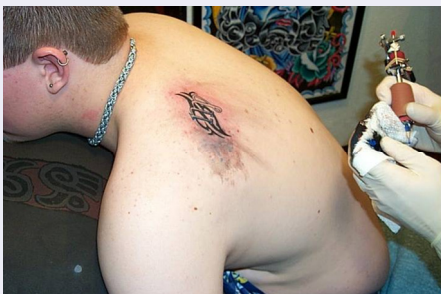


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(6)****Welcome!**

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 the Hunter New England Local Health District.

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

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/Environmental\\_health](http://www.hnehealth.nsw.gov.au/hnep/Environmental_health)

**Patrons are advised to ‘Think before you Ink!’**

With the rise in popularity of tattooing, health professionals are becoming increasingly concerned about health implications, particularly of ‘backyard’ tattooists. Modern tattooing involves injection of pigments into the dermal layer of skin by puncturing the skin with a needle gun operating 80 to 150 times a second. When correctly done, by an experienced trained tattooist, there is a lower risk of medical complications.

However, if the tattooist is poorly trained or is not following correct sterilisation procedures, does not clean their equipment or properly use gloves, then there is a risk of skin infections, wounds that do not heal, and most seriously, blood-borne infections such as HIV and hepatitis B and C. In addition, when tattoo dyes are not supplied in single use, sterile containers, they may play a carrier role in transmitting infections.

In New South Wales, the *Public Health (Skin Penetration) Regulations 2000* sets out minimum requirements for procedures for body art practitioners. It covers cleanliness, sterilisation, the use of gloves and disposal of waste and sharps. In addition there are ‘best practice’ guidelines that cover record keeping information, after-care requirements, training and first aid knowledge for tattoo operators.

A recent survey of tattooists in the Sydney West Health Area revealed that 63% of respondents had not received any accredited training in infection control, 53% did not rate their own knowledge of transmission of blood-borne infections highly, 26% were unfamiliar with standard precautions, and 25% of premises had not recently been inspected by local Councils.

When carrying out inspections of Skin Penetration premises, EHOs are encouraged to provide ‘best practice’ information and carefully investigate ‘backyard’ operators.

For more information go to:

[www.health.nsw.gov.au/PublicHealth/environment/general/body\\_grooming.asp](http://www.health.nsw.gov.au/PublicHealth/environment/general/body_grooming.asp)

## Climate change and the future risks of mosquito-borne disease in Australia

**Cameron Webb**  
**Department of Medical Entomology**  
**University of Sydney and Westmead Hospital**

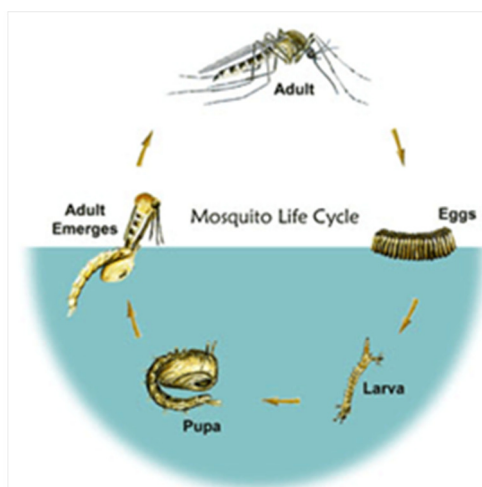
With predicted changes in rainfall and temperature, together with sea level rise, associated with climate change, increased mosquito-borne disease risk is a potential concern in Australia. However, of potentially greater importance is the way we manage current risks associated with endemic disease-causing pathogens, their vectors and reservoir hosts.

Concern generally surrounds a potential expansion in the geographic range of mosquitoes and with it the risk of human disease, particularly “tropical” diseases such as malaria and dengue, associated with increased temperatures and rainfall. Generally, the risks of these mosquito-borne diseases are not considered to be elevated based on predictions of climate change alone and, notwithstanding the introduction of exotic vector species or pathogens, the future mosquito-borne disease risks will be primarily related to shifts in the activity of endemic disease-causing pathogens. However, there are many factors that determine local risks including the availability of suitable mosquito habitats, abundant vector populations, availability of reservoir hosts and activity of disease-causing pathogens.

The risks of increased activity of Ross River virus, Barmah Forest virus, Murray Valley encephalitis virus or Kunjin virus may be primarily influenced by seasonal shifts in rainfall that drive both local mosquito populations and the activity of reservoir hosts. In addition, warmer weather may extend the peak periods of mosquito activity, increasing potential public health risks into either the spring or late autumn. However, the complexities involved in determining outbreaks of mosquito-borne disease are currently not well understood and computer modelling does not accurately predict outbreaks.

Predicting future outbreaks, taking into account the regional uncertainties of predicted climate change, is unlikely to be effective.

