent journals. See McLaren & Ghali et al 2007 Out of Context, Translating the evidence from the Nth Karelia Project over place and time. *Health Education Research* 2007 22(3):414-424;

the area of both social and community capital (Muntaner, Lynch, Davey and Smith 2001).

On the down side many writers contend there is a dark side to social capital (Hawe & Shiell 2000). Some social capital may be exhibited in ways such as group cohesion for criminal reasons. However, as far back as 1942, Shaw & McKay argued that aberrant behaviours, such as gang violence is better able to be stemmed where communities can act for mutual benefit and later in 1996 Sampson agreed (cited in Kawachi 2000). He argued that deprived communities are often lacking in social capital and this is an important factor in their poorer health (Kawachi & Berkman, 2000). Sadly, many Aboriginal communities fall into this group. Because of their 'place' in Western society, and the disintegration of their cultural 'place' they feel they have little power and no ability to act for mutual benefit.

Other writers have discussed a spatial dimension to social capital, described by Bolton as a 'sense of place' (cited in Worthington & Dollery 2000 p 349). A sense of their own 'place' or land is a major factor in the social and emotional well being for indigenous people internationally. Sharing a sense of 'place' is an ingredient of mutual identity. Wilkinson (2005) contends that what is essential is the common experience of collective actions which all contribute to a community identity. An individual's sense of belonging or sense of place within a community (either socially or geographically), contributes to their understanding of their connectedness to others, providing reassurance of social support and perhaps lowering anxiety in times of need (ibid). There is debate about the definition and the exact production of social capital for the maintenance of health (Muntaner et al 2001) and it is one that deserves attention (Baum 1999). As Kawachi (1999) has intimated, it seems social capital is a missing ingredient in disadvantaged communities, contributing to their poorer health. The phenomena seem to be crucial in terms of a support system for individuals but even more important in disadvantaged communities. As such, social capital is a collective of social determinants necessary for higher SES and is one of the most important issues related to health. As illustrated by many authors, civic engagement, community involvement and resources are all shown to be parts of the phenomena (Falk 2002; Kawachi 2000; Baum 1999).

The Indigenous groups of Australia commenced their demise with the arrival of the British to claim their soil. From that moment on they were subordinated, moved from their lands, deprived of their culture and their families dispersed irreplaceably. Their social capital was shattered and many of the benefits of nurturing which Mustard (2006) contends should have been gained from a loving family, never occurred. The literature attests to the results of such loss and the long term effects on the health of the individual. Research from Romania outlined by Mustard (2006), where similar types of family losses occurred have shown how severe poverty has eventuated in mental health problems. Only a few similar studies have been carried out on Aboriginal families and the affects of their separation from their families. However, the high rates of poverty experienced by Aboriginal groups emanates from their poor educational opportunities in early life. Behaviour problems can be traced to a lack of family structures from which to take role models.

Poverty has also contributed to irreparable damage of foetus from malnutrition of women during pregnancy as well as neonates in their formative years. It has been shown that low birth weight babies develop into overweight adults (Barker 1996). Such obesity is a prelude to diabetes, which is high in the Aboriginal population and confirms the hypothesis. As well, smoking contributes to respiratory conditions in children. The high smoking participation rates in Aboriginal people may be a catalyst to the high percentage of respiratory conditions such as asthma and pneumonia and indeed deaths of children from respiratory causes (Couzous & Murray 1999).

Although the HIRC have presented several case studies relating social capital and health in their Scoping Paper (2003), they warn that much more evidence is required to identify policy interventions that address health inequalities for rural remote and indigenous communities. However, their commissioned review on evidence-based actions for health improvement concludes that 'strategies should focus on macro-economic and social policies, living and working conditions (Catford 2001 p21). Randolph (2000) has proposed that commitments must stretch farther than one political cycle, be sustainable through maintenance and should be costed and planned for. John Deeble (2001) has argued for just such funding for Aboriginal people to a sum of \$250 million. Author after author suggests similar

thrusts in spending are needed within the social sphere to obtain some degree of equity of education and living standards and sustainable health will follow (Mooney 2002, Ring & Brown 2002).

2.3 Introducing the frameworks.

From the literature, it can be seen that the biomedical model describes inequalities in terms of disease states (internal indicators), whereas the social determinants model refers to education, housing and employment (or external indicators). Just as the biomedical model uses disease statistics to identify different aspects of disease (burden, treatment effectiveness), the social determinants model can use different aspects of its parts (housing, educational level, social capital) as indicators to identify inequalities in health. The term *contexts* used in this thesis encompass a spectrum of sociological factors such as the structural, cultural and functional milieu as described by Diderishsen, Evans & Whitehead (2001 p15).

In order to investigate groups internationally, it was necessary to use research indicators which could be used across cultures without personal bias interfering with the results. Two frameworks are utilised to gain data and develop case studies. Both of the frameworks are based on the determinants of health. One is the levels of socio economic determinants derived by Turrell et al. (1999) and the other is the Healthy Cities project by the WHO (Ashton 1986). Case study and Social theory is then used to provide a model for investigation of the studies and to understand the contexts. The justification for these frameworks and social methods is discussed here but mentioned again in section 3.4.1 relating more to procedures.

After a systematic review of research in Australia concerning the socio economic determinants of health, Turrell et al (1999) identified the main determinants of health and streamed them with due importance to health.

The Healthy Cities project takes a more ecological perspective of the determinants of health, examining the availability and user ability of the infrastructure required for health (Ashton 1986, Ashton 1992).

2.4.1 The Socio Economic Levels of health determinants

The structure of this framework is based on scientific evidence and each stage is closely interrelated with the other (Turrell et al 1999). Importantly, the authors also took into account the cultural contexts of the population in determining health (Appendix 6). The levels are overviewed here:

Upstream level factors

Government policies on the economy, welfare, health, housing, transport and taxation have a strong relationship to health. In turn these affect education, employment, occupation and working conditions, income, housing and area of residence. These often have a direct bearing on mortality, morbidity, life expectancy and quality of life. They are often influenced by factors associated with globalisation.¹²

Midstream level factors

Social, physical, economic and environmental contexts occupied throughout the life span influence health indirectly. These include the stress/control over work, expectations of others/self, self-esteem and social capital/ isolation. These include health behaviours, accidents, injuries, and violence. Access, availability, affordability and utilisation of health care systems may determine some inequalities, but research shows that they play only a modest role.

Downstream level factors

Illness and disease. There is evidence to show that this can be due to actual changed biological and physiological functioning brought about through sustained or long term poor psychosocial health and harmful health-related behaviours. Midstream factors may be a direct result of such illness and disease in the first instance. The illness may then cause hardship; unemployment, poverty and thus a widening gap between theirs and others SES bringing about further poor health.

Culture

Turrell, et al, (1999) have superimposed their model depicting the determining causes of health within a cultural framework. Without taking culture into account,

¹² Take for instance a Government's decision to wage war on another country. More recently high cost of oil causing petrol prices to rise. These have profound effects on populations and individuals, but are outside of their control.

the differences that people exhibit would never be understood. Individuals are subsumed by the cultural context in which they live and in which health is constructed. Sutton (2001) believes

A vast proportion of our cultural makeup is developed in infancy and childhood, when we absorb the fundamentals of what can be learned about the world using our rich biologically based learning capacities. By the time we reach what is sometimes called the age of reason, reason alone is seldom able to rearrange our cultural makeup overnight or merely at will

Sutton (p10).

2.4.2 The Healthy Cities Project

The Health Cities Project framework (appendix 7) is internationally regarded, has been used widely and is about environmental living conditions and health. It has been chosen for describing the context in which people live and work. The Healthy Cities Project had its inception through the WHO in the 1980's (Ashton 1986). The theory combines the ideals of a sustainable environment together with the concepts of a city to create a healthy and sustainable community (Price & Tsouros 1996). This has improved inter-sectorial participation and partnerships in regional and urban planning to improve living environs. Figure.2.below is a schematic representation of the theory of two paths with one goal (Price & Tsouros 1996).

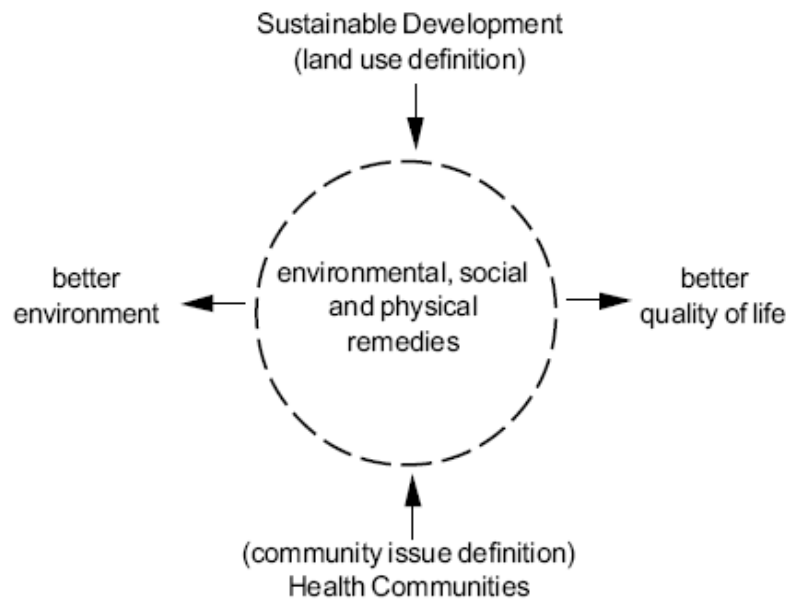


FIGURE 2: HEALTHY CITIES AND SUSTAINABLE ENVIRONMENTS. TWO PATHS ONE GOAL
(Source: Price & Tsouros 1986 p82)

Many countries around the globe have commenced and are using the Healthy Cities Project concept.¹³ These include the United Kingdom (Kirklees), United States of America (Seattle), Canada (Municipality of Hamilton –Wentworth) and Australia (Canberra and Noarlunga).¹⁴

Cuba was one of the first Latin American cities to attempt the Project. In 1992 the Cuban Government set out objectives to improve Cuban Health between 1992 – 2000. Named the Global Project of Cenfuegos (GPC) it was dedicated to getting authorities and institutions to improve their situation. They improved the ecology and the infrastructure, including education to improve Cuban health. Other programs include the Family Physician Program which provides a designated number of doctors to service certain size populations. This supports both health promotion and disease prevention. There is much controversy about indicators by which to evaluate such projects and for this reason the indicators for analysis developed by the Noarlunga Healthy Cities team in South Australia have been used to isolate generic factors influencing poor health. These include the historical, geographical, political, economical and social issues.

Restrepo, of the Pan American Health Organisation, (cited in Price and Tsouros 1996) has described the Project used for Indigenous communities better suited to

¹³ By 1996 there were 800 projects world wide, 600 in Europe alone.

¹⁴ The latter is a well known and successfully driven project by Prof Fran Baum, who not only works in the municipality, but also sits on the WHO Commission for the Social Determinates of Health Commission.

the term *Healthy Municipalities* as it covers rural and urban situations. Restrepo points out it is important to note that power in these indigenous communities often falls at the local level, reflecting a trend in decentralisation. This was the case for Project Municipios in Latin America, where urban areas are the most populous in the world and equity has been an issue. It also proved to be an issue for the Asian countries in which I researched.

2.4 Summary

This chapter has highlighted the literature attesting to the fact that the causes of poor health, although social in origin are strongly affected by upstream or government policies in both the developed and the developing world. It is known there is a gradient within every population, but that those of lowest socio economic status exhibit the poorest health. Much progress has been made on understanding the evidence for poor health within populations. The early reports developed in the UK were milestones in the knowledge of health, however the information took a long time to be accepted. Part of this was due to the research being of a qualitative nature and not acceptable to a scientific based population. However, where poor health was seen to be caused by the individual themselves, there is now empirical evidence that external social and political influences play a large part in the development of health. In particular the number of social networks or social capital an individual has impinges heavily on health. Many researchers have shown that government policy is imperative to the development of good health and policy has not been used at all effectively, but could be improved with a strong political will. The issues in this chapter have been presented in order for the reader to better understand the implications of the contextual aspects of the lives of the participants, in other words, to better understand:

the sum of the parts.

One Health Three Worlds Apart



CHAPTER 3

Methodology

Introduction

This Chapter will outline aspects of the methodology of the research in detail. It provides for transparency of the process through describing everything from the philosophical considerations, through methods, the ethical difficulties to the data analysis.

3.1 Philosophical & practical considerations

The determinants of health are understood from the literature to be universal and are seen to run in line with the social gradient within groups or countries (Wilkinson and Marmot 1999, Kawachi 2000). In the same literature we find ‘health inequalities’ discussed. These should not be confused with the determinants of health, but rather the inequalities between groups. E.g., education is a determinant of health. Educational inequality is the difference between educational attainment and access one group has in comparison to another. Hence we find some groups with a multitude of health inequalities (low income, poor housing, high mortality).

Health inequalities are measured by both ‘internal’ and external’ perspectives (Sen 2001). For instance, medical anthropologists and Governments have provided interesting perspectives of health through asking the patient their perceptions (an internal view). This contrasts with the observed or medical findings of health, i.e., the mortality rates and life expectancy. Many authors contend that such empirical material may be fundamentally deficient (Turrell et al 1999, Baum 1998, Patton 1990). For instance it does not record pain and suffering! The insights drawn from perceptions of health are important, but both internal and external methods of illustration have their limitations and most researchers contend that both should be used (Sen, *ibid.*).

In this study, empirical findings, data sets, as well as studies reporting self perceptions have been used to identify health inequalities. The determinants of health have been identified through utilising the frameworks discussed in Section

3.3.3. These frameworks take into consideration both empirical and qualitative data. The international groups studied are all indigenous, not substantially different to the mainstream population, but having more inequalities. Overall they lead more traditional¹⁵ lifestyles than mainstream populations who have western tendencies. Turrell et al., (1999) and others have reported there is a need for expediency to develop a knowledge of the contexts of health within such groups. Although the groups studied here have traditional and geographical similarities, these are not the only contexts which act as catalysts to poor health. There are historical influences outside of their control and well entrenched cultural practices noted here. Further, the health of these groups must be taken as a human rights issue and has implications for both ethical and political considerations.

3.1.1 The Means or the End?

A study by Exaltacion E. Lamberte (1999) on the connection between public health and human values was a catalyst for the methodology of this study. Lamberte conducted her research within the Philippines and focused on the extent to which public policy had advanced well being, or good health and long life. Lamberte's study was a mix of both quantitative and qualitative information. She used some interviews of health officials to gain a better understanding of the way that policy affected the people but the study relied mostly on secondary statistics. The indicators used were standard mortality and morbidity data, which is ostensibly concerned with the end (and internal view) rather than the means. While this illustrated what the health of the participants 'was' she only hypothesised on the causes. To me, this illustrated the importance of providing a contextual view of the connection between health and well being. The political implications of this connection are extremely important. Although the direction from which they approached it differed, the ways in which policy could affect an improvement in health were hypothesised by Lamberte (1999) and made more explicit by Turrell et al (1999) in their review. The WHO and many more had found the same before the 21st Century. I wanted to know more about the political implications of health and how policy could affect disadvantaged groups in particular for health improvement (the external view).

¹⁵ Traditional here refers to maintenance of ways in which their ancestors lived.

When I commenced my literature review the material available on the social determinants of health became evident. Since then the burgeoning literature on the subject has become almost overwhelming. Our whole understanding of how populations' health is determined has been revolutionised through both quantitative and qualitative studies providing evidence on the underlying factors. Consequently this study became a basis to create a better understanding of the health of these groups through examining the 'means' or external view of health, rather than the 'ends', as Lamberte (1999) had done. It is of necessity a descriptive study.

3.1.2 Language Difficulties

Because of the language differences, an interpreter had to be used in each country on all occasions during data collection. Observational visits also required the presence of a interpreter to ensure that the context observed was understood. These individuals were organised by contacts within country, paid a modest amount for their time, and all turned out to be extremely good. In Timor Leste the NGO arranged for some local casual employees to assist with surveying of the villages. His choice of districts was made prior to me arriving in the country, so I had no control of this aspect of the survey. Most interpreters had worked as project officers on previous research projects and the data could not have been collected without them.

Validation of the data occurred immediately following all focus groups. Although much data was recorded, handwritten notes were also taken during the session. These were made as the interpreter provided answers to the questions from the group. Reiteration of the notes were channelled back through the interpreter to validate if the main points which had been recorded were correct.

The use of tape recorders during several visits to the Philippines, resulted in data having to be transcribed from Ifugao to English. The completed transcriptions were then emailed to Australia. The tapes, once translated were checked against the main themes noted by hand. However, direct translation of tapes from one language to another is a time taking exercise. In one case it took a year to find a suitably qualified speaker of the dialect who could also transcribe via dictaphone. In terms of expediency, although slower and more cumbersome, the taking of notes and immediate validation at the time of the focus groups was preferable.

This was done in Timor Leste due to a lack of suitably qualified people with computer skills who could translate the material, and a need to expedite the process. However, such a process does lengthen the time conducting sessions. It meant responses from questions translated from English were provided in Tetun, translated to English. The responses often prompted more questions to verify the material, following which it was recorded manually. At the end of the session, a summary of the data were then converted back to Tetun for validation.

The data from Laos was written directly to notes and written up subsequently for analysis.

3.1.3 Ethics

The original intention of this research had been to survey selected sites in both Australia as well as the developing world. This required affiliation or collaboration with organisations. Affiliations were made with The Port Lincoln Aboriginal Health Service in Australia, The Cordillera Study Centre at the University of Philippines, Australian International Aid & Development (AusAID) Laos and St John of God who manage the St Bahkita Community Centre in Timor Leste. Confirmation of collaboration with these groups was required to accompany my ethics proposal to the University HREC, which was subsequently gained. However, the Aboriginal Health Council rejected my proposal to research the social determinates of Aboriginal health in South Australia (see section on ethical considerations 3.4.4 of this paper for more information).

The process of gaining approvals was lengthy and involved many letters and action from people in other countries. By the time I had received an absolute rejection from the AHCSA, it was too late to change the method of research and cancel the other countries involvement.

Therefore, the same framework for this study was utilised for an analysis of the literature on Australian Aboriginal inequalities in comparison to the developing world. There is much research into Aboriginal education, housing and income levels, their social and economic welfare and their health. Because it is so extensive it was decided to provide as clear as possible a picture of the contexts in which Aboriginal people have their health defined as well as their health inequalities. Chapter 4 includes information describing the health inequalities of

Aboriginal people, developed using framework by Turrell et.al. (1999) and the healthy cities indicators as discussed, to gain a picture of the socio ecological context in which they live.

3.2 The Geographical Contexts

The international locations chosen for this study were all in Asia. The reasons for this had their genesis in both philosophical and practical considerations. In particular the ability to access and research a population shaped the locations of the research. The only stipulation was that the countries had to be designated as having ‘Developing Status’.¹⁶ There are different ways of examining development. Each country is classified on its GNI per capita by the World Bank (2007).

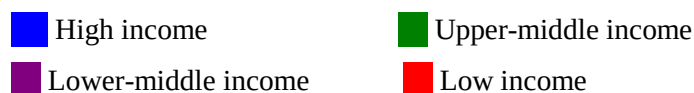
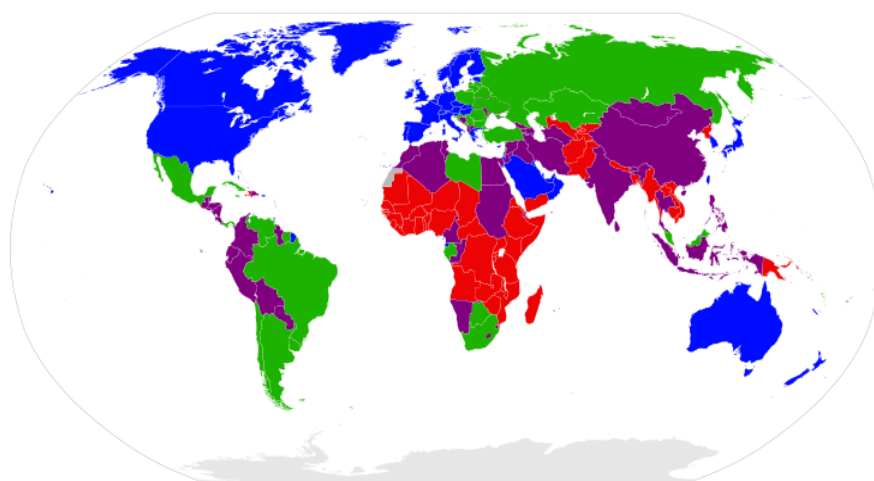
World Bank classification:¹⁷

- Low-income (\$905 or less),
- Lower middle income (\$906 - \$3,595)
- Upper middle income (\$3,596 - \$11,115)
- High-Income (\$11,116 or more)

The United Nations defines development using other than just income. Their criteria include life expectancy as a gauge of population health, literacy levels (knowledge and education) as well as standard of living gauged by income. This was in keeping with the criteria for this research. Countries were also chosen as they had populations with characteristics similar to that of the Australian Aboriginal people. That is, they had a history of occupation, and maintained much of their traditional culture regardless of their relationships with western influences; could clearly define their heritage and lived mostly in regional areas.

¹⁶ There are apparently no exact definitions of “developed” or “developing” countries. Countries are self-selected although this is not necessarily accepted in all WTO. For a list of developing countries see the American mathematical society at <http://www.ams.org/membership/develop.html>

¹⁷ For a further illustration of where the chosen countries rate in terms of development refer back to the *World Chart for 2006* in Section 1.5.

**MAP 1: COUNTRIES BASED ON INCOME GROUPINGS**

(Source: GNI, World Bank (2006))

The Asian countries were identified through purposive selection. This type of sampling is called case-based or purposive because ‘the researcher selects cases that are thought to best represent the phenomenon under study in the population’ (Roberts & Taylor 2002: 206). Both the Philippines and Laos were chosen for the network of contacts available to me provided by my supervisor. All countries were identified as ‘developing’ using the UN criteria. However, Lao PDR and Timor Leste qualify as ‘Least Developed Countries’, while the Philippines is regarded as a ‘lower middle income’ country.

Laos PDR and Timor Leste are well down on the list of most development indicators, particularly health and income. They are amongst the poorest in the world. Further, these countries also have subgroups of ‘traditional’ populations similar to Australia. Further, both Timor and the Philippines are unique in that they are the only majority Catholic countries in Asia. The countries were also chosen due to their proximity to Australia, presence of networks available in the country and the advice of those people on how to access the population with a minimum of political obstruction.

3.2.1 Political issues

The People's Democratic Republic of Laos is Communist. This prompted advice which was subsequently taken to become aligned with an NGO who already had permission to work there. This was preferable as well as more expedient, rather than embark on the long tedious task of getting individual permission from the Laos government to carry out research in that country. Further, negotiations would have to be by 'snail mail' as the use of email was not acceptable to the Government of Laos at that time. Consequently, information collected for the case of Lao PDR was in collaboration with the staff of an AusAID. The Developing Healthy Cities Project (DHCP)¹⁸ was chosen from an array of choices provided by the Director of the AusAID Office in Laos. The DHCP was chosen because early discussions with the Project manager revealed that much of the information being obtained met the requirements of the framework proposed by my study. Unfortunately, following the beginning of the war in Iraq, this project did not gain further funding. However, the data (unpublished) was provided to me by AusAID with permission to use it as a secondary source.¹⁹ Further to this I had visited the survey area to consolidate the context for myself and observe the people at work and play through participant observation.

An invitation to convene and conduct a community needs analysis in Timor Leste as a volunteer, provided the opportunity of using that country as a case study. This study was designed and developed using the same framework used in the Philippines and Laos. With the help of the NGO staff (see 3.4.1), it was extremely informative. I was fortunate to win a Chancellors award for this work, supported by the First Lady of Timor Leste, Kirsty Sword Gusmao (see Appendix 11).²⁰

3.2.2 Distance

The study in the Democratic Republic of Timor Leste required a schedule of meetings within ten village communities. This meant many hours of travel to far flung areas of the mountains in the Emera district, spanning many weeks. The NGO staff accompanied me and doubled as drivers and interpreters. We travelled

¹⁸ Developing Healthy Communities Project was spread widely across several provinces, however, only the project in Phongsali was used in this study.

¹⁹ See letter from Mr Bob Smyth, Project Manager in the Lao Office.

²⁰ Monies from this award is supporting the nursing education in Yogyakarta of a young Timorese from Emera

out in the morning and returned nightly to the NGO community centre and accommodation. Most days entailed some 4-5 hours of driving across very poor roads. Frequently we bought back people needing health care and took them to the nearest hospital some hours away before returning for our own meal.

Each time I visited the Philippines I travelled 8 hours by bus from Manila to Baguio where I was based. From there I took busses long distances to get to the field and stayed for differing lengths of time in local Inns or on one occasion with a local family. This was invaluable as I ate the same food and was subjected to the same infrastructure as they were; lack of running water and little electricity or transport. It was here I learnt the most about these people and the contexts of their lives.

Laos is a country with only 5 million, situated in between Vietnam and Thailand. It is very poor and has very little infrastructure. Travel to the area where AusAID were working involved a day's travel on several different modes of transport which is described in Chapter 6. However, this provided an insight into the lives of the local inhabitants and the contexts in which they live their lives.

Over the last 15 years I have visited, lived and worked on Aboriginal communities throughout Australia. I completed my Masters degree through participant observation on the Pitjantjatjara Lands.²¹ For many years I have conducted exchange programs for nursing students and Aboriginal Health Workers, bringing the latter to Adelaide while the nurses are placed on the Lands. I know and understand much of the contexts of Aboriginal people and their lives.

The case studies developed on each population were used to illustrate the social contexts in which their health is developed. In particular each study examines the socio economic determinants of health through which health is primarily determined. Scrutiny of the cases reveal similarities and differences between the groups and their cultures.

3.3 Quantitative vs. qualitative

Baum (1999) notes that studies in Australia based on health inequalities are carried out by organisations such as the Australian Bureau of Statistics and that

²¹ Published as Bradley H, 1999 *Remote Health Care: Inside Perspectives of an Outsider*. University of South Australia Adelaide.

there needs to be more investigation into the sociological contexts of life. This has also been stated by the authors of the study published by the Queensland University of Technology, School of Public Health on the socio economic determinants of health in Australia. Although the authors (Turrell, Oldenburg, McGuffog and Dent 1999) have provided an up to date analysis of the social determinants of health through their review, they point out that this method of investigation does not contribute to detailed understandings of relationships between cause and effect and that a more investigative qualitative method of the contexts of health is required to better understand the reasons for poor health.

The QUT review of the research of all SES studies in Australia up until 1998 provided a convincing argument for the manner in which this study should proceed. Like Baum (1999) the authors felt a better understanding of why health is like it is, using the **qualitative** approach was needed. They recommend just such further research:

We need to understand more fully the factors that link a person's social and economic position with their health status. Without doubt this should be the central thrust and direction of future health inequalities research.

(Turrell et al p87)

In relation to quantitative or scientific method they said;

...we need to move beyond this 'high' level description and...seek to understand the relationships and modifiable determinants and influences groups experience....

(Turrell et al 1999 p88)

The researchers emphasis that;

... the context(s) within which people from disadvantaged backgrounds live and work are very important mediating factors in health-related behaviour ...

(Turrell et al 1999 p92)

3.3.1 Multi methodological collection of data

The case study approach has been chosen as a tool from which to gain generic information from a number of groups in a wider community context. Case studies are designed to illuminate the details from the viewpoint of the participants. It

was chosen as it explores impacts, seeks out little known phenomena and is sometimes generated by opportunity. The case study itself is known as a triangulated research strategy done by using multiple sources of data (Yin, 1984).

3.3.2 Case Study method: Supporting research

During its development and acceptance as a method of inquiry, case study method has endured much adverse discussion. Discourse is to be found in the literature relating to the case study method (Gomm, et al, 2000). As far back as 1934, Znaniecki described the division of opinion between case study methods and survey methods of research (Gomm, et al, 2000). He contended there are essential characters which can determine phenomena and introduced the concept of ‘analytic induction’ to sociology. This requires studying a number of cases within a class and generalizing to identifying common significant characteristics. His book was an account of the use of case study to produce theories. Yin is a more recent theorist advocating case study method (see his publications from 1984, 1989a, 1989b, 1993, 1994). Depending on the rigour of the methodology, he believes case studies satisfy the three objectives of the qualitative method, that is: describing, understanding, and explaining (Yin, 1984). Yin writing specifically on case studies as a method, argues they provide analytical, not empirical generalisation (1994). Stake (1995) disagrees and believes Case Studies can provide naturalistic or intuitive and empirical generalizations. Despite discontent in the early years with this method of inquiry, Gomm, Hamersley and Foster (2000) believe that Znaniecki’s theory still remains influential today. They state the value of the case study is

...that it can uncover the causal processes linking inputs and outputs within a system

Gomm, et al (Pg 234).

Likewise, Polit and Beck (2006) feel that case study provides the ability for data to be related to individual situations, as well as the past and present being investigated to provide an understanding of the ‘phenomenon’. The belief that case studies may provide an insight into human situations and that relationships could be drawn from similar configurations was one of the underlying reasons for using this method of analysis. The case study method provided knowledge for a greater understanding of the developing world. In the epistemology of social

research, Stake (cited in Gomm et al., 2000) distinguishes between knowledge being propositional or tacit. He says explanation belongs to propositional knowledge, understanding more to tacit and quotes Von Wright on the difference between explanation and understanding.

Understanding ... has a psychological ring which explanation has not. ...understanding as a method ... is a form of empathy or recreation in the mind

Gomm et al (p21)

Studies of this kind provide a rich tapestry of information on which the reader can form their own opinions, adding to the credibility of the work.

Gomm, Hammersley and Foster (2000) also argue this is why analysis based on case study method is theoretical and not empirical. They feel that ‘cases’ provide an account of the context which allows the reader to judge the situation themselves. Out of step with this opinion by Gomm et al, Baum (1998) describes this approach as an empirical inquiry investigating phenomena in real life contexts. Other authors feel this method has a descriptive capacity and ability to involve more than one investigative approach to the research and has been used to successfully illuminate complex social situations (Richards 1990, Ashton 1992, Evans 1998).

There has been criticism of the case study in that it is unscientific because replication is not possible. Authors such as Yin (1994) and Stake (1995) refute this. The case study method has been proven to be a useful tool from which to gain generic information for particular issues. Patton (cited in Baum1998, p151), writing on World Bank and US AID, states that case studies are manageable and it is more desirable to have carefully done case studies with results that one can trust ... than large, probabilistic and generalisable samples that are dubious... [especially because of] problems in the third world settings. Baum, an accomplished public health researcher herself cites Legge and Wilson who suggest that case studies offer possible best practice to inform public health practice (Cited in Baum, 1998).

There is a belief that Case Studies can be used to test hypotheses and thus the Case Study Method has been used in this study as it gives real *...prominence to what is*

and what is not ‘the case’ – the boundaries are kept in focus (Stake cited in Gomm, Hamersley and Foster 2000, p 23).

However, Evans (1998) an experienced supervisor of doctorates from University of Melbourne, feels that as such there may be no conclusions from the work done by case studies. He says they provide immense detail of reality, not figures. Results may only be hypothesis on what strategies should be implemented to improve the situation, or suggestions for further investigations to be made.

Yin points out that there is more to a protocol than the data collection instrument. Several protocols have been designed for conducting Case Study methodology (Yin 1994 and Stake 1995). Rules and procedures must be contained in the protocol to enhance the reliability of case study research. He contends a multiple-case study (such as this one) should include the following:

- An overview of the case study project - this will include project objectives, case study issues, and presentations about the topic under study
- Field procedures - reminders about procedures, credentials for access to data sources, location of those sources
- Case study questions - the questions that the investigator must keep in mind during data collection
- A guide for the case study - the outline and format...

Yin (1994)

This study has all of these criterions. In addition, it meets the need to provide understanding, especially of the developing world and its relationships to Aboriginal Australia.

Triangulation is a use of multiple means to study and validate a particular phenomenon. Triangulation assists the ethics of the study in that many perspectives can confirm an accurate representation of reality from the data (Polit and Hungler 1995). Yin (1994) listed the following six possible sources of evidence to gain data. These included documentation, archival records, interviews, direct and participant observation, and physical artefacts. This study utilised focus groups, interviews, documentation (newspapers), archival records

(historical), quantitative data and participant observation to gather data. Table 1 below shows the methods used in each area.

TABLE 1 : COUNTRIES, DISTRICTS AND METHODS

Region	Province / District	Methods
Philippines Cordillera Administrative Region (CAR)	Benguet	Focus groups Interviews Participant Observation Statistical data
Lao PDR Phongsaly	Phongsali	Secondary data Participant Observation Statistical data
Timor Leste District of Emera	Euralo	Focus groups Interviews Participant Observation Statistical data
Aboriginal Australia		Literature review. Statistical data

To ensure congruency of the results, a research instrument based on the Eco Social framework was used during data collection to organise and process information. Lincoln and Guba (1985) contend that cross checks for validity of data can be achieved through either an informal or formal process. Informal checks were difficult given the language barriers. After the focus group/ interview, an overview of the findings which had been taken by hand, were reflected to participants through the interpreter. The major points were overviewed and they were asked if this was a correct interpretation of their experience for validation. Further, participant observation took place through living in the area and in the community, interacting with local people and observing the conditions in which people lived and worked. This observational activity often confirmed the issues people had spoken about in interviews or focus groups.

3.3.3 The Frameworks for data collection

The data generated from multi methods for this research was used to develop case studies. However, the international nature of the study demanded that there be generic indicators from which to accurately judge similarities and differences. For this reason the collection of data were made using indicators developed from

combining two separate projects related to identifying the determinants of healthy communities. Already discussed in detail in Chapter 2 they are:

- The ‘Upstream, midstream and downstream factors’ determined by Turrell, Oldenburg, McGuffog and Dent (1999) to have the most impact on health.
- The WHO’s ‘Healthy Cities Project’ (Ashton 1986)

These provided a basis for the development of an Eco Social framework for collecting data and putting it into context (See Appendix 8). Whether primary or secondary in nature, data were structured along the lines of this framework. Although these have been listed previously in Chapter 2., their meaning is discussed in more detail here.

3.3.3.1 *The socio economic determinants of health:*

In the 1990’s when the concept of the determinants of health was building a ground swell of interest, there was a considerable amount of research done in the area. A review of the research done in Australia was published by Queensland University of Technology (QUT) in association with the Australian HIRC by Turrell, Oldenburg, McGuffog and Dent (1999).²² This work reviewed all Australian research into socio economic health inequalities completed up to 1998 out of which a framework was produced, consisting of three discrete yet closely interrelated stages or levels of determinants. The determinants used to identify factors and the ways they impinge on health.

Upstream level Factors

Turrell et al (1999) found upstream measures, that is Government policies, have a major impact on health as they profoundly affect the ways in which people live. In this study the economy of each country, the employment opportunities and the money the governments spent on major issues and infrastructure (e.g., education, housing, roads and transport, and the water supply) were taken into account in the context that they affected the health of the people. The decision of the governments of the countries being studied to allow mining; to allow tourism; to provide educational facilities; to charge for health services; to respond to the effects of war, and legislate for banning of advertising unhealthy products, all impacted on the way the people’s health was constructed.

²² The full text of *Socio Economic Determinants of Health : Towards a national research program and a policy and intervention agenda* can be found @ http://eprints.qut.edu.au/585/1/turrell_health_inequalities.pdf

Midstream level factors

These influence health indirectly and include the stress or control individuals have over work, as well as the self esteem and support mechanisms they have in times of need. All of the groups in the study, including Aboriginal Australians had been affected by similar issues. Participant's social situation and isolation affected their self esteem and the constructions of health in these contexts were dependant on the social capital held by the groups. The healthy cities approach provided the background and illustrated the social contexts involving religion and political history. The background of relevant factors including war, occupation and widespread unemployment are taken into account causing stress. In all of the case studies, employment conditions were catalysts to accidents and injuries and economics affected health behaviour and ultimately, health.

Downstream level factors

Midstream factors may be a direct result of such illness and disease.²³

Culture

Without illuminating the cultural nuances of the groups, understanding differences that people exhibit would never be understood. In this framework, culture was also taken into account and this has been discussed in 2.4.1. Health is constructed within the cultural context in which people live and in this study those cultural differences are very important to health. In the overseas context, all of the participants were indigenous to their countries and although there were western influences, their culture predominated. This was so throughout the country and not only in the survey areas. The traditional culture of the participants in the study affected most of their everyday lives. In the Australian context, although many regional and remote people maintain their language and have English as a second language, only a percentage of the Aboriginal population reported engaging in traditional ceremonies or lifestyles regularly.

Research evidence shows that health behaviour is related to the social group or culture in which individuals live. Individuals die of conditions which are endemic to that population. That is, individuals will remain smoking while everyone

²³ Illness can cause hardship, thus a lower SES bringing about further poor health. This level of the determinant has not been taken into account in this study, except to note the major illness in communities or where such illness is a major 'inequality'.

around them smokes. As White (2002) explains, breaking out of existing social cohesion [patterns] causes stress. He argues that class patterns of disease are laid down from conception. Social economic status indicates norms for much behaviour, and therefore is the catalyst to some health conditions (White 2000). Wilkinson was able to show that behaviours are important to understand as they usually evolve in the context of the constraints on everyday life in which ordinary people exist (Wilkinson 1999, p 216). This is why Turrell et al (1999) use the term ‘culture’ to refer to beliefs, and values which make up systems of meanings. People in a society behave according to the norms and mores’ of that society, the influence being ‘culture’. Culture is depicted by the authors as having influence over both upstream and midstream determinants of health. They also contend that the development of legislation occurs within the contexts and the influence of the culture of the population.

The importance of culture can be seen to influence upstream measures affecting health, but Sutton also indicated from his experience that culture can be a prime cause of poor health in some populations (2001). This is supported by Castro-Palaganas et al (2001) who studied the implications of cultural practices on the health of people within the Cordillera Mountains of the Philippines. It is easy for people to lay judgement on the behaviour of others when they do not understand the constraints placed on them by social circumstances like racism, unemployment and illness, and most of all, a multitude of peers using the same behaviour.

3.3.3.2 *The Healthy Cities Project.*

Within each country observation of the contexts in which the groups lived were made using a guide based on the Healthy Cities project. This schema grew out of an international WHO project in Europe during the 1980’s. As stated in Chapter 2 the definition of a Healthy City is one that creates or improves its social and physical environs as well as community resources to assist its citizens to maximise their lifestyle potential. The important issues include the environment, the climate, the ecosystem (pollution/power source), the demography, the political structure and the governance of the area, as well as the culture and religious beliefs.

The indicators used for the evaluation of a ‘healthy city’ relate to the way the community organises itself; the culture and religious mores and the political

outlook. The history of the area and ‘where people come from’ was an important factor in the choice of it as a framework. Overall it is the social capital within a ‘city’, which is developed by the community over time that is important. Used internationally it was a perfect framework through which to assess the similar aspects of the communities being studied.

On each visit, the geography, type of transport, facilities available, the people and their community activities were recorded in an electronic journal using the guide in Appendix 7 which was developed using *A guide to Assessing Health Cities* by the WHO (1988) in Copenhagen. Local newspapers were read where possible or a translator was available, in order to gauge the political climate and history of the area. Further profiling was sought from both the literature and the conversation at a local level. All of this data were re visited back in Australia. Further to this a multitude of photographic material was collected. As some of this provides a clearer picture of the contexts in which people live than the written word, samples have been incorporated in this document. These two frameworks provided an *Eco Sociological* model for the data collection.

3.3.3.3 *Eco Social Theory*

It is nothing new that patterns of deprivation run alongside distributions of poor health in society. Social theories provide insights linking aspects of a phenomenon to see whether relationships exist. Several types of social theories purport to explain health inequalities and their relation to SES (Bonney, Morgan & Kelly 2007) also addressing the social context of human actions (Heilbrun 1995).

An *Eco Sociological* model of data collection was devised for use in this research at its inception in 2000, using the stated frameworks and was noted in the information provided with the ethics proposal for approval (see Appendix 6). This recognised that the social determinants of health and the physical environment interacted with the individual affecting health. However, it was discovered much later into the study that an *Eco Social* theory already existed. Similar to my own model which was based on the SDH and Healthy Cities, the theory by Kreiger (2001) also provides for the physical environment to interact with biology.

Introduced in 1996 by Kreiger (2001) it examines the nexus between social justice and public health and like the Healthy Cities concept, it relies on the premise that lifestyle is influenced by history and the environment in which people live; that their lifestyle choices are influenced by the contexts in which they live and work.

Like Turrell et al (1999), Kreiger (2001) believes that knowing that disparities exist in populations does not provide an understanding of the causes. She uses the example of 19th century debate about the poor health of black groups. Some questioned whether their health was bad because of their inferiority to whites. Others questioned whether it was because they were made slaves. Kreiger (ibid) contents that in the 21st century questions are shaped differently regarding black groups. These relate to their genetic makeup, or the results of past policies. What is being questioned these days is similar but couched differently. Is the cause of poor health internal or external? That is, is health biologically or socially constructed? The *Eco Social* theory recognises the biological evidence such as the impacts that early development have on health and longevity. The theory also takes into account the stressors from life experiences such as racism and discrimination. These are all issues of concern in this study and Kreiger's (2001) *Eco Social* theory was considered during analysis of the data.

