

TRADITIONAL ABORIGINAL MEDICINE PRACTICE IN THE NORTHERN TERRITORY

Dr Dayalan Devanesen AM
MBBS, DPH (Syd) Grad. Dip MGT,
MHP (NSW) FRACMA, FAFPHM, FCHSE



Paper presented at

INTERNATIONAL SYMPOSIUM ON TRADITIONAL MEDICINE

**BETTER SCIENCE, POLICY AND SERVICES
FOR HEALTH DEVELOPMENT**

11-13 September 2000

AWAJI ISLAND, JAPAN

Organised by the
World Health Organisation
Centre for Health Development
Kobe, Japan

TRADITIONAL ABORIGINAL MEDICINE PRACTICE IN THE NORTHERN TERRITORY OF AUSTRALIA

Dr. D. Dayalan Devanesen AM
MBBS,DPH (Syd) Grad.Dip MGT,
MHP (NSW) FRACMA,FAFPHM,FCHSE
Director
Primary Health Coordinated Care
Northern Territory Health Services

INTRODUCTION

Australia is the only continent to have been occupied exclusively by nomadic hunters and gatherers until recent times. Carbon dating of skeletal remains proves that Australian Aboriginal history started some 40,000 years ago, long before Captain Cook landed on the eastern coast. This history is not completely lost. It is retained in the minds and memories of successive generations of Aboriginal people, passed on through a rich oral tradition of song, story, poetry and legend. According to Aboriginal belief all life, human, animal, plant and mineral are part of one vast unchanging network of relationships which can be traced to the great spirit ancestors of the Dreamtime.

The Dreamtime continues as the 'Dreaming' or 'Jukurrpa' in the spiritual lives of Aboriginal people today. The events of the Dreamtime are enacted in ceremonies and dances and chanted incessantly to the accompaniment of didgeridoo or clapsticks. (Isaacs J 1980) The Dreaming is the source of the rich artistry, creativity and ingenuity of the Aboriginal people.

In Australia, western health services have been superimposed on traditional Aboriginal systems of health care. However, these traditional systems have survived despite the dramatic influence of cultural contact, and Aboriginal medicine is still widely practised in the Northern Territory today (Tynan 1979; Nathan and Japanangka 1983; Reid 1983; Soong 1983. Devanesen 1985, Maher 1999). The Northern Territory occupies one sixth of the Australian land mass. It has a population of just under 200,000 of which 28% are Aboriginal. The vast majority of the Aboriginies live in small remote communities scattered across the Territory.

Traditional Aboriginal medicine is a complex system closely linked to the culture and beliefs of the people, knowledge of their land and its flora and fauna. Its survival is explained by its "embeddedness" in the social fabric of Aboriginal culture. Reid (1978) has shown that, though Aboriginies living at Yirrkala in the Northern Territory choose western medicine to treat the majority of their sicknesses, they continue to explain the causes of these sicknesses through their traditional beliefs.

Western medicine is primarily interested in the recognition and treatment of disease. Traditional medicine seeks to provide meaningful explanation for illness and to respond to the personal, family and community issues surrounding illness. Traditional medicine explains not only the "how" but also the "why" of sickness.

The Aboriginal approach to health care is a holistic one. It recognises the social, physical and spiritual dimensions of health and life. Their concept of health in many ways is closer than

that of Western medicine to the WHO definition of health, ‘a state of complete physical, mental and social well being and not merely the absence of disease or infirmity’. The Warlpiri Aboriginal tribe have described health as “life” or ‘**Wankaru**’. Their definition takes in a whole of life cycle. The front of their Health Centre at the Aboriginal settlement of Yuendumu is adorned with the painting depicted below. It shows family life, food, shelter, warmth, water and exercise, all essential for health. (Devanesen D 1983)