While there is no doubt that climate can influence mosquito and reservoir host activity, many other social, cultural and economic factors influence human activity and their exposure to disease-causing pathogens. An effective surveillance strategy should be the keystone of regional, state and federal mosquito-borne disease management. Without an understanding of mosquito and disease-causing pathogen activity, the effectiveness of both proactive and reactive management strategies may be compromised.



**Mosquito Lifecycle**

While annual broad scale mosquito control programs are unlikely to be routine, mosquito control itself should not be completely ignored as a potential component in integrated management plans. Community education campaigns involving the use of public health warnings, highlighting the public health risks of mosquitoes and providing information on personal protection strategies will remain the primary tool in reducing mosquito-borne disease risk. However, sustainable strategies may also include informed design of urban development and wetland rehabilitation projects so that mosquito risk can be minimised.

In summary, managing future mosquito-borne disease risk will require integrated regionally specific strategies built on appropriate surveillance with cooperation of all relevant authorities, particularly local government environmental health officers.

### Consultation Draft Public Health (Disposal of Bodies) Regulation 2011 and Regulatory Impact Statement

The *Public Health Act 2010* (the Act) was assented to on 7 December 2010 and is expected to commence in early 2012. Before the new Act can commence, regulations to support the Act must be prepared.

The NSW Ministry of Health has released the draft *Public Health (Disposal of Bodies) Regulation 2011* and Regulatory Impact Statement for public consultation. The Regulatory Impact Statement has been prepared in fulfilment of the requirements of *Section 5* of the *Subordinate Legislation Act 1989* and the Government's Guide to Better Regulation.

The draft Regulation and its accompanying Regulatory Impact Statement are available at: <http://www.health.nsw.gov.au/aboutus/legal/regsreview.asp>

Submissions on the draft Regulation can be made to: [publichealth@doh.health.nsw.gov.au](mailto:publichealth@doh.health.nsw.gov.au)

Submissions must be received by the 16 December 2011.

### Public Health (Disposal of Bodies) Amendment (Cremation) Regulation 2011

The purpose of this new Regulation is to provide for the disposal of human bodies by the process of alkaline hydrolysis.

There are two known processes available in Australia – 'Resomation' and 'Aquamation'. Legislation can be viewed at:

[www.legislation.nsw.gov.au/sessionalview/sessional/sr/2011-568.pdf](http://www.legislation.nsw.gov.au/sessionalview/sessional/sr/2011-568.pdf)

### Skin Penetration DIVA Jewellery Stores

The Ministry of Health has been notified that a number of DIVA stores throughout the state are undertaking ear piercing without Council approval or registration.

'Ear piercing' is a skin penetration activity as defined by the *Public Health Act 1991 – Section 51* and requires compliance with the *Public Health (Skin Penetration) Regulation 2000*. This means that each premises must be registered with the local authority 'council' and comply with the regulations to ensure the protection of public health.

The legislation, skin penetration guidelines, and fact sheets can be found on the NSW Ministry of Health website at:

<http://www.health.nsw.gov.au/topics/index.asp>

### Microalgal Blooms in the Coastal Waters of New South Wales, Australia

Microalgal blooms in NSW coastal waters are frequently reported to government agencies, water authorities and local councils.

The recently published paper by Penelope Ajani, Tim Ingleton, Tim Pritchard and Leanne Armand outlines investigations into the frequency and causative taxa of observed microalgal blooms in NSW coastal waters from 2000 to 2009 and compares these to an earlier bloom inventory from 1990 to 1999.

The paper can be downloaded at:

<http://escholarship.library.usyd.edu.au/journals/index.php/LIN>

### Home Power Savings Program

Thirty-six local councils across NSW have been awarded Government grants of up to \$6,000, to assist pensioners and families with low incomes to access free help to save power and money as part of NSW Government's Home Power Savings Program.

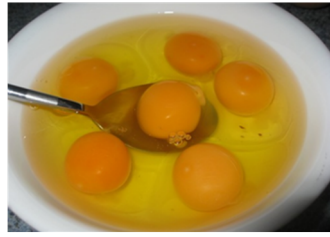
Over the coming months, Councils will run a range of community education initiatives around power saving. The Program offers a free in-home power assessment by a trained energy expert and the installation of energy saving devices worth around \$200. Local grants recipients include: Glen Innes Severn Council, Lake Macquarie City Council, Maitland City Council, Newcastle City Council and Port Stephens Council.

For additional information go to: [www.savepower.nsw.gov.au](http://www.savepower.nsw.gov.au)



## Salmonella Outbreaks associated with Raw Egg Products in HNEH 2011

In 2010 Hunter New England Health received 390 notifications of *Salmonella*, an increase of 50% when compared to the average number of notifications for the previous four years. This pattern was also seen nationally, with a 34% increase in *Salmonella* notifications.



