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The multiple determinants of Aboriginal health and their implications for policy: a case study from Central Australia

Introduction

This case study is designed to help show that the determinants of ill health and short life expectancy amongst Aboriginal people are multiple, and basically social. The case study clearly shows the importance of quality health care. But it also reveals how much more is necessary if Aboriginal morbidity and mortality rates are to be raised to anywhere near those of non-Aboriginal Australians. Our case study demonstrates that governments must address the problem of poor health on a broad front, going beyond health, education, welfare and other services. Fundamental socio-economic reform, tackling issues such as inequality, social and political exclusion and institutional racism, is necessary.

The story

An Aboriginal woman who grew up on the town camps of Alice Springs developed rheumatic heart disease as a result of at least one episode of rheumatic fever as a child. The condition most likely followed an untreated, inadequately treated or even unnoticed, streptococcal throat infection. To prevent further attacks of rheumatic fever, a doctor prescribed ongoing monthly penicillin injections – a treatment with which she was not to always comply.

The young woman became a heavy drinker and suffered from recurrent alcohol related fits. She formed a relationship with a heavy drinking and violent partner, and was regularly beaten up – suffering severe harm, including fractures. Due to these injuries she was hospitalised on various occasions.

There were periods when this woman was able to leave her violent partner and get off the grog. However, as a result of rheumatic heart disease, at about 30 years of age she developed severe heart failure. For this, she accepted the appropriate medical advice and treatment. Despite the excessive drinking and poor social circumstances, her general practitioner and a cardiologist recommended heart valve replacement. Without surgery the chances of survival appeared poor. But this operation meant she would need to take the anticoagulant medicine warfarin on a continuing basis, which carried its own risk. The latter was especially because of the danger of alcohol related injury and consequent haemorrhage. Alternatively, if the medication was interrupted there was the risk of a blood clot.

The woman agreed to undergo surgery, and a mechanical heart valve was implanted. Following this she significantly reduced her alcohol consumption, but occasionally still drank heavily. She mostly managed to maintain her warfarin therapy and the necessary monitoring. However, while on a drinking binge some five years after the surgery she stopped taking the warfarin. As a consequence, she suffered a blood clot which blocked the flow of blood to the brain (a stroke). She recovered, but with some permanent incapacity.

Unfortunately, she again began drinking heavily and suffering from domestic violence. In one assault a leg was broken. After a cruel beating a few months later she died from severe internal and external haemorrhaging. She was 37. Without the anticoagulant medication she would have bled less and, conceivably, the injuries may not have been fatal.

On the night of the fatal assault the police were called to investigate the disturbance. They came to the town camp and drove around, but did not find the source. Though the woman was already severely injured, had she been discovered and received medical attention she could have survived.
The woman’s partner had also grown up in the town camps of Alice Springs and was seriously educationally disadvantaged, and unemployed. This meant that his capacity and reasons for acting respectfully towards others and in accordance with the law were much diminished. With access to public welfare benefits he may have felt that there was less to lose anyhow. And since he had previously been imprisoned for violence against women, jail was obviously not a good deterrent. Perhaps counselling might have been a corrective option, but no such service was available. But, things had gone wrong for him a long time before, at birth or earlier.

Controversially, the prosecution accepted that the death was not intended. The court noted that the man expressed remorse and cooperated with police, though he had initially run away. He pleaded guilty to manslaughter and was imprisoned for 15 years.

Sometime after the death it became apparent that the woman had not received the best possible surgery. There were two reasons for this. First, she could have been a candidate for a valvotomy, surgical treatment without valve replacement. A valvotomy would have meant that the woman did not need the anticoagulant therapy, warfarin, which could well have contributed to her fatal haemorrhaging. But a valvotomy was not available in the particular city to which she travelled, though it was offered in more distant capital cities at the time. The referring GP did not know this.

The second surgical option was that if the woman was to receive a mechanical valve, a newer type was available. This sort is less prone to cause blood clotting, so that the stroke that eventuated could have perhaps been prevented. Unfortunately, because these valves are more expensive, they were not used in the hospital where the older valve was inserted, as was also the case in other public hospitals in that city. However, public hospitals in other capital cities routinely used the newer valves.

**The multiple determinants**

The most immediate and obvious cause of this woman’s death was haemorrhaging due to severe injuries inflicted by a drunken and violent male partner. However, from the story just told, the situation is much more complex. To prevent such premature death, and the attendant health impairments, many more factors need to be considered. These include:

1. In childhood, overcrowding and poor sanitary infrastructure promoting the prospect of contracting the infection that gave rise to rheumatic fever in the first place.
2. Possible lack of attention by responsible adults to hygiene, and failure to notice or obtain adequate treatment for a throat infection. Ignorance or indifference or the part of parents or other carers increases the risk of children contracting diseases with potential lifelong debilitating consequences, such as streptococcal throat infections, middle ear and respiratory infections.
3. Possibly inappropriate surgery, exposing the victim to the unnecessary additional risk of anticoagulant therapy.
4. Use of a type of mechanical heart valve more liable to cause blood clotting than an alternative.
5. A culture of silence allowing domestic violence to persist over time, especially in Aboriginal communities.
6. Failure of others to intervene on the night, and direct police to the victim before she died.
7. Ineffective intervention by the police after the fatal assault – by a known perpetrator.
8. Inability of the victim and perpetrator to manage alcohol responsibly.
9. Inability of the victim to manage a chronic disease reliably.
10. Inability of the victim to break from a violent relationship.
11. Lack of appropriate counselling services and other programs dealing with domestic violence, for both the victim and the perpetrator – in spite of known serious assaults prior to the fatal attack.
12. Lack of supported pathways out of a violent domestic environment.
13. Lack of supervision or oversight of a convicted perpetrator of domestic violence.
14. Ease of access to excessively cheap alcohol, due largely to industry indifference and the failure of government to limit supply. This was despite evidence of the effectiveness of supply reduction measures.
15. Vociferous lobbying for continued unrestricted supply of alcohol from sections of the non-Aboriginal population, fuelled by ignorance and racism.
16. Educational disadvantage of both victim and perpetrator, reducing the possibility of employment and motives for trying to remain as healthy as possible.

17. Poverty, underlying the multiple other factors – a cause of causes.

18. Highly visible social inequality – promoting feelings of subordination, disrespect, anger or resentment, despair and lack of control, all factors known to induce self destructive behaviour and violence towards others nearby.

Discussion

However her death is officially recorded, the subject of this case study died as a result of a combination of causes, some immediate and some structural. Her excessive risk of poor health began at least in her antenatal environment. In any case, the death was unnecessary – and preventable at many points. But, even if the death was avoided on the night, her life and that of her attacker was already in a state of ruin.

This woman was born into circumstances that gave her a high chance of suffering the misfortunes she encountered. Had she not been Aboriginal she would have been far less likely to be poor. Had she not been Aboriginal and poor she would not have lived in an overcrowded and unsanitary environment. After all, since the 1950s, this is about the only sort of place in Australia where rheumatic fever and associated conditions remain common.

Again, if she had not been Aboriginal and poor the woman almost certainly would not have lived in a place where open and sustained violence is tolerated, by the community and by authorities. She would also have been less dependent on public services which are deficient or discriminate against Aboriginal people and others with low social status. Had the woman not been poor, she would have been better placed to escape her dangerous domestic environment. If she was not Aboriginal and living in areas like the town camps of the Northern Territory (or remote Aboriginal settlements) she would likely have been much more educated, more employable and better placed to understand and influence her circumstances. So too would her partner, which might have made him less brutal. We know that people who live at the lowest level in highly unequal societies like Australia are most likely to behave in violent and self destructive ways. But, if the cheap grog that facilitates such behaviour was not so readily available, the ability to get mindlessly drunk and endure or inflict violence would be much lower.

Not the least concern for society as a whole is the human waste and costs associated with tragic circumstances such as those described in this case study. The latter include considerations such as the enormous expense of lifetime remedial health treatment, including costly surgery in a distant city; the high cost of imprisonment, police and courts; the loss of potential productivity through life years lost through incarceration and disability, nominal formal education and alienation from the labour market; and the absence of adequate parenting for any children involved – with the strong risk of them entering the same cycle of ill health, lack of socialization, unemployment and violence.

Implications for policy

The policy implications of case studies like this are profound. Most fundamentally they demonstrate that achieving a significant improvement in Aboriginal health is a multi-sectoral challenge. There is strong and increasing evidence that good health services are making a difference. For example, between 1996 and 2003, the NT Aboriginal neonatal death rate fell from 15 per 1000 births to 9. This reflects the importance of improvements in pregnancy related services. But health services alone are not enough. The NT Aboriginal neonatal death rate is still 2.7 times the Australian average. Nor is improved housing enough, as important as that is. And the same must be said of education and other single sector services. What is perfectly plain from this case study is that improved services will only take us a certain distance. More fundamental, or structural, changes are also vital.

The underlying causes of ill health are socially determined, and this includes economic and political factors. If the health of Aboriginal people, and their life expectancies, are to be brought into line with Australian averages these underlying social determinants must be addressed.
As this case study indicates, we need to tackle the issue of poverty and associated inequalities. Low social status in highly unequal societies is a determinant of ill health. This means we have to determinedly confront discrimination, some of it institutional – as we see in the differential enforcement of laws concerning violence or school attendance, or in how real estate agents and private sector employers treat Aboriginal people. We also have to challenge the ways in which Aboriginal people are marginalized politically. The social standing and degree of control over their destinies of Aboriginal people must be increased as a matter of urgency. This cannot happen by suggesting that this is largely a matter of individual choice – of simply choosing to eat better, exercise more, and drink less grog.

Of course none of this means that Aboriginal people are exempt from personal responsibility for their behaviour and circumstances. That is nearly always a consideration, as it was in this case. But, as we have seen, personal responsibility and institutional or structural factors are interactive. The behavioural choices people make reflect both real and perceived realities. They are not made in circumstances of their own choosing, but in an environment inherited or imposed. To lose sight of this is to deny reality and help perpetuate the problem.

What all this amounts to is that without a government level strategy for urgent and radical social and economic reform across a very broad front, there will be no decisive change. The problem of atrocious Aboriginal health and life expectancies will continue. Half-hearted and piecemeal interventions such as those that now prevail at all levels of government can make too little overall difference.

Central Australian Aboriginal Congress
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Social determinants and the health of Indigenous peoples in Australia – a human rights based approach

Introduction

Improving the health status of Indigenous peoples in Australia is a longstanding challenge for governments in Australia. The gap in health status between Indigenous and non-Indigenous Australians remains unacceptably wide. It has been identified as a human rights concern by United Nations committees; and acknowledged as such by Australian governments.

Social determinants theory recognises that population health and inequality is determined by many interconnected social factors. Likewise, it is a basic tenet of human rights law that all rights are interconnected and that impacting on the enjoyment of one right will impact on the enjoyment of others. Because of this synergy, human rights discourse provides a framework for analysing the potential health impacts of government policies and programs on Indigenous peoples.

Important determinants of Indigenous health inequality in Australia include the lack of equal access to primary health care and the lower standard of health infrastructure in Indigenous communities (healthy housing, food, sanitation etc) compared to other Australians. While fundamental to improving Indigenous health outcomes, these issues are not addressed in this paper. Instead, this paper considers the social determinants of Indigenous health with reference to human rights principles.

Indigenous health policy in Australia is guided by the National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013. One of the nine guiding principles of this is that Governments adopt a holistic approach: ‘recognising that the improvement of Aboriginal and Torres Strait Islander health status must include attention to physical, spiritual, cultural, emotional and social well-being, community capacity and governance.’ This paper also highlights the inconsistencies between this guiding principle and the practices of Australian governments.
Indigenous health in Australia – key trends

The current status of Indigenous health in Australia can be briefly synopsized as follows:

• The health status of Australia’s Aboriginal and Torres Strait Islander peoples is poor in comparison to the rest of the Australian population.\(^{10}\) There remains a large inequality gap in Australia across all statistics. For example, there is an estimated gap of approximately 17 years between Indigenous and non-Indigenous life expectation in Australia\(^{11}\). For all age groups below 65 years, the age-specific death rates for Indigenous Australians are at least twice those experienced by the non-Indigenous population\(^{12}\).

• Indigenous peoples do not have an equal opportunity to be as healthy as non-Indigenous Australians. ‘The relative socioeconomic disadvantage experienced by Aboriginal and Torres Strait Islander people compared to non-Indigenous people places them at greater risk of exposure to behavioural and environmental health risk factors’\(^ {13}\) as does the higher proportion of Indigenous households that ‘live in conditions that do not support good health’.\(^ {14}\) Indigenous peoples also do not enjoy equal access to primary health care and health infrastructure (including safe drinking water, effective sewerage systems, rubbish collection services and healthy housing)\(^ {15}\).

• There has been very little progress in reducing this inequality gap between Aboriginal and Torres Strait Islander and non-Indigenous Australians over the past decade, for example in relation to long term measures such as life expectation.

• While there have been improvements on some measures of Aboriginal and Torres Strait Islander health status, they have not matched the rapid health gains made in the general population in Australia. For example, death rates from cardiovascular disease in the general population have fallen 30% since 1991, and 70% in the last 35-years\(^ {16}\) whereas Indigenous people do not appear to have made any reduction in death rates from cardiovascular disease over this period.\(^ {17}\)

• The young age structure of the Aboriginal and Torres Strait Islander population means that the scope of the issues currently being faced is expected to increase in the coming decades. The increase in absolute terms of the size of the Aboriginal and Torres Strait Islander youth population will require significant increases in services and programs simply to keep pace with demand and maintain the status quo, yet alone to achieve a reduction in existing health inequality.

• The inequality in health status experienced by Aboriginal and Torres Strait Islander peoples is linked to systemic discrimination. Historically, Aboriginal and Torres Strait Islander peoples have not had the same opportunity to be as healthy as non-Indigenous people. This occurs through the inaccessibility of mainstream services and lower access to health services, including primary health care, and inadequate provision of health infrastructure in some Aboriginal and Torres Strait Islander communities. The Royal Australasian College of Physicians describes these health inequalities

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\(^{12}\) ibid., p151.

\(^{13}\) ibid., pxviii.

\(^{14}\) ibid., pxviii.

\(^{15}\) Communicable and water-borne diseases and parasites are indicators of poor health infrastructure. Infants and children are particularly vulnerable to these diseases.

\(^{16}\) National Health and Medical Research Centre, Promoting the health of Australians, Case studies of achievements in improving the health of the population, AGPS, Canberra, 1997, p35.

inequities as ‘both avoidable and systematic’. This legacy remains to be fully addressed and is a significant barrier to the full enjoyment of the right to health for Aboriginal and Torres Strait Islander peoples.

Indigenous health and human rights – Key principles

The *International Covenant on Economic, Social and Cultural Rights* (ICESCR) includes the right to the enjoyment of the highest attainable standard of physical and mental health (article 12); the right to an adequate standard of living, including adequate food, clothing and housing (article 11); and the right to education (article 13).

Article 2 of the Covenant requires that governments take steps, to the maximum of their available resources, with a view to achieving progressively the full realization of the rights recognized in the Covenant. It also requires that all rights be enjoyed on a non-discriminatory basis.

The right to health, and these related rights, have been recognised for some time. But it is only in recent years that detailed consideration has been given a rights based approach to health. This framework therefore offers a relatively new perspective on the factors necessary to address health inequalities and ensure to all people the right to the enjoyment of the highest attainable standard of health.

Overall, the human rights based approach to health has the following components. It:

- emphasises the accountability of governments for socio-economic outcomes among different sectors of civil society by treating these outcomes as a matter of legal obligation, to be assessed against the norms established through the human rights system;
- establishes fundamental principles to guide policy development – such as that Indigenous peoples are not discriminated against and are provided with *equality of opportunity*, including through recognising their distinct cultural status;
- highlights that governments have immediate responsibilities to guarantee that the right to health will be exercised without discrimination of any kind, and to take deliberate, concrete and targeted steps towards the full realisation of the right to health;
- recognises as legitimate, and as non-discriminatory, the establishment of specific programs for particular groups (such as based on race) which are taken with the purpose of addressing inequality;
- establishes that the obligation of government is to respect, protect and fulfil the right to health, which requires a combination of responses ranging from refraining from committing harmful acts, introducing measures to prevent others from committing such acts, and taking positive steps to realise the right to health;
- emphasises *process* for achieving improvements in these outcomes, with the free, active and meaningful participation of Indigenous peoples being critical;
- establishes criteria against which to assess health policy and program interventions to ensure that services are appropriate, accessible, available and of sufficient quality, and that they also do not fall below a core minimum or essential level of rights;
- requires governments, working in partnership with Indigenous peoples, to demonstrate that they are approaching these issues in a targeted manner, and are accountable for the achievement of defined goals within a defined timeframe; and
- places the burden on government of justifying that it has made every effort to use all available resources at its disposal in order to satisfy, as a matter of priority, the right to health.

A rights based approach to health has begun to be operationalized throughout the United Nations structure through the *Common Understanding of a Human-Rights Based Approach to Development Cooperation*. The Common Understanding emphasises, *inter alia*, that:

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• People are key actors in their own development, rather than passive recipients of commodities and services;
• Participation is both a means and a goal; and
• Strategies should be empowering, not disempowering, and encourage active engagement of all stakeholders.

These human rights considerations are critical in addressing the social determinants of health.

**Social determinants of Indigenous health in Australia**

(a) Links between health status and socio-economic status / poverty

Indigenous peoples in Australia experience socio-economic disadvantage on all major indicators. For example:

- At the 2001 National Census, the average gross household income for Indigenous peoples in Australia was $364 per/week, or 62% of the rate for non-Indigenous peoples ($585 per/week).²⁰
- At the 2001 Census, the unemployment rate for Indigenous peoples was 20%; three times higher than the rate for non-Indigenous Australians²¹.
- Nationally in 2004, Indigenous students were also half as likely to continue to year 12 as non-Indigenous students²².

Research has demonstrated associations between an individual’s social and economic status and their health. Poverty is clearly associated with poor health.²³ For example:

- Poor education and literacy are linked to poor health status, and affect the capacity of people to use health information;²⁴
- Poorer income reduces the accessibility of health care services and medicines;
- Overcrowded and run-down housing is associated with poverty and contributes to the spread of communicable disease;
- Poor infant diet is associated with poverty and chronic diseases later in life;²⁵ and
- Smoking and high-risk behaviour is associated with lower socio-economic status.²⁶

Research has also demonstrated that poorer people also have less financial and other forms of control over their lives.²⁷ This can contribute to a greater burden of unhealthy stress²⁸ where ‘prolonged exposure to psychological demands where possibilities to control the situation are perceived to be limited

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²¹ ibid. p66.
²⁵ Wadsworth, M., Early Life, in (eds.), Marmot, M. and Wilkinson, R., Social Determinants of Health, Oxford University Press, New York, 1999, p44. Chronic diseases that have poor diet as a determinant include cardiovascular disease, Type 2 diabetes and renal disease. Connections have been made between poor foetal nutrition and the presence of chronic diseases later in life: National Health and Medical Research Council, Nutrition in Aboriginal and Torres Strait Islander peoples - An information paper, Commonwealth of Australia, 2000, p15.
²⁷ In 2002, 54% of indigenous people aged 15 or over were living in households where the household spokesperson reported that household members would be unable to raise $2000 within a week in a time of crisis. Australian Bureau of Statistics and Australian Institute of Health and Welfare, op.cit., pp12-13.
and the chances of reward are small. Chronic stress can impact on the body's immune system, circulatory system, and metabolic functions through a variety of hormonal pathways and is associated with a range of health problems from diseases of the circulatory system (notably heart disease), mental health problems, violence against women and other forms of community dysfunction.

(b) Linkages between perceptions of control and chronic stress

In the National Aboriginal Health Strategy (1989), Indigenous peoples stated that their health status is linked to 'control over their physical environment, of dignity, of community self-esteem, and of justice. It is not merely a matter of the provision of doctors, hospitals, medicines or the absence of disease and incapacity.

In making these assertions, Indigenous peoples anticipated developments in social determinants theory over the 1990s. It is now generally accepted that an individual's perceived lack of control over their lives can contribute to a burden of chronic, unhealthy stress contributing to mental health issues, violence and substance abuse.

This is the experience among Indigenous Australians. For example:

- An indicator of chronic stress in a population group is high rates of high-risk health behaviour, notably substance abuse. In 2002, just under one-half of the Indigenous population aged 15 years or over smoked on a daily basis. One in six reported consuming alcohol at risky or high risk levels.

- High rates of mental health problems also indicate chronic stress in a population group. In 2003-04, Indigenous people were up to twice as likely to be hospitalised for mental and behavioural disorders as other Australians.

- Hospitalisation rates for assault or intentional self-harm may also be indicative of mental illness and distress. In 2003-04, Indigenous males were 7 times more likely, and females 31 times as likely as for males and females in the general population; hospitalisation rates for intentional self-harm was twice as high.

Relatively permanent, negative features of the social environment trigger chronic stress: intergenerational poverty, racism, and so on. It can impact on the body’s immune system, circulatory system, and metabolic functions through a variety of hormonal pathways and is associated with a range of health problems, particularly diseases of the circulatory system. These are currently the biggest killer of Indigenous people in Australia.

The WAACHS found that the environmental safety and the emotional and social health of Indigenous children improved with isolation (that is, those in remote communities had better mental health). Children living in Perth had significantly poorer (in fact, five times worse) emotional and social health than those living in very remote communities. The report concludes that traditional cultures and ways are protective against poor environmental safety and emotional and social health.

30 ibid., pp32-37.
35 ibid.
37 ibid., pp135-137.
39 ibid., p131.
40 ibid., pp32-37.
41 Telethon Institute for Child Health Research, op.cit., pp18-19.
To the degree recognizing Indigenous peoples’ right to self-determination supports communities to regain control of their lives, including through the maintenance of traditional cultures, it can be understood as having positive health impacts. It is also a stepping-stone to the goal of social and economic equality. Experience from overseas confirms that Indigenous communities’ control over their own affairs can be crucial to their social and economic regeneration\(^{42}\).

(c) **Evidence of the health impact of Indigenous community control of health services**

Aboriginal community controlled health services an excellent example of how communities can be empowered by exercising control of local services. While the fact of control may in and of itself be expected to bring broader health benefits, the ability of communities to decide on, and address, their own health priorities has been found to increase the impact of primary health care in communities\(^{43}\).

For example:

- The Northern Territory Well Women’s Program, which operates in a region with a high proportion of Aboriginal women and has a long history of engagement with women and local Aboriginal Health Services, has achieved a high rate of cervix screening (61%) in the Alice Springs remote area, which is comparable to the rate for Australian women generally (62%).

- A mental health project at the Geraldton Regional Aboriginal Medical Service reduced psychiatric admissions of Aboriginal and Torres Strait Islander people to Geraldton Regional Hospital by 58%.

- Since 2000 the Townsville Aboriginal and Islander Health Service’s Mums and Babies Project increased the numbers of women presenting for antenatal care (from 40 to over 500 visits per month in 1 year). The number of antenatal visits made by each woman has doubled, with the number having less than four visits falling from 65% to 25%. Pre-natal deaths per 1,000 reduced from 56.8 prior to the program to 18 in 2000; the number of babies with birth weights less than 2,500 grams has dropped significantly; and the number of premature births has also decreased.