HEALTH SYMBOL FOR YUENDUMU

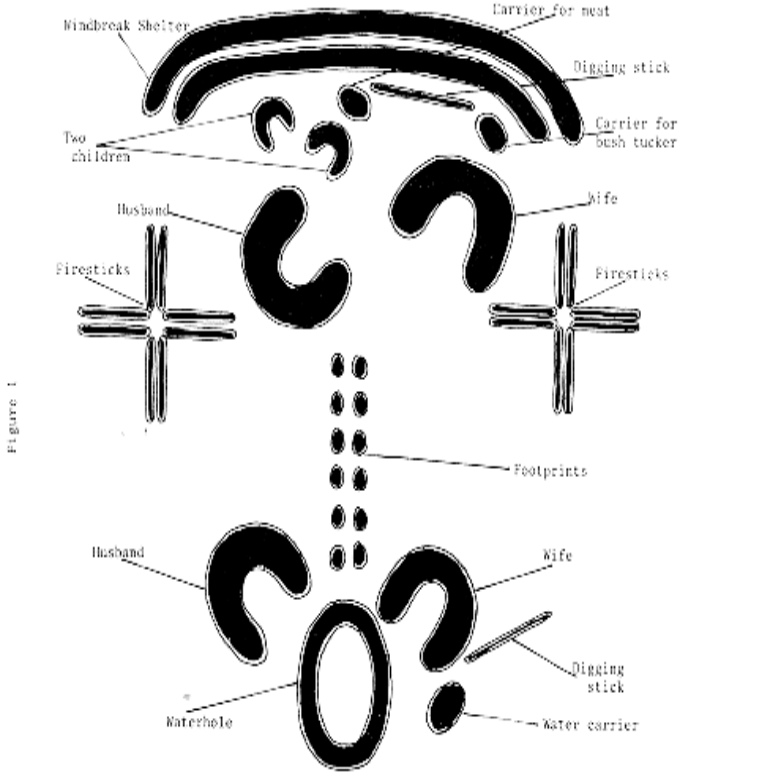


Figure 1

NAPANGARDI WOMEN'S JUKURRPA OR DREAMTIME STORY

TRADITIONAL HEALTH SYSTEM OF THE WARLPIRI ABORIGINES

The Warlpiri Aborigines comprise one of the largest tribes in the Northern Territory. They are scattered over many Aboriginal communities in the north-west of Central Australia:

The main components of the Warlpiri health system are the **ngangkayikirili** or traditional healers, commonly referred to as **ngangkari** or **ngangkayi** (healing power), **Yawulyu** ceremonies; healing songs and herbal medicine. In addition there are laws governing behaviour that are aimed at preventing sickness.

Ngangkari

Professor Elkin (1977) referred to the traditional healers as Aboriginal men of high degree. The healers are kinred to Amerindian 'men of power' and shamans. These healers are specially chosen and trained to remove the influence of sorcery and evil spirits and to restore the well-being of the soul or spirit. Their role is extremely important because most serious illness is thought to be brought about by loss of a vital substance from the body (soul loss), introduction of a foreign and harmful substance into the body (spirit intrusion or possession), or violation of taboos and sorcery (singing). The traditional healers usually gain the power to heal through inheritance or through special spiritual experiences. They possess a spirit called **mapanpa** which is associated with healing power. This is different from the spirit that every Warlpiri person has "like a shadow" (Tynan 1979).

The traditional healer carries out a healing ritual which often includes sucking the sick person. After sucking, the healer usually spits out a wooden object called **yarda** which is covered in blood. The **yarda** represents the evil influence. Sometimes, the traditional healer massages the patient, manipulates the body or sings during the ritual. The traditional healer may diagnose the state of the spirit, e.g. "**kurrunpa yulangu**" (the spirit is sad). The traditional healers do not use herbal medicine in their practice.

Yawulyu Ceremonies and Healing Songs

Warlpiri women frequently perform **Yawulyu** ceremonies. These ceremonies improve the health of sick people but cannot remove the influence of sorcery. The ceremony consists of singing songs and painting designs on the sick person. These designs are derived from the power of the Dreamtime. Each ritual is carried out by the **kirda** (owners) or **kurdungurlu** (managers) of a particular "Dreaming". Sometimes the songs and designs appear to the people in their dreams and are thought to be revealed by spirit creatures called **yinawuru** (Munn 1973). During the ceremony the sick person may be massaged with fat and red ochre. These materials derive special potency from the songs. In some cases senior men and women sing songs without the ceremony to strengthen sick people. Songs are sometimes sung to ensure safe childbirth. The **Yawulyu** ceremonies and songs assist in providing strong family support for the sick person.

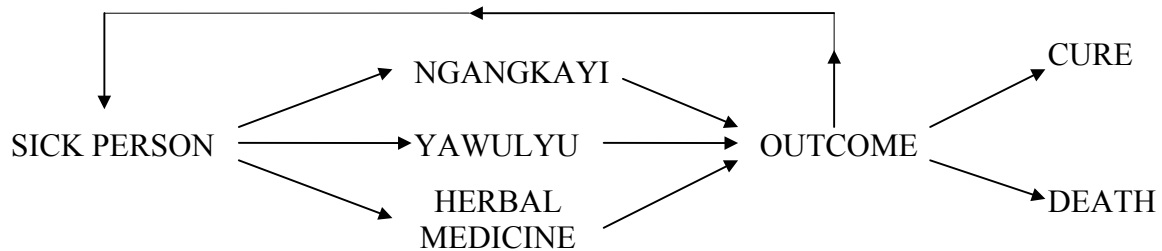
Herbal Medicine

Herbal medicine and knowledge of plants is not the domain of any particular group in the Warlpiri system. Its knowledge and use are shared by the whole family. The Warlpiri have extensive knowledge of plants and have published their own book which lists several plants and their medicinal uses (Henshall et al. 1980)

Medicinal plants are mainly used symptomatically for coughs and colds, pains and aches. Some are used as dressings for wounds and sores. Herbal medicine was the first component of the Warlpiri health system to be eroded by the introduction of western medicine. However, the movement of the Warlpiri people back to their traditional land has led to a renewal of interest in the use of herbal medicine.

