The Health Care of Indigenous Peoples/ Nations

- Indigenous peoples have suffered from historic injustices as a result of, *inter alia*, their colonization and dispossession of their lands, territories and resources, thus preventing them from exercising, in particular, their right to development in accordance with their own needs and interests.

- Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals. Indigenous individuals also have the right to access, without any discrimination, to all social and health services.

- Indigenous individuals have an equal right to the enjoyment of the highest attainable standard of physical and mental health. States shall take the necessary steps with a view to achieving progressively the full realization of this right”.

*From: UN Declaration on the Rights of Indigenous Peoples, Sept. 2007*
MORBIDITY & MORTALITY
of
INDIGENOUS AUSTRALIANS

Life expectation:

Death age and rate:
For all age groups, Indigenous people are dying at twice the rate of non-Indigenous people (1999-2003).

The leading cause of death among males and females in most states was cardiovascular disease (CVD), with rates up to 30% higher than the non-indigenous population.

The next leading cause of death for indigenous males was injuries. These included automobile accidents, intentional self-harm and assault (3.0 times that of the total male population), cancer (1.3), respiratory diseases (3.9), and endocrine, nutritional and metabolic disorders (primarily diabetes) (7.3).
**Next Leading Cause of Death**

The most frequent causes of death for **indigenous women**, after CVD, were:
- cancer (1.6 times the total female population),
- endocrine, nutritional and metabolic disorders (11.7),
- injuries (2.9),
- respiratory diseases (3.6).

Lung cancer is among the leading forms of cancer for indigenous males and females while cervical cancer is an important cause of death for indigenous women, with the death rate in several states being more than seven times that of non-indigenous women.

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**COMMUNICABLE DISEASE**

Leading communicable diseases among Indigenous Australians are:
- tuberculosis
- hepatitis A, B, & C
- sexually transmitted infections
- HIV/AIDS
- Haemophilus influenzae type b (Hib)
- pneumococcal disease
- meningococcal disease

The incidence of TB is 15 times higher than that of the wider Australian-born population.
Diarrheal disease, eye and ear problems and skin infections are also significantly higher among indigenous people and especially so among young children.

Levels of disability and handicap are estimated to be at least double that of the general population.

OVERVIEW

- Theory & Principles of Traditional Medicine
- Some Research Trends
- Implications for Indigenous Medicine Research in Australia
Some Perspectives on Theory & Principles of Traditional Medicine Systems

Epistemology – Knowledge Systems

- Traditional health systems are based in world views or cosmologies that take into account mental, social, spiritual, physical and ecological dimensions of health and well being.

- Nature is viewed as the expression of a universal order of which humanity is but one part. The same universal laws are understood to move the planets and to underlie the process by which life expresses itself in every form of the diverse natural world.
Epistemologies - Balance

- Central importance is placed on the concept of balance - within the individual and between the individual, society and Nature.
- Imbalance arises with the breaking of the interconnectedness of life - and results in discomfort and ‘dis-ease’.
- Traditional health systems ascribe life, spiritual value and interconnectedness among all life forms used in the process of promoting human health and well-being.
- Treatments, therefore, are designed not only to address the specific disease but also to restore a state of systemic balance to the individual and his/her inner and outer environment.

Synergism

- In the preparation of plants, traditional pharmacologies often emphasize a principle of synergistic activity among the components of plant ingredients of herbal mixtures.
- Traditional medicines typically use more than a single plant.
- Complex mixtures of plants form the basis of prescriptions and these are frequently prepared through a process which may include drying, crushing, heating, boiling, even reducing to a form of ash.
- Consequently, a chemical process is involved which transforms the chemical structure of the plant materials and produces a set of compounds which may be different from those contained in each of the individual plants in the prescription.
- Assessment of the therapeutic effects of traditional medicines should take this perspective into account.
**FOOD & MEDICINE**

- Food and medicine are often viewed interchangeably:
  - Food is medicine.
  - Diet is the basis of health.
- The Hausa of Nigeria use certain plants as both food and medicine, including plants identified as having antimalarial effects.
- The use of plants with antimalarial effects as both food and medicine exposes individuals to more pharmacologically remarkable constituents than does either category of use alone.
- Thus of the 54 most commonly used Hausa antimalarial medicines, 82% also appeared in diet.
- Among those, there was 89% concordance that the same plant part (root, leaves, etc.) served as both antimalarial and food.
- Further, among those 39 plants, 67% were maximally available during the period of highest risk of malaria infection” (Etkin, 1997).
Food & Medicine

- The Masai of East Africa cook the bark of Acacia goetzei [Mimosaceae] and Albizia anthelmintica [Mimosaceae] with their traditional diet of boiled meat, milk and blood.
- Research by Dr. Timothy Johns of McGill University has shown that combining the bark with the other foods results in cholesterol levels one-third that of the average American.
- Unique saponins in these plants are considered to be implicated in producing the cholesterol-lowering effects.

