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Welcome!

Welcome to the Environmental Health Bulletin, the quarterly newsletter which provides information on developments in the field of environmental health. The bulletin is edited by Hunter New England Population Health and is distributed via email to people working in the field of environmental health within the area covered by Hunter New England Health.

Your contributions, news and feedback are welcome to help ensure the Bulletin is relevant and interesting. Our contact details are on page six.

Managers – we would appreciate it if new staff or staff without email have access to this newsletter. It can also be downloaded from our website at: http://www.hnehealth.nsw.gov.au/hnep/hneph/environmental_health

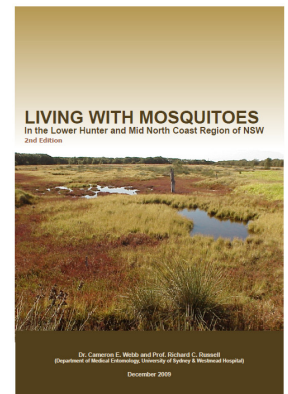
Living with Mosquitoes in the Lower Hunter and Mid North Coast Region of NSW

We all know that mosquitoes are not only nuisance biting pests but can also spread disease-causing pathogens such as Ross River and Barmah Forest virus. Given this – it is often hard to remember that they are also important components in wetland ecosystems, providing food for some birds, bats, amphibians, fish and macro-invertebrates!

In recognition of the need to address current and future mosquito management issues, a regional working group was established and co-ordinated by the Premier's Department, Hunter to develop a regional mosquito management strategy.

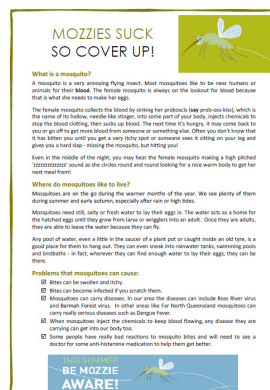
Originally produced in 2005, an updated version of the strategy, Dec 2009, is now available and can be downloaded from: www.mosquitoes.nsw.gov.au

For further information and project details email colin.perry@dpc.nsw.gov.au



Mozzies Suck – So Cover Up!

To complement the existing *Mozzies Suck So Cover Up!* education materials, a new fact sheet has been developed especially for children to help them become mozzie aware! In conjunction with the Premier's Department, surveys are currently being carried out in a number of primary schools across the Region to determine the existing knowledge that children have on mosquitoes. The children are asked if they know the time of year and time of day that mozzies are most active, what diseases they can carry and what actions can be taken to help stop a mosquito from biting them. So far ... the answers make for interesting reading!



For a copy of the fact sheet email Cindy on cindy.gliddon@hnehealth.nsw.gov.au

Swimming Pools: an asthma risk?

In Australia, the swimming pool has provided a haven from the heat for generations! The smell of chlorine is a part of life! But the very thing that makes pools healthy for many – chlorine-based disinfectant – makes it a potential health hazard for others. Chlorine-based disinfectants (hypochlorite, chlorine and chloroisocyanurates) inactivate a wide range of water-borne pathogens. But when these chemicals react with organic matter such as urine and sweat, chlorine releases a mixture of by-products that can irritate the eyes, skin and upper airways.

Recent research by Belgian scientists published in the journal *Pediatrics* has added to the theory that chlorine in swimming pools can increase the incidence of asthma, allergic rhinitis and hayfever in those who are vulnerable to allergies. The researchers examined 847 students between 13 and 18 years of age who had been swimming in indoor chlorinated and unchlorinated pools.

They found that children who were allergy sensitive were more likely to develop asthma and other allergies if they swam in chlorinated pools. Those who spent more than 1000 hours in chlorinated pools were up to 14.9 times more likely to have asthma and 3.5 times more likely to have allergic rhinitis. Children who were not allergy sensitive or who had swum only in pools solely disinfected with copper or silver ion-based sanitisers did not display asthma or respiratory symptoms.