The Warlpiri Health System

The Warlpiri health system can be represented as follows:



(Adapted from Tynan 1979)

When someone falls sick one of the three main components of the health system is tried. If it does not work, another component is used or the same component tried again until there is a definite outcome.

Preventing Sickness. Reid (1982) gives a good description of prevention at the level of personal relationship and religious injunctions. *Preventive measures can include avoiding foods prohibited during ceremonies or life crises, obeying ritual proscriptions, taking care not to abuse ones' land or trespass on territories of others, avoiding prohibited sacred sites or approaching them with ritual protection, observing debts and obligations to others, containing anger, violence or jealousy, exercising caution in interactions with strangers and taking steps to avoid sorcery or often conflict with others.* In summary ' Good health' is associated with strict adherence to approved patterns of behaviour and avoidance of dangerous places, people and objects. (Biernoff 1982)

The Place of Western Medicine

Western medicine has been incorporated into this system at the same level as herbal medicine. By doing this, the Warlpiri are able to retain their belief in spirit causation of illness while using western medicine for the relief of symptoms.

Changes are taking place in the illness-related beliefs of Aborigines in the Northern Territory. Reid's study at Yirrkala shows that this change is characterised by the "gradual addition of

causes and elaboration of the existing causes within the aetiological domain". Reid lists three categories of causes: (1) social and spiritual causes, eg sorcery, breaking the law; (2) causes other than social or spiritual, eg emotional state, old age, assault; (3) emergent causes, eg alcohol, sin, smoking (Reid 1983).

In spite of this attempt to incorporate western medicine into the traditional system, there are many areas of conflict. Western medicine is value laden and based upon particular western explanatory models. Variation in the underlying beliefs, assumptions and general medical information has been implicated as the basis for the conscious rejection of western health care by some Aborigines (Hamilton 1974). It is well known that differences in underlying knowledge systems impede even willing compliance between culturally divergent groups. The lack of a common conceptual framework within which patient and practitioner can interact may result in decreased compliance and satisfaction. (Maher 1999)

DEVELOPMENT OF TRADITIONAL PRACTICE IN HEALTH SERVICES TO ABORIGINAL PEOPLE

There has been government support with recognition for Traditional Aboriginal Medicine since the 1970's. A report on Aboriginal health by the Australian Parliament recommended that *Aboriginal cultural beliefs and practices which affect their health and their use of health services such as their fear of hospitalisation, their attitudes to pain and surgery, the role of traditional healers and the differing needs and roles of Aboriginal men and women, be fully taken into account in the design and implementation of health care programs.* (Commonwealth of Australia 1979)

Bicultural Medicine

Two way medicine is the term that has been coined by Aboriginal health workers to describe a bicultural approach to health care. It is based on the principle that "if you can use what is best in modern medicine together with what is best in traditional healing, the combination may be better than either one alone" (Werner 1977). The Northern Territory Department of Health's first policy on Aboriginal health stated that "traditional medicine is a complementary and vital part of Aboriginal health care, and its value is recognised and supported" (Northern Territory Department of Health 1982). The Northern Territory Department of Health over the years has established several programs that recognise the traditional health system, Aboriginal values and beliefs.

Support for Traditional Healers/Ngangkari

Traditional healers were employed by the Northern Territory Department of Health at various rural health centres in Central Australia in the early 1970's. A training course to teach traditional healers about western medical practices was attempted in 1974. It was soon realised that it would be better to train a separate group as Aboriginal health workers and to leave the traditional healers to their vitally important roles (Devanesen and Briscoe 1980). The employment of traditional healers was ceased, and a training program for Aboriginal health workers commenced. However, rural health centres continue to recognise and cooperate with traditional healers in the management of sick people. A meeting of Ngangkari was held near Ayers Rock in April 2000. Over 40 Ngangkari gathered together to discuss the production of an information manual about the work, history and traditions of Ngangkari. (Mullins M. 2000)

