

Environmental health: a snapshot of the global picture



**Dr Natasha Murray, Principal Advisor Public Health,
New Zealand Ministry of Health**

15th IFEH World Congress on Environmental Health

Today's perspective is from.....

New Zealand's role on the WHO Executive Board, 2015 - 2018





Media centre

Live webcast for 142nd WHO Executive Board

the player below. Session take place at WHO headquarter in Geneva, Switzerland from 22 to 27 January 2018

[22nd](#)[23rd](#)[24th](#)[25th](#)[26th](#)

World Health
Organization

22/01/18

Morning session

Item 1 Opening
adoption of the
Dialogue with
Item 3 Strategic



World Health
Organization

22/01/18

Afternoon session

Item 3.1 Draft
programme of



World Health
Organization

22/01/18

Afternoon session

Item 3.2 WHO

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Agenda and documents

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World Health
Organization

EXECUTIVE BOARD
142nd session
Geneva, 2017

EXECUTIVE BOARD
142nd session
Provisional agenda item 3.3

EB142/10
11 December 2017

Public health preparedness and response

Implementation of the International Health Regulations (2005)

Report by the Director-General

1. Open

2. Dialogue

3. Strategic

3.1

3.2

1. This document responds to the Health Assembly's request in decision WHA70(11) (2017) to the Director-General "to develop, in full consultation with Member States, including through the regional committees, a draft five-year global strategic plan to improve public health preparedness and response, based on the guiding principles contained in Annex 2 to document A70/16, to be submitted for consideration and adoption by the Seventy-first World Health Assembly, through the Executive Board at its 142nd session". Its purpose is to provide Member States with the proposed principles, strategic orientations, global deliverables and timelines of a strategic plan to improve public health preparedness and response, in line with the requirements of the International Health Regulations (2005).

2. The Secretariat issued an information document on the development of a draft five-year global strategic plan to improve public health preparedness and response¹ for discussion by all six regional

<http://apps.who.int/gb/>



1. Vector-borne diseases & Vector Control



Vector-borne Diseases: Facts and Figures

VBDs

Make up **more than 17%** of all infectious diseases
Cause **more than 700 000 deaths** annually

Dengue

>3.9 billion people in >128 countries at risk
96 million cases estimated per year

Malaria

>400 000 deaths every year
most are **children under 5 yo**

Others

Impact **hundreds of millions of people**



Global vector control response: an integrated approach for the control of vector-borne diseases

The Seventieth World Health Assembly,

Having considered the report on global vector control response;¹

Appreciating the work of the Secretariat in developing, through broad consultation with Member States and members of the global health community, a comprehensive global vector control response 2017–2030,² which served as the basis for the report;¹

Acutely aware of the burden and threat of vector-borne diseases to individuals, families and societies throughout the world, and the influence of social, demographic and environmental factors, including climate change and other climate- and weather-related factors, and increasing vector resistance to insecticides and the spread of mosquitoes and other vectors to unaffected areas;

Recognizing the need for cooperation to prevent, detect, report on and respond to outbreaks of vector-borne diseases so as to avoid a public health emergency of international concern under the International Health Regulations (2005);

Noting the recent gains that have been made against malaria, onchocerciasis, lymphatic filariasis, Chagas disease and others, as well as previous failures and existing challenges, and that lessons learned could be used for other vector-borne diseases;

Recognizing the need for an integrated, comprehensive approach to vector control that will enable the setting and achievement of disease-specific national and global goals, and that will



GLOBAL VECTOR CONTROL RESPONSE 2017–2030



Available at:
<http://www.who.int/vectorcontrol/publications/global-control-response/en/>

WESTERN PACIFIC REGIONAL ACTION PLAN for

Dengue Prevention and Control (2016)

**And a Western Pacific
regional perspective.....**





What does this all mean for countries?