But despite the asthma risk associated with chlorine, pools do need to be effectively sanitised. It is almost impossible to avoid chlorine if you swim in a public pool as legislation requires these pools to use chlorine or bromine at specific levels.

Pools primarily disinfected using copper or silver ion or ozone-based systems are still advised to use chlorine to ensure dangerous micro-organisms are effectively controlled. Even salt-water pools are not chlorine free as salt is converted into chlorine by the generator.

To minimise irritants in pools, it is important to maintain it at the correct pH and free chlorine levels and keep organic matter to a minimum by regularly vacuuming the pool, cleaning filters and ensuring high water circulation.

The full story can be viewed on the ABC website at:

<http://www.abc.net.au/health/thepulse/stories/2010/01/28/2803528.htm>

Ban on Display of Tobacco and Smoking Products in Retail Outlets

In NSW, the Public Health (Tobacco) Act 2008 is phasing out the display of tobacco products, non tobacco smoking products and smoking accessories in shops and retail outlets, including specialist tobacconists and tobacco vending machines.

Research suggests that tobacco displays can influence children's perceptions about the availability and accessibility of cigarettes in their community and can also make it harder for intending quitters to quit.

Tobacco retailers will need to ensure that tobacco products, non-tobacco smoking products and smoking accessories cannot be seen by the public from inside or outside the premises. The types of smoking accessories covered by the display ban include cigarette papers, pipes, and any other smoking implements. Matches and lighters are not covered by the display ban.

Large retailers (more than 50 employees) must have complied by 1 January 2010. Small retailers (50 or fewer employees) must comply by 1 July 2010.

For further info go to: http://www.health.nsw.gov.au/publichealth/healthpromotion/tobacco/information_for_tobacco_retailers_and_consumers.asp

New Laws Relating to Cigarette Vending Machines

From 1 January 2010:



- Vending machines can only be placed in a bar area of a hotel or club, a bar area of a casino, or a gaming machine area, and can no longer be placed in staff amenity areas.
- **One** vending machine is allowed per premises.
- A description and price of the products is allowed (in black & white writing on a white background).
- Occupiers of licensed premises have obligations for the vending machine, whether they own the machine or otherwise.

From 1 July 2010:

- Vending machines must be activated by staff (whether by remote control or some other means) or a token.

For more information, refer to the fact sheet at the NSW Health website:

http://www.health.nsw.gov.au/resources/publichealth/healthpromotion/tobacco/industry_ad_vending_machines_pdf.asp

Public Health Risks of Natural Hot Water Spa Baths

Australian artesian spa baths are popular recreational destinations for domestic and international visitors. The artesian spa bath in Moree, NSW reportedly attracts over 300,000 visitors each year. Drawn from the Great Artesian Basin 900 metres underground, the water is thought to cure all sorts of ailments and even be the fountain of youth! The locals believe the healing formula is the result of the eight different minerals in the water combining with the natural warmth - a temperate 39 degrees.

Although Australia, and New South Wales in particular, have recreational water management guidelines (which includes natural waters and swimming pools), there are no specific management guidelines for artesian spa baths.

Some of the regular users of the baths had requested Moree Plains Shire Council to cease chlorination of the baths in the belief that it reduced the health benefits of the geothermal water exposure.

In order to give evidence-based advice, Hunter New England Area Health Service, Population Health Unit conducted a weekly water sampling study to test for the presence of pathogenic and indicator bacteria in the untreated geothermal source water and the bath water to determine the effectiveness of the chlorination system during April, the peak use period. The chemical qualities of the geothermal source water were also determined.

High levels of *Pseudomonas aeruginosa*, *E. coli*, and Enterococci were detected in the bath water when low disinfectant levels were recorded. The results indicated that the geothermal source water had no natural disinfection qualities and that disinfection is required at all times. The chemical, thermal and pH qualities of the geothermal water suggested that chlorination alone may not be adequate during periods of high contamination and presented unique challenges to the standard disinfection regimes for swimming pools.

The NSW Guidelines for Swimming Pools and Spas (NSW Health, 1996) covers conventional swimming pools and spas but not geothermal water spa baths like those in Moree.