- Since 1990 an antenatal program at Daruk Aboriginal Community Controlled Medical Service, Western Sydney has achieved increased awareness among Aboriginal women of the importance of antenatal care. Thirty-six (36) per cent of Indigenous women presented within the first trimester, compared with 21% at Nepean and 26% at Blacktown Hospitals’ antenatal clinics; and women attended more antenatal visits (an average of 10 at Daruk compared to 6 at Nepean and 9 at Blacktown).

(d) **Traditional ownership of land and health status**

The right of self-determination includes the right of peoples to freely ‘dispose of their natural wealth and resources’ and that ‘in no case may a people be deprived of its own means of subsistence’. Native title and the title to communally owned land (through the various Aboriginal land rights legislation in Australia) is the ‘natural wealth and resources’ of Indigenous peoples.

As noted above, supporting traditional culture – including customary law and governance structures – is likely to help improve the health status of people living in remote communities. In practice, this also means ensuring Indigenous peoples have access to their traditional lands.

While Indigenous commentators have highlighted the social and culturally related health benefits of access to land,\(^{44}\) many possible positive health impacts are likely including improved diet, exercise, and the reconnection of Indigenous peoples with their traditional economic bases.


\(^{44}\) See generally Burgess, P., and Morrison, J., ‘Country’ in Editors, Carson, B, Dunbar, T, Chenall, R, et.al., op.cit., pp177-196
The Kuka Kanyini project in Wattaru, South Australia in the Anangu Pitjantjatjara Lands illustrates these benefits.

**Text Box: Case study - The Kuka Kanyini project, Anangu Pitjantjatjara Lands**

The goals of managing country, conserving biodiversity, maintaining culture, providing employment and training and improving the diet of remote communities coincide in the Kuka Kanyini project. This was initiated in 2003 as a pilot around the remote community of Wattaru in the far north west Anangu Pitjantjatjara Yankunytjatjara (APY) Lands. The project is a local community-government partnership funded by the South Australian Department of Environment and Heritage and the APY land management. The Kuka Kanyini model, it is hoped, will be extended throughout the APY Lands in time.

Watarru has a seasonal population of between 60 and 100 people and is located in an extremely remote part of the APY Lands. It is a lawfully strong, proud and socially cohesive community, generally free of problems like petrol sniffing and domestic violence that occur elsewhere on the APY Lands. However, despite these positive points, a visit to Watarru by staff members of HREOC in 2003 noted high rates of diabetes and other chronic diseases self-reported by community members. There was a limited range of foods stocked at the Watarru community store. Convenience foods high in saturated fat and sugars are often the preferred foods by community members.

Land management is an integral part of the project. This includes maintaining the traditional pattern of fire management regimes that helps minimise the impact of accidental fires that can otherwise devastate the local mulga woodlands from which foods (grubs, mistletoe fruit, honey ants, mulga apples and seeds) and pharmacopeia are found. Fire also is used to encourage regrowth of foods preferred by kangaroos and emus that assist Anangu when hunting. It also includes the control of populations of feral rabbits, foxes, camels, and cats that have had a significant impact on the population of small sized native mammals in the region. Feral camels and horses also foul and damage water sources that native animals rely on and compete with the community for several plant food-sources and are of high cultural significance.

To date the project has exceeded expectations. It continues to employ a minimum of 12 people on a full time basis, increasing the level of self esteem and valuing the 40,000 years information base of the local people to assist western science. By combining contemporary and traditional skills the local people are now able to best manage the land. To date, the increase in the physical activity by participants has assisted in the control of diabetes. The guaranteed wage ensures that people are now saving for large items and buying healthy foods. The increase in self-esteem is obvious with the younger people wanting to participate; young men in particular seek to working with camels and learn fire skills as these are considered prestigious occupations.

(e) **Social determinants as a contemporary reflection of historical treatment**

Indigenous peoples are not merely ‘disadvantaged citizens’. The poverty and inequality that they experience is a contemporary reflection of their historical treatment as peoples. The inequality in health status that they continue to experience can be linked to systemic discrimination.

In Australia, this has been vividly demonstrated by:

- the Royal Commission into Aboriginal Deaths in Custody, which illustrated the links between socio-economic status and imprisonment; and
- the National Inquiry into the Forcible Removal of Aboriginal and Torres Strait Islander Children From Their Families (or Bringing them Home), which illustrated the inter-generational problems for parenting, health, and care and protection of the removal of children during the assimilation period.

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The following examples (both contemporary and historical) demonstrate the negative impact of social determinants on Indigenous peoples’ health.

- **Racism**

Racism is a stressor that has been reported to affect both mental and physical health. A 2003 review of 53 studies in the United States found a decline in mental health status as racism increased\(^\text{46}\). Eight out of 11 studies found links between the elevated prevalence of high blood pressure in Afro-Americans and racism\(^\text{47}\). There have been very few studies on the impact of racism on the health of Indigenous people in Australia, although experts agree that a correlation with the US studies is to be expected\(^\text{48}\).

One such study is the *Western Australian Aboriginal Child Health Survey 2001-02* (WAACHS). It reported than 21.5% of the Indigenous children under 12 surveyed experienced racism in the previous 6-months. This was associated with increased smoking, marijuana use and alcohol consumption in these under-12s\(^\text{49}\).

- **Children removed from their families (‘stolen generations’)**

The *National Aboriginal and Torres Strait Islander Social Survey 2002* reported that 38% of respondents had either been removed themselves and/or had relatives who, as a child, had been forcibly or otherwise removed from their natural family\(^\text{50}\).

The practice has intergenerational health impacts. The WAACHS reported that the effect on parents was that they had higher rates substance abuse and mental health problems. Their children were twice as likely to have emotional and behavioural problems, to be at high risk for hyperactivity, emotional and conduct disorders, and twice as likely to abuse alcohol and drugs\(^\text{51}\).

- **Indigenous women as victims of crime**

Research conducted by the Social Justice Commissioner on the circumstances of Indigenous women's prisoners in Australia found that Indigenous women are victims of a complex frame of dynamics upon their lives including violence, poverty, trauma, grief, loss, cultural and spiritual breakdown.

Indigenous women are particularly vulnerable to intersectional discrimination within criminal justice processes due to the following reasons:

- the combination of socio-economic conditions faced by many indigenous women; including being more likely than non-indigenous women to be unemployed, to have carer responsibilities for children other than their own, to receive welfare payments and to have finished school at an earlier age; and to be a victim of violence and also more likely to live in communities where violence is prevalent. These factors combine to make Indigenous women particularly vulnerable and their needs more complex than others.

- Second, due to the consequences of family violence in indigenous communities, and its impact on Indigenous women. This has not been grappled with appropriately by the criminal justice system. Policies and programs provide relatively little attention to the high rate of indigenous victimization, particularly through violence and abuse in communities. Indigenous women disproportionately bear the consequences of this.


\(^{47}\) ibid., p201.


\(^{49}\) Cited in ibid., p66.

\(^{50}\) About 8% of Indigenous respondents reported that they themselves had been removed from their natural family. The most frequently reported relatives removed were grandparents (15%), aunts or uncles (11%), and parents (9%). *Australian Bureau of Statistics, National Aboriginal and Torres Strait Islander Social Survey 2002, ABS cat. no. 4714.0, Commonwealth of Australia, Canberra, 2004, pp5-6.*


[http://www.journeyofhealing.com/stanley05.htm](http://www.journeyofhealing.com/stanley05.htm)
There is a consistent pattern indicating that incarcerated Indigenous women have been victims of assault and sexual assault at some time in their lives. There was also a strong relationship between incarceration and experiences of violence, drug and alcohol abuse, with Indigenous women often entering custody with poor physical or mental health, and at higher risk of self harming when in prison and also soon after release from prison.

As a consequence, the rate of Indigenous women being imprisoned has increased most rapidly in Australia since 2000. Indigenous women also experience extremely high rates of recidivism.

In consultations to identify solutions to address this situation, Indigenous women emphasised the importance of healing to address grief and trauma as a major priority. Strategies need to respond to the circumstances of indigenous women holistically, which seeks to not only address offending behaviours but also focus on healing the distress and grief experienced by many indigenous women and their communities.

Text box 3 below contains a case study of a program that attempts to help heal the trauma experienced by survivors of the Stolen Generation, Indigenous women prisoners and other Indigenous people.

**Text Box: Case study - Sacred Site Within Healing Centre**

The Sacred Site Within Healing Centre was established in Adelaide in 1993. Sacred Site provides grief and loss counselling services to Indigenous people, as well as making presentations and conducting training with government departments and community organisations on the effects in Indigenous communities of unresolved grief and trauma.

Sacred Site was established due to concerns that mainstream counselling services were not appropriate in addressing the grief and loss of Indigenous people. An underpinning belief of the Sacred Site program is that Indigenous peoples' unresolved grief is a major contributing factor to the range of social and health issues which exist in Indigenous communities today.

Healing strategies used at Sacred Site seek to:
* Create an awareness about the impact of losses and the unresolved grief that results;
* Create and develop grieving ceremonies;
* Recreate women's business and ceremonies;
* Recreate men's business and ceremonies; and
* Recreate rites of passage for young people.

Overall, Sacred Site attempts to assist Indigenous people understand their grief and loss in a holistic sense which includes the effects of colonisation. The program also aims to assist people working with Indigenous people to understand issues of grief and loss.

**Reconciliation**

In 1991, Australia commenced a formal process of reconciliation with Indigenous peoples. The Council for Aboriginal Reconciliation made its recommendations to the nation in 2000. The federal government responded to these recommendations by emphasising the need to address ‘practical’ issues such as disadvantage, as opposed to ‘symbolic issues’ which they described as including recognition of rights, a treaty and a national apology to the Stolen Generations, and other forms of reparation.

‘Practical reconciliation’ rests on an artificial division between measures that are described as practical as opposed to symbolic. But, as social determinants theory would suggest, no such clear distinction exists – there are interdependencies between many of the dimensions of Indigenous disadvantage; including how social and historical factors can influence contemporary Indigenous practical outcomes. At the moment a more lasting and meaningful reconciliation process is the task of future generations.

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Recognising social determinants as a contemporary reflection of the impact of colonisation – international developments

Recognising the contemporary impact of colonization on Indigenous peoples globally remains a major challenge for the international community and the United Nations. It is also a major challenge for those seeking to understand the social determinants of health among Indigenous communities.

At the launch of the Second International Decade for the World’s Indigenous People, Ms Mililani Trask vividly described this challenge. She stated:

Governments speak of ‘poverty’ while Indigenous Peoples speak of ‘rights’. Within Indigenous territories, poverty is also defined by power deficits, lack of self-determination, marginalization and lack of mechanisms for meaningful participation and access to decision-making processes... Poverty alleviation must start from Indigenous Peoples own definitions and indicators of poverty...53

Applying the Millennium Development Goals to the situation of Indigenous peoples, she continued:

the effort to meet the targets laid down for MDGs could in fact have harmful effects for indigenous peoples such as the acceleration of loss of lands and natural resources or the displacement from those lands. (The MDG indicators need to be redefined to be relevant to indigenous peoples by taking into consideration)... culturally appropriate indicators, redefining the process of impoverishment caused by dispossession of ancestral lands, loss of control over natural resources and indigenous knowledge, devastating social and environmental impacts, impacts from militarization and conflict and forced assimilation into the mainstream society and integration into the market economy.54

She concluded:

The human-rights based approach to development is essential to the achievement of the MDGs. The MDGs must therefore be firmly grounded on a rights-based approach, to have meaning for Indigenous Peoples.55

The United Nations Permanent Forum on Indigenous Issues (PFII) have identified that to address these concerns there is a need for processes for indigenous peoples ‘to identify gaps in existing indicator frameworks, examine linkages between quantitative and qualitative criteria, and propose the development of indicators that are culturally-specific, measure exclusion, and reflect the aspirations of indigenous peoples’.56

The PFII convened a meeting in Ottawa in February 2006 to this end. 57 It identified numerous challenges at the national and international level in developing appropriate indicator frameworks and linking these to the Millennium Development Goals. They stated, inter alia, that:

- Indicators must place significant emphasis on indigenous peoples’ inherent values, traditions, languages, and traditional orders/systems, including laws, governance, lands, economies etc. Collection of data and development of indicators should, therefore, also represent indigenous peoples’ perceptions and understanding of well-being. It was noted, however, that not everything

53 Mililani Trask, Comments on behalf of the Global Indigenous Peoples’ Caucus at the launch of the 2nd International Decade of the World’s Indigenous People, United Nations General Assembly, 12 May 2006, available online at: www.docip.org/Permanent%20Forum/pfii5.8.PDF.
54 Mililani Trask, Comments on behalf of the Global Indigenous Peoples’ Caucus at the launch of the 2nd International Decade of the World’s Indigenous People, United Nations General Assembly, 12 May 2006, available online at: www.docip.org/Permanent%20Forum/pfii5.8.PDF.
relating to indicators development undertaken by governments is relevant to indigenous peoples and not everything that indigenous peoples perceive can be measured.

- Indicators should also focus on the interplay between indigenous and non-indigenous systems (social, political and economic, colonization, industrialization) that result in a series of impacts, such as racism and discrimination, migration to urban centres, youth suicide and disconnection to land and culture.

- Indicators that demonstrate inequities and inadequacies in government funding for indigenous peoples' programming and services should also be developed. This data can be illuminating by linking funding levels to mandated areas of government responsibility, assessing their accountability and projecting demand and other impacts into the future.

- There should be a balance of comparative indicators to assess well-being among non-indigenous and indigenous peoples, and indigenous-specific indicators based on indigenous peoples' visions and understandings of well-being.58

The Workshop recommended that ‘the United Nations should identify and adopt appropriate indicators of indigenous identity, lands, ways of living, and indigenous rights to, and perspectives on, development and well-being’ and that these indicators should be applied in performance measurement and monitoring processes by the UN system, as well as its member states, intergovernmental organizations and other development institutions.59

Accordingly, the Workshop proposed a series of indicators that could be further considered at the national and international level based on the two key themes of:

- Identity, Land and Ways of Living; and
- Indigenous Rights to, and Perspectives on, Development.

The Workshop noted that ‘more exact indicators need to be developed in a measurable form, with full participation by indigenous peoples from all regions’.60 The proposed indicators relate to the following issues:

- Maintenance and development of Traditional Knowledge, Traditional Cultural expressions and practices;
- Use and intergenerational transmission of indigenous languages;
- Support of, and access to, bilingual, mother tongue, and culturally appropriate education;
- Ownership, access, use, permanent sovereignty of lands, territories, natural resources, waters;
- Health of communities – including community safety, community vitality, and support for safe and culturally appropriate infrastructure;
- Health of ecosystems;
- Patterns of migration;
- Indigenous governance and management systems;
- Free, prior, informed consent, full participation and Self-determination in all matters affecting indigenous peoples’ well-being;
- Degree of implementation/compliance with international standards and agreements relating to indigenous peoples’ rights; and
- Government funding for indigenous peoples’ programs and services.61

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Conclusions and lessons

This paper has addressed a broad range of issues. It seeks to demonstrate the connections between low socio-economic status and poverty, and health outcomes. It demonstrates that the social determinants of health for Indigenous peoples reflect more than just their relative disadvantage. It also reflects the non-recognition and non-enjoyment of their human rights and of their distinct cultural characteristics.

Indigenous peoples globally have actively noted the importance of a human rights based approach to addressing their disadvantage and to ensuring the survival of their cultures.

An approach to social determinants that fails to recognise the fundamental connections between health status and the enjoyment of human rights will fail.

Workshop paper presented by Mr Darren Dick
on behalf of Mr Tom Calma
Aboriginal and Torres Strait Islander Social Justice Commissioner
Introduction

The National Water Initiative (NWI) Agreement was announced in 2004 (COAG 2004). An important component of the NWI in relation to domestic water supply is the commitment to the principle of user-pays, consumption based pricing and full cost recovery, along with a focus on efficient use of water, economic viability of water services, and sustainable use of water resources with consideration of ecological sustainability. The release of the NWI raised the questions: ‘In practical terms how will it affect discrete Aboriginal communities in South Australia?’ and ‘How can Aboriginal communities respond to the NWI?’ For example, the possible introduction of a user-pays system for water has significant implications for Aboriginal communities, some of whom do not pay for water use and experience social and economic disadvantages that adversely affect their health.

This case study explores the impact of the NWI policy directive for full cost recovery for domestic water supplies and sustainable technologies, on the Nepabunna Aboriginal community in South Australia. The study outlines the impact of remoteness, arid climate, limited access to potable and non-potable water supplies and lack of employment opportunities as factors impacting on their capacity to pay for improved services. The study was funded by the State government as part of its aim to respond to the NWI. The case study also outlines community endeavours to ease the burden of poverty for residents.

Methodological considerations

Information for this study comes from two projects conducted between 2003 and 2006. The first project explored the quality and quantity of the domestic water supply at Nepabunna. The second project (2005-6) worked with the community to determine the impact of the NWI move to full cost recovery for water supply and new infrastructure. The methodology involved a water audit of all houses and public buildings, a contingent valuation exercise (Carson et al., 1999) and a cost of living analysis (Tregenza et al., 1998).

The water audit was conducted by the Community Council Chairman and Essential Services Officer, Kelvin Johnston. Kelvin collected water meter readings from all buildings in the community over a number of discrete six week periods during both the cooler and hotter months on a Monday and Friday of each week. In total a 365 day period was monitored. In order to calculate per capita consumption, the number of people present in the household at the time was noted. This enabled the calculation of daily and seasonal variations in water use of each household, an estimation of water leakages, and of high water use.

The key rationale of contingent valuation is to assess a community’s willingness to pay for services such as water supplies. Willingness to pay is determined during a focus group discussion in which community members are presented with a series of options. Each option offers an alternate in terms of quality and quantity at varying costs. In reaching a decision the community debates the advantages of one option over another. The aim of the exercise is for a community to make the best decision given their needs and resources.

A primary motivation underlying the willingness to pay for water is a householder’s capacity to pay. To ascertain capacity to pay a cost of living analysis was performed. The cost of living analysis involved residents working with the research team to construct a hypothetical family and then estimating the income and cost of living for this family. The community identified the major costs for household expenditure such as electricity, rent, household repairs, petrol, loan repayments for purchase of cars and white goods. This was followed by devising an average family weekly food menu and calculating costs.
The shopping list included health consumables and health hardware. Health hardware are those items such as washing machines, brooms, mops and buckets necessary for environmental health, while health consumables include soap, detergent, toothpaste, and shampoo; items all necessary for maintaining personal health. The idea of adding health hardware and health consumables to the cost of living analysis derives from work done by Tregenza et al., (1998) and is based on the Uwankara Palyanyku Kanyintjaku Report (Nganampa Health et al., 1987). This study conducted in the Anangu Pitjantjatjara Yangkuntjatjara Lands identified nine essential healthy services necessary for good health. These are the resources to:

1. Wash people
2. Wash clothes/bedding
3. Remove waste
4. Nutrition
5. Reduce crowding
6. Separate dogs from children
7. Control dust
8. Control temperature
9. Reduce trauma.

The strength of using the nine essential health hardware is that it recognizes that costs associated with good health for low income groups go beyond adequate food, to include expenditure on personal hygiene and household cleanliness.

**Water use and contingent valuation study**

Water at Nepabunna comes from two sources, rainwater and bore water. The groundwater is highly mineralised, which is the reason a separate drinking water supply was established. The average Total Dissolved Solids (TDS) is 1,390 mg/L, hardness is 1,000 mg/L, iron exceeds 8 mg/L, and sulphate is close to the health limit. Rainwater collected from the roof of the basketball stadium is the only potable supply. The rainwater from the basketball stadium feeds into a storage tank before passing through an ultraviolet light disinfection plant. A dual reticulation system carries the potable supply to one tap at the kitchen sink in each house and community building. The non-potable component of the community’s dual reticulation system comprises groundwater from two bores. There is some concern about the recovery rate of the bores suggesting the supply may not be sustainable beyond ten years (Dodds et al., 2002).

**Audit of water use**

An audit of water use was done to assist the community in identifying water efficient strategies appropriate for the community. Based on the data gathered average per capita domestic bore water use is 435 L/p/d, excluding potable rainwater. A comparison of household water use over the year, during a hot period from 21 November 2005 to 27 February 2006 when the average daily maximum temperature was 35.8°C, and during a cold period from 17 July to 28 August 2006 when the average daily maximum temperature was 19.4°C, shows more water use during hot periods. The total amount of leakage in the community reticulation system was calculated by subtracting the sum of the water meter readings (41.8 KL/d) taken at all buildings from bore pumping rates over a similar period. This calculation, for the period May 2005 to May 2006, shows that around 2.4 KL/d or 5.6 per cent of the groundwater pumped from the bore is unaccounted for. This is very low indicating few leaks. Water use at Nepabunna is below that of the average for South Australia’s outback towns (c.f. Keneally 2004) suggesting a high level of responsible use.

All but two houses are fitted with evaporative cooling systems. Evaporative coolers are switched on during hot periods. The amount of water used by evaporative coolers depends on the dry bulb temperature; relative humidity; speed of operation (i.e. a low or high fan setting); the size of the cooler; and mineral content of the water supply which will determine the volume of bleed-off water (Karpiscak 1994). Where the water supply has a high mineral content the cooler must be operated on a continuous water flow to prevent salt build-up on the pads and inside the cooler system. At Nepabunna the evaporative coolers have to operate with the water running constantly because of the high mineral content of the bore water, as the salt build-up on the filters is extreme. The evaporative coolers use considerable water, however, a move to refrigerator-based air-conditioners would increase electricity costs. What is required is housing stock with a range of passive cooling features such as wide verandas, but this would increase the cost of housing.
**Contingent valuation study**

There are a range of options for improving either the quality or quantity of water at Nepabunna, but under the NWI they must be sustainable and meet the requirements for cost recovery. Two options not considered here due to lack of feasibility or cost are an Aquifer Storage Recovery system and additional sinking of bores. Options explored with the community were reverse osmosis (RO), rainwater harvesting, household appliances, and water use statements. These four options were presented to the community using a contingent valuation methodology.

The first option was RO. RO is a technology currently used with success, although at considerable expense ($4.50/m³) to the provider in other Aboriginal communities. Based on 2003 pricing, such a scheme would cost around $500,000 for a 90 per cent recovery rate, this excludes the costs of electrical connections, pumping, effluent disposal infrastructure and storage tanks for the treated water and project management, delivery and commissioning fees (Morgan et al. 2003). Depending on the salinity of the water supply, the RO process can result in a sizeable proportion of the water supply being discarded as brine effluent. If RO were implemented at Nepabunna groundwater extraction would have to increase by a further 15 per cent just to accommodate the waste effluent (Morgan et al. 2003).

The second alternative was a modification to the existing supply system to extend the rainwater harvesting. The proposal was for a new large roof area to serve as a rainwater catchment and feed into the groundwater storage tanks. Rainwater would supplement the groundwater bore supply, reducing reliance on the amount of groundwater extracted and extending the life of the bores. A rainwater collection structure could provide additional and sustainable water, despite the low rainfall, at reasonable cost to the community/government. The shandied mix of groundwater and rainwater would lower the salinity and hardness of the water, with a concomitant reduction in maintenance costs to pipes, pumps and plumbing fittings caused by the highly mineralised water.