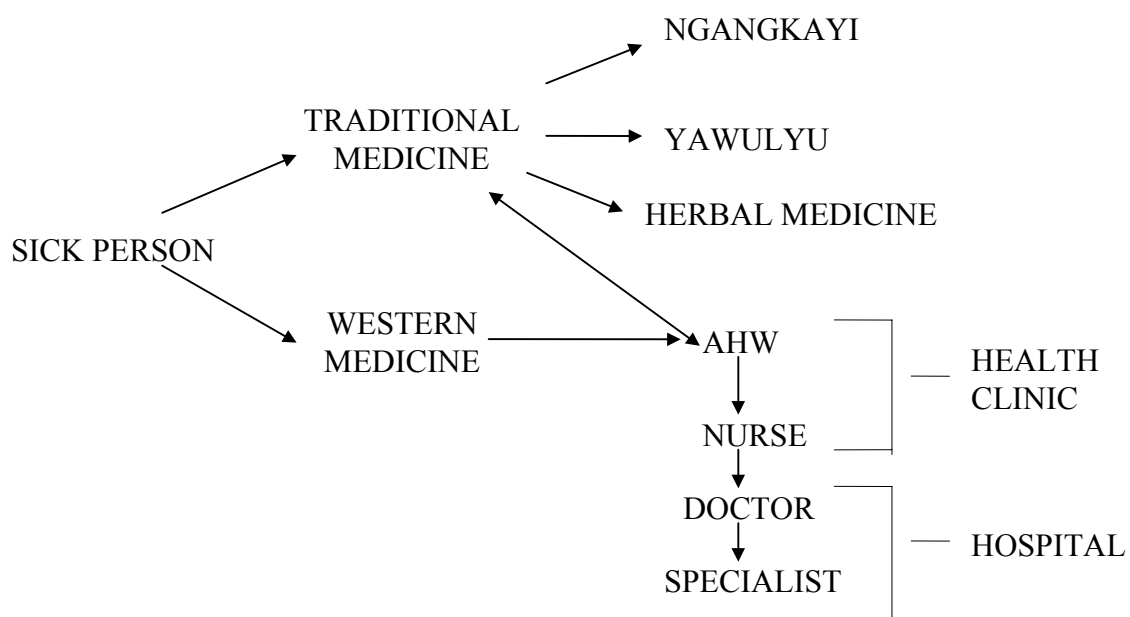
Some remote Health Centres run by Aboriginal Community Controlled organisations have recommenced the employment of Traditional Healers. The Healers often act also as consultants for determining culturally appropriate service delivery.

A recent proposal to establish an Aboriginal Healing Centre close to the Alice Springs Hospital is being examined. The centre would develop a place to promote spiritual health supported by a network of traditional Aboriginal healers.

Aboriginal Health Workers

There are over three hundred Aboriginal health workers in the Northern Territory today. The Aboriginal Health Worker Training Program is recognised as one of the main strategies for improving Aboriginal health. Aboriginal health workers are selected by their own communities and trained in various western medical skills. They have proved highly successful in treating common health problems in Aboriginal communities, such as diarrhoea, chest infections, trachoma, ear and skin infections. They also act as mediators between western and traditional medical systems. The Northern Territory has registered Aboriginal Health Workers through the *Health Practitioners and Allied Professionals Registration Act 1985*.

Aboriginal Health Workers bridge the “cultural chasm” separating the traditional and western world views. They relate western beliefs to an Aboriginal conceptual framework making it possible for Aboriginal patients to understand what is being said and to assess the validity of the statements. They make it possible for the health centre teams to communicate with Aborigines in language and concepts that they understand. In most Aboriginal communities, the people’s point of entry into the western health system is through the Aboriginal health worker who may refer them to a nurse or doctor or back to the traditional system as shown below:



The Bush Medicine or Herbal Medicine Program

Aboriginal expertise regarding plants has been acknowledged for many years. Webb (1969) has shown that many Aboriginal bush medicines contain biologically active compounds. Bitter Bark (*Alstonia constricta*), used to prepare a tonic, contains reserpine, a tranquilliser and antihypertensive. Plants used on sores and wounds contain proteolytic enzymes that help

healing. *Spilanthes*, a native daisy used to treat toothache, has been shown to contain spilanthol - a local anaesthetic. Over half the world's supply of the drugs hyoscine and scopolamine come from an Australian native tree *Duboisia*, which was used by Aborigines as an emu and fish poison (Pearn 1981).

In 1973, the Northern Territory Department of Health started collecting information regarding the Aboriginal use of plants. The collection was systematised in 1979, and by 1982, over fifty different medicinal plants had been recorded. The Aboriginal health workers and tribal elders were the key personnel in this program. Doctors, nurses, pharmacists and botanists have also been involved. This program has helped non-Aboriginal staff appreciate the great knowledge and complexity of the Aboriginal health system (Devanesen and Henshall 1982).