Revitalization of Traditional Health Knowledge

- Revitalization movements are drawing on traditional medical knowledge to develop integrated modern and traditional health care projects.
- In some instances, modern medical workers return to their communities and learn traditional ways, incorporating these into current practice.
Some Research Trends

- Utilization studies
- Pharmacological research
  - IPR
- Non-pharmacological approaches
  - Theoretical research
  - Priority diseases:
    - Communicable: malaria, HIV/AIDS,
    - Degenerative: diabetes, CVD, obesity
- Common ailments:
  - respiratory conditions, gastro-intestinal infections,
  - wounds, minor gynaecological disorders, eye disease
- Priority populations: MCH, refugees, poverty
- Wellness
- Models of integration:
  - traditional & modern medicine
WHO Global Atlas on TCAM

TRENDS include:

- the majority of the world’s population uses natural healthcare on a regular basis
- they pay out of pocket
- Asian traditional health systems are globalising
- governments are focusing on regulation of practice, training, product quality & safety
- women significantly outnumber men in the use of wellness modalities
- women & men use these approaches differently
- prevention is favoured, with a lifestyle approach to health and well being
In most regions of the Northern Territory, more than 22% of indigenous people had used bush medicine in the previous 6 months when surveyed.

A decrease in use of traditional medicine seems to be because Western medicine is easier to access, not because of a lack of faith in its efficacy.

Indigenous Australian medicine includes herbal preparations, diet, rest, massage, restricted diet and external remedies such as ochre, smoke, steam and heat.

*Maher P. A review of ‘traditional’ aboriginal health beliefs.*

Cochrane & Complementary Medicine

- The CM field has constructed a database on randomized controlled clinical trials & controlled clinical trials in CM.

- Over 6,000 trials have been identified and CM Field members regularly hand search over 40 journals.

Safety

- Studies in the UK have found that there has been adulteration with steroids of some traditional Chinese dermatological preparations. In an analysis of Chinese herbal creams prescribed for dermatological conditions, Keane et al (1999) found that eight of eleven creams analysed contained steroids.

- Traditional eye treatment (TET) has been the cause serious eye infections and injury. Research in Tanzania found that of 26 corneal ulcers present in a sample of TET users, 58% (n = 15) had no other identified cause of ulceration apart from TET use. There was a trend to more central and dense corneal scarring in the TET users group (42% vs 23%, p = 0.06).
Fig. 1: Everything known in the world and who owns it: a conventional IPR perspective

THE PUBLIC DOMAIN*
("The intellectual commons")

THE PRIVATE
(IPR protected)
DOMAIN

* ALL KNOWLEDGE THAT EXISTS EXCEPT
PATENTS - 20 YRS. EXTENDED COPYRIGHT TERM
THAT TO WHICH ACCESS AND/OR USE IS
COPYRIGHTS - LIFE PLUS 50-70 YRS. SOME TRADEMARKS/RESTRICTED BY Secrecy,
PUBLICITY RIGHTS/CONFIDENTIALITY, UNEXPIRED IPRs OR
DATABASE RIGHTS/CUSTOMARY PRACTICE

Fig 2: The private/public domains in the real world

THE IPR-
PROTECTED
DOMAIN

SECRECY/
CONFIDENTIAL
INFORMATION

THE PUBLIC DOMAIN*

KNOWLEDGE
PROTECTED
ACCORDING
TO
CUSTOMARY
LAW AND
PRACTICE

* ALL KNOWLEDGE THAT EXISTS EXCEPT THAT TO WHICH ACCESS AND/OR USE IS RESTRICTED BY Secrecy, Confidentiality, Unexpired IPRs OR CUSTOMARY PRACTICE
NON-PHARMACOLOGICAL THERAPIES

**Chiropractic & Osteopathy**

- UK survey of c.15,000 respondents.
- Those using osteopaths/chiropractors reported better health in all dimensions than those using physiotherapy services.

*Ong, C-K, Doll H, Bodeker G, Stewart-Brown S (2004)*
YOGA

US reviews of studies suggest that yoga may

- reduce many insulin-resistant syndrome related risk factors for CVD,
- improve clinical outcomes
- may aid in the management of CVD (Innes et al 2005).

- Reduce age related deterioration in cardiovascular functions (Bharshankar et al 2003).
Tai Chi & Falling

Tai Chi – most effective means of preventing falling in the elderly

RITAM – A Partnership

RITAM: a partnership established in 1999 between
- Global Initiative For Traditional Systems (GIFTS) of Health, University of Oxford,
- international researchers working on plant-based antimalarial methods

Aims to:
- evaluate the potential for traditionally used plant-based antimalarials
- contribute in a systematic way to the prevention and treatment of malaria.

www.gifts-ritam.org
Traditional Medicines for Modern Times: Antidiabetic Plants. By Amala Soumyanath

- describes plants traditionally used to treat diabetes
- evaluates the scientific studies on these plants
- describes in vitro, in vivo, and clinical methods for their investigation.
Panax ginseng C.