3.4 Research procedures

From the conception of this research topic, it had become obvious that a framework through which the research could be facilitated across cultures would be needed. Clear indicators which could be used regardless of the international context, were required otherwise it would not be possible to compare the issues under investigation. The levels of social determinants framework described by Turrell et al (ibid) was ideal on which to base this investigation, as were the indicators used from the WHO Healthy Cities project to compliment that framework. As well as taking into account the infrastructure of an area, the Healthy Cities project also considered the ecological, geographical, climatic, historical and political aspects of life which may affect people's health. Thus, the potential of these things to impinge on health were described using these indicators. Where focus groups or observation of the community were carried out to gain data, the *Eco Social* framework mentioned was used (see Appendix 8).

Organisation of visits

In order to maximise the data collected in the time spent within the international context, it was necessary to plan well ahead of the visits. Fortunately, because of their expediency, this meant numerous emails between contacts with in country and Australia. Replies were quick and organisation went smoothly. Visits to the Philippines were facilitated through the University of the Philippines in Baguio. Work in Lao PDR was in collaboration with an AusAID project which dictated the area of Phongsaly to be visited. The staff from St Bahkita, a community organisation in Timor Leste facilitated my visits to the District of Emera.

In between work commitments, holidays and leave was arranged to collect data. Consequently, the data collection spanned some five years. Some time each year was spent in either one country or another, or sometimes two. On all occasions the climate had to be taken into account, avoiding the wet seasons. With little infrastructure, the rain makes travel within developing countries slow, and visits to communities almost impossible. It was avoided at all costs and inhibited visit times.

Within Asia, due to few facilities in the field, accommodation was taken with the local people. In all of these situations a range of accommodation from boarding houses to private homes was used. Life was experienced in the same way as the

groups being studied. Within Laos, small locally owned hotels were utilised, with all food being traditional and locally prepared. Further, in all Asian situations a lack of electricity and thus heating was experienced, as a consequence, so were cold showers or the ‘mandi’.²⁴ These experiences provided a first hand experience of infrastructure and communications available against ‘healthy cities’ indicators.

3.4.1 The participants

The numbers of participants varied significantly in each country. This was due to differences in access and time constraints.

Except for Laos, where AusAID prioritised the groups to be surveyed, the participants in each country were invited to participate through a community organisation or NGO. In the Philippines this was the Women's Union. This group were found to be very active and extremely influential, able to mobilise the community to participate.²⁵ In Timor Leste, staff of the Saint Bahkita Centre, a Catholic NGO selected the villages to be surveyed. They also volunteered as interpreters and facilitated the translation of the instruments to be used for the study into Tetun.²⁶ Preliminary visits were required to each village in Timor Leste as there are no electronic means of communication. The staff from St Bahkita did this for me. A date and time had to be agreed on with the head of the village for a subsequent visit. The visit from foreigners was a significant event in this area and prompted a large turn out of participants. Because this survey had been supported by the local NGO, over 300 people were surveyed (n=300) across 10 villages.

I was assisted by the Cordillera Study Centre in Baguio to find suitable participants. No dates were made, just generalised times when the visits would take place. Once I had travelled from Baguio to the rural area, I lived in some of these sites for some weeks. I had to use interpreters as there are many different dialects within each Province. Forty six people in the Cordillera were surveyed (n=46) across four sites in two provinces.

In Laos, I organised to work with AusAID on a project in Phongsali, visiting the country on two occasions. However, the war in Iraq was a catalyst to a funding

²⁴ Where hygiene is facilitated by water bucketed onto the body manually.

²⁵ The same thing was found in Vietnam on a visit. The women were very active and Governments also took them seriously.

²⁶ More information can be found on St Bahkita at www.bakhita.org/health.htm

cut for this project which prevented primary data collection on location. The participants in Lao PDR were surveyed through focus groups by the staff of AusAID, and data provided by the Project officer for me use as a secondary source (See the emails in appendix 12). The data forwarded to me was undertaken in four villages in Phongsalai. The methodology explained that in each village four focus groups were held with 6-8 people attending each (as exact numbers are not provided for all the groups, the lesser number of participants has been used in Table 2 below). I was also invited to give a seminar at the Lao Women's Union where much information was gained through personal communication.

The *total* number of South East Asian participants in this study is listed at 524, as shown in Table 2.

TABLE 2: TOTAL NUMBER OF PARTICIPANTS

Country	Philippines	Laos PDR (Secondary AusAID Data)	Timor Leste	Totals
Focus Groups participants	46	150	300	496
Interviews (participants)	2	24	2	28
Total	48	174	302	524
Participant Observation	Yes	Yes	Yes	

Refusal by the Aboriginal Health Council ethics committees made it impossible to investigate Aboriginal Australian contexts as originally proposed. Further information can be found on the ethical constraints placed on the study in the following section 3.4.4 on research procedures. To provide a comprehensive picture of the health inequalities and an analysis of the determinants, an extensive review of the literature regarding Aboriginal health and inequalities was carried out.

3.4.2 The Instruments

The research instrument used in this study was built on the *Eco Social* framework developed for this purpose. It consisted of an open-ended semi-structured questionnaire (Appendix 8) that had been developed using the socio economic determinants of health framework (Appendix 6) and a guideline for observation of the environment using indicators from the Healthy Cities project (Appendix 7).²⁷ The questionnaire was assessed for clarity by project officers and translators in the Philippines and Timor Leste, who would have to translate it but who did not participate in the study. Minor changes were made to the original wording to ensure that the context used would be understood by the focus groups. The participants did not have to read it as questions were delivered in the local dialect in the Philippines or Tetun in Timor Leste through interpreters. In Laos, the Eco Social framework was used to put the data from the DHCP into context. Although their survey for the focus groups had more of a maternal and children's health focus, their guide for village observation took a much more culturally specific perspective (see Appendix 9).

The focus group question guide used by the AusAID staff in Laos was designed to gain information on family health (Appendix 9), but was still useful as summaries of the data which related to the indicators on my questionnaire were used. However, the observation sheet used by the DHCP utilised many concepts from both upstream level of SES indicators and the Healthy Cities project (Appendix 7). Therefore I utilised the preliminary data report by AusAID and complimented this with participant observation data from my visits to Phongsalai. Further data were collected from Lao statistical sources according to the framework guidelines (appendix 8).

3.4.3 International Ethical Considerations

Consent to research required ethics clearance from the University of South Australia and from groups internationally. Affiliation with the University of Philippines in Baguio was made in order to conduct research in the Philippines. This took some time to obtain but was achieved without a problem (Appendix 10). AusAID were approached and agreed to support me to work with a project to be the basis for a case study in Laos. When funding for this program was

²⁷ See 2.4.1 and 2.4.2 for further information on the development of this instrument.

unexpectedly cut by the Australian Government, AusAID provided the reports on the primary data from the study, with permission to use it as a secondary source (Appendix 12).²⁸ Participant observation was also carried out in country to complement this data.

The study in Timor Leste was completed through invitation from the St Bahkita Centre.²⁹ I agreed to do an assessment of the Emera district providing that I could use the opportunity to utilise the study in my research using the same framework used for the studies in the Philippines and in Laos.

There were a few minor concerns from the University ethics committee regarding the protection of cultural wellbeing in international participants, as well as concerns regarding participant observation and photos but these were addressed. Detail of these has been included in the appendix for the readers information of what was permitted. Consent was gained in Nov 2001 (Appendix 2).

Researchers wanting to complete studies concerning Aboriginal Australians often have a long wait for ethics approval of their study. The study required consent to research human subjects both internationally and nationally. The original proposal sought to research Aboriginal Australians as well. Not only does the University ethics committee have to give their approval, in South Australia approval must also be gained from the Aboriginal Health Council of South Australia. This study was no different, and the gaining of ethics approval has been convoluted.

3.4.4 Aboriginal Ethical difficulties

Prior to submitting the original project proposal to the University of South Australia Human Ethics Research Committee (HREC), approval had been sought and gained from a local Aboriginal Community to carry out the study amongst their Aboriginal group. An original application was made through a letter to the Director of the Port Lincoln Aboriginal Health Service (PLAHS). This was followed by a personal visit to Pt Lincoln, and presentation to the PLAHS Board. Approval to investigate the contexts of health of Aboriginal people in Pt Lincoln in collaboration with them was successful. The PLAHS Board was eager for the community to participate in the study.

²⁸ The DHCP was cut simultaneously as Australia sent troops to the war in Iraq!

²⁹ An NGO supported by St John of God in Australia

The proposal had then to be submitted to and passed by the University of South Australia Human Ethics Research Committee (HREC). A letter supplying more details of the research (Appendix 1) gained approval (Appendix 2). Regardless of their approval for this research to go ahead, the proposal had then to be agreed to by the Aboriginal Health Council of South Australia (AHCSA) as they control the quality and quantity of research being carried out on Aboriginal people in SA.

The proposal was forwarded to the AHCSA detailing the study.

They refused the proposal, questioning many of the statements in my request!

Using the advice of my Aboriginal supervisor, the wording of the application was changed and the focus made more carefully towards policy development as an outcome. Another request was made for personal representation to the Board, to present the proposal (Appendix 3.). This was agreed to but on this occasion the Board consisted entirely of non-Aboriginal members, none of whom were nurses. Questions regarding the contents of the proposal they had received weeks previously, indicated few if any of the Committee had actually read it. My suspicions of this were confirmed at two stages of the meeting.

- 1 When I realised the answers to many of the questions asked were clearly set out in the proposal and
- 2 When I was asked who my Aboriginal supervisor was.

Not only was his name clearly stated on the front of the proposal, as a part of his role he was taking the minutes of the meeting unable to contribute to the debate. Regardless, the Board did not feel the social determinants of health in Aboriginal communities were worthy of investigating. The doctor following me, proposing quantitative medical research on Aboriginal children was permitted to proceed.

Since the release of The Black Report submitted to the British Government in 1980 into the implications of socioeconomic inequalities on health, there has been strong international activity in this area. However Raftery (2006) says there are many who hold *the biomedical high ground* and continue to resist this body of scholarship which shows the effects of social contexts on health (Raftery 2006 p24). It was doubtful whether there was any understanding of this context by those on the Board of the ACHSA that night.

This experience was just prior to the South Australian Government's Generational Health Review (2002) which is based on the social determinates of health. The contexts of population health have since become high profile in South Australia and if presented now, such a proposal would be more likely to gain approval. However, at that time research in the area was firmly rejected. Had this proposal been presented following the publication of the Generational Review into South Australia's health, it may have been successful.

Considerable time and effort had gone into gaining consent to research in both Laos and the Philippines.³⁰ Further, the ethics proposal was put forward to HREC which took some 3 months. It required some amendments which took further time to gain approval. It was only after approval for the research that proposals can be forwarded to the AHCSA. After two unsuccessful presentations to their Ethics Committee over a further six months, the decision was made to carry out an extensive literature review into Aboriginal Health inequalities, rather than change the majority of the methodology. Too much time had been wasted trying to do the seemingly impossible. Ultimately it was decided that perhaps the Board of AHCSA were right. Much research had been carried out on Aboriginal people, and although Turrell et al (1999, p88) contend that much of this research does not *... allow us to focus on the influences that impact on people's lives...* there were a great deal of studies available.

The reluctant decision to investigate the readily available literature provided the opportunity to develop a scoping paper which was presented nationally to the Aboriginal & Torres Island special interest group, Public Health Association Annual Conference in 2004. That review data were collated using the same framework as data from the developing countries.

3.4.5 Collection of data

Data collection took place at the international sites between 2001 and 2005. The methods used were focus groups, interview and observation. However, where the original intention had been to use generically designed methods of gaining data across countries and across population groups, this did not eventuate. Within two countries, the Philippines and Timor Leste focus groups and interviews were used.

³⁰ This had required trips to Laos to speak to AusAID personally and a field trip to investigate the Philippine situation.

In Laos, due to the Communist political system I was given access to work with an AusAID project. Later, I was forced to use information collected by the project team as secondary data when AusAID cut their funding. This was then combined with primary observational data to construct a case study for Laos.

The two attempts at gaining AHCSA approval changed the method of data collection for researching Aboriginal contexts of health from primary to secondary research. An extensive review of the literature into Aboriginal health inequalities was conducted, producing a case study using the same indicators as the other countries. Consequently the generic socio ecological framework was used to construct and analyse data from all the groups researched and Aboriginal Australians.

3.4.5.1 The Philippines

Data from the Philippines is primary and qualitative in nature. Focus groups, interviews and participant observation were utilised in this country. Travel through the Cordillera was extensive, visiting many areas and spending many months accumulating data. The ability to do this was through affiliation with the Cordillera Studies Centre (CSC), University of the Philippines in Baguio. I visited the Philippines on four occasions to gather data. Advice on which groups to interview were provided by the staff there, and in particular, Dr Reyes-Boquirien. Within the Philippines contact with the people in the survey areas was facilitated through telephone or word of mouth with people who happened to be in Baguio City. Travel through the Cordillera was organised by the staff from the CSC office, sometimes using the Women's Union. These women somehow organised focus groups in far flung places, complete with refreshments. They also provided interpreters for the focus groups. In the Philippines data were recorded by both tape recorder and by notes (hard copy) with the permission of the focus groups or interviewee. The notes taken during the discussion were reflected back through the interpreter for validation of the facts at the conclusion of the discussion. There was no opportunity to return to validate data which by then would have been transcribed into English again requiring interpretation.

The tapes were returned to the University of Philippines for translation. By the time the staff found a suitably qualified speaker of that dialect to transcribe them, I was often back in Australia. The transcripts were then forwarded by email. I

verified them against the notes I had both taken and verified at the focus groups through the interpreter.

3.4.5.2 *Timor Leste*

The district of Emera in Timor Leste was surveyed at the request of St Bahkita and the NGO³¹ supporting them. The groups wished to know how they should proceed to improve the health of the people of the area through their community education programs. The request was for a ‘needs assessment’. The same frameworks were utilised in Lao PDR as in the other case studies. (The completed survey won an award, see Appendix 11, which in turn is supporting a Timorese to train as a nurse in Jogjakarta).

Here, larger numbers of people were canvassed at one time. Where it was ideal to only have focus groups of only 8 -10 people, many more turned out. It would have been seen as rude to turn them away. The same questions were asked and answers noted in English, but on other occasions were written in Tetun by the NGO staff and converted to English in the evenings. The answers once translated were written directly to hard copy. This allowed for any questions regarding the answers or meanings of comments to be asked of the translators while the focus group was still fresh in their minds. The dialogue was recorded directly to computer each evening, as electricity was only available for limited times each night. A copy of the completed *Needs Assessment of the Emera District of Timor Leste* (Bradley 2006 unpublished) is available on request.

3.4.5.3 *Lao PDR*

Most of the data from Laos were facilitated through AusAID. They had provided me with an area in which to work with their Developing Healthy Communities Project (DHCP). This was a cooperative development project funded by the Government of Australia through AusAID and the Government of the Lao PDR. This project had been chosen as it required similar information as my own study. I thought this was the perfect place to gain data I needed, but not have to worry about getting Lao Government approval. Although the DHCP was conducted over several provinces only Phongsaly province was used for the case study in Laos.

However, sometime into the project, the Iraq war commenced, budgets were cut and the project was not provided with further funding. I was subsequently given

³¹ St John of God with a Timorese as the convenor support the St Bahkita Centre.

permission by the Project Manager to utilise the primary data already collected as secondary sources (See Appendix 12).

The focus group question guide used by the AusAID staff in Laos was designed to gain information on family health (see Appendix 9) therefore only summaries of the data which related to the indicators on my questionnaire were used.

However, the observation sheet used by the DHCP utilised many concepts from both upstream level of SES indicators and the Healthy Cities project (See Appendix 8). Therefore I utilised the preliminary data report by AusAID and complimented this with participant observation data from my visits to Phongsali.

I had travelled to Laos twice and completed recorded my observations in Phongsali utilising the Healthy Cities Framework. I incorporated my own experiences of living in the area and my interface with the social determinants of health as I saw them. Personal reflections of the geography and the local people were also recorded. The information was framed according to the *Eco Social* framework (appendix 8).

3.4.5.4 *Aboriginal Australia*

Aboriginal Australians are said to be one of the most researched people on earth. Hence, as was shown in 3.4.4, collecting data on the Australian Aboriginal population proved more complex than collecting data from Asia. Regardless of the University providing ethical clearance, the conduct of research into the contextual health of Aboriginal communities was denied by the South Australian Aboriginal Health Council. They felt so much research of a qualitative nature had been done already. Therefore a comprehensive picture of Aboriginal health inequalities and their determinants was developed through an extensive review of the literature. In some ways this provided a broader picture than I could have gained from primary data. Although it is more representative of their overall health, it meant relying on the conclusions of other researchers to provide information from which to put into the themes of the framework.

Because it was known I was reviewing the literature on Aboriginal health inequalities, I was asked to provide a scoping paper for the Public Health Association of Australia (PHAA) to be presented at their Annual General Meeting in 2004. The nature of this scoping paper for a national body provided huge impetus for my work in this area.

Thus the orientation of this work is multidimensional and multifaceted using qualitative methods. The use of a generic framework, regardless of the methods of data collection on which to develop case studies provided congruency. When examined against the indicators provided by the framework, a clearer understanding of health issues has been produced.

3.4.6 Data analysis

Through the use of the Eco Social Framework I collected adequate data through which to construct case studies on each country. The Case study method is a tool requiring the researcher to describe the situation and context as it evolves through data analysis. In this study data were constructed through several different modalities. This information was both tape recorded and noted on paper in the Philippines, but recorded in long hand in Timor Leste. A case study of Laos was collated from secondary material and data collected through participant observations recorded in hard copy notes. Developing Cases included ‘filing’ the data within the headings of the Eco Social framework. In all three countries, during field work, observational data were recorded onto a simple word document, using the framework, on computer. In the Philippines it took some time to have the tape recordings typed into English. In Timor Leste the answers had been recorded in notes throughout the focus groups. These data were checked for validity with the translators that same night and filed under the appropriate headings of the framework. In the Philippines the focus groups had to be translated from the specific dialect used. Although I had participant observations, this was the last of the data to be managed.

The data were initially recorded in excel spreadsheets, using the framework subheadings. Once the data began to show similarities repeatedly, it was deemed to ‘saturated’ had occurred. Although all the data were examined, few new issues which could be added to the case were found. Subsequently the data were cut and pasted to a word document, summarised and placed under the heading of each country. These then had to be contextualised with observations of the district or surroundings and including the ‘voices of the people’ were possible. My own observations of the contexts were interspersed with the collected data from the participants. The resultant data were utilised to provide the contextual description required for each of these Case Studies. Analysis of the data were not required at

this stage. Analysis of the cases occurred at the completion of the Cases, before Chapter 8 compared the 'Divide' before any conclusions could be made.

The case study method provided knowledge for a greater understanding of the developing world. The epistemology of social research distinguishes between knowledge being propositional or tacit, with the former knowledge requiring explanation (Gomm et al., 2000). Gomm says explanation belongs more to propositional knowledge, understanding more to tacit (p 21) and quotes Von Wright on the difference between explanation and understanding.

Understanding ... has a psychological ring which explanation has not. ...understanding as a method ... is a form of empathy or recreation in the mind

Gomm et al, (2000 p21)

Gom reports that Case studies provide complex descriptions involving myriads of variables, and that;

Themes and hypotheses may be important, but they remain subordinate to the understanding of the case

Gomm et al, (2000 p24).

The belief that case studies may provide an insight into human situations, and that relationships could be drawn from similar configurations was one of the underlying reasons for using this method of analysis. Case Study method required studying a number of cases within a class and generalizing to identifying common significant characteristics. Utilisation of this framework in Case Studies provided the credibility that Lincoln and Guba (1985) and Erlandson et al. (1993) have demanded. The Cases were constructed using the indicators of the socio economic determinants of health and the healthy cities project. These data were then investigated through *naturalistic* or *intuitive generalisation* to identify similar issues and co variations (Gomm et al 2000 p 22).

To further investigate the hypothesis, that *Aboriginal Australians experience the phenomena of 'third world health' in a developed world*, social theory was investigated. Social theory compliments and builds on work by Turrell et al (1999) whose theoretical perspective is that health is sociologically determined, with groups holding the power being most healthy. Marx believed that human actions are frequently generated by social structures outside of the control of the

individual. Willis et al, (2006) and Krieger's (2000) philosophical perspective is that lifestyle is influenced by history and the environment in which people live also. As the lifestyle of Aboriginal Australians had been influenced by history, the environment and social structures outside of their control, these philosophies reinforced my belief that I had chosen the correct framework from which to examine the data.

To ensure this study was valid, the criteria discussed as important by Lincoln and Guba (1985) and Erlandson et al. (1993) was used. These are credibility, transferability, dependability and confirmability. The first, credibility has already been discussed. Their second criteria for establishing that a study is reliable is whether the method could be duplicated and research findings could be applied to other cohorts. This study involved interviewing participants from different countries, with each community geographically and socially distinct from each other. The method illustrated flexibility and is easily applied to other cohorts. As well, the study meets the third criteria of trustworthiness.

Trustworthiness is shown when the researcher can provide evidence that should the study be replicated by another researcher in similar contexts, its findings could be repeated. Further, 'documentation (through critical incidents, documents and interview notes) and a running account of the process of the inquiry' should be evident (Erlandson et al 1993: 34).

To meet these criterion the following was established in this study. An interview schedule that outlined the dates, names of the sites visited was maintained.³²

Names were not recorded. Appendix 6 was provided to the steering groups from each country. The research instrument (appendix 8) was also provided to all the groups, but not utilised directly in Laos. It was used to survey all the participants in the Philippines and Timor Leste. Appendix 8 was used as a guide to organise information from the secondary data obtained from Laos and Australia.

It is also important that the research is transparent in its inquiry. Lincoln and Guba (1985: 290) suggest data should be confirmable as 'the degree to which its findings are the product of its inquiry and not of the biases of the researcher'.

They contend that an informed reader should be able to make an assessment as to

³² In Timor, groups too large to have names taken comprised the survey groups. In Laos, data was secondary.

whether the findings are grounded in the data; that the conclusions are logical and have accounted for unreliable data. The authors suggest leaving an audit trail for followers to replicate the study. It is suggested elements of data collection are shared with colleagues or an audience along the way. Lincoln & Guba (1985) also suggest including examples of raw data such as field notes or video recordings into the report.

In this study, these processes were achieved in several ways. Firstly by the delivery of seminars to colleagues and interested groups.

- A presentation of a scoping paper drawn from the literature review on 'Inequalities in Aboriginal health' was provided to the Public Health Association of Australia (PHAA) National seminar in Brisbane, September 2004;
- The needs analysis for the St Bahkita group is unpublished, but available on request.
- The Timor Leste study was presented as an after dinner speech at the Australian Timor Leste Association Annual Fundraising Dinner, 2007.
- A presentation at a conference at Australia National University and
- presentations of work in progress to fellow students and academics at the School of International Studies , University of South Australia.
- In February 2008 a paper on the Philippines Case studies was presented to the 1st International Conference on Indigenous Studies at the University of the Philippines.
- Adjunct publications include: Education and health in Developing countries. Which comes first? *International journal of Global Issues*, Vol. 1 no ,2008
- A presentation of the findings to the School of International Studies, University of South Australia, in October 2008
- Photographs taken during the study are inserted into this document.

By 2008, all data had been collected and was being written up into chapters. It was at the conference in Baguio that the findings of the research were first made known. Some of the conference delegates were members of the Filipino groups studied or knew the areas and groups who were involved, and were in agreement with the summary of the case studies.

A seminar to the School of International Studies was made in October 2008. This presented an overview of the entire thesis from inception to results.

In keeping with Lincoln & Guba's (1995) suggestion to add to the credibility of the study, excerpts from transcripts and my journals have been used frequently within the cases and an excerpt from my journal is included at Appendix 14.

3.5 Summary

This chapter has covered issues concerned with the methods conducted to research and analyse data for this thesis. The framework proposed as indicators for the study, the levels of socio economic determinants of health and the guidelines for healthy cities have been described in detail. The extensive literature surrounding these concepts provides clear evidence of the causes of poor health and an understanding of the determinants of population health. As there are still those who only hold quantitative information as credible evidence, the literature has provided multiple studies on large cohorts. These provide quantitative evidence that biological changes effect populations longitudinally through socially constructed phenomena.

Focus groups, interviews, and participant observation were amongst the methods used to gain primary data for an insight into the contexts of health in these groups. Data from secondary sources and reviews of the literature are also used to compliment data and develop case studies from three Asian countries and Australia to identify the social determinants of their health and their health inequalities with mainstream groups and with Aboriginal Australians. A summary of the participants and the methods of inquiry can be found in Chapter 3.4.1.

A rationale for the use of the Case Study method in combination with a consideration of Social Theory has been explained.

The experience of having the ethics proposal for this study rejected has been discussed. I feel this rejection was due to the committee not understanding the determinants of health or the need for such research in Aboriginal Australians. It provoked considerable introspection and a change in the methodology for case study development of Aboriginal Australians.

One Health Three Worlds Apart



CHAPTER 4

Aboriginal Australia

Chapter 4 Aboriginal Australia

4.1 Introduction

Chapter 4 is an overview of the health of Aboriginal Australians. It has been produced through an extensive review of the literature using both the Socio Economic Determinants of health and the Healthy Cities indicators to highlight Aboriginal health inequalities. Because of the difficulties with ethical clearance outlined in 3.4.4, I was unable to research in Aboriginal communities. This chapter cannot then be called a ‘case study’ as technically a case study is a presentation of a description of events by the observer. Although primary data has not been collected, the use of the literature has produced an illustration of the Australian Aboriginal’s social situation. This chapter has been developed using the generic indicators used in international cases. Although many studies provided here use ‘end’ statistics, there is a wealth of information provided, describing both the conditions in which this group live and the historical contexts which have shaped their outcomes.

The health inequalities of Aboriginal Australians have their genesis in the historical context of the invasion of Australia by Europeans, and the subsequent racial tension that led to Aboriginals’ subjugation (Reynolds 1996; Anderson 2001). However, much of the research on the determinants of health in this Chapter provide evidence for poor health which is also applicable to the groups in the developing world. Whereas Australian Aboriginals are reported to be the most researched group in the world, no comparable research has been completed on the other groups in this study. Therefore the health inequalities (effects) are discussed in length with the evidence in this chapter, and may also be applicable to the developing world. That discussion is in Chapter 8.

4.2 Background

Although many countries had visited and traded with the people of Australia, it was the British who claimed the country as a part of the British Empire. They saw the land as a suitably distant place to send their excess convict population.

Historians estimate that prior to this, people had inhabited Australia for over 40,000 years (Reynolds.1996). At the time of the First Fleet arriving, it is probable that Australia's Indigenous people had better health than the invaders of their land (Reynolds 1990; Pearson 2001; Pilger 1982).³³ In terms of socioeconomic equality they were, in George Orwell's words, '*... more equal than others*' (Orwell, 1970:114). They had their land; were well educated in the ways of their world; had housing commensurate with their own and their families' needs; there was adequate nutrition and they had social stability and emotional wellbeing. In 21st century 'speak' this all adds up to bountiful social and community capital.

In comparison, of those who came to this land (the convicts, soldiers and officers), many were disabled from the journey, and others were unfit for work (Clarke 1962). Reynolds (2003) writing on early land ownership in Australia, points out it was only a handful of officers who owned any land, few who had any education and few who were happy they were part of the Fleet to Australia. England's cities were overcrowded; there was unemployment and much poor health at the time. The experience of a prolonged sea voyage with questionable nutrition did the health of the newcomers no favours (Clarke 1962).

There has been no other time in the known history of Australia's Aboriginal people where it could be said they were so healthy and the health of the white people so poor. But things soon changed. From an estimated total of 300,000 Aboriginal people estimated to be present at the time of Cooks³⁴ landing, only 50 years later, we can document the demise of entire populations of Aboriginal groups. The people who once lived in the area of Sydney Harbour were completely eradicated by the incoming settlers (Reynolds 2004). By the mid 19th Century all members of the Tasmanian groups had been imprisoned, with the last one, a woman named Truganini dying in 1876. In his book, *Blood on the Wattle*, Elder (1988) documents the resistance of the Aboriginal Australians, and the subsequent massacres which took place. The last of these, where whole families

³³ Readers of this document have questioned the political context of the word 'invader'. I defend this as follows. When a country enters another with the purpose of controlling the social, political and economical contexts it is called an 'invasion'. This occurred when Germany entered Poland, Holland, France and the Soviet Union. It occurred when Japan entered China, Manchuria and Malaysia. The intention of the British in Australia was no less politically intentional and fulfils the definition of an invasion.

³⁴ Cook was the Captain of the First Fleet to come to Australia.

of Aboriginals were shot, was as late as the 1930's. This was one of the few in which the white perpetrator was charged. However, he was never sentenced. In judgment, the judge said the action the man took 'was necessary' (Pilger 1982). This was at a time in history when men were being hung for murder, but killing Aboriginals was not comparable to killing a white man. In America, at the same time Lincoln was abolishing the slave trade. In Australia the British were casting the Indigenous owners from their own land, massacring and enslaving them using the law of King and Country. Australia continued to preclude various groups through legislation that became known as *The White Australia Policy* (see the Australian Government website at <http://www.immi.gov.au/media/fact-sheets/08abolition.htm> for more about these policies). These actively discriminated against coloured people entering Australia, but also had the effect of denigrating the resident Aboriginal Australians. The effect of this legislation was active racism resulting in discrimination in employment, housing and education of Aboriginal Australians. As Raftrey states, they were *...not part of the public* (Raftrey 2006 – title of her book) and this still has ramifications today.

Over the years successive governments resorted to various management strategies of Aboriginal Australians, from grouping them in communities, ignoring them as fringe dwellers, to integrating them into mainstream society. Until the late 20th Century Aboriginal Australian children of mixed race were taken away to be brought up as white, and institutionalised. The legacy of this on their long term health has been marked as those in the following review. Berkman & Glass (2000) cite thirteen large studies over a period of twenty years, showing that people who are disconnected from significant others are at an increased risk of dying prematurely. People who have been isolated or disconnected from their social ties, are between two and five times more likely to die from all causes. Anecdotes from the inquiry into the removal of Aboriginal children from their families (HREOC 1997) clearly illustrate that the stresses and the social isolation experienced is an indelible memory still having consequences for the health of this group.³⁵

Many Aboriginal people who have been 'removed' as children experience destructive behaviour, cardiac conditions, diabetes and many other problems,

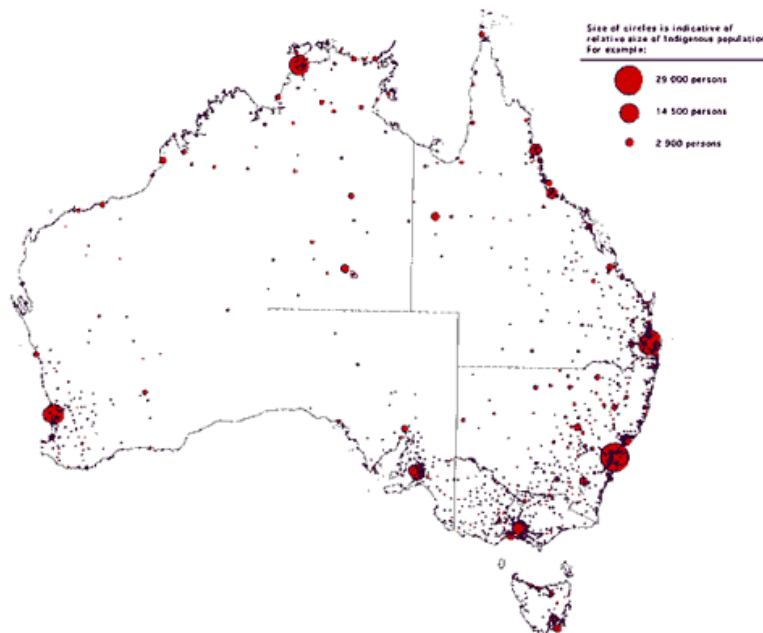
³⁵ Over the years in which I have worked with Aboriginal people, I have never met one whose family has not been affected by the 'taking away of children'. Some are still looking for their family, others found them and could not communicate, others were castigated as white. Many have mental health issues and the resultant poverty is intergenerational.

including unstable relationships and mental health issues. Such health issues contribute to poor educational input, few work opportunities and subsequently provide intergenerational disadvantages (ibid). Not yet citizens in their own land, it was not until a Referendum in May 1967 changed the Federal Constitution, and provided for Aboriginal Australians to become citizens in their own land.³⁶

In a little over 200 years the health of the prodigy of those first settlers and the subsequent immigrants to Australia has improved to world-class levels (WHO 2002). This has been at the expense of the Aboriginal Australians. Today, with their land taken, their traditional lifestyles changed so much that any education their forefathers provide is of little use; with their family structures shattered, they have little economic or social capital with which to gain emotional stability.

4.3 The Survey group

The location and size of Aboriginal populations are denoted on the map below (Map 2) using the accompanying key to size populations.



MAP 2: LOCATION AND SIZE OF ABORIGINAL POPULATIONS

Source: (based on "Urban Centre and Locality" classification of National Census) (ABS, CData 1996.)

³⁶ In May 1967, a referendum was held to change clauses in the Federal Constitution which were discriminating against Aboriginal and Torres Strait Islander people. As a result of the success of this referendum, the first official counting of Aboriginal and Torres Strait Islander people took place in the 1971 Census.

4.3.1 Demographic Profile

The last Australian Census counted 517,200 Aboriginal Australians being 2.5% of the total population (ABS 2007 Cat 4705.0). Although there are only a small percentage of Aboriginal Australians, there are some striking differences in their profile against the mainstream population. Within Map 2 it can be seen that large populations of Indigenous groups reside in the urban areas of Sydney, Brisbane and Perth. However, the remote areas of Queensland and the Northern Territory have the largest proportions of Indigenous people in their populations. In the Northern Territory alone, they comprise 32% of the population (ABS Cat 4605. 0). Regardless, it can be seen that although the majority of Indigenous people reside in urban areas across Australia, with almost a fifth living in areas classified as 'very remote', compared with only 1% of the non-Aboriginal population (ABS Cat 4705.0). However, it is also important to note that the most reliable data are regarded to come from only four states in Australia, Queensland, Northern Territory, Western Australia and South Australia (ABS 2008 and the AIHW 2005).³⁷ These states are those with the most Indigenous people in remote areas. For this study there is no survey area in particular. However, the people in the outer areas where those I was most interested in as they are reported to have the worst health.

Age Profile

The 2001 census revealed the life expectancy at that time, for Aboriginal people was 59 years (for males), and 65 years (for females). This compared to 77 and 82 years for all Australian males and females. The 2006 census found the Aboriginal population is younger than the non-Aboriginal population with half of the population being 21 years of age. This compares with half of the population being under the age of 37 years for the non-Aboriginal population (ABS Cat 4713.0).

Aboriginal Births

In the 2006 census 5% of all births were recorded to couples where one parent identified as Aboriginal. Aboriginal women had a fertility rate of 2.15 babies per woman compared to 1.75 babies per woman for all Australians. The average age of Aboriginal women giving birth is more than five years younger than the non

³⁷ This is because of the failure to ask people if they are Aboriginal when they present for health care, and the failure of people to declare their Aboriginality.

Aboriginal population, with 78% of those giving birth being under 30 years of age. Women birthing in the Northern Territory were the youngest (24.1 years), followed by Western Australia (24.3 years) (ABS Cat 4704.0).

Aboriginal Deaths

For both mainstream Australians and Aboriginal Australians there has been a general decrease in death rates. For all Australians life expectancy increased by 6 years (males) and 4 years (females) between the 2002 and 2004 (AIHW 2006). During this same period, Aboriginal life expectancy increased by 3 years (males) and 2 years (females). This remains 17 years less than the mainstream population (ABS Cat 4713). There are some major differences between Aboriginal and non-Aboriginal deaths although the two major causes of deaths for both groups are the same. Ischaemic heart diseases (18%) and malignant neoplasms (16%) were recorded for Aboriginal groups, but for non-Aboriginal groups these are higher (21% and 29%). These conditions accounted for 60% of all identified Indigenous deaths, but at younger ages than the total Australian population. Diabetes accounted for more deaths of Indigenous people than all Australians at a ratio of 7:2. Seventeen percent of all other Aboriginal deaths compared with 6% of non-Aboriginal deaths from external causes (ABS Cat 4713).

4.3.1.1 Maternal and Infant Health

Empirical evidence shows that long term health is determined through the health of the mother during her conception and pregnancy, as well as her influence during the neonatal or early childhood period. For this reason maternal and neonatal statistics are an important indicator of the health of a nation or group.

Fertility

The last Census recorded Aboriginal Australian women having a higher fertility at 2.2 per woman (2.98 in the NT) compared to 1.73 in the non-Aboriginal population (ABS Cat 3301.0). Between 2000-2002 over 78% of Aboriginal mothers were younger than 30 years compared to only 49% of the overall population (AIHW 2003).

Low birth weight (LBW)

Although LBW has improved since the 1996 Census, there is still double the rate of low birth weight babies born to Aboriginal women in comparison to the non-

Aboriginal population, see Table 3 below. Low birth weight is regarded of such significance to the future health of Aboriginal people it is discussed in relation to the literature on inequalities later on in Section 4.5.4.

TABLE 3: MATERNAL FERTILITY; BIRTHING PATTERNS; LOW BIRTH WEIGHTS

Category	Indigenous	All Australian	Source
Fertility 2000-2002	2.2	1.8	(ABS Cat 4704.0).
Gave birth < 30yrs 2000 – 2002	80%	54%	(ABS Cat 4704.0).
Low Birth weight <2500 grams 2001-2004	13%	6%	AIHW 2008

Infant Mortality

The difference between Aboriginal and all Australian infant mortality rates have narrowed significantly over the period 1991-2005. Between 1996–1998 the infant mortality rates for Aboriginal people were four times that of the all Australian population. The 1999-2002 figures showed an improvement where Indigenous infants died at only three times the rate of non-Indigenous infants. The data between 2003-2004 and 2005–2006 have not improved. Indigenous infants continue to die at three times the rate of non-Indigenous infants (see Table 4).

Neonatal Mortality

There has been some improvement in the neonatal mortality rate for both Indigenous and other babies (41% Aboriginal Australian and 35% decline for other babies) in the period 2001 -2006. Although still unacceptable, the good news is that the 2001 mortality rate for Indigenous Australians (10.6 deaths per 1,000 live births) at twice the neonatal mortality rate for all Australians (5.3) had improved since the last Census when it was approximately 3 times the rate for all Australians (ABS Cat 4704.0). Although the neonatal mortality rate for Aboriginal groups is double the rate of the non-Aboriginal population, it is much higher in some remote communities.

The peri natal mortality rate

Comprising fetal and neonatal deaths, the peri natal mortality rate³⁸ is used as an important indicator of the quality of pregnancy care (WHO 2001, Department of Human Services 2001a, Child Health Research Project 1999). The highest rate of peri natal deaths has been shown to be in mothers less than 20 years. This is pertinent as Aboriginal teenagers have a higher fertility rate and thus are more likely than the all Australian population to experience perinatal deaths. In 2001–2004 Aboriginal foetal deaths stood at 12 and 7 for Aboriginal and non Aboriginal women respectively and 6 and 3 neonatal deaths per 1,000 live births respectively (Leeds, Gourly & Laws et al. 2007 p53). When standardised against the 2001–2004 figures Leeds et al., reported the peri natal death rate at 17.9 and 1.8 respectively per 1,000 births (Leeds, Gourly & Laws et al. 2007). Important to this study is the AIHW report that found Aboriginal perinatal mortality rates specific to Queensland, South Australia, Western Australia and the Northern Territory at 20.1 per 1,000, 26.3 per 1,000, 21.2 per 1,000 and 22.9 per 1,000 respectively. These populations are less urbanized, have much higher perinatal deaths than the all Australian population and have significant inequality in this area.

Maternal Deaths

Despite numerous reports, accurate figures on maternal deaths in Aboriginal Australians are hard to find and often conflicting as not everyone reports themselves as ‘Aboriginal Australian’. The ‘all Australian’ group have among the lowest MMR in the world at only 7.7 deaths in every 100,000 live births (AIHW 2002). In 2002 the AIHW recorded eleven maternal deaths of Aboriginal women and two of Torres Strait Islander women. Twelve of these deaths were directly related to pregnancy making the maternal mortality rate for Aboriginal Australian women 34.8 deaths per 100,000 births – a rate 4.5 times the experience of non-Aboriginal women. This situation has deteriorated as an earlier report sourced from *Maternal Deaths in Australia* by Ford, Sullivan, Walters, et al (2001) recorded Indigenous maternal deaths of direct causes as double that of the non-Aboriginal population. They reported the *ratio* of all maternal deaths to confinements (in 100,000’s) for Aboriginal Australian women between 1997 –

³⁸ Perinatal deaths comprise stillbirths (foetal deaths) and deaths of infants within the first 28 days of life (neonatal deaths).

1999 to be more than 3 times higher than the non-Indigenous rate, but for direct causes of maternal deaths the Aboriginal ratio was only twice that of the non-Aboriginal women (10.1>5.1:). In 2006, King reported a steep increase in the maternal mortality rate for Indigenous women in South Australia, Western Australia, Queensland and the Northern Territory. This has increased from 23.5 in the 1997–1999 to 45.9 per in 2000–02 . In 2008, the National Perinatal Statistics Unit has recorded a dramatic improvement in the Indigenous MMR. However, this still sits at more than two and a half times as high as the all Australian population (see table 4).

