



Australian Government

Department of Health and Ageing

# Outbreaks of dengue fever in Queensland during 2008/2009

- Part 1: An overview of dengue in the region

Gerard Fitzsimmons

Zoonoses, Foodborne and Emerging Infectious  
Diseases

Surveillance Branch

Office of Health Protection

July 2009



©1999 Richard C. Russell



Australian Government

Department of Health and Ageing

# Introduction

- Thank you
- Presentation in two parts
  - Dengue overview
  - Dengue local response
- Acknowledgements
- Purpose
- Methods
- Data sources
  - National Notifiable Diseases Surveillance System (Human)
  - WHO Western Pacific Regional Office  
[http://www.wpro.who.int/health\\_topics/dengue/data.htm](http://www.wpro.who.int/health_topics/dengue/data.htm)
  - Queensland Health



Australian Government

Department of Health and Ageing

# Dengue background

- Disease
- Nationally notifiable human disease
- Vector – Mosquito



More...

Map

Satellite

Terrain

# Current area for dengue outbreaks

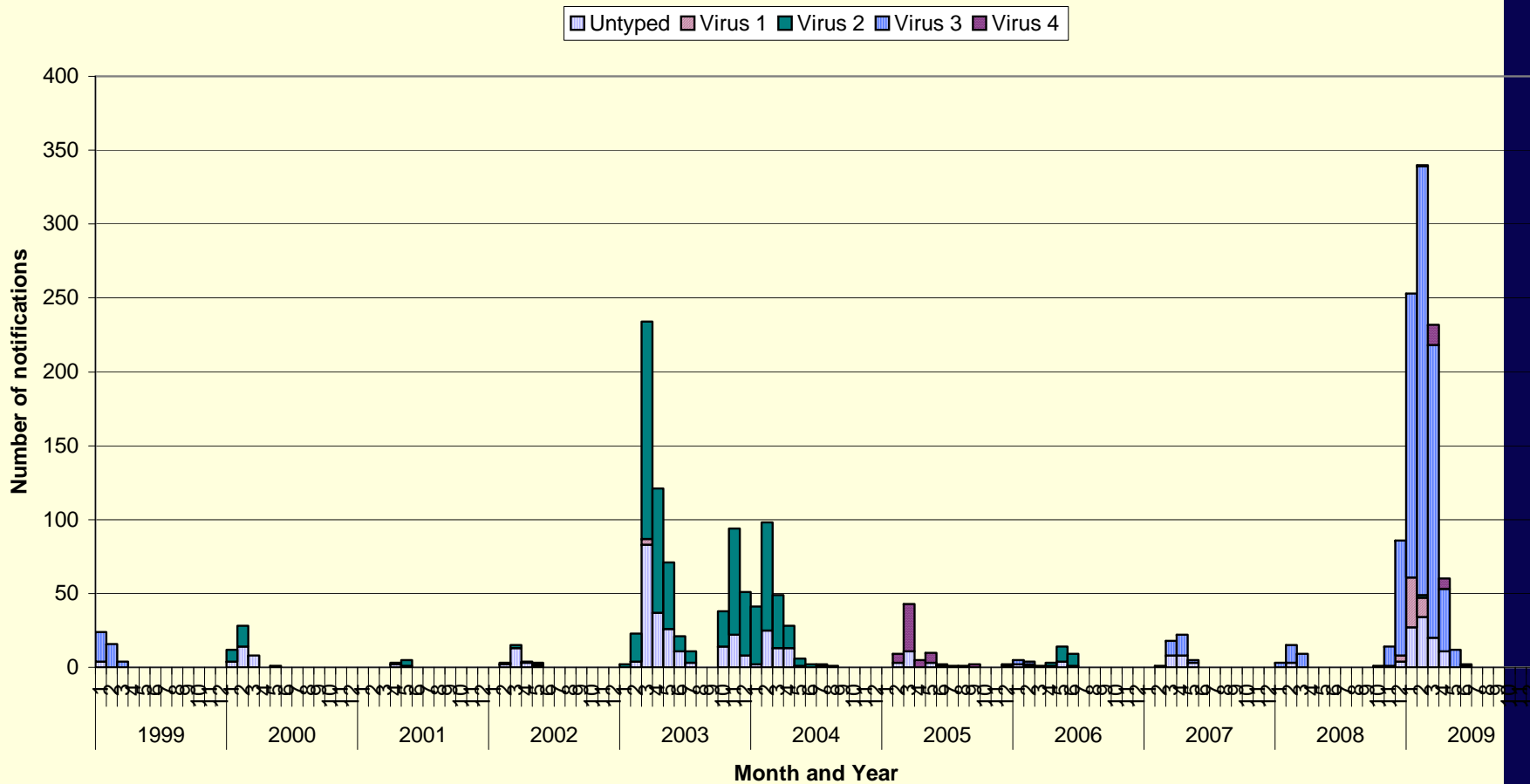








### Queensland acquired dengue virus infection, by serotype, NNDSS, 1999- 2009 (Analysed week 26, 26 June 2009 by Date of Diagnosis, ZoFE OHP)