The Australian Guidelines for Managing Risks in Recreational Water (NHMRC, 2008), whose primary aim is to protect human health from threats posed by the recreational use of coastal, estuarine and fresh waters also do not include artesian spa baths.

The WHO Guidelines for Safe Recreational Water Environments, Volume 2: Swimming Pools and Similar Recreational Water Environments (WHO, 2006), provide an authoritative review and assessment of the health hazards associated with geothermal mineral water like the artesian spa baths in Moree. According to these guidelines, indicators of faecal contamination (thermotolerant coliforms and *E. coli*) and *Ps. aeruginosa* should be routinely monitored in natural spas ensuring that operational levels are less than 1/100 mL for disinfected pools and <10/100 mL for natural spas without residual disinfectant. The pH should be maintained between 7.2 and 7.8 for chlorine disinfectants and 7.2 – 8.0 for non-chlorine disinfectants. The pH of the geothermal was 8.5.

The study highlights the need to adopt management guidelines to clearly define the appropriate disinfection requirements for geothermal spa baths in Australia. The general hygiene and sanitation requirements applied to conventional spas and recommended by the WHO should be used as the default and authoritative guideline maintaining the free chlorine residual above 1mg/L at all times. Bathers should be encouraged to shower before swimming and to avoid head immersion.



Moree Artesian Spa

The full report appeared in the Journal of EHA Volume 9, Numbers 3 & 4, 2009.

For further information email Fidelis Jaravani on fidelis.jaravani@hnehealth.nsw.gov.au



Rain Water Tanks

A well maintained rainwater tank can provide good quality drinking water. However, occasionally there are cases of illness associated with contaminated rainwater tanks.

NSW Health strongly advises householders, Councils and developers to ensure that an adequate system of cleaning and maintenance is in place where rainwater is used for drinking.

People who use rainwater for drinking and cooking should be aware of potential risks associated with microbiological and chemical contamination. Tanks can be contaminated with airborne contaminants from vehicles, land-use and industry. Tanks can also be contaminated from roof or plumbing materials, or with bacteria or parasites from bird or animal faeces.

NSW Health has endorsed the publication *Guidance on the Use of Rainwater Tanks* (enHealth 2004) and has produced a *Rainwater Tanks* brochure. The publications provide advice on rainwater contamination and maintenance including first flush diversion, filtering, disinfection, and screening of tanks to stop mosquito breeding. Copies of the publications may be downloaded from:

<http://www.health.nsw.gov.au/public-health/ehb/water/rainwater.html>

Beating the Buzz

(from WA Health Newsletter, March 2010)



How do insect repellents work? When applied to skin or clothing, a repellent's active ingredient works by masking human scent or because the insect finds the repellent smell unpleasant. Most repellents provide three to six hours of protection, with longer-lasting repellents typically having higher concentrations of active ingredients.

The most effective repellents contain diethyl toluamide (DEET) or picaridin. For those wanting a 'natural' or herbal product, the U.S. Centres for Disease Control (CDC) advises that oil of lemon eucalyptus provides protection similar to lower concentration DEET repellents but it may be rather short-lived.

WA Health's Environmental Health Hazards Unit recently undertook a small survey of retail outlets in Perth. This indicated that most of the repellents commonly available contain DEET or picaridin. There is also a range of products containing aromatic plant oils, including Melaleuca oil and/or Citronella oil as active ingredients.

The survey also found a few combination sunscreen and repellent products on the market. The CDC website suggests that combined products are not ideal because the instructions for use of insect repellents and sunscreen are different.

NSW Health Website **UPDATED!** Public Swimming Pools & Spa Pools

The *Public Health (Swimming Pools and Spa Pools) Regulation 2000* controls the public health risks associated with public swimming and spa pools.

NSW Health has recently updated the information on its swimming pools and spas website. The website contains a range of useful Fact Sheets, Guidelines, Contamination Response Plans (for operators) and Inspection Report forms.

