MASSEY UNIVERSITY
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UNIVERSITY OF NEW ZEALAND

ehinz
Environmental Health Indicators New Zealand


**In this newsletter:**



# Barry's Blurb

Welcome to the latest issue of the EHI newsletter. As you will see the team continue to be involved in a number of exciting developments. For example, we held a highly successful workshop, in conjunction with the Ministry of Health and WHO Pacific region, to discuss the feasibility of the Massey team hosting an EHI programme for the Pacific Countries. There was unanimous support for the idea and we are moving forward with the next stages, which involves getting approval from

Pacific Ministers. We have been asked by the Malaysian Ministry of Health to assist them in the development of an EHI programme in their country, which would be modelled on our programme. We continue to actively collaborate with colleagues in the CDC and EPA in the USA in the visualisation of health-related data.

Recently, I was in Rome for the Annual Conference of the International Society for Environmental Epidemiology. Among the host of oral presentations and posters, one stood out which had particular relevance to our EHI programme. England and Wales are just embarking on an EHI programme, putting them eight years behind our programme. It proves yet again that we might be a small country on the other side of the world, but that hasn't hindered us in being at the forefront of a field.

On behalf of the EHI team, I want to wish you and your whanau all the very best for a very happy Christmas and New Year. We are looking forward to continuing our collaboration and sharing our new initiatives with you in 2017.

B.Borman@massey.ac.nz

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# Highlights from the EHI factsheets

| Topic | Highlights |
|---|---|
| Overseas infectious disease of priority concern | • The number of international diseases of border health concern to New Zealand increased during 2011-2015.<br>• Four types of serious respiratory virus were reported during 2011-2015. Outbreaks in Asia included human cases of Bird Flu and Middle East Respiratory Syndrome Coronavirus. |
| Border Health in New Zealand | • Cases of mosquito-borne diseases more than doubled in New Zealand, 2011-2015. Dengue Fever was most commonly diagnosed during this period.<br>• Almost all mosquito-borne diseases were diagnosed after cases had travelled overseas, often within the Asia-Pacific region |