# Australia's History



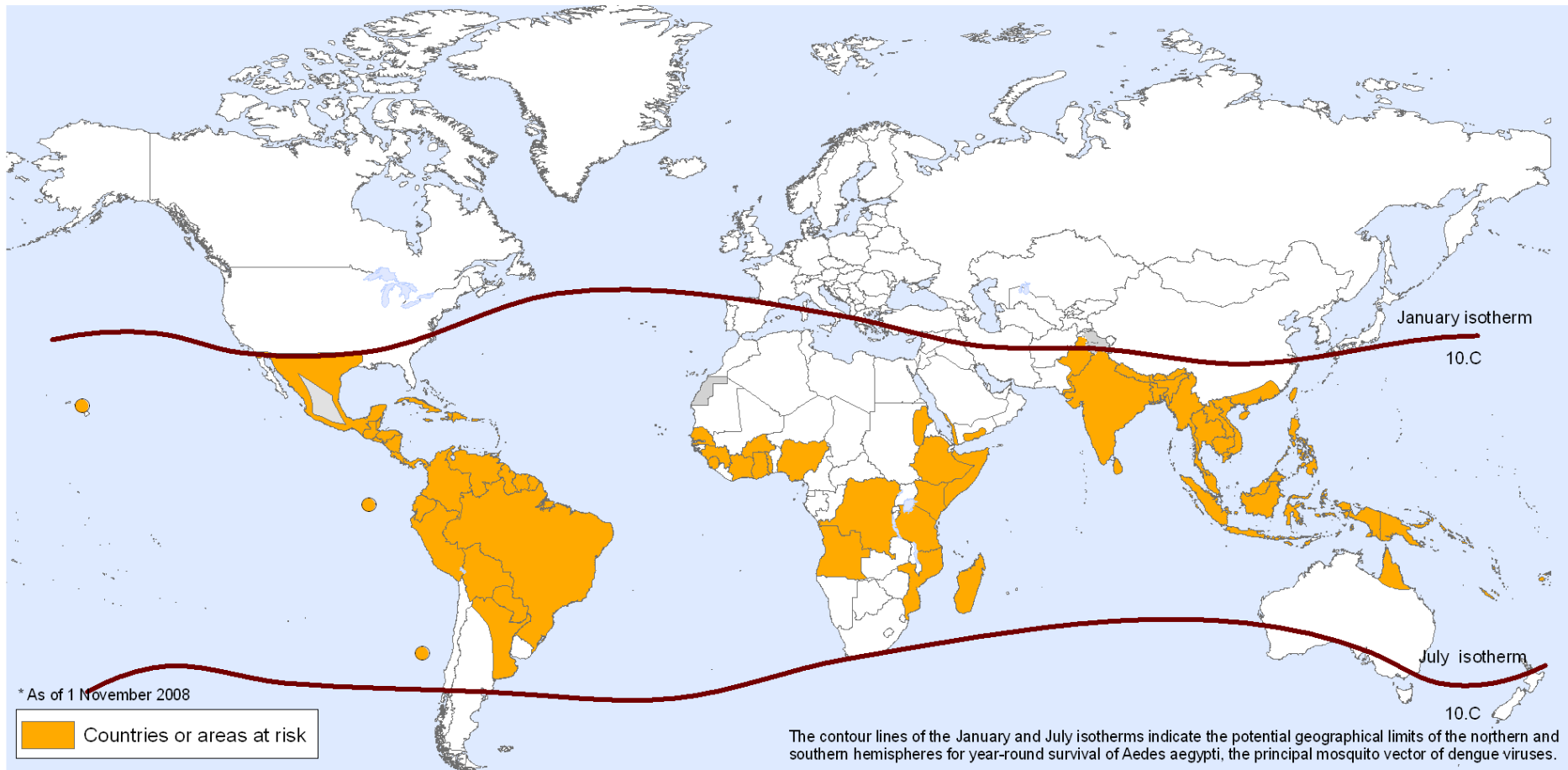


# World situation

**Average annual number of DF/DHF cases reported to WHO & average annual number of countries reporting dengue**



## Dengue, countries or areas at risk, 2008\*



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization  
Map Production: Public Health Information  
and Geographic Information Systems (GIS)  
World Health Organization



