Workshop on assessing the impact of Slow-Onset Events

Technical Session 1: Understanding the state of play
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Introduction

- Focus on health impact of heat
Health Impact assessment of Slow-Onset Events

Data generated / data available and methods applied

<table>
<thead>
<tr>
<th>Impact</th>
<th>Health Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct L&amp;D</td>
<td>Acute and emergent, Slow-onset and chronic</td>
</tr>
<tr>
<td>injury or trauma</td>
<td>physical injury or death, mobility impairment, post-traumatic stress disorder</td>
</tr>
<tr>
<td>water quality</td>
<td>increased incidence of vector-borne disease (e.g., mosquitoes transmitting malaria, cholera)</td>
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<tr>
<td>reduced air quality</td>
<td>increased likelihood of adult lung disease, heart attack, and/or stroke</td>
</tr>
<tr>
<td>food scarcity</td>
<td>increased incidence of chronic allergies</td>
</tr>
<tr>
<td>micronutrient deficiency</td>
<td>dietary change, increased incidence of stunting and wasting</td>
</tr>
<tr>
<td>macronutrient deficiency</td>
<td>increased susceptibility to diabetes, obesity, heart disease</td>
</tr>
<tr>
<td>reduced food availability</td>
<td>decreased cognitive development of children, depression</td>
</tr>
</tbody>
</table>
Indirect loss and damage

<table>
<thead>
<tr>
<th>Impact</th>
<th>Health Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect L&amp;D</td>
<td>Acute and emergent</td>
</tr>
<tr>
<td>non-economic impacts</td>
<td>stress</td>
</tr>
<tr>
<td>of reduced agricultural</td>
<td>• increased multidimensional</td>
</tr>
<tr>
<td>productivity</td>
<td>vulnerability</td>
</tr>
<tr>
<td>degradation to biodiversity</td>
<td>• broad, negative impacts on</td>
</tr>
<tr>
<td>and ecosystems</td>
<td>social determinants of health</td>
</tr>
<tr>
<td>loss or degradation to</td>
<td>• dietary change</td>
</tr>
<tr>
<td>territory, cultural heritage/</td>
<td>• depression</td>
</tr>
<tr>
<td>artifacts, indigenous or</td>
<td>• anxiety</td>
</tr>
<tr>
<td>local knowledge</td>
<td>• solastalgia¹</td>
</tr>
<tr>
<td>loss of cultural way of life,</td>
<td>• loss of agency²</td>
</tr>
<tr>
<td>and/or societal or cultural</td>
<td>• loss of sense of place</td>
</tr>
<tr>
<td>identity, loss of safety</td>
<td>• reduced social cohesion</td>
</tr>
<tr>
<td>networks</td>
<td>• intimate partner violence</td>
</tr>
</tbody>
</table>

Increase in Burden of Disease: economic and non-economic loss

• We can estimate proportional increase in overall burden of disease compared to previous periods, measured in DALYs.

• DALY is Years of Life Lost + Years Lived with Disability.

• DALY-based assumptions, example Ukraine conflict related loss:
  • Loss from infectious diseases = 5% DALY increase from communicable diseases.
  • Increased neonatal and children mortality = 3% DALY lost neonatal and nutritional deficiencies.
  • Increased maternal mortality (missed ANC and deliveries) = 3% additional DALY maternal disorders.
  • NCD-related losses from missed screening exams and disruptions in chronic disease management = 4% DALY increase from NCDs.
  • Additional mental health burden = 10% additional DALY from MH disorders.

• Can be expressed in monetary value:
  • 1 DALY = 1 (or 0.5?) GDP per capita (previous year)

• Is not equal to increased costs for health care:
  • Some people won’t be able to see care: services foregone
  • Increased case load needs different formulas to estimate increased health care expenditures.
Challenges and Lessons
Example from the WHO European Region: HEAT AND HEALTH

- The European Region is the fastest-warming region.
- Over recent years, there is rising number of extreme weather events.
- Floods, heatwaves, drought, freak storms and other extreme weather events continue to take their toll on the region.
- 2022 was reported as the hottest season on record in Europe – with over 61,000 heat-related deaths in Europe from 30 May to 4 September 2022.
- 2023 sees multiple events of high concern, including heatwaves, wildfires, and storms.

(1) According to the State of the Climate in Europe 2022 report by the World Meteorological Organization (WMO) and European Union’s Copernicus Climate Change Service.

WHO Regional Office for Europe support to MS on heatwave preparedness

- Reduce exposures
  - Legislative policies
  - Alterations in built environment
  - Alterations in natural environment
- Prevent onset of adverse outcomes
  - Early warning systems
  - Surveillance and monitoring
  - Public education and outreach
- Response / treatment
  - Medical training and awareness
  - Treatment
  - Emergency response

Measures to adapt to future extreme heatwaves include:
- Heat–health action plans that incorporate early warning and response systems for urban and non-urban settings;
- Response strategies targeting both the general population and vulnerable groups such as older adults or people who work outside; and
- Effective stakeholder communication plans.

#KeepCool campaign: heat–health information sheet

Heat is a silent killer but people do not have to die from it—there are simple actions you can take. The #KeepCool campaign is a tool we can use to ensuring our public health messaging is heard and acted upon.

Why is heat a health concern?
Heat can trigger exhaustion and heat stroke, and can aggravate existing conditions—such as cardiovascular, respiratory, kidney or mental diseases.

Who are vulnerable to heat?
Older people and people with pre-existing medical conditions (such as asthma, diabetes and heart disease).

What are the signs and symptoms of heat stress and what to do about it?
If you or others feel unwell—dizzy, weak, anxious, intensely thirsty or have a headache—rest in a cool environment and drink water to rehydrate.
Recommendations / Opportunities

- Heat: Complicated (attribution, definitions, thresholds) no agreed indicators or reporting obligation to WHO member states: adapted for each country
- Need health metrics alongside environmental metric, focus on health outcomes and nutrition for SOE, complementary to (and linked with?) IHR reporting mechanisms
- Need better vulnerability mapping layered to climate exposure risks
- Build on surveillance and morbidity reporting

--> investments in health sector resilience and preparedness through alliance for Transformative Action on Climate and Health (ATACH)
--> Capacity of the health sector to manage increased case load and public health interventions (prevention)

Recommendations / Opportunities

Strengthen health systems resilience to climate change

- Improving surveillance and/or early warning systems (Heat-Health Action Plans)
- Resilient, sustainable health facilities
- Health workers trained, engaged on climate
- Climate informed surveillance systems
Climate actions by the health sector – leading by example

- Protect health from full range of rising climate risks
- Make healthcare facilities climate-resilient and environmentally sustainable
- Reduce greenhouse gas emissions from health systems

Thank you for the attention!