Fight the bite day and night

**Going to the Pacific? Keep safe from
dengue by avoiding mosquito bites.**



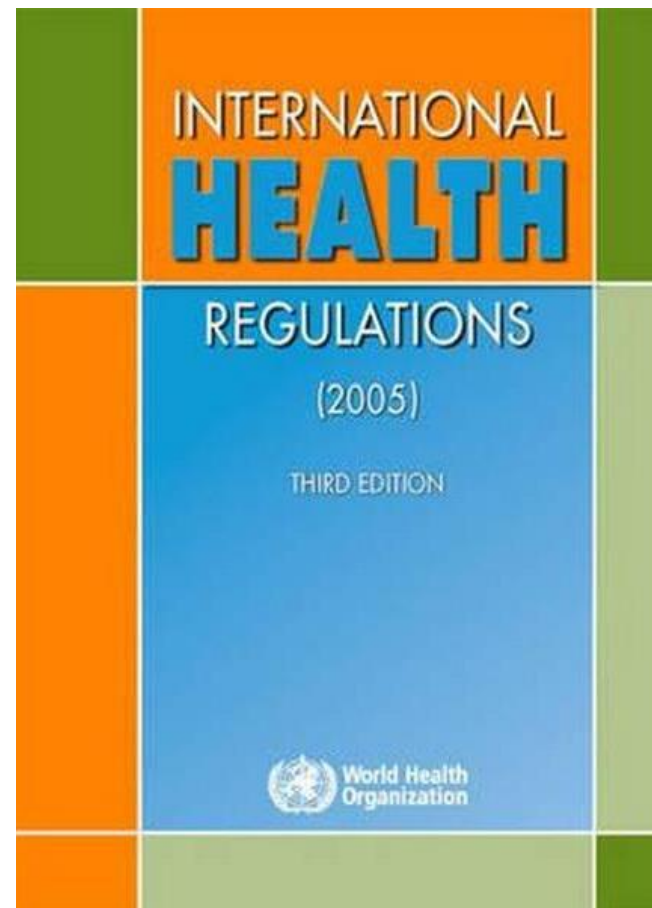
2. Public Health Emergency Preparedness



International Health Regulations (IHR) 2005

Requires WHO member states to:

- **plan for and respond** to hazards (including disease outbreaks)
- have a **National Focal Point** (NFP)
- respond to **WHO requests** for information about public health risks
- develop and maintain **‘core’ capacities**
- take **measures to avoid exporting** public health risks



Public Health Emergency of International Concern

A **PHEIC** is defined in the International Health Regulations 2005 as:

*...an **extraordinary** public health event that **requires an international response***

Decision tool - ‘**SUIT**’:

S - Serious and significant

U - Unusual, unexpected

I - International spread

T - Significant risk of international
Travel or Trade restrictions



EB142: Public Health Preparedness and response



EXECUTIVE BOARD
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Available at
http://apps.who.int/gb/ebwha/pdf_files/EB142/B142_10-en.pdf

JOINT EXTERNAL EVALUATION TOOL

INTERNATIONAL HEALTH REGULATIONS (2005)



World Health
Organization

Available at
<http://apps.who.int/iris/handle/10665/204368>

JOINT EXTERNAL EVALUATION TOOL

SECOND EDITION - January 2018

INTERNATIONAL HEALTH REGULATIONS (2005)



	TECHNICAL AREA
PREVENT	1. National legislation, Policy and Financing
	2. IHR Coordination, Communication and Advocacy
	3. Antimicrobial Resistance (AMR)
	4. Zoonotic Disease
	5. Food Safety
	6. Biosafety and Biosecurity
	7. Immunization
DETECT	8. National Laboratory System
	9. Real Time Surveillance
	10. Reporting
	11. Workforce Development
RESPOND	12. Preparedness
	13. Emergency Response Operations
	14. Linking Public Health and Security Authorities
	15. Medical Countermeasures and Personnel Deployment
	16. Risk Communication
Other IHR related hazards & Points of Entry	17. Points of Entry (PoE)
	18. Chemical Events
	19. Radiation Emergencies

APSED III



1. Public health emergency preparedness
2. Surveillance, risk assessment & response
3. Laboratories
4. Zoonoses
5. Prevention through health care
6. Risk communication
7. Regional preparedness, alert & response
8. Monitoring & evaluation

Asia Pacific Strategy for Emerging Diseases and Public Health Emergencies

Advancing implementation of the
International Health Regulations (2005)





What does this all mean for
countries?