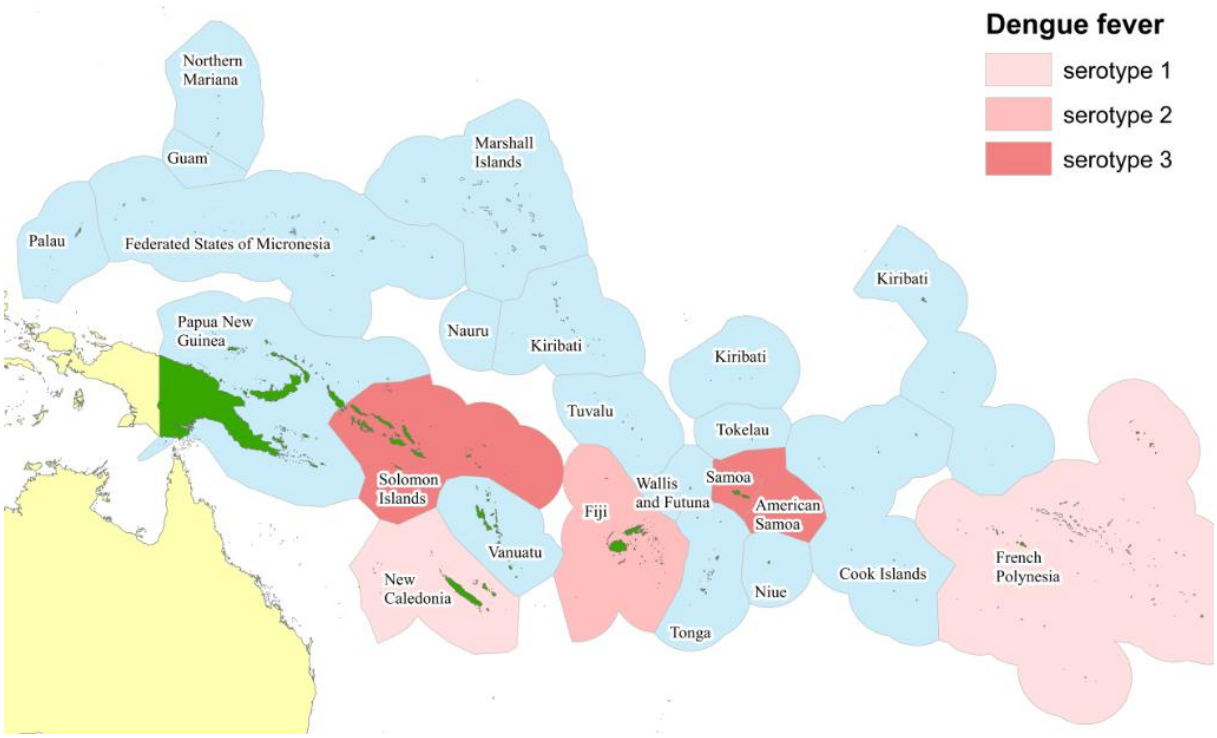
| | |
|---|---|
| High-risk pests caught at New Zealand's border | • On average there were nine border interceptions each year of exotic mosquitoes originating from overseas during 2006-2015.<br>• Most (73%) suspected intercepted mosquitoes originated from the Asia-Pacific region. Australia was by far the biggest source. |
| Exotic mosquitoes established in New Zealand | • No new exotic mosquitoes were introduced to New Zealand between 2006 and 2015.<br>• As of 2015, there are three long-established exotic mosquito species in New Zealand. |
| Notifications of water-borne diseases with recreational water as a risk factor and Notifications of water-borne diseases with untreated water as a risk factor | • There were over 8600 notified cases of campylobacteriosis, cryptosporidiosis and giardiasis in 2014.<br>• Over 190 of these cases reported contact with recreational water as a risk factor.<br>• Untreated water was a risk factor for 830 notifications of campylobacteriosis, cryptosporidiosis and giardiasis in 2014. |
| Population with access to fluoridated drinking-water | • One in two New Zealanders (50%) had access to fluoridated drinking-water in 2014-2015 – about 2.3 million people.<br>• Access to fluoridated drinking-water is mainly concentrated in cities. |
| Oral Health of children | • Children in fluoridated areas generally have better oral health.<br>• In 2014, more 5-year-olds and children in Year 8 were caries-free compared to 2000. |

Contact Carolin Haenfling (ehnz@massey.ac.nz) for more information on the EHI factsheets.

# New 'Border Health' domain

A new Border Health domain has been created on the EHINZ website to host new and updated border health indicators. These are now reporting on exotic diseases of priority concern to New Zealand, as well as national mosquito monitoring information. The website includes an interactive map of priority infectious diseases in the Pacific.

**Check out a snapshot of the map below showing Dengue fever outbreaks:**




*Snapshot of an interactive map (in development) of identified Dengue fever outbreaks by serotype and country over time (showing 10/2015)*
*Sources: PPHSN and SPC*