TABLE 4: INFANT AND MATERNAL MORTALITY IN AUSTRALIA

Category	Aboriginal	Non - Aboriginal	Source
Infant Mortality rate 2005-2006	12.3	4.2	AIHW 2008 National Mortality Database
Neonatal Mortality rate 2000-2002	10.6	5.3	AIHW (Nat. Perinatal Data collection 2003 2005)
Peri natal Mortality rate 1998 – 2002	21.4	9.6	AIHW (Nat. Perinatal Data collection 2003 2005)
Maternal mortality rate 2000-2002	45.9	8.7	King et al 2006.
Maternal mortality rate 2003 - 2005	21.5	7.9	Sullivan et al, 2008 AIHW National Perinatal Data Collection
MMR Direct causes 1997-1999	10.1	5.1	Ford et al 2001

Breast feeding

There is evidence in the literature that breastfeeding for 13 weeks has been shown to reduce the incidence of gastrointestinal and respiratory illness up until 1 year (Marmot 1999 p188). The National Aboriginal & Torres Strait Islander Health survey of 2004-2005, shows that 79% of Indigenous children aged less than 4 years, in both urban and rural areas were reported to have been breastfed for a period of time. This seems very high given the survey of Aboriginal Health

workers who were asked about PHC programs and breastfeeding in particular in a recent review of Maternal Health Programs for Aboriginal Health Workers (Blue, Bradley, Stamp et al, 2003). This review reported the availability of formulae in some communities has prompted young Aboriginal mothers to bottle feed their babies enabling others to share the responsibility for the child in their absence. There is evidence that artificial feeds compound poor health as there it predisposes to many adverse health effects, of which ear infections are one (Couzous 1999; Marmot & Wilkinson 1999). The proportional number of children with ear problems within the Aboriginal population are well above the WHO's level of acceptability (Price 1999). Such ear problems cause learning difficulties. Marmot & Wilkinson (1999) contend more should be done to encourage breastfeeding generally, as society pays a high price from resultant deafness and poor educational outcomes. This cycle is seen in Aboriginal infants who have high rates of ear infections, subsequent deafness and learning difficulties. Such poor educational attainment often ends in encounters with the criminal justice system (NTED 1999).

4.3.2 The Culture

As part of their culture Aboriginal people hold a set of health beliefs which place emphasis on social and spiritual dysfunction causing illness (Maher 1999). The disruption which occurred to Aboriginal society when invasion occurred has been extremely destructive to Aboriginal 'social capital' and consequently, health and culture. Regardless, Aboriginal Australians maintain many traditional mores. There are rites of passage which young people still adhere to and reproductive knowledge which is only shared during either 'men's business' or 'women's business' respectively. Their health is intrinsically linked with their land. A sense of place and social organisation is particularly relative to the health of Aboriginal Australians. Both of these have been linked to social capital, and disorganisation to the lack of it (Berkman & Kawachi 2000). Berkman & Kawachi (2000) quote Jacobs on the issue of social cohesion. He said there must be

...a continuity of people who have forged social networks. These networks are ...irreplaceable social capital. When social capital is lost, from whatever cause, the income from it disappears, never

to return until and unless new capital is slowly and chancily accumulated

Berkman & Kawachi, (p.188)

Falk reports that:

No tribe, people or nation can even begin to come to an understanding of itself, its identity, and its place in the world if it doesn't first know its own stories.

(Falk 2001, p.1)

It is said there is no word equates to the Western sense of 'health' in Aboriginal language. Many writers discuss how Aboriginal people are healthiest when they are happy with their lives, their families and everything is in harmony. The term 'pukulpa' (happiness) encompasses total well-being. This includes the physical, psychological, social, spiritual, emotional and cultural well-being for the individual and his Community' (Badenoch 1998 & Grbich, 1996). Western society is now recognising what Aboriginal people have known for years and the latest research is revealing. There is little association between good health and the money a country spends on services for health. Health is derived from an equilibrium.

Aboriginal Australians in remote areas report the highest level of cultural activity. The ABS report that 22% of this group live on homelands or traditional country (ABS 2006). This has occurred due to Government support for homelands. However, although only 20% of Aboriginal Australians are able to speak an Aboriginal language, their English literacy also remains poor, which is discussed in section 4.4.1

4.3.3 The environment

Australia is an expansive land which is comprised of a large amount of soil which is not suitable for farming, and an inhospitable and dry climate. The all Australian population reside mainly in urban areas, as do almost three quarters of Aboriginal Australians. However, the rest live in either remote or regional areas inhabited by only 1% of the main population. The living conditions in these areas are harsh and access to services is often difficult and goods usually expensive. Although there are good communications and some transport to health services, in times of

emergencies these take precious time. Few people have good transport to afford long journeys themselves, compounding their isolation.

The remote areas in which Aboriginal Australians live predispose them to the elements. Housing is expensive, as are goods and services. Waste disposal can be poor, depending on the community in which they live. This creates an environment in which rubbish sometimes abounds, encouraging dogs and cats to forage for food. Housing is undersupplied and overcrowded.

4.4 The Determinants of health for Aboriginal Australians

As previously discussed, the SES of a community can dictate their health. There has also been a discussion of evidence which shows that both social and material deprivation in early life is reflected in increased risk of cardiovascular disease, respiratory disease, and some cancers in adulthood (Marmot and Wilkinson 1999; Couzous 1999; Kawachi & Kennedy 2001). Mustard et al. (2007) have shown that early deprivation leads to poor educational outcomes. Stattin (1993) shows a correlation between this and teenage criminality. These are all issues of concern within the Aboriginal population and are discussed here using the framework by Turrell et al (1999).³⁹ The discussion starts with the upstream level of indicators, being those most influenced by government policy.

4.4.1 Education

Issues of education and Aboriginality are probably the most important element to emphasise in the inequalities debate. (Turrell et al 1999; Marmot & Wilkinson 1999; Wilkinson 1996). International comparisons show that education, particularly female education, is an important determinant of health (Commonwealth of Australia 2000c). Because of the low literacy rate and poor retention rates in the Aboriginal population (see The Collins Report, NTED1999) there has been much published in this area. Studying the connection between females and health, Boughton (2002) found that education of Aboriginal women assisted employment options and these women were more organised and could manage households better. He also found that better educated people ‘get’ houses with hot water and showers, hence had better hygiene practices. Aboriginal

³⁹ See appendix 7

woman who attended boarding schools adopted many different practices in hygiene and domestic management to their peers (Boughton 2002).

Although retention rates for Aboriginal secondary school students, have continued to rise over the last five years – (Year 10 increased 10% to 86% in 2001 and Year 12 increased from 29.2% to 36.3%), they remain less than half the mainstream population figures for 2001 (75.4%) (ABS Cat 4704.0). Problems with affordability, family commitments and racism were cited for leaving school (Beresford 2001 p28). In 2001 only 14% - 23% of Aboriginal students gained tertiary entry qualifications compared to 49%- 57% of the rest of the Australian population (Commonwealth of Australia 2001). The Central Australian Aboriginal Congress (CAAC) reported that in the two years to 1998 in Alice Springs, only one Aboriginal person passed Year 12 (CAAC 1998 p5). Low educational attainment is synonymous with low social class and poor health internationally (Wilkinson 1996, Kawachi 2000, WHO 1999). It has been on this basis that the Northern Territory undertook a significant review of Aboriginal education in the Northern Territory called The Collins Report already mentioned.

The Collins Report titled *Learning Lessons* (NTED1999), found Aboriginal education poor and worsening. The report found continuing low achievement by Aboriginal students, with many children leaving school with literacy and numeracy levels of a 6 or 7 year-old mainstream child. It found Indigenous people ‘almost unemployable’ outside their own communities, with this being a threat to the continuing community control and economic independence. Although an improvement on the 1999 report, Table 5 below from 2004 still indicates that 40% of Aboriginal Australians continue to Year 12. Hughes and Warin (2005) are highly critical of the poor standard of literacy gained by Aboriginal children in remote communities. Mellor and Corrigan (2004) feel that educating Aboriginal Australians according to their community instead of generically may improve this situation. They feel that research into educational need should be ‘disaggregated’ into traditional and contemporary groups which may provided improved policies and support for their individual situations.

TABLE 5: SCHOOL RETENTION RATES

Apparent school retention rates, Indigenous full-time students - 1996-2004					
	1996	1998	2000	2002	2004
	%	%	%	%	%
From year 7/8					
To year 9	96.5	95.0	95.5	97.8	96.5
To year 10	75.8	83.3	83.0	86.4	86.4
To year 11	47.2	52.3	53.6	58.9	61.4
To year 12	29.2	32.1	36.4	38.0	39.5

(Source ABS 2004 and 2005)

The transmission of educational disadvantage

Aboriginal education in Western Australia during the 1990's could act as a case study for Aboriginal education (Beresford 2001). Beresford reported only seven Aboriginal students achieved a tertiary entrance score in 1997. This group were well behind in achieving literacy and numeracy criteria (9 and 39 per cent less than non Aboriginal students). In this study it was found few Aboriginal parents could assist the children because of their own lack of skills. The problems discussed in this case study are the result of the transmission of disadvantage across successive generations, which influence the social environment (Beresford 2001 p25).

When it comes to this intergenerational transmission of disadvantage, Price (1999) reminds us that it was well into the late 20th Century that Indigenous children were excluded from school *because* they were Aboriginal or Torres Strait Islander. There are many children and grandchildren of people who were denied a Western education that are parents today. The education system has historically been assimilationist and guilty of reducing Aboriginal power through ignoring cultural authority. Boughton (2000) cites research evidence where improved learning occurred for Indigenous people when issues of culture and control were acknowledged (p15). However, in the late 20th Century the Federal Government cut funding to some 'other than English language programmes' and this has affected Aboriginal language programmes in schools (Zirngast 1999). The United Nations conventions on the rights of indigenous people and children's rights dictate that every child has the right to attain literacy in their own language (United Nations 2001). Without Government funding and support it is impossible

for Aboriginal people to continue promoting their culture. Through these funding cuts the Government continues the process of cultural assimilation and institutionalised racism perpetuating social problems and disadvantage.

Caldwell (cited in the NTED report 1999) discusses the importance of education to health. This is a finding generally applicable to developing countries and he summarises this as follows:

As the years of mother's education rise, child mortality falls linearly with no lower educational threshold. Mothers with some secondary education lose half as many infants and a fifth as many toddlers as do women with no education. The father's education also has some impact but often only half that of the mother's education

(Caldwell, in NTED report 1999 p150)

Absenteeism

Illness creates some absenteeism, but in particular this is a major problem in the education of Aboriginal students. Otitis media occurs in all cultures, but it is more common among Aboriginal children and Torres Strait Islander children than the other Australian children. If children can't hear properly, they can't learn properly (Price 1999). Hearing loss compounds the learning problems experienced by Aboriginal children and Torres Strait Islander children, disadvantaging their education in the long term (Dept of NT 1999). Couzous & Murray (1999) report on a review of surveys on hearing loss in Aboriginal populations.

Recommendations for prevention of the problems included improving nutrition and the home environment, increasing breastfeeding, and reducing passive smoking (p240).

A Government Report into absenteeism (Department of Education and Training Affairs 2003) noted that, in isolated communities where family mobility is high there can be long periods of absence between attendance at one school and the next. The degree to which Aboriginal culture was accepted by the school was seen as being an important factor in perceptions of schools as they are still seen as 'white fella' places by some communities. To help overcome this, a link between community and schools was successful by inviting Elders to teach language and cultural matters.

Other studies reported racism as an issue. Farrington and DiGregario (1999) researched the issues which affected the retention and progression of tertiary Aboriginal students. The negative and racist attitudes of non-Aboriginal students to the Aboriginal program were alarming. Within vocational training programs there is evidence to suggest that an attitudinal change is required within the larger population towards the Indigenous population before real changes can be effected in their education and employment participation. It would seem that prejudice has not disappeared, and much more funding for ongoing instruction in this area is needed than was initially imagined. Even though programs have been put in place to counter balance this, much more effort is required to provide non Aboriginal teachers and employers with an understanding of Aboriginal and Torres Strait Islander cultural norms and history (ANTA 2000). It is not so surprising then, that reports of the number of Aboriginal and Torres Strait Islander people accessing, participating and completing tertiary education, is significantly lower than that of the general population (ABS 2001, Commonwealth of Australia 2002). As mentioned, although there has been a slight improvement in the number of Aboriginal children completing year 12, the gap between non-Aboriginal and Aboriginal student outcomes is not reducing in higher education (Commonwealth of Australia 2002; SCATSIH 2002; Mellor and Corrigan 2004; Indigenous Nursing Education Working Group 2002). Although an increase in enrolments occurred in 2001, more than 57% of Aboriginal students reported leaving school at junior high school level. One in four of these reported leaving by school at year 9 or lower (Commonwealth of Australia 2001). However, a report in 2003 on education and training outlined that significant changes have to be made in employment opportunities for Aboriginal Australians if they are to see any point in continuing their education with a view to gaining meaningful employment (ANTA 2003).

Inadequate higher education pre requisites

Although there may be many Aboriginal Australians wishing to gain university entrance, the National Report to Parliament on Indigenous Education and Training found most do not have the pre-requisites required (Commonwealth of Australia 2002). Much literature can be found on recruitment of Anglo European Health Professionals to work with Aboriginal Australians and the need for them to

undergo culturally appropriate training. However, only a few papers were found relating to the recruitment of Indigenous graduates in higher education to work with their own people. This is because there are so few of them graduating. Although allocation of places for Aboriginal Australians are provided in all courses, and special entry tests and recognition of prior learning is available in a minority of courses, not enough are completing secondary school to manage higher education entry (Collins 1999, Mellor and Corrigan 2004, Hughes and Warin 2005). Of those who do gain entry to a higher education institution many difficulties are frequently experienced, producing a high 'wastage' rate.

Throughout the literature there are examples of Indigenous student's non-compliance, absenteeism, poor retention and poor achievement (CAAC 1998; DEST 2000; Anderson 2001; Boughton 2000 and Beresford 2001, Hughes & Warin 2005). It would seem if the problems continue to be addressed educationally instead of being aimed at the underlying cause of social disadvantage (Beresford 2001) Aboriginal Health will not be substantially improved. Without an educated population it is not only difficult to gain meaningful employment but Australian and overseas studies confirm the strong linear relationship between years of schooling and mortality. The education health linkage is particularly pertinent to women. The impact on child morbidity patterns are well known. Schooling enhances potential mother's knowledge and skill about effective ways to prevent, recognise and deal with childhood illnesses (Northern Territory Dept of Health 1999 p 150). Hughes and Warin (2005) are scathing of the low level of education in the Aboriginal community and call for immediate changes to policy.

4.4.2 Employment and Income

The loss of work or a meaningful role by Aboriginal men in Australian society has been mentioned as being detrimental to the entire social structure of Aboriginal society (Pearson 2000; Sutton 2001). Strengthening the capacity of the Indigenous workforce is a key component of the Commonwealth strategy for improving the health of Indigenous Australians (Commonwealth Dept Health & Aged Care 2001). Before 1968 many Aboriginal people lived and worked on pastoral stations which tended to be close to their homelands. However, in 1968 equal wages for Aboriginal stock workers were enforced; this resulted in extreme

widespread unemployment of this group. Most people moved away from their homelands to more populated areas to gain employment. This movement from their country to a situation of unemployment has proved a major burden for Aboriginal people. Sutton (2001) contends that although it was poorly paid, pastoral work was in most cases meaningful employment. At the time of the 2006 Australian census 46% of Aboriginal Australians were employed and of those employed, the most common category was labourer (24%). Many indigenous children are unlikely to have a parent in paid employment (47% of Indigenous families had no parent working compared with 20% of other families). However, many of those in employment were employed by The Community Development Employment Project (CDEP).

Community Development Employment Project

The Commonwealth Government's CDEP scheme requires an administrative loading to be paid to communities and organisations to 'employ' their residents for work. Started in 1977 with 100 participants it has grown considerably (Arthur 2001:119). If the CDEP employees were not taken into account, the Aboriginal Australian unemployment figures would rise to approximately five times the rate of the all Australian population (ABS 2008 Cat. no. 4713.0).

Welfare issues: Sit down money

Welfare laws in Australia provide for incomes if unemployed. Many Aboriginal people are forced to live on welfare because of lack of education or lack of access to employment. However, some like Aboriginal Senator Pearson feel welfare or 'sit down money' is a destructive force on Aboriginality (2000, p38). McDonnell (1999), writing on the feasibility of introducing Grameen Bank micro credit financing into ATSI communities warns of the difficulties in the face of welfare payment laws. In developing countries, the recipients have nothing to fall back on if they fail in their efforts. In Australia they have welfare support which cuts out as soon as they earn too much, reducing incentives to success. Regardless, welfare payments do have substantial benefits. In the absence of work, welfare payments have enabled people to return to homelands in some remote locations and pursue traditional activities (Arthur 2001). Enema (1993) has reported considerable benefits to infant health from the introduction of welfare support, with communities who have child support having good infant health. The downside of

the loss of work or a meaningful role for Aboriginal Australians has been a rise in incarceration rates.

Imprisonment

Imprisonment effectively replaces employment for those concerned. Although only 2.2% of the Australian population, Aboriginal people make up 24% of all prisoners (ABS 4722.0.55.003). Aboriginal people are over-represented in the criminal justice system (Robinson & Slee 2001, Carach et al.1999, AIHW 2002). Between 1988 to 1999 along with the national population of Aboriginal people, the prison population grew faster than the non-Aboriginal population at a rate of almost 7% annually (Carach et al.1999).

Atkinson (1996) reported that in 1993 an Australian Aboriginal juvenile was 17 times more likely to be held in custody than a non-indigenous juvenile, but by June 1996 this probability had multiplied 21 times. In 1996 Atkinson reported that despite the Royal Commission into Aboriginal Deaths in Custody recommendations, over-representation of indigenous juveniles had persisted (Atkinson 1996). In Queensland in 1999/2000 young Aboriginal people represented 28% of all young people appearing in court for offences, and also accounted for 58% of all young people admitted to detention orders (Robinson and Slee 2001, p4). In 2006 the Aboriginal prison population was reported to have grown some 55 per cent since 1991 (Moore 2006). The Royal Commission into Aboriginal Deaths in Custody reported that poor education and unemployment were directly linked to contact with the justice system, and common to 99 deaths that the Commission investigated (Couzous & Murray1999, p 245).

Research cited by Aboriginal Justice Advisory Committee (NSW Bureau of Crime Statistics and Research, 2001) shows that one arrest will lead to a 92% possibility of another. Wilkinson (1996) found that a criminal record and resultant social exclusion had a major impact on health. Poor future employment and income prospects, cheaper housing and other aspects of living become stressful and result in both material and economic restrictions. These impacts on the health needs of any children in the family, perpetuating the cycle of social disadvantage and inequalities.

4.4.3 Housing

Aboriginal people are reported as being a very mobile group of people (Memmott 1991; Bradley 1999, Roberts et al 2006) and this presents a major issue in the provision of housing. As Neutze (2000) states, one of the challenges in providing better housing is how to cater for the needs of people whose location and spatial needs are likely to vary over time when housing of an acceptable quality is both durable and immobile.

Present tenure of Aboriginal Housing

The mix of Indigenous people owning and renting housing has changed dramatically over the last few decades. Prior to the 1967 referendum ownership of land or housing was not possible for Aboriginal Australians. When they could finally purchase, homes proved too expensive for most Aboriginal Australians. Renting or community housing was the only option of housing for the majority of these people. However, over the last few decades there has been a concerted effort to assist Aboriginal people with home ownership.

Attic's Home Loans Program has, since 1974, provided financial support to Aboriginal and Torres Strait Islander people to either build or buy their own home. More than 8,000 home loans have been provided by ATSIC in this time. These borrowers were not able, for a variety of reasons, to obtain home finance from banks or building societies. Without Attic's help they would not have been able to buy or build their own home. The number of houses owned or managed by Indigenous Community Housing Organisations had increased from about 12,000 in 1992 to more than 20,000 in 1999.

The 2001 Census showed that around 39% of Indigenous people owned or were purchasing their own home. This compares with over 70% of non Indigenous people owning or purchasing. The consequence of these figures is that there are a large number of Aboriginal people renting housing from either a private landlord or a State or Territory authority (26% & 23% respectively) (ABS CAT 4712.0). Statistics for people renting show both Aboriginal and non-Aboriginal private renters are likely to move frequently having lived in their current dwelling for less than two years.

The affordability of home ownership has diminished considerably in Australia and particularly for the most disadvantaged groups. As public housing is a diminishing commodity in Australian society, more and more Indigenous people will have to rely on the private rental market. It is here where the most discrimination is encountered by disadvantaged groups. In some cases cultural insensitivity or discrimination by mainstream housing organizations was reported to be a problem as well (McGlade & Purdy 1998).

The state of Indigenous housing

Regardless of efforts to improve Indigenous housing overall, many remote Indigenous Australian communities continue to face problems of the magnitude of developing countries. This is an issue that has been cause for concern over several decades (NHMRC 1989, Commonwealth of Australia, 2000, Baum 1989, Gracey 1989, Baillie & Runcie 2001). Regardless of the Housing and Infrastructure Policy of 1997-2000 much Aboriginal housing remains in the same condition as it was reported to the Royal Commission into Aboriginal Deaths in Custody (1991). In these areas there is a deficit in infrastructure which causes health problems (Gracey & Williams 1998, Baillie & Runcie 2001 Torzillo & Pholeros 2001). The CHINS found that in 58 of the 348 communities surveyed, the water failed acceptability tests (ABS cat 4710.0); power interruptions occurred frequently in communities where over 18,000 people lived and almost 2,500 dwellings experienced problems such as leakage of their sewage systems in the prior 12 months. The Australian Housing Survey (1999, ABS Cat no 4712.0) found similar problems.

Within SA, the Nganampa Health Council on the Pitjantjatjara Lands have reviewed their housing situation continuously since the mid 1980's. Their report into health and housing (Nganampa et al 1987) was the fore runner to *Housing for Health* and *Fixing Houses for Better Health* projects. These have been the catalyst to the repair and maintenance and eventual design improvement of housing on their land.

The National Aboriginal Health Strategy Working Party (1989) reported that houses needed to be good safe shelter, have a safe water supply, dust control and be sustainable. Grace, Williams et al (1997) confirm these comments. Their study in Western Australian rural and remote areas found significant sanitation

problems, no waste facilities and serious housing problems. 10 years later, Fran Baum (1998, p222) writing on public health from an Australian perspective notes many of the causes of Aboriginal ill health are due to the same poor infrastructure, which exists in developing countries; contaminated drinking water, poor sanitation and overcrowded housing. Further, some of the statements below from The Royal Commission into Aboriginal deaths in custody (1991) are still relevant today.

Several houses appeared to present severe health hazards, sitting in what can be best described as extensive and malodorous pools of sullage discharge, apparently caused by blocked traps and pits. There is no community sewerage system: newer houses have septic tanks, while older houses have pans in outhouses.

(Point 18.7.21)

In 1992, 28 per cent of Indigenous communities had no electricity supply at all. In 1999, the ABS (2001) reported that figure had been reduced to 10 per cent. Access to high-level sewerage systems has also increased from 55 per cent of Indigenous communities in 1992 to 67 per cent in 1999.

ATSIC (disbanded by the Howard government) ran a Community Housing and Infrastructure Program Policy for 2002 – 2005. Further to this there was a commitment to a national effort by Commonwealth, State and Territory Housing Ministers to make a real difference to housing and environmental health in the document *Building a Better Future: Indigenous Housing to 2010*. ATSIC reports that between 1997 and 2004, the ATSIC-Army Community Assistance Program (AACAP) provided assistance to 17 communities. However, because of the fast growing population rate of Indigenous communities, this program has reduced problems only slightly in terms of numbers of houses provided, and infrastructure for water over the past decade.

Where it is difficult to obtain affordable housing, areas are often impoverished with overcrowding and discontent characterised by dysfunction. These types of problems are not isolated and much has been written on the violent conflict, domestic violence and other social problems which are prevalent in many Aboriginal communities (Pearson 2001) which can emanate from such overcrowding. Krieger (2001) contends that life is dependant on the environment in which one lives and the nexus between housing and public health is paramount.

As Aboriginal women experience a far higher rate of domestic violence than others, her theory is paramount in their health.

4.4.4 Water Supply

Many writers and health analysts contend that the increase in life expectancies that developed countries have experienced over the last century has little to do with medicine and technology (Marmot 1999, Acheson 1998, Turrell et al 1999). Most of these will agree that a substantial improvement in living conditions and hygiene standards have contributed the most to people's health. The supply of water in established communities is no longer a major issue for most Aboriginal Australians. Most communities in regional areas have bore water, or a similar supply to that of mainstream populations. However, the functionality of it cannot always be guaranteed and the lack of infrastructure can inhibit its use. The overcrowding of Indigenous housing strains both the water supply and the sewage, as each house is only planned for standard family numbers. Frequently Aboriginal habitation will consist of double this number of inhabitants (Nganampa Health Council 1987).

If people do not have adequate housing they have little access to running water or hygiene facilities (Memmott 1991). Much ill health has its genesis in poor hygiene practices (Couzous & Murray 1999; WHO 2002 and Gracey 1998). This includes rheumatic heart disease which afflicts Aboriginal Australians proportionally higher than any other subgroup in the world. It also includes scabies, impetigo - leading to glomerulo-nephritis and to renal disease, trachoma, gastroenteritis, septicaemia and cervical cancer. All of these conditions are common in Aboriginal society with people suffering in large numbers.

4.4.5 Food supply

The high cost of fresh foods in rural and remote Australia is a problem for Aboriginal Australians (Bradley 1999). In many remote Aboriginal communities the cost of fresh food is high due to the high cost of refrigerated transport. However, a study into dietary information in one Aboriginal community by O'Dea (2006) discussed the nutritional goodness of a wide source of foods, with the local supermarket and bush tucker being two ends of the spectrum. However, other than bush tucker, there are often few facilities for food storage in Aboriginal

homes and thus processed foods provide an easy alternative when refrigeration is not available. As well, O'Dea reports that many Indigenous people are unaware of how to cook the most simple meals as they have never had role models. With welfare payments provided, take away food is accessible and often the food of choice, but it also happens to be the less healthy alternative. When money runs out there is little to fall back on except perhaps flour which is made into damper⁴⁰ and served with hot tea. Neither of which has much nutritive value.

4.4.6 Roads & transport

Long distances between communities and main centres require a combination of well surfaced roads and reasonable transport for mobility. Given their low socio economic status, most Aboriginal people cannot afford good cars or the 4WDs required for poor terrain. Consequently cars become fatigued from corrugations and poor road conditions. Many travel in one vehicle exceeding the number of passengers allowed. It is not uncommon to see people travelling on the back of utilities or trucks. The highest number of admissions to hospitals in rural areas for Aboriginal people is due to trauma (ABS 2001). Many such admissions are the result of car accidents. Respiratory conditions are also exacerbated if the roads are unsealed. The older cars which are affordable do not have air conditioning, thus irritants such as dust become a hazard to asthmatics and small children (Bradley 1999). The sealing of roads in some communities has reportedly made an improvement to such respiratory conditions (Cyndi Cole 2006, personal communication).

Where transport is available it prevents isolation and promotes community participation and hence social capital. Studies have shown when bus transport prices rise; the underprivileged can not afford to travel (Marmot 1999). Although the Patient Assisted Transport Scheme (PATs)⁴¹ in Australia goes some way to compensating people for travel for health, it does not compensate for the time it takes to travel long distances. This time from a family or cultural practices can have disastrous long term consequences for Aboriginal people. This also compensates patients *after* the travel when receipts are submitted. Patients must pay for their own travel up front which some are unable to do.

⁴⁰ Early Australian bread made of flour and water without yeast.

⁴¹ This scheme also has a distance limit before patients are eligible.

4.4.7 Health Services

There is evidence that lack of access to appropriate health services results in poorer outcomes for general health (WHO 2001a) in particular poorer maternal and peri-natal outcomes (WHO 1999). This can occur due to economic concerns, such as having to pay for the services. Australia has a national health scheme where all health care is provided free of cost to those unable to afford it. Regardless of this, access and equity to *appropriate* health services and professionals are every-day concerns for many Aboriginal Australians. Pregnant women, particularly those in rural and remote areas have to travel into regional centres and await the birth of their babies away from their traditional support. Few babies are born in the community. Unlike many overseas communities, there are no traditional birth attendants. There are many factors involved in accessing good quality health care, but inadequate funding; planning and culturally inappropriate services are among the main issues (Black & Mooney 2002).

4.5 Aboriginal health inequalities

Although it is not the intention of this paper to dwell on specific diseases, it is important to outline the major burdens which Aboriginal people suffer daily in comparison to the non-Aboriginal population. An exhaustive list is not provided here, just a few which clearly show inequities between the health status of Aboriginal people and all Australians. This also illustrates the type of conditions which are suffered by this group for comparison to other international groups.

Into the 21st Century, Australian Aboriginals were more likely than other people to be hospitalised for most diseases and conditions. One notable condition was type 2 diabetes, which can lead to serious complications such as cardiovascular disease, kidney disease, nerve damage, eye damage, ulceration and gangrene (ABS Cat 4704.0). Some of these conditions are discussed further here as is the latest overview on communicable diseases in Aboriginal Australians.

4.5.1 Renal disease

Given the evidence showing kidney damage due to poor nutrition as well as the high rate of skin infections known to cause impetigo which lead to kidney disease, it is significant that over a quarter of hospital separations and almost half of all principal procedures recorded for Indigenous people were for renal haemodialysis

(Spencer et al 1998). In 1996 the Aboriginal people of the Northern Territory comprised 21% of the population but 95% of the dialysis patients (Hoy et al. 2000). Couzous & Murray (1999) believe that the real incidence of renal failure is higher than reported as many people have renal disease before presenting in failure (p214).

Table 6 below illustrates the inequality between Aboriginal people with mainstream populations with regard to end stage renal failure (ESRF). Couzous and Murray (1999) report on this in detail. Their figures are as follows:

TABLE 6: END STAGE RENAL FAILURE IN ABORIGINAL PEOPLE

	Aboriginal	Non Aboriginal
No's of people with ESRF per million population (Australia)	1224	215
No of people receiving treatment for ESRF per million population (NT)	2871	377
Av. An Incidence of ESRF (NT)	838	39
Average age of presentation	35	55
Mortality rate in Dialysis	20%	10%

(Source: Statistics from Couzous & Murray 1999)

Although the picture for the Aboriginal community Australia wide is very poor in relation to ESRD there are different patterns of incidence and outcomes. Cass, Gillen & Horvath (1999) contend the lower incidence in some states reflects less socioeconomic disadvantage combined with better access to both primary and tertiary care. Preventing renal disease requires improving social conditions for Aboriginal populations. One of the main conditions associated with ESRD is glomerulo-nephritis. Primary prevention of this condition is in the provision of appropriate housing and infrastructure for hygiene improvement (Couzous & Murray 1999). Access to healthier food choices would prevent renal injury, and improved environmental conditions would reduce the incidence of renal conditions (Thomas 1998).

4.5.2 Heart Disease

Heart disease is high on the list of causes of death in Aboriginal Australians. Regardless of the lifestyle of the population, studies show that the lower they are on the socio economic table, the more likely they are to sustain heart disease. To complicate the picture, many Aboriginal people had LBW, and there have been a

number of studies which show that LBW babies end up to be obese and have more health problems in later life (Barker 1993; Marmot & Wilkinson 1999; Kawachi 2001). The ABS (AIHW 2001) report that the average weight of Aboriginal people far exceeds that of the mainstream community. They report that the average weight of Aboriginal people far exceeds that of the mainstream community. This is especially pertinent to Aboriginal Australians as they have a low SES. Barker (1993) found a strong association between the father's low SES and death due to heart disease. Low SES can also be synonymous with malnutrition and there is evidence that a considerable number of conditions. Although often questioned, Barker contends that heart disease is the end result of poor nutrition during crucial stages of foetal development. These issues have been discussed in 2.1.3. Further to this, research has revealed the high mortality rates from coronary heart disease in groups who were recorded as low birth weight (see 4.5.6). Although Aboriginals die with roughly the same percentage of heart disease as non-Aboriginal people, Aboriginal people die at a younger age.

On a smaller scale, Berkman and Glass (2000) cite studies which show many people who experienced heart attacks and who did not have support following the attack were more than twice as likely to die within three years, than those with good support. When stressors such as exposure to violence [or death], or financial difficulty were taken into account the risks of dying rose to four to five times (Berkman & Glass 2000). Aboriginal people experience all of these things through illness and when they visit mainstream health services for major health problems they enter an institution in which they are once again subjugated and isolated, a situation which is not conducive to healing. Such social isolation—caused by either the tyranny of distance or from fragmentation of their networks from deaths—may increase hospitalised people's risk of death. In the face of the evidence it is clear that a lack of social capital may be a cause of the higher rate of Aboriginal deaths seen for hospitalised Aboriginal people with end stage renal disease (ESRD) and coronary heart disease (CHD).

Rheumatic heart disease (RHD) is a significant cause of death in Aboriginal people (20 times higher than the total population). The highest annual incidence of acute RHD has been recorded in the Northern Territory (Couzous & Murray

1999 p99). RHD has been associated with overcrowding, lack of hygiene and scabies infestation (ABS cat 4704.0)

The distances required to get health care in Australia is problematic, in particular for Aboriginal people. It is often not possible for them to be accompanied and supported by their family and friends. Berkman & Kawachi (2000) suggest disadvantaged groups have poor access to social capital. On top of this there is the double jeopardy of racism and exclusion. Not only may disadvantaged groups find it difficult to gain access to good residential areas, the labour markets may be difficult to access due to racism or discrimination of some kind. Aboriginal people report this type of discrimination daily.

4.5.3 Trauma

Aboriginal and Torres Strait Islander people die from external causes such as accidents, poisonings and violence at a higher rate than the rest of the population. The AIHW (2007) report that the most causes of admissions of Indigenous people to hospitals were for injuries resulting from trauma (accidental falls, and road crashes) and for assault. These are significantly different to the mainstream population.

Domestic Violence

Domestic violence is experienced at higher rates by Aboriginal Australian women than non Aboriginal women (Health for Life Report 2000). Unfortunately, Indigenous women are less likely to report violence. They fear for their own safety and the safety of other family members if police or social welfare officials become involved as they continue to engender a deep mistrust of law enforcement officials (HREOC 1991, Health for Life Report 2000). Women experiencing violence during pregnancy are at increased risk for poor weight gain, anaemia, infections, or preterm labour; or of bearing a low birth weight infant; and experiencing postnatal depression (Astbury, Atkinson, Duke et al 2000).

4.5.4 Low birth weight

The implications of LBW on future health are discussed in Chapter 2 and have significant long-term adverse health outcomes for the Aboriginal community. As seen in Table 3 at the beginning of this Chapter, there is double the rate of low birth weight babies born to Aboriginal women (13%) in comparison to the non-

Aboriginal population (6%) (AIHW 2007). Young age of first pregnancy, increased fertility and poor socio economic status of Aboriginal women predispose to low birth weight babies. The AIHW (2007) reports that Aboriginal mothers are younger than non-Aboriginal women. They note that almost a quarter of Aboriginal births (23.1%) were to women under 20 years, compared to only 4.7% of births for the same age group in non-Indigenous women.

Another problem encountered by this group is intra – uterine growth restriction (IUGR). Poor nutrition and oxygen deficiency during pregnancy are associated with preterm birth and small for gestational age birth weight or IUGR (Wadsworth cited in Marmot & Wilkinson 1999). Aboriginal Australians are also more likely to smoke than non-Aboriginal women (51% > 17%), drink excessive alcohol, and use other drugs (Wilkinson and Blue 2002, AIHW 2007). This outcome is a major cause of mortality and morbidity in babies and has implications for later quality of life (Hoy et al. 1998).

4.5.5 Substance abuse

The proportion of Aboriginal population consuming alcohol is comparable to the non Aboriginal population. However, smaller numbers of the Aboriginal Australian consume alcohol at much higher rates than the non Aboriginal population (AIHW 2002) leading to undesirable consequences. As with many societies with high rates of unemployment, smoking rates are high and the rate of drug use is escalating. A comparative study by Paradies and Cunningham (2001) into the health of subgroups across 200 countries found a marked similarity between the social contexts of Russian & Aboriginal mortality, with one of these being alcohol. Almost isolated to Aboriginal Australians, the use of ‘petrol sniffing’ as a recreational activity is a major cause of alarm. As in non Aboriginal society, all types of substance in particular alcohol use has increased in young women over the last decades.

Alcohol

In 2001 the National Foetal Alcohol Syndrome (FAS) Workshop reported that of 17 babies diagnosed with FAS, 27% were Aboriginal. Western Australia reported that comparisons between Aboriginal and non – Aboriginal populations stood at a ratio of 2.76: .02.in that state.

Up until now the focus on drinking has been on Aboriginal males, but these results illustrate how urgent it is to concentrate on educating young girls and women on the dangers of alcohol consumption during pregnancy. Binge drinking is reported as being particularly bad. The mothers of a number of FAS babies in the Cape York area attested to not drinking regularly, but all said they had binged whilst pregnant [ANCD 2003]. Education regarding this crucial behaviour is urgent for all young women.

The key features of FAS are growth retardation, central nervous system disorders, and defining facial features. However it is also associated with poor mental developmental and psychomotor performance, lower intellectual function and behavioural and social problems. The mean weight of these babies is lower and is compounded by poor feeding tendencies. Because they are poor feeders, they tend to aspirate, get chest infections, otitis media and suffer malnutrition. These children often have mental health problems, become drug and alcohol users themselves, and are vulnerable to either experiencing, or becoming victims of sexual or physical abuse (ANCD, 2003).

Smoking

In 1999–00, the hospitalisation rate for asthma was higher for Aboriginal and Torres Strait Islander children than for other Australian children. This has been attributed to smoking during foetal development or of exposure to side stream smoke. A review on interventions for promoting smoking cessation during pregnancy assessed the effect of smoking cessation programs in pregnancy on the health of the foetus, the baby and the mother. Based on 34 trials there was a significant reduction in smoking and a lower incidence of low birth weight and preterm birth in the smoking cessation groups, but no effect on peri-natal mortality or very low birth weight (Lumley et al 2002). The evidence also suggests that

even side stream smoking can contribute to otitis media (Menzies School of Health Research 2001).

Research shows that the incidence of otitis media is reduced substantially by women breastfeeding for at least 3 months (Menzies School of Health Research 2001, Lumley et al 2002). Both bottle feeding and passive smoking are recognised risk factors contributing to ear disease (Marmot 1999; Couzous & Murray 1999 p. 240).

Communicable diseases

Immunisation has prevented widespread communication of diseases such as measles and Hepatitis B. However, some conditions such as sexually transmitted conditions remain a problem. Others such as tuberculosis are rearing their head in the Indigenous community. The Australian Indigenous Health *info net* (2008) cumulative overview of the statistics from the ABS Census, the Communicable diseases branch, and the National Centre in HIV Epidemiology and Clinical Research data are cited below.

- Tuberculosis was recorded at 10 times the rate for the all Australian population between 2001 – 2005
- Haemophilus influenza type B was 14 times the rate of all Australians less than 5 years old.
- Syphilis and gonorrhoea were reported up to 19 times higher in some states, and 52 times higher than all Australians in the Northern Territory.
- The rate of HIV is lower than the non Aboriginal population.

4.6 Summary

Although Australia is ranked highly on a scale of the healthiest countries internationally, the Indigenous people have the poorest health of any subgroup within the country. Further, their poor health is continually compared to that of countries ranked towards the bottom of the international scale. This chapter has provided an illustration of the health inequalities Aboriginal Australians suffer in comparison to the rest of the Australian community, not only in relation to health. However, Aboriginal *health* is continually likened to the developing world where health is reported by the media to be the worst globally. It can be seen they have

many other inequalities with the mainstream population, with many of these leading to poor health.

It can be seen here that the historical contexts of Aboriginal people's lives have produced many of these inequalities. The way in which they lost their livelihood and rights to independence on their own land, can be seen to be intertwined with their current health situation. The subordination of Aboriginal people by the English and the subsequent disorganisation of both their families and traditions has left them with little social capital with which to develop healthy perspectives on life, or through which to draw support when they need it. Statistics show the educational levels of Aboriginal Australians are substantially lower than the mainstream population. This, combined with racism has in turn lead to an inability to gain meaningful employment, and thus gain adequate incomes or owned housing which brings with it security. Consequently the inequities this group suffer in the areas of employment, income, housing and education are wide and require deep commitment from governments. Their higher rates of interaction with the criminal justice system and consequent incarceration are not only representative of these issues but they contribute to poorer health as well. A high percentage of Aboriginal people live in geographical areas that have few services readily accessible. This has contributed to their poor health.

Although improved from the last census, for Aboriginal women the MMR is double that of non-Aboriginal women. The health of mothers and children cannot be underestimated and is of paramount importance to the health of future generations in any population. There are many aspects of behaviour in this group which are of major concern to their future health. The issues include the high number of teenage pregnancies, poor nutrition, multiple substance abuse, poor hygiene and the rate of sexually transmitted conditions. Each and every one of these has a profound affect on either hearing, behaviour, or illness such as renal disease and heart disease. Poor nutrition and alcohol consumption affects the baby in utero and can be seen to be the catalyst to many of the health inequalities which Aboriginal Australians exhibit today.