JEE Support:

- Australia
- Mongolia
- Singapore

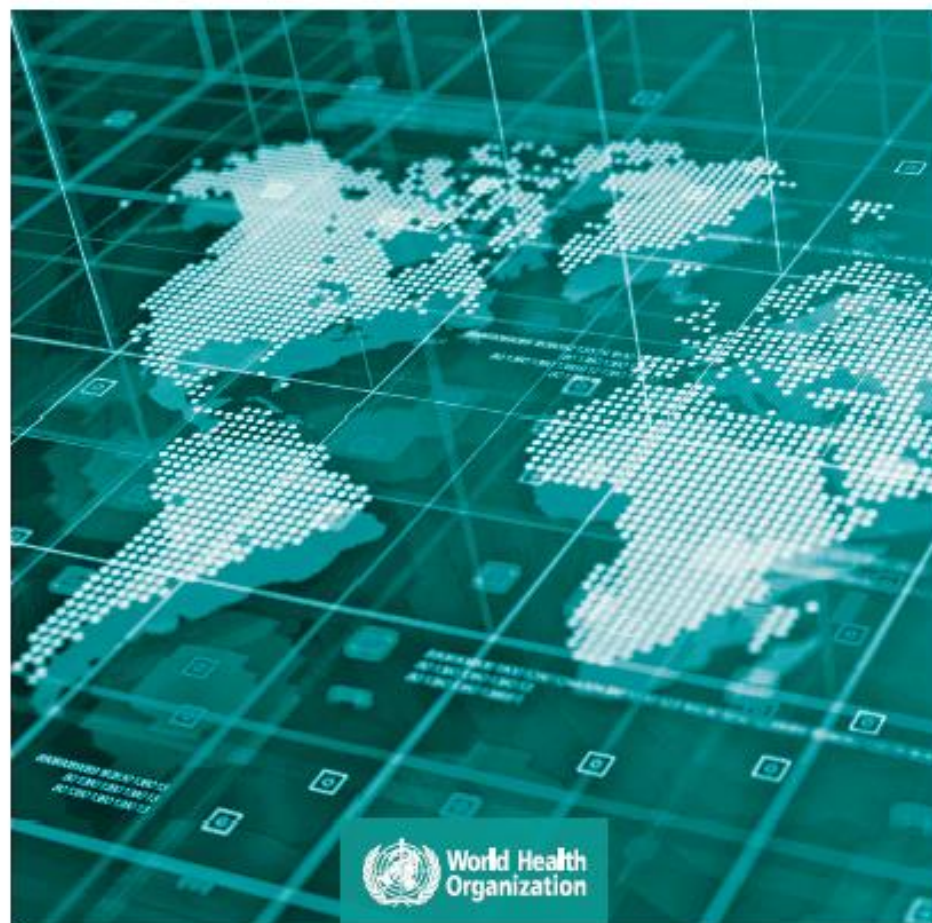


**New Zealand's
JEE 2018**

JOINT EXTERNAL EVALUATION TOOL

SECOND EDITION - January 2018

INTERNATIONAL HEALTH REGULATIONS (2005)



3. Climate Change, air quality and health



Climate Change: Facts and Figures

**From 2030 – 2050 an
additional 250 000
deaths per year from
malnutrition, malaria, diarrhoea
& heat stress**

**Direct damage costs to health
= US\$ 2-4 billion/year by
2030**

**Number of reported weather-related natural disasters has **more
than tripled** since the 1960s**

**Annually these disasters
result in **over
60 000 deaths**,
mainly in developing
countries**

**+ variable rainfall + floods +
rising temperatures + variable
precipitation.....**

EB142: Health, environment and climate change

Two main outcomes:

1. Development of a **draft comprehensive global strategy** on health, environment and climate change
2. Development of a **draft action plan** to address health effects of climate change initially **in small island developing States**

(1) to develop, as a priority and in consultation with Member States and other stakeholders as appropriate, and in coordination with the regional offices, a draft action plan for the platform to address the health effects of climate change initially in small island developing States, and to submit the draft action plan for consideration by the Seventy-second World Health Assembly in

Air Pollution: Facts and Figures

92% of people worldwide breathe unhealthy air

Causes **6.5 million** deaths annually

Ambient air quality in **most cities** exceeds
recommended WHO levels

Global health and welfare losses in
2013 valued at **US\$ 5110**
billion, or **almost 7% of GDP**

Up to 1/3 of deaths from
the leading NCDs are due to
air pollution

THE INVISIBLE KILLER

Air pollution may not always be visible, but it can be deadly.