The Aboriginal Pharmacopoeia

In 1988 the first Aboriginal Pharmacopoeia for the Northern Territory was published. This major work with beautiful photographs list 70 plants and six other natural substances used by Aborigines. Forty Aboriginal communities contributed to the pharmacopoeia by describing and demonstrating the use of their herbal remedies. All the plants were carefully identified by botanists and then screened for essential oils, minerals, saponins, tannins, triterpenes and steroids. (Aboriginal Communities of the Northern Territory 1988)

The main conditions that herbal remedies were used for reflect the types of sickness that Aborigines had before contact with Western society. They were, joint and muscle pain, toothache and sore mouth, gastro-intestinal disorders, symptoms of colds and flu, e.g. fever, headache and ill-defined pain, congestion, cough, general malaise, sore throat, sores, boils, cuts, scabies, bites, stings, burns and major wounds, warts, allergy rash and itchy skin disorders, ringworm, other tinea form skin infections, eye disorders and fever. (See Table of remedies in Appendix)

Ongoing Work In Aboriginal Herbal Medicine

In 1995 staff at a remote Health Centre in the Northern Territory carried out a study to compare the effectiveness of wound healing by the use of a traditional remedy, *Bauhinia* root (*Lysiphyllum cunninghamii*) and use of Western preparation in the treatment of boils, sores and scabies. The study concluded that the herbal medicine was as effective as the Western preparations. In addition the Aboriginal people felt more comfortable using the traditional remedies and left them with a sense of pride in their own traditional knowledge and culture. (McLean et al 1996)

Herbal remedies continue to be studied in the Northern Territory. The Conservation Commission of the Northern Territory put out their own publication called 'Traditional Aboriginal Medicines In the Northern Territory' that list over 50 herbal remedies.

There has been some interest in plants used by Aborigines to control fertility and lactation.

The Bush Food Program

Aboriginal people often view food as their medicine. Many foods are known to strengthen the body against sickness or promote healing. Some prized foods such as the witchetty grub (*Xyleutes*) are crushed and used for treatment of burns and wounds. The grubs are nutritious as well, with protein (15.1%), fat (19.2%), 100mgs thiamine and 5mg vitamin C per 100gms.

In 1981, the Northern Territory Department of Health launched the Bush Food Program which sought to establish a durable record of traditional Aboriginal food practices and beliefs and develop a more relevant and acceptable style of nutrition education. This program, initiated by departmental dietitians and Aboriginal health workers, has come a long way, and an exciting nutrition education program has been developed.

A publication on the nutritional composition of forty-two bush foods collected through this program has some interesting results. (Brand et al 1983) The green plum (*Terminalia ferdinandiana*) contains 3150mg/100g of Vitamin C - making it the richest source of Vitamin C in the world. The bush banana (*Leichardtia australis* and *L. leptophylla*) and the water lily root (*Nymphae macrosperm*) contains very high proportions of protein, and the list goes on.

Like the Bush Medicine Program, the Bush Foods Program has led to the stimulation of reciprocal learning processes between two cultures and the self examination of attitudes and values.

CONCLUSION

The current health status of Aboriginal people is characterised by unacceptable levels of morbidity and mortality. Aboriginal life expectancy is twenty years less than other Australians. Western medicine has not solved many of the Aboriginal health problems. It has been said that Western medicines epitaph will be that it was "brilliant in its scientific discoveries, superb in its technological breakthroughs, but woefully inept in its application of knowledge to those most in need".

Traditional medicine is part of Aboriginal culture. Its recognition can bolster the self confidence of Aboriginal people and improve the delivery of health services to Aboriginal communities. Two way medicine needs to be supported and developed with ongoing research to evaluate the therapeutic value of traditional medicine. The increasing world-wide popularity and use of Complementary and Alternative Medicine may assist in the development and sustainability of Aboriginal Traditional medicine and healing in Australia.

REFERENCES

Abbott K (1998), Proposed site of development Ngalka Jana. Unpublished.

Aboriginal Communities of the Northern Territory of Australia (1998), (Traditional Bush Medicines. An Aboriginal Pharmacopoeia Greenhouse Publication.

Biernoff D (1982), Psychiatric and anthropological interpretations of 'aberrant' behaviour in an Aboriginal community. In Reid J (ed) Body, Land & Spirit. Health & Healing in Aboriginal Society University of Queensland Press.

Brand, JC et al. (1983), "The nutritional composition of Australian Aboriginal bushfoods", Food Technology In Australia **6**, 293-298

Commonwealth of Australia (1979), Aboriginal Health House of Representatives Standing Committee on Aboriginal Affairs, AGPS

Devanesen, D (1983). "Traditional art in the health worker training program", The Aboriginal Health Worker **7(3)**, 4-8

Devanesen, D and Henshall, TS (1982), "A study of plant medicines in Central Australia", Transactions of the Menzies Foundation **4**, 161-166

Devanesen D (1985), Traditional Aboriginal Medicine and Bicultural Approach to Health Care In Australia's Northern Territory Proceedings of the 2nd National Drug Institute, Alcohol and Drug Foundation, Canberra 1985.