To counteract poor health in disadvantaged groups internationally, the WHO has recommended improving the health and education of women and children in developing communities. Although rising, the figures on education of Aboriginal

women is still poor by Australian standards. This is not only reflected in the Aboriginal MMR, but also in the overall health of children. Those with higher education levels are less likely to smoke and drink alcohol. They are more likely to breastfeed and their hygiene levels are likely to be higher, both of which can prevent infections in children, improve school attendance and lead to long term gains. Although immunised against childhood diseases, Aboriginals contract other communicable diseases such as STIs in high proportions. They also have a higher rate of TB, influenza and RHD than the mainstream population.

The majority of Aboriginal Australians contract similar chronic conditions at roughly the same percentage as non Aboriginal people, but at a younger age. A study encompassing 200 countries has shown that the major cause of younger mortality in Aboriginal groups is similar to that of Russia, not the developing world. Regardless, there is an attitude that Aboriginal health can be improved using the same methodologies as those used in other disadvantaged communities internationally. Australia continues to help the disadvantaged with ‘handouts’ in the form social support but with little recognition of their traditions. The CDEP is an example of this, where people in this scheme are reported to have few aspirations. Unlike the developed world, this work is not related to their subsistence. The opportunity to maintain anything of their culture is strictly limited.

What Aboriginals have lost is sovereignty over their land, as well as the power which went with tenure. Any gains they make out of poverty and disadvantage has had to be won, and each win is a hard fought victory.⁴² Racism is still a major issue and perpetuates Aboriginal disadvantage in many ways. Aboriginal Australians have a high fertility rate and growing faster than any other group in Australia. Their lack of education perpetuates poverty and poorer health, and the larger the population the greater the magnification of this problem in the future. It is necessary to clarify the issues which are catalysts to treating or likening their situation to that of the developing world.

⁴² Such was the Mabo ruling in the high court relating to Native title over land.

One Health Three Worlds Apart



CHAPTER 5

The Philippines

Chapter 5 The Philippines

5.1 Introduction

The case study of the Philippines was facilitated through the University of the Philippines. I gained affiliation with the Cordillera Studies Centre (CSC) at the University's campus in Baguio. The staff there formed a steering group, recruited participants for me and also found translators and typists to transcribe my tapes. This often required someone who spoke the exact dialect of those in the focus groups. I spent many happy months searching through their library and meeting with the staff at this campus. I lived in university student housing and became very familiar with the local population and culture. When in the field I was fortunate enough to stay with local people in their houses or small local hotels. I travelled on their buses and jeepneys⁴³, ate the local food and lived as the locals did, gaining a greater insight into their world. The following is knowledge I have gained through my perceptions of the social construction of health in this area, through living and researching the contexts of their lives.

The Republic of the Philippines is situated within in the tropics of South East Asia, and thus experiences a year long summer with short rainy seasons. The country has 7,107 islands and a population of over 83 million. Three quarters of the islands which make up the Philippines consist of mountainous or hilly land covered with forest. The main islands are Luzon, Mindanao and the Visayas. Manila, situated on the northern island of Luzon is the national capital and has a population of over 2 million people. The political administrative units in hierarchical order are the (1) national, (2) regional, (3) district (4) provincial (5) municipal with the (6) barangay being the smallest. The country is divided into regions to decentralise planning and development (Lamberte 1999).

The annual growth rate in the Philippines is 2.1% (UNICEF 2005). Less than 6% of the total population are over 60 years of age and the average life expectancy at birth is 64 / 71 years (WHO 2007). The annual GNI per capita is \$5,321 (WHO

⁴³ Originally introduced by the Americans, these are 'Jeeps' which form the local form of public transport. Highly decorated, they are synonymous with Baguio.

2007) with the majority of the people being mostly working class (Caster-Palaganas; Bagamaspad; Cardenas; Josef and Toentino 2001). Approximately 90 percent of the population are Roman Catholic with approximately 5 percent of the remainder being Muslim. The country has over 60 cultural minority groups or tribal Filipinos. The interests of these groups are protected by the Office for Northern Cultural Communities (ONCC). However, their health is poor. For example, Malaria is the eighth leading cause of morbidity in the country. 90% of all malaria cases can be found among the poorest regions in the country which just happen to have a high percentage of indigenous peoples (WHOSIS 2005). Deaths for 2004 were recorded as cardiovascular, cerebrovascular, cancer and pneumonia constituting of over 50% of the major causes. Tuberculosis accounted for only 6.4% of deaths. Malaria with a noted morbidity was not a cause of death.

5.2 Background

Catholicism in the Philippines is a legacy of over 300 years of Spanish occupation (it and Timor Leste are the only two Christian majority countries in South East Asia). The Americans then gained control and except for the Japanese occupation of 1942-45, remained until 1946 when the Philippines gained independence as a Democratic Republic (Caster-Palaganas et al 2001). The Second World War devastated the Philippine economy, but the reconstruction period in the latter part of the 1940's saw a sharp rise in employment and the GNP. At the turn of the 1950's the Philippines had the highest GNP per capita of South East Asia, except for Malaysia and Japan. Until the 1970's the Philippines still had one of the highest GNP's of the area, but lower than Korea, Taipei and China, but by 1988 per capita GNP was way below that in Thailand (Balisacan cited in Quibria 1996). The 20 year reign of Ferdinand Marcos as President of the Philippines contributed to its deterioration as one of the poorest countries in the region (Castro-Palaganas, Bagamaspad, Cardenas, Josef and Tolentino 2001). Between 1961 and 1991 the country recorded the highest increase in the number of poor people in Asia (Lamberte 1998).

In the context of underdevelopment, where they are supposed to improve health, the intrusion of the 'developmental' agencies such as the IMF/ World Bank, Overseas Development Assistance and the World Trade Organisation complicate the people's health. The Philippines now has a mixture of a feudal and non feudal

systems in place. Those earning the least have the poorest health outcomes, which will require strong policies from the Government (upstream measures) to exert any improvements.

5.3. The survey area - The Cordillera Region

The Cordillera Mountains are to the north of Manila on the island of Luzon. Only 25% of the people of the Cordillera live in urban areas. The rest live in the mountainous country of the provinces. There are several large cities to which they can travel to purchase goods or sell their own produce. One of these is the major centre of Baguio City. Because of the climate of Baguio it has become a Mecca for those wishing to escape the heat and humidity of Manila. Many people from the lowlands own holiday houses there. Baguio city is the largest regional centre in the Province of Benguet and larger than Lagawe in nearby Ifugao.

MAP 3: THE PHILIPPINES WITH THE CAR IN PERSPECTIVE



Source: Maps.com

While secondary and tertiary industries such as manufacturing, services and trade are concentrated in the urban area, there is much agriculture in the surrounding mountains. The city has an excellent infrastructure, with good roads and shopping

centres, entertainment and health facilities. Baguio is now the centre for the industries of agriculture, forestry, mining and quarrying.

Although the history of Baguio City is short, its potential as a health resort is reported from the days of the Spanish occupation. In the 1900's it was settled as a respite for American soldiers from the heat of the lowlands and the first school to be established there was open to American Scholars. By the 1960's Baguio's attraction spread to outsiders who bought lands and built summer vacation houses. In the 21st Century, with 5 Universities, Baguio is known a University City. Consequently there is a large population of students in the city, and a large infrastructure to service their housing needs. A major rise in population has come from migration to Baguio from other areas of the country, mainly Manila. Regardless of the geographical spread of the people, the educational level was found to be relatively high. There are flights in and out of Baguio, but bus is the only other way to travel further. The trip by air takes around an hour. The mountainous roads make travel difficult and dangerous. Regardless of the area, whether metropolitan or rural, the terrain in the Cordillera is mountainous, the roads winding. Getting anywhere except down, is reasonably slow, but this is acceptable to the locals. The bus to Baguio takes over 4 hours on a road renown for accidents.

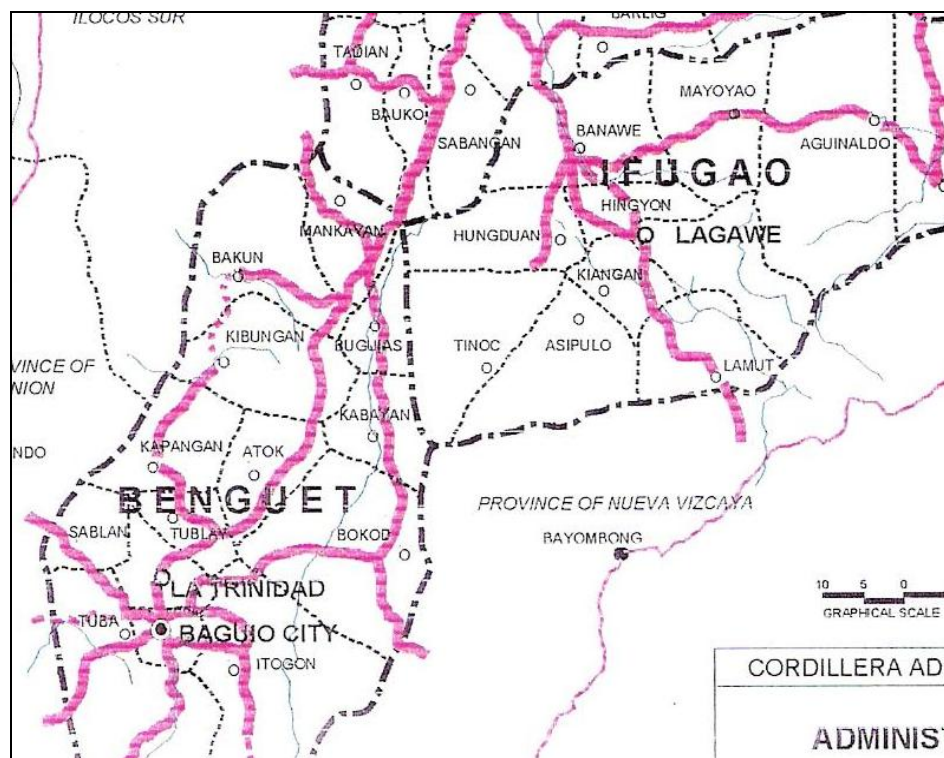
Regardless, I had many comfortable trips, with one or two bus drivers taking the time to point out major points of interest to me, the tourist! The area is picturesque with its heavily terraced hillsides interspersed with forests and rivers in the valleys. Many houses 'hug' the roads, being single storey at the front, but because of the steep land, several stories below at the rear. From curves in the bend they seem to be hanging from the road's edge, their occupants keen to sell their 'cottage industry' wares to any traveller who happens to stop!



PHOTO 1: HOUSES ‘HANGING’ FROM THE ROADSIDE WITH THE FAMOUS TERRACES IN THE BACKGROUND.

Surveys were done in the Provinces of Benguet and Ifugao of the Cordillera Administrative Area. In the Province of Benguet groups in Baguio City, Itogon and Buguias were surveyed (see Map 4). In Ifugao, groups in Benaue,⁴⁴ the furthest distance from Baguio participated. Like Itogon and Buguias, Benaue is in mountainous terrain terraced for agriculture, producing some of the country's vegetables, rice and coffee. The ancient terraces around Benaue are called the ‘Eighth wonder of the world’ and tourism is therefore found on a small scale. There are several different indigenous groups residing in the Cordillera. Although western clothing and commercialism has permeated the culture, many traditional aspects of their lifestyle remain.

⁴⁴ Can be spelt Benawe or Benaue.



MAP 4: THE SURVEY AREA: THE PROVINCES OF BENGUET AND IFUGAO. NOTE THE DISTANCES OF BANAWÉ AND BUGUIAS FROM BAGUIO.

(Source: CSC University of the Philippines)

5.3.1 History of the area

It was gold that originally prompted Spanish colonization of the Philippines in the 15th Century. When the Americans took over in the late 19th Century it paved the way for large-scale foreign exploitation (NAMINAS 1993). To this day, regardless of the Philippines being the main producer of gold and copper in Asia, and having huge deposits of chromium, there are no industries producing basic chemicals or capital goods. Mining, which has been a major source of investment for overseas countries was developed on a large scale following liberalisation within the Mining Act of 1995. However mining has caused environmental degradation such as pollution of the land, air and water. Consequently, all of these contribute to the health problems of the people (Carino 1993).

Land ownership

Historically indigenous groups occupied the land. Conflict over the ownership and access to land in the area has been a long ensuing problem for the people. The recognition of the rights of Indigenous communities to ancestral lands is contained in the 1987 Philippine Constitution (Cruz, 1997 p33). Before development customary law was practiced in the area. Many of the original residents and their

descendants were disenfranchised under state law, having failed to title the lands they owned when first given the chance by the colonial government. However in recent years they have been given the opportunity to claim what was initially due them. Since the ancestral land issue covers all lands which were occupied since time immemorial, the number of ancestral land claims filed with the Department of Environment and Natural Resources are large and overlap many of the developments in the area. It is estimated that around 60 % of Baguio City is overlaid with unresolved ancestral land claims. At the time of writing, all town site applications for public land for commercial or residential purposes had been suspended, until such time of resolution. This affects the economy, making it unlikely that private investors would buy in Baguio given the high risk that a development site may be covered by an ancestral claim (Cruz, 1993). As a result there are many squatters who have built on empty land and lived there for many years. Reyes-Boquiren (1998, unpublished) contends that Baguio has the highest status squatters in the world, they have enormous houses, and the City officials seem unable to either move them on or evict them.

5.3.2 The demographic profile

The following information was obtained by researching the Philippines National Statistics Office (NSO) and the 2000 Census website at

<http://www.census.gov.ph/data/pressrelease/2002/pr02199tx.html>

The Cordillera Administrative Region is mountainous and not well serviced with roads or any other infrastructure. It is the least populous region in the Philippines with only 1,365,412 people (2% of the total population). At the 2000 Census half the population were under 21 years of age. The age of death is 62 for males & 68 for females. 90% of all malaria cases can be found among the poorest regions in the country which just happen to have a high percentage of indigenous peoples live (WHOSIS 2005). Children were reported to have high incidence of acute respiratory illness. Many children get diarrhoea.

As stated previously, most of the population in the CAR are indigenous people whose interests are protected by the Office for Northern Cultural Communities (ONCC- Philippines) with most of this group being the most disadvantaged in comparison to the all Filipino population. The religion of the area is predominately Catholic.

5.3.2.1 Maternal and Child health

As well as the focus groups, much of this information has been obtained through the National Demographic and Health Survey (2003), the third such study of Filipino women conducted by the NSO.

Fertility Rate and Family Planning

The 2000 Census reported the fertility rate in the Philippines as 3.5. In the Cordillera it was 3.1. Both figures are high for South East Asia. Those with higher education have an average of 2.7 children, with those without education being 5.3 children. Although these are the official figures the participants in this study had large families, with children regarded as ‘gifts from God’. Regardless of their need to work on their ‘swidden farms’ to produce food, the majority of the women in the focus groups had many children. Some had 12 children, others between 5 and 9. They felt a big family was normal. All of the women knew of ‘family planning’, but few admitted to using it. Although it was known as a

regulatory method of keeping the family at a reasonable number, that number still seemed to be around five or six children. Few of the participants could discuss, or did not want to discuss methods of contraception. However, women reported their husbands did not like to participate in the use of condoms and the pill was regarded as ‘unhealthy’. One woman had had a tubal ligation following a major incident in childbirth. It would seem a number of women had intrauterine devices, but these were in a minority and they disliked discussing the subject as it seemed poorly understood and socially unacceptable to be using contraceptives. Further to this, contraception was not viewed on favourably by the Catholic Church, to which most study participants were faithful. With a big family being the cultural norm, most of the women looked underweight and all admitted to being tired. This is incongruent with the metropolitan area (Manila) of the Philippines where many of the population were observed to be overweight.

Childbirth

Although the 2000 Census reports that up to 60% of women are attended by physicians or trained attendants, most women in this study give birth in their own home. The first point of call for pregnant women is the Barangay midwife (trained to diploma level and paid for by the Government to attend) then the Barangay health worker. As well there are traditional birth attendants or Hilots who are untrained but customarily attend women in child birth. Hilots can be either male or female, and their ‘practice’ usually runs within a family; i.e., the daughter continues in her mothers footsteps. One man who was interviewed had a mother who had been a Hilot; he was himself was also a Hilot—gender did not present a problem. This latter group are more likely to barter for their services than charge a fee and can be more attractive to the poor.

Maternal Mortality

In 2004 the all country MMR was 107.1 per 100,000 live births. However, the CAR recorded one of the lowest rates in the Philippines at 20 deaths per 100,000 births. The NSO argued this was the result of the higher education of the people. Certainly if the figures are examined, more women, regardless of the inaccessibility of the area, had trained birth attendants which lessened their risks. In the CAR only 15% of women birthed without trained attendants. In other parts of the Philippines this rose to 25%. The risk of dying became higher with an

increased age of delivery and number of births. Most deaths were caused by complications in delivery e.g., hypertension.

Child health

The Filipino infant mortality rate (IMR) was 13.2 per 1,000 in 2004 but in the rural areas it is reported to be higher (36 deaths per 1000 births). The figures for the CAR are only 9.3 per 1000 births. The NSO report that educated women have fewer deaths per birth, where uneducated women experience a far higher percentage. The participants from this study are some of the 15% who reported having no trained attendants at their births. This confirms the literature on the effects of education on the health of the family.

The CSC reports that 1 child in every 29 died before age 5 in this area. Women reported respiratory illness and diarrhoeal conditions being a problem. It was reported that many older siblings were left to care for younger children, providing formulae and other foods. The lack of hygiene care has been discussed as a possible cause of these conditions in the next section. In 2003, 21.7 % of 6-10 years olds were underweight. About 3 - 4% of children in CAR had height or weight less than the national average from lingering or chronic malnutrition (NSCBD 2006).

5.3.3 The Culture

The Cordillera Region of the Philippines is mainly inhabited by indigenous peoples. Regardless of there being many different groups, they all have western tendencies and although being Catholic they continue to practice a multitude of traditional indigenous health knowledge and other practices. Castro-Palaganas (2001) has reported on mainstreaming this traditional knowledge into everyday culture. Her research provides an insight into the traditional practices not usually noted by westerners. Some of these are described here providing background to data obtained from focus groups and interviews.

Traditional practices

Many churches were evident in the villages, and homes contained small alters and 'virgin Mary' idols for prayer. All the participants professed to be Catholics 'to some extent' Regardless of the church being a major focus of life in these communities, they still maintained 'traditional' practices. For instance, when

someone was ill several pigs were sacrificed to appease the angry spirits of dead ancestors who inflicted the sickness; this practice has been described by Castro-Palaganas *et al* (2002). Depending on the affliction, sometimes sacrifice is accompanied with dancing. Other animals such as chickens or dogs, or even horses may be required as well, depending on the type of illness. *Basing* is a ceremony performed to cure illness contracted through extramarital relations (STD). This requires a hen and a rooster to be ritually sacrificed.

Nutrition/ Diet

Big families have big appetites and feeding the family adequately would appear to be problematic for some of the groups interviewed. If they cannot provide enough from their own farms, then there is little money with which to purchase food. Although rice is cheap and plentiful, it supplies only a fraction of what is needed to make children grow appropriately. Interestingly Castro-Palaganas *et al* (2001) have reported that up to 70% of Filipinos in the Cordillera may be undernourished. She contends that only Bangladesh has a poorer nutritional status than the Philippines. The determinants of health of this group: poor housing, poor sanitary conditions, poor water supplies together with malnutrition, compound their poor health.

Nutrition is an extremely important aspect of health, particularly in pregnancy and childbirth as it shapes the health of the individual for the rest of their lives (Marmot 1999). During the focus groups, breast feeding was found to be important amongst the women, as it was cheap and did not disrupt working in the fields. They reported taking the children with them and feeding them when needed. However, the weather and its effects on the children were of concern. Sometimes women ‘pooled’ the children in one woman’s care when they went to the fields. This care extended to breast feeding all of the children.

Conversely, one woman admitted that her other children frequently prepared meals and even bottles for some of the younger children. Many offspring were noted to have been left in the care of an older child. This sibling is then responsible for all the feeding and toileting of the younger child. A poor understanding of the transmission of organisms during food preparation and a lack of knowledge of the need to wash hands by other children is possibly a catalyst to the high incidence of gastro enteritis in this group. There were no hand washing

facilities situated near the toilets in the rural areas. Presumably such hygiene is of low priority, working as a catalyst to complicate the health of people.

Death and dying

During the field work a resident in one of the survey areas died. There was a week of mourning where everyone visited the house to view the body following which the funeral was held. All the relatives attended and food and alcohol had to be provided by the wife of the deceased, regardless of the cost. The focus group participants reported that often funerals or weddings can bankrupt people, as pigs must be sacrificed for food leaving them little to live on in the future. This is congruent with the literature which reports the anecdote of a woman who kills pig after pig to improve her dying husband's condition. Regardless of the sacrifice he died and she then had no husband or pigs with which to provide her support (Castro-Palaganas et al, 2002). Besides traditional ceremonies performed for healing or good fortune there are ceremonies for activities like conception, birth, sex and marriage.

5.3.4 The environment

Although a beautiful area, much of the Cordillera is contaminated due to the mining activities. Past mining in the Buggies area has contaminated the waterways. A report on the matter stated that:

The abandoned mines of Benguet are living examples of the irreversible environmental destruction caused by corporate mines. Years of operations destroyed the communities' water sources and forest and that the community water continues to have cyanide and mercury in it.

Quitasol (Dec 1, 2007)

There is much resistance to the new mining. Previously the Government wished to open up the mining operations again, but the women got together and effectively stopped the mine reopening. When the company were about to blast the picket line:

...the old women on picket duty took off all their clothes, exposed themselves and chased the company men to shame them. ... They followed the survey team with a determination

to get them to leave. When they did they destroyed their walkie-talkies and burned down their camp houses.'

(Ride 2007)

There is more regarding mining as an aspect of employment which follows as a determinant of health.

5.4 The Determinants of health

The issues which have determined health of the people of the Cordillera over the years have been closely aligned with the political climate of the country at any given time. Today their culture and lifestyle are major determinants of their health; however, with modernity encroaching on their world, the upstream necessities of life are major issues which shape their lives. These are outlined as using the framework used during through focus groups and observation of the communities.

5.4.1 Education

With a long history of American occupation, the Philippines has been strongly 'westernised' with a democratic style of Government. As in the West, education is a priority for the Philippine Government with the result that the adult literacy rate is reported at 95% (WHO 2005).

Regardless of being Indigenous rural people, most participants in this study had education to secondary level of the Filipino system. Among one of the focus groups, there was a teacher, and two other college graduates. One had a degree in political science the other in agriculture. All wanted their children to have a college education, but only primary school is provided free. Students have to pay to go to high school. However, even primary education costs money. The women said;

Sometimes the voluntary contribution is really hard to put in as it is not really voluntary. No contribution, no enrol!

School is public and private. The Catholic system is private. If families have several children attending at the same time expenses are very difficult. One participant had nine children, with education being a priority. The 20 year old was

in college with another girl, a teacher also enrolled in law. The father wanted all the children to have a good education as

...they need it for jobs!

This attitude to education was the same, regardless of whether the participants were in Baguio or in the Provinces. It was reported by residents that money sent home from ‘outworkers’ is invariably spent on education for the young, so they in turn can obtain good employment (further information on *outworkers* can be found under 5.4.1).

5.4.1 Employment and income

The wealth of the Philippine population is highly inequitous. This situation has occurred stealthily under successive governments, starting with Aquino, but under Arroya the situation has doubled (Caster -Palaganas Personal communication 2009). There has been an accompanying increase in foreign debt of approximately \$1B annually since 2000. In 2006, the 20 wealthiest Filipinos had the combined wealth of 52 million Filipino families (IBON 2006). Although the net worth of Corporations increased 490%, between 2001 – 2007, a 2009 labour force study showed over 11% (4.2 million) were jobless with many more being underemployed (ibid).

Many of these are those in rural situations. Most people live in the valleys, riverine districts and coastal plains, and are self employed in some way surviving on agricultural pursuits. Some are in the service industries as teachers, policemen or jeepney drivers, if they can get such positions. Benguet and Ifugao have higher unemployment (around 10%) than the other Provinces. In 2003 a quarter of all families were reported as living below the poverty line (NSCBD 2006). Some people have been drawn to the cities to gain a better quality of life. These groups make a living by fulfilling the needs of others, as labourers and cleaners. Some become vendors of goods produced by local people in the area (such as clothes, crafts and food). It is noted by Reyes-Boquerien (1987) that even the children are organised as sellers, often working several hours prior to school plying cheap shopping bags to the morning market clientele. There is little unemployment in Baguio itself. I was concerned at the plight of the beggars, but they were reported

to be bringing in a handsome amount, especially around Christmas when Baguio's population reaches its height.

As the soil is volcanic, the mountainous terrain is devoted to mostly small scale agricultural production with much terracing. The majority of families have small 'swidden farms'⁴⁵ and it is the women who work these predominately. Some women said their husbands only worked seasonally. In the dry they worked in the mines, and in the wet they panned for gold in the river. When the men were employed, the women reported they would only get about P250 daily (approximately \$5Aud).⁴⁶ When travelling and food for the day was taken into account, it was deemed hardly worth the money. Some of the mines have closed but men still go to them hoping to find small amounts of metals they might sell. Participants told stories of how some men had died in the shafts as they were very dangerous. Other women pointed out the men had little alternative than to risk their lives for a small amount of money.

Regardless, small-scale mining can be more profitable than working for the companies. The *New Internationalist* reported on an interview with a young Igorot man, who felt;

'We small-scale miners have a better life than those who work for the company. We can take a rest day when we like. We have our gardens so that we don't pay for our food.' On average small-scale miners earn three times as much as company employees.

(Ride 2007)

Of the mining which takes place, all of the companies are owned 'off-shore' with only a small number of people employed by these operations. When mining initially began, the farmers had allowed it to take place, understanding that the mining would be underground. However, mining has contributed to widespread damage of the environment, and to the resident's lifestyles.

⁴⁵ Swidden Farm is the term given to the small plots of land the people plant for subsistence.

⁴⁶ Conversion rate correct to December 07

Mining – poor work and environmental practices

On my visit to Buguias, the participants told me of the poor practices of the mining companies who had little respect for the environment, or people's occupational health and safety. One man I interviewed had lobbied against the mining company due to the pollution. He subsequently lost his job and is now a tricycle driver.⁴⁷ In one town mining operations had polluted the waterways bringing hardship to those lower down the river. Further to this the underground mining had caused widespread subsiding of housing. The mining company took no responsibility at all.

I had written in my journal:

I interviewed "X" today. He had been part of a group trying to lobby the mining company to improve their work practices. He lost his employment and was now driving a motorbike taxi. He and my translator took me to a town where the mining companies operated. I was shocked to see much of the town had subsided due to the underground explosions of dynamite. I took photos of some of the buildings, once at street level, they now had their roof at street level. These were now not habitable, with signs warning people away! One man was lost trying to save children in the school building which subsided unexpectedly.

⁴⁷ A tricycle is a motorbike with provision for passengers. A common form of transport in this mountainous region where push bikes are too difficult to ride.



PHOTO 2: LIKE MANY, THIS HOUSE HAS SUBSIDED BELOW THE ROAD LEVEL AND IS UNINHABITABLE.

In Dec, 2007, the Philippines media reported that President Gloria Macapagal-Arroyo aimed to fast track approval of 125 mining applications for approval regardless of complaints that mining companies failed to respect the Indigenous Peoples' Rights Act (IPRA).⁴⁸ The article also pointed out the mines were unsafe, and during 2007, there were many accidents. The companies had paid no compensation for work related injuries. Further, the destruction and contamination of the environment continued because of the mines.

Small scale industry

Most of the Filipino women in this study were farmers. Only a few women were in paid work to supplement the family income. In Buguias and Benawe, both major agricultural centres, husbands and wives work on their farms most of the time. Some men work part-time (*e.g.* as carpenters or drivers). One of the women participants was happy to join a focus group, but would not stop weaving the baskets which were her livelihood. She wove the entire time while she contributed. She received only a few pesos for each basket. I later saw them in the Airport for twenty times the amount she was earning

⁴⁸ This provides that mining firms should get prior, informed consent from affected indigenous peoples



PHOTO 3: A PARTICIPANT WORKING DURING A FOCUS GROUP.

Outworking

The Government of the Philippines have a labour export policy and those who participate are called *outworkers*. A major export of the Philippines is human capital as ‘out workers’ in a multitude of countries internationally. The NSCBD (2005) reports that over 1,700,000 Filipino nationals lived and worked in other countries up to 2004, sending back money to their families. This has created a major ‘brain drain’, but provided the Government of the Philippines with revenue from taxes on overseas earnings. Whilst in the Philippines I read a newspaper article I am unable to reference, in which the Government wrote of their success in having nurses as one of their major exports. The local indigenous magazine (IBON 1999) interpreted this in a different way with articles titled *Filipinas as Global slaves* and *Global Commodity*. Nurses, (like many other professionals) are educated in preparation for overseas service. The curriculum they use complies with the United States prerequisites. This prevents long delays in between application and employment. During a visit to the local Baguio Hospital, I sat in on a lecture on Administration given by the Director of Nursing and a Doctor. I recorded the event thus:

The hospital is poorly staffed by nurses. There are patients in the corridors and relatives seem to assist a great deal. A visit to a lecture on management for young nurses provided an insight into reasons for this. The entire session was aimed at providing the students with an understanding of what to expect when they went overseas for employment. I was disappointed to hear this as the hospital itself needed staff. I challenged the doctor giving the lecture over the reasons he was encouraging students to leave the country, he answered; ‘They must. They are obliged to pay back their parents for the high cost of their education’

This was confirmed when I was reading a Filipino’s [my colleagues’] thesis. It was on nurses who chose to work with their own people in the mountain communities. They reported being admonished by their parents for not earning money overseas. Although they felt obliged to their people....they suffered as a result.

Filipino domestic staff and labourers move readily in the quest to make money and feed their family. However, the effects on the upbringing of the children and their mental health has been questioned (IBON 1999).

I recorded the following in my journal:

I am living in a University boarding house with 17 young female students. The owner of the boarding house and one of the young women with whom I am living, have relatives working overseas sending back money for them to live on. Mrs X reported her daughter was a nurse, working in California getting three times what I would earn in a comparable position in Australia. A student shocked me when I found out her mother was also a nurse, working in America. The student was 18 years old, and her mother had worked in America for 21 years, returning home every six months to visit her two children and husband.

In one focus group, most of the women had been overseas in an attempt to earn more money. One had been to Egypt and Korea, another to Saudi Arabia and Iraq (the gulf war forced this woman to leave, and she used all her earnings in hotels waiting to get home). Several men had tried working overseas as well, but it had not been successful. Their fares had to be paid out of their earnings and no one made much money.

These types of experience are common place for people in the Philippines, particularly the disadvantaged. All income is taxed by the Government, and such labour is one of the Philippine's biggest exports. A newspaper article during one of my visits reported how the President was happy his country produced so many nurses for the rest of the world. If other countries do well, families do less well as there are many social problems which emanate from export of workers, particularly women workers.⁴⁹

Some of the participants of this study had tried to be vendors but did not have enough capital to make their situation viable. Some borrowed from the bank but business was too slow and money remains owing on these loans. However, for the most part the participants were

Happy being farmers sometimes!

⁴⁹ Outworking is highly criticised by some women's groups as there are many reported cases of child neglect by the remaining parent, incidents of incest and child abuse.

When the prices obtained for produce are not good there is difficulty making the capital returns as the required insecticides and fertilisers are very expensive. During the field work one farmer took a truck load of Chinese cabbage to market in Baguio. He did not receive enough to pay for the transport costs. This family had worked 3 months to get nothing in return. Likewise, where there are children, sacrifices must be made. One woman reported starting in the fields at 4.30 in the morning, taking her small child (as she was still breastfeeding). Alternatively, if children are sick, the garden must be left. In such cases people are forced to ask for help. In most communities people were well known to each other and participants reported;

If friends can help they will. Relatives are really handy!

Women work up to 8 months pregnant and they said they realised how hard their lives were, but it was good to work when pregnant. The women reported:

No matter how good a housekeeper you are, you are branded as lazy if you do not go to the fields. It is better to go into the farm and make a P100 rather than sit and sew.

5.4.3 Housing

The National census of the Philippines scrutinised the housing in the Philippines in great detail. However, this was a national study which provided the description of many types of housing across the country. The only housing of interest in this study was that in the Cordillera in which the participants lived and which affected their health. Within the urban areas of the Cordillera a variety of housing was observed. Much of which had a western design, and was substantially built with corrugated iron roofing. The western influence of the Americans was evident. Within the mountainous areas, substantial housing was the exception. Hotels and boarding houses tended to be of brick construction, but local people had housing self built and of much more simple construction. Most housing was seen to be built of galvanised iron and timber, or cement blocks if they were available. Another type of house was made out of local grasses with wooden supports, but this constituted only around 10% of the housing. Regardless, everyone seemed to be housed!

The houses observed in the survey areas were mainly one to three rooms, mostly without internal lining, but the majority having cement floors. The house in which I was a house guest had been mostly cemented, but had a large area of dirt flooring in the small kitchen area. My hosts said they had simply run out of cement. The unfinished flooring looked as though it had already been a feature for some time.



PHOTO 4: THE HOUSE IN BUGUIAS WHERE I STAYED.

Although chicken manure was used for the gardens in one area and flies were abundant, there were no fly screens. Doors were used only on the outside of the houses and these were never closed. In some houses there were boards across the bottom of the doors to prevent the ‘free range’ chickens entering the home.

Furniture was mostly home made. In the more remote areas, benches against the walls took the place of chairs, and tables were very low, reflecting the habit of the Igorot to use low chairs and mostly squat at gatherings. Most bedding for the children was on the floor but some couples had western style beds for themselves. In several homes the bedroom areas had timber floors, making sleeping a little easier than on cement. Many children slept in the same rooms. Even in the boarding house there were 4 students in two bunks in a room built for one bed. On the whole, the housing in both the outer suburbs of Baguio and rural areas was basic with little to keep comfortable in extreme heat or cold, but satisfactory for the mostly temperate climate.

Although malaria is a national health problem, the housing in the mountains had no windows to keep the mosquitoes out. There were few glass windows seen. It was reported there were fewer in the cooler climate. The roads are very windy, steep and unsealed. Glass would break easily and no netting was used. None of the participants used bed nets either. Admittedly, in the cooler weather, there were few insects, but in the winter there were many. It was at these times I made good use of spray repellent and slept under the bedclothes.

5.4.4 Water supply

In all of the communities visited and surveyed, including the urban area of Baguio, the supply of water was a problem. Although there is an abundance of rainfall in the wet season, there is no method of catching the water in tanks or similar receptacles for use in the dry. Some 44 gallon drums were used as reservoirs but Malaria is a problem and such reservoirs of water are dangerous breeding grounds for mosquitoes.



PHOTO 5: A KITCHEN SINK IN THE RURAL AREA WITH DRUMS AS THE WATER SUPPLY.

Within the urban areas water is a little more accessible than in the country. Water can be ‘carted’ here. Trucks are able to deliver 44 gallon drums of water to the house if the household can afford to pay for it. It then has to be bucketed by hand for use in bathing or cooking. In the regional areas women cart water for drinking and cooking to the houses in either plastic containers or open buckets. This is

very time consuming as sometimes many trips have to be made in hilly terrain. Fortunately, although many of the rivers are heavily polluted from mining operations, the water sources in these particular communities were of reasonable quality and not contaminated directly. In one community piped water was available when a nearby stream was flowing, but generally water was collected, and then only for cooking and for drinking, not for personal cleanliness. Most washing and bathing had to be carried out directly in the nearby streams. As little water for bathing or even hand washing was carted to the houses, this meant that older people and children had infrequent bathing. Consequently hand washing prior to eating, cooking and after toileting was not a priority.

In the time spent living in the communities, only one household provided the opportunity to wash hands prior to cooking or after going to the toilet. That household had piped water from the stream with which they filled a 44 gallon drum. Outside of the house (in view of the neighbours) there was a bamboo enclosure in which a bath or 'mandi' could take place. This is a ritual of bucketing water over the body from the drum, soaping up, and rinsing to wash the soap off. Probably of no interest normally, the neighbours were very attentive to a strange white woman undergoing a mandi. There is little privacy to such ablutions.

The regional women reported having to line up at the water supply (usually a stream or river in the valley). When the water was in short supply, they might stay there all day and night until they could fill their containers. In the dry (the cold season) most women washed their laundry in the rivers/stream. The women complained that after washing, the blankets were very heavy to carry back up the hill to the houses. This was the aspect of having no water, they hated the most!

5.4.5 Food supply

All of the food for local consumption is provided within the region itself. Within the markets all manner of foodstuffs were to be seen. A large amount of vegetables of all kinds were available and economically priced. Within the area corn, peas, potatoes, pumpkin, beans and many other vegetables are produced in large quantities. Surprisingly, a large number of breads, rolls and similar cooked goods were available. This was possibly the influence of the Americans, but it was not commercially produced, but locally produced, as a cottage industry.

Chicken manure was imported in large quantities to fertilise the gardens, but only domestic chickens were seen locally and these were used for both eggs and food. However, red meat, usually either goat or buffalo was relatively expensive. All parts of the cows were seen hanging in the markets, open to the flies. Pork is eaten extensively, but mainly for special occasions.

I was invited to a wedding today. We travelled to the next valley. By the time we arrived the reception was in full swing. The dishes were being hosed off on the side of the road. We were greeted by the bride's brother and offered some cold cooked pork. The Filipino man told us they killed the animal at 8am, it was dressed and cooking by 9am. By 11am the marriage ceremony was over and they commenced the wedding feast. It was 2 pm when we arrived and most of the meat had been eaten, hooves, ears and all!! It had all gone down with the rice wine, which I was happy to pass on! One whiff was enough to know a few mills would put me on my ear! Many of the guests were ticking over very well and the food had run out!!

Regardless of the food available at this event, widespread poverty continues to be a catalyst to malnutrition. For this reason, nothing is wasted. Even the fat had been used to cook peanuts which were eaten extensively for the rest of the afternoon. These were also sold on the buses at stops, as westerners sell potato chips etc. With little income or employment, Few peanuts would have been eaten by the sellers as every peso is important.

5.4.6 Waste disposal

The waste disposal problems in these communities are the same as the world over. Household rubbish disposal presented the same problems as in the West, although not on as big a scale. Although commercial waste such as drink cartons, papers and containers were not widespread, waste disposal is still problematic. The local people said that most waste was burned. In the polluted cities, burning may have

contributed to the air pollution, but here in the mountains, such burning was not a problem. Everyone felt this is the best way of getting rid of it and they reported getting upset when they saw other people just throw it around. Evidence of this type of irresponsible waste disposal was seen on a visit to a nearby mining village. While driving through scenic terrain a backward glance at a bend provided an ecologists nightmare. People had been ‘dumping’ containers of garbage over the edge with the result that it spilt into the valley and waterways below. This included a large number of plastic bags which would stay in the environment for years, and had the potential to block waterways further down the mountain. The women said

The Government has a prize for the cleanest town, but in reality does nothing to dispose of the waste.

This widespread indiscriminate dumping of household rubbish is evidence of a lack of suitable alternatives for waste disposal. The community seemed unaware of the long term consequences of plastic waste as a problem. I was given reports that such rubbish tends to block the drains in the metropolitan areas causing flooding indiscriminately. In the river ways it entangles with other debris and large collections allow vermin to breed. Fish die and overall pollution ensues from which poor health can develop.

The type of toilets available varied. In some communities people had no defined toilets, using only the nearby foliage or trees. In other communities there were ‘squats’ or pit toilets, surrounded by bamboo walling for privacy. Sometimes these were shared between families. Most had covers over the holes to minimise flies.⁵⁰ When a ‘pit’ becomes full, another one is dug and surrounds put in place. These toilets were well accepted, with few people voicing the necessity for ‘water toilets’.

5.4.7 Roads & transport

The regional villages are busy thoroughfares. Many trucks and buses travel up and down, transporting passengers and supplying manure for the market gardens above. The local people climb up and down well-worn pathways to get to wherever they need to go, often carrying heavy goods. There are few overweight

⁵⁰ Not normally a problem in most Asian countries, this area used chicken manure on their market gardens attracting large amounts of flies.

people in the Cordillera. Another reason for this is the lifestyle. Market gardens are everywhere, and mining operations in which some are employed, demand long hours. For the traditionally large families of this area, making ends meet means a hard life for the majority of people.

The various shops sell everything as Baguio is some 5-6 hours away. There are many business houses and stalls selling everything from fresh meat (hanging uncovered outside) and fresh buns, to workplaces servicing motor bikes. In particular the markets were very busy. There were bus ‘stations’⁵¹ from which Jeepneys and ‘motorbike’ transport was available. This latter form of transport was the cheapest and most frequently used by locals. It was particularly used by women having attended the market, carrying purchases for their journey home along steep mountain paths. From a personal perspective, ‘shopping’ would have been long and tiresome without these motorbikes. In some areas passenger buses ran either once or twice a week to Baguio. A motor vehicle taxi service was also available. I used such taxi to travel to a nearby mining town for observation. Some connecting roads were better than others. They were mostly dirt, some graded, but some bitumen. New roads were being constructed by the Government, but as they were mostly produced by manpower instead of mechanical equipment, the progress was slow.



PHOTO 8: TRAVEL ON THE ONLY HIGHWAY THROUGH THE CORDILLERA

⁵¹ Areas or squares of the city designated as transport ‘stations’. Often people sold fruit, drinks and peanuts for the journey from there as well.