© WHO 2008. All rights reserved

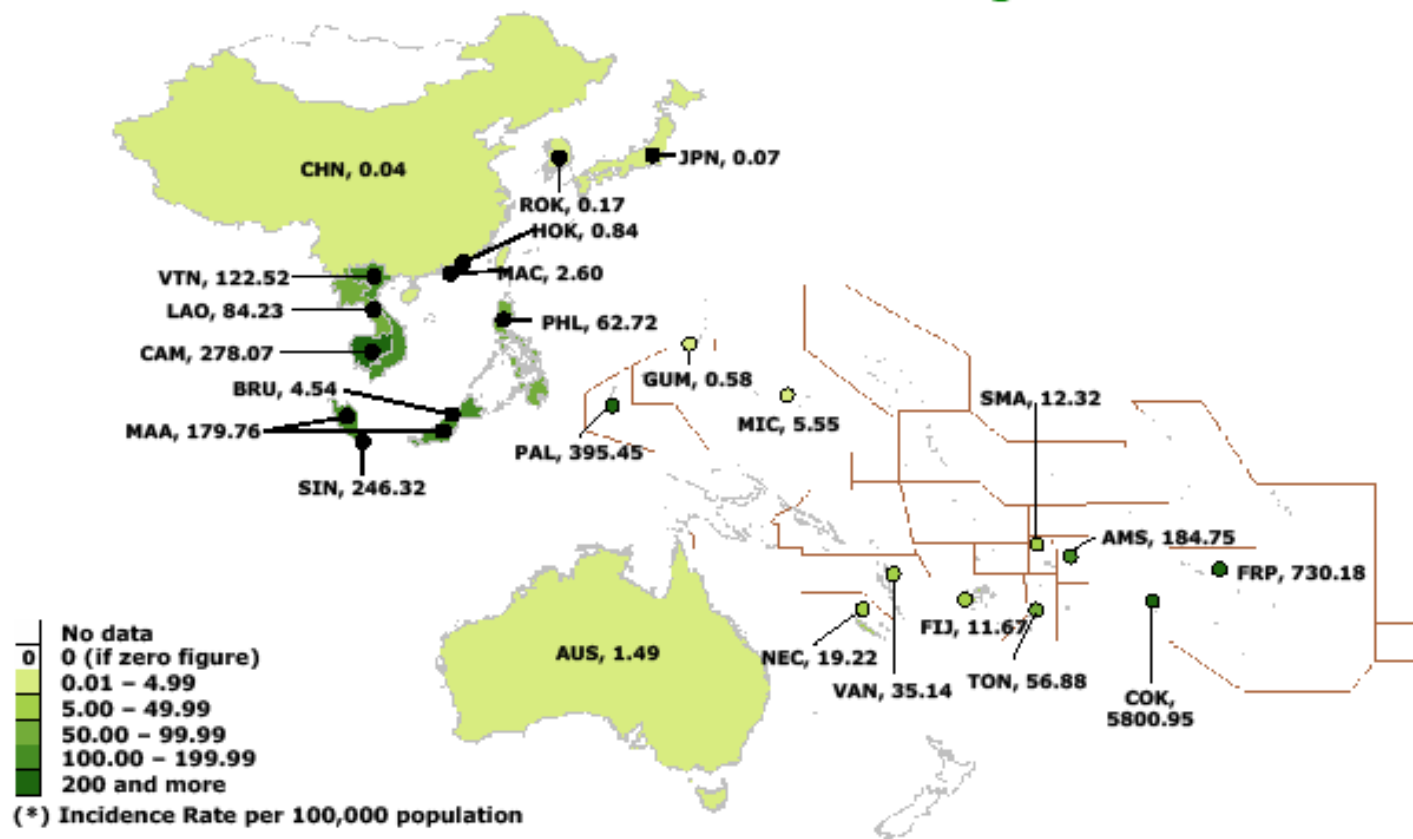


# Regional Situation – 2007

Australian cases acquired overseas n=266, Dengue serotypes n=83 (31%)

Country	Cases acquired	Dengue types	WHO WPRO Inc Rate per 100,000 pop	WHO WPRO Dengue Types
Cook Islands	10	D1	5,800/100,000 n=1224	D1
Indonesia	68	All types D3:n=10		
Thailand	23	D1,2,3		

# Dengue Incidence Rate<sup>(\*)</sup> in the Western Pacific Region, 2007



Disclaimer: © World Health Organization. The boundaries and names shown and the designations used on this map do not imply the expression of an opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Sources: (i) Country reports to WHO, (ii) Country website, (iii) PPHSN and (iv) DengueNet