Updated fact sheets include:

- Disinfection of Swimming Pools and Spa Pools
- Record Keeping - Log Sheets
- Cryptosporidium and Giardia in Swimming and Spa Pools
- Swimming Pool Microbiology Testing Frequency
- Swimming Pool Chemical Testing Frequency

Updated documents can be downloaded from:

http://www.health.nsw.gov.au/PublicHealth/environment/water/water_spa.asp

Farewell Krystle Knowles (nee Tange)

In February we said farewell to Krystle, Environmental Health Officer based in the HNEH Taree Office for the past three years. Whilst Krystle has initially gone on maternity leave, her contract of employment also finishes during this time.

Krystle has been a highly motivated and dedicated member of our EH Team. She is well known for her enthusiasm, supportive nature and her infectious laugh!

We wish her well in the future and especially with this next rewarding chapter of her life - motherhood!



End note: Congratulations on the safe arrival of baby **Indi**, born 24/03/10!

Reforms in the Use of Agricultural and Veterinary (Agvet) Chemicals

A proposal to develop a single national scheme for the assessment, registration and control of use of Agvet chemicals has been developed in response to a COAG directive to the Primary Industries Ministerial Council. The aim is to develop a single national framework to improve efficiency and effectiveness of regulation of Agvet chemicals for consideration early in 2010.

A national discussion paper released by the Product Safety and Integrity Committee (PISC), proposes the adoption of a new scheme.

The proposed scheme is likely to mean that a Commonwealth Department will become responsible for approval and control of use of Agvet chemicals. Alternatively, individual jurisdictions may be engaged to undertake this role in respect to the control of 'end use'. A number of working groups have been established to consider key aspects of the proposed regulatory arrangements.

For further information visit:

<http://www.daff.gov.au/agriculture-food/food/regulation-safety/ag-vet-chemicals>

Who Cares about the Environment in 2009?

Who Cares about the Environment in 2009? is a survey of NSW people's environmental knowledge, attitudes and behaviours.



It provides a point-in-time snapshot and documents long term changes, tracking questions that have been asked in previous surveys. Surveys have been conducted every three years since 1994.

In 2009, the environment remains a priority for people in NSW, who rank it in the top five issues, both now and in the future. There has also been a marked growth in people's knowledge and concern specifically about climate change. The survey explores people's understanding of 'environment', 'sustainability' and other concepts in more depth. It examines the motivations, triggers and barriers people have to adopting environmentally friendly behaviour. The report can be downloaded from:

<http://www.environment.nsw.gov.au/community/whocares2009.htm>

Microbial Control & Local Government

Legionella management, as with many public health and environmental health issues, aims to reduce the presence of disease causing organisms. This is achieved through a range of compliance and monitoring systems as set out in the *Public Health Act 1991* and the *Public Health (Microbial Control) Regulation 2000*.

In the case of *Legionella* control, local Councils have a duty of care over and above the maintenance of a register. To date, we have been fortunate that there have not been any major *Legionella* outbreaks in our region. To ensure that we maintain this good record and to develop a consistent approach statewide, the NSW Health Chief Health Officer wrote to NSW Councils in 2006 seeking cooperation in complying with the '*Legionella Implementation Plan*'. This Plan is endorsed by the Local Government and Shires Association and includes each Council preparing a *Legionella Management Plan*. In the Hunter New England Health Area, the preparation of *Legionella Management Plans* is being facilitated through the Hunter Region Health Education Committee, Lower Mid North Coast Public Health Group and the Population Health Unit in Tamworth. For consistency, a *Legionella Management Plan* template has been developed.

In addition to the responsibilities of owners and occupiers for registering regulated systems with Council, there is an implied Council role for auditing systems, encouraging that all systems are registered and for staff to be trained and prepared to assist in the event of an outbreak. This is a local regulatory role, which is similar to other public health functions such as auditing food premises and conducting skin penetration inspections.