A third option discussed was for water-saving devices within the home. On investigation these were found to already be in place. A fourth option was the use of statements as a water saving behaviour tool. While under the NWI the proposed water account system applies to urban areas only, the application of such a system in Nepabunna was raised, not as an invoice, but as an educational tool to illustrate what an average or water-efficient house would use, and serve as a reminder of the need to save water, and simultaneously provide tips on how reductions in water use could be achieved; the tips or ideas could be varied in successive statements. Participants favoured the water statement idea, although as we have already noted, the majority of this community does not waste its water.

**Willingness to pay for water services**

Following the discussion around the types of technologies that could extend the life of the bores, the group was guided towards willingness to pay for technologies aimed at improving the sustainability of the water supply. For example, it costs the State government Aboriginal Affairs and Reconciliation Division around $2,670 per fortnight (excluding maintenance expenses) to supply Nepabunna with treated water (abstraction, piping, storage, ultraviolet disinfection, reticulation) (Morgan 2006 pers. comm.).

When the option of supplementing the present water supply with new bores (their preference) was opened for discussion, the immediate response was that $5 per household would not be enough to cover the cost of installing the bores, indicating that members of the community are aware of the expense of such infrastructure. In tandem with the idea of a comparative water use statement as a means of informing residents of their water use, the idea of charging only where water use was excessive was raised with the community. That is all households could, for example, be allocated a free basic allowance of 300? L/p/d. While water use in most of the houses at Nepabunna is modest and below that of the average for South Australia’s outback towns (c.f. Keneally 2004) there are a few houses in which occupants use over 600 L/p/d.

The community were not adverse to the concept of user-pays for water use above a set allocation. However, Nepabunna Community Council has a strong sense of equity and wished to ensure that this action would be means tested according to income. The final recommendations were for increases in water harvesting and for passive cooling of housing stock. In both cases the community were aware that while they might be able to contribute a small amount to the cost of infrastructure they could not afford
to pay for the high cost of passive cooling or increased water harvesting, nor would the capital outlay ever meet full cost recovery. The question remains: What can this community afford?

Cost of living study

The generation of a reliable assessment of the cost of living for families at Nepabunna required access to data on population, family composition, employment, income, utility, medical, food and other costs. The data sources used were the 2001 Australian Census (ABS 2005), the National Aboriginal Health Strategy R3 Project Impact Assessment (Parsons Brinckerhoff 2005) and data gathered as part of the water audit and focus group discussions. The population is estimated to be 64 persons, with 15 children and 49 adults. Average household size is 3.5 persons. From this a hypothetical family of two adults and one child was used to estimate income. Six women and 16 males rely on the Community Development Employment Program (CDEP) with no income or in-kind resources from the customary economy. The total income received by the hypothetical family is $534.85 and is outlined below in Table 1.1 with reference to the Henderson Poverty line (Institute of Applied Economic and Social Research 2006).

Families at Nepabunna need a car for travel to Leigh Creek for shopping and for trips to Port Augusta to purchase clothes, larger household items or medical care. No family is in a financial position to purchase a vehicle outright. Car loan repayments for a $5,000 car are set at $165.52 per month over a four year period. Car registration is $146 paid on a three-monthly basis, as householders cannot afford the annual lump sum. Petrol costs are approximately $50 per week for two return trips to Leigh Creek and for periodic trips to Port Augusta. A yearly sum of $1,040 has been added to cover cost of tyres and repairs.

Nepabunna residents pay full retail costs for their electricity and an additional $25 a week to the Housing Association to cover rent and house maintenance. Families seek dental care either at Leigh Creek or Port Augusta where they pay the full commercial rate, or with the public dental service where the service is free, but the current waiting list is around 14 months (Richards et al. 2002). Medicare covers eye testing, but prescription glasses average around $260 per pair and should be replaced every two years. Medical costs are estimated to be $18.06. These costs total $225.67 or $11,734.84 annually.

The weekly menu which formed the basis of the consumable food list was based on the women at Nepabunna said they prepared for their families. The amount of food in the shopping lists was guided by the quantities from the Australian Guide to Healthy Eating (AGHE) serve sizes for each food group (Smith et al. 1998) and modified according to what the women stated that they ate. For example, while the AGHE guidelines specify that adults should eat one medium sized serve of fruit per day and children should have two, the women stated that each person ate about three pieces of fruit per week. Nepabunna residents also eat more meat and tinned baked beans and spaghetti than specified by the AGHE. These choices are guided by what is available, remoteness and costs. A survey of supermarket items from the shopping list was conducted in May 2006 at both the Copley and Leigh Creek stores. Food costs were estimated to be approximately $143.61 per week. An additional $15 per week has been added for school lunches and trips to town bringing the total amount to $158.61. A similar exercise was conducted for health consumables and health hardware. The total came to $227.22 per week and $11,815.44 annually.

Table 1.1: Comparison of Henderson Poverty Line with the Nepabunna hypothetical family weekly income, March quarter 2006.

<table>
<thead>
<tr>
<th>Adult 1 a</th>
<th>Adult 2 (partner) b</th>
<th>Family Tax Benefit Part A c</th>
<th>Family Tax Benefit Part B d</th>
<th>Total income e</th>
<th>Poverty Line f</th>
</tr>
</thead>
<tbody>
<tr>
<td>$239.40</td>
<td>$182.50</td>
<td>$86.87</td>
<td>$26.08</td>
<td>$534.85</td>
<td>$531.89</td>
</tr>
</tbody>
</table>

62 Notes (a) Comprises CDEP participant wage for remote areas of $229.00 per week plus CDEP supplement of $10.40 per week.
(b) Comprises Parenting Payment.
(c) and (d) It is assumed that the child is aged between 13 and 15 years.
(e) To be comparable with the poverty line, total income reported should be the income after tax. In this instance, minimal income tax would be payable so that a direct comparison of total income with the poverty line is likely to be valid.
(f) Poverty line for those not in the labour force inclusive of housing costs.
Total costs for utility, food, health hardware and health consumables comes to $452.89 per week ($23,551.20). The hypothetical family income is estimated to be $534.85 ($27,812.20). Nearly eighty five percent of the family’s income goes towards essential items. These calculations do not include travel to funerals, holidays, family gifts and celebrations such as weddings or family related emergencies. Nor does this calculation allow for occasional treats or adequate intake of fruit and vegetables particularly important for populations with higher than average incidence of diabetes. Other costs not included in the budget are purchases linked to travel to sporting fixtures, household furnishings, or personal care such as a hairdresser. Moving to full cost recovery for water supplies would have a negative impact on the community unless subsidies remain in place.

Mainstream subsidy options

Subsidies or concessions that aim to spread the costs of essential services more equitably across the community are of two kinds. The first form of subsidy is the Community Service Obligation. Under these provisions householders in rural and remote areas are charged a rate similar to costs in urban areas as a matter of equity. Accessing the CSO is not automatic nor is it transparent. The second kind of subsidy is the range of concessions and allowances offered by government welfare agencies. The State Government Department of Children, Youth and Family Services, administers a range of concessions to low income families for meeting the cost of water and sewerage as does SA Water and Centrelink. Eligible recipients must own and occupy the residence, non-home owners are not eligible (Department for Families and Community 2006). Aboriginal people living in discrete communities are not the owners of the houses in which they live and therefore, are not eligible for the latter concessions outlined above. Aboriginal property renters are eligible for the programs offered by SA Water and other utility providers for customers having difficulty meeting accounts. These providers make provision for customers to pay large accounts in manageable amounts. Customers have to notify the provider of the difficulties they are experiencing and arrange for a change of payment option. While this is an option for Indigenous communities, as Willis et al. (2004) note, Aboriginal householders in rural and remote regions report difficulties in communicating with utility providers unless they have local office staff who can handle the administration.

What has been achieved?

The State government has continued to maintain the quality of water at Nepabunna. For example, samples taken from the community rainwater tank, non-potable water supply and ultraviolet-treated water from a drinking water tap and a rainwater tap were tested in 2003 for total coliforms and E.coli organisms. Although the presence of organisms was found only in the non-potable water supply, SA Water (Morgan et al., 2003) recommended that since contaminated water comes into contact with people’s skin when washing some form of disinfection of the water supply would be prudent to minimise the risk of infection. This recommendation has been met in the $470,000 spent in 2006 on replacing two storage tanks (Figure 1) and installing an ultraviolet light disinfection plant on the non-potable water supply (Wurst 2006, pers. comm.). This recommendation is in keeping with the Australian Drinking Water Guidelines management framework which is a preventative risk management strategy proactive in identifying and rectifying risks in water supply systems to ensure that water quality is not compromised (NHMRC 2004). The involvement of SA Water at Nepabunna is, however, only as part of a contractual obligation with the State government and not part of the mainstream process of water service provision. Water provision in many remote Aboriginal communities is not up to the water utility standards of metropolitan Adelaide although in many cases it is of a better standard than outback towns. A review of the standards for water provision in remote communities is needed.
Nepabunna community have demonstrated that they do not have the capacity to pay full cost recovery for their water supply and infrastructure, but have indicated a willingness to contribute to these costs, provided these charges take account of their income and are means tested. The community provides short term loans to its members to assist in the purchase of health hardware and uses monies collected for rent for quarterly repairs of its housing stock. The salinity of the groundwater means this is a costly exercise as fittings corrode. They have also demonstrated an ethic of water conservation. As the study indicates the primary impact on water use are the evaporative water coolers. The Aboriginal Affairs and Reconciliation Division now has at its disposal a series of options for sustainable water supplies at Nepabunna and an indication that the community can meet the NWI guidelines and are prepared to make some contribution to full cost recovery. The challenge now is to move to sustainable housing for the harsh desert. Such a move would reduce the cost of living for Nepabunna residents and as a consequence impact on their health.

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Introduction

This case-study is about delivering holistic health care to Aboriginal prisoners, and their families of the Alexander Maconochie Centre, which will open in Canberra, the Nation's Capital in June 2008.

The case-study focuses on the social determinants and lived reality of Aboriginal people who find themselves in prison and the ways their life prior to, during and after incarceration impact on the health and well-being of the community, their family and themselves. The Winnunga Holistic Health Care Prison Model delivered by the Winnunga Prison Health Service Team (based at Winnunga) is an example of action on the health and well-being of Aboriginal people in Australia. The outcomes are also dependent on government policy.

The Story

Aboriginal people are incarcerated at 12 times the rate of non-Aboriginal people. This reflects the disadvantaged and unequal position of Aboriginal people socially, economically and culturally in Australian society. In 1987 the Royal Commission into Aboriginal Deaths in Custody (RCIADIC) was set up jointly by Australian governments in response to concern that Aboriginal deaths in custody were too common and public explanations too evasive. The RCIADIC subsequently arrived at recommendations, which focused on improving conditions in Australian police holding cells, prisons and more widely in Australian society.

The Australian Capital Territory (ACT) jurisdiction, which is one of the smallest in Australia, reflects the situation in the rest of Australia in Aboriginal people's incarceration. Currently the ACT does not have its own prison and Aboriginal people convicted of an offence in the ACT are incarcerated in prisons in New South Wales (NSW). This is soon to change when the ACT Alexander Maconochie Centre opens in 2008. It will house approximately 300 prisoners of which there will be about 25 Aboriginal prisoners.

Winnunga Nimmityjah Aboriginal Health Service has provided a health service to two NSW prisons and the ACT Remand Centres over the past 8 years. This experience and the data gained from Australian and international literature, and interviews with 22 ex-prisoners, 17 families of prisoners and 39 representatives of health and justice support organizations in the ACT have contributed to developing the Winnunga Holistic Health Care Prison Model.

The case-study found that 79% of Aboriginal prisoners are aged between 20 and 39 years. The average length of imprisonment is 4.8 months. Offences include: offensive behaviour and against good order offences, assault, driving and property-related offences, breach of bonds and contempt of court. The main reason for incarceration was drug and alcohol-related crime. Apart from the general poor health Aboriginal people take into prison three areas of need are prominent in the prison study findings. They

1 The case-study is based on a report entitled Best Practice Model of Holistic Health Service Delivery for Aboriginal and Torres Strait Inmates of the ACT Gaol, 2007, and received ethical approval as recorded in the report. The full report can be accessed at http://www.winnunga.org.au after 30 April 2007.
2 The terms ‘Aboriginal’ and ‘Indigenous’ refer to the many different peoples and language groups who were living in Australia at the time of European settlement, including the Aboriginal peoples of the continent and the Torres Strait Islander people. This study’s use of the term ‘Aboriginal’ also includes the Torres Strait Islander people.
3 This is the name given to the new ACT prison in honour of a distinguished penal reformer in Australia.
are the health and social well-being of women prisoners; issues of substance abuse and mental health; and communicable diseases in prison.

These negative health effects of imprisonment continue into release into the community and manifest in harm resulting from inappropriate imprisonment of people requiring health facilities not available in prison. This relates to mental health, the risk of suicide, and self-harm in prison. The need to reduce the risk of drug overdose and death on release is substantiated by a Western Australian study showing that risk of death within 6-12 months of release is around three times greater for Aboriginal prisoners, than for Aboriginal people in the community4.

The following ex-prisoner and family accounts illustrate some of the social determinants that lead to incarceration. They present male and female perspectives of incarceration in two age groups – 18-25 years and 45-55 years. A family member’s account demonstrates the repercussions of a mother’s incarceration on the family’s well-being.

The story of Interviewee A (aged 18-25 years) is an example of the complexity in the lives of young Aboriginal males who commit crime in their twenties and thirties.

‘My first charge was when I was 16 years. I was driving in a vehicle with no licence or registration and it was a stolen vehicle too. And we did four break and enters and then we were on the highway going back to go home, and there was the police on patrol pulling people over for breath tests. We kept driving and I was with me brother boys, me cousins, and we got chased and then we got charged because we were driving on the wrong side of the road endangering the public, causing and inflicting harm on other people. I went to court and they let me off – or they put me on a bond and I had to do community service. And I did all that, and a couple of months later I started using heroin. And then I started doing stupid little things and they all added up like minor theft, theft, assault, drink driving again but not a stolen car. I assaulted a police officer with intent to stab with a deadly weapon and I got busted with a gram of heroin and I got let out on bail’.

‘I kept breaching my parole by not going to appointments, basically not going to nothing. I was just being running amuck. It is not like I was deliberately doing it ... it is just ... I was scared because I've been facing all these people all my life because I was a ward of the state and all my life I have had to answer to people. Why is it their business? It is my business and I don't ask them, know what I mean, and maybe the way I am not is because of my parents, not because of me. It is how I was brought up. I didn't choose to be like this all this lifestyle. It is how I was brought up and this is what I was introduced to. After breaching – it was all breaches – I did not reoffend – I just kept getting breaches, so they locked me up to clean me up because I got mental health problems’ (Interviewee A, 6 September 206).

All Australian governments have supported the RCIADIC recommendations for alternatives to imprisonment and diversion from policy custody. However a low rate of summons, bail refusal and sentencing of Aboriginal people persists. Psychiatric illness and drug and alcohol-related affects cause most of the ill health in prisons. Half of the deaths in custody from 1980 to 1989 were from suicide, with circulatory and respiratory system diseases, and injuries the next most frequent cause of death.

Interviewee Q (also aged 18-25 years) explains her reactions to being locked up and observations about the justice system.

‘When I got locked up I threw myself down the steps because I couldn't bear being locked up. You know, I was hitting my head against the wall and hearing voices, anything. I was stuck in this little cell and they wouldn't let me out because I was in drug rehabilitation, suicidal. And no-one still ever come out and seen me. They knew I was like that. In gaol you don't rehabilitate. If you want, you can get drugs any day, all that, if you want. And when you're in there you meet older people who've been in there for 10 or 15 years and you learn new tricks off them. So you come out and you've got new things to do. And so you try them and it works, it pays off. And then you go out and you know more things, how to do crime a lot easier without being detected or ... And so you are in there really to do crime school and take drugs. That's all gaol is. And you're in there and you take the drugs, what can they do to you – put you in gaol? You're already in gaol, so, you know, who cares? Yeah. It's up to you, [whether you take drugs in gaol] but when you're in there you think, Stuff it. I'm in gaol, my family's not here, who cares?’

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I come out to nothing, really. I come out to my family's place but I felt like, I don't know, a lot different. Like, I've been in gaol, so I'm not worth nothing. I won't really get a job, I've got gaol on my thing, I can't work with kids, I can't work with elderly. What's left? Nothing, really. A Macca's job behind the counter? Because I've been done for fraud I won't get a cash register job or nothing. And I thought, 'Stuff it. Why? Take drugs and sell drugs, I'll get paid more. You know?' (Interviewee Q, 14 August 2006).

The following accounts of a male and female in the older age range present perspectives of re-offending to the point of deciding to stop because of the repercussions on themselves and their families. Interviewee C (aged 36-45 years) has been in prison six times since his 18th birthday. He was released in 2005 after 8 years in prison (crime not disclosed at interview). His account shows the change that can happen in the fourth decade.

Interviewee C got to be in prison by – 'Just hanging with the wrong crowd really, and like got introduced to alcohol and drugs, and gaol starts from there, you know. Like each time I done something wrong, broke the law, the lag got bigger and bigger and every time I got out of gaol I just, at that stage of my life, was on the merry go round in and out of gaol back on the merry go round, back to gaol. With this recent sentence I got, it was the biggest one I got, and I had a lot of time to turn my life around. And the first way I changed it was when my wife and I actually got married. We got married back in '98. I was probably in gaol – we just got married in gaol and ever since then I've changed my way – done a lot of drug and alcohol programs, learned a lot about my body. [Interviewee C had a heart attack in prison and also found out he was a diabetic]. I've done gym programs, other courses like forklifts, chainsaws, counseling and all that'.

Mainly in the last 4 years of my sentence I was more a mentor for Aboriginal boys – talking, listening to what they have got to say – just keep them calm and relaxed. A lot of them talked about suicide. I have been there, done it, it's not worth it. Life's more important, your family – you're not only going to hurt yourself, you're going to hurt the ones that love ya. It is a shame that they don't get than opportunity to talk about it at home before they go and do it. It is mainly fear that non-Aboriginal people put into them, even officers in the service .... By me helping them, I am learning myself. Just, it made me happier within myself that I am helping another brother. Ten years ago, twenty years ago gaol wasn't like that. It's all changed' (Interviewee C, 29 August 2006).

The imprisonment rate of Aboriginal women is approximately 15 times higher than the rate for non-Aboriginal women. One of the greatest impacts of imprisonment on Aboriginal women is the disruption to the family as instanced in the following account. Interviewee R (aged 45-55 years) began her incarceration in the 1980s for non-payment of traffic fines, drink driving and murder (two years ago). She provides an insight about the stress experienced by women prisoners gained during her 3 years 1 month imprisonment for murder:

'I'll tell you what, a lot of women went through a lot of stress. I think women are sort of a special case because they're totally different to men. Men can handle it and they can pump iron, where some women can pump iron and some women don't. They just walk, you know? Yes, they walk around and worry. ... One day when I come home from working down the dairy this woman was that stressed out she went in to see the psych, and they thought she just wanted pills. But she said, 'If you don't help I'll kill you'. Well, she did kill that woman. She went back and she stabbed the woman. The woman got away, run, and she caught her again and stabbed her. And that was a bad experience for me, mate. Yeah. The things I've seen in gaol. Yeah. And what I seen, you know, when I was in there, I didn't have anyone to talk to. I was on me own. And young ones would yarn just for company with them and have a bit of a talk. Through the stress. The first one [stressing] was in Mulawa [women's prison] ... She was a hanger. She hanged herself. Yeah. I still have nightmares about it. It's sad. That's why I don't like my kids going to prison' (Interviewee R, 8 September 2006).

One of Interviewee R's sons has been in prison. Another who has avoided going to prison described how the family unit changed and the repercussions on the family' well-being when his mother went to prison.

'It was a bit hard – pretty hard you know [when Interviewee R was imprisoned]. I did not want to live with me father. It was no good – all four of us children, so we stayed with an Auntie. We didn't like it there and then we went and stayed with our Nan and the two girls liked it there, but me and me brother
went our own ways – living on the streets and getting into crime and bad things like that back in the day. It was a bit hard. We didn’t have any income. You know we had to … well, I went and stayed with an Auntie and Uncle and they put me on an income – Centrelink income. I stayed with them for about two years then I come back up to Canberra. Got into bad crime and violence. I was picked up then and that is all part of the way. I got a family now to look after, responsibilities and that, so … And I wasn’t going to school after me mother sort of left me. Well, she never left me she got put away that was it. Even if I went to school the other kids would talk about me mum, you know what I mean, and that would probably set me off to be violent towards them. That’s why I didn’t worry about school. When mum came out of prison we all got together in a house in Canberra – the four kids and mum was there’ (Interviewee NN, 1 September 2006).

The Social Determinants

These accounts emphasise the part played by drugs and alcohol in criminal activity. However, in going beyond these immediate reasons for committing offences, the ‘causes of the causes’ for Aboriginal Australians’ incarceration are manifold. They commenced with colonization and dispossession, stolen wages and stolen generations. These events led to disempowerment, loss of self determination, marginalization, racism and loss of culture and identity. This has impacted on the lived social determinants associated with poor health. For example, at the individual level intense sadness, depression and remorse can be experienced as well as loss of sense of self. Compounding over generations and growing more complex over time, this pain can become internalized into abusive and self-abusive behaviours within families and communities. Human trauma and anger, mental health problems, drug and alcohol misuse, and domestic violence are some of the lived repercussions of these past government policies. Good parenting models were lost with the institutionalisation of the stolen generations as evidenced in young ex-prisoners’ accounts above, which reflected their experiences of poor parenting, examples of trauma and anger in committing crime and lack of resilience in stepping out of the cycle of incarceration.

The poverty brought about by loss of an asset base has introduced another set of lived social determinants and the cause of ill health. They include the lack of housing, and poor education and the difficulties ex-prisoners face in obtaining employment. The older ex-prisoners were representative of taking poor health into prison. Their full accounts in the research study data included experiences of childhood sexual abuse, and poverty so extreme that it necessitated their living in a haystack. Evidence of their resilience in older age and the support found in the family and desire to help the community avoid incarceration supports community action to break the cycle of incarceration. As well as the stress experienced by females in leaving the family, there are significant associated repercussions on the family. As the above account has shown these particular circumstances introduced risks associated with lack of education, and consequently reduced employment opportunities, coupled with the risk of committing crime and incarceration.

Discussion

The case-study emphasizes the need for actions on multiple determinants that lead to the daily chaos and trauma evidenced in the above accounts and by other study respondents. They provide an insight into the complexity of young Aboriginal prisoners doing crime in their twenties and thirties and the tendency to try to stay out of prison in the latter part of life. This means that a community environment that supports resilience is paramount.

In the context of this case-study the social determinants of justice health target human rights and treatment of prisoners. This includes medical services in prisons equivalent to those in the community, the delivery of which should be based in Aboriginal knowledge and guided by Aboriginal Australians. All of these ex-prisoners accounts emphasise the need for culturally sensitive health programs that target early detection of chronic diseases and health promotion activities in prisons.

From Interviewee Q’s experience prison is a place to gain new skills in criminal activities rather than being a place of rehabilitation. The prevalence of drugs in prison, the absence of harm minimization programs including prison needle and syringe programs and throughcare programs work against rehabilitation.

The Winnunga Holistic Health Care Prison Model (see diagram below) addresses these issues. It has three parts: Incarceration, Release from Prison and Breaking the Cycle of Incarceration. The Model’s
The premise is that post-release needs should be addressed as a priority on entry into prison and the focus of imprisonment is release into an environment that is better than the safety and familiarity of prison. Drawing from the recurrent theme in the study data the Model provides various levels of outreach to assisted living accommodation or the family home. It also secures employment, delivers health and social and emotional well-being services, and aids re-integration into the family and community.