Motor vehicles in these areas are mainly the domain of those working for mining companies, or those using them for an income (such as taxi drivers). Although fuel was not regarded as expensive, vehicles became worn out quickly and tires and gear boxes were a major cost. As in most of Asia, whole families could be seen travelling on motorbikes. However, the majority of the participants in this study walked everywhere as they were not affluent enough to own a motor vehicle. One male participant in this survey who owned a vehicle had purchased it with his redundancy payout when left the mining company. The payout had only just covered the cost of the bike which was used as a taxi and this was now his main source of income. He was reliant on this to provide for his wife and family of four children, one of whom was a student at University in Baguio City.

5.4.8 Communications

The areas surveyed had few public telephone lines and only a minimal cellular phone presence. There were many complaints about the lack of communications creating dire situations when help was needed; this complaint came particularly from the women:

The telephone is about 15 minutes away walking fast. In an emergency it is terrible. When women are in labour someone has to go up [the mountainous paths to the village] and ask if someone [in a vehicle] will come down to get them to go to the hospital or to get the midwife.

... the cost of the phone is too much at 18 pesos per minute + 10% tax.. About 70 pesos per 3 minutes. Isolation is a problem because of this. There can be no communication to Baguio if people are working down there. Mail can take up to three days to get up or back one way.

A different perspective was gained when the men were asked about the need for telephone communications in particular because of problems in childbirth. They said it wasn't needed, as they could *run* for help. The women, on the other hand said they not only wanted telephones for times of emergency but to be able to contact their friends and family. The women, it seems do not travel as much as the men, because of the responsibility of the children. Although some areas had

cellular phone coverage, few (and none of the participants) could afford such a luxury. In some areas this was not an option, for although the nearby province had one, there was no cell phone tower in either of these regions surveyed.

5.4.9 Power

Electricity was connected to the houses but in most cases, it was not widely utilised and could not provide a high voltage. Although one woman reported having a television and a washing machine, the others only had singular lights. Electrical items were expensive and were unaffordable for the majority of the people. The only other common appliance was the radio. The women used small cast iron gas cookers supplied by cylinders for cooking.

Homes had a minimum of lighting and there was little public lighting present in the areas. After attending a focus group in the evening, the women had to light paper torches on the gas stove to light their way home. In another village, there was a power failure after dark. When the few street lights went out, it was impossible to see a metre ahead. Because of the cloud cover, there was no moon light and there was heavy reliance on local knowledge of the streets until some houses burned candles and restaurants lit gas lights. In this light the village resembled that of a bygone era. The roads were steep and quite narrow. Some houses had candles inside providing a small ‘firefly’ like glow at the windows. Some shop fronts displayed their wares by candle light and many of the restaurants lit their dining rooms from an upright gas light. The only relief came from the occasional motorbike which lit the scene momentarily with headlights. Without this flood of technology, one could believe they were in a time warp, transported back to the early 20th Century where gaslights were common and people retired early because of the lack of lighting.

Such occurrences are obviously common and taken for granted. People are prepared with alternative lighting and few complaints were heard. On this occasion, the power eventually came on at around ten thirty. The restaurants remained open as they used gas for cooking and did not rely on electricity. Consequently, good hot meals were still possible.

Alternatives to electricity

As most cooking was done on gas burners, children do not have to endure the wood smoke which has the potential to cause asthma and other respiratory problems, a situation dissimilar to many Asian villages. Wood fires were used only for community purposes – to sit around and be sociable (outside), especially on cold evenings. There was no fuel (firewood) wasted on hot water as even in the highest village, weather was temperate and using cold water for bathing was acceptable. From this perspective the collection of wood is not a major workload for women or men. However, collection of wood is reverted to if gas becomes expensive.

5.4.10 Health services

There is a reliance on the technological aspects of health care within the Philippines. Health was reported by several of those interviewed to be a medial problem. There seemed little understanding that social aspects, such as employment, income or even nutrition actually affected their health. It was clear in talking to women with children who had major health issues that the doctors felt that only expensive medicines and technology could assist. However, all of this cost money which none of them had. Also, most hospitals and health services were often a long distance from homes, and travel was always a problem as only one of the participants interviewed owned any transport. People had to rely on ‘motor bike cabs’ or buses, which when one is sick are not only slow but frequently uncomfortable or crowded. Three of the localities surveyed had small local hospitals, with one having a large community hospital. However this was not an acute venue. The biggest and best equipped hospital was in Baguio but was many hours travel for those in the mountainous regions (up to 8 hours from Benaue). This facility has an outpatient department and treats the ‘indigent’ patients freely once a week.⁵² There is an obstetrics and gynaecology unit but as far as childbirth is concerned, it is the norm to give birth at home. Few women would go to the hospital for what they see as a ‘normal’ delivery. Regardless of this, a visit to the hospital revealed there were many women as obstetrics inpatients. Many were in beds in the corridors as well as in the wards. Presumably many of these women were considered to be ‘at risk’ and were thus in hospital. The ‘Matron’ stated that

⁵² Explained as ‘very poor people’.

it was the relative's responsibility to provide meals for the patients. In fact the relatives carried out most of the care, with the few nurses available providing only treatment.

Hospitals were reported to be very expensive, as were private doctors. However, they were needed if something went wrong. One of the participants said

*If somebody is sick the first point of call are home remedies,
then the pharmacist and then the local private hospital.*

Several young women had encountered problems during childbirth. One man reported that when his wife was having the first baby, the labour took 24 hours. She had to go to the local Lutheran hospital and the baby was delivered by forceps. He did not think of the money, only of her life. Luckily his parents supported them and helped them pay the bill.

Another participant was not so lucky. She had to be hospitalised to save her life, with the consequence being a mortgage over their land to pay for the expensive hospital bill. A large family is prized by Filipinos, however, this family had elected to have a sterilisation as they knew that one more similar pregnancy would leave them destitute.

There seems to be a deficit of doctors in the regional areas. Participants did not report going to doctors, only to hospitals when very sick. There were traditional healers and Hilots seemed to fulfil this role as well. However, during the survey some people died in their homes without it seemed, ever having seen a doctor. Others had children die of disease, but with few services at their disposal to assist during their child's illness. Many people continue to hold onto traditional community beliefs and practices to do with health, birth and death.

5.5 Summary

The Philippines can be seen to be a country of contrasts particularly within different geographical areas. The cities are developed and have technological comforts and education facilities. The urban people have good education and are able to live in 20th Century infrastructure. There is a reliance on technology for the improvement of health, with medicine seen to be the panacea. However, given the evidence regarding the social determinants of health, there is a major problem with the iniquitous wealth of the population. The training of health workers for

outworking overseas has also been deleterious to health services within the country.

Within the mountainous Cordillera people are small market gardeners or employed in the mining industry. There are not many roads, they are mostly in poor repair and with little public transport opportunities to travel are limited. Aside from small locally used motorbikes, few people have private transport. The majority of people are Catholic and have large families as contraceptives are discouraged by the church; a problem complicated by their low educational level, understanding of conception and the implications of multiple pregnancies. Although a majority of the people participating in focus groups sessions were women, both men and women cited concern for their children's health and future socio economic situation.

The poor work practices which have led to the area being victim to mining and mining accidents added to disadvantage. Participants discussed at length the need to make the mining companies in the area more accountable, but at the same time they were aware the companies provided employment. To speak out was to be unemployed and there seem little they could do about it, especially from a political perspective. The government had condoned the presence of these mining companies. The men work seasonally, which requires the women to work their swidden farms to grow vegetables. Some produce is for sale, some for barter but seldom enough to eat.

Although Baguio is a university city and education is a priority for Filipinos, the standard of education within the far flung districts is questionable, with many children boarding in nearby towns to attend school. Although the figures show an educational level of over 90% literacy, this may not be the case for the mountainous regions, especially those such as Buguias far away from Baguio. In studies internationally populations are healthier if they can limit their families and this is evident in pockets of the Philippines. However, within the rural areas it is still desirable to have large families to maintain the farm or maintain your faith as a Catholic. A lack of education perpetuates traditional practices which cost the family food and livelihood. Conversely providing an education can mean the cost of separating the family through 'outworking' in another country.

Through examining the situation in the Philippines it can be seen that the determinants of health require a strong political will to improve the social situation of the people. There has already been revolutionary change in this country but in a land with such wealth, redistribution of this would assist everyone.

Regardless of the hardships, Indigenous Filipinos have been able to merge their culture with Western culture without losing it, and work their own country maintaining their own language and identity.

One Health Three Worlds Apart



CHAPTER 6

Lao People's
Democratic Republic

Chapter 6 Lao People's Democratic Republic

6.1 Introduction

This Case Study from Lao PDR has been developed through using a mixture of data. This included the statistics from the National Statistics Centre (NSC) of Laos and data from UNICEF. In addition, unpublished data from the AusAID Developing Healthy Communities Project (DHCP) was utilised in combination with participant observation in the community. Therefore, to a large extent, the voice of the people is missing from this 'case study'. Where I failed to fully perceive the context of the data, I set out to observe and explore that context to add to my understanding. I visited Laos twice in as many years in order to gain a greater understanding of the people and their culture. What follows is my description of Laos, and the lives of the villagers of Phongsali.

About Laos PDR

Lao⁵³ is a country just slightly larger than Great Britain, but with the number of inhabitants being the major difference. At the 2005 National Census, the population of Lao PDR was estimated to be 5.92 million people, with the population density being one of the lowest in Asia at 24 persons per square kilometre (NSC 2005).⁵⁴ Landlocked between Vietnam, Cambodia, Burma, Thailand and China it is the poorest country in the Mekong Region (AusAID 2002). Due mainly to its troubled history which is outlined below, Lao PDR has a weak physical infrastructure. For instance, as yet there is no train system with only busses or planes travelling to remote areas.

With one of the most diverse ethnic populations in South East Asia⁵⁵, more than 75% of them live in rural areas engaging mostly in subsistence farming of agriculture and fishing (NSC 2007). The predominant language groups are the Lao Tai, Mon-Khmer, Chinese-Tibetan and Hmong-Mien. Some of the population

⁵³ The French added 's' to Lao, making it Laos. However, many speakers refer to it as its former Lao. It is written here in both forms.

⁵⁴ As a comparison, in 2003 Australia had a population density of 2.5 people per square kilometre; Japan had 338, the United Kingdom 244 and France 109.

⁵⁵ According to the International working group for Indigenous affairs, there are over 240 ethnic groups in Laos <http://www.iwgia.org/sw16164.asp>

live in lowland areas where there is greater access to fertile land, transport, and services, but most of the ethnic minorities live in the remote mountainous areas which cover 70% of the country, and where the provision of basic services is constrained by difficult access, especially in the wet season (Cummings J 2002). The last Census identified 49 different ethnic groups (NSC 2005). Among them are the Hmong and Phu Noi who inhabit the Phongsali province, the survey area of this study (see map 5 below). Ethnic groups have equal status, as in 1992, the Government protected its ethnic minorities through the following policy "Resolution of the Party Central Organization Concerning Ethnic Minority Affairs in the New Era". In particular, there are two articles within this policy which forbids discrimination on the grounds of ethnicity, SES, gender, education or religion (ADB 2005).

The currency of Lao is 'Kip'. There are no coins, only notes. Inflation has been high in Lao and the notes are worth very little in western terms. This makes the introduction of ATMs for the use of tourists very difficult. To obtain as little as US\$10, a fistful of Kip would need to be dispensed. It was suggested that the ATM could not hold enough KIP to service even one day. Travelling into the country, away from Vientiane where there is no bank, required 'stocking' up with many million Kip for the trip.



MAP 5: LAO PEOPLE'S DEMOCRATIC REPUBLIC

(Source: WHO 2008)

Regardless of the state of development, many of the people in Laos have travelled considerably. Some to neighbouring Asian countries and some to America, France and Australia. During my first visit to Lao, I was surprised to find so many people knew of Adelaide (my city of residence). The reason for this is that there are considerable numbers of people who fled the country in 1975, and who have settled comfortably in their new countries, maintaining contact with family and

friends in Laos. Many Lao people had travelled overseas to visit these relatives and many of them have made a number of trips.

6.2 Background

Laos has a political structure consisting of the Communist Party and Government. The Communist Party is controlled by the key policy making body, an all-male Politburo. The Lao People's Revolutionary Party (LPRP) came into power in December 1975, and is still in power. However, with the downfall of communism in the Soviet Union in 1990, Lao has been termed a 'post socialist' regime (Evans 1998). It is argued that many post socialist regimes in Asia are economically and socially capitalist, and in keeping with this, free markets and investment has been allowed in Lao since 1989 (Cummings 2002). Lao was once occupied by the French, who granted full sovereignty in 1952. Between 1953-54 it was a constitutional monarchy which eventually fell to the Lao people's party.

Throughout the Vietnam war, (from 1964 – 1973) in an effort to cut the Viet Cong supply lines, the United States dropped over 2 million tons of ordnance on Laos.⁵⁶ This roughly equates to one bombing run every eight minutes around the clock for nine years (Buckley 2005). On a per capita basis, Lao become the most heavily bombed country on Earth. The amount of unexploded ordnance (UXO) shows up daily, with many thousands of innocent lives lost or maimed since the end of the Vietnam conflict.⁵⁷ The Government of Lao states a significant correlation between UXO and the degree of poverty. The UXO has had a major impact on food production, the development of infrastructure such as roads, schools and hospitals. A safe water sanitation facility has been neglected. As UXO accidents demand high level services, valuable resources are diverted from a health system in desperate need of care for malaria and other such conditions. On a visit to Phonsovanh, the amount of UXO became evident. My journal read:

⁵⁶ The Ho Chi Minh Trail, which was used extensively by the Viet Cong, winds through the provinces of Laos, back to Vietnam.

⁵⁷ UXO Lao report that 13,000 persons have lost their lives from UXO since the war ended.

Today in Phonsovanh I saw so many remnants of military hardware, the locals utilise them to the best of their advantage. There were large spent artillery shell casings being used as benches outside a cafe; cut in half and used for plants; cut off and upside down, used to sit on. Many people use large shell casings as 'poles' to support houses on. Still more are used as fencing or sold as containers. In public places there were many posters warning parents of the dangers, with pictures telling the story for those who were illiterate. Through the translator the Café owner told us of many accidents from UXO exploding.

Unexploded Ordinance is a national health hazard. Fifteen of the eighteen provinces are contaminated with UXO. The people routinely step on them or children are killed because they are unaware of the dangers of the junk (or 'bombies' as cluster bombs are called) with which they play.

Villagers living in such areas often find that they are confronted with enforced risk-taking: either they continue to live in acute poverty, and in many cases chronic malnutrition; or risk injury and death by working on UXO contaminated land.

(UXO Lao 2007)

UXO detection is a constant activity, and one rightly supported by foreign aid or NGOs. However there is never enough funding for the Laotians to fix a problem which wasn't theirs in the first place. The results of history have been devastating for the people. Today, Laos is the least developed of the three former French Indochina states, ranking at 140 in the UNDP Human Development Index (Com.Aust 2005). As will be seen later in this chapter, the country has very little infrastructure outside of the Capital of Vientiane and the larger towns of Luang Prabang and Savanahkett.

6.3. The survey area:

This study was conducted in Phongsali Province. It is in the far north of Laos, near the Chinese border (see map 4).



PHOTO 7: THE WELCOME SIGN TO PHONGSALI. NOTE THE FOG WHICH IS TYPICAL OF THE HIGH ALTITUDE.

The largest town in Phongsali Province is Phongsali. This is a large town, but not big enough to be a city. The people of the Phongsaly Province are amongst the poorest in the country according to reports from the WHO, NSC (2000), AusAID (2004) and WEPA. The area, in which the participants live, is high in the mountains which at the various times of the study were covered in mist. A regular plane flight had been put into service just prior to the research being conducted. The plane from Vientiane landed at Boun Neua district which displays some typical examples of everyday life for the Laotian people. Although the flight took several hours, it did not land in the area of the survey. The airstrip itself was in Boun Neua on flatter terrain. From Boun Neua I caught a bus to the capital of Phongsali. This is a major town and is located on the main road. The indigent people of Boun Neua are the Phunoi people. Thereafter it took two subsequent bus and truck trips to reach the Phongsali Township, taking most of one day. Without air travel, getting to the township would have taken many days.

6.3.1 History

This Province is almost surrounded by China on three sides. Its people are survivors of over 300 years of war, with the most recent being the Vietnamese conflict. Due to its Northerly aspect Phongsali was spared the intense bombing that occurred on the plains of Xiangkhoang Plateau where multiple craters of past bombing raids can be seen. In these highlands, the people have maintained their agricultural pursuits, however, due to the war, there are fewer men than women. This means there are many women doing traditional 'mens' work.

6.3.2 Demographic profile

In 2005, the Lao Census showed that the population in Phongsaly Province was 155,210; households averaged 5.8 persons per household (NSC, 2005). The life expectancy is higher for Phongsali than it is for the rest of Laos, being 58 years for females and 55 years for males. The national figures are 52 years and 50 years respectively. The national mortality indicators are poor, including very high neonatal, infant, under-five mortality rates, and maternal mortality ratios; the latter are among the highest in the Asian region. More than one in ten children die before the age of 5 years; of those deaths approximately one-third occur within the first month of life.

6.3.2.1 Maternal and Child Health

A Reproductive Health Survey done in 2000 (UNFPA, 2000) estimated the IMR in Phongsaly Province to be 61.9 deaths per 1000 live births. Through their research in 2002, AusAID estimated the IMR to be more like 82 deaths per 1000 births in Phongsali. The latest recorded national rate places the IMR at 64 (WHOSIS 2007). In the past the Vientiane ratio has been 50:1,000 while in the mountain provinces it has been as high as 299:1,000 (WHO, 1989: 4.). Thompson & Baden (1993) contend that the lack of access to appropriate care or birthing shows through these and in the MMR figures.

Currently the MMR in Laos is 660 deaths per 100,000 births (WHOSIS 2008). In the past, urban areas (e.g., Vientiane) have recorded ratios as low as 150: 100,000 births. In the rural areas the MMR has been recorded at highs of 900: 100,000 (Government of the Lao P.D.R. and UNICEF, 1991). Responses in the data show

this differential is possibly still present.

Few women are reported to have trained birth attendants and most deliver at home. Haemorrhage was said to be the most common cause of death in women giving birth (AusAID 2003). Similarly, child mortality is also high in this area with some families experiencing the death of many children. The most common conditions are diarrhoea, respiratory infections, malaria, malnutrition, and intestinal parasites.

In the early 1970s with a small population, the Lao Government saw a need to encourage economic growth. A ban on the sale of contraceptives was in place until 1988. By 1990, the total fertility rate was 5.7 births per woman, although down from 6.2 births in 1970 (UNDP, 1992). This high fertility rate still had a detrimental effect on the health of women. A Doctor I met in Phongsaly told me that child spacing programs are now promoted in Laos but only where women have access to services.

6.3.3 *The culture*

The people in Phongsali are very traditional. One group of indigenous people, the Hmong predominate, but there are Akha, Khmu, Lue and Phunoi as well as other groups. Even their everyday clothing is traditional, which I found of interest and wrote in my journal;

During visits to the market, the women were seen wearing traditional dress while selling their pigs. Their heads were adorned with elaborate metal coins on the head dress which were constructed for aesthetics. It seemed it was appropriate to be fully 'dressed' when visiting the town.

The ability to travel was not the easy for the people in the more remote areas. Few had travelled out of their Districts. Although power was connected to Phongsaly it is doubtful it will bring much change to the culture as it is too far away from the source to get television. Radio may promote an increased awareness of the outside world.

The dominant religion in Lao is Buddhism. It is an expectation of Lao society that most young males will spend a period of time within the *Wat* or monastery, as a

Buddhist monk. There is a belief among the Lao people that if persons are holy inside then each person is like a *Wat*. The majority of young men do become monks, making themselves completely reliant on the support of the public, who on the whole sincerely respect and revere them. As strong as Buddhism is in Lao culture, the study of Buddhism is not included within the school curriculum (Evans 2000). Regardless, Buddhism is a large part of the Lao people's lives. Temples are throughout the cities and towns, and each business and home has a small shrine at which to pray. As well, the nature of the people is as gentle as the reputation of Buddhists. It seems that the hardship the boys endure in the monastery simply prepares them for life.

6.3.4. *The environment*

The region of Phongsaly, close to China's border, is cold and inhospitable at times. It is covered in mist for most of the year and during the dry season it is extremely cold. The township itself is relatively clean, with only pockets of litter seen. There is not a large waste problem as commercialisation has not come to the area on a large scale. However, the roads were steep and paved with stones in the absence of heavy equipment to lay roads.

6.4 The Determinants of Health

Life in Lao PDR is very harsh, especially in the rural areas. The country has a small population and has a low GNI. Ultimately this means there is poor infrastructure, including education, housing and water supplies. Few Government services extend to these areas and the people's health suffers because of it.

6.4.1 *Education*

There is a deficit of qualified teachers in Laos which contributes to the poor level of education. Laos lost almost all of its educated population due to people fleeing the country after the Communist takeover in 1975 (Ng cited in Thompson & Baden 1993). The 2005 Census revealed that 23 percent of the Lao population had never been to school. The Census revealed double the rate for women who had little schooling.

In 2002 the adult literacy level of Laos was reported at 66.4%. Although at this stage, more men than women were reported literate. Two young women who

were working in the hotel where I stayed in Phongsalai confirmed this. One had left school in grade 3, the other in grade 5. They had worked on the land ever since. However, AusAID (2000) had found that in 2000 that almost three quarters of women 15-49 years of age were able to read and understand Lao language well. Only one in ten reported that they could not read Lao language at all. Even if this is still the case, the overall educational level is very poor. But only if one went outside of the town would one need a better education. For instance, the girls staying in Phongsalai for a holiday only spoke Phounoi. They would not be employable in any other places but their own region.

These generations have endured the recent troubled background of Laos, but education for the younger generation is also insufficient. Although improving access to education is a priority of the current Government, the two schools observed in Phongsalai, one primary school and one high school, were extremely under-resourced. I recorded the following:

Our translator took us around the area today. The senior school was constructed of brick, but the primary building was built of wood. The primary school had wide gaps between the slats which were walls. The windows were unglazed and there were bars on the windows. There was no way of keeping the mountainous chills from the sensitive fingers and toes of the small children expected to attend there! There was no evidence of any literature, only minimal boards on which the teacher could write. The desks were from an earlier era, with bench seats. The yards were barren of any vegetation or playing equipment and the ability of the toilet block to function was questionable. At the senior school the doors were locked by a rope tied from the door to the door frame. I was able to peek through the door as it remained ajar. It revealed a similar milieu to the primary school – bare walls, wooden desks and a black board.

Much litter was blown up around the school adding to its forlorn and weary appearance.



PHOTO 8: THE INTERIOR OF THE PRIMARY SCHOOL IN PHONGSALI WITH VERY FEW RESOURCES AND BARS ON THE WINDOWS. NOTHING TO KEEP THE COLD OUT.

6.4.2 Employment and Income

AusAID reports the GDP of Laos as US\$382 per capita, per annum with approximately 1/3rd of the population living below the poverty line (CoA 2005). Although tourism has been actively encouraged since the 1990's, there is little industry in the country, with Lao's greatest potential being in its mineral resources. Tin and gypsum are extracted currently, with many international companies involved. There are not huge numbers of people employed in these pursuits. Consequently, the Government of Laos has a National Poverty Eradication Program (NPEP).

The district of Phongsalay is rated as being very poor by AusAID, with most of the villagers practicing paddy and some upland rice farming, and sugarcane cultivation. The centre has a school, latrine, gravity fed water system, and markets for surrounding farmers to sell their produce.

There are many small industries within the town of Phongsalai. Many women open their front rooms to the street as shops selling all manner of goods; such as clothes, pegs and biscuits. Other people run 'eating houses' or restaurants. These range in quality but mainly sell the local rice or noodle soups with a little chicken. There were a few 'coffee' lounges, where you could purchase hot coffee or

chocolate whilst sitting around a bowl of hot coals to keep warm. Many of these were run and staffed with family.



PHOTO 9: THE FRONT ROOM ‘SHOP’ OF AN ENTERPRISING PHONGSALI WOMAN.

A lack of education prevented this group gaining employment outside of their own villages. There were few services in which gain paid employment either. A woman who took me to the hospital said she was a volunteer nurse and even the local Doctor was an ex Chinese military man who worked in Phongsaly to assist the people. He spoke a little English but used an electronic translator to communicate. Of the poverty here he said:

These people are so poor. They can rarely pay me, so I try to do what I can.

His reasons were simply altruistic. He was being paid a military pension from China so assisted the people the best he could.

Much of the hills contain market gardens. This area has a reputation for good garden produce and during visits, market owners made trips to make large purchases for sale in the lowlands. Within the hotels there were young girls who communicated they were grateful of their positions as staff, as prior to this they worked in the gardens. One young employee told me she liked hotel work better than farming, as farmhands arose at 4am, and walked for an hour or more to get to the property on which they would work. They then worked daily until around

3pm before walking home again. Many such workers were seen carrying hoes and shovels, wearing traditional wrap around skirts and a shirts. They had little more than thongs to work in, in the fields. The girls said they were paid very little for their work (personal communication Phuo Noi girl). This was confirmed by others I met. Consequently the produce was very cheap, hence the city dwellers sourcing their supplies from Phongsali.

Alternatively, my translator reported large crops of narcotic poppies being grown in the area, although I never saw any, or the affluence from such crops.

6.4.3. Housing

The housing in this mountainous area was noted to be mostly of wooden construction with thatch roofing. Houses are built directly on the ground and most have dirt floors. Phongsaly is an ancient town. My impressions were as follows:

Nothing much seems to have changed in terms of the buildings for many years. The housing is mainly woven walls and timber. There is some brick, but mostly it is the old style of housing. They must be cold in this climate.



PHOTO 10: A TYPICAL HOUSE IN PHONGSALI.

There are some houses which are stone and cement with solid floors and even galvanised roofs. The interiors are small, with several partitions creating kitchens

and sleeping quarters. The main fire for cooking is central to the house, with cooking done primarily on a wok. This fire serves to keep the family warm as well, but with smoke rising but filling the room. The woven walls do not keep much of the cold out! The only other form of heating used were coals in a bowl, at which one keeps ones hands warm. All of families maintain simple alters for ceremonies associated with ancestral spirits but other furniture is sparse and simple, with beds and tables low to the floor. Few have other facilities such as a water or electricity. Washing is done centrally in the village.

6.4.4 Water supply

As a rural and remote province in Asia, infrastructure is not in abundance. The DHCP reported only 30-32% of households have access to clean water (AusAID 2003). The Government of Laos had several projects in progress with assistance from various NGOs. The *Strengthening National Water Supply & Sanitation Strategies* program aims to improve the management and sustainability of safe drinking water for the population as a whole. Few houses in Phongsaly were reported to have running water or knew the importance of it. The AusAID team reported that

Only a few people mentioned hand washing as important for child health, and it was reported that few wash their hands. There was a lack of awareness of the role of children's stools in spreading diarrhoea. However, many people knew that boiling drinking water and improved sanitation help to prevent diarrhoea

(DHCP Report 2003, p12).

AusAID found that only 12% of households in Phongsaly have a latrine of any type. This is just over 1 in 10 households. Within the rural areas I was told that people go into the bushes to relieve themselves and nature presumably takes care of the waste. The most common form of latrine was an enclosure surrounding a hole covered with bamboo! It was reported that community volunteers are being trained in latrine construction techniques. This project will contribute to environmental health through the supply of high quality water and sanitation systems, preventing much illness.

Moving around the Phongsaly township, women were seen carrying buckets of water to their homes. Others were seen washing clothes at a communal facility. Within the hotel where I stayed, there was a shower, but with a very poor flow of water. Within the restaurants/ or eating houses, no taps were observed and it was presumed they carted water from the central pump as women from the households did. There were no taps or basins observed in the hospital. There were no washing facilities seen at the local school toilet blocks or in the Doctors clinic. There were no visible washing facilities. The nurses in the hospital were seen to perform clinical skills without washing their hands. I wrote in my journal:

The water supply seems to be only rainwater tanks. The tanks seem to be closed, which prevents the breeding of mosquitoes. However, some villagers have no water as we saw some women carrying water in two buckets balanced from a yoke to their houses yesterday. I am not sure where it comes from. However, there was a communal tap in the village at which women were doing their washing. Perhaps the women drew the water from these taps.



PHOTO 11: COLLECTING WATER AND DOING THE LAUNDRY

6.4.5 Roads & Transport

The roads are narrow and winding. They have been geared to take animals and people, not cars. Most people are too poor to own cars. Some have motorbikes and these are parked in the front of houses in the streets, almost as a badge of honour! There were few vehicles but busses and trucks. The roads are so poor one wonders how anyone could even take a motorbike on them. Most people walk everywhere. There is no public transport either, and where there are long distances and much to carry, people pack them selves and their goods on any available transport.

This happened to me on several occasions, the most memorable being a return trip to Vientiane. With a minimum of luggage I was to share the back of a utility with at least 3 other people in the early morning temperatures of near zero some 2 hours to the airport. I recorded it thus:

There was already a lot of luggage and boxes on the ute when we arrived. We shifted much of the cargo around and made ourselves comfortable in the safest place, facing backwards against the cabin. The boxes of were numerous and we could hardly move our feet. Some of the men were seated on the edge of the ute. A particularly dangerous place when a bump comes. We commenced the 2 hour journey, waving to the people who had helped us on board, including the Doctor who had com to see us off. He had carried my bags and assisted graciously. In disbelief, a few hundred yards down the track we stopped to pick up another woman. I thought it couldn't be done. Regardless, according to the laws of accommodation, the middle aged woman and a large bag of rice squeezed on and off we went. My legs were wedged between some boxes until the old woman alighted. I thought I might spend the rest of my life walking at right angles. How she managed the 80min journey squashed up, I will never know. She got off and carried her rice home.

It was obvious the local people are very used to travelling in this way with comforts such as closed cabins having little meaning for them. However such activities in the prevailing temperatures must contribute to the respiratory conditions which were evident in the locals.

6.4.6 Food supply

Most livelihoods come from some subsistence farming, but a great deal of nutrition is derived from nature, not farms. Everything from frogs, hedgehogs, snakes and birds can be found on the menu both at home and in restaurants. Whilst staying in a regional boarding house, I found there was a mixture of culinary delights on the menu. Hedgehogs, a food strange to the Western palate, were unfortunately out of season when I was in Lao, but frogs were available, in demand, and freshly caught. They were grilled on a small fire in front of the restaurant. However, when it can be obtained from the Mekong River, a great deal of fish is eaten. It is noted in the *Lonely Planet guide* that to the eye of the Westerner, cruelty to animals is everywhere in Laos. It is argued by Cummings (2002), a writer and past resident of Laos, that little will change until there is improved education. He believes this could take at least fifty years judging by the progress of surrounding countries.

At a national level, an average of 23% of the Laotian population was food deprived in 2002/03; dominant in these statistics were low income households whose energy consumption depended on food they produced themselves. In this respect the Phongsaly area of the Province is better off than others. It is well known for its ability to produce vegetables from the many market gardens and people eat a majority of vegetable products, especially soups or laksa. On the plane to Phongsaly, there were many people from the city whose sole purpose was to buy produce for resale back in Vientiane. Regardless, in the North where it is situated the rate of food deprivation was reported as relatively higher than the urban areas (NSC 2007). Access is an important factor, and within the urban areas over 70% of foodstuffs were purchased, whereas in the northern region over 60% was produced at home. There are other reasons contributing to the problem of malnutrition in the children of Phongsaly. One is the quality of the nutrient supply and the other is breastfeeding practices (AusAID).

It is the nature of mountainous regions to have iodine depleted soils, and Phongsaly is no different. It was found that only 61-65% of families have iodised salt. The absence of this in the diet can cause cretinism in babies. This is a condition which is irreversible and can be prevented through the addition of iodine to the salt. A National Health Survey done in 2001 showed up to 95% of children were iodine deficient especially in the poorer provinces. Laos has not legislated for all salt sold to contain Iodine as some countries have (e.g., Timor Leste).⁵⁸

A second worrying feature of the culture here is the routine practice of discarding breast milk for the first few days after delivery. Instead of feeding the baby herself, the baby is often 'wet nursed' for several days as the first breast milk is regarded as harmful to the baby. This effectively reduces the immunity of the baby, as the first few days of milk, or colostrum, contains many antibodies to protect the child. There is also a deficit of milk and milk products eaten following the cessation of breast feeding (which may continue into the second year). This predisposes children to poor skeleton formation and short stature (Barker 1994). In a major survey during 2000 about one third of children in the Phongsaly province were provided two supplements of Vitamin A due to nutrient deficiency. This prevented blindness in this cohort.

6.4.7 Power

'Due to the mountainous nature of Lao PDR and its potential for hydroelectric power, the government has plans to construct dams for power production on the tributaries of the Mekong over the next decade. However, this has been controversial from a social and ecological perspective. There are concerns for the rural population who may be displaced and the effects on downstream communities in Cambodia and Vietnam, who depend on the waters of the Mekong.

In the meantime, few of the rural areas in Laos have much power at all. The town of Phongsali had power continuously, however, little else than single globes and small water heaters were used. People used wood or gas for cooking; the former being expensive and the other requiring intensive work. The power supply was weak and went off at frequent intervals.

⁵⁸ This is condition causes retardation of brain development and subsequent low intellectual capacity.

6.4.8 Communications

There was little other communication available other than that delivered by the busses from the plane from Vientiane. There were no cell phones or even land lines seen in this area. Getting help in an emergency would be a long and time consuming exercise and evacuating women during difficulties in childbirth would end in fatalities contributing to the high maternal and neonatal mortality experienced by this country and noted in 6.3.2.

6.4.9 Health services

Access to health services is extremely low, and there is also a lack of trained personnel to meet the demands of the population. There has been little investment into health care services in Laos up until 1992 when it rose to 2%⁵⁹ from a low of 0.6 (Thompson & Baden 1993). However, even this is reported by Thompson & Baden, describing the situation of women's health in Laos, to be far below the level of expenditure required for the support of adequate health care systems.

Health facilities are very poor, especially in regional Laos. In the province of Phongsaly, approximately 46% of villages remain four hours from a hospital and 11% are one hour of a dispensary. There are health volunteers in only 25% of villages. It is most likely because of these distances that more than 70% of the people report using traditional medicine as the preferred treatment (AusAID 2002). Basic health care such as immunisation is inaccessible and in 2002 a measles epidemic in Phongsali province caused numerous deaths in young children. Other causes of death include tetanus and malaria. A study in 2001 found that 42% of neonatal deaths were caused by tetanus and malaria. This does most damage to children who are in danger of catching the condition as they do not sleep under impregnated nets (WHO 2005).⁶⁰

Reproductive health services are grossly under-utilised in Phongsaly. The DHCP study showed only 7% of pregnant women in Phongsaly reported attending an ante-natal clinic and fewer than 3% had received iron supplements during

⁵⁹ The average for developing countries is 1.4 percent.

⁶⁰ These are nets impregnated with pesticide, recommended by the WHO, but not universally provided.

pregnancy. Most deliveries take place at home and are either unattended or attended by relatives. Only 8% of births in Phongsaly were attended by a trained practitioner, either at home or in hospital, and traditional birth attendants (TBA) assist in fewer than 2% of deliveries anywhere in Laos.

In the Phongsali Township on a visit to the hospital, a new building was being constructed on the hospital site. However, I was escorted to a brick building with very dirty rooms, mould on the walls, no sheets on mattresses and urine bags dragging on the floor. The relatives supplied the patients' meals and did most of the personal toileting. There are few facilities or resources here and I thought I had seen the worst. I was completely unprepared for what came next. I wrote this in my journal:

...the nurse said we were now being taken to the public patients building. 'Building' was a euphemism for what we saw. In front of us stood a barn like building. There seemed to be cement up half way up the walls and then wood planks for the rest of it. There was a cement floor. ...

The nurse opened the 'hospital' doors and we saw a dark long room with the oldest beds I could ever have imagined, and some people with a fire going on the floor at one end. Two patients were on mattresses without sheets, one on the other side had just had surgery. There was no water supply or tap for the nurses to wash hands

The former building had been the 'private' wing. This one was the public wing.



PHOTO 12: PUBLIC HOSPITAL WING (EXTERIOR/INTERIOR)

The photo on the right above, was taken inside the building in order not to include patients. Although it could pass for a store room, the ward was the same at either end. The beds had thin mattresses, no sheets and 'doonas' to keep out the Laotian winter. I asked when the new wards would be complete. The nurse explained these were a new operating theatre and meeting rooms, not a new ward. From discussions through the translator, I found the nurses only have about 6 month's informal training 'on the job'! This is a very short time span and probably explained why the patient in the left hand photo was receiving a Vitamin C infusion for her complaint (pregnancy).

6.5 Summary

Laos is ruled by the Communist Party. Although tourism has been actively encouraged since the 1990s Lao is the least developed of the three former French Indochina states. There is little industry in the country and little infrastructure. With a history of repeated bombing during the Vietnamese war, Lao become the most heavily bombed country on Earth. There is a significant correlation between UXO in the country and the degree of poverty. The latter has had a major impact on food production, and development of infrastructure such as roads, schools and hospitals, with water sanitation and supply being neglected. Because Phongsali was saved to some degree of UXO destruction, this has allowed food production to flourish and become the only viable small scale industry in the area. This is possibly the reason for a longevity slightly more than the main population. Regardless, being amongst the poorest in the country, life remains at subsistence level for the people of the Phongsali Province.

Housing remains of ancient design and is sometimes unhealthy in that they are cold and filled with smoke from fires to get warmth and to cook on. Water is unreliable in supply and must be carted to the houses. The educational facilities are only to secondary level, poor in structure and poorly resourced. Tertiary education in the Province is non existent and any sort of training or education has to be obtained in the larger towns. This results in a poorly trained workforce for any area of health care, unless outsiders migrate in. The average life expectancy of the Phongsaly Province is some 8 and 5 years longer (females > males) than the

general population of Laos, and this could be due to their intake of fresh foods from the market gardens. However, infant and maternal mortality rates are at internationally unacceptable levels. There are few health facilities and given the high fertility ratios in the provinces, an unacceptable number of women and babies die as a result of pregnancy and childbirth due to a lack of trained birth attendants (WHO 2005b). The lack of services and health professionals for reproductive health and the poor education of people in the area are catalysts to these deaths.

With Lao PDR being one of the poorest of the old French Indo Chinese countries, they suffer much deprivation. Unlike some developing countries who record chronic illness among their health statistics, acute conditions and disease are still the cause of many deaths in Phongsali. With a low educational level, and poor income, this community acquires infections including neonatal tetanus, possibly though poor hygiene. The amount of infectious diseases proliferate because of a lack of an immunisation program. Japanese Encephalitis and measles are amongst these. There is also malnutrition and cretinism. The prevalence of these conditions, are indicative of the lack of upstream measures (such as education support, infrastructure and appropriate public health policy) being implemented to assist this group improve their health. As an aside, this country and its people have experienced occupation and wars causing extreme poverty. This latter aspect in society is a catalyst on its own to poor health. Those in the more remote areas, continue to live a traditional lifestyle because they have few 21st Century commodities, including 24 hour power or a water supply. There is little choice in this milieu.

One Health Three Worlds Apart



CHAPTER 7

Democratic
Republic of Timor Leste

Chapter 7 Democratic Republic of Timor Leste

7.1 Introduction

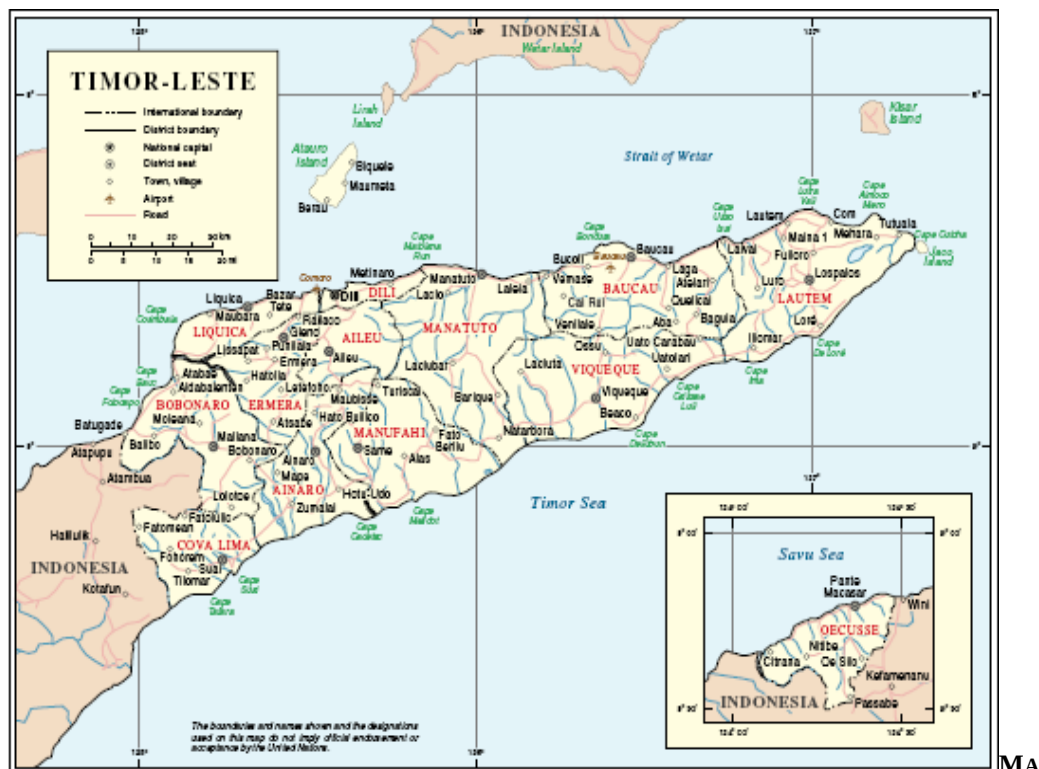
The Democratic Republic of Timor Leste is a country to the north of Australia which gained independence in 2002 was added to the Least Developed Country (LDC) list in 2003. A mountainous country, the estimated population of Timor-Leste is 1,114,000 (WHO 2007). The capital city of Dili is on the northern coastline of Timor Leste. Over the last few years there has been much civil unrest which has compounded its problems with investments and industry. It is a fledgling country containing little infrastructure to service the people. The major export is coffee with fishing being the mainstay of food in coastal areas and maize or corn in the interior. The gross national income (GNI is \$840 (World Development Indicators Database April 2007).