Elkin, AP (1977), Aboriginal Men of High Degree (second edition), University of Queensland Press, Brisbane

Hamilton, A (1974), "The traditionally oriented community", in BS Hetzelet al. (eds), Better Health for Aborigines, University of Queensland Press, Brisbane

Henshall, T et al. (1980), Ngurrju Maninja Kurlangu. Yapa Nyurnu Kurlangu. Bush Medicine, Warlpiri Literature Production Centre Inc, Yuendumu

Isaacs J (1980), Australian Dreaming Lansdown Press Sydney

Maher P (1999), A Review Of Traditional Aboriginal Health Beliefs Aust. J. Rural Health (1999) **7**, 229 – 236.

McLean M, Dow W, Bathern R et al (1996), A study of the comparison between the traditional Aboriginal medicines and western preparations in the treatment and healing of boils sores and scabies. Unpublished.

Mullins M. (2000), Personal Communication

Munn, ND (1973), Warlpiri Iconography, Cornell University Press, New York

Nathan, P and Japanangka, DL (1983), Health Business, Heinmann Educational, Victoria

Northern Territory Department of Health (1982), Annual Report 1981/1982 Government Printer of the Northern Territory.

Pearn, J (1981), "Corked up. Clinical hyoscine poisoning with alkaloids of the native corkwood, *Duboisia*", Medical Journal of Australia **2**, 422-423

Reid J (1982) Body Land & Spirit. Health and Healing in Aboriginal Society, University of Queensland Press.

Reid, JC (1983), Sorcerers and Healing Spirits: Australian National University Press, Canberra

Soong, FS (1983), "Role of the margidbu (traditional healer) in western Arnhem Land", Medical Journal of Australia **1**, 474-477

Tynan, BJ (1979), Medical Systems In Conflict. A Study of Power, Government Printer of the Northern Territory, Darwin

Webb, LJ (1969), "Australian plants and chemical research", Offprint from The Last of the Lands, The Jacaranda press

Werner, D (1977), Where There Is No Doctor, Hesperian Foundation, California

ACKNOWLEDGEMENT

All references to the Warlpiri tribe are with the kind permission and consent of the Yuendumu Council.

The Northern Territory Government, the Minister for Health, Family & Children Services, the Hon. Mr Stephen Dunham MLA for permission to attend the International Symposium on Traditional Medicine run by the WHO Centre for Health Development, Kobe, Japan.

APPENDIX

TABLE OF REMEDIES

Source: Aboriginal Communities of the Northern Territory of Australia 1988 Traditional Bush Medicines. An Aboriginal Pharmacopoeia. Greenhouse Publications

COMPLAINT	NAME	PREPARATION	
Joint and muscle pain	<i>Capparis umbonata</i>	Liniment	
	<i>Clerodendrum floribundum</i>	Mixture and lotion	
	<i>Crinum angustifolium</i>	Liniment	
	<i>Cymbopogon ambiguus</i>	Liniment	
	<i>Eremophila longifolia</i>	Liniment	
	<i>Erythrophleum chlorostachys</i>	Application	
	<i>Eucalyptus camaldulensis</i>	Wash or liniment	
	<i>Eucalyptus gum</i>	Wash	
	<i>Eucalyptus tetrodonta</i>	Poultice	
	<i>Excoercaria parvifolia</i>	Liniment	
	<i>Tinospora smilacina</i>	Poultice	
	<i>Pandanus spiralis</i>	Poultice	
Toothache and sore mouth	<i>Buchanania obovata</i>	'Toothpick' and mouthwash	
	<i>Eucalyptus tetrodonta</i>	Mouthwash	
	<i>Hakea macrocarpa</i>	Application	
	<i>Pandanus spiralis</i>	Application and gargle	
	<i>Spinifex longifolius</i>	Mouthwash	
	<i>Oecophylla (green ants)</i>	Mouthwash and gargle	
Gastro-intestinal disorders	<i>Callitris intratropica</i>	External application	
	<i>Clerodendrum floribundum</i>	Mixture	
	<i>Eremophila freelingii</i>	Mixture	
	<i>Ficus opposita</i>	Mixture	
	<i>Grewia retusifolia</i>	Mixture	
	<i>Grewia retusifolia</i>	Mixture	
	<i>Jacksonia dilatata</i>	Mixture and external application	
	<i>Litsea glutinosa</i>	Mixture and inhalation	
	<i>Persoonia falcata</i>	Mixture	
	<i>Tinospora smilacina</i>	External application	
	<i>Termitaria</i>	Powder or mixture	
	<i>White clay</i>	Powder	
<i>Oecophylla (green ants)</i>	Mixture		
Symptoms of colds and flu, e.g. fever, headache and ill-defined pain, congestion, cough, general malaise, sore throat	<i>Acacia lysiphloia</i>	Application and wash	
	<i>Amyema bifurcatum</i>	Mixture	
	<i>Callitris glaucophylla</i>	Application	
	<i>Callitris glaucophylla</i>	Application	
	<i>Calytrix brownii</i>	Mixture and inhalation	