Practical assistance with parole commitments is an important component of this Model. In essence, this new living environment should be more enticing than the drug culture environment associated with the cycle of incarceration. It also takes into consideration the need for early intervention with Aboriginal women in redressing their lack of education and employment opportunities, and treatment for sexual and physical abuse.

**Winnunga Holistic Health Care Prison Model**

The diagram of the Model reflects the first contact with the justice system. It takes into consideration the holistic care necessary for remandees and sentenced prisoners and their families in prison and on release. The Model also shows that health, family and spirituality are the three supporting components of those incarcerated and released in the community. At the centre of the Model is the need to develop a strong sense of identity, which is crucial in coping with prison and community life and linked to good health. The ability to do this is dependent on spiritual/cultural needs, primary health care, the environment and safety, psychological health i.e. transgenerational trauma, social stresses and trauma, racism/colonization, and family and community support. Finally, health service coordination and re-integration strategies into the community combine to manage the cycle of incarceration.

These strategies are found through Winnunga’s holistic primary health care services, including healthy-for-life initiatives and a whole gamut of current and future social and emotional well-being programs. These will be delivered to the Alexander Maconochie Centre and in the community. A network of support organizations will also work in association with Winnunga. The model and the network implementation will be monitored and evaluated. The welfare of Winnunga workers providing holistic care in an intimidating and difficult work situation will also be monitored and acted upon.
Implications for Policy

The policy implications of this case-study are widespread. Transferring this new knowledge and understanding to the political environment which favours incarceration and the ethos of: ‘You do the crime, you do the time’ presents a significant challenge. Therefore, policy implications commence with politicians having the courage to address difficult issues reflected in their electorates such as providing:

- alternatives to imprisonment, - this is particularly significant for those suffering mental health and drug and alcohol abuse and those currently receiving a 6 month sentence;
- Centrelink dedicated prisoner assistance in seeking companies who will train and employ ex-prisoners – a highly disadvantaged group;
- culturally sensitive health programs in prison that target early detection of chronic diseases;
- health promotion activities in prison;
- greater awareness of holistic care in prison and in the community;
- better social support for prisoners and their families on release from prison. This requires funding support for community-based hostels, units or houses for Aboriginal ex-prisoners and their re-integration into the community; and
- Low cost accommodation for distant families visiting relatives in prisons.

Based on the fundamental and ethical view that the penalty for a convicted person is the removal of their freedom for the period of their incarceration, and that their basic rights as human beings must be preserved, other policy implications are:

- the Commonwealth assuming responsibility for prisons to influence prison health nationally;
- prisoners’ access to Medicare. This impacts on access to tertiary care and seeking second opinions;
- prisoners’ right to vote. This redresses the imbalance of power;
- prisoners’ access to harm minimization strategies including a needle and syringe program, and training to provide safe tattoos to prisoners;
- with informed consent, voluntary testing for hepatitis B and C, and HIV at entry and exit with appropriate counseling; and
- Corrective Services Memoranda of Understanding (MOU) for:
  . providing access to education and rehabilitation prison programs,
  . providing family access visits and family days,
  . establishing a complaints process for Aboriginal prisoners,
  . establishing an Aboriginal Prisoners’ Advocacy Group.

In redressing racism and discrimination:

- authorizing cultural awareness training for Corrective Services Staff,
- authorizing cultural awareness training for Australian Federal Police Officers,
- authorizing increased Aboriginal teachers and Aboriginal education officers in schools.

Inter-sectoral collaboration is paramount. For example the implications for Winnunga Nimmityjah Aboriginal Health Service in implementing the Holistic Health Care Prison Model in the new Alexander Maconochie Centre include funding support in delivering the Model and establishing a communication network between Winnunga and other Aboriginal and non-Aboriginal support organizations. This is essential for primary health care delivery as well as social and emotional wellbeing of prisoners, ex-prisoners and their families.

In the spirit of human rights and social justice, the National Health and Medical Research Council (NHMRC) of Australia has developed a strategic framework for improving Aboriginal people’s health through research5. One of the six research themes identified as critical to achieving substantial gain for

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Aboriginal people focuses on instigating research and action in previously under-researched Aboriginal populations and communities. Further research funding is required for:

- A longitudinal study of Aboriginal people incarcerated in the Alexander Maconochie Centre to commence when the Centre opens;
- A cross-sectional study of juvenile justice and Aboriginal people prior to the opening of the Mitchell Juvenile Justice Centre in late 2008;
- A study into effective preventative programs for youth to reduce the number of offenders;
- A cross-sectional study of Aboriginal health in police custody; and
- A study on the efficacy of current sentencing options given the disproportional Aboriginal incarceration rates.

Winnunga Nimmityjah Aboriginal Health Service
Canberra, ACT.
2 April 2007
Aboriginal Community Controlled Health Organisations address the multiple determinants of Aboriginal health through housing: a case study from an Aboriginal Community Controlled Health Organisation in North Eastern Victoria, Rumbalara Aboriginal Co-operative

Introduction

This case study provides an insight into the functions of an Aboriginal Community Controlled Health Organisation in regional Victoria. Many Aboriginal Community Controlled Organisations in South Eastern Australia are unique in that the services they provide focus largely on the Social Determinants of health and utilise a ‘one stop shop’ model. This case study demonstrates the types of services provided from the ‘one stop shop’ with a particular focus on the Rumbalara Home Ownership Program. Finally, the case study provides readers with an understanding of how government policy can have a negative impact on Aboriginal families.

Aboriginal Health Inequity

Australians are one of the healthiest populations of any developed country and have access to world class health care (1). In contrast, the health of the Aboriginal and Torres Strait Islander population is the worst of any population in Australia, including groups of similar social-economic status and non-English speaking populations (2). In fact, Aboriginal Australians are, in broad terms, the least healthy of all Indigenous populations within comparable developed countries (1).

The National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013 reports evidence that Aboriginal and Torres Strait Islander populations suffer a disproportionate impact from both increased exposure to environmental hazards and decreased access to environmental health services (3). In addition, Aboriginal and Torres Strait Islander people are more likely to live in conditions considered to be unacceptable by mainstream Australian standards. This is inclusive of issues such as overcrowding, lack of basic environmental health infrastructure, such as adequate water supplies and sanitation and appropriate housing (4).

The recently released policy briefing paper, Close The Gap! argues that the poor health in Australia’s Aboriginal and Torres Strait Islander population is preventable. Complementing this argument is evidence that many of the poor health outcomes for Aboriginal and Torres Strait Islanders are related to economic and social factors, where diseases are motivated by poverty; overcrowded housing, poor sanitation, lack of access to education, poor nutrition and insufficient access to medical care for accurate diagnosis and treatment (5).

Social Determinants of Health

The social determinants of health are social, economic and political issues that contribute to our lives. The variables that are usually measured regarding social determinants are gender, ethnicity, class, income, education, occupation (employment or unemployment) and social capital. Culture, customs and place are also important determinants that need to be considered when addressing the social determinants of health. Furthermore, it is important to understand that it is the ways in which these social variables inter-relate that determines our ability to achieve healthy lives.
Social Determinant Frameworks have been developed to identify the relationship and possible causality of social variables, such as the social gradient which associate stress, early life, social exclusion, work, unemployment, social support, addiction, food, and transport as impacting on health and its attainment (6).

For example, with regards to social status, Wilkinson and Marmot demonstrate that life expectancy is shorter and disease is more common further down the social ladder in every society (7). They also campaign that people’s lifestyles and the conditions in which they live and work can have a compelling influence on their health. In addition, disadvantages are likely to be concentrated among the same people, thus having an accumulated effect on their lives (7). Baum instructs that social patterns of health are evidently complex (8). In effect, Aboriginal health inequity is the ultimate example for understanding the interrelationship of the many factors that bring about poor health (8).

In recent years numerous research activities conducted in the Goulburn Valley in Victoria have highlighted local Aboriginal elements of social determinants of health (9, 14, 15, 19). These studies have all contributed to this Aboriginal community’s understandings of social determinants of health. For example, a study conducted in 2004 within and around the Goulburn Valley, acknowledged that discovering how Aboriginal communities and individuals think about, respond to and understand health can be the basis for developing strategies for these communities and individuals to improve health, including addressing the determining social processes (9). The exploratory study used discussions with groups of Aboriginal people about their experiences and understandings of health and its causes. Their stories were documented and related to the existing understandings of the social determinants of Aboriginal health. The authors based this on the belief that Aboriginal communities are owners of their health and it is only through interventions built on understanding their perspectives of health determinants that changes in health are also owned, implemented and successful (9).

This research highlighted that health and its determinants in North Eastern Victorian Aboriginal communities are complex. Understandings of health are not simple but multi-layered and multi-faceted. Individuals and families continue to be affected by historical, spiritual, political and social issues, as well as the physical and psychological. Therefore, participants in this study suggested that poor Aboriginal health was due to a number of issues and that none were separable from the other. Seeing health in this way means that actions to improve health are complex, if not overwhelming (9).

**How are Aboriginal Communities addressing health?**

Baum considers that one of the most significant positive developments in the area of Aboriginal Health has been the growth of Aboriginal Community Controlled Health Services throughout Australia (8). The National Aboriginal Community Controlled Health Organisation (NACCHO) defines an Aboriginal Community Controlled Health service as "a primary health care service initiated by local Aboriginal communities to deliver holistic and culturally appropriate care to people within their communities. Their board members are elected from the local Aboriginal community." (10)

The 1989 *National Aboriginal Health Strategy* describes community control as being "the community having control of issues that directly affect their community...[where]...Aboriginal people must determine and control the pace, shape and manner of change and decision-making at local, regional, state and national levels." (11)

There is widespread support for the concept of community control in Aboriginal health. Tsey et al argue that the importance on the control factor in social determinants research reiterates issues of relative powerlessness identified as a major factor in Aboriginal health (12). They further state that,

"Indigenous Australians have suffered some of the most brutal and pervasive forms of colonisation humanity have ever known. Nevertheless, the findings of the Whitehall studies indicating that low position in a social hierarchy in itself is a powerful predictor of health, or that the degree of control an individual is able to exert over their situation has health significance, will come as no surprise to Indigenous Australians. Indeed, this simply confirms what they have long argued." (12)

NACCHO in partnership with OXFAM report that Aboriginal Community Controlled Health Services (ACCHOS) are effective vehicles for improvement in Aboriginal Health. A demonstration of this is that ACCHOS that are funded to levels required to deliver best practise have enhanced health for their communities through improved antenatal attendances and a reduction in low birth weight (5).
The Aboriginal Goulburn Murray History

Following the invasion of our country, the Maloga Mission was established in 1874 on the NSW side of the Murray River. In NSW in 1880, a Protector of Aborigines was appointed. The Protector had the power to create reserves and to force Aboriginal people to live on them, which brought about the formation of Cummeragunja Mission in 1888. These reserves were established far enough away from towns so that contact with Europeans was restricted. Segregation was a key part of Aboriginal Protection Policy.

The Aborigines Act of 1940 introduced a new policy of “assimilation”. The Protection Board was abolished and replaced by the Aborigines Welfare Board (AWB). Under the guise of assimilation, the Board concentrated on the revocation of reserves and the relocation of the residents into towns. This policy was opposed by white rural communities and led to struggles over segregation. White residents refused to sell land to the AWB, thus denying Aboriginal people even a house block in their own country (9).

Aboriginal people in this area, as in many others, did not live by the geographic restraints of state borders but by traditional land marks (9). Many Elders recall a number of residents leaving Cummeragunja in the late 1930’s for employment and education reasons, but more importantly, in protest of the slave like living conditions proffered by the mission manager. Many families moved to Daish’s paddock and The Flats, between the townships of Moorooroo and Shepparton. Here, although people lived in sub-standard conditions, there was a real sense of community and belonging. During the mid 1950’s the Queen visited Australia and Shepparton and the local council were compelled to hide the ‘eyesore’ of people living in extremely poor conditions. The local council’s answer to this dilemma was to assign the Aboriginal community a parcel of land (Rumbalara). Rumbalara Housing estate was established and small, concrete houses were built, in which many large families and extended family members lived in (9).

Goulburn Valley Aboriginal people are still dealing with the discriminatory effects of past policies. Local Elders have claimed that the inequality between mainstream and Aboriginal Australians provided the motivation to join together and to work at improving Aboriginal life and living standards. From first contact and continuing to today, many Aboriginal people have worked industriously, lobbying politicians, encouraging mainstream support, and eventually establishing and managing Aboriginal Community Controlled Organisations. There are over 135 Koori Organisations established throughout Victoria focusing on many social determinants issues such as the Victorian Aboriginal Legal Service, the Victorian Aboriginal Health Service, and other Aboriginal Community Controlled Health Services (9).

The Goulburn Valley Aboriginal Community and Rumbalara Aboriginal Co-operative

In Victoria the Goulburn Valley has the largest population of Aboriginal people outside of the capital city, Melbourne (13). The population is growing and over half are estimated to be under the age of 30 (14). The Australian Bureau of Statistics (ABS) estimates that the Aboriginal population in the City of Greater Shepparton is one thousand four hundred and sixty people (13). Although, recent research in the Goulburn Valley reported that official census counts under-enumerated the Region’s Aboriginal population by between 45% and 64% (15). In addition, the Region’s Aboriginal unemployment rates are high and incomes are generally low.

Rumbalara Aboriginal Co-operative (RAC) provides community and health services to approximately 6,000 Aboriginal and or Torres Strait Islander people within an 80-kilometre radius of Shepparton in the Goulburn Valley.

Most of the Aboriginal community are comprised of traditional land custodians of the area, the Yorta Yorta people. The Rumbalara Aboriginal Mental Health Research Project 2001 established, through its random sample of the Aboriginal population that ninety percent of respondents identified as being Yorta Yorta people (14). The study also reported a small proportion of the community identified with tribes from other traditional areas (14).

RAC is an Aboriginal Community Controlled Organisation formed with the aim of improving the social, economic, cultural and health status of Koori (Aboriginal) people in the Greater Goulburn Valley (16). Rumbalara has the long term aim of developing and delivering proactive programmes and services that are preventative in their nature (16).
RAC exists to ensure that Aboriginal people in the Greater Goulburn Valley have economic, social and cultural independence and have certainty of access to community controlled services (16).

Rumbalara is a particularly important place for many Aboriginal community members who rely, almost exclusively, on the services provided by Rumbalara. This is due to a number of reasons, however previous research performed here identified that there was a perception from Aboriginal participants of a lack of cultural endorsement within mainstream institutions. Entering the space of Aboriginal organisations meant entering a space where cultural expression is acceptable and endorsed by others (19). Within this space culture and identity could be portrayed safely, without threat or dominance from the mainstream (19). The study supported Durie's theory that by providing a safe place for cultural expression, the Aboriginal organisations provided a space that is essential for the mental health of members of the local Aboriginal community (19).

Rumbalara acts as an advocate for the community and contributes to the development and implementation of culturally relevant policies at local, State, and Commonwealth levels. The Co-operative is recognised as an important vehicle in Aboriginal people’s pursuit of self-determination and community self-management. Rumbalara’s programmes and services are focused largely on addressing inequities in the area of health, welfare and social support (16).

**Organisational Structure**

As demonstrated by Figure 1, RAC provides programs and services to community via four main departments; Health, Aged Care, Family and Housing. Within these departments there are multiple programs and services that are available to community dealing with a broad spectrum of health and its determinants.

RAC celebrated its 25th anniversary of community service in 2006. RAC prides itself on its unique ability and commitment to deliver services in a culturally appropriate way that ensures the long term retention of Aboriginal cultural identity. Rumbalara considers ‘culturally appropriate’ service delivery, to be the integrated delivery of services that are designed to meet the needs of the Aboriginal client or the client’s family or extended family (16).
RAC is one of the leading employers of Aboriginal and Torres Strait Islander people in the Goulburn Valley. Rumbalara currently employs seventy (70) full time, part time and casual staff and seventy four percent (74%) of those staff are Aboriginal and/or Torres Strait Islander people.

Rumbalara is unique in the region as it provides services to community through a one-stop shop model. Many of the programs or services community members require are all available from the one location and each of the services are flexible in their delivery. Therefore, access is rarely an issue for our community. Where a particular service is not available (i.e. specialist service) RAC has long standing relationships with mainstream services and can facilitate access for the client.

**Housing and the Goulburn Valley Aboriginal Community**

Aboriginal and Torres Strait Islander peoples are more than twice as likely as other households to be living in rented accommodation (20). According to the ABS *Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples Report 2004*, less than one third of households with Indigenous person(s) (32%) were home owners compared with more than two-thirds (69%) of other households. Using the Canadian National Occupancy Standard definition of overcrowding, 15% of Indigenous households were considered overcrowded compared to 4% of other households (20).

The Koori Employment, Education and Training Agency in collaboration with Melbourne University’s Dr Alford conducted employment and development research in the Goulburn Valley and reported that most of the Aboriginal survey respondents lived in the Region for more than five years (15). Despite this, few owned or were buying their own home. Most respondents rented with the remaining members living with family, friends or were homeless. The home ownership rates reported were lower than among all Indigenous Australians in 2001 (39%), and around four times lower than either the total population of Greater Shepparton or among non-Indigenous Australians in general. Dr Alford further reports that the Aboriginal housing problems in this region are not due to ignorance but to political apathy. This is combined with a belief that Australian Government housing funding (ATSIC /FaCSIA) is adequate, rather than being a supplement to suitably resourced government direct investment (15).

**Rumbalara Housing Program**

The RAC Housing and Capital Works section currently manages 60 rental properties funded through the Australian Government Community Housing and Infrastructure Programme (CHIP). CHIP, along with other Australian Government’s housing programs, is designed to meet the housing needs of Indigenous people unable to access mainstream public housing, private rental or purchase their own homes (21). Rumbalara Housing and Capital Works section also acts as an advocate for the Aboriginal community on matters related to housing. Staff of the Housing and Capital Works section acknowledge that a multi-disciplinary approach that sees them work closely with staff from Rumbalara’s Family services and the Health Service allows them to develop flexible solutions for clients and that this is essential for the success of Rumbalara (16).

Studies in Aboriginal communities have shown reductions in clinic presentations following programs to improve housing and environmental health (17) and links between environmental hazards and prevalence of particular health issues (3). Improving housing, sewerage, power and waste services and water to the same standards enjoyed by the broader Australian population can provide significant improvement to the health status of Aboriginal and Torres Strait Islander people (18).

In addition, if overcrowded housing was addressed a significant proportion of communicable diseases could be prevented (5).
One such initiative Rumbalara believes will assist the improvement of this community’s health status is home ownership. Staff members of the Rumbalara Housing and Capital Works section appreciate the benefits of home ownership which include:

- Providing a secure and stable environment in which to raise children
- Providing families with an asset base that enables them to make choices in life, especially as they approach retirement
- In the long term, more disposable income, thus enabling pursuit of better lifestyle choices, including better educational opportunities for children
- Improved mental and physical health that results from improved self-esteem and personal satisfaction (16).

From an organisation point of view, encouraging home ownership of current stock also allowed Rumbalara to reduce the waiting list for Aboriginal rental accommodation, thereby assisting in the reduction of overcrowding and homelessness.

**Government responsibility and policy context**

In 2006, Rumbalara entered into a Shared Responsibility Agreement (SRA) with the Australian Government through the Department of Immigration and Multicultural and Indigenous Affairs and Youngs & Co Real Estate Agent.

Shared Responsibility Agreements appeared in Australia following the Australian Government’s decision to abolish the Aboriginal and Torres Strait Islander Commission (23). The term ‘Shared Responsibility Agreement’ (SRA) describes agreements between Aboriginal and Torres Strait Islander communities and the Australian government based on the principle of mutual obligation (24).

The Rumbalara Shared Responsibility Agreement is the first SRA entered into within Victoria. It is also the first SRA in Australia between Government and Aboriginal Community regarding housing. This SRA is known as the Supporting Aboriginal Home Ownership in Shepparton Agreement. The Agreement recognises and respects each of the partners’ rights and responsibilities and provides a basis for cooperation and partnership between the partners.

This SRA acknowledges Rumbalara Aboriginal Co-operative’s strength as a well managed Housing program. It also supports that there is strong commitment to addressing housing issues among community leaders and that there are strong community role models who are currently purchasing their own homes or who fully own their homes (22).

The importance of positive role models was repeatedly raised as a key health issue in the social determinants research carried out in this area (9). Throughout most of the group discussions, there was a strong emphasis on same gender role models within the family and community. This was generally viewed as more significant than high profile ‘outsider’ or non-local role models. An example of the need for positive role models was raised when discussion turned to another social determinant issue; education where, one young person offered that young Kooris will not achieve in education “if you don’t got the support of your own people” (9).

Rumbalara entered into this SRA with the full intention of using its resources at hand to encourage Aboriginal community members into home ownership. At this time, Rumbalara’s existing resources are its Community Housing Infrastructure Programme housing stock. Subsequent to RAC’s participation in the SRA it recently extended invitations to current RAC CHIP tenants to purchase their homes. Six tenants accepted RAC’s invitation and applied for the necessary funds to purchase their homes. Nearly all of the interested tenants received invitation for housing loans through the Victorian office of Indigenous Business Australia. Family and Community Services and Indigenous Affairs (FaCSIA), (who hold the caveats to the RAC CHIP properties) refused to sell the houses to the eligible tenants due to issues such as properties having received repairs and maintenance. This refusal is despite the recommendation made by the *Indigenous Housing: Findings of the Review of the Community Housing and Infrastructure Programmes Report* that recommends the fostering of individual home ownership on community and freehold land (21).
FaCSIA’s refusal to sell these properties is further dishonourable as the Rumbalara Housing and Capital Works section is considered to be one of the best practice models of Indigenous Community Housing Organisations (ICHO) and has surpassed all requirements of best practice.

From what Rumbalara can ascertain, FaCSIA’s prohibition of sale of these properties is based on the fact that they are utilising interim guidelines (while CHIP is under review). The 2002-2005 (still current) CHIP Program Policy states that the goals for CHIP are:

- To ensure Aboriginal and Torres Strait Islander people have access to living conditions that:
  - Are comparable to those delivered by governments to non-indigenous Australians;
  - Provide the basis for sustainable communities;
  - Improve the health and social basis of ATSI communities; and

- To develop the capacity of Indigenous community-based organisations to control and manage community housing, infrastructure and essential services in a manner that reflects the views and aspirations of community members.

The overarching strategies are:
1. identifying and addressing unmet housing needs
2. Improving the capacity of Indigenous community housing organisations
3. Achieving safe, healthy and sustainable housing
4. Improving program coordination (21).

As described above, Rumbalara Housing & Capital Works section, through its best practice and its partnership in the SRA, aspires to meet all of the strategies of the 2002-2005 (current) CHIP Program policy. Unfortunately, Rumbalara entered into the SRA at a time when CHIP was undergoing review. During this review all funding was frozen due to the new Minister for Indigenous Affairs zealous introduction into Aboriginal affairs. Funding was also contingent upon receipt of recommendations from the Living in the Sunburnt Country Report. The review strongly recommends, and rightly so, that people living in remote areas of Australia are in great need of adequate housing and infrastructure (21). However, that should not mean that other communities should receive nothing. In addition, the Minister who signed off on the SRA on behalf of the Federal Government should have made it her business to be kept informed of all new developments regarding Indigenous Housing so she could provide the governments SRA partners with up-to-date information and support and guidance.