The majority of the people are Catholic, being a legacy of the Portuguese. They have one of the highest fertility rates in the world as well as some of the worst maternal mortality ratios. As well they have a high rate of malnutrition. Timor Leste's health statistics reflect the hardships and SES of the inhabitants. Indeed, according to Timor Leste's health framework, improving the health status of their people is one of the highest priorities of the Government. Health care in Timor is free, but given the terrain and the poverty of the people, access to the services is difficult.

A number of public health issues have been identified and prioritised nationally; however, the government also welcomes intersectorial action in this area. They recognise that a community may identify local issues that impact on health and well-being and move to prioritise what should be done (*Republic of Timor Leste 2004, Annex 7, Page i*)

7.2 Background

Timor Leste is a survivor of 400 years of colonial occupation by the Portuguese, invasion by the Japanese and in the recent past, 28 years of occupation by the Indonesians. Massive civil trauma and destruction followed a successful public referendum for independence in 2002. Backed by the Australian Government, this referendum saw Timor Leste become the newest country in the world and one of the poorest. Without any major infrastructure such as roads or transport, there is little industrial activity and hence little employment. The main product of Timor is coffee. People make a subsistence living from the land around them however there seems to be no land tenure, or title which makes the people very vulnerable to government whims and political upheaval.



P 6: MAP OF DEMOCRATIC REPUBLIC OF TIMOR LESTE:

Source WHO (2008) <http://www.un.org/Depts/Cartographic/map/profile/timor.pdf>

7.3 Survey area:

Emera is a large District to the South West of the capital city of Dili, stretching West to the border with Timor West (See Map 6) It is high in the mountains, and with a much cooler climate than Dili, but requiring a two hour drive on very poor and winding roads. Although Emera is regarded as one of the most affluent of the Districts in Timor Leste, the people are very poor by western standards. This is especially so in the remote regions to the bottom of Mt Ramelau, the highest peak in Timor Leste.



PHOTO 13: MT RAMELAU FROM THE CHURCH AT LETEFOHO

Much coffee is grown in the area and there is a Coffee Cooperative run by foreigners which employs some of the local people. Other than this a few are employed as policemen or in the army. Most people subsist on small crops of corn and some vegetables or from coffee they take from the sides of the roads and sell. There are no private vehicles and long walks are taken for granted.

A total of 10 villages throughout the Ermera district were surveyed. Focus groups were sometimes large group seminars, at other times smaller focus groups, depending on the numbers of volunteer translators available on the day.

Participants also often came and went from the community consultation and focus groups, making definite numbers difficult to obtain. Although the question guides were used, discussions on the issues often took turns away from the suggested questions. At each visit the issues the community felt were major were the ones discussed. Non participant observation was done on walks around the community. Villagers were keen to have photos taken of their homes and gardens. Some of which can be seen here.

7.3.2 Demographic profile

Timor Leste is a small country with a small population. Their total population is approximately one million people, however, they have the highest fertility rate in the world at almost 7.5% which is down from 8.2% (WHO 2007), creating a population growth rate of over 5 % per annum. Consequently, approximately half of the population are less than 15 years of age (TL-DHS, 2003, WHOSIS 2008). The average life expectancy is 56.72 years and the annual GNI is \$US 750 per annum per capita (WHO 2007).

7.3.2.1 Maternal and Child Health

Although there are differences in the figures depending on the reporting body⁶¹ the maternal mortality ratio figures are amongst the worst in the world, between 420 - 880 women dying per 100,000 births. The Infant mortality rate is also unacceptably high at over 51 deaths per 1000 births. Furthermore, the people still battle with malaria and tuberculosis and the infant mortality ratio is 51.5 per 1000 births (WHOSIS 2008).

7.3.3 The Culture

Church and religion

There are Catholic churches in all of the larger towns such as Letefoho and Gleno. During the Indonesian occupation some churches were closed down. Seven of the ten villages had no semblance of a church for worship. One of these had a church a kilometre away and two others had makeshift surrounds in which to have prayers and services. Many houses did have small religious statues and alters within their living rooms. The church at Letefoho is a large building on top of a hill, seen

⁶¹ WHO state 880 deaths per 100,000 births, UNDP state 420/100,000 births.

from many miles away, with thousands of people from surrounding villages visiting for services. In this area there are also huge crucifixes on the nearby hills.



PHOTO 14: CRUCIFIXES ON HILLS

A further sign of the strong Christian influence. There is also a small church at Bahkita Centre for regular prayers, services, and annual celebrations. Other larger villages also have churches and these are a major part of the life of the community. Many social events centre around the church and in times of sickness people get gain ‘social capital’ from others in the church community.

7.3.4 Environment

In its underdeveloped state, Timor Leste is relatively unpolluted as Commercialism on a large scale has not reached Timor Leste. Nor has the pollution that accompanies it. Most food is fresh and cooked at home, and does not come in wrappers. Containers are not widespread. Consequently there is little commercial waste such as packaging or plastic bags as litter. Any waste or rubbish was burned, but food scraps were fed to the pigs or were placed in the garden for compost. Because of the dry season there was little evidence of poor drainage in the villages. Only one site where locals had been dumping household rubbish such as used clothes and utensils was seen. No effluent was evident in any of the sites visited.

Although there is little pollution, there are other dangers for children. In areas close to the main road many children were seen playing on and near the road,

often rolling old bike wheels with a stick, where trucks, microlets and other vehicles pass frequently. Although these do not travel fast, the potential for children being hit is great. They were seen starting campfires and playing with bamboos in mock fights and carrying machetes.

Although most communities had a community hall of some kind, there were no dedicated areas for recreation. Many communities complained of having nowhere for the young people to play organized sport. The children loved football. One community had designated a piece of land for a football field, but they needed nets and balls. Another community said they needed guitars for their young people. Regardless of there being few designated sports areas being set aside, where children could play, they were largely unsupervised.

7.4 The determinants of health

7.4.1 Education

Both the level of education and the numbers of people being educated within Emera is very low.

Although five of the villages surveyed had elementary schools, children from the others had to go a long distance to get to schools. In these villages children do not go to school until they are over eight years of age. The older children walk 2 hours to school and 2 hours back. Children under 8 were regarded as too small to walk the distance. Most people understand education is very important but most parents did not feel confident in their own abilities to teach the children themselves. Only one village taught all their children at primary school level themselves. There was a teacher in this village who had taught all the parents when they were small, and he was assisting them to teach their own children. This particular village kept their children at home until 14 years of age before letting them walk to Letefoho.

No villages had secondary schools. In one village no women had attended school and so only a handful of women were literate. Some men had attended elementary and secondary school but 8 children were currently attending secondary school (a 2-3 hour walk, 4-6 round trip). If families have relatives in Gleno or Letefoho, then children can often board with them and attend junior or secondary school. Although some parents said they would like their children to go to university, if

they have no relatives in Gleno or Dili, they do not continue their education. However, there were several young people attending junior or secondary school in Gleno or Dili as they had relatives to live with. Those that were closer to Gleno said even the purchase of a bike was too expensive for the children to travel to Gleno for school.

Money remains the biggest barrier to sending children to school, and some parents said they were happy with the level of schooling the children had. Parents reported only a few children expressed any wish to join the military, nursing or similar, although some young people have trained as priests and police officers. Either people were either not concerned, or knew the reality about the lack of employment opportunities, the attitude being:

The children will help us in the garden. There is no employment here for them.

7.4.2 Employment and Income

Within the ten villages surveyed there were only two in which people were in paid employment. These numbered between 15 – 20 people. Employment was at the Coffee Cooperative, the military, some in the police force, two teachers, and one man was a microlet driver. Some women did seasonal coffee picking, with the rest of the community attending coffee areas or gardens in order to sell what they could. Where people did not work they were subsistence farmers, relying on their own gardens to feed their families. Sometimes they were able to sell some food at market or at the side of the road to bring in a little money. Those in remote villages did not have access to busy roads on which to sell their produce and were forced to make the long trek to Letefoho or Gleno to gain sales. Although Thais cloth was seen for sale within the market, no production or sale of same was seen or mentioned within the villages visited.

When people did gain employment out of their villages, *i.e.* Gleno or Dili, they lived there and had no money left over to return to their families.

If young people went to Dili or Gleno after they finished school and found work, they did not return money to the community. Earnings received would probably only cover the costs of living, and respondents said there was no obligation to send money home.

There is nothing left to send home as young people spent it all on themselves and their living expenses.

Villages without employment are in a perfect position to identify volunteers who will train as health workers to provide support to their communities.

7.4.3 Housing

Within the rural areas of Timor Leste, nothing much seems to have changed in terms of the buildings for many years. The housing is mainly traditional although there is some cement brick with galvanised roofs. During observational walks around the village, the residents were very happy and proud to show us inside their very neat, clean and well kept houses.⁶² Houses in these regional areas are a good size, and are well spaced from each other. Overall the villages visited were set out well, with tidy fencing and small gardens. Unlike some areas of Asia, crowded housing is not an issue here.

Although much housing is of traditional construction, most is of generous proportions with enough bedrooms for each of the family members. There are few extended families, with grandparents living in separate housing, visited by daughters or sons. Two single men shared one 4 bedroom house. Another 5 bedroom house had 12 people living in it, but this was the highest number of people found in one house.

Only two types of housing were noted, either all bamboo or cement construction. The latter were cited as being more expensive and time consuming to build, but they were, however, of a superior construction. There was a mixture of thatch and galvanized iron roofing. Galvanised roofing was pitched and not lined or insulated in any way, allowing the heat or cold to permeate the house. All houses, except for one which had been built in the Portuguese era, and the other owned by the head of a village, had dirt flooring. All had wooden shutters to the windows and unless of cement construction, the walls were very thin bamboo which would not keep the cold out.

⁶² People had prepared their houses for these visits.



PHOTO 15: A THIN BAMBOO WALLED HOME WITH A VEGETABLE GARDEN.

Kitchens were usually a separate round building with a thatched roof and the fire directly on the dirt floor, but no visible chimney, hence were blackened inside with smoke. In 8 of the 10 communities, a bed was in the kitchen for mothers and their new babies to keep warm. One community pointed out that pig food was cooked in a separate area of the kitchen to the other food. Utensils were kept on open shelves and were most often very orderly. It seemed that only fresh foods were kept, such as whole pumpkins or maize. It would be rare to keep cooked foods and none were seen. In some kitchens, water for cooking was seen in 10 litre plastic bottles. No evidence of hand washing was seen in any kitchen area.



PHOTO 16: A TYPICAL KITCHEN WITH THE PLASTIC BOTTLES FOR WATER COLLECTION

Many dogs, pigs, hens and chickens were seen in the villages. A few houses had doors surrounded by a small railed area to keep animals such as pigs out. No animals were seen in either houses or kitchens. Gardens were fenced with bamboo rails in order to keep the animals out. Sometimes pigs were penned or goats tied up, but they were mostly seen loose.

Bathing areas and toilets were never in the main house, but bathing areas were sometimes nearby. Sometimes these were communal. It was common for toilets to be shared by up to four families. Although there were no complaints about their housing, participants did say the houses were very cold in the dry season. A minimal amount of bedding, or blankets were seen in the houses. Few storage areas were noted, but then it was noticed that clothes are not changed often. In the wet, some roofs may have leaked.

7.4.4 Water

Water was clearly one of the most widespread issues the participants in the area had. Regardless of the World Development Indicators for Timor Leste, 2007 showing that 58% of the population had access to a good water supply, these participants were clearly part of the 32% without access; nor did they have access to sanitation facilities. Even in the urban areas, it is reported that only 66% of the population have sanitation facilities such as toilets or hand washing. Seven

villages reported having a problem with the water supply (n=10). The other villages all reported or access to water. If they had cement tank supplies, they were inadequate for the villagers needs. This study was done in the dry season, and some tanks did not fill quickly, making water collection a time consuming task. Where there were taps, people must wait to fill their plastic containers, often walking long distance return journeys. One group complained of having to fill 10 x 5 litre containers a day and take them 2 ½ kms up the hill. Some of the participant's statements:

We have to walk 1Km to get basic water in plastic containers.

This has to happen at least twice a day

No water for adults to have baths, so people bath in the river 1 km below.

One man complained that

Sometimes the children are late for school because they have had to wait in line to collect water

There was no evidence of hand washing prior to either food preparation or consumption.⁶³ Water was not available to wash hands after the use of toilet facilities. No water was seen near the toilets, nor was I offered water to wash my hands if I used the toilets. Villagers were asked about water for basic hygiene such as washing of hands. They said

No washing of hands as not enough water. Not enough water to wash bodies, only babies and dishes.

This lack of hygiene manifested itself in itchy skin and sores which resembled impetigo.⁶⁴ Diarrhoea was also a major problem. In one village alone, participants reported that seven children died during the previous year from diarrhoea and vomiting. The families were unable to get them to a health professional or facility in time to help them.

One of the side effects of not having enough water was not having 'water' toilets. Only one village had cement flooring with a porcelain 'squat' requiring water to

⁶³ Although some water was seen in plastic containers, no bowls or buckets were seen in the kitchens.

⁶⁴ A staphylococcal skin infection which invades the blood and can cause kidney disease.

flush it. The rest complained they did not have enough water for this method of hygiene and felt that pit toilets were inferior.

There are only pit toilets. There are 4 families to one toilet.

The pit toilets visited were generally clean, although some were very shallow with bamboo flooring over the hole allowing a gap for use. The odour was often strong and the hole never covered and accessible to flies. Three villages did not use pits at all, but went into the bushes. The ‘free range pigs’ ate the excrement.

7.4.5 Roads & Transport

Access to many of the villages was extremely difficult even with vehicles. The one main road through the district consisted of narrow bitumen which was in poor condition and washed away in places. Sometimes supported in places by man made tree plugs or stones. Regardless, these roads are where public transport can be accessed if it can be afforded. Travel is by Angunna (truck) or microlet (small van), all of which are overcrowded and cost 50cents a trip. The trip is slow and winding, taking many hours to get to either major town to the South or North. Without complaining, people walk these distances, taking up to 4 hours one way. Dili took longer.



PHOTO 17: UNSEALED ROADS CONNECT THE VILLAGES WITH MAIN ROADS.

Many of the people live away from the main road with access being by dirt roads. Although it was the dry season when the survey was conducted, the Bahkita 4WD had difficulty negotiating the roads. In the wet weather, many roads would be impassable by vehicle, and extremely difficult to walk. Thus, access both in and out of the communities is often poor, taking long periods of time by foot. Many old people, and women carrying children cannot make the journeys. This means access to facilities, in particular health facilities is extremely poor. Even those close to the main road had poor access to major markets, schools, or health facilities many hours by vehicle, and more by foot.



PHOTO 18: TRACK WHICH A WOMAN IN LABOUR HAD CLIMBED TO MEET THE AMBULANCE

The photo above shows a track which a woman in labour had climbed to meet the ambulance a week before my focus group. Some communities stated that women had died due to the extended time it took to get help. Although they knew how ‘normal labour’ in childbirth progressed, once a woman is in distress it can take several hours to get to help.

7.4.6 Food supply

Children were reported as *always hungry*. On observation the children were smaller than usual for their age. The main food in some villages is tapioca or potatoes and maize. The women said they ate the same types of food as the children, potatoes, ginger, tapioca, soup. Within the focus groups, participants voiced the need to limit their families as there was insufficient food to go around. In particular rice, which is too heavy to carry the long journey home, was only eaten if there was a horse to transport it and then only on special occasions. In its place corn was substituted.

All women breastfed their babies immediately following delivery. The majority of women carried them everywhere and allowed them to suckle when ever they wanted to. Although most women introduced solids to children at around 6 months, they continued to breast feed the children until 2 years or more. Introduced foods included soup, corn, tapioca and potato. No meat or milk was given to children of any age.

When children were sick or had diarrhoea, women continued to breastfeed. Soup was given if children could tolerate it, and lemons, and other fruits provided as well. Eating tomatoes and lemons were traditional medicines if one was sick.

During the time of the field work, it was reported that malnutrition had been the cause of several children's deaths in the preceding year.

The foods which were offered to me while conducting the study included sweet potato, (sometimes boiled, sometimes fried,) corn mash or mandarins. Coffee seemed plentiful.

Within the boarding house where I lived there was very little food for the staff and the volunteers who could number from eight to eighteen. A major meal consisted of one chicken cut into many pieces, a large bowl of rice and vegetables in season. There was often fruit in season to finish with. Coffee was plentiful, but the diet was certainly insufficient to sustain normal growth and development of growing children or those doing manual work. I often supplemented my meal with my 'muesli bar stash'.

Unfortunately there is little understanding of nutritional needs. In a remote village there was a cow that had given birth. The encounter with the local women, recorded in my journal, is below:

The women said they wanted to limit their families as they could not feed the children they had. I had seen a cow in the field. I asked them why they didn't use the milk? They said they never used any of the milk; that it wasn't part of their culture! Kate stood up and showed them how tall she was in comparison to them, declaring it was all because of her milk intake. I think it all fell on deaf ears!!

Although most villages have small plots of land to cultivate, and in the inner district, some keep horses for food, the Govt of Timor Leste has admitted that malnutrition is widespread. There are also buffalo and pigs running free in the district for food, but these are only used for special occasions. Unfortunately there are no malnutrition prevalence figures or weight for age figures for Timor Leste in the 2007 World Development Indicators database.



PHOTO 19: FOOD OFFERED DURING FOCUS GROUPS INCLUDED TAPIOCA, PEANUTS AND COFFEE.

7.4.7 Power

The electricity in Emera follows the main highway to Letefoho. Houses built directly near the road have electricity between the hours of 6 pm – 12 am. As the survey went deep into the mountains, only one of the ten villages surveyed had electricity. Many communities close to the road, but with no electricity complained bitterly. They could see no reason why they could not get electricity delivered that little bit further. The absence of electricity affected the lives of the people in that they could not socialize after dark. Furthermore, when a death or illness occurred.

... not having light is a problem as many relatives come.

When relatives or friends visited, fires were required to provide lighting. This had ongoing complications as the use of wood was labour intensive to collect and often in short supply. The smoke also created problems for those with respiratory problems such as asthmatics.

In one village, a letter was presented to me for the Director of the NGO requesting a generator for power production. The villagers could not say how they would supply the diesel required to run the generator, but it was clear they thought that electricity would make the lives of people more bearable.

The lack of continuous electricity is an ongoing problem for the people of the area. Health clinics are prevented from having supplies which require a continuous cold chain or drugs which need refrigeration. For instance, vaccinations cannot be kept within the Bahkita clinic as there is no continuous refrigeration. This prevents women having routine cover for tetanus in childbirth and many children having appropriate immunisation.

Alternate power/ Firewood

The collection of this is ongoing. Fire is the only method of cooking and keeping warm. All members of the community are seen collecting it. Many women and girls are seen carrying it home on their heads after school hours. Much is sold at the side of the roads and trees are often seen being cut down for firewood.

The men use machetes to cut wood with, and these are found for sale in abundance at the markets in. No saws or axes were seen. In the absence of either of the two latter tools, wood used for a BBQ at Bahkita Centre was cut up with a meat

cleaver!! Finding wood for this meal was difficult and it illustrated to me how difficult obtaining enough wood on an ongoing basis was.

The use of fires creates much smoke which in turn irritates the lungs of people with lung disease and children with asthma. Where electricity is used, the air is much cleaner and the lives of the women in particular a little easier. Most villages were quick to point out the 'post natal bed' in the kitchen. This is where the mother and her newborn child reside by the fire, in order to keep warm.

Fires are so common place, both to cook on and to keep warm with, that children were seen starting fires at the side of the road towards afternoon. They use matches freely and often play very close to fires. Although no burns were seen during this trip, the potential for burns in the community is great.

7.4.8 Communications

Communication both to and from the villages is problematic. Only a few villages have radios, mostly on batteries which they can not afford very often. When they do get radio, there are some health shows which people like. There is no TV as there is no money to buy it and no electricity to run it. Some people said when they had seen TV in Gleno, they did not understand it as there are few programmes in Tetun. Most people in this area speak only Tetun and other languages are not widely understood.

One mode of communication noted as very useful were notes to the parents through the schools. Many parents said they received some health information from the school through their children. Others said they had information directly from their children. As people have not had adequate education, they often cannot read information which may have been provided by health clinics at Gleno or in Dili.

There was a thirst for personal development, but few facilities exist for ongoing education unless people walk long distances to Bahkita Centre or did sessions with villagers who had trained with SHARE.⁶⁵ Many people knew people who had completed such courses and wanted to attend themselves.

We want courses in computers, English

⁶⁵ SHARE are a Japanese NGO who have a priority of 13 areas which are taught to health workers. These include prevention of Malaria and TB, management of diarrhoea and nutrition.

Some people said their children had obtained work with NGOs if they spoke English. They saw themselves as having no skills. Interestingly, through observation of the large community houses it could be seen that many men had enormously undervalued traditional building skills. Some of these buildings were only two and three years old, and the men who built them showed us the detail within them. The buildings were enormous in proportion, with immaculate roof thatching and had many traditional features only they would have known the meaning of. Although extremely skilled, these people did not recognise they had anything to teach their young people.

7.4.9 Health facilities

There are few health facilities in the Emera area. The nearest Government hospital is a Gleno, a 4 bed facility an hours drive from the Bahkita Centre. Timor's largest hospital in Dili is a two hour drive on winding roads. Another source of health care comes from mobile clinics emanating from the Government based Letefoho Health Service and mobile clinics provided by the Coffee Cooperative (called by the locals, NCBA). Some women had ante natal care from the mobile clinic in HatiHei. Women admitted liking the mobile clinics. They would always attend them.

There were many complaints of respiratory conditions and skin conditions. Some children had died from malnutrition. Due to no transport, all the women in these villages gave birth at home. The only exceptions were some women who had to have caesarean sections in Dili or had to go to Gleno. One woman said she had lost undiagnosed twins because...

It was too far to go to the clinic!

Others said that

Some [babies] have been small [possibly premature] and did not survive.

Others related the story of a woman who had a difficult labour and

The baby was stuck.

Several villagers said that

*If transport was always available, women having first babies
would be happy to go to Gleno.*

The Bahkita ambulance was cited several times as being a good resource for women in labour. During the time of the assessment, the Bahkita ambulance transported three women to either Gleno or Dili. With out it they may have died or had poorer outcomes.

Villages getting visits from the NCBA (run by the Coffee Cooperation) had regular care. In one village where 3 women had recently died in childbirth the women were all very careful. They were all having regular antenatal visits, although they could not remember anything they were told. Some had iron tablets but none were immunised against tetanus. Mostly the husband assisted with the births at home.

The first few communities close to Bahkita mentioned few deaths. But in more remote areas the numbers of women who had lost children, required closer scrutiny. I counted the numbers of children the women had given birth to and how many had died in the last few years. The results shown here (Table 7) were from 5 villages derived from focus groups and observation. These are only representative of the particular groups surveyed and no extrapolation should not be made to the wider population. However, the result does present an interesting snapshot of the health of women and children in this area. Further it gave me some confirmation of the poor statistics given for Timor Leste.

TABLE 7: INFORMATION PROVIDED BY FOCUS GROUPS IN 5 VILLAGES

Village	1	2	3	4	5
Female participants	9	13	8	19	29
Births	49	106	46	71	165
Deaths	10	41	8	8	10
Children's deaths as %age births to participants	20.4	38.6	17.4	11.3	6

Malaria was a problem and some people had been to Letefoho, Gleno or Dili and had been treated, but symptoms persisted. Participants knew much about Malaria, but not about its transmission or how to prevent it. Some knew that pesticides killed mosquitoes, but besides the costs, they were afraid of the harm pesticides might have on their children. They said in Indonesian times they were given nets, but not now. One man complained:

Foreigners all use nets to prevent malaria and we don't have them!

Some complained of having chronic coughs and bloody sputum however, only a few people in the focus groups had had TB confirmed by microscopy.

These clinics visited villages regularly and many people had used their services. However, as the service emphasis is on primary health care with minimal medical services available for treatment. Although antenatal care and childhood monitoring and immunisation are reported to be good, patients can obtain little pain relief and only minimal care for actual illness. To obtain medical treatment, there is little option than to walk the long distances required to staffed clinics in Letefoho or Bahkita. However, if one is too sick to walk, they become worse and often die.

The Bahkita Community health clinic has volunteer doctors and nurses staffing it most of the time. But Even Bahkita was a fair distance for some of the villagers. A large number of people have been trained through a group called the Secular Humanist Aid and Relief Effort (SHARE) in their primary health care programmes and many of these people work voluntarily in the health clinic alongside the doctors, nurses or dentists.

One of the difficulties for the volunteer staff at Bahkita was the provision of pharmaceuticals for the health clinic but permission has now been gained to get drugs through Letefoho clinic, and this will improve the situation for the local people. However, the lack of electricity also means that no cold chain can be maintained. This effectively prevents the storage of immunization materials and some other important medicines requiring refrigeration.



PHOTO 21: THE MINIMAL FACILITIES AND STOCKS IN THE BAHKITA CLINIC. NO ELECTRICITY, HENCE NO COLD CHAIN.

Although there is a health clinic at Letefoho, Bahkita is an excellent ‘half way’ house preventing people from having to walk twice the distance. However, even the Bahkita clinic is too far from some villages and they put off going to seek help. Participants said:

Sometimes people just wait to die!

7.5 Summary

In this chapter, Timor Leste has been described as one of the smallest and poorest countries on earth. The fertility rate is high, making the population very young but mostly without access to educational facilities. There is little employment and people have to live off of the land or from little coffee sales. Many NGOs work in the country trying to support the population who have been the victims of much violence over the last few decades.

Housing is poor and often traditional in country areas. There is little water and none to use for hygiene. Many children die before the age of 5 years due to accidental deaths or infections such as diarrhoea or pneumonia contracted because of their poor health. Poor and few educational facilities prevent them getting an education and there is little understanding of the spread of infection.

The infrastructure is poor, including health facilities and anything to run them with, such as power or medical supplies. There are few roads and fewer cars. People commute on foot or on the back of trucks. Health does not become a priority until the illness is acute. Babies are born at home without trained attendants and frequently die as do their mothers. Women have multiple pregnancies complicating their health. Irrespective of being a Catholic country, few use any family planning methods. This is not because of their religion, but simply because they have little education, and no knowledge or access to contraceptives of any kind.

When people get sick they accept they will die without help. There are no communications such as telephones, and no transport such as busses in the rural areas. Although mobile clinics have appeared over the last few years, the numbers of these are low and they are poorly staffed. Regardless of the country having a free health system, there are severe access problems due to a lack of access caused by poor infrastructure. There are only the two St Bahkita Ambulances to collect both sick people from homes or return people or bodies from hospital to home. Although a large number of NGOs are operating in the country, health care remains poor and a catalyst to further poor health.

One Health Three Worlds Apart



CHAPTER 8

Across the Divide

8.1 Introduction

The previous four Chapters have illuminated the contexts of life in three South Asian countries, through case studies developed using the major social determinants of health as indicators, and provided a description of the health inequalities of Aboriginal Australians. The descriptive nature of the Cases has allowed the reader to gain an insight into the social relationships and the lives of groups in the developing world. This Chapter presents an analysis of the eco sociological contexts or external view of the groups using the frameworks discussed in section 3.3.3, in order for analysis of the contexts to identify similarities between the cases and Aboriginal Australians. The uniqueness of the groups both geographically and philosophically is of importance. The groups are profiled here, with the geographical residence of the groups considered in terms of access and equity, and culture shown as a major contributor to health. Regardless, all remote groups are profoundly affected by legislation or government action (upstream indicators).

8.2 The Groups in Profile

The purposive selection of these groups has provided some useful data for comparison. Politically, Laos is Communist, Timor Leste and the Philippines are Republics, and Australia is a Democracy. Timor Leste and Laos PDR have the smallest population, the majority of whom are traditional or indigenous groups. Australia has a comparatively small population of some 20 million people, with Aboriginal Australians numbering less than the entire country of Timor Leste. The Philippines have the largest population of the groups studied. While the majority are indigenous, the urban areas are westernised and the remote areas are more traditionally Filipino. The group studied lived within the Cordillera and numbered over 70% of the population of the island of Luzon. To examine a profile of the chosen countries, data were taken from international statistical databases. The groups were subgroups chosen as they are the ones who are utilised as stereo types for ‘developing world health’. Although the specific

details of the individual participant groups are not always listed, the table below provides an overview of the country in which they are subgroups. Australia as a country is not compared to these. Where available Aboriginal Australian data were taken from the latest Census data for comparison. Statistical data for the developing world was obtained mainly from the WHOSIS, the UNPD or the CIA Factbook. A brief comparative schematic profile of the participants is in the Tables 8 and 9 below.

TABLE 8: PROFILE OF COUNTRIES/COMMUNITIES

Country	Philippines	Lao PDR	Timor Leste	Australian Aboriginal	Australian
<i>Status</i>	<i>Developing</i>	<i>Least developed</i>	<i>Least developed</i>	<i>Subgroup</i>	<i>Developed</i>
Total population:	86,264,000 70% rural	5,759,000 75% rural	1,114,000 Mostly regional	495,000 >70% urban >20% remote	20,530,000 >88. % urban < 1% remote
Pop Growth	1.8%pa	1.8%pa	5.36%pa	2% pa (13% in last 5 years, ABS)	1.8%
Age Less than 15 yrs	35% Less than 15 yrs	39% Less than 15yrs	51% less than 15yrs	50% less than 21 yrs (ABS)	50% less than 37 yrs (ABS)
GNI / capita (US\$) (CIA Fact book 2008)	5,980	2050	840	17,414	35'860
GDP / capita (US\$) (CIA Fact book 2008)	3,300	2,100	2,400	n/a	38,100
%age on less than \$USD daily (WHOSIS)	14.8	27	n/a	-	-
Infant mortality rate (under 12 months)	23 (UNPD)	52 (UNPD)	67 (UNPD)	9.7-16.2 (State specific ABS)	4.2 (ABS)
Child mortality rate (under 5 years)	27 (UNPD)	75 (UNPD)	91 (UNPD)	not available	.4 (ABS 2001)
Median individual income (US & AUD\$)	3,430 (US\$)	1,740(US\$)	5,100(US\$)	14,456 (AUD) (ABS Cat 4713)	24,596 (AUD) (ABS cat 4713)
Life expectancy at birth m/f (years):	64/71	59/61	64/69	59/65 (ABS)	79/84 (ABS)
Healthy life expectancy at birth m/f (WHOSIS 2003):	57/62	47/47	48/52	n/a	71/74

Source: WHOSIS 2003,2008; UNDP 2008; CIA Factbook 2008

TABLE 9: EDUCATION/ EMPLOYMENT COUNTRY STATISTICS

Country	Philippines	Laos PDR	Timor Leste	Aboriginal (Australian) ABS
Unemployment	High/ outworkers 7.4%	Little available 2.4% (2005)	Little available 40%	14% (4.5%)
School enrolment	94%	83.4%	N/A	Approx 90% (95%)
Adult literacy rate	92 .6	68.7	58.6%	60% (99%)
Education expenditure (% of GDP)	2.5%	3 %	N/A	N/A (4.5%)

Source: WHOSIS 2007; World Bank Development indicators 2007; CIA Fact book 2008; ABS 2007

8.3 The External View: ‘The Means ‘

The historical, social, ecological and culturally specific contexts of people’s lives have profound effects on population health. Through the construction of case studies using an Eco Social framework developed for data collection, the research has identified similar determinants across groups using Znaniecki’s concept of ‘analytic induction’ (Gomm, Hammersley and Foster 2000). This required studying a number of cases within a class and generalizing to identifying common significant characteristics. Induction has also provided insights into the inequalities amongst the groups. Krieger’s (2001) Eco Sociological theory examining the nexus between social justice and public health is influential on the conclusion as it relies on the premise that lifestyle is influenced by history and the environment in which people live; that their lifestyle choices are influenced by the contexts in which they live and work. From an Eco Social perspective Table 10 below provides an overview from the data as to some of the major similarities and differences between the developing world and the developed world of Australia in which Aboriginal Australians live.

Table 10: ECO SOCIAL DETERMINANTS OF HEALTH OF THE PARTICIPANT COMMUNITIES

Indicators	Philippines	Laos	Timor Leste	Aboriginal Australia
History	Invaded by Japanese, occupied by USA Now independent republic	Invaded by French Bombed by America during Vietnam war, Now independent. Republic*	Invaded by Portuguese, Japanese, Annexed by Indonesia, independence in 2002.	Invaded by Europeans. Settled by English. Nation subsumed to invaders.
Political system	Democratic Republic	Communist/ socialist	Democratic Republic	Democracy
Governance	Village Native rights enshrined in law.	Village/ Resettlement	Village Land rights recognised	State Native title only through federal system.
Religion	Catholic /Traditional	Buddhist	Catholic	Christian/ secular/ traditional
Culture	Traditional / Ifugao/ Western influence	Mostly Traditional Hmong/Aku/ Phunoi	Traditional Small western influence	Mixture of Traditional Aboriginal / Heavy Western influence
Geography	Mountainous	Mountainous	Mountainous	Mostly pastoral & desert
Education	High priority, High %age Primary: satisfactory Secondary: Poor access Tertiary: Poor access (93.6% literacy)	Low priority, Low %age Primary: Poor access Poor facilities Secondary: Poor Access, little infrastructure (68.7% literacy)	Low priority, Low %age Primary: Poor facilities Poor/ no Access Secondary: little infrastructure (58.6% literacy)	Low priority, Low %age Primary: Free access Secondary: Inequitable access Tertiary: Limited access, inadequate prerequisites (literacy rate unreliable - low)
Employment	Local mining, taxi driving. Subsistence farming	Local industry only subsistence farming (80%)	Little employment available. Coffee Coop, subsistence farming	High unemployment. Little employment available. Little local employment. Health workers/ teachers aides.
Income	Subsistence/ employment	Subsistence/ employment	Subsistence/ employment	Social Security
Housing	Galv Iron inadequate rooms, no services	Traditional. Cold and smoky	Traditional, cold and dark. Separate kitchen.	Poor condition/ inadequate for numbers.
Water supply	Collect and carry	Collect and carry	Collect and carry	Piped/ inadequate
Food supply	Some commercial Subsistence farming	Subsistence farming	Subsistence farming	Commercial/ high fat/sugar
Waste disposal	Some W/C, inadequate	Traditional/ Nil - inadequate	Traditional/ Nil - inadequate	WC's/ inadequate
Health services	Fee for service. limited. Poor quality TBA for childbirth. Few delivered in hospital	Fee for service Limited. Poor quality TBA for childbirth. Few delivered in hospital	Free when accessed. Nil-Limited. Poor quality. TBA for childbirth. Few delivered in hospital	Free. Limited in regional areas: Flying Doctor in emergencies Other access problematic Urban culturally poor. Childbirth in Hospital
Roads/ transport	Mixed/ mountainous/ dangerous	Poor/unsealed/ mountainous	Poorly maintained/unsealed/ sealed/mountainous	Sealed/ unsealed /intermittent public transport, some vehicles
Power	Limited electricity Gas cooking	Electricity Limited time/	Electricity Limited time/ Wood fires	Electricity 24/7 if recognised community. None in camps/ Campfire
Communications	Limited/ people do have cell phones / nil towers in mountains/ some land lines	Limited. Police have two way radio. Sparse cell phones /land lines/ nil in mountains	Limited. Police have two way radio. Sparse cell phones /land lines/ nil in mountains	Radio/ TV/ Telephone/ available: satellite/ land line and limited cell phone

8.3.1 The influence of history

The way a particular group see themselves and the way society at large see them, is frequently seeded in the historical development of the country. Aboriginal Australians, the Filipinos, Laotians and the people in Timor Leste have all experienced invasion and occupation of their lands, some in their recent history. For some, such as the East Timorese, this has been within the last few decades. The Philippines were invaded during the Second World War by the Japanese. In Laos the French occupied them earlier in their history with a civil war in neighbouring Vietnam in which western countries occupied the country in the 1960's. Prior to invasion or occupation, the populations in each of these countries lived in small communities with a recognised traditional community structure. During these harrowing experiences people were often disconnected in physical ways from their families. Despite major destruction to the environment and multiple deaths, the invading groups have withdrawn. They have managed to regain their independence and have become either a democratic republic or Peoples Republic. They have maintained their culture and thus their social capital.

The history of Australia records the arrival of white men quite differently to the other countries who have had people invade their land and dispossess them. The act of dispossessing the original inhabitants in the Australian records is deemed to be 'settlement'. However, Aboriginal groups experienced comparable massacres and death to those in Asia. They were dispersed from their homelands and taken from their families in many cases, educated to be 'white' and lost much of their language and culture. This effectively robbed them of their social capital which has been shown to be imperative for health (Baum 1999; Kawachi & Berkman, 2000 and Mustard 2006). Sadly, unlike their Asian neighbours who had been occupied, Australia's 'settlers' never left, but have effectively maintained and extended their habitation with continuing adverse implications for Aboriginal Australians. Within the Philippines, Timor Leste and Vietnam, there was reconciliation between the people and their lands. In Australia, there was scant reconciliation from the British. Not only was Australia invaded without recognition of its indigenous inhabitants, the cause of their poor health is mixed with the repression of coloured people through various legislation (Raftery 2006).

8.3.2 Education

Education not only leads to employment, it is important because it provides healthier mothers and thus family and population health (Marmot 1999, Turrell et al, 1999, Mustard 2007). School enrolment and literacy rates varied widely amongst the countries. The Philippines were found to have the highest regard for education, thus have highest school attendance. Filipinos worked hard at menial jobs just to send their children to school. Even though they came from regional areas, they had high literacy rates. In the other two Asian cases literacy was found to be extremely low. In both Laos and Timor Leste access to any type of education was compromised by distance, a lack of transport and a lack of educational resources, particularly secondary schooling. In Australia, Aboriginal groups have widespread access to primary education but not always secondary education. Although school attendance in Aboriginal Australians is high in comparison to Timor Leste and Laos, their literacy rate is very low compared to the rest of Australians with whom they are competing for equity. The Filipinos having a higher education than all of the groups, but there is little employment available in this heavily populated country, and few opportunities to gain employment.

However, the Filipinos have an advantage over each of the other cases. Their legacy of having the Americans as allies during the 2nd World War has been a catalyst to the use of the English language. Although people use their own dialect amongst themselves, instruction in schools in the Philippines is primarily in English. This provides easy access to many courses internationally, as well as wide spread (including international) employment. In Laos and Timor Leste, the language of instruction was either Laotian or Tetun respectively. There was also a lack of educated adults to provide tutoring; with some saying they did not feel confident enough to support their children with school work. Children were not encouraged to gain an education as employment was scarce. Within many regional and remote Aboriginal communities, instruction is dual, English and language (Pitjantjatjara, Walpri and Yolgnu to name a few). As children use their first language almost exclusively at home they do not become proficient in all spheres of English. This precludes them from gaining a secondary education because at this level English is used. For all but the Filipinos, poor access to

secondary education precluded most from attending school and in particular higher education. For many Aboriginal Australians poor English literacy levels have precluded their chances of gaining entrance to higher education and higher paid employment (Hughes & Warin 2006). In the developing contexts, especially Timor Leste, parents reported feeling incapable of supporting the education of their children. The literature reported the same for Aboriginal Australian parents.

8.3.3 *Employment*

In all four cases unemployment was extremely high. The East Timorese and Laotians lived mostly subsistence lifestyles. All over South East Asia many people ran small roadside stalls selling food or household items. The Laotians subsistence survival and their isolation is due to poor infrastructure like that of the remote East Timorese. That group have equally poor housing, suffer from malnutrition and high maternal & infant mortality due to poor access to facilities and education. Likewise, the people in the Cordillera of the Philippines also have poor housing, and few facilities in their area of residence. Like the Australian Aboriginal they have experienced a loss of their traditional methods of food production due to the introduction of global influences, namely mining! Here, along with subsistence from the land, there was small scale employment in the mining operations. However, the occupation of mining was shown to be not only a major health hazard; it was also an environmental hazard. Much pollution was seen as a result of mining operations. Mining has also interfered with the amount of food people can produce as much of the land and many waterways are polluted. Consequently the water supply is of poor quality affecting any irrigation or gardening. The people are forced to exist on small land holdings and substitute income by doing seasonal work. Some had other employment such as driving motor cycle taxis or buses. Such stress has shown to be detrimental to health, shortening lives considerably (Marmot 1999). In the absence of local employment, outworking⁶⁶ is a major source of income for Filipinos, but the Timorese and Laotians are not so lucky. Where the next meal was coming from was extremely stressful for these groups. Without employment, or income and with the land for farming tenuous, just planning what to do next to support their

⁶⁶ This is working overseas to return money home. See 5.4.1 for further information on outworking.

families was paramount in terms of lifestyle. The women in both Laos and Timor reported their children to be underfed. This, as well as becoming pregnant again with another mouth to feed was their major concern. Evidence shows that malnutrition is a major catalyst to childhood infections, diarrhoeal disease and death. It adds significantly to mortality rates in infants and children (WHO 1999). It is this reason that the number one MDG is to eradicate poverty.