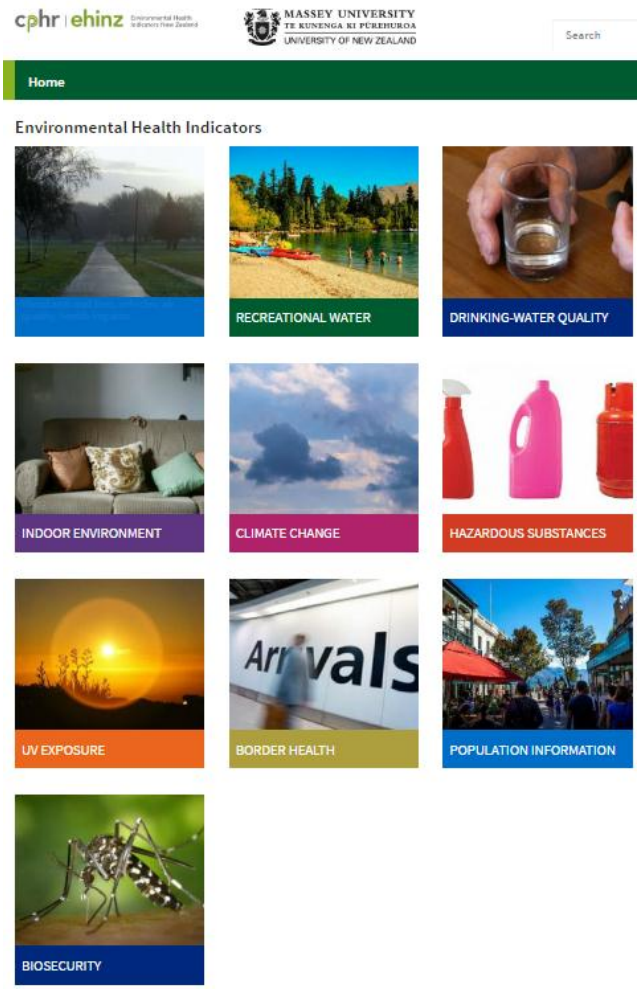
The old Biosecurity domain will now be making the transition to becoming a new Zoonotic Diseases Domain. Zoonotic diseases are caused by pathogens (bacteria, viruses, parasites) which can transfer between animals, plants and people.

Sarah has presented our recent Border Health Indicator development work in a poster at the World One Health EcoHealth conference in Melbourne. Sarah has also spoken on the important role of environmental and infectious disease surveillance in international health at an interdisciplinary event hosted by the Ministry for Business, Innovation and Employment to celebrate 40 years of New Zealand being in the metric system.

For more information on Border Health in New Zealand, please see:
http://www.ehinz.ac.nz/indicators/border-health/

# An updated face of the EHI website

With the new Border Health domain released, we now have an updated face of the EHI website, have a look here.




# New 'Oral Health of Children' indicator

We recently adopted the new indicator 'Mean number of decayed, missing or filled teeth of children, by fluoridation status'. It helps to determine the severity of dental caries in 5-year old children and children in Year 8 (12-13 year olds).

This new indicator fits into the Drinking-Water Quality domain, under the Oral Health of Children topic. It will accompany the already established 'Percentage of children who are caries-free, by fluoridation status' indicator.

For more information, check out the website or the factsheet.

# National hazardous substances and lead report for 2015

In July, we released the 2015 national report on hazardous substances and lead notifications using data from the Hazardous Substances Disease and Injury Reporting Tool (HSDIRT). This is the third report of the series. Read the full report here.

Below are some key findings from the report:

- There were 121 lead absorption notifications in 2015, compared to 130 notifications in 2014
- There were six non-occupational/unknown lead absorption notifications for children under 15 years
- Taranaki DHB had the highest rate of lead notifications in 2015
- Painters (16 notifications) were the occupation most exposed to lead
- Lead-based paint was the most common source of non-occupational/unknown lead exposures for both children and adults
- There were 61 hazardous substances notifications in 2015, five of which were for children under five years old
- Eighty-four percent (51 notifications) of hazardous substances notifications were unintentional exposures
- Industrial chemical was the most common substance category (25 notifications)
- There were four agrichemical spray-drift notifications in 2015.

For more information regarding HSDIRT, contact Fei Xu (f.xu@massey.ac.nz) or Helene Marsters (t.h.marsters@massey.ac.nz).

# Pacific Health and Environment Information Partnership Workshop

On the 26-27 September the EHI team, on behalf of the Ministry of Health, hosted a scientific workshop to explore the development of a Pacific health and environmental information partnership. Participants came from a range of organisations and countries including the WHO, the Ministry of Health, the Ministry of Foreign Affairs and Trade, Fiji, Federated States of Micronesia, Kiribati, Palau, Samoa, Solomon Islands, Tonga and Vanuatu.

An initial presentation on the purposes and challenges of Environmental Health Indicators given by Professor David Briggs was followed by case studies from New Zealand, the Solomon Islands and the Global Information Management System on Health and Environment (GIMS) initiative. Discussion then followed, looking at global, regional and national indicator monitoring requirements and priority issues for Pacific peoples. A Skype session allowed delegates phoning in from the Pacific Islands to talk about the sort of support they would require to develop an Environmental Health Indicators programme for their region.