	<i>Clerodendrum floribundum</i>	Mixture
COMPLAINT	NAME	PREPARATION
	<i>Cymbopogon ambiguus</i>	Inhalation, application and mixture
	<i>Cymbopogon oblectus</i>	Mixture
	<i>Cymbopogon procerus</i>	Wash
	<i>Eremophila alternifolia</i>	Mixture and inhalation
	<i>Eremophila duttonii</i>	Mixture
	<i>Eremophila freelingii</i>	Wash and inhalation
	<i>Eremophila longifolia</i>	Wash
	<i>Eucalyptus camaldulensis</i>	Wash
	<i>Eucalyptus tetrodonta</i>	Wash and mixture
	<i>Euphorbia drummondii</i>	Liniment
	<i>Livistona humilis</i>	Mouthwash and mixture
	<i>Lysiphyllum cunninghamii</i>	Mixture
	<i>Melaleuca species</i>	Wash, mixture and inhalation
	<i>Morinda citrifolia</i>	Diet supplement
	<i>Persoonia falcata</i>	Mixture
	<i>Prostanthera striatiflora</i>	Liniment, wash and inhalation
	<i>Pterocaulon serrulatum</i>	Inhalation
	<i>Pterocaulon sphacelatum</i>	Inhalation
	<i>Santalum lanceolatum</i>	Mixture
	<i>Oecophylla (green ants)</i>	Mixture
	<i>Tinospora smilacina</i>	Internal
Skin: Sores, boils, cuts etc	<i>Acacia holosericea</i>	Wash
	<i>Acacia estrophiolata</i>	Wash, powder and ointment
	<i>Acacia tetragonophylla</i>	Wash
	<i>Alphitonia excelsa</i>	Detergent
	<i>Avicennia marina</i>	Paste
	<i>Brachychiton diversifolius</i>	Gum
	<i>Buchanania obovata</i>	Wash
	<i>Callitris intratropica</i>	Wash
	<i>Camptostemon schultzii</i>	Wash and application
	<i>Capparis umbonata</i>	Wash
	<i>Clerodendrum floribundum</i>	Lotion
	<i>Cochlospermum fraseri</i>	Application
	<i>Crinum angustifolium</i>	Wash
	<i>Cymbopogon ambiguus</i>	Application
	Orchidaceae	Application
	<i>Eremophila duttonii</i>	Wash or application
	<i>Eremophila freelingii</i>	Wash
	<i>Eremophila sturtii</i>	Wash
	<i>Eremophila longifolia</i>	Wash and poultice
	<i>Erythrophleum chlorostachys</i>	Wash and poultice
	Eucalyptus gum	Application and wash
	<i>Eucalyptus tetrodonta</i>	Lotion and wash
	<i>Hibiscus tiliaceus</i>	Application
	<i>Euphorbia hirta</i>	Application
	<i>Excoecaria parvifolia</i>	Wash

COMPLAINT	NAME	PREPARATION
	<i>Excoecaria parvifolia</i>	Wash
	<i>Grewia orientalis</i>	Application
	<i>Grewia retusifolia</i>	Application
	<i>Hakea eyreana</i>	Powder and ointment
	<i>Hakea macrocarpa</i>	Powder
	<i>Ipomoea pes-caprae</i>	Poultice
	<i>Lysiphyllum cunninghamii</i>	Wash
	<i>Owenia</i>	Wash
	<i>Pandanus spiralis</i>	Application
	<i>Planchonia careya</i>	Wash
	<i>Protasparaus racemosus</i>	Wash
	<i>Pterocaulonserrulatum</i>	Wash
	<i>Ptwocaulon sphacelatum</i>	Application
	<i>Sarostemma australe</i>	Wash
	<i>Terminalia carpentariae</i>	Application
	<i>Tinospora smilacina</i>	Poultice
	<i>Ochrogaster</i> (processionary caterpillar bag)	Dressing
Skin: Scabies	<i>Acacia estrophiolata</i>	Wash
	<i>Camptostemon schultzii</i>	Wash
	<i>Capparis umbonata</i>	Wash
	<i>Cymbopogon ambiguus</i>	Wash
	<i>Eremophila freelingii</i>	Wash
	<i>Eremophila longifolia</i>	Wash
	<i>Eucalyptus gum</i>	Wash and application
	<i>Euphorbia drummondii</i>	Lotion
	<i>Excoecaria parvifolia</i>	Wash
	<i>Ficus opposita</i>	Application
	<i>Grewia retusifolia</i>	Lotion
	<i>Lysiphyllum cunninghamii</i>	Wash
	<i>Pandanus spiralis</i>	Wash
	<i>Prostanthera striatiflora</i>	Lotion or ointment
	<i>Protasparagus racemosus</i>	Wash
	<i>Pterocaulon serrulatum</i>	Wash
	<i>Sarcostemma australe</i>	Wash and application
	<i>Terminalia carpentariae</i>	Application
Skin: Bites and Stings	<i>Avicennia marina</i>	Application
	<i>Ipomoea pes-caprae</i>	Poultice
	<i>Scaevola sericea</i>	Application
	<i>Sterculia quadrifida</i>	Poultice
	<i>Tinospora smilacina</i>	Poultice
	Bush cockroach	Application
Skin: Burns and Major wounds	<i>Acacia estrophiolata</i>	Lotion and bandage
	<i>Crinum angustifolium</i>	Wash and dressing
	<i>Eremophila alternifolia</i>	Wash or application
	<i>Eucalyptus gum</i>	Wash