The SRA Rumbalara entered into with Government was supposed to support the concept of Home Ownership for Aboriginal people in this community. Instead, the Government representatives have done little to promote the SRA or Home Ownership utilising CHIP stock. Rumbalara is compelled to agree with McCausland who states, “The SRA framework also prioritizes discrete remote communities over urban communities, where the majority of Indigenous people live. Indigenous communities should not have to compete with each other to access a small pool of government funding” (23).

Finally, McClausland sums up the government’s lack of required commitment by stating, “Addressing the levels of chronic disadvantage in areas of health, housing, employment and education experienced by Aboriginal and Torres Strait Islander people, and supporting the distinct Indigenous rights and culture should be the ultimate goal of government policy” (23).

**Conclusion**

Housing and home ownership are important social determinants of health for Aboriginal and Torres Strait Islander people. Aboriginal Community Controlled Health Organisations have made improvements to the health and well being of their communities. They are committed to addressing the social determinants of health by extending that improvement to include the benefits of families having control over their lives and promoting economic stability through home ownership. However, ineffectual governments who command Aboriginal community competition for support and funding lack the necessary commitment to ensure success.
The consequence of inadequately enacting the Supporting Aboriginal Home Ownership in Shepparton Agreement (SRA) has been a deep seated sense of hopelessness for the tenants of the Rumbalara Housing section. The effect of this is demoralising to the tenants whose only hope for home ownership lies within the Community Housing sector.

Reid and Trompf provided this statement around sixteen years ago. Sadly, it still is relevant today;

This demoralizing hopelessness is itself one of the major health problems. Related to this is the cultural gap between Aborigines and other Australians, who cannot understand what it is like to be an Aborigine, or do not care. The constant pattern is that whether whites are hostile or well intentioned, whether they know themselves to be ignorant or believe themselves to be well informed, the ‘Aboriginal problem’ is the problem of how white people should decide to deal with Aborigines (25).

Petah Atkinson, Michael Buckworth and Felicia Dean in partnership with Rumbalara Aboriginal Co-operative Mooroopna, Victoria, Australia April 2007

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Introduction

In 1996, the Belize Government undertook an initiative to reform its Health Sector. While this reform shows a significant infrastructural, managerial, and information systems management improvement there is room for growth in addressing the impact of obvious health factors such as: diet; absence of technology, specialists care, environmental changes and physical inactivity and limited recognition of the traditional healing systems and its integration into the health care system in the Belizean population. It is very important to note that the inequities in health initiatives will result in inequitable health as shown by this study the topic is complicated. This case study will highlight a description of a situation of an indigenous woman who has managed to survive. The question is raised what was the quality of life? Why did it happen? And what can we learn from the experience? It is hoped that we can recognize the difference between policy and practice. It is an opportunity for indigenous people to recognize the strength of their traditional healing systems and thus advocate for more involvement in health reform and advocacy. It is hoped that it will contribute to a critical and timely dialogue on indigenous health issues as the Government of Belize ratifies the ILO 169 Convention. This is vital if we are to truly achieve global health in the face of challenge and change.

Case Study

The woman, who presently resides in Dangriga, is a female from the Garifuna ethnic group. She is the fifth child of her parents. The midwife considered her birth unusual because she remained in her mother’s womb beyond the normal nine months gestation period. It is possible that this uniqueness was the beginning of her history of ailments, brain, gynecological, heart, and bone and nerve problems. For example, her delayed menstrual cycle, which began at the age of 16 years, this was not a common occurrence among her four female siblings. The female members of her paternal side did experience late menarche. Another illness that may be the result of her abnormal birthing process is anemia.

The woman was deemed extremely disobedient by her mother and was therefore the object of severe beatings by her mother. It is no wonder that in her early twenties she suffered from neuralgia and lumbago. Although some of the symptoms of these illnesses were treated immediately, there was no sustained monitoring over the years. She spent time with her siblings, both teachers, on different occasions, these included being with her younger sister and her family in Succotz (Cayo District), and cooking for her brother in Progresso, Corozal District.

The woman began her own family at age 24. Her first pregnancy was out of wedlock. This phenomenon, which may have been a stress factor, was socially described as ‘being fallen’. At that time, pregnancy out of wedlock was a punishable act by the society, especially by the mother. During her pregnancy she was verbally abused by her mother and abandoned by the father of the child. This must have been a major contributor to the emotional trauma she experienced. This made her feel ashamed of herself. The stress, resulting from the factors mentioned may have contributed to the death of the child, shortly after its birth. Shortly after the birth of her first infant, in 1953 she married her present husband. She felt a sense of gratitude towards him for marrying her, in spite of her painful reality. After marriage, she lived with her in-laws, who traditionally assumed control of her. She and her husband moved into their own home in 1959.

The author recalls a significant stage in the woman’s life from 1992 to 1997, when she pursued her Garifuna spirituality wholeheartedly in her search for healing. These rituals included the Dugu, herbal and spiritual baths, bathing of the dead ‘agawani’, masses for the ancestors ‘Lemesi’ and food offerings. The
Dugu includes a collection of healing rituals designed to appease the spirit of the ancestors. These rituals include a systematic dancing and singing activity (Mali), food offerings and chants. A Mali is a healing ritual in honor of the ancestors. The participants in these rituals are relatives of the particular ancestors that are recognized at the time of the rituals. They are guided by a priest or priestess (Buye). The dancing and singing is accompanied by the beat of drums. The venue for the rituals is known as the temple "dabuyaba". During the rituals, there are protocols that the participants must adhere to. For example, the temple is considered to be a sacred space. Women, who are having their menstruation, are prohibited from entering. People participating in the rituals are not allowed to participate in sexual activities during the process. These are considered to be taboos and can result in a failure of the ceremonial ritual to be accepted by the spirit of the ancestors.

The offering of food to the ancestors is known as 'Adagarudani'. Food such as hue (fermented cassava) is prepared in the traditional style of the ancestors. It is presented to an altar, along with candlelight and alcohol (rum). This ritual is done in conjunction with a Catholic mass.

The concept known as “Bathing of the Dead” (Agawani) symbolically represents the cleansing the spirit of the departed. This allows the spirit to move around in the ancestral realm. This ritual involves the preparation of traditional clothing that the ancestor was known to wear in their lifetime. These items are laid out in a room in preparation for the spirit after the cleansing process. The cleansing process is conducted in the early morning before daybreak. A hole is dug in the ground and the water containing herbs, is poured into the hole while communicating with the individual. The clothing is then presented to the spirits and then left in the room until dusk.

Spiritual Baths are herbal combinations added to an individual’s bath water to heal the spirit and relax. The effect of herbs is to change the energy field so that the individual can field ‘lighter’. The Buye, spiritual healer, using prayers and dreams he/she selects the appropriate herbs and presents it to the client, prepares these baths. The bath can either be carried out by the healer or by the patient following the instructions of the healer.

The woman through practicing these rituals on behalf of the family benefited and was instrumental in passing on the tradition to the next generation. She had completed primary school but was unable to attend high school. In those days there was no secondary school in the area and access out of town was costly. She became a pupil teacher at a school run by the Catholic mission. She was unable to keep her job because she had become pregnant or because she failed her pupil teacher exam. Either way she was stigmatized.

In 1995 her husband returned to Belize. His presence impacted on her well being in both positive and negative ways. He returned as an alcoholic and would drink every weekend at first and then even during the week. He was critical and unappreciative of her and her families’ efforts to sustain the family in his absence. This caused much emotional pain for her and increased stress. She began to experience palpitations of the heart, numbness, dizziness and other symptoms. She attended the local clinic in Dangriga for a while and was referred to a cardiologist who conducted clinics in both Belize City and Belmopan. Due to the urgency and seriousness of her condition she had to attend the clinic in Belize City initially and then coordinate to make subsequent visits to Belmopan. The treatment worked however the condition worsened the day after a visit to the doctor. One day in February 2004 she could not get out of bed due to paralysis of her right side and has not been able to get up since. The neighbors report a screaming from the house the night before. There were many challenges to be faced: medication costs, daily nursing care, and emotional well being of the family with this new condition that had befallen the woman.

She was rushed to the Southern Regional Hospital, transported there by a relative with a vehicle. She stayed for two weeks, her family visited and gave her support while in the hospital by taking shifts to monitor and take care of laundry. The hospital was limited with orderlies but helped whenever they could. She did not need much medication just monitoring. She was discharged without specialized treatment because that required travel to Belmopan, which was not affordable and not deemed necessary by the local doctors. It was determined that time was what was needed for her to recuperate from the paralysis/ stroke.

A major deterrent to the quality of health care that the woman received was the medical cost. It included consultation, medicines, and physiotherapy. The children and relatives shared this and accessed what
was most affordable which was not necessarily the best available. For example, the cardiologist prescribed medications for thirty days that cost $1 per tablet and available in Belize City only. It was available at a cheaper cost in Chetumal, and was obtained by relatives who frequented the Mexican border city. Physiotherapy was recommended and was provided by a specialist from Belize City, since none was available in Dangriga. The therapist visited on two occasions when he combined it with visits to other patients, thus making it affordable to the family. Visits were discontinued when the physiotherapist went on an extended trip out of the country and upon his return the woman was uncooperative due to the discomfort and pain.

Her savings from the remittances from her husband and children helped to meet her medical expenses. Contributions from her siblings and relatives help to offset the cost. The Social Security benefit to non-contributors scheme was introduced in 2002. The woman qualified, however after collecting for three months it was discontinued because she was receiving remittances from abroad. Her children, sisters and friends immediately took on daily nursing care. Initially her husband resisted involvement due to the female care needs. He was an onlooker. The strain on the volunteering caregivers increased and consequently the help dwindled. During this period her one sister living nearby who was supportive became ill and died.

Four years have gone by. Presently at age 77 she is bedridden and partially paralyzed. Watching a once able-bodied woman up to age 72 become bedridden is a psychological blow to all, friends and family. Her husband, forced to become the primary care giver giving her baths, preparing her meals and keeping her company is undergoing transformation. He has taken it on with diligence although at times he has the need to take a break, which he arranges with his children. The woman’s communication is with facial expressions smiles or frowns, and hand movements. A wheelchair and orthopedic bed made available to her through family efforts are not used due to insufficient human power.

The family took a while to accept the matter of her illness. There was always hope that she would get well. Spiritual healers were approached and they provided insights re the reasons for her illness, ranging from dissatisfaction of the ancestors, the family needing healing, a woman in US with whom the husband had an affair had cast an evil spell on her, and the husband had bad karma which was affecting her. Blaming of the husband was paramount in the family discussions. The demands he placed on her, lack of support and consideration. Unwillingness to visit the spiritual healer to see what could be the spirits wanted. He did not believe in that aspect of the tradition.

It is difficult to surmise the extent to which the situation has affected the woman because of her inability to communicate. The poor circulation is resulting in the darkening of the immobile arms and leg. Her teeth are decaying making her food intake limited to soft foods and liquids. Her appetite is healthy and she enjoys foods that are unusual such as tamales, barbecue, and other delicacies. She is taken care of by her husband and a son who returned from the United States.

She has regular visitors, her immediate family and relatives and friends. The prayer group of the Catholic Church makes regular visits on Sundays. All members of the extended family living abroad, that is, nieces, nephews, commadres and compadres when visiting include her in their itinerary. She appreciates the special visits of her grand children to perform for her and keep her updated with their achievements, which she shares with obvious glee.

A recent visit to a spiritual healer informed that they (the ancestors) are tired of seeing her suffering and they want her to go home. The woman cries often and calls out the names of the recently deceased sisters, her mother and her grandmothers. In Garifuna tradition she is said to be traveling or preparing to make the journey to the other side of life. Her family awaits the inevitable and is making preparations for her death. Still she waits with a smile for each of us to visit. She turns 78 years in May.

**Multiple Determinants**

Gender roles: Women have clear distinct roles and despite changes in lifestyles these roles lag behind. They are still expected to carry out these additional roles resulting in added pressure on the female. The lack of access to adequate technology, nutritional intake, health care, housing, and education increases the risk of deteriorating health. The traditional practice of giving priority to children and others does not help her health. Subordination resulting from the belief that virginity should be preserved until marriage. Male domination is evident in this case study.
Economic: Poverty in the community is a factor that contributes to inaccessibility of health to indigenous people. Poverty Assessment 2002 indicated that 79% of the population in Toledo District lives below the poverty line. The WHO country report 2004 expresses concern for health care with 15% of children suffers from growth retard and 39% of which reside in Toledo. This has implications for access to adequate technology, nutritional intake, health care, housing, and education.

Political: The health care system does not have anything in place for women after childbearing years. Psychiatric services limited with only one Psychiatrist in the country. Psychiatric Nurse (PN) is available in the community and necessarily adequately sensitized to the cultural beliefs of the indigenous people. Physical illnesses are explained in accordance to cultural beliefs. There is a need to validate the nurturing aspects of cultural tradition as a means for mental health care.

Advocacy: Advocate for health services in our communities. The region where indigenous people are located was declared as the poorest part of the country, yet the pilot projects implemented for health improvement were launched outside of that area. The indications are that indigenous people are not a part of the decision making process.

Migration: Movement away from the community occurs in order to raise the standard of living. This takes away presence of the male in the family as a disciplinarian and security of the family. This increased the pressure on the wife and mother. The extra marital affairs did not help the relationship or the well being of the woman.

Alcoholism: A recent study shows that the use of alcohol by men in the indigenous communities is on the increase and is a major contribution to physical, emotional abuse and domestic violence.

Healthy lifestyles: The awareness of the impact of social determinants such as stress, lack of exercise, environment as contributory factors to disease is not adequately understood by indigenous people the community.

The additional responsibilities
The use of herbal remedies to cope with stress and to manage ones well being is beneficial and underutilized.

Traditional healing systems: Herbal medicine plays an important role in healing and yet is not adequately integrated nor validated as an important component of the national health care system. The limited research carried out on this component of the Garifuna healing system as well as the spirituality aspect to address the health needs of the Garifuna needs to be coordinated and disseminated to communities. In addition further research needs to be carried out regarding the way existing mechanisms within the culture are utilized to help in the healing process. The conflict between western and indigenous religions needs to be reconciled so as to reduce the stresses upon the community.

Family support systems: Support systems have deteriorated over time due to migration international and local.

Educational background: husband was a subsistence farmer and labourer completed standard 6. The educational system forces the Garinagu to lose their indigenousness. The loss of many cultural elements due to a shift toward the dominant culture is taking its toll and affecting the well being of the community. The effort to make all the children complete secondary school has had benefits for the family but has also resulted in their migration in order to seek employment.

Discussion

Had the Catholic Mission been more supportive of this woman and provide counseling instead of making marriage seem to be in the best interest of everybody, then maybe she wouldn't have ended up in a relationship, where she was verbally abused, unappreciated at times and succumb to embarrassment because of the infidelity of her husband. She could have carried on with her career as a teacher and maybe later on marry someone when she is ready, even if it is her child's father.
What if our education system was more relevant to the needs of indigenous peoples? What if the education system educated the indigenous peoples to live quality lives where they are? If this were so, the husband of this women would have had no need to migrate, since he would have been able to make a living at home. His family would have benefited more from his presence than from the remittances that were sent home. He would have been able to perform his role as father and share the responsibility of taking care of the family with his wife. If the education given to the indigenous were relevant to their needs, appropriate technology would have been created to enhance the quality of their lives. Most of the farming methods carried out by the indigenous peoples of Belize is still rudimentary and time consuming. To make cassava bread, one of the main staples of the Garinagu, requires at least a three days’ task, beginning from the harvesting of the cassava to the baking of the flour. Relevant education then would lighten the workload of women as they go about their duties such as farming, making cassava bread and doing laundry.

It is obvious that this Garifuna woman requires specialized treatment. If her family had the financial resources, she would have been able to profit from medical care given by specialists such as the psychiatrists and physical therapists whose services are mostly available in Belize City and in the capital, Belmopan. Easy access to such services would definitely make a positive impact on her health. Taking care of the elderly and sick relatives in the Garifuna culture has always been the responsibility of the family both immediate as well as the extended. The increase dependence on employment outside of the home restricts the amount of time and quality of attention that family members can invest in the care of their loved ones. Had there been a system in place to ensure that this Garifuna woman can get quality home care; maybe it would have improved her health condition.

The many physical complications affecting the health of this woman and the death of two of her children from gastroenteritis imply that diet is one of the contributing factors. Mass media campaign on eating the right foods with an emphasis on local food can enhance the diet of this woman and her family, thus adding more years to her life.

A recent study shows that there is a higher rate of alcoholic consumption among Garinagu and the Creole population of Belize. The circumstances that the husband finds himself in, as well as the ease of availability of liquor in the community and the widespread practice of alcohol consumption, all combined, can very well be a driving force leading to the husband’s addiction to alcohol. The availability of counseling services and organizations to attempt to deal with the root causes of alcoholism would assist in dealing with such a problem.

Even though Garinagu are moving away from their traditional way of living to one based on employment and consumerism, the clearly defined roles of males and females remain the same. Had there been steps to educate the men to assist women since they are the ones who are overburdened with responsibilities, this would reduce the stress that women experience as they try their best to cope with their circumstances.

Fortunately for this Garifuna woman, there is still some family support including that of the extended. Her spirituality and herbal medicine based on tradition have also helped in giving her hope and the desire to keep on. Unfortunately not much effort has been made by decision makers and the established churches to give the traditional healing and spirituality the respect it deserves.

**Implications for Policy**

The following are implications for policy evolving from this case study.

- Reduce the cost of basic healthcare and make relevant services more accessible and available to the poor by;
- Ensuring the proper allocation of funds in the National Budget to expand the National Insurance Scheme (NHI) nationwide;
- Providing free and available medication, especially to children and older persons;
- Increasing social security benefits for low incoming families in time of sickness and also free health services for the minimum wage families;
- Developing special safety net programmes that allow older persons to have increased access to health care service nationwide;
- Established a system for older men and women including those without a pension to access benefits from the Social Security Board (SSB);
• Making sexual and reproductive health information and services available at the maternal and Child Health clinics across the country;
• Developing campaigns to promote sexual and reproductive health information in a manner that is easily understandable to a wide range of persons with a differing literacy level;
• Provide psychologically based interventions to help people address their individual psycho-social development needs by: Developing psycho-social rehabilitation programmes to address depression, apathy, hopelessness, stress, abuse, neglect and addictions;
• Developing parent education and support programmes, making sure that these address the roles of mothers and fathers and deals with socializing concepts of “masculinity” and “femininity”

The identification of rural health as a priority within the Belize National Poverty Elimination Strategy and Action Plan (NPESAP) 2006-2010 is reflected in its recommendations. The issue is whether there is the commitment to follow through with the appropriate budget allocation.

Additional implications for policy:

• The right to land and a healthy environment is an indispensable part of indigenous peoples’ health and well-being and should be recognized. Issues of land claims are an integral part of healthy public policy, as is a community development in the areas of alcohol and drug programming, cardiovascular health, healthy lifestyles and chronic mental illness. The government of Belize is in the process of ratifying the ILO 169 Convention. It is hoped that this will give indigenous people the framework for advocating for these policy changes.
• Greater recognition needs to be paid to the importance of socio-economic factors and the social environment in influencing health. Public and political process of raising awareness and promoting quality health is needed.
• Focus on the establishment of health promotion officers to promote health policy and planning within indigenous communities.
• There appear to be some positive trends in the areas of breastfeeding in making infants healthy; however there are negative trends in the area of physical well being of the lactating mother. Nutritional education and feeding programmes to ensure that the mother remains strong during the lactation is required.
• Shift needs to occur from seeing health care as the major determinant for good health to one where broader environmental, socio-economic, and cultural determinants of health are recognized as the major factors that need to be addressed. The inclusion of inter-cultural education in the training, formation and capacity building of health professionals will facilitate this process.
• Further research needed on the determinants of indigenous health.
• The commitment to principles and values associated with reducing inequities in health.
• Services such as house visits need to be introduced in the curative health care process.

National Garifuna Council
INTRODUCTION

Well being and good health is the purpose of man’s life. This case study was written to help understanding of the determining factors concerning health within its social context. We acknowledge the cultural differences between ethnic groups; however, the ethnocentric view is also present, giving us the idea that our way of living and thinking is superior. Nevertheless, how can we observe with neutrality cultures that come in conflict with our own, when we understand that those cultural realities lead innocent children to death? How can we interfere, indeed saving lives, but changing an ancient culture? Dealing with issues of health, life, social conditions and other cultures, leads to those questions, as changes of attitudes of people within a cultural frame will implicate in social and behavioural transformations; that will touch all the cultural and family structure of a group of people. In this way, questioning and debate are needed to evaluate the actions to be taken when facing different behavioural realities.

HISTORY

A child with mental disability is born in a community, in the heart of the Amazon jungle, in the north region of Brazil. Traditionally, this child should be “killed” by the parents, but due to the continuous interventions of a health work team within the Munduruku community, infanticide is no longer a common practice; parents profit from the benefit of a pension for the disable child, an income that supports the whole family.

Generally, in that culture, the disabled child receives little or no attention from his or her mother and family. Such a child is severely neglected, left like a dog, fact that may benefit the family as the child losses weight becoming undernourished, what gives the family the benefit of receiving food supplies from a food program.

The family is considered average size within that community: father, mother, 6 children and a grandmother, all in the same household.

The Indian village where this family lives does not have treated drinking water or any public services of sanitation. The river is the source of water for personal hygiene, cloth washing, washing dish and drinking water.

The health workers teach the community to boil drinking water and distribute hypochlorite to treat water.

The nutritional basis is farinha - dried grated manioc - and fish, being fish more scarcely. In the local Indian culture, vegetables are not included in the eaten habits and fruits, only those seasonal.

The disabled child gets sick with a remarkable frequency, and the health workers, that have a pharmacy in the Indian village, are always caring and the child recovers.

Years later, the child is already 7 years old and is undernourished – condition that the child has been through his life, because otherwise the family would not receive the support of the food program – and the child present respiratory complications due to pneumonia. The child is thin, too small for his age,
unable to walk, cannot speak and spends most of the time on the floor or on a hammock – a hanging textile sheet used by Indians to lay and sleep on.

After been sick for five days the child is taken to the health clinic. Immediately the nurse follows mother and daughter to the “voadeira” (a small vessel of fluvial transport between villages or to the nearest town) and gets with them to town to admit the child into the public hospital to receive treatment. The local doctor is sick and he has gone to a bigger town for treatment, so the local hospital is temporarily without a medical doctor.

The nurse takes the child and the mother to the centre of support to the Indian population “Casa de Apoio do Índio”, where drug treatment for pneumonia is initiated. The doctor of FUNASA – The National Indian Foundation -, is in another village is requested to come to town to take care of this child.

Next day, the child dies just a short time before the doctor arrives; cause of death: septicemia.