The workshop was successful in bringing parties together as a first step for future collaboration.

# Health Excellence Awards 2016 Finalist

Barry as part of a project team with Prof Ed Gane, Fahimeh Rahnama, Tien-Huey Lim, Chris Moyes, John Hornell and Chris Cunningham were Finalists for the Health Excellence Award, Category Excellence in Research awarded by Auckland DHB.

The project, titled 'Serological and clinical outcomes of horizontally transmitted chronic Hepatitis B Infection in New Zealand Māori: Results from a 28-year follow-up study', investigates the association of childhood-acquired hepatitis B virus infection with significant morbidity and mortality in adult Māori.

The Health Excellence Awards are awarded by Auckland DHB to outstanding initiatives that help to provide better quality care and improve health and wellbeing.

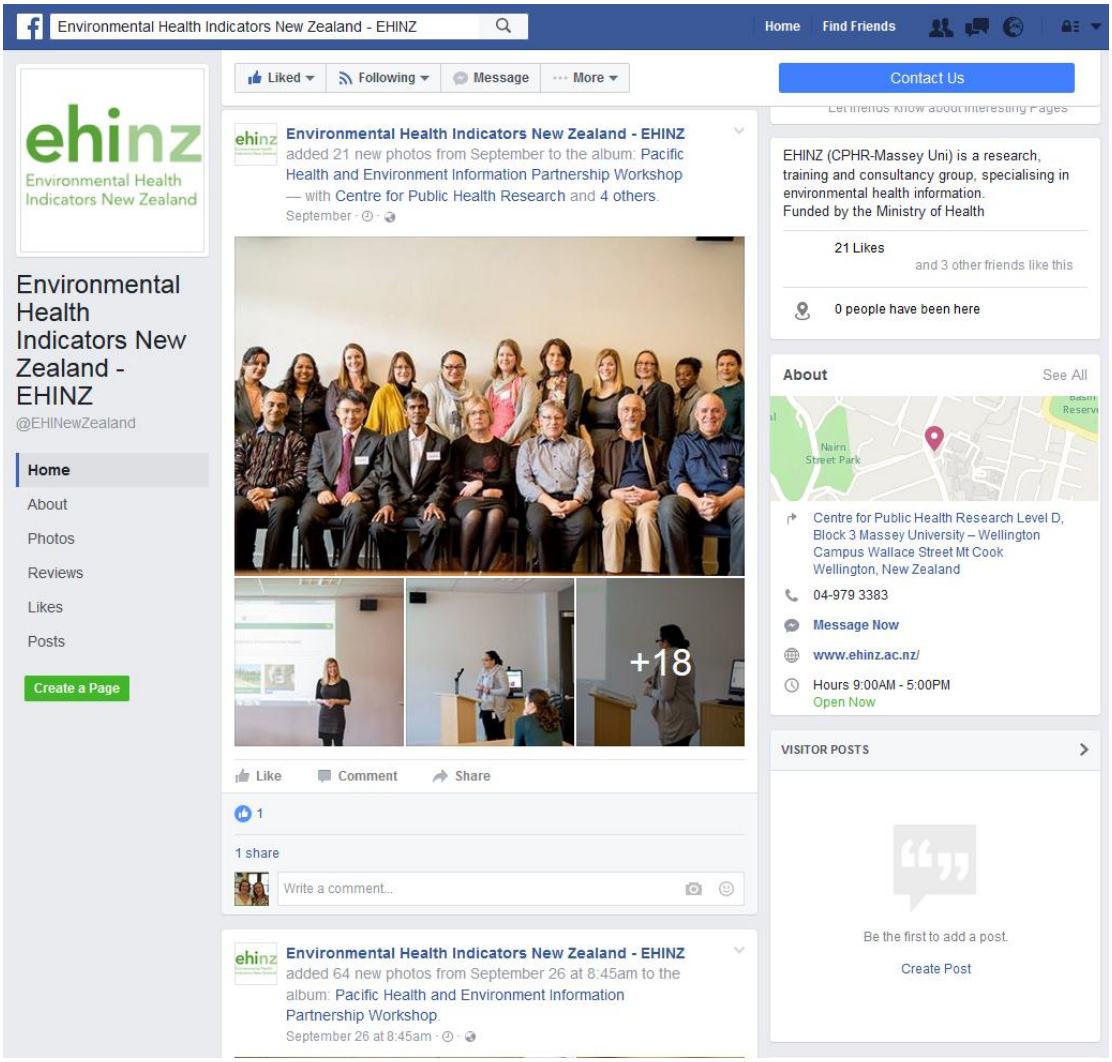
# Graduation in Palmerston North

On Friday 25th November, Barry and Caroline attended the graduation of students from Bhutan, Bangladesh, Nepal and Afghanistan (*in absentia*) who successfully completed a three year Master's degree in Public Health (Biosecurity) or Veterinary Medicine (Biosecurity). Barry and Riz developed and co-ordinated the Public Health components of the courses; Mathu, Helene and Caroline were tutors. The courses were conducted online, with the exception of an introductory workshop in Bhutan. It was great to be able to finally meet most of the students, who were in New Zealand for the first time.


The Master's degrees are part of a One Health initiative developed by Massey with funding from the European Union and the World Bank. The aim of the One Health initiative is to help control the spread of zoonotic disease especially its transmission from animals to humans. In addition to training in epidemiology and biosecurity, One Health encourages communication and collaboration between professionals in the human and animal health disciplines through online networks throughout the South-East Asia region.

For more information, please see here.

# EHINZ on Facebook




Environmental Health Indicators New Zealand are now on Facebook.

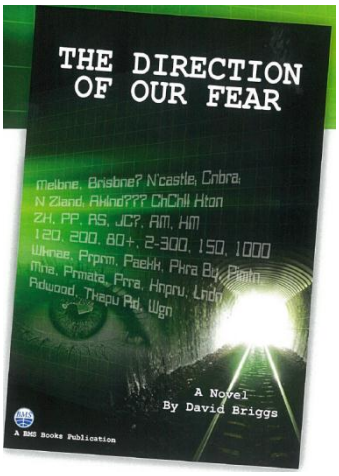
