Making a difference in context of disaster risk reduction

Professor Virginia Murray, Public Health England
Head of Global Disaster Risk Reduction
Member of Integrated Research on Disaster Risk (IRDR) Scientific Committee
Member of the UN Sustainable Development Solutions TReNDS Network
Member of the WHO Collaborating Centre on Mass Gatherings and Global Health Security
Co-Chair of WHO Thematic Platform on Health and Emergency Disaster Risk Management Research Network
The 1976 heatwave resulted in a particularly large number of deaths in comparison with other hot periods.

Day 1 - Third UN World Conference on Disaster Risk Reduction
Sendai, Japan, 14 March 2015 Special Event: UN Secretary-General Ban Ki-moon leads discussion on...
Sendai Framework for Disaster Risk Reduction 2015 - 2030
Sendai Framework for Disaster Risk Reduction 2015-2030

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries

Health resilience is strongly promoted throughout.
Sendai Framework for Disaster Risk Reduction 2015-2030

1 Global Outcome
13 Guiding Principles
4 Priorities for Action at all levels
7 Global Targets

Reduce
- Mortality per 100,000
  Global population
  2020-2030 Average < 2005-2015 Average

- Affected people per 100,000
  Global population
  2020-2030 Average < 2005-2015 Average

- Economic loss per 100,000
  Global GDP
  2030 Ratio < 2015 Ratio

- Damage to critical infrastructure & disruption of basic services
  2030 Values < 2015 Values

Increase
- Countries with national & local DRR strategies
  2020 Value > 2015 Value

- International cooperation to developing countries
  2030 Value > 2015 Value

- Availability and access to Multi-hazard risk information and assessments
  2030 Values > 2015 Values
Sendai Framework for Disaster Risk Reduction 2015-2030

Four priorities for action

1. Understanding disaster risk;
2. Strengthening disaster risk governance to manage disaster risk;
3. Investing in disaster risk reduction for resilience;
4. Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction.

i) at National and Local Levels
ii) at Global and Regional levels
To strengthen technical and scientific capacity to capitalize on and consolidate existing knowledge and to develop and apply methodologies and models to assess disaster risks, vulnerabilities and exposure to all hazards;
Primary Categories of Macro-Threats

1 Financial Shock
2 Trade Dispute
3 Geopolitical Conflict
4 Political Violence

5 Natural Catastrophe
6 Climatic Catastrophe
7 Environmental Catastrophe
8 Technological Catastrophe

9 Disease Outbreak
10 Humanitarian Crisis
11 Externality
12 Other Shock

http://cambridgeriskframework.com/downloads
Sendai Framework for Disaster Risk Reduction 2015-2030

• To guide action at the regional level through agreed regional and subregional strategies and mechanisms for cooperation for disaster risk reduction, as appropriate, in the light of the present Framework, in order to foster more efficient planning, create common information systems and exchange good practices and programmes for cooperation and capacity development, in particular to address common and transboundary disaster risks; (paragraph 28a)
MEASURING IMPLEMENTATION OF THE SENDAI FRAMEWORK

ANNOUNCEMENT

The Sendai Framework Monitor system is now live!

After the adoption of Sendai Framework in 2015, 38 indicators were defined to measure progress in achieving its 7 Global targets. This system is the official tool to report these indicators to both the Sendai Framework and SDG’s reporting processes.
Many deaths can be avoided with better data: UN deputy chief
Example: Russian heatwave 2010

- Heat wave & drought
  - Barriopedro et al., 2011, Science

- Vegetation stress

- Crop failure
  - Reichstein et al. pers. comm.

- Forest fires
  - High atm pressure & Climate change
  - Reichstein et al. pers. comm.

- Air pollution
- Wheat prices
- Mortality
- Social instability

- Vegetation stress
- Crop failure
- Forest fires
- Air pollution
- Social instability

Heat wave & drought leads to vegetation stress, which then leads to crop failure. Crop failure leads to wheat price increases, which can lead to social instability and mortality. Air pollution is also a consequence of the heat wave. High atmospheric pressure and climate change are factors contributing to the heat wave.
A healthy community is a resilient community.