Environmental Health Officers involved in the control measures must have a clear understanding of how air-handling and water systems work and be aware of the principles of microbial control and problems that can be encountered. It is not anticipated that local councils will routinely collect samples to detect *Legionella* bacteria, however they should be able to supervise the decontamination of systems when needed. Extensive local knowledge and resources will assist Councils in ensuring compliance with the relevant regulations and standards.

Local councils have the ability to charge a fee for service when registering water-cooling and warm-water systems. Fees for inspections can be charged provided the fee establishment procedure under the *Local Government Act* is followed. This is despite the service being carried out under the *Public Health Act*. Councils are required to submit a summary report to the Population Health Unit on the number of systems registered and related details by 31 August each year.

For further information contact Chris Williams on 49246481 or christopher.williams@hnehealth.nsw.gov.au

Conferences & Training

EHA (WA Inc.) State Conference
Environmental Health Practitioner - Scientist or
Inspector?

Swan Valley WA, 6-7 May 2010

Details: Valarie Filevski valarie.filevski@eh.org.au

Public Health Emergency Management Training for
Health Professionals

Sydney, 11-13 May, 2010

Details: Christopher.Williams@hnehealth.nsw.gov.au

EHA (NSW Inc) Noise Management Course

Parramatta, 7-8 June 2010

Details: <http://www.eh.org.au/branches/nsw/index.php>

AWTS Servicing and Maintenance Course

Penrith NSW, 7-9 July 2010

Details: Zoe Slater, CET Ph. 4954 4997 or email
mail@environmentaltraining.com.au

EHA (Vic Inc.) Emergency Management Training for
Public Health Professionals

Mt Macedon Vic, 25-30 July 2010

Details: Bernadet Ferraro Ph. (03) 9438 5960

Hunter New England Environmental Health Staff

Newcastle: Dr. David Durrheim, Service Director -
Health Protection,

Philippe Porigneaux, EH Mgr / SEHO

Chris Williams, EHO

Louise Prosser, Tobacco Officer

Cindy Gliddon, EHO (Mon – Wed)

Carolyn Herlihy, EHO (Thurs – Fri)

Nichole Ansell, Trainee EHO

Taree: Hannah Ballard, Trainee EHO
(on maternity leave until June 2010)

Tamworth: Glenn Pearce, SEHO
Fidelis Jaravani, EHO
Ruth Williams, Trainee EHO



2010 Australian Safer Communities Awards

Do you have a project that has made your community more resilient? If so, the 2010 Australian Safer Communities Awards may be a way to promote and recognise the project. The Awards recognise innovative practices and achievements across Australia that are making communities safer, stronger, more resilient and better prepared to manage an emergency situation.

For more information visit: www.ema.gov.au

Entries close 2 July 2010



Public Health (Skin Penetration) Regulation 2000 - Hand basins

NSW Health has recently advised that there have been a number of complaints received in regard to EHOs requiring skin penetration operators to install hand basins in each treatment room within a skin penetration premises. This is certainly best practice, however it should be noted that *Part 3 Clause 6 of the Public Health (Skin Penetration) Regulation* only requires one hand basin to be installed.

It has been suggested that if EHOs would like to see a mandatory provision for a hand basin to be provided in each treatment room, we should ensure that we provide comments when the Public Health (Skin Penetration) Regulation 2000 is reviewed.

For further information contact Anne Ford, Snr Policy Analyst, NSW Health by calling (02) 9816 0225 or anne.ford@doh.health.nsw.gov.au

Hunter New England Population Health

Newcastle Office

Locked Bag 10

Wallsend NSW 2287

P: (02) 4924 6477 or (02) 4924 6499

F: (02) 4924 6490

Tamworth Office

PO Box 597

Tamworth NSW 2340

P: (02) 6767 8630

F: (02) 6766 3003

Taree Office

PO Box 966

Taree NSW 2430

P: (02) 6515 1853

F: (02) 6515 1804

After hours: P: (02) 4924 6499, request EHO on call P: (02) 6767 8630 P: (02) 4924 6499, request EHO on call

Email: phenquiries@hnehealth.nsw.gov.au

Internet: www.hnehealth.nsw.gov.au/hnep/h