In Australia, such concerns are of a completely different nature. Social security or a living allowance can be obtained from the government regardless of the education one has and many writers agree that this has caused apathy amongst Aboriginal people, especially towards education (Pearson 2000; McDonnell 2003; Hughes and Warin 2006). The resultant low literacy levels preclude employment for Aboriginal Australians when it is available. Local health worker and teaching aid positions in the community require indigenous status, have low entry levels and provide employment. However Aboriginal low literacy levels make employment outside of their own community very difficult. Racism, although illegal, is also an unspoken problem mentioned in the literature which prejudices employment. A number of Aboriginal people work for their Government welfare through the CDEP program. Without this program the unemployment figures would be much higher.

A high percentage of the Aboriginal Australian population is either incarcerated or has experienced incarceration which also prejudices employment prospects and perpetuates intergenerational disadvantage. This is discussed further in section 8.3.4.

8.3.4 Income

In south East Asia the substantive incomes are low. People survive through subsistence farming, or living on the proceeds of outworking. Subsistence farming is not an option in an arid land like Australia and people must rely on an income of some sort, being employment or welfare.

Those out of work are provided a 'living wage' from the Government. But there are other issues to consider. Welfare has become both a benefit and a deficit for this group. Longitudinal studies have shown that the IMR reduces as family benefits are increased (Wennemo 1993). Where lack of employment and low

incomes is prevalent, the IMR rises markedly. Where providing an income improves one indicator, other indicators become worse. Such 'sit down' money has been discussed as the cause of a poor motivation to obtain employment amongst this group (Pearson 2000). Further, the time not working provides space for other pursuits such as drinking alcohol or gambling. This further contributes to poverty a low SES and sometimes encounters with the justice system. In addition there is a high number of Aboriginal Australians incarcerated.

Although they constitute just 2.5 % of the Australian population, Aboriginal people make up 16% of the prison population. With such a high proportion in jail, the chances for Aboriginal people to role model an alternative for their families is very low. The perpetual spiral into poor socio economic status precludes any hope of improved health. There is also a loss of social capital in this group. Efforts to provide Aboriginal groups with a higher wage through welfare, has not improved their health accordingly.

8.3.5 Housing/water

Housing and water was reinforced in this study as a major determinant of health. The availability of water was also seen to be an 'upstream' issue as few had it piped into their communities. During the study, the availability of water in both Laos and Timor Leste was in scarce supply and pivotal to the health of the people. In these countries water and sewage was a low priority with governments, with few areas having anything like recognisable standards of hygiene or waste disposal. These two groups were the captives of poor hygiene and unable to do anything about it because of their lack of knowledge (or education) of how infection spread!

All of the groups were found to have inequalities against urban populations in the area of housing. The South East Asian groups built and sustained their own housing which was usually traditional, but often inadequate for a healthy lifestyle. A worse situation was reported in the review of Aboriginal housing (Baillie and Runcie 2001). Many Aboriginal people were reported to be living in temporary housing they constructed themselves. Unlike the other groups whose housing is a traditional design, suitable for reasonable lengths of habitation, Aboriginal Australians utilise plastic sheeting or galvanised iron, which is completely ineffective as healthy housing. Similar to the houses in Timor Leste, Laos and the

Philippines, these have no water, power connections or waste disposal available. Toilet facilities or waste is shown to be major problem in most of the cases. If Australian Aboriginals gain Government supplied housing facilities are better, but there are major insufficiencies to supply housing to those in need and so overcrowding occurs.

8.3.6 Health service access.

Poor access and equity to health services is a barrier to health maintenance. In both Australia and Timor Leste, public health services are free to the people. In Australia, even if the people are isolated in remote communities, extensive health support is available. Evacuation to major health services can occur by either motor vehicle or through the Royal Flying Doctor Service. Costs for such flights are paid by the Commonwealth of Australia. Access to health personnel is regular, if not always immediate. Most remote communities have Community Health Clinics designated for Indigenous use. Although nurses staff the clinics predominately, medical services are available 24 hours a day, over a 7 day week. Many clinics are run by Indigenous organisations, many run by the Government. Regardless, health promotion is a priority. Immunisation is high among Aboriginal Australians and ante natal care is encouraged as this group are regarded as an 'at risk group'. Comprehensive health and medical records are collected and held. Likewise the Timorese are not charged for health care. However, access to the limited services available provided extremely poor health outcomes, especially for women in childbirth.

Unlike Australia and Timor Leste, health care requires a fee for service in Lao PDR. Regardless of the differences in health policies, little access is available due to poor infrastructure; poor roads; lack of a transport systems and inability to pay for the meagre transport available (the back of trucks). To contribute to this, communications to either call for help or to gain advice are almost non existent. In the Phongsali Province of Laos PDR and in the Cordillera of the Philippines few services are available. The larger towns have regional hospitals, but these were found to be extremely impoverished and lacking in adequately trained personnel. This again provides a major problem for women in childbirth exacerbating the already high maternal and infant mortality rates. Access to

family planning was also a catalyst to poor health. The people's understanding and ability to control their fertility perpetuated poverty.

Where the dominant religion of Timor Leste is Catholicism, it might be thought that the attitude to contraception would be negative. In surveying the people, it was found that their lack of education and access to health services, in particular a lack of contraceptive knowledge was almost the sole reason for having large numbers of children. Some knew of contraceptive services but were unable to access them because of poor infrastructure and economic constraints. Thus, their families grew larger, their health poorer. Many men expressed concern over the health of their wives and some had lost their partners, leaving them with large families. They did not want large families but were uneducated in methods of contraception or even in fertility cycles. They were concerned about the potential of their young people getting HIV, but had never seen a condom. Poor access to health information and services was found to be similar across the three Asian Case studies. It was found to be qualitatively different in Australia.

The poor health of all these groups is magnified by both a lack of access to and the quality of services. This was shown in each of the Asian Case Studies. One of the major issues in accessing health services, are the costs involved in infrastructure and human services training. Without infrastructure such as sealed roads and transport people had to walk hours to get to clinics. Most women did not have antenatal care because of this. Nor could they get family planning information or even know it was available. In two of the countries, Timor Leste and Australia, where health care is free, costs did not inhibit people accessing services. In these cases it was always distance. In the Philippines and Laos, even a minimal fee inhibited individuals from seeking health care even where it was accessible. Many people died instead of travelling the long distances. Up to 90% of all births in Asia are at home because of the lack of infrastructure to get trained assistance.

Communications are also a problem. There are few methods for communicating in regional Asia.⁶⁷ In Australia, there are usually some land lines, two way radio communications or mobile telephone through which to access to primary health care clinics and the RFDS. However, there were reports of Aboriginal health being

⁶⁷ Although mobile telephones are becoming more prolific now, they were expensive and not widespread at the time of the data collection.

compromised because of distances or a lack of services altogether. In Australia, inappropriate health services (mainly 'white and western') are reported to be a problem. This has required Governments to provide culturally appropriate health services but they there are inadequate numbers of them.

Maternal & Neonatal health

In Laos and Timor Leste women usually birthed at home with the family assisting there are few birth attendants of any type. In the Philippines there are traditional birth attendants (TBA), and many women talked of using these people.

Aboriginal Australians birth almost exclusively in the presence of a trained birth assistant. Home births without trained assistance contributes to the high maternal mortality rates (WHO 2005), and applies equally to those women in both Laos and Timor Leste. Woman here are reported as dying at high rates in childbirth from haemorrhage and sepsis.

In the Asian Cases many maternal deaths could be improved by good nutrition, reducing the number of children women have, as well as spacing them. Even though there were a few health clinics in the isolated regions they were not used well as all health services were charged for. Untrained TBAs often accepted some sort of barter payment and was thus used more frequently instead of regular health services.

The main causes of death in children are respiratory illness and diarrhoea. In two of the three Asian cases [Timor Leste and Laos], causes of death are varied, but children suffer from the conditions of malnutrition and diarrhoea. The latter is most likely a cause of poor hygiene due to inadequate water supplies and poor hygiene.

Similarly, Aboriginal people, with poor educational levels, suffer from the throes of gastro intestinal infections. While they have access to health care at a community level, they often have difficulty getting to specialist care or similar. In the urban areas people have access to Aboriginal run health services, but these are often spread unevenly throughout the suburbs requiring much more effort than attending a local practitioner. However, the local practitioner is unlikely to be as culturally sensitive as service providers in the Aboriginal Health service.

The WHO (2005) reports that the causes of maternal deaths are having children too young, too many and too often. When compared to the western world, these

communities are badly handicapped. Education even where available has been discouraged in the past and is often inaccessible either through distance or costs. This has a profound bearing on the health of women in childbirth, with many women dying where they have no access to trained care or health facilities. Where care is provided free and people can access it, health is notably better. Note that Aboriginal Australians deliver the majority of their children in hospital. The majority of babies in the other Cases were born at home, thus the huge gap in MNH figures with groups who have no opportunity to have trained personnel.

Although Aboriginal Australians can be seen to have better power, communications, income and a food supply, their access to any of these things is tenuous at best. They are reliant on the Government for an income and housing. In areas where they are the only population, their housing, water supply and waste disposal is inadequate and as poor as those in developing situations. In regional and remote Australia, they are also at the mercy of high prices which frequently consumes their income. Although many have health care in the form of community health clinics, their distance to major hospitals or medical care requires motorised transport or the Flying Doctor. Whichever, it takes them from their lands and significant others. Furthermore, they often face institutional racism or discrimination within the mainstream health services. As in developing situations where access is almost nil, delays often mean deaths.

8.3.7 Cultural considerations

Culture in these populations is of major importance. Although it was found that cultural practices enhanced community and social capital, in all of the groups it was found that traditional practices could have detrimental effects on the economic situation of the family. In the Philippines both births and deaths can cost a family whole life savings, as can celebrations surrounding death. In some of the Cases culture dictated large unaffordable families, often resulting in the loss of a mother or baby, or both. In either case the resultant prognosis for the remaining family was poor. Often people have tremendous faith in traditional healers to the detriment of their health, but culture can also deplete any savings a family might have. E.g., the death of a family member demands a long 'wake' in the Philippines through which the family must feed the visitors. This can send them bankrupt.

Children had malnutrition, and often died from infections. An improved resistance could have been gained at birth, but it is customary to discard the colostrum (first breast milk) which contains the antibodies to protect the neonate. In Australia, culture plays cruel hands of fate to Aboriginal people who are rendered homeless or experience long term overcrowding due to vacating houses in which a people have died. Similarly, the wish to maintain the language of their forefathers and not teach English has sentenced whole populations to unemployment. Those with English skills have fared much better and have improved prospects and their health as the literature attests.

Only recognised as ‘citizens’ within their own country during the last half of the 20th Century, the historical deprivation of Aboriginal people which causes drinking, violence and damaging behaviour is one of the many reasons commonly postulated for poor health. Although Pearson (2001) rejects this, Aboriginal people are torn between two cultures and a lack of cultural orientation and social capital has been reviewed as the cause of a much incarceration and poor mental health (HREOC 1997). The injustices and discriminatory practices dealt to Australia’s Aboriginal people over two centuries of European occupation have had a lasting legacy. Aboriginal Australians continue to find themselves disenfranchised of their culture in a Western world.

In each Asian Case Study culture was of paramount importance in the lives of the people. Regardless of the amount of education they had or the employment they held, people continued to perpetuate traditional beliefs. Furthermore, traditional practices are supported by the Governments in the countries chosen, and maintained by the people. This was found across a wide range of social events (deaths, births, marriages and illness). In the Case of both Laos PDR and the Philippines there has been a concerted effort by governments to support ethnic minorities and their cultures. The continuation of some traditions does inhibit the group’s development, however, even through occupation by other nations, these groups have maintained their language, traditional practices and thus, their social capital which has shown to provide them with an improved health status.

8.4 The Internal View: 'The Ends'

To understand Aboriginal Australian inequalities it was necessary to note the effect that 'competing' with all other Australians has had on them. However, to see where Aboriginal Australia rates in health inequalities on a global scale (which is what this thesis is about), it is necessary to compare country to country statistics. The table below provides a picture of the similarities and differences and illuminates the position in which they are placed internationally. Here we can see the major differences created by the determinants of health in these groups. Moreover, this study has provided background information to these 'ends'. Where education and infrastructure is more prevalent, there is more family planning and fewer births and markedly less infant and maternal deaths (see Table 11 for the Philippines and Aboriginal groups against Laos and Timor). The nature of illness in the countries is quite different as well. Although there are acute respiratory infections in children and some diarrhoeal disease, Aboriginal Australians experience chronic diseases such as cardiac and renal conditions.

TABLE 11: COMPARATIVE HEALTH STATISTICS:

Source: WHOSIS 2007, 2008 & World Bank Development indicators 2007, CIA World Factbook 2008, ABS 2007

Country	Philippines	Lao PDR	Timor Leste	Australian Aboriginal (All Australian)
Health in relation to mainstream populations	Fair Causes of death: Chronic conditions, trauma, disease & childbirth	Poor (Slightly Higher longevity). Causes of death: Trauma, disease & childbirth	Poor. Causes of death: Trauma, malnutrition, childbirth, accidents	Poor. Low longevity Causes of death: Acute disease/accidents Chronic conditions (All Aust)
Malaria Reported cases WHO	43,644	18,894 (1% in Phongsali)	31,819	n/a
Prevalence of TB per 100,000 pop	789	292	432	(7)
Deaths per 100,000 pop	n/a	n/a	98	-
Life Expectancy at birth M:F CIA Factbook	68:74	54: 58	64:69	59:65 (ABS) (79:84)

(Table 11 cont'd)

Country	Philippines	Lao PDR	Timor Leste	Australian Aboriginal (All Australian)
Fertility rate CIA Factbook	3.3	4.5	7.8	2.15 (ABS) (1.78)
MMR (WHO 2008)	230	660	660	34.8 (ABS) (4)
IMR <12 months WHOSIS	25	62	52	10.6 (ABS) (5)
Neonatal MR WHOSIS	15	30	29	(3)
Under 5 probability of dying WHOSIS	32	75	55	- (6)
% GDP spent on Health WHOSIS	2.9%	2.9%	13.7	(9%)

8.5 Discussion

In the globalised village of the 21st Century, people are inextricably bound together. Their SES and thus their health is dependent on the wider economy. In the developing world there is poor housing, education, malnutrition of the children, high neonatal, infant and maternal deaths. In the past their development has been dictated by other countries, and still today, trade agreements in other countries can have deleterious effects on their economy and consequently the wellbeing of their people. Upstream interventions remain the most potent. A government decision to go to war affects people in that and the target country. A decision to support a war, affects the population as a whole. A government legislating for a national health care policy saves many lives. A decision not to, puts many into poverty. Although such decisions will affect the GDP and the standards of living of the majority, in this case it is the subgroups which are of concern. These groups are the most vulnerable in terms of poverty, access and equity to health care.

In the three overseas communities the causes of poor health result primarily from poverty, where as in developed countries chronic disease is a growing problem and also a problem in Aboriginal Australia. The causes are many in all cases, but primarily include past upstream policy decisions on infrastructure and health care.

Laos and East Timor's poor GDP is a major handicap to improving some of these determinants. In Australia, the problems are quite different.

It is true that many Aboriginal communities do not have equality with mainstream populations but in terms of the GDP or 'trickle down' effect there has been monies available for improvement. However, even where such infrastructure is in place there continues to be poor health. There is clear evidence that through improving poverty and increasing access and equity to the determinants of health there would be real progress made in global health (Wilkinson 2005 and Sachs 2008). Ring et al (2000) argued that there is nothing magical about how to improve Aboriginal Health. Just implement the National Aboriginal Health Policy recommendations. Report after report has recommended the same thing and after 20 reports, Mooney (2003) contends that nothing else has been done. Reports and reviews have done little, and it would seem that stronger government action is required to improve Aboriginal Health in real terms. As Labonte has pointed out (cited in Baum 1999), many socio economic health risks can only be changed through government legislation. The health sector alone does little for the health of populations. It is a combination of social and legislative action which precipitates a healthy population and this requires inter sectoral cooperation (Turrell et al 1999, Marmot 1999, Kawachi 2002).

Therefore any policy which improves poverty will improve the health of the population and has important consequences for people with low SES. Poverty reduction is not just altruistic; it improves production and higher prosperity and in turn, allows governments to provide for their population. The discussion on inequalities is based on the premise that people need to gain equity with the rest of a given population in particular in health. Health is not only important to the people, because Governments stand to benefit if a population are productive and not dependant (Kawachi and Kennedy 2001: p42).

Summary

This research has investigated groups with very different cultures and contexts. In order to obtain like, meaningful data it had to be collected from a generic perspective. The social and ecological determinants of health derived from the frameworks have arisen from empirical research and the form it took was therefore very sequential illustrating the situational context of those determinants.

This study has provided a collage of lived experiences of people in their own cultural milieu and reviewed the literature relating to Aboriginal Australians with whom these contexts were compared. The work has provided illustrations of life in various international contexts for the reader to reflect on and compare with each other. The cases have provided the means by which the reader can come to an understanding of the end results. That is, what are the similarities between the developing world and Aboriginal Australians.

Although there are many similarities between the inequalities the two worlds experience, there are also differences across the two worlds. One of the most notable, is that Australian Aboriginals are the original owners of Australia, but have been disenfranchised and subordinated firstly by the British and secondly by the Australian population at large. Unlike the other groups studied, they have lost sovereignty over their own country. They are a unique people like the American Indians and the New Zealand Maori who have been rendered stateless and unable to maintain their culture in the face of constant competition with Western culture. In comparison to the Asian groups the loss of their status as a sovereign state has affected Aboriginal Australians ability to define themselves. It has diminished their social capital and the way in which they perceive themselves within the global context.

In each Case Study, it can be seen that the upstream determinants have a direct influence on the health of people. As well, the history of past policy decisions is inextricably wound into the health outcomes they experience today. This study has shown that even across such diverse cultures, history has had a major influence on the way in which people live and health has been socially determined. In congruence with the literature, a great number of the determinants of health in this research were out of the control of the populations, while others were so inextricably linked to their cultural makeup that changes are most unlikely. It is clear that there are many opportunities to improve the health of this group by instigating appropriate government policies, particularly in the area of the upstream levels of health determinants. The following extract from Sutton (2001) is timely here.

*Limits to the powers of policy should not be underestimated,
and the historical burden of policy in creating misery in this*

case should not be exaggerated. It is just one of several distinct factors in the mix. Having said that, it is arguable that policy, unlike history is something we can change, and policy, unlike culture, is something that can be changed over a short period.

(Sutton 2001:p126)

One Health Three Worlds Apart



CHAPTER 9

Conclusions

Chapter 9 Conclusions

9.1 Introduction

We *know that* globally, marginalised and minority groups have similar lives experiences which impact negatively on their health, but the problem here was one of *knowing why* this particular group have poor health given the status of their country. The *impetus* to write this thesis were the constant reports of Aboriginal health being likened to that of the developing world. The *catalyst* for the inquiry was the burgeoning list of studies providing insights into the social determinants of health. The *goal* was to investigate similarities between the health of the two worlds to see if the hypothesis was true (*the ends*), and to identify the reasons for it (*the means*).

Given the plethora of evidence on the implications of policy for health provision, I aimed to provide an understanding of the ways in which indigenous communities internationally are disadvantaged in common, and how their health is developed; how poor policy impacts on their health. Further the problem was not isolated to simply health, but all of the determinants of health which go to producing the ‘phenomena’ of the developing world. There is much we do not understand about the contexts of traditional peoples lives. There is also much we do not understand about those who have been Westernised, but still relate to their traditional heritage. The use of the evidence attesting to the social determinants of health has provided me with the ability to better able appreciate the complex, interacting factors that contribute to the poor health of traditional groups in comparison to mainstream populations, in particular Aboriginal Australians in a developed country, that is the traditional or developing world against the developed world.

Within this thesis it has been postulated that there may be no conclusions from the work done by case studies; there may only be hypothesis on what strategies should be implemented to improve the situation, or suggestions for further investigations to be made. This chapter discusses the results of the study in terms of the phenomenon of poor Aboriginal health in Australia. The conclusion is discussed

as well as the basis for strategies which could be implemented to improve health in these Australian communities. The contribution that this thesis makes to new knowledge is also reported here.

9.2 The phenomenon of the developing world in a developed country.

The problem requiring investigation in this thesis was the one of *knowing if* there was a phenomena similar to the developed world in Australia and *knowing why*, or being better able to appreciate the complex, interacting factors that contribute to Aboriginal Australians having health commensurate with a developing country in a developed world.

The study examined the more traditional and isolated populations in the Philippines, Lao PDR and Timor Leste because, as Aboriginals suffer worse health than the rest of Australia, these groups all suffer poorer health than their mainstream populations. The focus of the thesis was on the contextual aspects of the lives of these groups to isolate their health inequalities. As subgroups, all the participants in this study were disadvantaged and powerless minorities in their own country, purposively chosen as these are the groups targeted for media images which portray the phenomena of the developing world. The data from these groups has been compared to the contexts of Aboriginal Australia and found to be similar in some ways, particularly historically, but different in many other ways. Aboriginal Australians cannot be compared to the developing world as their contexts are substantially different.

The belief that case studies could provide a rich tapestry of information and an insight into human situations was vindicated. Case studies provided a useful tool to provide a greater understanding of the developing world. The identification of determinants of health across the communities and the *effects* those determinants had in their contextual milieu distinguished similarities between the groups. As Stake attested they would, these Cases have provided *...understanding as a method ... a form of empathy or recreation in the mind* (in Gomm et al, 2002 p21).

The answers to the questions which were put forward to assist with the hypothesis follow.

9.2.1 What are the similarities between the contexts of the developing world and Aboriginal Australians

Although the data have shown there are many similarities between the determinants of health in the developing world and Aboriginal Australia they are qualitatively different, and there are many differences, in particular their health is markedly different. There is a phenomenon of poverty and resultant poor health, but it is different to that in the developing world. Although these two ‘worlds’ are constantly compared, even a cursory glance at the health statistics of the two contexts shows their health is not the least bit similar. The proportional mortality rates exceed the developing world, but the health states and even the MNH statistics are not similar with Aboriginal Australians.

A lack of upstream determinants of health, many being the cause of which could be placed within the contexts of history, were found to be a catalyst to a multitude of health problems. Some government policies through history have caused a cavalcade of poor outcomes for all of the groups, but for Aboriginal Australians in particular.

Legacy of History

The upper level determinants of health, or those affected by government policies were seen to have major impacts on both worlds. Aside from language loss and other social issues, these impacted on housing, a water supply, power and access to health facilities. Housing of poor quality is the ‘norm’ in the South East Asian context, with few having piped water. Although access to housing is poor across Aboriginal Australia, in remote Australia there is a severe short supply which leads to overcrowding or homelessness. Although water was often piped in Australia, maintenance was poor, and even where it was plentiful, people misunderstood how important it was for optimal health. Likewise, in developing situations, hygiene which could have prevented multiple diseases and even deaths was not put into practice. Such actions could only be analysed as evidence of a lack of education, which was seen to be a major deficit in all groups. The poor supply of educational facilities for Aboriginal Australians mimics that of the developing world. However, a major difference between the groups is the willingness to access educational facilities. This is not so with health facilities.

Aboriginal people have a multitude of options when it comes to health care, and because of their poor health access these regularly. Long distances are subsidised by the Australian Government and health care is provided free. Although this has assisted in lowering the fertility rate and providing life giving care such as renal dialysis, compliance with recommended regimes is a problem which causes morbidity and perpetuates chronic disease. In the developing world, in the absence of facilities or transport people just waited to die if they could not access care. This was so whether there was national health care or not. Therefore, transport and communications infrastructure are extremely important in the schema of health.

Education also had an impact on employment where it was available. Where unemployed, Aboriginal Australians obtain subsistence from Government social services, which is a very different to the developing world. Subsistence activities related to supporting oneself produce self esteem and a degree of social capital, but being supported on a government subsidy has provided little incentive for Aboriginal people and may contribute to degrading their health.

Demographics

There are several striking differences between the groups. One is the place of residence. Regardless of a difference in the terrain, and climatic conditions they experienced similar contexts of living. In South East Asia most of the population are remote or rural. The majority of Aboriginal Australians live in urban areas, with 20% of them living in remote areas compared to only 1% of the all Australian population. The health of the remote group is statistically worse than the urban group.

Although the populations of Timor Leste and Aboriginal Australia are growing the fastest, all have young populations, with the majority of the population in both cases, being less than 35years. Both Timor Leste and the Philippines are strongly Catholic, while Laos has a majority Buddhist population. Aboriginal Australians live within a 'Christian context', but many are secular or have their own traditional beliefs in the creation. Although the high fertility rate could be seen as a result of the religious influence of Catholicism dictating contraceptive restraint, in most of South East Asia it had more to do with a lack of education and poor

access to health services. This was especially so for the Timorese who have a fertility rate over double that of any other group studied.

The literature shows that groups from regional areas have a high level of poverty perpetuated by low education and higher fertility rates. In South East Asia, the cause of poor education is the result of poor infrastructure.

Maternal and child health

Research shows that groups from regional areas have a high level of poverty, low education and higher fertility rates. The education of girls and women has been seen in numerous studies to improve the health of whole families. In this study it was found that women in the more remote areas had fertility rates twice the all country averages. In developing countries there was little access to health services leaving women unable to gain reproductive health advice or contraceptives. Like Aboriginal Australians their low levels of education made them more vulnerable to further childbirth. The South East Asian groups lived mostly in poverty, with their children hungry and more likely to experience worse health than families with fewer children.

The women who had large numbers of children experienced a higher rate of poor health and complications in childbirth. The maternal mortality ratio in both Timor Leste and Laos were incomparable to the Aboriginal Australian situation.

Aboriginal Australian women have modern contraceptives and reproductive care, (although access is low by Australian standards), and comparably, a lower overall fertility rate due to their enhanced access to health services. Young women in all the groups were reported to experience a high rate of pregnancy in their teenage years and this is reflective of the findings in the literature.

The problems that alcohol and substance abuse and the associated conditions it is major problem to rural and remote communities. Alcohol is causing neurological impairment, while it is a catalyst to poverty, domestic violence and death. In communities where no dispossession occurred, these cannot be attributed to historical causes.

However, the history of all of these groups has dictated poor educational input due to either poor infrastructure or racial discrimination. In the developing world, the more regional and traditional the group, the less likely they are to have had a

reasonable education, and the poorer their health is likely to be. The intergenerational transmission of disadvantage of a poor education is probably the most important aspect among many which has led to poor health.

Education and employment

Poverty and history have combined to prevent adequate infrastructure and thus education and health. In comparison, for Aboriginal Australians a poor education is part of the legacy of intergenerational disadvantage. The English disregarded this group as meaningful residents and the rightful owners of Australia, and failed to provide them with any education at the beginning of their occupancy with which they could gain equity. In the 21st Century access to education is still not on an equal footing with mainstream Australians. Although as a policy education is compulsory, this is not the case for a large percentage of Aboriginal children. Consequently children of this group have lower literacy rates and commensurate unemployment and incomes. This has widespread ramifications, especially on long term population health.

In all of the communities access [no transport, no schools] was a problem which prevented an adequate education. This was found to have a major bearing on health with the ability to gain employment important for self image and social capital and in the developing countries, food. Unemployment in all the groups was high, but subsistence living was common in South East Asia. The people grow their own food and where there is adequate food, there are small scale family businesses such as roadside vending. There is little other available employment in any of the survey areas and what little there is, is often either poorly paid or dangerous and often seasonal. Even subsistence farming, is proving uneconomical due to poor payments for crops. However this requires hard work, which in turn prevents many chronic health problems.

In Australia the Government policy is to support unemployed people on social security payments. This has discouraged activity and the impact of this on Aboriginal Australians has been a rise in the health problems of obesity and its associated complications. Regardless of the lack of employment, a major problem leading to unemployment is the low level of literacy. In each developing country, a lack of education was found to be a major cause of poverty and thus poor health. In Aboriginal Australia low literacy was also

associated with problems of incarceration, mental illness and chronic diseases causing hospitalisation and widespread medicating. Further, few parents could assist their children either by being educational role models or by physically assisting their school performance. Further to this, the literature provides evidence that Aboriginal Australia is growing at a faster rate than mainstream Australia. The social role modelling and poor health outcomes experienced by Aboriginal Australia, will perpetuate poverty and disadvantage. Repeatedly, the evidence is that such poverty will manifest as poor health in future populations.

States of health

The health of Aboriginal Australians is poor by Australian standards, but maternal & neonatal outcomes are substantially better than those in the developing world. Other statistics, such as mortality figures are on a par with the developing world. However it was found that deaths occur from substantially different causes. This data show that the ‘means’ to those end health outcomes or the social construction of health between the two worlds is quite different.

This study illustrates only a few statistics on specific diseases states, but the data show they are different between the two worlds (see Section 8.4). In South East Asia many suffered from malnutrition and malaria, both conditions uncommon in Australian Aboriginals. Many deaths in the Asian Cases were from treatable causes such as acute infections. Attempts are being made for free immunisation in Timor Leste but could be more widely used to prevent Tetanus and tuberculosis in the Philippines and Laos. Although Tuberculosis is present in the Australian Aboriginal population it is in far lower proportions to those in the Asian cases. Free immunisation has encouraged Australian Aboriginal people to be proactive in gaining protection resulting in far fewer infectious diseases. In contrast, Aboriginal Australians suffer from both acute and chronic diseases, such as coronary artery disease secondary to diabetes.

Groups across the two worlds experienced conditions associated with poor hygiene such as skin infections. This was mostly due to a lack of a water supply, but more often due to poor education and thus poor hygiene practices. In Australia the outcomes of such infections and diabetes is renal failure which was not found in these specific groups in South East Asia.

Loss of a Nation

The difference between traditional groups in developing nations and those called ‘fourth world’ is the stark contrast between the dominant cultures or groups in these milieu. As the research proceeded, the concept of ‘fourth world’ health became more important. When the British invaded Australia the resident population lost their status as a nation. They became a subgroup of a population with a radically different culture and values. Technically Aboriginal Australians can be termed a Fourth World nation. This loss of nation status has had widespread effects on their culture and their well being. The people of Australia have failed to recognise or value its own Indigenous people and heritage. The belief that white culture was superior and that the Aboriginal race would ‘die out’ shaped public policy toward Aboriginal Australians and coloured races alike. A widespread animosity and racism existed in Australia during the 19th and 20th Centuries. In South East Asia there have been concerted attempts at legislative level to recognise traditional practices and maintain land rights for indigenous groups. This has also happened in other countries with Fourth World nations, such as New Zealand, but not so in Australia. Table 12 attempts to provide a comparison of data illustrating the profiles of each group. With a few exceptions, each country in the developing world has ‘all country’ statistics shown, while data for Aboriginal Australians is specific to that group. If each of the groups in the developing world had available figures, the results would have been different again, but it must be remembered that unlike in Australia, the majority of the population in these countries is indigenous. The groups studied are simply more traditional (or less Westernised) and more remote than the majority population.

Hypothetically Aboriginal Australians have access to public health infrastructure equal with other Australians, but in reality, their situation is of a very poor standard and their poorer health in comparison to mainstream Australia continues. An understanding by governments of the issues which are central to the improvement of the health of this group is required. It is important to realise that individuals die of conditions which are endemic to that population therefore preventing such conditions is paramount. In terms of Aboriginal groups this means the determinants of health, the one of the most important has been found to be education.

TABLE 12: COMPARATIVE COUNTRY STATISTICS:

Country	Philippines	Laos PDR	Timor Leste	Aboriginal Australia
History	Invaded by Japanese, now independent republic	Invaded by French Bombed by America during Vietnam war, now independent. Republic*	Invaded by Portuguese, Japanese, Annexed by Indonesia, independence in 2002.	Invaded by Europeans. Settled by English. Culture subsumed to invaders.
Politics	Democratic.	Communist.	Democratic	Democratic
Governance	Village Native rights enshrined in law.	Village/ Resettlement	Village Land rights recognised	State Native title only through federal system.
Religion	Catholic /Traditional	Buddhist	Catholic	Christian/ secular/ traditional
Culture	Traditional / Ifugao/ Western influence	Mostly Traditional Hmong/Aku/Phunoi	Traditional Small western influence	Mixture of Traditional Aboriginal / Heavy Western influence
GNI per capita (USD)	5,300	2,020	840	17,414 (USD)
Unemployment CIA Factbook	High/ outworkers 7.3%	Little available 2.4%	Little available 50%	14% (ABS)
School enrolment	94%	83.4%		
Adult literacy rate CIA Factbook	92.6	68.7	58.6%	60% ABS (99%)
Education expenditure (% of GDP) CIA Factbook	2.5%	3 %	N/A	N/A % (4.5%)

Sources: WHOSIS 2007, World Bank Development indicators 2007, CIA Factbook 2008, ABS 2007

A Legacy of History

Indicators which impact on the contexts of health in these cases included the history, geography, demography, the economy, and other social issues such as the political structure and religion in the country. Of all of these, the history of the area has been shown to have significant implications for the disintegration of Aboriginal culture and the results of this study.

Timor Leste, Laos and the Philippines have all endured occupation and the ravages of armed conflict of some kind over the last century. In the Philippines the Indigenous people of the Cordillera are recognised for their resilience and the maintenance of the culture. Their story forms part of the history of the Philippines as they are a group that were never conquered! The people of Timor belong to the newest country on Earth but regardless of being the poorest in economical terms, the people maintain their traditions and social structures. Their social capital is still in place and they are recognised for their contribution to the development of the country during the occupation by various other countries. In Laos the people of Phongsali have poor housing, poor quality educational and health facilities and their country has been irreparably damaged by UXO. However, they remain speaking their own language, living within their culture, and on their own lands.

The Indigenous people of Australia have also endured occupation and conflict. Where the foreigners in the former countries retreated, the people now live with some of the benefits and the handicaps of their history. Their own culture is mainly intact and they govern themselves! Within Australia, the occupiers never retreated. The displacement of Aboriginal society has almost been complete. Although society romanticises Aboriginal culture, and there are traditional groups living on reserves, only remnants of their former lifestyle remain. Like the more remote groups in the other countries, those Aboriginal Australians living in more isolated parts of the country fare worse in terms of SES and of health. This legacy of occupation affects their everyday lives in many adverse ways, particularly their culture.

Culture is central to social capital and as such is a major determinant in the development of health. A loss of social capital and family ties has been seen to be counterproductive and a major loss to the identity of individuals. In this study, cultural mores such as animal sacrifice to improve someone's health or vacating houses due to a death could be quite damaging to lifestyles thus health, from a western perspective. Some cultures have rejected modern concepts of nutrition or family planning which in turn is detrimental to long term health.

Statistically it can be seen that the people of the developing world have much worse health than those in developed countries. However, there will always be pockets of poverty in every country. The reason for Australia, a developed

country having a pocket of third world health was the problem on which this research was built. The thesis postulated the view that traditional minority groups live and work within a milieu that affects their ability to operate at the same level of health as the rest of the population. It set out to identify the similarities and differences between the developing and developed world (in which Australian Aboriginals live). The research has shown that although there are similarities in the determinants of health across the two worlds, the health of Aboriginal Australians is qualitatively different to that of the developing world. The causes are complex, but have their genesis in culture and in political history. The literature has provided evidence that improvement of such poor health requires a long term commitment. This is longer than the term of one government, but it must be remembered that such poor circumstances occurred over the terms of many governments!

9.2.2 What evidence is there for policies which will improve the health of Aboriginal Australians?

The framework of the research provided evidence to show that health in these communities has been and is, socially determined, particularly at an upstream or policy level and in particular it has been affected by cultural demise. This study has reinforced that there are major issues which are beyond the scope of the individual to control which act as catalysts to poor health and death. However, as Wilkinson has lamented, insufficient is being done by governments to improve the situation.

Instead of attracting urgent government attention in every country, remarkably few governments have pursued policies intended to reduce the tens of thousands of extra deaths lower down the social hierarchy that contribute to health inequalities

(Wilkinson, 2005, p 58):

In focussing on new policies to improve health in Aboriginal Australia the Rudd Government are handicapped in that there are two major impediments to the effectiveness of policy for improvement in this area.

- The first is that history and culture have more to do with health in this group than was first imagined, and

- The second is the view perpetuated by successive governments that Aboriginal health cannot be improved by anything less than money and more health services.

The aim of Turrell et al (1999) was to identify evidence based actions which reduced health inequalities. Their recommendations include population based and environmental measures in the public health arena, such as improved housing and safe workplaces. They found that interventions at the individual level are the least effective in terms of improving behaviour at the population level. Their view is that health is shaped and provoked by "upstream" systemic factors that include the approach towards preventing risks, and learning from failures. System change as a means to reduce risk is therefore more potentially effective than targeting individual practices or services. However, it is difficult to repair the mistakes of the past in a short time period, even using upstream methods.

The social determinants of health have been underwritten by epidemiological evidence. The literature reviewed here provides evidence that a change to social policies for Aboriginal Australians would impact on the health of their population considerably. Many interventions may take time, and change would be slow as most of the policies purported to effect improvements are long term or lifespan investments. This is unfortunately longer than the average government's term of office. Although government spending on preventative health which cannot be quantified in one term of office is unpopular, such intervention can have long term sustainable benefits. One of the major social determinants of health is policy. Where comprehensive public health policies have been put into legislation and maintained there has been considerable improvement in health outcomes. Some of the major issues emanating from the data are those to do with access and equity with mainstream in the areas of education, health services and other infrastructure that would assist public health.

The need for early childhood education.

In each Asian case study the people knew that education was the key to prosperity, and it was prized, but many left school early due to economic pressures, or poor access to facilities. In Australia, Aboriginals view education differently with facilities in remote areas difficult to access. The attitude to education must change in Aboriginal Australia and the only way this can occur is

to start at the beginning of the cycle. The literature has provided solid evidence that early childhood education and development has the most impact in the long term for healthy life prospects of a population. Equitable health for Aboriginal Australians will not happen quickly. Those people with existing conditions may never recover. However, the importance of starting at the beginning cannot be emphasised enough. If the health of Aboriginal Australians is to improve, the policy makers must start with the children. Changes would not involve health as extensively as other portfolios such as education, environment and infrastructure. Politicians genuinely concerned for the health of Aboriginal people will plan for a longer term than a political one. Such policies would reduce the economic burden to the Government in the long term. Improved health for Aboriginal people will take at least 20 - 50 years if Governments commence early development for children now.

Early childhood development in all communities must become mandatory for the long term health of Aboriginal Australians.

Access & Equity

Poor communications and poor roads delay referrals to a health centre complicating illness and contributing to high mortality rates, particularly for women in childbirth. Telephone communications are almost non-existent in all of Timor Leste, Philippines and Laos, although some people in all the survey areas did have some cell phones, there were few towers available. In contrast although slow by urban standards, Aboriginal women can get medical assistance through satellite telephones to the clinics, and two-way radio to the Flying Doctor. In the last decade satellite telephones have assisted health care considerably and this is evident in an improvement in the MMR and IMR.

In the remote areas, efforts to support the access of health for Aboriginal people has meant they have access to generalist health care served by either a registered nurse or an Aboriginal Health Care worker. There are good referral systems in place, such as the Flying Doctor Service, but the poorer health of the Aboriginal people complicates what should be simple trips to specialists or hospitals.

More infrastructures must be planned for in remote areas. E.g., roads, public transport and improved telecommunications for medical specialists to utilise tele technology.

Within the Philippines and Laos where health care incurs a fee, it is an avoided resource. Where health is not maintained, poor health worsens with complications becoming common. One expensive encounter with poor health was reported to affect whole families for decades to come. In both Timor Leste and Australia, health care is free. However long delays in getting to health care in Timor Leste are an inhibiting factor to seeking help, causing all of the aforementioned outcomes! The maternal mortality ratios are high, neonatal health and peri natal survival is poor and there are high rates of malnutrition complicating health outcomes. However, regardless of these issues, the life expectancy in both East Timor and the Philippines is higher than that of Aboriginal Australia.

Further research into the reasons for a lower age of mortality in Aboriginal Australians than either Timor Leste or Philippines is required.

Many authors outline how education is extremely important to long term health and this is a finding applicable internationally. As an example Cuba improved the ecology and the infrastructure, including education and improved Cuban health considerably over an extended time. Aboriginal Australian education remains poor and without a good education no group can compete in the global environment.

To ensure sustainable future health for Aboriginal Australians, money must be spent now to upgrade education and infrastructure in their communities.

This will lead on to better employment opportunities with more choices over their lives and the social determinants of health for future generations. One of the reasons for this not occurring in the past is the bias provided to the dominant populations and the drive for self determination by Aboriginal Australians themselves, allowing government to step away from the responsibility for building infrastructure for education.

Because of their extremely poor health situation, there is now a need for a two-pronged approach to action to support the health needs of Aboriginal people. They can gain health standards to the level of the rest of the Australian population if the following issues are dealt with simultaneously. There needs to be social

justice provided for the illness existing in the community as well as planning for the health of future generations. The sociological issues require a more detailed examination and understanding, followed by a concentrated effort by governments to affect a positive change through improved policies for subsequent Aboriginal populations, particularly in the arena of education. The literature has provided evidence of the following needs which to some extent are being examined with some in 'train':

- (a) Continued funding for the care and treatment of the current burden of disease which Aboriginal suffer, through health services and by health professionals equitable to that of other Australians.
- (b) Continued improvement to health hardware for Aboriginal communities (housing, water, waste provisions).
- (c) Immediate attention to the improved education of all Aboriginal children, in particular girls and women.
- (d) Maternal and infant health must assume a central importance in the health provision and promotion of all health services.