The best defense against health emergencies is universal health coverage, based on strong health systems.
WHO Thematic Platform for Health Emergency and Disaster Risk Management

Introduction

The Thematic Platform was launched by WHO and UNISDR on the International Day for Disaster Reduction, 14 October 2009. The impetus came from both the 2008-2009 World Disaster Reduction Campaign on Hospitals Safe from Disasters and the 2009 Global Platform for Disaster Risk Reduction when participants supported a proposal to establish a thematic platform dedicated to protecting public health from the risks and consequences of emergencies and disasters and in support of the Hyogo Framework for Action 2005-2015.

Fast forward to 2015, the Thematic Platform has provided advice and recommendations on health issues to Member States for the development and agreement of the Sendai Framework for Disaster Risk Reduction 2015-2030 which puts health at the centre of local, national and global action on managing risks associated with emergencies in the overall goal, expected outcome, targets and priority actions. The Thematic Platform is guided by, and supports the implementation of, the Sendai Framework, the Sustainable Development Goals and the Paris Agreement on climate change, along with the International Health Regulations (2005).
Health Emergency and Disaster Risk Management

CLIMATE RISK MANAGEMENT

Key Points

Climate risks have significant effects on public health, including injury, death, communicable diseases such as vector-borne and water-borne diseases, and non-communicable impacts such as malnutrition, food stress and health effects of air pollution.

A combination of increasing vulnerability and risk of weather-related hazards is expected to result in more severe and frequent events and disasters. Measures to reduce the health impacts from climate risks, and associated climate change, include:

- Enhancing capacity of health systems to reduce risks and respond to emergencies
- Including climate-sensitive health risks in disaster risk management strategies
- Protecting hospitals and other health infrastructure from climate risks and effects of climate change
- Strengthening surveillance and control of infectious diseases against climate risk
- Incorporating the use of climate-informed early warning systems by the health sector
- Building public health interventions at local level to increase community resilience

Why is this important?

Globally, the number of weather-related hazards is increasing. Reports of extreme weather events are expected to continue and increase in many countries. Globally, the frequency is increasing, the intensity of many events has increased and the frequency of extreme weather and climate-related events has doubled.

The last few decades have seen increased exposure of population to extreme weather and climate-related events. The effects of climate change on human health are significant and will become more evident in the future.

Examples

European heat waves (2003 and 2006): The hot summer of 2003 and 2006 in Europe produced sustained record high temperatures which resulted in markedly higher death rates than normal, particularly amongst the elderly population. The long, warm summer of 2003 saw a higher number of deaths in Western Europe during the summer than had been expected, and in 2006 an additional 5,000 deaths occurred than expected in France alone.

Storms and flooding: Consensus estimates place the number of people affected by storms and floods around the world at 300 million people. It is estimated that 250,000 deaths and 50,000 deaths are taken, health losses associated with storms and floods are easily expected to increase as extreme rainfall events, floods and tropical cyclones increase.

Risk management considerations

Governments and communities can protect public health from climate-related risks, including climate change, by:

- Strengthening partnerships between emergency management actors, NGOs, private sector, and national health systems to address health risks in climate risk management plans and disaster risk reduction plans.
- Enhancing capacity of health systems for managing short-term climate-related risks, including health emergency preparedness, early warning and enhanced emergency response for rapid recovery from extreme weather events.
- Protecting critical health infrastructure from extreme weather events, ensuring functioning of core public health services during emergencies and making facilities climate-smart with access to sustainable energy (e.g. solar energy, low carbon, low waste).
- Building evidence of impacts and monitoring changes in risk over time.

Climate change is one of the main causes of the rise in sea levels. This has serious implications for coastal communities and the global economy.

References

4. World Health Organization. Global Health Risks: Proliferation of Infectious Diseases and Climate Change
5. World Health Organization. Health Risks from Urban Heat and Climate Change
6. World Health Organization. Health Risks from Climate Change
7. World Health Organization. Health Risks from Urban Heat and Climate Change
ABOUT US

THE LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE

The Lancet Countdown: Tracking Progress on Health and Climate Change is an international research collaboration, dedicated to tracking the world's response to climate change, and the health benefits that emerge from this transition. Reporting annually in The Lancet, it will follow a series of indicators, demonstrating that this transition is possible, that it has already begun, but that more work is needed.
Just Released - Nov 28, 2018