36%
OF DEATHS FROM
LUNG CANCER



34%
OF DEATHS FROM
STROKE



27%
OF DEATHS FROM
HEART DISEASE

FIRST WHO GLOBAL CONFERENCE ON AIR POLLUTION AND HEALTH

IMPROVING AIR QUALITY, COMBATTING CLIMATE CHANGE – SAVING LIVES

30 October – 1 November 2018

WHO Headquarters, Geneva, Switzerland

save the date



**World Health
Organization**

LET'S ACT TOGETHER

BECAUSE THE COST IS FAR TOO HIGH

Air pollution claims 6.5 million lives a year

Air pollution is a major driver of the non-communicable disease epidemic

Air pollution accelerates climate change

AND WE HAVE SOLUTIONS

Affordable and clean urban, transport, waste & household energy strategies

Health, environment & development sectors can lead the way to change

Organized in collaboration with



Clean Air | Healthy Future | Healthy Climate



What does this all mean for countries?

NEW ZEALAND

Ministry of Health prepares for extreme heat effects as warming

30 Jan, 2018 6:08pm



Extremely hot weather is likely to become more common in future, putting pressure on community services. Photo / Doug Sherring

By: **Dubby Henry**

Dubby Henry is a reporter for the New Zealand Herald

Dubby.Henry@nzherald.co.nz

Subtropical diseases, heatstroke, fires and flooding are all likely to become more common as a result of climate change - and the Ministry of Health wants to make sure New Zealand is ready.

The ministry has announced it is working on a nationwide Heat Health Plan to help district health boards and community service providers prepare for hotter summers and the

Human Health Impacts of Climate Change for New Zealand

Evidence Summary

EXPLORE | DISCOVER | SHARE

ROYAL SOCIETY
TE APĀRANGI

Available at: <https://royalsociety.org.nz/assets/documents/Report-Human-Health-Impacts-of-Climate-Change-for-New-Zealand-Oct-2017.pdf>

4. Rheumatic Fever (RF) & Rheumatic Heart Disease (RHD)



RF and RHD: Facts and Figures

>300,000 people die annually from RHD:

- **most are premature deaths**
- **in under 40 yo**

At least 33 million people live with RHD

- **vast majority in developing countries**
- **others in high resource countries, particularly in**
 - **Indigenous communities**
 - **other vulnerable populations**

Sources:

Watkins D, Johnson C, SM C, et al. Global, region and national burden of rheumatic heart disease 1990 - 2015. NEJM. 2017;377(8):713 - 722.

Zühlke L, Karthikeyan G, Engel ME, et al. Clinical Outcomes in 3343 Children and Adults With Rheumatic Heart Disease From 14 Low- and Middle-Income Countries: Two-Year Follow-Up of the Global Rheumatic Heart Disease Registry (the REMEDY Study). Circulation. 2016;134(19):1456-1466