Both female and male Aboriginal health workers must be informed of the implications of good maternal care to the health of future generations. Coordination of all health promotion must link to healthy maternal and infant health.

9.3 Conclusion: The Means and the End.

This research sought to investigate the phenomenon of poor health in the developing world and Aboriginal Australia. Such phenomena instinctively involved the determinants of health or the *means* to the *end* health states of the developing and developed world (in which Australian Aboriginals live). That is, it aimed at understanding how health is constructed in the contextual milieu in which people live, in order to understand why their health is poor and whether Aboriginal Health can be likened to that of the developing world. The data revealed there are contextual differences in between birth and death that make the 'means' or the development of health qualitatively different in Aboriginal Australians to that of the developing world. The 'end' results show Aboriginal Australians are poor by Australian standards, but rich in comparison to the

developing world. Some health statistics such as maternal & neonatal outcomes, although good when compared to the developing world, are twice as bad as the all Australian population. Other figures such as mortality figures are better in Timor Leste than in Aboriginal Australia, but the causes are different.

Importantly, the ‘means’ to those end health outcomes or the social construction of health between the two worlds is different. The causes are complex, but have their genesis in culture and in political history. Although it has been seen that life’s situations in which all the participants have experienced has inhibited their education, employment opportunities and subsequent health, there are qualitative differences between them. In each of these Case Studies it has been shown that government policy, or upstream interventions have been instrumental in the level of socio economic status held by the different groups. In the Philippines, policies such as charging for health care have been shown to plunge people into poverty. That Government’s decision to allow mining has also damaged the environment affecting farming and other social aspects of life. In Australia, poor access to education in Aboriginal groups has perpetuated long term intergenerational disadvantage. This has had a widespread impact on their employment, SES and ability to understand health activities, or climb out of poverty

Subsistence living in Asia, versus the provision of welfare to Australian Aboriginals provides a major impact on the health of that group. The system provides little incentive to work or develop skills. In the absence of meaningful employment, time is utilised in less healthy pursuits such as alcohol consumption, which may lead to violence. Such activities lead to encounters with the law, which the evidence purports enhances poverty and the spiral into poor health. Within the developing world activities related to supporting oneself produce self esteem and a degree of social capital which is missing in many Aboriginal groups. This leads to less support when there is illness or a birthing emergency. Culture is an important part of social capital and Aboriginal Australians have lost a great deal of their ability to maintain their culture.

For Aboriginal Australians, cultural traditions and the legacy of history continue to handicap them in a western world. Australian Aboriginals were dispersed from their lands and mixed with other Aboriginal tribal groups, most not speaking the same language, all of which lead to cultural confusion. They had their language

taken from them. They were given no compensation or treaty to reconcile them to their own land. In each of the South East Asian situations, the people continue to live on the lands of their ancestors. They remain within their culture utilising traditional mores' handed down through the centuries as well as using the language in which those traditions were developed. The people are at liberty to control their own destiny and develop their community with the dynamism that culture demands. They continue to maintain their existence as their forefathers did before them, be it with minimal Western influence and technology.

Aboriginal health is determined in a similar tradition to the developing world, but the first world context in which it sits creates its own discrimination perpetuating poor health. History has and continues to determine that Aboriginal Australians live subordinately and as second class citizens. Unlike the other groups studied, Aboriginal Australians have not been reconciled with their invaders. They have no treaty as other Fourth World nations and have no land rights protection as was found in each of the South East Asian countries. As a group, Aboriginal Australians only gained citizen ship in recent history (mid 20th Century). This has allowed their minority voice to be heard and promulgated welfare which has led to improved maternal and child health outcomes, but few other improvements.

From this study, through examining other groups in developing situations, it can be seen that it was the policies of the past, and not of the present that have made so much difference to the lives of these people. The legacy of history can be hard to correct. Hypothetically Aboriginal Australians have access to public health infrastructure equal with other Australians, but in reality, due to institutional racism and past policies, their situation of a very poor standard of health in comparison to mainstream Australia, continues. An understanding by governments of the issues which are central to the improvement of the health of this group is required. Inter sectoral cooperation is needed for improvement in the long term health of the Aboriginal population. Evidence shows that education is one of the most important aspects of such cooperation and a major upstream aspect of health improvement. By ignoring these needs the Government continues the process of institutionalised racism perpetuating social problems and disadvantage.

Even where governments have been provoked to put in place improved health facilities to improve health in Aboriginal Australians, there has been little improvement in their health outcomes. Where improvements have been greatest is where there has been improved infrastructure and legislated benefits such the right to citizenship, child support and educational opportunity. Although it is acknowledged that the impact of policy takes time to be effective, it seems that the damage which has been wrought through past political intervention is difficult to resolve effectively. Further, researchers postulating the determinants of health can only outline the problems, but governments must turn their investments into success through legislative commitment and adequate funding. This is challenging for government as the determinants of health such as good housing and education are long term investments which cannot bring about returns in one or two terms of political office.

9.3.1 *What this study has contributed to personal experience*

The experiences of working in multiple foreign countries at a level not usually experienced by the majority of Westerners was daunting to begin with. However, the fundamental caring attributes of those encountered have made this an enlightening journey. The trip has added the international perspective of traditional peoples in disadvantaged contexts. I have lived in the same situations the groups I studied; shared their community and their poor hygiene facilities. I have tried to put my own lives experiences into theirs to conceptualise how I would cope with different social situations in their context. This has indeed been a journey of ‘walking in someone else’s shoes’. Researching across these contexts has in itself, developed new knowledge. The experiences of having to translate the same data several times has prompted various caution to researching in similar situations. The development of the internet has been inspiring with the transfer of data becoming much faster from country to country as the research progressed.

From a research perspective the usefulness of using the case study method has been vindicated as has the chosen framework. The Eco Social framework has proved a useful tool from which to investigate international perspectives generically as it takes culture into account. Without understanding culture the lives of these groups could not be understood, and this has meant a steep learning

curve. One which I propose the Australian Government has not yet understood and hence their social situation and health is still poor.

The refusal to gain primary Aboriginal research was hugely disappointing, but I have since read other researchers comments regarding the burdensome procedures in this area. All lead to changed research outcomes. This was a learning tool on which I have been able to build further proposals. Fortunately, I have lived and worked in Aboriginal communities and was able to conceptualise many of the data I used and put in into meaningful contexts within the framework. I also had an Aboriginal supervisor who guided me in this direction.

9.3.2 What this study contributes to new knowledge

At the inception of this research, despite widespread investigation of the literature, little was found which examined Aboriginal Health and the developing world in the same light. Despite the repeated lament of health professionals, the media, historians and politicians that Aboriginal Australians had worse health than the developing world, or that the conditions of the Australian Aboriginal were similar to those in the developing world, there was no substantive research which provided evidence that such a ‘phenomenon’ existed. This thesis examines the social, economic, ecological and cultural contexts of disadvantaged groups across socio economic divides, so that impressions, perception and opinions would not have to be relied on, but could be discussed using evidence. As Turrell (personal communication 2009) stated

It is not enough to report previous data or findings in terms of ‘common knowledge; or that ‘everybody knows to be true’.

This is the philosophical basis of the thesis. Although the two ‘worlds’ (developing and first) are constantly said to be the same ... ‘as fact’, the two have never been studied in the same light using the same parameters previously.

This research has provided an insight into the developing world and Aboriginal Australia using internationally recognised indicators to compare the two worlds. It has provided an illustration of the determinants of health across the divide, providing the reader with an insight of the differing contexts constructing health. Although this maybe due to their history of dispossession, and subsequent

powerlessness, where Aboriginal Australians were not dispossessed health inequalities with mainstream Australian populations still occur.

This study provides evidence from which to argue that Aboriginal health is qualitatively different to the developing world. Although the determinants of health are the same, their contexts are different. The results show that the ‘ends’ are quite different in Aboriginal Australia in comparison to the developing world, as are the ‘means’ which determine their health.

The issues facing these groups are different, but no less consequential to their health. Although the traditional groups as well as Australians share some inequities with the mainstream population in terms of inadequate housing, poor water supplies and improper waste disposal, the politics behind these are different.

Consequently, the severity and outcomes of poor health in both the developing world, and the fourth world in which Aboriginal people find themselves is similar. However, there are phenomenal differences in the *means* and the *ends*.

What we find is ***one health, three worlds apart***.

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APPENDICES

One Health Three Worlds Apart



Appendix 1	Letter Addressing Concerns of HREC
Appendix 2	Human Research Ethics Committee Approval
Appendix 3	AHCSA letter
Appendix 4	Invitation to participants
Appendix 5	Consent form for use where taped material is to be retained
Appendix 6	Framework: Socio Economic Determinants of Health
Appendix 7	Guide to collecting Healthy cities data
Appendix 8	Guidelines to run focus groups or conduct interviews (<i>Eco Social Model</i>)
Appendix 9	DHCP guide to questions
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Appendix 1 Letter Addressing Concerns of HREC

2nd November 2001

Ms Eimear Muir-Cochrane
Chairperson
Human Ethics Committee
University of South Australia

Dear Eimear,

Re Ethics application Number P25201

Thankyou for taking the time to discuss the points of my ethics application which required amendment.

I have outlined the Committees concerns here, and proceeded to address them with attachments as necessary.

Insufficient information for requiring consent of under 18 year old participants.

Participation from young people may only not be necessary unless there are exceptional circumstances. E.g., young women under 18 who have children, or youth who are experiencing difficulties with employment. I have been advised by Mr Chong, my Aboriginal Supervisor that permission can be gained from the parents of these people if they wish to participate.

Completion of the consent form

This has been upgraded and a copy is attached.

Information on Participant observation

This attachment referred to observing and reporting on the context of the community. The Healthy Cities projects suggests using sources of data taken from the public arena and secondary sources to describe the community. The original appendix was for information on the aspects of the contextual information which was being examined.

How will the Cultural concerns of the people be protected?

Reference groups will be set up to advise me regarding this research. Cultural issues will be addressed at the beginning of the study. However, should any cultural concerns arise out of the focus groups or the interviews, these will be referred to the steering group.

Legal issues of data collection

The international data will be stored within the Centre for International Studies at Magill Campus, for a period of 7 years, with the Aboriginal Community owning the data specific to themselves.

The confidential issues regarding photography.

The only photography which will be taken will be anonymous or of a geographic nature to inform the reader of the contexts in which the communities are sited.

I hope this clarifies any questions which the Committee had in reference to my ethics proposal. If not please do not hesitate to contact me on the numbers below.

Sincerely,

Helen Bradley

Senior Lecturer
School of Nursing and Midwifery
8302 2659
040 7725 776

Appendix 2 Human Research Ethics Committee Approval

Human Research Ethics Committee

Telephone: (08) 8302 3118

Facsimile: (08) 8302 3921

14 Nov 2001

Ms Helen Bradley
19 Snead Street
FAIRVIEW PARK SA 5126

Dear Helen,

I am pleased to confirm that Human Research Ethics Committee has approved your ethics protocol (P152/01) The effects of policy on the contextual health of indigenous people across the developed and developing world: Case Studies.

This approval allows you to proceed with the research. I hope that it goes well.

Yours sincerely

Sheila Salas
Executive Officer, HREC

Appendix 3 AHCSA letter

15/10/ 01

Mr. Alwin Chong,
Aboriginal Health Council South Australia
Dulwich

Dear Alwin,
Re: requested ethics approval for:

‘The Effects of Policy on the Contextual Health of indigenous people across the developed and developing world’.

Thank you for informing me that the Committee could not give ethics clearance to my proposal. I understand the issues raised, and have replied to the concerns here. I hope this will provide a better understanding of the proposal for your Committee.

1 Concern about the statement ‘indigenous communities have similarities’.

The definition I use of indigenous is the following which has been taken from the World Council of Indigenous Peoples (WCIP).

Descendants of the earliest populations which survive in the area, and who do not, as a group, control the national government of the countries in which they live.

The above statement refers to the fact that indigenous communities around the world share similar disadvantages, in particular their states of health which are worse than the majority populations.

- This is true for the Western world, in that the Maoris of New Zealand and the First Nations people of America have poorer health than the non indigenous groups.
- In the developing world the Igorots of the Philippines, the Sami in Norway and the Inuit all have poorer health than the majority populations.

Other similarities indigenous people share internationally are lower employment rates and lower income per capita and racism. However another shared trait is their relationship to the Land. I am extremely aware of the cultural differences between indigenous groups. The statement was not meant culturally, but referred to the similar social constructs affecting health.

2 What value is a project like this to Aboriginal communities?

Some of the policies which have had the most profound effects on health were not designed as health policies. E.g.,

- The eligibility of Aboriginal people to get Social Services undoubtedly improved the Aboriginal Infant mortality rate (IMR). Prior to the Referendum in 1967 it stood at 20 times higher than the non Aboriginal rate. By 1973/5 it had lowered to 4/5 times the non Aboriginal rate. International longitudinal studies have since shown that improving child support and maternal welfare improves the IMR.
- The policy to separate Aboriginal children from their parents has been shown to cause the present high rates of mental illness, imprisonment and resultant deaths in custody in Aboriginal people.
- The Health Commission handing over management of their clinics to Nganampa Health Council in 1983 lowered their referral rate by over 240% (1800 –491), and evacuations by 210% (360-140) between 1984-94.

It may be issues which were not even considered when policies were drafted that actually affect Aboriginal people more than others.

- E.g., the effect of the GST on prepared foodstuffs. Where Aboriginal people do not have refrigerators or have to drive long distances home, fresh foods may not be an option affecting nutrition.
- The effect of seat belt legislation on families who cannot afford large cars for the numbers in their family.

- Lack of positive discrimination for indigenous people in Parliament. What affect does it have on Aboriginal people not to be adequately represented in government?

This research will bring emerging issues to the attention of the government to change policy for the improvement of Aboriginal Health.

2 Which health policies are going to be researched?

This research is not about specific health policies. It seeks to look at the way legislation affects the average Aboriginal person's long term health. The information it will seek is based on the most fundamental determinants of health;

- Education and why people choose to gain higher qualifications or none. It has been proven that people with a good education have better health. Access to education profoundly affects employment and then health in the long term.
- Employment and the opportunities available in the area and whether work is safe or not?
- Housing and its quality. Do people feel discriminated against in obtaining adequate housing; are there adequate homes available for indigenous people?
- Where people live: Land rights and whether they have claimed, how long it is taking; what has been involved; how much stress it has caused and how land rights might change their life style.

3 The use of the WHO Healthy Cities Project

The Health Cities Project framework (appendix 2 of Ethics proposal) is internationally regarded, has been used widely and has been chosen for describing the context in which Aboriginal people live and work. This is because the issues about locality must be placed over the legislation. For instance, non discrimination in choosing people for employment or access to quality housing is the policy. However, if individuals complain this is not happening, and the Healthy Cities investigation reveals that racism is an issue in the area, then the complaints individuals can be legitimised.

The use of photographs

As described in 4.1 of the Ethics proposal, if it is thought it might enhance the understanding of the reader, photographs may be used to illustrate the environmental aspects of an area (as they might affect health). The steering groups would have the final say on any photographic use. There will be no photographs taken which identify individuals.

The ownership of raw data

The University guidelines decree that all raw data will be stored within the University for a period of 7 years.

The scope of the study does not recognise diversity of Aboriginal Communities.

It is agreed that this study will not be representative of the entire Australian indigenous population. The wide diversity of Indigenous communities is acknowledged.

However, all pictures are begun with the first brush stroke.

The Case study approach was chosen to gain information may be generic to certain groups. It is hoped the study may widen at a later date providing a bigger picture. However, the first case studies will be done within the contexts of groups in differing social circumstances to gain an initial idea of how indigenous people's health is determined.

To date a large amount of information is gained on Aboriginal Health from very wide data sets, is quantitative, and secondary in nature, i.e., from the ABS and AIHW. Very little qualitative data is available. There is no data comparing the way Aboriginal people experience their health in comparison to those in the developing world, with whom they are compared continually. This will be a beginning that will act as a catalyst to improving policies which ultimately affect Aboriginal Health.

Regards,

Helen Bradley
PhD student
School of International Studies
University of South Australia.
8302 2659
040 7725 776

Appendix 4 Invitation to participants

UNIVERSITY OF SOUTH AUSTRALIA

School of
International
Studies
Magill Campus



Research Information
The Effects of Policy on Health.

St Bernards Rd,
Magill
South Australia
5072
Telephone:
61 8 8302 6611
Facsimile
61 8 8302 4723

Researcher

Helen Bradley
PhD Candidate
Telephone: 8302 2659
Mobile: 040 7725 776

Supervisors

Dr. Zaniah Marshallsay
Telephone: 83024791
Mr Alwyn Chong
Telephone

You are invited

This is an invitation to participate in a study which aims to establish how policy effects the everyday lives and health of indigenous people

What the study is about?

The purpose is to describe how people maintain their health in situations where access and equality to facilities and infrastructure may constrain their educational and socio economic development. The researcher seeks to have people discuss their social and physical environment as well as their ability to access education, safe employment and adequate housing.

What is expected of participants?

If you participate in the study you will be either interviewed or asked to join a group of friends for about an hour to discuss various aspects of everyday living. You will be asked to sign a consent form allowing this information to be recorded on tape, typed up, and then made available for the report on the project. Anonymity and confidentiality of the participants is guaranteed. All information will remain the property of the University, tapes being destroyed but transcripts stored for seven years within the University archives. A draft report will be made available for all participants to comment on, before final distribution or publication.

What good will this information do?

This study will provide information not normally available to policy makers on the effects that policies have on the context's of people's lives. The investigation will isolate social ecological and political determinants of health providing a basis for improved public health policy.

Good health within a community is shaped by education, employment (occupation & conditions), income, the environment and quality of available housing. The 'production' of health largely takes place outside the health care system and must involve cooperation across sectors. As an example this quote comes

from a remote area health professional on a decision by the Government to install a tank in the community.

On my last days in the community I watched the huge tank being erected. I knew intuitively that the seven days the guys took to put it up would count more towards improving the health of the community than I had in seven years!

Are there any risks in being involved?

There are no risks associated with participating in this study. Regardless of taking up the offer to participate, individuals can withdraw at any time. Participation is completely voluntary. If there should be any adverse consequences following disclosure of information, referral will be made to culturally appropriate affiliated organisations.

Further information

If individuals have any ethical concerns regarding this project, the researcher, Helen Bradley can be contacted on the number above. Further more the Chairperson of the University of South Australia's Human Research Ethics Committee can be contacted on the following telephone number: 8302 2751.

Appendix 5 Consent form for use where taped material is to be retained

Project Title **The Effects of Policy on Health.**

Researcher's name **Helen Bradley**

Supervisor's name **Dr Zannah Marshallsay/ Mr Alwin Chong**

- I have read the Information Sheet, and the nature and the purpose of the research project has been explained to me. I understand and agree to take part.
- I understand that I may not directly benefit from taking part in the project.
- I understand that I can withdraw from the study at any stage and that this will not affect my status now or in the future.
- I understand that I will be audio taped during the study
- I understand that the tape will be typed up and these materials will be stored within the University for a period of seven years.
- I understand that the University shall not be required to make any payment to me arising out of its exercise of this right.
- I confirm that I am over 18 years of age (To be deleted when not applicable)
- As Guardian/ Parent of participant under 18 years of age , I give permission for involvement in this research study. (To be deleted when not applicable)

Name of Participant/ Parent/Guardian

.....
(Cross out titles not applicable)

Signed

Dated

I have explained the study to participant/ guardian and consider that he/she understands what is involved.

Researcher's signature and date

Appendix 6 Framework: Socio Economic Determinants of Health

*Information for the Reference Group*⁶⁸

This research uses indicators which have been identified as the socio economic determinates of health as the contexts for obtaining information from interviews and focus groups. These are:

- 1 The most fundamental determinants of health**
(influenced by government policies and factors associated with globalisation)
 - education
 - employment
 - occupation and working conditions
 - income/taxation
 - housing
 - place of residence
- 2 Indirect influences on health**
(by psychosocial processes and health behaviours or accidents, injuries or violence)
 - environmental
 - social
 - physical
 - economic
- 3 Consequences of adverse biological reactions**
(can be related to long term disadvantage)
 - illness and disease
 - mental disorders

An Eco Social framework has been developed from levels 1 and 2 of these determinants which are closely linked with inequalities in health combined with the observations in the environment from the Health Cities perspective.⁶⁹ The accompanying sheet contains the **Eco Social framework** which provides guidelines to run focus groups or conduct interviews that will help in identifying the contexts of health in your community. This sheet will assist you to inform people of what type of questions they may be required to answer if they decide to participate in this research.

⁶⁸ Adapted from Turrell G, Oldenburg B, McGuffog I, Dent R (1999) Socioeconomic determinants of health: towards a national research program and a policy and intervention agenda. Queensland University of Technology, School of Public Health, Ausinfo, Canberra p2.

⁶⁹ WHO Healthy Cities Papers No.3 A guide to Assessing Health Cities (1988) WHO Healthy Cities Project Office, FADL publishers Copenhagen p17-19

Appendix 7 Guide to collecting Healthy cities data

WHO Healthy Cities

The framework for the WHO Healthy Cities Project ⁷⁰ provides a guide to providing background information through participant observation on the community in which people live.

This will be used for putting Case Studies from this research into context.

Background information to be collected on the city/town/community

Geography

climate – are there health consequences?

natural resources

eco-systems such as waste disposal, pollution and their effect on health?

Urban forms – type of housing; proportion of parks; facilities for disabled; suitability of transport

History

When was it settled?

Why was it settled and who by?

What was the role of the region then, what is it now?

Demography

population

age structure

cultural components

who lives where/why

Political structure

Jurisdiction

What jurisdiction does the council have in areas such as water, sewer, waste management; transport; housing; economic development; social assistance; social services; health services; education; parks; recreation; culture; urban planning?

Governance

How often are council elections held? What is voter turnout? How many candidates?

Composition of the current Council? What is their style - adversarial, exclusive, consensus?

Who are the power groups? What is the political culture? Are their rules to getting things done?

What are the major community groups in the community, their concerns and their influence?

⁷⁰ WHO Healthy Cities Papers No.3 A guide to Assessing Health Cities (1988) WHO Healthy Cities Project Office, FADL publishers Copenhagen

Economy

Major employers and areas of employment

% of unemployed – who is most affected?

Proportion of people on social assistance?

Who are they?

Is this changing.

Social Issues

What are the major social issues?

To what extent are basic needs met (food, shelter, literacy/education, work, income, personal safety)?

What policies or programs are being put in place to deal with these?

How has family structure changed? What has been the impact?

How are various age groups catered for?

How are immigrants or tourists catered for?

What is the crime statistics, violence, and what programs are in place to deal with these?

Religion and the Church

How does religion contribute to community life and values?

What is the role of the church in education, social and health issues?

What is the role of the church in political processes?

Appendix 8 The Eco Social Framework ⁷¹

Guidelines to run focus groups or conduct interviews

Education	Education at all levels is affordable and accessible How did you get to school? What did you enjoy about school? Why did you leave school and at what level? How important do you think education is? How do your children get to school? What do you like most about that school? What do you want your children to do when they leave school?
Employment	There is accessible equal opportunity employment available with clearly set out requirements. Are you employed? YES What work do you do? How far do you have to travel? How do you get there? What do you like most about your employment? What do you like least about your employment? What do you like about the people you work with? NO How have you tried to find work? What sort of work do you want? What do you perceive to be the reason for not being able to get employment? How important is it to you that you get a job? What other people have you depending on you?
Occupation and working conditions	The respondent's occupation rates well in terms of health and safety. Is your employment permanent or part time? How safe do you feel your work is? Are there safety guidelines you have to follow? How reasonable do you feel these are? How stressful is your work to you? In what way is it stressful? What health problems have you experienced from working?
Income	The respondent has adequate income to cover basic living requirements. Employed: How adequate is your income for the work that you do? How adequate is your income to support your family? What other form of income do you have? How do you manage to spread your income to support yourself or your family? What do you do if you have an expense that you do not have any money for? How do you manage if you do not have food to eat? Unemployed: How do you get money to live? Do you find the amount enough to support you/ your family? What do you do if you do not have any money? How do you get food without any money? Where do you go for help if you have money worries?

⁷¹ This guide has been devised from combining concepts from the Healthy Cities Project and from The Levels of Socio Economic Determinants of Health described in Appendices 6.& 8

Housing	Housing is an adequate standard to meet number of occupants How happy do you feel about the housing you are in? Do you own/rent/share your house? How strong and safe is your house? (describe) Do you feel it has suitable space for you and your family/friends? What power supply do you have and how reliable is your power? Where do you get your water supply from? How is water supplied to the house? What bathing facilities do you have? How do you deal with cleaning and washing clothes? What sort of a toilet do you have? How quickly can you get maintenance carried out? Broken windows No water supply or leaking pipes Toilet blocked Roof leaking No Power
Place of residence	The area is suitable to the respondent - What is the reason you live here? How satisfied are you living in the area? Is this where you would always want to live?
Environment	There is no pollution, an adequate waste disposal and recycling system. In what way does pollution (where you live_ affect you or your family? How do you manage to dispose of human waste? How you dispose of your garbage? Do you feel the local authorities clean the streets adequately?
Physical context	The neighbourhood is safe Do you feel you could walk safely around in the evening without falling into holes in the roadways? How safe from an attack do you feel, walking about the streets at night/in the daytime? How well do you feel drivers watch out for people and obey the road rules?. Do you feel your house is safe from being broken into? How efficient are the emergency services? (police, ambulance, fire)
Social context	There are adequate infrastructure for transport, recreation and communication facilities. How easily can you get to any facility in the area? How good is the public transport system? What areas are there provided for the children to play in? Are there areas for the community to congregate in? How good are the telephone/communications system in this area? How well can you receive the radio and television? What community activities such as women's, children's and sporting clubs are there?
Cultural	People are able to carry out cultural activities without fear of discrimination. Describe any cultural activity you need to carry out within your lifestyle. How do you manage cultural family issues? Describe any criminal acts which have to be acted on culturally. How well do the local health authorities accept your use of traditional healers or medicines?

Appendix 9 DHCP Guide to Questions for Focus groups

Topic 1: General Health	
Main sicknesses (All groups – ask specific to both men and women)	What, when (time of year) Sicknesses at different ages
Malaria (All groups)	Is it a problem, what causes it, how to prevent, symptoms, treatment
Health Services (All groups)	Where, who (e.g. traditional healer), why choose that kind At what stage of illness do they go
Topic 2: Women's Health and Nutrition	
What women eat (Women's Groups)	taboos during pregnancy & after delivery What they eat during lactation Beliefs about food - where beliefs come from Contributing factors to thiamine deficiency - Is paedek eaten raw or cooked & is cooked OK, rice soaking, alcohol, tea, (observation – rice mills), meat in diet
Pregnancy (Women's Groups)	how they feel about pregnancy concerns about pregnancy what support/from whom do they get support ANC: do they know what it is; has anyone had it - why/why not
Immunisation for women (Women's Groups)	Have they had any What for What do they think about it
Delivery (Women's Groups)	Where, who helps, how do they prepare for delivery what do they do immediately after any problems Has anyone had any post natal care - why/why not Concerns during post natal period Numbness and weakness in hands & feet during pregnancy & after delivery
Attitudes to Women's Health (Men's groups)	General attitudes and beliefs about above

Topic 3: Children's Health and Nutrition	
Breastfeeding (Women's groups)	Attitudes & beliefs about Do they give colostrum – why/why not, any beliefs about it How many months do they breastfeed & why do they stop How often (how many times per day) Exclusive breastfeeding - other foods given to baby in first 6 months – why, what, who does Problems/difficulties regarding breastfeeding Food substitutes for breastmilk Symptoms of vitamin B1 deficiency in children under 6 months – weakness, loss of appetite, breathing difficulties etc
Food (All groups)	What do they eat, who gives, how often Beliefs about child nutrition – what's good for children Any taboos – where do they come from
Growth monitoring (All groups)	Beliefs about How do they know their child is growing well (traditional measures)
Child sickness (All groups)	What, when, sicknesses in different age groups (particularly under 5s) What do they do about each kind of sickness Diarrhoea – what causes it? (try causal diagram) What do they do about diarrhoea – more or less fluids, breastmilk, ORS, traditional medicine) Night blindness in children
Immunisation (All groups)	Are the children immunized – what for Beliefs/fears about Understanding of yellow card
Topic 4: Sexual Health and Birth Spacing	
HIV/AIDS & STDS (All groups)	Ever heard of, what is it How to protect yourself from it
Risk Factors (All groups)	People going outside village for work People coming into village
Birth Spacing (All groups)	Attitudes to/interest in Knowledge of methods Availability
Topic 5: Health Seeking Behaviour, Communications	
Information (All groups)	What, where from, type
Language (All groups)	What is spoken in village – who speaks what Literacy in Lao

Appendix 10 Letter from the Philippines



University of the Philippines College Baguio
BAGUIO CITY 2600, PHILIPPINES

NOTIFICATION OF APPROVAL APPOINTMENT

Ms. Helen Bradley
19 Snead Crescent, Fairview Park
South Australia 5126

By authority of the Board of Regents and the President, I am hereby approving the renewal of your appointment as **Research Affiliate**, with temporary status, in the **Cordillera Studies Center**, University of the Philippines College Baguio, without compensation, effective **October 1, 2002 until September 30, 2003**, unless sooner terminated, and subject to attached Terms of Reference and to pertinent University regulations.

Done at Baguio City, Philippines, this 25th day of September 2002.

P. S. Macansantos
PRISCILLA S. MACANSANTOS
Dean

/spp

Certified True Xerox Copy

Jef P. Paulino
AOI

Appendix 11 Letter from Timor Leste

23 January, 2006

Professor Robyn McDermott
Pro Vice Chancellor
Division of Health Sciences
University of South Australia

Dear Professor McDermott

Support for the Chancellors Award:

A Community Needs Assessment for the Emera District of Timor Leste

In providing her expertise to the above assessment in collaboration with the staff of the St Bahkita Centre, Helen Bradley *as a representative of the University of South Australia* has provided an invaluable service to the Timorese community.

The St Bahkita group are a fledgling organisation situated some two hours' drive from Dili and one hour's drive from any hospital services. They have been providing invaluable support to the community through NGO's for several years. This has included the provision of clinical and teaching services and the building of a Community Centre. However, the services have grown haphazardly and with little but tacit knowledge of the bigger picture of the communities actual needs.

The Community Needs Assessment completed last year provides significant direction for the planning of future programmes and services by the NGO's supporting the St Bahkita Centre. This overview of services and needs was long overdue and vital in order for us to plan services to meet the needs of the area in the most cost effective manner, and to compliment, not duplicate the services already provided by the Government of Timor Leste.

The report's strong recommendation for planned primary health care initiatives in the surrounding villages and the training of health volunteers will improve the capacity of the community and improve the health outcomes of the people.

I strongly support the nomination of this award to Helen for her work with us as it will provide a significant benefit to *our communities*. The award will also serve to promote an ongoing link with the University of South Australia and Timor Leste.

Yours sincerely,

Kirsty Sword Gusmão
First Lady of the Democratic Republic of Timor-Leste

PO Box 3, Dili, Timor-Leste (via Darwin, Australia)

Phone: +670 332 3855 | Mobile +670 723 0000

Email: mukya@minihub.org



Her Excellency
First Lady of Timor-Leste

**Ms Kirsty
Sword Gusmão**

- *Founding Director, Alola Foundation*
- *Founder, Xanana Gusmão Reading Room*
- *Founding Member & President of the Board of Trustees, Dili Institute of Technology (DIT)*
- *Patron, Institute for Healing of Memories (Cape Town, Sth Africa)*
- *President of the Advisory Board, National Institute of Linguistics*
- *Co-president of the Board of Directors, Uma Fukun Timor Cultural Centre*
- *Advisor, East Timor Legal Aid Institute*
- *Member of the Board of Directors, Rede Feto Women's Network*
- *Patron, Blair Forster Memorial Trust (Hong Kong)*
- *Patron, HART – Humanitarian Aid Relief Trust (UK)*
- *Member of the Board, Moris Rasik (Micro-finance organisation)*
- *Director, Fund for East Timor, USA*
- *Patron, Fundasaun Hadomi Timor Oan (Orphanage, Dili)*
- *Patron, Sebastião Aparício da Silva (Project for the Protection and Promotion of East Timorese Languages)*

Appendix 12 Letters from Laos

From: Bob Smyth [atldhcp@laotel.com]
Sent: Tuesday, 14 October 2003 10:46 PM
To: Helen Bradley
Subject: RE: The Project

Helen,

Don't worry lots of strange things also occur the the ISP here in laos as well. Usually you get the message and NO attachments. My private email is bobsmyth@ozemail.com.au GOOD LUCK with your PhD. regards

Bob Smyth

-----Original Message-----

From: [Helen Bradley](#)
Date: Monday, 13 October 2003 10:45:15 AM
To: 'Bob Smyth'
Subject: RE: The Project

Hi Bob,

I did feel like it was Christmas, but I did not actually receive any message from you. I had all the attachments, but no message (I did think was a bit strange). I am glad you have confirmed there was one, but as a result I do not have your private email address. Could you send it again please. I have to say this is probably a problem with my machine as it has been doing funny things lately. I have just bought it into the Uni for the IT guys to check out.

Sorry about this!

Regards

Helen

-----Original Message-----

From: Bob Smyth [mailto:atldhcp@laotel.com]
Sent: Thursday, 9 October 2003 9:39 PM
To: Helen Bradley
Subject: Re: The Project

Helen,

I did mention you might feel like it is Xmas time. Yes By all means contact me for questions or Clarification. I included private email address on the first email with all the documentation.

Merry Xmas

Best regards

Bob Smyth

-----Original Message-----

From: [Helen Bradley](#)
Date: Thursday, 09 October 2003 12:29:50 PM
To: 'Bob Smyth'
Subject: The Project

Dear Bob,

I cannot tell you how excited I was when I saw your email on my machine this morning. Thank you so much for all of this. The documents have taken a while to download as my machine is slow and I have not had time to examine any yet. However, thank you again for all of this. Can I get back to you if I have any questions?

Kind regards

Helen Bradley

IncrediMail - Email has finally evolved - [Click Here](#)

Appendix 13 Definitions of Development

Least Developed Countries (LDC)

In its latest triennial review of the list of Least Developed Countries in 2003, the Economic and Social Council of the United Nations used the following three criteria for the identification of the LDCs, as proposed by the Committee for Development Policy (CDP):

- a low-income criterion, based on a three-year average estimate of the gross national income (GNI) per capita (under \$750 for inclusion, above \$900 for graduation);
- a human resource weakness criterion, involving a composite Human Assets Index (HAI) based on indicators of: (a) nutrition; (b) health; (c) education; and (d) adult literacy; and
- an economic vulnerability criterion, involving a composite Economic Vulnerability Index (EVI) based on indicators of: (a) the instability of agricultural production; (b) the instability of exports of goods and services; (c) the economic importance of non-traditional activities (share of manufacturing and modern services in GDP); (d) merchandise export concentration; and (e) the handicap of economic smallness (as measured through the population in logarithm); and the percentage of population displaced by natural disasters.

To be added to the list, a country must satisfy all three criteria. To qualify for graduation, a country must meet the thresholds for two of the three criteria in two consecutive triennial reviews by the CDP. In addition, since the fundamental meaning of the LDC category, i.e. the recognition of structural handicaps, excludes large economies, the population must not exceed 75 million.

Healthy Life Expectancy (HALE)

Average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury.

Source: WHOSIS Accessed 9/12/07

Appendix 14 Excerpt from my journal

The women of the UCAB in the Cordillera.

The Indigenous women of the Philippines are amongst the worse off. They often have little income and have to work their swidden farms as well as look after their families to ensure there is enough to eat and the children have their school fees paid. Without these, the children are unable to attend school.

This focus group was done in Ucab, an area outside of Baguio, in the Cordillera Mountains. The women were asked to join the group through communication with the Women's Union in Baguio. The Unions here are quite powerful and gaining the cooperation of the group presented no problem at all. The women were paid to attend and money for a meal was provided. Both their children and themselves, appeared to enjoy the day.

Visiting the UCAB meant taking a bus or Jeepney in the early morning. As Baguio is within the Cordillera mountains the roads are steep and windy once out of the city precincts. The housing is sited on steep hillsides, close together and sometimes appearing to sit one on one for support. Other houses are down in the valleys, all extremely crowded but at least with trees around them. Washing is everywhere around the houses, in the bright morning sunshine. It was midmorning by the time we arrived at the furthest set down point, and we had yet to walk for some way. The steep windy roadways made it hard going at times, and as I thought of where the shops were, and how much a woman would have to carry home in shopping, I wondered how they ever did it! There were many children making their way home for lunch at this time. The distances they had to walk to and from school, and the steepness of the terrain was interesting to contemplate. I was doubtful if Australian children would walk home for lunch. However, I reminded myself that this was the main meal of the day. In Australia it is a small meal at midday, with the main one being in the evening.

High up, at the end of a windy road we came to some houses. I had been observing the houses immediately on the lower side of the mountain. Women now came out and acknowledged the young woman who had taken me there. We were beckoned to a small empty hall. This was where the focus group was to be held. There were abundant chairs and several tables on which to put my computer and tape recorder. The women's ages ranged from early 20's to over 70 years of age. They were all married, most with children and all worked in some way or another. Only two spoke any recognizable English and no one objected to the tape recorder.

Soon we were chatting like old friends. I was as interesting to them as they were to me. My companion from the Women's Union tried to keep conversation translated, with the other women, one in particular adding to and sometimes translating as well. This woman, I found was the same age as myself. She had a 6 year old girl, and found it interesting that I had only 2 grown up children. She had to work every day in the fields, but was the leader of this group and it was to her house we later went for lunch.

Most of the women had been to elementary school and for most of them, marriage actually stopped their education. The majority of the women here had many children. Some had 12, others 5,6 and 9. Some children worked and sent money home, but most still required education and much support.

The women arose early and cooked meals to leave for the family. When they went to their farms, the older children took the children off to school after getting them

something to eat. One woman said that older children frequently had to prepare milk (bottles) for the younger babies whilst they were away.

The women said their husbands worked seasonally. In the dry they worked in the mine, and in the wet they panned for gold in the river. When asked about employed work for the men, they said they would only get about P250 daily. When travelling, and food for the day was taken into account, it was hardly worth it.

The women themselves had to work to buy food, or produce food to barter or sell with the neighbours. They tended 'swidden' farms or patches of land which could be some distance from their homes. This land was often not theirs, but their neighbours and payment of some of the crop would go to the owner. They also had to pay taxes to the councils. For those of the women who claimed they owned the land, this was the only way they could prove they had a claim. There were no title deeds or papers to prove it was theirs. Many of the women said their own land had been taken or ruined by the mining operations. The blasting operations of the mines had loosened the trees and the foliage. The ground became unstable and then the topsoil washed away in the wet. It could no longer be cultivated.

The women worried constantly about money, or the lack of it.

It's the women who budget. It's the problem of the wife if it's lacking or enough. But most important you buy food first.

They were forced to do casual work, perhaps the laundry for rich people sometimes. They were paid only a few pesos daily. This barely paid the children's school fees or transportation, more or less contributed to food. Having enough food was always a worry.

If we don't have money, we just buy anything that is cheap that is enough for the family. Baked bananas are good. It takes the place of meat. The children need protein.

In cases of illness, they resorted to traditional medicine. Guava leaves were used extensively for skin conditions like rashes or eczema and boiled for tummy upsets. If someone had to go to the doctor it required borrowing money.

We are forced to borrow money with interest. Others have pity on us and they just let us keep the money. Those who have good hearts.

More interesting was the subsequent visit to one of the women's homes for lunch. In the knowledge I was coming, they had prepared a special meal. It had been arranged that I would pay the women for the privilege of interviewing them. With this in mind I knew they were not out of pocket to prepare this meal. It also meant that the participants themselves would have a good meal.

The home I was escorted to was a galvanized iron home typical of those built in the Cordillera. This one was two story and quite large by Filipino standards. The walls were unlined, but it was furnished with a simple table and chairs with a lounge nearby. It was very comfortable. There did not seem to be electricity in this area, and the cooking was done using bottled gas on a portable burner. (These were also used in the boarding house where I stayed. Each of us had our own as the gas was expensive and had to be paid for individually). I presumed the bedrooms were upstairs as there was little provision for sleeping downstairs. This house was home to 10 people.

I did not see the women wash their hands at that meal, and the water they used for cooking was in plastic containers in the kitchen. There was no water tapped to the houses or available in the community. The women said they had to go to the river below to collect water and to wash the clothes.

It is not so bad in the warm weather, but in the cold weather there are blankets to wash and these are so heavy to wash and carry wet back to the house.

The toilets in this community were outside the home. These were 'squats' in the ground covered by bamboo sheets with a hole, and surrounded by bamboo walls.

The meal consisted of rice and dried fish with fruit to follow. This was complimented by sweet tea. The children joined in as they returned from school and even the language barrier did not dampen the happiness of the day.

I provided my facilitator with payment for the women for providing the information and both of us left on the long (but easier) walk down the hill to catch the Jeepney back to Baguio City. The women were so pleased to have some money for doing something easy! They had stayed home from their swidden farms that day, so I had to pay for the produce they would have worked for. It was a very enlightening afternoon.