Last updated: 15 June 2009



**World Health  
Organization**

**Malaria, Other Vectorborne and Parasitic Diseases  
WHO Western Pacific Regional Office**

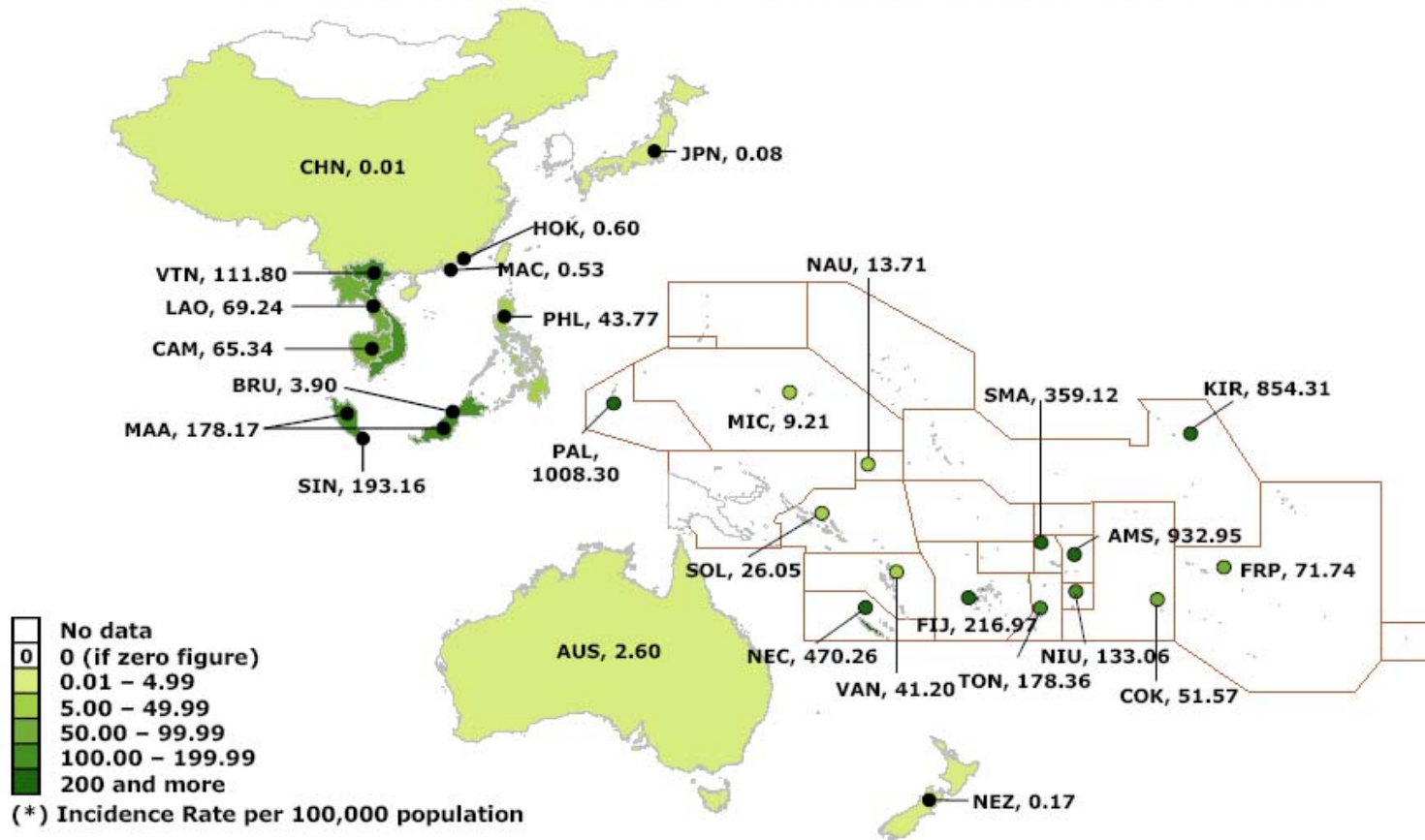


# Regional Situation – 2008

Australian cases acquired overseas n=425, Dengue serotypes n=97 (23%)

Country	Cases acquired	Dengue types	WHO WPRO Inc Rate per 100,000 pop	WHO WPRO Dengue Types
Fiji	26	D4:n=5	217/100,000 (n=2014)	D4
Tonga	20	Not stated	178/100,000 (n=195)	D1,4
Indonesia	80	All types D4:n=14		
Thailand	78	D1, 3		

# Dengue Incidence Rate<sup>(\*)</sup> in the Western Pacific Region, 2008



Disclaimer: © World Health Organization. The boundaries and names shown and the designations used on this map do not imply the expression of an opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Sources: (i) Country reports to WHO, (ii) Country website, (iii) PPHSN and (iv) DengueNet  
Last updated: 15 June 2009



Australian Government

Department of Health and Ageing

# Public Health Responses

- Increase noted and reported to jurisdictions in Oct/Nov 2008
- Inquiry as to cause of increase
  - Laboratory methods
  - Jurisdiction differences in case numbers
  - WA investigation and response
- Smartraveller website



Australian Government

Department of Health and Ageing

# Thank You

Ann Richards

Public Health Nurse

Tropical Population Health Unit

November 2008 and the Nth Queensland  
dengue outbreaks of 2008/09