	<i>Hakea eyreana</i>	Powder and ointment
COMPLAINT	NAME	PREPARATION
	<i>Hakea macrocarpa</i>	Powder
	<i>Ipomoea pes-caprae</i>	Dressing
	<i>Ochrogaster</i> (processionary caterpillar bag)	Dressing
	<i>Xyleutes</i> (witchety grub)	Application
Skin: Warts	<i>Acacia tetragonophylla</i>	Spines
	<i>Euphorbia hirta</i>	Application
	<i>Hakea eyreana</i>	Spines
	<i>Hakea macrocarpa</i>	Spines
Allergy rash and itchy skin disorders	<i>Acacia holosericea</i>	Wash
	<i>Callitris glaucophylla</i>	Lotion
	<i>Callitris glaucophylla</i>	Lotion
	<i>Clerodendrum floribundum</i>	Lotion
	<i>Dendrobium affine</i>	Application
	<i>Ficus opposita</i>	Application
	<i>Terminalia carpentariae</i>	Application
Ringworm and other tineiform skin infections	<i>Avicennia marina</i>	Paste
	<i>Camptostemon schultzii</i>	Wash
	<i>Pterocaulon serrulatum</i>	Wash
Eye disorders	<i>Acacia estrophiolata</i>	Lotion
	<i>Buchanania obovata</i>	Lotion
	<i>Eremophila duttonii</i>	Lotion
	<i>Eucalyptus gum</i>	Wash for lids
	<i>Owenia vernicosa</i>	Lotion
	<i>Pandanus spiralis</i>	Drops
	<i>Pandanus spiralis</i>	Drops
	<i>Persoonia falcata</i>	Drops
	<i>Pterocaulon sphacelatum</i>	Wash for lids
	<i>Scaevola sericea</i>	Drops
	<i>Sterculia quadrifida</i>	Drops
Pain	<i>Acacia holosericea</i>	Dressing
	<i>Capparis umbonata</i>	Liniment
	<i>Clerodendrum floribundum</i>	Mixture
	<i>Cymbopogon ambiguus</i>	Wash and mixture
	<i>Eremophila alternifolia</i>	Paste
	<i>Erythrophleum chlorostachys</i>	Application
	<i>Euphorbia hirta</i>	Liniment
	<i>Ipomoea pes-caprae</i>	Application
	<i>Spinifex longifolius</i>	Wash & mixture
	<i>Tinospora smilacina</i>	Poultice
Fever	<i>Cochlospermum fraseri</i>	Mixture
	<i>Cymbopogon ambiguus</i>	Wash and mixture
	<i>Cymbopogon procerus</i>	Wash
	<i>Lysiphyllum cunninghamii</i>	Wash and mixture

	<i>Pandanus spiralis</i>	Wash
COMPLAINT	NAME	PREPARATION
Sundry conditions treated	<i>Acacia lysiphloia</i>	Smoke
with smoke or vapour baths	<i>Acacia kempeana</i>	Smoke
	<i>Acacia ligulata</i>	Smoke
	<i>Acacia aneura</i>	Smoke
	<i>Callitris glaucophylla</i>	Smoke
	<i>Cymbopogon bombycinus</i>	Smoke
	<i>Erythrophleum chlorostachys</i>	Smoke
	<i>Eucalyptus camaldulensis</i>	Inhalation
	<i>Santalum lanceolatum</i>	Smoke
Bandages and splints	<i>Acacia estrophiolata</i>	Bandages
	<i>Acacia cuthbertsonii</i>	Bandages
	<i>Acacia difficilis</i>	Bandages
	<i>Acacia tetragonophlla</i>	Bandages and splints
	<i>Brachychiton diversifolius</i>	Bandages
	<i>Clerodendrum floribundum</i>	Splints
	<i>Cochlospermum fraseri</i>	Bandags and splints
Tonics	<i>Euphorbia hirta</i>	Mixture
	<i>Excoecaria parvifolia</i>	Wash
	<i>Terminalia carpentariae</i>	Application