THE MULTIPLE DETERMINING FACTORS

There are several factors within this child’s death. The cause of death was the condition of septicemia; however, the situation is very complex when we make a closer study of it:

1. This child would not have had a an opportunity to live if it wasn’t for the intervention of the health workers’ team, influencing the curbing of infanticide, a common practice among this ethnical group; nevertheless this survival is attached to the benefits that this child would bring to the family;
2. The lack of adequate care from parents to the child. The child with disability that survives infanticide lives a sad life neglected by the parents and relatives that on spite of receiving the child's pension have deny the child care and affection.
3. The munduruku child remains is breath fed until up to the second year of life, or until the mother becomes pregnant again, period when the child will receive less attention.
4. Up to 2 years old the child receives nutrition from the mother’s milk and is never left on the ground, been continuously carried by the mother.
5. The conditions of hygiene even after improvements by the health worker’s team remain far from adequate.
6. The sanitation Infrastructure is bad; there is no safe drinking water or public sanitation and all the communities use the river for all activities related to water usage.
7. The nutritional habits are deficient, the meals lacking vitamins and proteins.
8. Limitation of medical assistance in the district, where there is only one medical doctor.
9. Primitive means of transport between villages and town; the boat is open and it takes from hours to two days to reach the villages, under the son or the rain.
10. Lack of priority from the mother’s side in order to care for the child; in that culture the husband comes first as far as food rights, care and attention as the man would look for another woman if his wife does not give him in give him this privileged position.

DISCUSSION

The death of this child demonstrates that not only health or the lack of it is a cause of the situation. We question the socio-economic and cultural situation of the family of eight children, living in a remote village with limited food and untreated water. Historically, the Indian family was sustained by the mandrake warriors who went out to hunt and fish and the women waited to prepare the food. Today, with ‘improved health’ and government distribution of food baskets, the men no longer hunt and fish. The family literally goes hungry, waiting for the food baskets, which for one reason or another are late. The family doesn't eat in spite of the viable activities (hunting and fishing) are substituted by work in lumbering or good mining camps.

An evaluation or reflection is needed as to the interferences of the white man and culture and the benefits to the community.

Probably the child would never have survived birth if there had not been direct interference in the Munduruku culture of child killing. The survival of this child makes us question if the change had a benefit for this handicapped or special child.

Probably the families would not be hungry if there were no food baskets which distribution stopped the fathers from hunting and fishing.
In the Munduruku community, the activities of women have remained the same; however those of the men have changed. They do not find food for their families, rather spending their time meeting with other men, discussing politics and other subjects, without doing useful activities.

**IMPLICATIONS FOR CREATING POLICIES.**

The health care system of Brazil is at special moment in its development. However, the size of the country, social-economic and cultural problems, and the implications of policies do not permit a full and adequate implementation of the system.

The national Unified Health System (SUS), on paper, should be one of the best systems of public health in the world. But, administrative difficulties, geographic situations make the system difficult to operate.

The Indigenous Health Agency (FUNASA) was created in 1999 under the terms of a law that recognized indigenous peoples and their territorial rights.

In order to provide health care to indigenous peoples, a differentiated health care system was created where health care is taken to the people and not having them come to the city. The intention was to not take them from their environment and incorporate them into the white culture. It was also a manner to secure their citizenship.

However, the introduction of ‘whites’ in the villages while providing health care, in spite of professional training, generates a cultural shock. While, in the white world, children come first for feeding, bathing and care; in the indigenous world, men come first. In the white world, while sad, a family with a handicapped child will care for it; in the indigenous world, handicapped children are eliminated. In March of 2007, a child was born without ears and the mother and others burned the child. A second child with a facial deformity was burned to death as well.

Those handicapped children that survive with the interference of the white system live for only a short time. The families abandon them and don’t care when they die.

Today, trained Indigenous Health Agents (AIS) visit and evaluate families needing medical or nursing care. They also offer education in health across a broad spectrum of topics. Midwives also participate in the system.

One observes that indigenous people do not assume the responsibilities of heads of families and members of society. There is no interest in the family or community. However, the indigenous culture has accepted the bad examples of white culture, especially alcohol and smoking.

The alternatives to the situation are nebulous; the attitudes that the white culture feels important to the community are leaving innocent children die.

Adoption is also complicated. Indians would rather kill a child than give it to a white family to raise. The white culture must evaluate its actions and attitudes within the indigenous community. We don't know if these actions are helping or hurting a culture that is disappearing. The cultural differences are creating shocks and open wounds between the two cultures.

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Vera Canto Bertagnoli – Nurse, Master in International Management, Director of Education of Fundação Esperança, with experience in international conferences.
The management of emergency deaths caused by malnutrition in the District of Mato Grosso do Sul Brazil at 2005

Introduction

This case study has the aim to present the complex problem of malnutrition that still exists into the indigenous communities of Brazil, focusing the case of Guarani-Kaiowá, who live at the Special Indigenous Sanitary District of Mato Grosso do Sul (DSEI - MS). A photo of a severe malnourished child shown at local and national press, stimulate national television and international press to follow day by day what Brazilian government was doing for those people. A mobilization was organized by FUNASA (National Foundation of Health), responsible for the Indians health, in order to lower the mortality rate and malnutrition, however if nothing is done to regularize the land where they live, the major cause of malnutrition will not be solved. The land is considered their source of food, agriculture, culture, rituals, and so, their right to adequate food which is directly related to their right to live.

The story

At February 2005, a photograph of a severe malnourished Guarani-Kaiowá child in the therapeutic nutrition center of the city of Dourados at DSEI – MS was publicized by local press shocking national and international population. The mortality rate at DSEI – MS was very high compared to the estimated national rate of 24 per thousand for 2003. At 2003, the mortality rate at DSEI- MS was 48,2 per thousand, at 2004 it increased to 60,56 per thousand, at 2005, it decreased to the previous rate reaching 48,77 per thousand. It is believed that at 1999, this rate at DSEI – MS was 140 per thousand children born alive, while the rate for Brazil at 1998 was 33,1.

Deaths caused by malnutrition registered by FUNASA Information System indicates that at 2003, 31 children died because of malnutrition, at 2004, there is 19 deaths related to malnutrition registered, and at 2005, 17.

Trying to reduce the deaths, FUNASA sent an emergency group to Dourados to analyse the problems and organize the solutions. The group constructed a strategy to identify the children from 0 to 5 years with malnutrition or with signs of death risk so that, at individual level, children with associated diseases could be immediately treated, received food supplement if it was noticed nutrition and food insecurity or referenced to hospitals in severe cases. At community level, actions could be articulated with other institutions.

With this strategy, there were evaluated 2.299 children with less than 5 years of age. The total children existent at this age band was 7.525, representing an evaluation of 30% of these children from 24 February 2005 to 14 March 2005. From these children, 1.269 were malnourished.

To make it possible, the group explained to local health professionals of the multidisciplinary group, the importance to change actual procedures of health primary attention. National Indigenous Health Policy determines that local professionals visit the families at their home, instead of waiting for them to look for the health service. The justification is that there are great limitations when the health professional only look for clinical signs to explain the causes of the diseases. When the professionals know the place where the family live or work, they also know the social, economical, behavioral, or ecological determinants.

This way, it was proposed a Nutrition Surveillance System based at home visits made by all the local health professionals in order to identify these determinants and follow up the children and their family based in a schedule recommended by the Ministry of Health of Brazil according to the nutritional classification of the child. However, considering the emergency to find other children with risk of death,
at the first week, the indigenous health agents (primary level of education) would get the malnourished children listed by the DSEI - MS at their houses by car and bring them to a specific place at the nearby the community area. The schedule above mentioned would be implemented after this week, making home visits a routine of the health service.

In order to achieve this faster assistance, it was necessary to make partnerships with governmental, non-governmental institutions, universities so that volunteers health professionals were called to join the strategy, and supplementary food supplies were donated.

Children were weighed, measured and nutritionally classified. The ones considered with low and very low weight for age (by the table of NCHS – National Center of Health Statistics) or with signs of death risk were sent to a doctor who analysed associated diseases. It is important because malnutrition alone is not responsible for the most of the deaths. Instead, malnutrition weakens the immunological system, worsening health situation and making the child vulnerable to die.

If a disease was identified, the child was medicated, and at severe cases, child was referenced to hospitals. If some kind of hunger or nutrition and food insecurity was noticed during the attendance supplementary food supplies donated or bought by FUNASA was distributed to the family.

In addition, it was articulated with Social Development and Hunger Combat Ministry – MDS, the supply of food baskets. Nowadays, 5.500 baskets supplies are given to those Guarani-Kaiwóá families.

At the home visits, health professionals observed that there was lack of stoves, firewood, pans, plates, spoons, cooking fuel, etc to cook the food supplies received. And dialoguing with the Indians leaders for solutions, they knew a way of alternatively cooking food using few volume of wood, based in big cans, sugar and cement. A partnership with local Rotary Club allowed its reproduction.

Other activities included: acceleration of environmental sanitation, hospital professionals training course on the standardization procedures on the management of severe malnourished child at hospitals (WHO Protocol), standardization procedure on the integrated attention at prevalent children diseases (AIDPI) training course for the primary attention professionals, vitamin A supplementation (considering that about 23% of children deaths can be avoided with this vitamin), filters of water distribution by UNICEF, community feeding program.

Of all the children evaluated, 26% got out of malnutrition from in about one month. In 2006, the mortality rate decreased to 38 per thousand at DSEI- MS, and the deaths caused by malnutrition decreased to 3.

Nevertheless this strategy was able to prevent the increase of deaths at that moment, if the basic determinants are not changed, such as the overcrowded land, unsafe water supplies, poor sanitation, undernutrition and irregular health services, this problem is always going to reappear.

**The multiple determinants**

Malnutrition has prominence position at health proposals because of its evident correlation to infant mortality. Studies have shown that more than a half of infant mortality could be avoided if children were adequately nourished.

Malnutrition depends on a lot of factors, because of its complex and innumerous determinants which have direct or indirect relation to food and nutrition insecurity, some of them are listed below:

1. The first concern when thinking about indigenous people is the overcrowding and devastation of their lands, impossibilitating them to produce, to collect fruits, to fish.
2. Increase water offer and sanitation, which would be able to reduce the diarrhea cases, lowering the infant mortality rate.
3. Health attention received by the pregnant woman, the just-born and the mothers. Those ones should be stimulated to return to the doctor at the first week, birth conditions must be trustful, emergencies must be well managed.
4. Increase the coverage and quality of attention of the indigenous health multidisciplinary team, so that surveillance of diseases, including malnutrition, is qualified.

5. Humanization of the hospital and the childbirth, especially qualifying them for cultural changes, like including translators, modifying the preparation of food, allowing more relatives at the hospital room, etc.

6. Solidarity between rich countries and poor countries.

7. Good quality policies for infant and juvenile development.

8. Increase vaccination coverage.


10. Improvement of mothers’ education and life conditions of the children.

11. Promotion of exclusive breastfeeding.

12. Improvement of registration of birth and death of children.

13. Low offer of job or bad conditions of it with low payment or its inexistence.

**Discussion**

Health attention for indigenous people made by FUNASA is recent. It was started at 1999. Before that, it was implemented by FUNAI (Indigenous National Foundation), which is now responsible, especially, for conflicts and land regularization. The context on which FUNASA assumed this mission was not favorable. Change generated great resistance by FUNAI’s professionals, making transition difficult. Until now, there are districts where any partnership is not easy to articulate. Also, there are problems of assistance with non-governmental organizations, delayed payment of professionals or organizations, lack of transportation (cars/boats/planes) for the communities, lack of medication. All these logistical matters directly impact indigenous health.

At this episode at Dourados, many institutions got interested in helping, however discrimination is always very strong, and there were situations like hospitals avoiding to increase beds for indigenous, obligation of mothers to clean some hospitals spaces in order to receive lunch, dissemination of the idea that the Indians were lazy and they did not care for their children, exploration of the indians’ money by local market, etc.

There are still deaths at Dourados caused by malnutrition, but it is decreasing. At 2006, the mortality rate was 38 per thousand, and just three deaths of malnutrition were registered by Indigenous Health Information System.

**Implications for policy**

There are three situations when thinking about the identification of the indigenous malnourished children by local professionals that must be considered. The first, and ideal one, is the case where the malnourished child is referenced to the hospital, and there, is treated on associated diseases and the weight is recovered. This child comes back to the community just to be followed up by local health team as a routine of the indigenous health service. The second, and much more common, is when the malnourished child is referenced to the hospital and is treated only on associated diseases. In these cases, the child comes back to the community still malnourished and strategies of recovering the weight of this child must be done. For this kind of situation, a possibility is to use WHO recommendation (just the chapter on food formulas which are simple to prepare as described at the guide "Management of the malnourished child" used for hospitals). There is a third situation where family refuse to allow any intervention on their child, also very common. For this problem, it is necessary to schedule a discussion with local indigenous leaders so that a solution for each case has the support of all the community. If it is not enough, Public Ministry and / or child and adolescent council authorists must be called in order to help. This precaution is important because FUNASA is responsible for indigenous health and if any preventable death happens in indigenous area, the institution is called to justify it.
Although it is essential to have a protocol and recommendations to assist the malnourished child, it is much more important to prevent the child to be malnourished. This way, the strategy for that, which is being implemented in all 34 Indigenous Districts, is the Indigenous Nutrition Surveillance System (SISVAN-Indígena). SISVAN is the organization of the routine assistance to monitor the nutritional status of indigenous infants, children until 5 years, and pregnant women. This surveillance system provides data that describe prevalence and trends of nutrition indicators for pregnant women and children. These surveillance data can be used for program planning, management, and evaluation; for the development of health and nutrition interventions and policies.

Anyway, combating infant mortality goes through evolving different sectors of government and different institutions. In the past, health was synonymous of “illness absence”. Today, the concept is understood at a much more holistic form. The concept is related to the improvement of habitation, education, income, and job.

To reduce these inequalities is necessary to invest in basic changes, as job programs, access to education, and sanitation. This way, it is not possible to understand promotion of healthful lives without a clear notion of environment, and the conditions where the child, its mother and family live. All interventions must be articulated with local culture and knowledge so that logical answers are given to the reality seen.
Case Study | HSD highlighted by author
--- | ---
1. **JIMBITONO** (Ecuador) | The dam negatively affected the well-being of the Aboriginal community: river erosion, flooding, depletion of traditional species of fish. Besides, an environment hazard due to the explosion of a valve. Communities and families divided (lack of consultation, opposition, repression, community divided over project). Aboriginal concerns were not taken into account by Government. Fake environment impact assessment. Work conditions affected family dynamics (most of the month away from home. Work 22 days with a break of 8 days).

The Ecuadorian Amazonia. Targeted group: Aboriginal community (Shuar & Achuar) who live near the Abanico river. The community does not have access to electricity and fish is a critical component of their daily diet.

A private sector company built a hydroelectricity dam on the Abanico river. The dam supplies power to big companies located in Guayaquil (Coca Cola, Kentucky Fried) and foreign mining companies, without any benefit to the local community.

2. **EARLY PREGANCY**. (Chile) | Gender and ethnic inequities characterized rural settings. Discrimination against Mapuche population. Family violence (abandon, sexual harassment). The teenager lives with his alcoholic father and her grandmother. Reproduction is seen as women primary role, contributing to early pregnancy within Mapuche’s women. This is coupled with lack of formal education and opportunities. Health services are not culturally sensible to Aboriginal world views. Terminology used is unsuited to poorly educated Mapuches.

A pregnant adolescent Mapuche, who lives in a very dysfunctional family in a remote area, is forced to go through its pregnancy without almost any support from her family and less from the public health system. The author underlines some of the factor that contributes to early pregnancy rate within Mapuche population.


Aboriginal population (Wichi).

A young Wichi woman goes to hospital to give birth. Since the mother in under treatment for Tuberculosis, health professionals decided to send the new born to a Children hospital in Salta (capital) for a check up. The mother struggle for almost five year to get her baby.
back. When she finally succeeded, the kid did not speak her language nor understand the Wichí culture.

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Introduction to the case

Wa ethnic living across China-Myanmar border, as one ethnic jumped from caves to modern society, and its total population is around 1.2 million (about 740,000 in Myanmar side, and 460,000 in China). Malaria is one of major public health among Wa ethnic minority. This case study is designed to show the advancement of malaria control in a community of Wa Ethnic Minority along China – Myanmar border in China, and then explore political and social determinants of malaria incidence and prevalence. The case study also demonstrates the importance of governments and multilateral collaboration across the borderline. Solving public health problem among ethnic minorities should be based on a broad front, going beyond health, education, welfare and other services.

The story of Yuesong Township

Yuesong is one of frontier townships in Ximeng Autonomous County, with a population of 6781. All villages of the township are distributed a sidehill of altitude 900-2100 meters. The residents in both side of the borderline are Wa ethnic, and the borderline, a small river in the valley, is nothing for villagers. Villagers can cross the small river easily and frequently for work, trading and visiting relatives and friends.

In January 1997, we received an instruction to have a cross-sectional survey to Yuesong Township because as a result of provincial government work team home visits, 80-90% of villagers said they have malaria episodes. January is winter of north hemisphere, coldest and lowest malaria transmission season locally; however the investigation showed the 16.61% (45/271) of parasite rate with 8.89% (4/45) of Plasmodium falciparum proportion and 83.39% (226/271) of indirect fluorescence antibody test (IFAT) positivity rate with a 37.85 GMRT. Local harvest season is August and September each year, however most of residents were already in food shortage in January next year, and the bednet-person ration was only 0.0369 (10/271). When most people got ill, they did not seek for diagnosis and treatment. The township health centre, the only health facility in the township has only 2 or 3 patient-visit a day, sometime none in a whole day.

In 1997, under supports from Yunnan Provincial Health Department (YPHD), a pilot Joint Primary Health Care System (JPHCS) was established in Yuesong Township. YPHD helped it to build houses, train 6 village health workers, and buy equipment and supplies for establishment of a health service post at each of three village committees as decentralization of the Township Health Centre (THC). Meanwhile, YPHD helped it to formulate the management regulations on organization, leadership, personally annual due and medical cost reimbursement policy. In this system, every resident in Yuesong Township contributed RMB 10 yuan each year to establish a fund, and a proportion of everyone’s medical service cost could be reimbursed from the fund according to total cost. The due contributed by everyone became a push and the partly reimbursement became an attraction. The interaction between the push and the attraction promoted people seeking medication at village health service posts (VHSP) and the THC. In the other hand, VHSP reduced patient travel time for health service, so it promoted access; village health workers were trained to diagnose and treat malaria by clinical symptoms, give patients advices on malaria prevention, prepare and collect blood slides for parasite examination in THC, and took part in anti-malarial drug distribution and surveys for parasite carriers. Compared with the control township of this intervention, the establishment of JPHCS led to increased surveillance coverage, reduced incidence and prevalence, and promoted resident’s knowledge of malaria prevention. However, the prevalence and incidence in the township are still one of highest areas in China. In 2000, the reported annual parasite
rate was still as high as 1.64% (112/6825), and the annual slide positivity rate (SPR) of febrile patients was still as high as 18.23% (107/587).

Since 2000, malaria control have been received more attention in China and globally. The township has been one of project areas of Rolling Back Malaria Project in Great Mekong Subregion and The 1st round of China Global Fund Malaria Control Project. However, these projects are not responsive enough to the needs of Wa Ethnical communities; malaria is still one of major health problems, one of the first three important infectious diseases (malaria, respiratory infection and diarrhoea). Some people (about one-third) did not clearly know malaria symptoms. Only small proportion of Wa villagers knew the connection between mosquitoes and malaria. They did not know that bednets and ITNs can be use to prevent malaria infection effectively. The bednet coverage is still very low, generally less than 10%; in some very poor and remote villages, less than 3%. Villagers who were overnight in field shacks, forests and Myanmar did not use bednets. Major obstacles of net use are unaffordable, feeling hot and stuffy in nets, not knowing the bednet marketing situation. Treatment seeking is still inappropriate because of unaffordability, inaccessibility, and lack of communication between clients and providers, and social isolation.

In 2003, in the implementation of the ADB-supported "Mekong RBM IEC" project, field research was conducted by combination of qualitative and quantitative methodologies to learn Wa people's perception, awareness, knowledge and behaviour to malaria, and their expectations and suggestions on malaria prevention and control; meanwhile, 6 types of IEC materials have been developed by working with communities.

In 2005, the Asian Development Bank (ADB) and the World Health Organization agreed to jointly provide technical and financial support to the GMS countries through the Project “Strengthening Malaria Control for Ethnic Minorities in the GMS”. As part of the ADB project, a pilot intervention trial of community-based malaria control for ethnic groups was set up and carried out in Yuesong Township. Since the field intervention activities from August 2006, following encouraging progresses were achieved up to now.

- Increased knowledge on malaria control among intervention population. The percentage of primary school students could list at least 2 malaria signs and consider mosquito as vector increased from 29.9% (79/264) of baseline of August 2006 to 58.50% (172/294) by the end of February 2007. And the percentage of villagers aged 16-60 could answer at list 3/5 technical questions on malaria (symptoms, causes, locally risk sites of infection, preventive methods, and seeking effective treatment) increased from 12.14% (98/807) of baseline to 554.45% (55/101).

- Behavior change is occurring in intervention community, increased people sleeping in bednets and ITNs by setting up a small revolving fund that community was consulted for subsidizing bednets, and seeking treatments from public health facilities. Percentage of people sleeping in bednets last night increased from 16.11% (588/3650) of baseline to 77.71% (272/350) by the end of February 2007; percentage of the bednets got treated with insecticide increased from 48.04% (257/535) of baseline to 92.47% (172/186); and Percentage of people seeking diagnosis and effective treatment within 24 hours after on-set fever increased from 23.03% (79/343) of baseline to 43.75% (7/16).

- Improvement of accessibility, acceptability, affordability, and quality of malaria control services at community level. Before the project implementation, only 4 village health workers (VHW) provided the service for 32 natural villages (1VHW per 1116.75 persons), and now 14 village malaria control volunteers (VMCV) as well as 4 VHWs (1 VHW or VMCV per 248.17 persons) are giving the service, so community malaria case management (CMCM) is available in all natural intervention villages. From August 2006 to January 2007, 586 probably malaria cases were found and given anti-malarials for treatment, compared with just 62 in the same interval of last year (from August 2005 to January 2006);

- Capacity of health care providers improved on community needs and ways to effectively address specific malaria control needs of ethnic minorities; the corrective descriptions rate of malaria treatment courses increased from 58.33% (42/72) of baseline to 71.05% (27/38) by the end of February 2007. Malaria control staff from county and township level can understand the
community-based methodology better.

- The project implementation contributed the reduced malaria incidence and lowered prevalence in intervention area with national malaria control program & Global Fund project together. The reported confirmed malaria cases was reduced from 62 of August 2005 - February 2006 to 28 of August 2006 - February 2007 and the slide positivity rate were reduced by 49.77% ($x^2 = 12.81, P= 0.0003$).

**The multiple determinants**

From January 1997 to now, we have connected with communities of Yuesong Township. During nearly 10 years, we have been unhappy sometimes and encouraging sometimes again for malaria prevalence and control in Yuesong. The most direct and obvious cause of the better malaria situation at present was the increasing intensive control activities, meanwhile the success and failure of malaria control activities there gave us some lessons and experiences. In the story of Yuesong Township, multiple factors contributed to malaria prevalence and control. To improve public health situation in rural areas in China, especially, the remote areas, many more factors need to be considered. These include:

1) Naturally, the subtropical climate, and hilly forested environment are suitable malaria transmission, so the location of Wa ethnic have been one of highly malaria endemic areas in China.

2) Geographically, the location is one of remotest regions in China, more than 4000 kilometres from Beijing, the China Capital City, and the rough transportation is one of barriers for Wa people seek health service timely, some villagers need to walk for 2 hours to see a village health worker and 4 hour for the Township Health Centre.