Please like us for updates, developments and news and feel free to share and comment.

# Conferences and Presentations

- 4th International One Health Congress and 6th Biennial Congress of the International Association for Ecology and Health, Melbourne, 3 – 7 December 2016: Sarah is presenting her poster "Border Health Indicator Development in New Zealand"
- Imperial to metric and beyond: Metrology 40th Anniversary, Ministry for Business, Innovation and Employment, Wellington, 8 December 2016: Sarah is presenting her talk "Infectious measurements"

- World Congress on Public Health, Melbourne, 2017: Deborah, Fei and Helene are presenting their poster "Plugging the gap – surveillance of hazardous substances-related morbidity in primary care in New Zealand"
- World Congress on Public Health, Melbourne, 2017: Anna is presenting her talk "Making sense of local differences in a public health evaluation: Prioritising system feedback and interactions."

# A Novel by David Briggs




Emeritus Professor David Briggs, one of our expert technical advisers, has just had his novel 'The Direction of Our Fear' published. The blurb accompanying the book says: 'In this tightly written novel, author David Briggs develops an original and compelling plot line as he explores the way our lives are played out against a constant background of half-seen threat'. Copies are available from BMS Books Ltd (www.bms.co.nz) and cost $29.

Two previous novels written by David, 'By the Tracks We Leave' and 'The day of the Red Balloon' are both available as e-books on Amazon. In 2015, one of David's poems won a silver prize for short free verse in the United Poets Laureate International competition.

Other stories and poems penned by David are available on his website http://davidbriggs.co.nz/

# Interested in postgraduate study?

The School of Public Health teaches a range of postgraduate papers and programmes in public health. These include:

- Postgraduate study in environmental health and epidemiology
- Postgraduate Diploma in Public Health
- Master of Public Health
- PhD.

For more information, visit our Training page.




Environmental Health Newsletter Issue 11

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**Greetings from the team at the EHI Programme:**