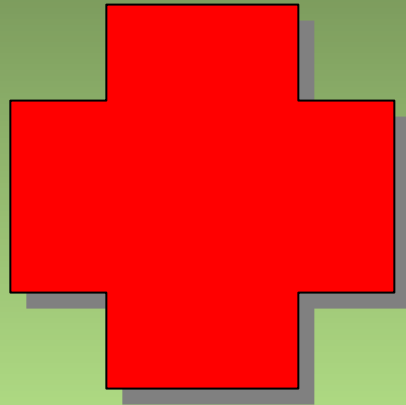


Why 'green' healthcare?



Associate Professor Mardie Townsend
Deakin University



Threats to human health and wellbeing:

- Rapid increase in obesity: ♀ 25-64 = 27% in 1980, = 47% in 1999/2000; ♂ = 47% in 1980, 66% in 1999/2000 (AIHW 2004)
- Growing rates of mental illness (1 in 5)
- High levels of family breakdown (40-50%)
- Declining community cohesion



What does environment have to do with health?

- Wellbeing depends on:
 - the natural environment
 - the human made environment
 - social arrangements
 - human consciousness (ABS, 2001 p. 6)
- > 25% of world's disease burden is attributable to environmental factors (WHO, 2005)



Environmental degradation:

- Humans are dependent physiologically on nature (Boyden, 1992)
- Climate change to affect millions via:
 - Malnutrition & consequent disorders
 - Deaths, disease & injury due to heat waves, flood, storms, fires & droughts
 - Increased diarrhoeal disease
 - Increased cardio-respiratory disease
 - Altered distribution of infectious disease vectors



(IPCC 2007 p. 7) www.undispatch.com/archives/2005/08/index.html



UNEP Global Environmental Outlook:

- The future of humanity ...put at risk by a failure to address environmental problems
- Irreversible damage likely unless greenhouse gas emissions drop to below 50% of 1990 levels before 2050
(UNEP 2007)
- "The systematic destruction of the Earth's natural and nature-based resources has reached a point where the economic viability of economies is being challenged ..." (Steiner 2007)



Impacts of environmental degradation:

- 14,800 deaths in France in 2003 due to heatwave
- Heat-related deaths in Australia to rise from 1,115/yr to 4,300-6,300/yr by 2050
- Additional 0.6-1.4 million Australians exposed to dengue fever by 2050
- Increased mental health risks in some rural parts of Australia (IPCC 2007)



The Age, Leunig calendar 2007:



Environmental deprivation:

- Humans are dependent psychologically on nature - **biophilia** (Wilson, 1984; Kellert & Wilson, 1993)



Viewing
nature



Contact
with plants



Being in
nature



Contact
with
animals



Evidence from literature:

- Gall bladder patients recovered more quickly with a natural view (Ulrich, 1984)
- Natural environments foster recovery from mental fatigue & are 'restorative' (Kaplan, 1995)
- Community gardens reduce personal and neighbourhood problems (Lewis, 1996)
- Pet ownership is associated with ↓ blood pressure, cholesterol & triglycerides (Anderson et al. 1992) & with better mental health & w/b. (Rowan & Beck 1994, Straede & Gates 1993)
- Exposure to plants in offices improves productivity and mood (Larsen et al., 1998)



Our research shows:

- Wilderness adventure therapy within a drug treatment intervention resulted in improvements in:
 - living circumstances & family relationships
 - self-management of physical health
 - addressing drug/alcohol issues
 - self-management of mental health issues
 - capacity for social connection (Pryor et al. 2006)
- Environmental volunteering → ↑ positive emotional state for people with mental health problems
- ABI patients showed ↑ positive emotion & ↑ active participation in AAT therapy



Trust for Nature project:

- Study involved:
 - 51 TfN volunteers & matched ‘controls’
 - 6 TfN groups in rural areas & on urban fringe
 - Quantitative & qualitative data collected on:
 - Perceived benefits they gain from involvement
 - Health service usage
 - Levels of social connectedness

(Moore, Townsend & Oldroyd, 2007)



Findings from TfN study:

	TfN	Controls	P-value
General health (1 = v. healthy, 5 = v. unhealthy)	1.7	1.9	0.028
Annual visits to GP (doctor) (1 = <1; 5 = >10)	2.0	2.9	0.013
Feeling safer in local comm ^y . (1= always, 5 = never)	1.0	1.3	0.001
Sense of belonging (1 = str'gly agree, 5 = str. dis.)	1.4	1.7	0.010
Attracted to living here (1 = str. ag., 5 = str. dis.)	1.2	1.5	0.040
Work to impr. comm ^y . (1 = str. ag., 5 = str. dis.)	1.3	1.8	0.005
Opportunity to use skills (1 = always, 5 = never)	1.4	1.8	0.001



'Feel blue, touch green' (FBTG):

- In collaboration with Parks Victoria, Barwon Health, Alcoa & Surf Coast Shire (with funding brokered by People & Parks Foundation)
- Nature-based intervention for people suffering anxiety & depression
- Attempting to build a sustainable connection with environment
- Evaluation of health & wellbeing benefits



‘Feel Blue, Touch Green’:

- Participants:
 - Experienced improvement in emotional, mental & physical health
 - Developed
 - Skills
 - Pro-environmental attitudes & actions
 - Connections with others
 - Connections with their ecological context



Participant comments:

“by taking part in ‘Feel Blue, Touch Green’ I have experienced happiness that I otherwise would have missed out on”

“it takes the tension and focus away from myself...[and I] forget reality... This [natural environment] grabs you”

“you don’t get criticised in the bush - self criticism, negative criticism does not occur in the outdoors”

“Being involved in Feel Blue, Touch Green helps [me] manage [my] depression”



Key learnings:

- Both environmental degradation & environmental deprivation are bad for health
- Sustainability is not just a word for the ‘greenies’ but is a health care issue!
- Access to nature is not an ‘optional extra’!
- Promoting sustainability through volunteering can also contribute to wellbeing, via:
 - Satisfactory human relationships
 - Meaningful occupation
 - Opportunities for contact with nature, creative expression & making a positive contribution to human society

(Furnass, 1996)



The Environment-Health Cycle:

Access to nature/environment



**Environmental
sustainability**

**Human health &
wellbeing**



Implications for healthcare:

- There is an opportunity for the health sector to contribute to:
 - Prevention of health problems relating to environmental degradation; and
 - Addressing health impacts of environmental deprivation
- Some possibilities:
 - Hospitals with views of nature
 - Therapies involving gardens, pets, wilderness, parks
 - More productive workplaces for the healthcare sector
 - Research partnerships to explore integrated approaches to health and healthcare



An invitation!! Join me at:



30th Nov. - 3rd Dec. 2007

Deakin University, Burwood

Asia-Pacific **EcoHealth** conference

MELBOURNE
VICTORIA
AUSTRALIA

Ecology and Health:
People and Places in
a Changing World

30th NOVEMBER — 3rd DECEMBER

'07

The organising committee extends an invitation for you to attend the Asia-Pacific EcoHealth conference held in Melbourne, Victoria in November 2007.

Following on from the success of the EcoHealth One conference held in Wisconsin, USA in 2006, this conference plans to build on and further explore some of the key issues surrounding the interdependent relationships of human and their environments. Unsustainable living, climate change and disassociation from nature are beginning to take their toll and will create disastrous repercussions for human health and survival if they are not addressed in the near future.

We are excited to announce that Ms Kerry Arabena, Dr Margot Parkes, Professor John Howard and Dr Colin Butler will be our principal plenary speakers, supported by an expert multidisciplinary team of presenters and facilitators from throughout Australia and the Asia-Pacific region. The workshop theme will be 'Ecology and Health: People and Places in a Changing World'.

The Asia-Pacific EcoHealth conference will showcase the latest research and contribute to the development of partnerships that will create opportunities for new strategies to address this looming crisis. Professionals from the social and biological sciences including health promotion, environmental health, sociology, urban planning, economics, conservation, environmental management and environmental policy will share their knowledge and ideas.

>> We look forward to seeing you there.

For more information please visit our website www.deakin.edu.au/events/ecohealth2007

Early bird registration closure – 14th August
Abstract submission closure – 14th August

EcoHealth '07