3) After establishment of PR China, “the rural barefoot doctor system” had successfully promoted population health in rural regions. However with implementation of the “Reform and Open Door” policy, JPHCS lost support from rural collective economy, and partly or completely collapsed. The malaria cases could not found and reported from community timely. This is why the malaria situation is so serious in early 1997.

4) Because of the remote and hard work conditions, the well trained people are not willing to work in the location, so the capacity of local staff are not as strong as required, and generally the existing staff could not be made work actively due to lack of enough incentives.

5) Culturally, Wa are an ethnic developing from primary trades, and the Wa ethnical language of a village differ from that of another one (another trade anciently), the common language for communication between some villages are Chinese. However most of Wa people, especially those older than 40 years old, can only partly understand Chinese speaking and cannot read or write Chinese. The cultural isolation make Wa people can not receive health information effectively.

6) Traditionally, Wa people collect herbs to treat illness, that is why they (especially old people), are not used to use modern medication for malaria treatment.

7) As the story told, until 1997, most of villagers there have not enough food for a whole year, in half hungry state. Even now despite most them already have enough food, they have still no cash for medication for a small illness and bednets for malaria prevention. However, Township health centre and VHWS have to earn a part of their salary lead to charging patients from support treatment despite antimalarials free. This blocks patients seeking treatment from public facilities.

8) Wa is an ethnic across the common border, which can not be any barriers for them. Even malaria have been controlled effectively in China, the imported infectious resources from Myanmar side can also lead to malaria resurge in China side too. Furthermore, Wa Ethnic in Myanmar is out of management of central government, and can not receive national health services nearly from Myanmar Union.

9) China is a multi-ethnical country. The government has given many priorities to ethnic minorities in social welfare, health and education etc. For example, pipe water is always available in Wa ethnical villages at the border area; however it is not in some Chinese villages inland. That is one of reasons that China is so stable now. But the gap in awareness, knowledge and practice is still existed between the mainstream population and ethnic groups because multi determinants.
China government has realized the disadvantage of national health services. It is paying more attention to public health and rural health now, so it reformed its system of disease prevention and control, especially after SARS epidemic. Now Malaria controls are receiving more and more investment in finance, human resources and policy. This is one of causes for improved malaria situation in Yuesong Township.

Another important reason is that malaria control is being noticed and strengthened internationally. As the targeted areas of Mekong RBM program, ADB project and Global Fund projects, it received financial investment, supplies as well as technical assistance.

One of reasons contributing the progress is the technical one. In the project supported by ADB, We firstly learnt Wa people’s perception, awareness, knowledge and behaviour to malaria, and then we consult community for their expectations and suggestions on malaria prevention and control, so this increased ownership of the project in their communities.

Discussion

The story shows malaria control process in Yuesong Township; and at last we were happily told the improved malaria situation and progress of community and malaria control activities. However, the progress is based on its former situation, and can not shadow its real present situation and problems. Yue song still one of the highest malaria endemic areas, and Wa people are still one of the poorest groups in China, most of them just have enough rough food, and are still unaffordable and inaccessible to national health service equally with mainstream population. When about 80% of national health resources have been used by about 20% of urban citizen in China, the ethnical minorities in remote and hilly regions received resource much less.

Equity is the bench of health policy. In China, when life expectancy of Shanghai citizens is more than 90 old years, that of Yunnan provincial citizens is less than 70 old years, and some ethnic group such as Wa is less than 60, so the difference of regions is more than 20 years, and that of ethnics is more than 30 years. To achieve equity of national health services in health and accessibility, the allocation of limited health resources in geography and populations is deserved to discuss wisely.

In general, China is a developing country, however it is not underdeveloped every place. The gaps between urban and rural areas, between west and east, between mainstream population and ethnical groups are very wide. When urban citizens receive services of kidney transplantation, rural citizens might be early death because of a small illness or infectious diseases. Clinical service has always received much more attention than preventive medicine. Which one is more important, treatment or prevention? In fact, compared with well being, nobody wants treatment after getting illness. However, most of health resources have still been invested in hospitals, especially modern big hospitals in cities.

After system of SARS epidemic, the system of disease prevention and control received more attention than before, so most of institutions of disease prevention and control built new houses, bought new cars and equipments. The fund of central government for malaria control can only be used for anti-malarial drugs procurement, but it can not be used to strengthen and maintain grass-root health facilities.

Fortunately, the government has realized these problems. In any health programs and meetings, we can always read and heard that public health, rural health and community health would be strengthened. But it is a long way to go to narrow the health gaps between different regions, rural and urban, mainstream population and ethnical groups.

The health policy designers are usually working in office in big cities. If the designers do not know what stage of health development stage of communities, especially of these people in remote areas and vulnerable groups; what are their perception, awareness, knowledge and behaviour to diseases or health problems, and what are community’s expectations and suggestions on health service, it is difficult to develop a set of sound health policy.
Implication for policy

The case study shows both problems and achievements, so its policy implications would be profound. Most fundamentally it demonstrated the progress of malaria situation and control activities in Ethnic minorities, how the determinants and discussions implicated multi-sectoral challenges faced by health service in China. At least following implication for health policy can be obtained from the case study.

1) The goal and direction of national health services should be understand clearly. If the goal is for health of the all citizens in this country, the limited health resources should be planned to use cost-effective most, considering which ways can improve the population health more, a primary health care or the complicated service.

2) Equity should be the basis of health policy. To achieve the equity in health, every citizen should have equity access, cost and service; and vulnerable groups (such as ethnic minorities) should get special attention.

3) The government wants to strengthen public health, rural health and community health. Firstly, it should would work out the public health service package, in which what services are free for all citizens, what are semi free, what are for special vulnerable groups (such as ethnic minorities) etc.

4) Considering diversity of the county, health policy might be different one region from another. And central government should gradually try to narrow the gaps between different regions, rural and urban, mainstream population and ethncal groups.

5) In such a developing country, health promotion and disease prevention should receive more attention, being taken as one of priority areas of national health services program.

6) The relationship between hard investment (such as house and equipment) and soft investment (such as human resources and incentives) should be balanced. When we have a car, we need petrol and a driver too at the same time.

7) Disease control across border is an international public health problem, which should get international attention. It urgently needs more bilateral and multilateral collaborations, and more international coordination.

8) Before development of any health policy, some studies should be undertaken to learn community’s perception, awareness, knowledge and behaviour to health problems, and their expectations and suggestions on health services.

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April 2006
Introduction to the case

Before colonisation, Māori had in place a public health system that ensured the well-being of communities. At the time of European contact in the 18th century, the Māori life expectancy was estimated at 28–30 years, similar to that of the French (29 years), Italians (28 years), and Spanish (27 years) (Pool, 1991). Today Māori at all educational, occupational and income levels, have health outcomes that are demonstrably poorer than other New Zealanders (Howden-Chapman and Tobias, 2000).

Some reasons posited for this are institutional racism (Harris et al. 2006) and a history of colonisation that has reduced Māori political influence and reduced the economic base of Māoridom (Durie, 1998). Deprivation is independently associated with disparities in health outcomes (Howden-Chapman & Tobias, 2000), and structural changes in New Zealand during the 1980s have impacted differentially on Māori, resulting in increasing disparity between Māori and non-Māori across a spectrum of social indicators.

The community from which the case study is taken clearly demonstrates the link between poverty and health outcomes and the uneven distribution of deprivation based on ethnicity. The Māori demographic profile for the Whanganui region would suggest a growing Māori population with significant numbers of youth. There are also significant numbers of lone/single parents, younger families, and a number of people living alone. Many of our whānau1 live either in smaller urban centres with small populations or rurally. Māori in Whanganui may be disadvantaged by lower than average incomes when compared with the median equivalised household income for Māori households in private dwellings across 12 District Health Board areas (Public Health Consultancy: Wellington School of Medicine and Health Sciences, 2001). In 1996, 50% of Māori in the Whanganui Region had NZ Dep2 decile ratings of 9(20%) or 10 (30%), representing high levels of socio-economic deprivation. In comparison, 14% of non-Māori within the region had a decile rating of 10, while just over 12% were given a decile rating of 9 (Taumata Hauora Trust, 1999). Bearing in mind the structure of the Māori population, it can be deduced that a large proportion of young Māori are experiencing high levels of deprivation. This has negative implications for the future health status of Māori. This data is now quite old however as a District Health Board member I am aware that this situation has not changed significantly over the last ten years. In 2006 benchmarking data, Whanganui District Health Board was listed in the bottom four of twenty-one District Health Boards in relationship to poor health outcomes for Māori.

Since the 1970s Māori have undertaken a range of political activities that has resulted in increased acknowledgment of a separate Māori identity and increased recognition of rights needing to be addressed as a result of breaches to the Treaty of Waitangi (the legislative framework of rights and responsibilities between Māori and the Crown).

The New Zealand Public Health and Disability Services Act 2000, Part 1 (4), Treaty of Waitangi, provided mechanisms to enable Māori to contribute to decision making on and to participate in the delivery of health and disability services. Health reforms since 1999 have focused on the need to reduce disparities

1 Whānau means family (including a concept of extended family).

2 The NZ Dep96 deprivation index combines 9 variables that reflect material and social deprivation: two income variables; transport; living space; home ownership; employment; education; qualifications; support; and communication. The NZ Dep. provides a score of 1–10 for each mesh block in New Zealand. A score of 1 represents the lowest level of deprivation; a score of 10 represents the highest level of deprivation.
in health and improve overall health status by addressing the determinants of health. In particular the Primary Health Care Strategy, introduced in 2001, acknowledged the special relationship between Māori and the Crown and aimed to reduce inequalities in health through improved access to services and participation in decision-making.

This case study discusses the state of health, and possible determinants of health, for one whānau participating in a Primary Health Organisation (PHO) established under the Primary Care Strategy. Changes in primary health care policy and the clinical environment will be used as a framework to discuss the impact of policy and practice, at a whānau level, on the social determinants of health.

The story of the whānau

The Daughter

This whānau first came into contact with the primary health care system as a result of a referral from a General Practitioner to a high needs Māori outreach nurse (nurse R). The initial primary client in the whānau was a 16 year old Māori girl who had a history of rheumatic fever, contracted through a streptococcal infection as a child. She was awaiting a mitral valve replacement (that she should have had at 14 years of age), and was required to have monthly penicillin injections as well as other drugs to combat the illness. Treatment was erratic, as the whānau had no transport or telephone. Earlier referral for surgery was lost in the medical system as the whānau was transient and difficult to contact. The young woman left school when they moved to Whanganui; she was fourteen at the time. The outreach nurse commented that she didn’t appear to have friends and most of her time was spent helping with younger siblings.

The Mum

The mother of the girl was an extremely shy person with low self-esteem. She had her first child at sixteen and had eleven children in total. The mother was only receiving money from Work and Income New Zealand (WINZ) for five of the children, as she was scared if she reported that she had eleven children Child Youth and Family would investigate their situation. For much of nurse R’s contact she would stay in the bedroom and have little or no verbal input and no eye contact. It took a year of regular visits before she would communicate in a limited way with the nurse.

The Nan

The Grandmother had always lived with the whānau and helped to look after the children. She was on an invalids benefit and had applied for a number of social welfare grants through WINZ to subsidise the household costs. She had incurred a level of debt to the Department through these grants and was paying these back through her weekly benefit entitlements. Nurse R offered a basic health check that identified some health concerns and a subsequent referral to the general practitioner (GP) identified both hypertension and diabetes, which had previously not been treated. The GP utilised the outreach nurse to follow-up poor medication compliance, frequently due to constraints of finances and transport.

The Dad

The father was in and out of jail and had known criminal associations. When Nurse R first made contact with the whānau he was working as a labourer on a low income, however his work history was erratic. The whānau appeared tense when the father was at home and he was aggressive in his attitude towards the primary care team. There was some suggestion of whānau violence however this was never made explicit. There was evidence of alcohol abuse and parties lasting four days were observed. There was also a whānau history of alcoholism in the father’s whānau. Over the past year the father has left the whānau and become involved with a new relationship.

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3 Family
4 WINZ is a government agency that helps people find work and makes benefit payments to entitled members of the NZ pop e.g. unemployed, single parents, peoples with disabilities.
5 Child Youth and Whānau are a government agency responsible for the welfare of children in New Zealand.
Additional social context information

The whānau were all living in a three-bedroom house that was in very poor condition, and at one point there were seventeen people living in the home. The social worker notified the landlord about substandard housing, another house was found but the builder working on the property notified the owner about the number of people living on the property and the house was sold. Housing New Zealand\(^6\) was unable to find a property that could accommodate the size of the whānau. The PHO team are still looking for appropriate accommodation.

The three key women in the house (Nan, Mum & daughter) are particularly close and support each other in a number of ways.

There was no evidence of hunger however the diet was high in fat (from cheap cuts of meat) and carbohydrates and low in fruit and vegetables. Several members of the whānau were overweight.

The younger children’s attendance at school appeared to be an issue. One of the younger children had missed a whole term of schooling (nine to ten weeks).

I have only discussed the central players in this case study however there were also many examples of other social determinants that impacted on the whānau. For example one of the children in the case study household (a sixteen year old boy) fathered a baby to his first cousin (a fifteen year old), who had been placed in the family by Child Youth and Family because her previous foster care arrangement had broken down. This was an untenable situation due to her disruptive behaviour, she moved out eventually precipitated by a violent altercation between the young couple. Poor management by Child Youth and Family contributed to the perpetuation of disadvantage as they had not even visited the home prior to placement and did not adequately support the transfer of care.

The needs identified for this whānau included complex health needs (both access and treatment issues), housing, and poverty. There were also significant social and personal issues such as poor self-esteem, whānau violence and social isolation.

The approach

A high needs outreach nurse, a social worker, a general practitioner and specialist medical practitioners worked together as a team (with other external agencies eg WINZ, Child Youth and Family and Housing New Zealand,) for over three years (sometimes several times a week) to reach resolution of some of the pressing needs for this whānau. The high needs nurse and the social worker are Maori.

After three years of intensive involvement there are still a wide range of issues that could be addressed, however there have been a number of successes. The daughter had successful heart surgery, is independently managing ongoing health needs and has a network of peers that she associates with. She is thinking of going flatting. Nan’s health has improved to the point where she no longer requires medication for diabetes and she has less stress. Mum is more outgoing and appears much happier in the new house. The children are attending more regularly at school. The whanau seem more prepared and able to access a range of other services for support.

The success of interventions over the last three years appears to be attributed to a number of factors. These include:

- prioritising issues and goals that were determined by the whanau;
- building rapport and trust through consistency and reliability by nurse R;
- working flexibly and wherever possible using strong community networks to engage other services to work outside of their usual range of service provision;

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\(^6\) Housing New Zealand is a government agency that deals with, among other things, the provision of state housing to entitled members of the NZ population.
taking risks on what might at times be considered ethical issues, for example not reporting truanting by children in the family, with the purpose of maintaining a relationship to enable delivery of acute health services; and,

making access as easy as possible to the high needs nurse eg a free call phone number, texting availability.

When asked about the work they were doing the team responded;

"the Primary Health Strategy has allowed us to work in more holistic way alongside the whānau and there has been huge health gains made. The 16 year old is now 19 and goes to all her appointments on her own, is mixing socially and made huge progress. Nan is in a better space and her and the 19 year old attended a Māori consumer forum at the PHO at Xmas. Mum has been the biggest achievement as she now talks and laughs when we visit. ”

Assessment of the determinants and their links to health.

Factors that have influenced the health of the case study whānau include individual lifestyle choices, social and community influences, living and working conditions, culture and gender, and general socio-economic and environmental conditions. Of these factors, the most noted determinants of health have been:

- poor early childhood development options with young unsupported mums and large numbers of children to care for;
- early school leaving resulting in no formal qualifications;
- poor and overcrowded housing causing poor health;
- poor response by health systems to chronic health problems;
- poverty limiting access to services eg lack of transport and phone;
- limited or no employment and when employment was gained it held a low status socially;
- an inability to meet cultural values due to poverty and stress eg the capacity to care for extended whānau members;
- social isolation of the whānau and when social networks were made they further disadvantaged the whānau eg criminal networks with increased incidence of violence; and
- limited participation in wider society generally.

All these determinants are repeated through three generations of this whānau and throughout the life course of individual members of the whānau.

Of particular note in this case study is the interwoven nature of the determinants eg poor housing possibly contributing to health problems (rheumatic fever) and health problems (among other things) possibly impacting on education (leaving school with no qualification) and low qualifications causing unemployment or low status low-income employment and long term unemployment contributing to poverty (therefore cycling back into poor housing).

Discussion

There is now considerable evidence linking poor health and low income. People with low incomes have poorer self-reported health, higher rates of disability, and higher rates of death, disease and injury than the general population (Howden-Chapman & Tobias, 2000; National Health Committee, 1998). Low income is linked to inadequate housing and reduced spending on food and heating, which are in turn linked to poor nutrition and cold and/or damp housing. Low income, and a related measure of social class as indicated by occupation, not only affect physical health, they also impact on mental health and health behaviours. For example, social class has been linked to the under utilisation of health services, particularly preventative services, by those likely to have the greatest need for them (Te Puni Kōkiri, 1993). It should be noted that three generations of this whānau were not accessing adequate health services. There is evidence to suggest that the poor state of Māori health may also reflect the performance of health systems, in particular the performance of secondary and tertiary services (Te Puni Kōkiri, 1993).
A low level of education is also associated with poor health status. The links between education and health status are seen as relating to poverty and poor living conditions, access to health information and services, lifestyle practices, child rearing practices, stress and low self-esteem, and dangerous work environments. Lack of qualifications is identified as a barrier to employment, and those who have never had a job and those who are long-term unemployed experience the greatest health effects of unemployment. Long-term unemployed are particularly at risk of poor mental health and the health risks of poverty. Youth who have left school and never had a job have been found to have an increase in psychological and psychosomatic symptoms, a decrease in organised social activity, increased abuse of alcohol and narcotics, and make increased use of health services (Te Puni Kōkiri, 1993). The whānau in the case study experienced both long-term unemployment and intergenerational unemployment.

Durie (1994) suggested cultural factors also impact on health outcomes, and measures such as tribal connection, fluency in Māori language, spiritual awareness, involvement in marae activities, and integration within a whānau have a positive impact on Māori well-being. It is noted that the case study whānau did not appear to have strong cultural linkages and were socially isolated from not only wider tribal support mechanisms but also did not appear to be participating in wider society. The women in the case study did however appear to be integrated within the whānau unit and there was evidence of attempts to carry out cultural values such as whanaungatanga (taking care of extended whānau).

Reid (2001) discussed the impact of colonisation and racism on Māori as a major influence on whānau and Māori community well-being, which in turn, influence health outcomes. She argued that there is some support for the thesis of a gradient of stigma and marginalisation underpinning the misdistribution of deprivation among Māori, and cautions against framing Māori as “other” in the discussion about determinants of health. She warned that framing Māori in this way promotes narrow explanations of disparities and that Māori behaviour, genes, culture, socio-economic status and engagement of services are seen as the problem (Reid, 2001).

Implication for policy

The Primary Health Care strategy introduced in New Zealand in 2001 has meant a significant shift in thinking in primary health care practice. It has been described in the strategy as integral to, and a central function of, New Zealand’s health system and is based closely on the World Health Organisation Alma Ata Declaration definition of primary health care. It has the potential to address at a health policy and service delivery level some of the determinants of poor health for vulnerable members of the population. It does this specifically for the indigenous population of New Zealand by stating in health policy the intent to:

- identify and remove Māori health inequalities;
- introduce indigenous governance partnerships based on Treaty of Waitangi rights;
- support the continued development of by Māori for Māori health providers; and,
- ensure attention is paid to cultural competence of service providers.

At a more general level it may improve inequalities and address social determinants of poor health by:

- working from a population focus to address health needs and determinants;
- working with communities in a community development approach;
- restoring peoples health;
- co-ordinating and integrating practice and working as a team;
- working intersectorally connecting to non health agencies; and,
- working in a not for profit model therefore reducing cost barriers and ensuring fairness.

Relating the above policy intent to the case study it is clear that there are several ways that the Primary Health Care Strategy and the implementation of the strategy may impact on the social determinants of health. These will be discussed under the headings, wider social determinants, intermediate determinants and individual determinants.
**Wider Social Determinants**

The Primary Health Care system in New Zealand has moved to a fairer system where some of the cost barriers have been removed. There is increased focus on the health needs of more vulnerable members of the population; particularly poor and indigenous populations. The way primary health care is organised has also changed with practices joining together to work collaboratively and greater control for decision making being given to community boards, in particular Māori and Pacific governance representation. These changes have not been without challenges and there remains a large amount of “capture” by privileged groups of the population (including health professionals). I don’t believe we have done anything to change the social position of Māori; in fact we may be perpetuating an inequality as the whole population takes advantage of better access and treatment. However the potential for communities to influence primary health care practice, the imperative directed by government to address inequity and the removal of cost barriers is a step forward in the right direction.

**Intermediate determinants**

By working across sectors in particular with WINZ and Housing New Zealand the team were successful at relocating this whānau in improved housing and ensuring that benefit entitlements were claimed for, therefore increasing income levels in the household. Through the PHO this whānau has better access to health care (the mitral valve operation was carried out, and diabetes diagnosed in older members of the whānau has improved to the point where medication is not required). More importantly the whānau are now integrating into wider society as evidenced by participation in the consumer forum held by the PHO.

**Whānau or personal determinants**

The work carried out by the PHO team, in particular the building of a trusting relationship, has been shown to have the potential to change health behaviors and choices made at a whānau and individual level. This is only possible in a health service environment that works in a multidisciplinary way, when sufficient time is given to supporting disadvantaged families, where the team of workers is highly skilled with good community networks, and in the case of this whānau where health professionals and workers have cultural competence.

Whakauae Research Services
Whanganui
March 2007
In New Zealand, Maori men suffer the poorest health of any population group. On a range of health indicators, Maori men are worse off than other all other groups. From the limited data that is available we know that Maori men have a lower life expectancy than other New Zealand men (69 years versus 77 years) and that they are more likely to die prematurely from illnesses related to causes such as heart disease, lung cancer, diabetes and chronic pulmonary disease, including bronchitis and emphysema.

In order to understand the state of Maori men’s health today, it is important to understand both the historical and contemporary factors which have had an impact on the health of Maori men today.

Historically, Maori men, along with all tangata whenua (indigenous people), have suffered severe negative impacts as a result of colonization, a process which continues in an ongoing manner today. More than two hundred years of dispossession, marginalization and oppression have contributed significantly to the poor health status of the indigenous people of New Zealand.

The arrival of colonizers led to the loss of significant tracts of land and disruption of traditional social and cultural networks. The imposition of Western paradigms and beliefs served, in many instances, to cement in place a situation which has led to the loss of mana and status of indigenous people with Maori men in particular feeling the effects of these influences.

As a result of these impacts, the health of Maori men today poses significant challenges to policy makers and health service providers in particular as well as to all those agencies who play a role in ensuring equitable outcomes for all members of New Zealand’s population. This imperative becomes even greater given that the current number of Maori men is expected to double by the year 2051. According to the 2001 Census there were almost 160,000 Maori men over the age of 15 living in New Zealand with four out of five living in urban areas. This figure would suggest that significant numbers of Maori men do not have regular and ongoing contact with their marae (meeting place of Maori community), most of which are located in rural areas. As a result, the level of contact with traditional sources of cultural networks would be considerably reduced for these men. It is estimated that as many as a third of Maori have no regular contact with their marae and that most of these do not know their tribal affiliation or their whakapapa (genealogy), important indicators of cultural identity.