- It has been demonstrated that for the first time C-reactive protein could be altered by ginsenoside Re (Re, a major component of ginseng) treatment, indicating that Re may improve diabetes and its complications by alleviation of inflammation. Cho 2006
- It is indicated that oxidative stress is increased in the diabetic rat kidney and sun ginseng (heat-processed Panax ginseng C. A. MEYER at 120 degrees C) can prevent renal damage associated with diabetes by attenuating the oxidative stress. Kang 2006a
- American ginseng reduced postprandial glycemia in subjects without diabetes only when administered 40 min before an oral glucose challenge. Vuksan 2001
- Blood sugar was lowered in alloxan diabetes of rodents [Article in Russian] Molokovskii 1989

Ginkgo biloba

- Anatomical & functional changes in visual organ in children & adolescents, age between 11 & 19 years, with long lasting diabetes mellitus (DM)type 1 & taking Egb 761 as an adjuvant was evaluated which showed that Egb 761 seems to be good adjuvant in patient with long lasting DM. [Article in Polish] Bernardczyk-Meller 2004
- G. biloba induced reduction of both classes of prostanoid metabolites in healthy volunteers, but not in T2DM subjects. May suggest a nonselective inhibition of COX-1-mediated TXA(2) in platelets and COX-2-mediated PGI(2) production by the endothelial cells and perhaps platelet-enriched levels of arachidonic acid or COX-1 activity, or both, in T2DM subjects. Kudolo GB, Dorsey S, Blodgett J. 2002
Herbal Home Gardens: 
Poverty Alleviation 
& 
Sustainable Healthcare
Economic outcomes

- 150,000 villages, majority Advasi (‘tribal’)
- Health expenditure incurred by non-HHG households was approximately 5 times greater than that of HHG’s
- The village resource persons earned at least Rs. 500 (US$11.11) per month through the sale of seedlings and training households in growing and using the plants, thereby promoting income generation for local women.
What is wellness?

- Wellness has an emphasis which is quite distinct from the mainstream health sciences focus on illness and pathology.
- According to the US National Wellness Institute (NWI), wellness is: “an active process through which people become aware of, and make choices towards, a more successful existence”.
- NWI identifies six dimensions of wellness: Social; Occupational; Spiritual; Physical; Emotional; Intellectual.
- LOHAS – Lifestyles of Health And Sustainability – is a framework that focuses on “health & Fitness; the environment; personal development; sustainable living; and social justice.”

Some Dimensions of the Wellness Market
Anti-Ageing

- Euromonitor International: "Ageing consumers are looking to do all they can to help avoid age-related illnesses such as arthritis, osteoporosis and prostate problems.

- Many see vitamins and dietary supplements as the answer. Therefore, vitamins and dietary supplements remain the bedrock of OTC healthcare sales, accounting for around 40% of global OTC sales.

- Products such as calcium (taken to improve bone health), glucosamine (for arthritis) and co-enzyme Q10 (for cardiovascular health) are the main engines for growth, especially among the affluent, older generations.
In the evolving spa world, *indigenous themes* have emerged as a significant trend, especially in destination spas and in rural and regional settings where traditions are strong and local health knowledge is lively.

SpaFinder noted in its ‘Ten Spa Trends to Watch for in 2007’: “Spa guests are rewarding a spa’s efforts to incorporate authentic indigenous treatments, hire local staff, and contribute to the community. They’re also welcoming education about local cultures and healing traditions.”
Integration

Native American communities incorporate traditional forms of treatment into the U.S. Indian Health Service (IHS) alcohol rehabilitation programs.

In a meta-analysis of 190 IHS contract programs, it was found that 50% of these offered a traditional sweat lodge or encouraged its use.

Treatment outcomes were found to be better for alcoholic patients when a sweat lodge was available. In addition, the presence of medicine men or healers, when used in combination with the sweat lodge, greatly improved the outcome (Hall, 1986).

Basic prerequisites for improvement and development

Health Unlimited has outlined priorities for indigenous health development:

- train local people to provide basic health services in remote areas,
- ensure that traditional practitioners are involved and that their views appreciated, so new ideas about health are more likely to be taken on board in isolated, indigenous communities
- provide safe water and improve sanitation,
- provide information regarding indigenous peoples' rights and entitlement to health care
- work with state health providers to ensure indigenous peoples are not discriminated against when it comes to accessing health services

(www.healthunlimited.org)
Future

Where solutions do present themselves, success seems to be based on

- self-sufficiency,
- recourse to traditional cultural practices
- equitable partnerships with agencies receptive to new models of work
Indigenous Medicine Research – Where Next?

- Charting a direction
- Research network
- Database of studies & projects
- Specialist groups – e.g. ethnography, pharmacol, public health, TK theory, IPR
- SOP’s or research guidelines
- Priority projects
- National & international partnerships