The 2018 Report of *The Lancet Countdown on health and climate change*:

- 157 million more vulnerable people were subjected to a heatwave last year than in 2000, and 18 million more than in 2016.
- 153 billion hours of work were lost in 2017 due to extreme heat as a result of climate change. China alone lost 21 billion hours, the equivalent of a year’s work for 1.4% of their working population.
- Heat greatly exacerbates urban air pollution, with 97% of cities in low- and middle-income countries not meeting WHO air quality guidelines.
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153 billion hours of work were lost in 2017 due to extreme heat as a result of climate change. China alone lost 21 billion hours, the equivalent of a year’s work for 1.4% of their working population.
Labour loss at activity level 400 W, mean change 2000–17 relative to baseline

Mean change in hours lost per person per year

20 40 60 80 100 120
The 2018 Report of The Lancet Countdown on health and climate change:

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Heat greatly exacerbates urban air pollution, with 97% of cities in low- and middle- income countries not meeting WHO air quality guidelines.
CHAPTER 6

HEAT AND EXTREME EVENTS

LEAD AUTHOR—VIRGINIA MURRAY (PUBLIC HEALTH ENGLAND, UN-INTERNATIONAL INSTITUTE FOR GLOBAL HEALTH), CRISTINA LINARES DE C. (INSTITUTO DE SALUD CARLOS III), JEREMY HESS (UNIVERSITY OF WASHINGTON)

CONTRIBUTING AUTHORS—ROHaida Ismail (MINISTRY OF HEALTH, MALAYSIA), CARINA CHING-KING LUM (THE CHINESE UNIVERSITY OF HONG KONG), Wei MA (SHANDONG UNIVERSITY), LIZA K. scHIGSEL (CONTRIBUTE WORLD HEALTH ORGANIZATION). THOMAS D. WATT (PUBLIC HEALTH ENGLAND)

Photo: ©iStockphoto (Shutterstock)
Table 6.1: Regional distribution of heat–health action plans

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>No. of countries identified as having heat–health action plans</th>
<th>Total heat–health action plans by Region</th>
<th>Countries with heat–health action plans</th>
<th>No. of countries in region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Mediterranean</td>
<td>1</td>
<td>2%</td>
<td>5%</td>
<td>22</td>
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<tr>
<td>Europe</td>
<td>35</td>
<td>74%</td>
<td>66%</td>
<td>53</td>
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<tr>
<td>Americas</td>
<td>2</td>
<td>4%</td>
<td>6%</td>
<td>35</td>
</tr>
<tr>
<td>South East Asia</td>
<td>5</td>
<td>11%</td>
<td>45%</td>
<td>11</td>
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<tr>
<td>Africa</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
<td>47</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>4</td>
<td>9%</td>
<td>11%</td>
<td>37</td>
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<tr>
<td>Total</td>
<td>47</td>
<td>-</td>
<td>23%</td>
<td>204</td>
</tr>
</tbody>
</table>

Source: Data in this table were obtained from the Global Heat Health Information Network Database. Information displayed was obtained through a systematic review of online heat–health action plans undertaken by the WHO and World Meteorological Organization Climate and Health Office in August 2017 (GHHIN, 2018).
Global Climate Action Events at COP24: Full Programme
What was agreed at COP24? Countries settled on most of the tricky elements of the “rulebook” for putting the 2015 Paris agreement into practice.

When will that be agreed? The key deadline is 2020, when countries must show they have met targets set a decade ago for cutting their emissions, and when they must affirm new, much tougher targets.

What does the science say? IPCC, the global body of the world’s leading climate scientists, warned two months ago that allowing warming to reach 1.5C above pre-industrial levels would have grave consequences, including the die-off of coral reefs and devastation of many species.

How long have we got? If we extrapolate from the IPCC’s findings, the world has little more than a decade to bring emissions under control and halve them, which would help to stabilise the climate.
Making a difference in context of disaster risk reduction

- The Sendai Framework provides an agreed method to enhance capabilities to plan and prepare for, respond to, and recover from heatwaves emergencies and disasters and other public health emergencies in partnership

- Offers an opportunity to engage at a global level with stakeholders on guidance and policy issues that could impact national and local preparedness
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