The 2001 Census also showed that a high proportion of Maori men (39%) leave school with no formal educational qualification. These figures have shown no improvement in recent years with the Ministry of Education recently announcing that more than half of all Maori boys (52%) leave school without the level one qualification on the national school examination.

The Census also showed that more than half of Maori men (63%) were in full or part-time work but their level of income was lower than that of non-Maori men ($18,600 versus $24,900).

Maori men figure highly in crime statistics. While they make up roughly twelve per cent of the population of New Zealand, they constitute approximately half of all prison inmates.

While the statistics related to Maori men’s health paint a grim picture, there are many unanswered questions that prevent us from gaining a full picture of the situation. It is difficult to know why Maori men are the most disadvantaged members of the New Zealand population. What are the key influences in the lives of Maori men? What are their experiences? How do these affect their health and well-being? Qualitative data from Hauora Tane Maori (Maori Men's Health Study) has shed some light on these issues.
but more extensive studies are needed in order to understand the full impact of social determinants on
the health and well-being of Maori men in the twenty-first century.

The section that follows focuses on some of the major factors that impact on Maori men’s health in
general. This is followed by brief descriptions of two Maori men and identifies some of the factors that
have contributed to their health and well-being.

The diversity of Maori men

While Maori men might share commonalities that derive from a shared history, there are nevertheless
many contemporary influences that have helped to ensure diversity and difference among men who
identify as Maori. For official purposes in New Zealand, a Maori is a person who has Maori ancestry and
who chooses to identify as Maori. While these two factors may appear to unite the portion of the
population identified by the Census as being Maori (15%) it also disguises the fact that Maori today have
many different features that contribute to the diversity of Maori realities today.

The diversity of Maori men is reflected by a number of indicators. In terms of social disadvantage, for
example, they are over-represented in unemployment rates, low school achievement and imprisonment.

The general description of Maori men focuses on identity, family, education, employment, health status
and health services.

Identity

Many Maori men experience intense struggles related to their identity as Maori, with this tension being
particularly pronounced in their younger years. It is not uncommon for Maori men to say that they hated
being “brown” when they were young. Given the level of racism that exists in mainstream classrooms and
school grounds, it is no wonder that many Maori children growing up in the 1960s and 1970s might have
wished to pass as non-Maori. This problem was often compounded by Maori parents who encouraged
their children to pursue the Pakeha way in the misguided belief that this would lead to success and
happiness. Men have reported being dislocated and disconnected from their Maori networks and this has
had consequences that have endured into adulthood. It is not uncommon for Maori men to report that
they tried to escape their Maori heritage by moving away from their birth places which reminded them of
their Maori identity. The anonymity of urban areas meant that Maori were able to claim an identity other
than Maori in an effort to escape the negative reactions they had experienced as a result of being Maori.
The long-term legacy for many of these men is that they have suffered negative impacts on their sense
of mental health and well-being. Today, some Maori men may feel disadvantaged because ancestral
knowledge, including a knowledge of the Maori language, were denied them when they were younger. A
direct result of this is that some Maori men may feel that they are unable to assume leadership positions
when they grow older because they do not have the cultural knowledge and skills that are required to
take up such positions.

Whanau (Family)

Maori men today report both positive and negative experiences of growing up. One positive aspect of
family life that men report is in an extended family that included a wide range of inter-related family
members. Some report growing up close to their urban marae, in the company of other children. Some of
those who lived in urban areas would return to their family marae on a regular basis but this was not
always the case, especially in families where financial resources were limited. One advantage of a large
family is the fact that there were always plenty of child minders which included older siblings and
grandparents. As well grandparents were viewed as important repositories of traditional knowledge who
passed ancestral knowledge on to younger generations.

Many Maori men acknowledge the vital leadership roles that mothers and grandmothers played in their
families. On the other hand, they remember their fathers as being stern and distant, sometimes as a
result of the fact that they worked away from home. As boys and young men, many Maori men may have
had difficult relationships with their fathers, something that endured into their adult years. Rates of
physical and emotional abuse as children are also high for Maori men.
Education

Maori men are poorly served by the mainstream education service. While Maori medium schools are available, only a minority of Maori children access these institutions. It is fair to say that the experiences of Maori children vary considerably from Maori medium to English medium schools with the former being far more favourably viewed by children and families than the latter and this must have an effect on their level of academic achievement. We know that more than half of all Maori boys leave school without a formal qualification and this inevitably has an impact on their employment options. With so many Maori boys failing at school it is timely to question the quality and nature of the education that is currently being provided to the Maori community if we are to avoid further social problems as we move into the future.

These observations have been confirmed by the men who participated in the Hauora Tane Maori Project. Participants reported that they had positive recollections of their time at primary school but this changed once they moved to secondary school. Here, many of them experienced significant challenges which included boredom, fear, frustrations, resentment and dislike of teachers. Many Maori boys leave school early and some enter into tertiary studies as adult students, usually with far more positive results than at secondary school.

Employment

Maori men suffer significant disadvantage in the labour market. They are more likely to work in low paying jobs with lack of security. Often their work involves danger and injury and on occasions, men have to take up more than one job in order to make ends meet.

Unemployment is a big issue for Maori men, often as a result of the closure of plants and operations that have traditionally employed large numbers of Maori such as freezing works. One negative impact on Maori communities where this has happened is the rise in suicide rates among men as a result of plant closures.

Health and well-being

Maori men encounter a range of significant health issues as they enter adult hood even though they may have enjoyed reasonable health as children.

As adults, many of the illnesses that men experience include chronic diseases such as heart disease, diabetes, cancer and emphysema. They also experience a wide range of injuries which are related to work, sports, motor vehicles and war. These have a major impact on men's lives and can lead to ongoing physical and psychological problems as adults.

Lifestyle factors have an important influence on the lives of Maori men. High rates of smoking and heavy alcohol consumption, especially in earlier years, have a major impact on the health of Maori men as adults. Lack of exercise and poor diet are also major contributors to the poor health of Maori men. Obesity is one of the most serious health issues confronting Maori men in the twenty-first century. As a result, diabetes also poses serious threats to the good health of Maori men.

Health services

Access to appropriate health services poses major challenges for Maori men. This can be related to geographical distance, cost and cultural appropriateness. Living and growing up far from health services as a child has a major impact on the health of men's lives. One result of this distance is that many families rely on traditional medicines to deal with childhood illnesses.

The high cost of health care is a major obstacle for many Maori men and often prevents them from seeking help from the usual medical services.

When men do access health services they sometimes report inappropriate or substandard levels of care. Often men are not given adequate information about their condition and they are often not included as
active participants in their care and healing. Many Maori men report confusion about their condition because of the inappropriate or incomplete information with which they are provided.

**Two examples:**

**Tahi**

Tahi was born with a hearing impairment, a condition that was detected too late for him to receive appropriate care and support. His late diagnosis was due largely to the difficulties his family faced in accessing health care. They lived in a rural area which received visits from a medical doctor once every fortnight. As with many Maori children growing up in rural areas, mothers and grandmothers played a key role in dealing with illness and sickness with this often involving the use of rongoa or traditional medicine.

Because Tahi’s hearing impairment was detected late, it was too late to provide a suitable intervention. As a result, he grew up profoundly deaf and at an early age, he was sent to a boarding school for deaf children. The school was located far from his home and this meant that he saw his family infrequently. Because of his deafness his education suffered and he felt that he never received appropriate support for his condition.

Being sent to an institution at an early had a profound effect on Tahi's life. He was detached from his cultural networks and deprived of the opportunity to learn the language of his parents and ancestors. As well, he was unable to benefit from the intergenerational transfer of cultural knowledge that was available to his peers and siblings.

Tahi was also physically and sexually abused while at the school for the deaf with this occurring on a regular basis during the ten years that he spent there. On one of the infrequent visits by his father he disclosed the abuse and his father decided to remove him from the school. Subsequently he returned to his family home in an isolated rural area with the result that it was no longer easy for him to access formal education.

Throughout his adult life, Tahi has struggled to overcome the challenges related to his hearing impairment. He moved to the city where he joined a support group for deaf people and he took up tertiary studies. He maintains strong links with his Maori whanau in the rural area where he was brought up. And he has established strong connections with urban Maori groups. The support he gets from these networks is key in helping him deal with the day to day challenges he faces.

**Rua**

Like Tahi, Rua grew up in a rural area which was poorly served by medical professionals. As a child he suffered from respiratory ailments such as asthma and bronchitis, something he links to the high rates of smoking in the houses where he grew up. He remembers adults smoking and drinking around him and his siblings, with there being a constant haze of smoke in the house. Rua remembers it being difficult to get prescribed medicines once the doctor had visited and that usually his mother and grandmother would use traditional medicines to cure ailments, often to good effect.

Rua came from a large family and at times it was difficult for his parents to make ends meet. When he was six, his parents decided to move to the city where his father was able to gain employment. But this brought problems in that the family no longer had regular contact with their extended family back home. Also, his father was laid off work on a number of occasions and they had to move frequently in order to find work with this resulting in changes in school and accommodation. He remembers that they often had to rely on the kindness of other family members until they could find their own place to live in.

Schooling provided Rua with a number of challenges. He enjoyed primary school but he found secondary schooling difficult. He remembers the racist comments from teachers and pupils and often wished that he wasn’t Maori. As soon as he turned fifteen he left school and had difficulty finding work. He soon became involved in illicit drug use and this led to criminal activity. Eventually, Rua found himself in prison where he spent several years. His drug use continued in prison but his diet suffered. He became overweight and developed diabetes. Now that he is out of prison he is trying to re-establish connection with his Maori
networks and is learning the Maori language. However, his health continues to suffer long-term effects related to his physical and mental health.

**Conclusion**

It is generally agreed that there are two dominant factors today that make a significant contribution to the poor health status of Maori. These relate to the colonial history of New Zealand and derive from ongoing efforts by government and the majority population group to marginalize Maori within their own country. Key to these processes is dispossession of land, something that continues today within the current political context.

Racism at all levels contributes to the poor health of Maori. It contributes to a level of care and support that is inferior to that which is available to the rest of the population and is played out in ways that are often difficult to detect.

The second contributing factor is colonization, a process which began with the arrival of Europeans and which continues unabated today. This process attempts to sublimate all indigenous knowledge and replace it with a so-called superior form of knowledge. This process is based on white superiority and ignores the fact that indigenous paradigms and beliefs have guided and illuminated the lives of indigenous peoples for thousands of years.

A major development in Maori health in recent years is the implementation of initiatives whereby Maori take control of their own health. However, this has to occur on a far larger scale if we are to reverse the trend of hundreds of years of colonization. Maori control of Maori health at all levels is fundamental to ensuring the good health of Maori as we move into the future.

*Clive Aspin*

**References**


Introduction

The B’laan tribe is one of the 63 indigenous communities in the Philippines. They are found in the Southeastern part of Mindanao where the province of South Cotabato is situated. The B’laans of South Cotabato are known to inhabit about six (6) of its 10 municipalities, however, the largest concentration of the B’laans is found in the municipalities of Polomolok, Tupi, Tampakan and Koronadal City. Evidently, the municipality’s name, Polomolok, is coined from B’laan term “flomlok” meaning “hunting grounds”. More specifically, the B’laans in Polomolok are concentrated in its two (2) barangays, namely, Maligo and Landan, which lie within the Mt. Matutum Protected Landscape (MMPL), a major watershed which supplies 25% of water requirements in General Santos City and the provinces of South Cotabato and Sarangani.

This Case Study intends to share the experiences of Mahintana Foundation, Inc. on how integrated development interventions initiated by the foundation in early 1990’s have helped improve the health condition of the B’laan Community in Landan. This Case Study clearly shows the inter-connection of education and economic productivity as major determinants of health for B’laan communities in Barangay Landan, Polomolok, South Cotabato. This case study also reveals how active partnerships between the local government units, business sector, non-government organizations, cooperatives and the civil society, play an equally important role in ensuring that development interventions undertaken in a specific community would contribute to the achievement of increased productivity, economic and health benefits.

The story

Barangay Landan was identified as one of the poorest barangays of Polomolok in the early 90’s with an average monthly income of only P1,900.00 (about $40.43) per family with an average landholding of about three (3) to six (6) hectares. It was largely inhabited by Indigenous Peoples (IPs) belonging to the B’laan tribe, who comprised about 80-85% of its 802 households. Average family size is between 6 to 8 members. Aside from their poor health and poor health-seeking behavior, the community lacks potable water system, no access roads, no electricity and low agricultural productivity due to lack of capital for farm inputs and absence of appropriate farming technology. This condition was even worsened by problems of high illiteracy (90%) rate.

In 1993, the Mahintana Foundation Incorporated, a non-profit social development organization based in Polomolok, adopted Barangay Landan. Mahintana assisted the Barangay Council in developing their Barangay Development Plan as basis for community assistance. During that time, most of the productive agricultural lands of the B’laans were mortgaged or were loaned to financiers and/or traders living in the municipal centers. The B’laans were not also included as members of the existing cooperative in the community due to the impression that they can not contribute productively and will not pay their financial obligations to the cooperative. Together with the Barangay leader and his council members, who were mostly B’laans, Mahintana initiated the organization of the Landan People’s Multi-Purpose Cooperative with 33 core group members. Meetings were conducted either under the shade of trees or in public school classrooms to discuss various community problems, as well as potential solutions. The cooperative was formally registered with the government’s Cooperative Development Authority in 1994.

Aside from the cooperative development and limited livelihood for cattle dispersal, corn and vegetable production, Mahintana also provided health assistance which was focused on de-worming, immunization and pre- and post-natal services.
In 1998, the barangay had experienced significant increase in the number of cases of deaths among children who are five (5) years and below due to measles. Three (3) deaths in one (1) household each day was a common sight among the B’laan households that time. A closer look into the case revealed that government health workers can not visit all of the communities due to inaccessible road (some areas can only be reached by the use of horses and long hours of travel in steep and treacherous foot trails), lack of transportation facilities to ferry the health workers to the area, lack of personnel, medicine and other medical supplies. It was also found out that during community visits of health workers, the members of B’laan households literally jumped out of their houses through its windows escaping from the health workers because they believed that Immunization does not prevent them from contacting diseases, instead it gives them more ailments (fever and muscle pains), leaving them unable to work in their farms or collect food for their survival because they need to attend to their sick children. Given these equally important concerns on health and survival, added with the communication gap between the health workers, who are non-B’laans, the health workers have reached the point of literally running after and restraining both parents and the children in order for them to safely administer the vaccines to their children, thereby preventing the occurrence of measles epidemic in their community. Massive information dissemination on health awareness were then conducted which significantly improved the health-seeking behavior of the B’laan households.

Subsequent de-worming, immunization including mobile medical clinics are undertaken jointly on a periodic basis by the Rural Health Unit of the municipality and Mahintana for this community until now. Mahintana provides transportation units, augments the personnel, medicines and medical supplies for the local government, when necessary. Recruitment and training of Barangay Health Workers including Barangay Nutrition Scholars was expanded to include B’laans who can facilitate effective communication between the members of the tribe.

Corollary to the organizational development assistance for the cooperative, Mahintana provided livelihood support, which include an initial assistance of 52 heads of cattle and limited loan assistance for corn production. The corn production assistance was later expanded to include solar dryer, a warehouse and a corn sheller through the support of the “Manos Unidas Campana Contra El Hambre” of Spain. The cooperative was then linked to the Philippine-German Development Foundation for hog dispersal project. Between 1998 to 2001, the cooperative was able to access funding from the Australian Agency for International Development - Philippine-Australian Community Assistance Program (AusAID-PACAP) expanding the cooperative’s loan program for corn and vegetable production, micro-finance, warehousing, solar drying and corn shelling facilities. The PACAP assistance also included environmental regeneration and conservation by establishing agro-forestry farms and rehabilitation of riverbanks. The Municipal Agricultural Office provides the necessary technical support for agriculture-related activities of the community.

As it expands its services, more B’laans and even non-IPs joined the Landan People’s Multi-Purpose Cooperative. In 1997, the cooperative entered into a “Pineapple Contract Growing” with Dole Philippines, Incorporated, a multi-national agricultural company, with financial loan assistance from the Land Bank of the Philippines. The tripartite partnership spurred the economic growth of the cooperative and of the community. Most of the farmers in Landan have become private pineapple growers and are assured of higher agricultural productivity and assured market. Redemption scheme for mortgaged areas were developed and the B’laans become “farmer-manager” of their farm areas. Household members are also providing labor services either to their own farms or the adjacent cultivated farms. In effect, they spend their time productively. Trainings on proper farm management and business transactions were provided to them. Consequently, farm to market roads were opened and maintained either by the local government or by the company for them to have easy access to the area. Almost all of the areas in Barangay Landan are now accessible. Households are now capable of sending their children to schools and the cooperative has provided employment opportunities both for the community and the college graduates of the barangay.

Further, the Provincial Government and the Municipal Health Office, in partnership with Australian Agency for International Development (AusAID) have constructed the Barangay Health Station for Landan in 2001 under the Integrated Community Health Services Program. Training for all the health workers of the municipality was also part of the said program. On the other hand, Dole Philippines, Inc., through its company hospital, conducted a 6-month Nutrition Program for the barangay. Consequently, continuing house-to-house monitoring and Information Campaigns on health awareness were conducted by the health workers, who now receive modest honorarium from the provincial, municipal and barangay
government units. Health workers are now localized, such that most of them belong to the B’laan tribe, if not, are fluent in the said dialect. Such resulted to an increased number of B’laan households who have developed health awareness and expressed health-seeking behaviors as indicated by their voluntary visits to their Barangay Health Station for scheduled immunization and medical check-ups. There is now an increasing trend of B’laans availing family planning options and practices such as temporary (pills, condoms, etc.) and permanent methods (male and female sterilization).

Barangay Landan is now one of the progressive barangays in the municipality of Polomolok. It has access to electricity and has established potable water system for the residents of the barangay. Most of the houses in the barangay are now made up of either concrete or semi-concrete materials. There are now close to 100 hauling trucks, more than 20 family service 4-wheel vehicles and more than 100 motorcycles owned and plying the along barangay. Mahintana finally graduated Landan from its direct technical assistance in the year 2000. As of December 2006, the LPMPC has a total of 1,593 individual members (80% B’laans) compared with only 33 members in 1993. The cooperative has expanded their operations in adjacent communities and its total assets to date is about P154.00 million (US$3.20 million). About 50% of the cooperative’s 44 staff are B’laans. They have a building of its own, a warehouse, a solar drier, corn sheller, hauling trucks, a training center and operates with computerized recording of financial transactions. For the last 5 years, the cooperative has consistently garnered both regional and national recognition from the Land Bank of the Philippines (LBP), the country’s largest government-owned bank which provides services to rural communities.

Assessment of the determinants and their links to health

1. Agricultural productivity and economic prosperity - Access to technology, financing and market and the opportunity to earn higher income encouraged the B’laans to participate in the affairs of the cooperative. Economic activities of the community facilitated the development of roads and increase of transport facilities in the community. The increased household income has allowed them to provide their families with three (3) modest meals a day, thereby improving the nutritional status of their family members, specifically the children. Further, selected B’laan households in Landan can now afford to avail health services from private health service providers in the locality. More significantly, their increased income has enabled them to send their children to school thereby increasing the literacy rate of the community. As a result, the younger couples in the community have higher awareness in terms of health and economic productivity. The promising socio-economic condition of the community has facilitated the continuing favorable peace and order condition in the area.

2. Availability of basic social services – Basic Social Services includes health, housing, education and infrastructure support (farm-to-market roads). The availability and sufficiency of medicines, qualified personnel and logistics affects the IP’s level of participation in the health programs. Formal education of children facilitated the growth of a more informed community who actively participate in the community’s development processes.

3. Partnership Building and Advocacy – Strong partnership with various stakeholders enabled Landan community to improve its socio-economic conditions, thereby increasing their capacity to address their needs and other health-related concerns. Massive community information campaigns by the health providers has increased the community’s level of health awareness and transformed the IP communities, particularly improving their health-seeking behavior. Generally, the IP’s membership in the cooperative has encouraged them to actively participate in the affairs of the barangay including its various economic activities.

4. Cultural sensitivity – Mobilizing, training and empowering the B’laans for information dissemination and in providing health services such as immunization, de-worming and primary health care have helped in empowering them. This has encouraged the B’laans to actively participate in health promotion and campaign in the barangay.

Discussion

The case of Barangay Landan and the Landan People’s Multi-Purpose Cooperative is quite exceptional compared to other IP communities in the Philippines. The experience shows the right mix of interventions coming from different development players and stakeholders of the community.
When the assisting NGO approached the barangay leaders, the barangay captain and his council members were receptive to the idea of having a participatory approach in doing community development work in the area. The barangay leaders actively participated in the activities but did not impose their personal interests, instead, they pushed for the collective concerns which are economic and basic social services i.e. to increase productivity of its agricultural resources and to provide primary health and educational services. These 3 major concerns must be simultaneously addressed to have effective community development. Providing health services without sustainable economic source may create the culture of dependency among the IPs to the health service providers. The community’s improved literacy enhances the community’s perspective, participation and improves their health seeking behavior. However, sustainable source and flow of income too, is necessary to attain higher and quality education.

The formation and organization of the cooperative boosted the dignity and pride of the B’laans, allowing them to be anchors of their own affairs. It provided them the opportunity to express themselves as a member, as a leader and as an indigenous people. They see it as their social structure that can assist them in addressing their economic concerns, which shall eventually increase their disposable income for health, education, housing and other basic needs. They also see the cooperative as an opportunity to practice their educational knowledge, enhance their technical and management skills for a more productive future.

The interactions of the barangay leaders, Mahintana and local government units clarified the appropriate approaches and interventions to be adopted in the community. The assistance of Mahintana Foundation, Inc, and its donor organizations provided an opportunity to pump-prime the growth of the cooperative. The assistance developed the core values of the members, and its livelihood programs and policies. It also facilitated the establishment of strong linkages with outside resource organizations.

The “Pineapple Contract Growing” business partnership of the IP cooperative with a government bank and a multi-national agricultural company has really made the difference on the lives of the people of Landan. The community members are now able to access technology for appropriate agricultural practices and have assured market for their products unlike corn, vegetables and other seasonal crops which prices are fluctuating and have no assured market. The cooperative members are also assured of financing for their pineapple production activities. Consequently, roads were opened and maintained both by the local government and by the company thereby improving the accessibility of the B’laan community. Both the barangay, municipal and provincial government has improved their services provided for the community through its programs on health, education, infrastructure and livelihood support. Such improvements are partly attributed to the community’s increased tax collections and favorable peace and order condition.

The complementation of assistance between the non-profit organization, donor organizations, government, business, financing institutions and the government, particularly the local government units of the municipality and barangay spurred the development and growth of the B’laans in Landan.

Implications for policy

The case study shows the interconnectedness of interventions in addressing health concerns of the indigenous people. Health and other basic social services is closely associated with sustainable economic development to minimize, if not eliminate, dependence either from the government or from donor organizations. In IP communities where public health services are insufficient due to funding limitations, economic development and community enterprises must be aggressively pursued to influence basic infrastructure support such as roads, electricity, health stations, water systems and school buildings. The presence of these basic infrastructures shall definitely provide access and development opportunities to the indigenous people. Governance of community based development programs and projects shall at all times, take into consideration the active participation of the indigenous people and other stakeholders in the community for ownership and sustainability.

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