The Caesar dressing tested positive for the same strain of *Salmonella* as was detected in the cases. The investigation concluded that the Caesar salad dressing was contaminated with *Salmonella* by raw egg.

A review of *Salmonella* types and outbreak investigations suggested that the increase was in part attributable to a national community wide outbreak associated with the consumption of eggs and products containing raw eggs.

Part 10 of the *NSW Food Regulation 2010* prohibits the sale of dirty or broken eggs for human consumption. Additionally, the Egg Food Safety Scheme only permits the sale of cracked eggs and unpasteurised egg products (eg. egg pulp) to businesses licensed with the NSW Food Authority to pasteurise egg product. This means that food service and manufacturing businesses can only purchase and use whole clean eggs or pasteurised egg products in the preparation of food.

Raw egg dressings are often used in the restaurant and café sector. Foodborne disease outbreaks associated with their consumption is a major food safety concern. Mixing large quantities of eggs, when making mayonnaise, desserts etc., increases the likelihood of *Salmonella* being introduced from the surfaces of contaminated egg shells into food. If the food containing raw egg does not receive a further 'kill' step, it poses a potential food safety risk.

**Outbreak One:** On 7 February 2011, Oz Food Net (OFN) received complaints from two separate groups of diners who developed symptoms of gastroenteritis after eating at a café on 28 January 2011. Six people had consumed a chicken Caesar salad from the café. A further five people reported experiencing gastroenteritis symptoms after eating a chicken Caesar salad but did not undertake microbiological testing for *Salmonella*.

Five cases reported bloody diarrhoea and one developed reactive arthritis following the *Salmonella* infection. Diarrhoea lasted for an average of 11 days. Many cases were unknown to each other and other potential sources of Salmonellosis were not shared.

An inspection of the café on 8 February 2011 revealed that the dressing for the chicken Caesar salad contained raw egg.

**Outbreak Two:** Six cases of *Salmonella* were notified to OFN between 8 & 10 August 2011. An investigation revealed that on 5 August, five cases ate lunch at a bakery and one case bought food and then consumed it at home.

Cases reported eating a range of baked foods, salads and desserts. Apart from consuming food from the bakery, no common meals, locations or activities were identified between the cases.

A NSWFA inspection identified that a salad consumed by 5 of the 6 cases was made with a raw egg salad dressing. The potential for cross contamination due to limited space in the bakery kitchen was also noted. The bakery ceased making the salad dressing with raw egg because it was the likely vehicle for transmission of *Salmonella*.

**Outbreak Three:** In August 2011, 5 cases of *Salmonella* were notified to OFN through routine surveillance and were interviewed as a potential cluster of foodborne disease. Three cases had visited a single café on the same day. Two cases had eaten a sandwich at the café and one had consumed only a drink. The two cases who had consumed the sandwiches did not know each other or share other common exposures for *Salmonella*.

A council inspection identified that raw eggs were used in the mayonnaise served in the sandwiches. A plausible explanation for the Salmonellosis was contamination of the dressing by raw eggs and cross-contamination of other products in the kitchen.

These outbreaks demonstrate the real potential for food contamination by *Salmonella* from raw eggs. Council EHOs have a key role in communicating the risks associated with raw eggs to food service and manufacturing businesses and consumers, and enforcing the *NSW Food Regulation, 2010*. This will make a valuable contribution to *Salmonella* control and prevention efforts.

For more information go to:  
<http://www.foodstandards.gov.au/>

## Food safety supervisors & training



Retail food businesses including restaurants, cafes, pubs and clubs in NSW are required to have a trained and notified Food Safety Supervisor on site from 1 October 2011 to meet the requirements of new Food Safety Supervisor legislation.

The new legislation means that diners will be afforded extra food safety protection with the presence of Food Safety Supervisors in the kitchens of retail food outlets across NSW.

A Food Safety Supervisor is someone who holds a FSS certificate and is trained to prevent the hazards associated with the handling and preparation of food. Incorrect food handling accounts for over a third of foodborne illness outbreaks in NSW and costs the community around \$416 million each year, not to mention the suffering and inconvenience for people who become ill.

A year-long Food Safety Supervisor implementation period began on in October 2010 and retail food outlets were given the opportunity to appoint their own FSS and have them trained and ready for the official start date. Since that time, 23,409 people have completed their FSS training and the Food Authority has issued 1,324 certificates for recognition of prior training.

The mandatory training applies to businesses in the hospitality and retail food sector such as cafes, bakeries, restaurants, takeaways, pubs and clubs and food market stalls.

Restaurant & Catering CEO, John Hart said the peak industry body was supporting the FSS initiative.

"Another benefit of the initiative, in addition to improving consumer safety, is that people who complete FSS training will have a nationally recognised qualification, bringing increased professionalism to the industry," Mr Hart said.