How it all works & where we can intervene

Exposure to Strep A



Strep A infection
SORE THROAT

**PRIMORDIAL
PREVENTION**



Rheumatic Fever

**PRIMARY
PREVENTION**



Rheumatic Heart Disease

**SECONDARY
PREVENTION**



Complications of RHD

**TERTIARY
PREVENTION**



RHD Resolution Process

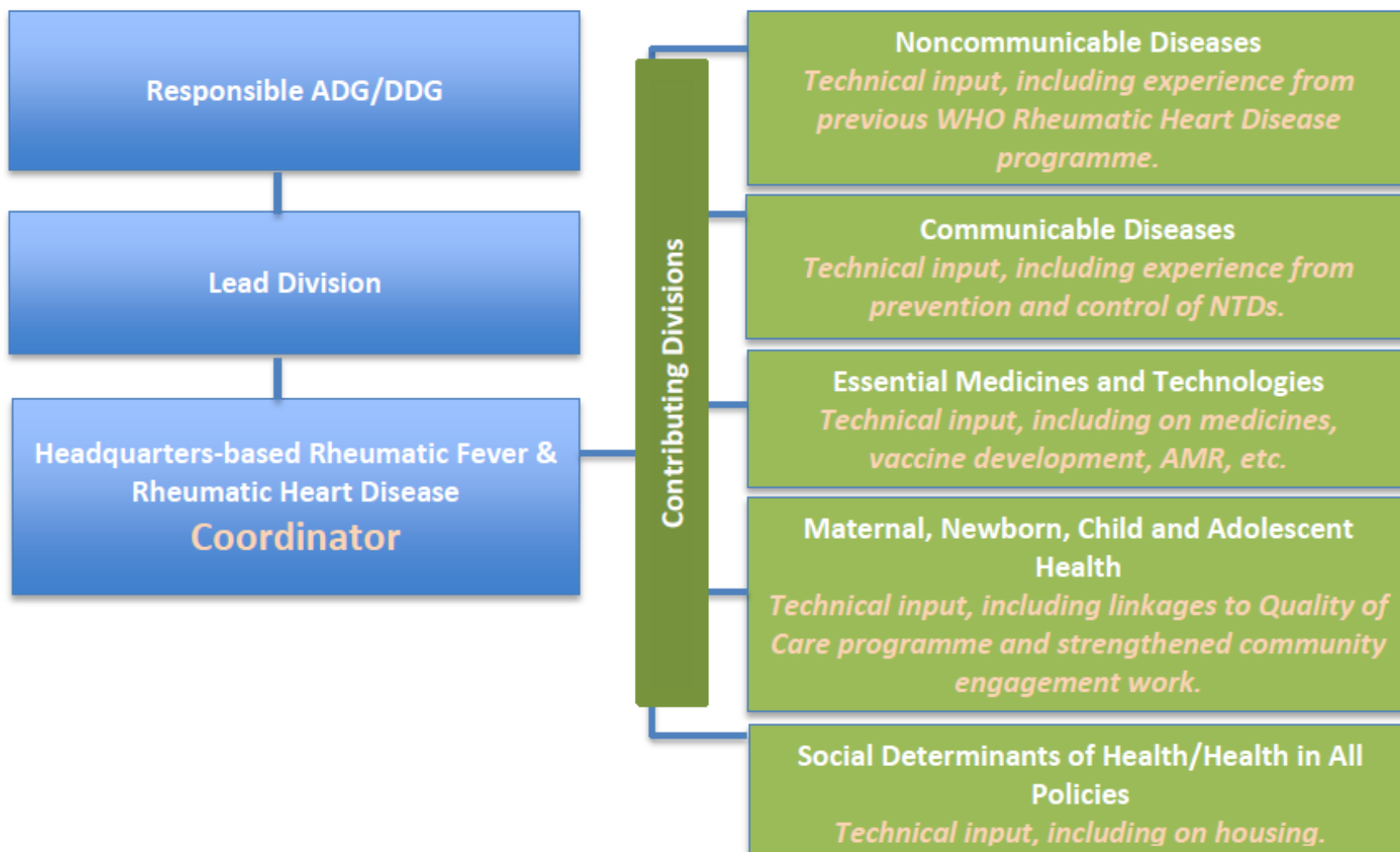
1. Request from **WHF & Pacific & African Member States**
 2. Informal meeting at 69th WHA (May 2016)
 3. Inter-sessional work:
 - Proposal for inclusion as agenda item
 - Draft resolution
 4. 70th World Health Assembly (May 2017)
 - Informal Consultation on Draft Resolution
 5. 141st Executive Board (June 2017)
 - Resolution agreed to go forward to **71st WHA (May 2018)**
-

Rheumatic fever and rheumatic heart disease

“I want to highlight the importance of intersectoral work. I look at RHD - it is a communicable disease, a non-communicable disease, it affects health systems and primary health care and prevention is done at maternal and child healthcare service. We can get most of the cases prevented... I just want to illustrate RHD as an item. It looks as if it is a standalone disease, but it actually requires so many departments and clusters in order to contribute to reducing the high disease burden affecting all regions. Thirty three million – it is a lot!”

Dr Margaret Chan, speaking to the Executive Board of the World Health Organization on Agenda item 6.2 ‘Rheumatic Heart Disease’ at EB141/4 June 1 2017.

Proposal for implementing the Resolution





What does this all mean for countries?

5. Antimicrobial Resistance (AMR)





GLOBAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE



Available at:
<http://www.who.int/antimicrobial-resistance/global-action-plan/en/>

**What does this all mean for
countries?**



*Released
August 2017*

New Zealand Antimicrobial Resistance Action Plan

Available at:
<https://www.health.govt.nz/system/files/documents/publications/new-zealand-antimicrobial-resistance-action-plan.pdf>

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