More information about the Food Safety Supervisor initiative can be found at:

[www.foodauthority.nsw.gov.au/fss](http://www.foodauthority.nsw.gov.au/fss)

## Australian Standards, AS/NZS 3666, Legionella Control Australia

In association with the release of the revision to AS/NZS 3666 *Air-Handling & Water Systems of Buildings – Microbial Control* Parts 1, 2 and 3, and the new Part 4, The Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH) and Standards Australia are presenting a national seminar series on the new suite of standards, as prepared by Standards Australia Committee ME-062-05.

The new AS/NZS 3666 series relates to microbial control in air-handling and water systems in buildings. Parts 1 and 2 are referenced in the National Construction Code Volume 1 (Building Code of Australia) as the deemed-to-satisfy provision for design, commissioning operation and maintenance. Parts 3 and 4 are performance based documents for maintenance. Part 3 covers cooling water systems and Part 4 covers air-handling systems.



Presenter Clive Broadbent AM (L.AIRAH) is one of the world's foremost authorities on the control of Legionella bacteria and Legionnaires' disease in air handling and water systems, and a leading environmental hygiene specialist. He will explain what you need to know about the new Standards and how they will affect you.

### Sydney

Tuesday November 22

Time: 1.30 – 5.30 pm

Lavender Room

Kirribilli Club

11 Harbourview Crescent

Visit [www.airah.org.au](http://www.airah.org.au) for full details and registration.

## Conferences & Training

AIRAH and Standards Australia  
AS/NZS 3666 series Information Seminar  
Sydney, 22 November 2011  
Details: [www.airah.org.au](http://www.airah.org.au)

Public Health Emergency Management Training for  
Health Professionals  
Sydney, 22-24 November 2011  
Details: [Christopher.Williams@hnehealth.nsw.gov.au](mailto:Christopher.Williams@hnehealth.nsw.gov.au)

Erosion and Sediment Control Workshops  
Sydney 24-25 November 2011  
Details: Zoe Slater, CET Ph. 4954 4997  
[www.environmentaltraining.com.au](http://www.environmentaltraining.com.au)

HNE Inaugural Immunisation Conference 2011  
Immunise for Life - a local and global approach  
Newcastle, 9 - 10 December, 2011  
Details: [www.hnehealth.nsw.gov.au/hnep/immunisation](http://www.hnehealth.nsw.gov.au/hnep/immunisation)

Environmental Health Australia (NSW inc)  
Public Health School  
Sydney, 13 - 14 February, 2012  
Details: Margaret Hind [nsw@eh.org.au](mailto:nsw@eh.org.au)

Environmental Health Australia (NSW inc)  
Annual Conference  
Port Stephens, 20 - 22 May, 2012  
Details: Margaret Hind [nsw@eh.org.au](mailto:nsw@eh.org.au)

12th World Congress in Environmental Health  
New Technologies, Healthy Human Being and  
Environment  
Vilnius, Lithuania, 21-27 May 2012  
Details: <http://www.ifeh2012.org/welcome>

## Environmental Health Australia Annual General Meeting 2011

Notice is hereby given that the Annual General Meeting (AGM) of Environmental Health Australia (New South Wales) Incorporated [EHA (NSW) INC] will be held accordingly:

**Venue:** 'Wentworth Room', Parramatta Leagues Club,  
13-15 O'Connell Street, Parramatta NSW.

**Date:** Friday 2 December 2011

**Time:** 3.00pm

For details contact: Margaret Hind [nsw@eh.org.au](mailto:nsw@eh.org.au)

## NSW Food Authority Email Alerts

Do you want to receive regular updates and news from the NSW Food Authority? It's easy to sign up for alerts and tips to stay informed. Areas of interest include; consumer safety warnings, advisories, recalls of food sold in NSW, major algal blooms in NSW waterways, corporate news and media releases.

To subscribe go to:

<http://www.foodauthority.nsw.gov.au/news/emailalerts/>

## Hunter New England Environmental Health Staff

Dr. David Durrheim, Service Director - Health Protection

**Newcastle:** Philippe Porigneaux, EH Mgr / SEHO  
Chris Williams, EHO  
Nichole Ansell, EHO  
Cindy Gliddon, EHO (Mon, Tues, Wed)  
Carolyn Herlihy, EHO (Thurs, Fri)  
Kelly Main, EHO (Mon, Wed)

**Taree:** Hannah Ballard, Trainee EHO

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

## 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) 6764 8000  
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) 6764 8000

P: (02) 4924 6499, request EHO on call

Email: [phenquiries@hnehealth.nsw.gov.au](mailto:phenquiries@hnehealth.nsw.gov.au)  
Internet: [www.hnehealth.nsw.gov.au/hnep/](http://www.hnehealth.nsw.gov.au/hnep/)