The environmental determinants of Mental Health

Headway - A new roadmap in Mental Health Forum - Brussels│ **28Sep2022**

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Outline

Let's get started

- Inter-connections of Mental health and SDGs

- Mental Health Burden

- Climate change and mental health

- Pathways of Environmental threats

- Policy and Research implications

The Inter-connection between social determinants of mental health, human security and SDGs

Figure 6: Social determinants of global mental health and the Sustainable Development Goals[90]

The burden of mental disorders

An invisible burden

- Mental, neurological and substance abuse disorders **burden continues to grow**, impacting health and major social, human rights and economic consequences, **globally** *(WHO, 2021)*

- They significantly **contribute** more **to disability rates** than any physical health condition globally *(Whiteford et al., 2015)* and can be **extremely costly** to the individual, their households, their communities and health care systems *(Insel, 2008)*.

- They often have a **chronic-recurrent course** despite treatment *(Leon et al., 2005)* and rank among the most substantial **causes of death** worldwide *(Walker et al., 2015)*.

- The treatment gap for these disorders is **huge** *(MhGAP)*

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Climate change and Mental health
What we already know

- Globally, climate change is **negatively affecting mental health** and psychosocial wellbeing across population groups, with different impacts.

- Clear **evidence between effects** of climate change (e.g. *extreme weather events, increased heat, forced displacement*) **and** the development or worsening of **mental disorders**. Also, can disrupt the provision of care.

- **Vulnerability factors** will exacerbate these impacts (e.g. physical and mental co-morbidity, disability, gender and age groups, social determinants)
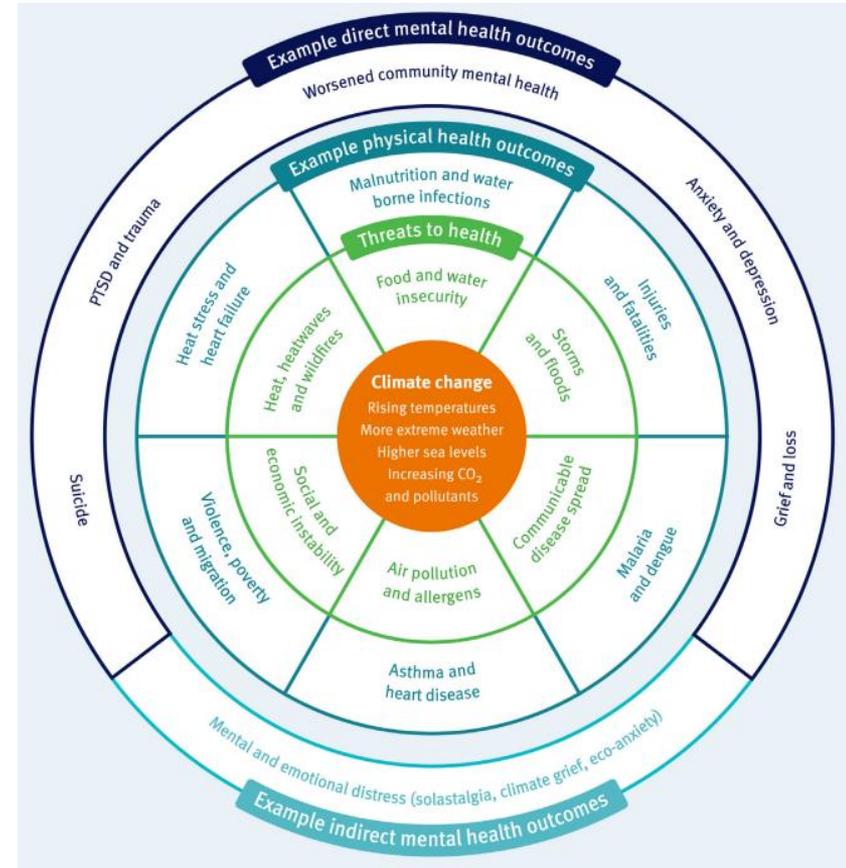
Grantham Briefing paper No 36 May 2021 Image adapted by World Innovation Summit for Health report: "Health In The Climate Crisis: A Guide For Health Leaders" (2020) and the Centers for Disease Control and Prevention (CDC) "Climate effects on health" (2020).

Environmental threats and Mental health impacts

Who are at risk?
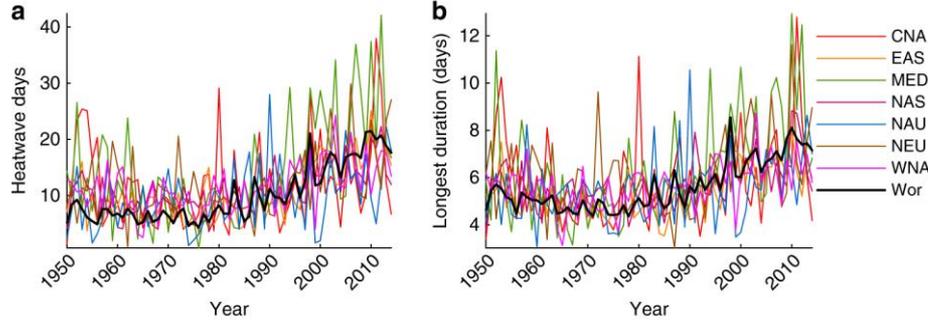
Trends in heatwave frequency, duration and cumulative heat have accelerated since the 1950s Perkins-Kirkpatrick, Nature comm, 2021
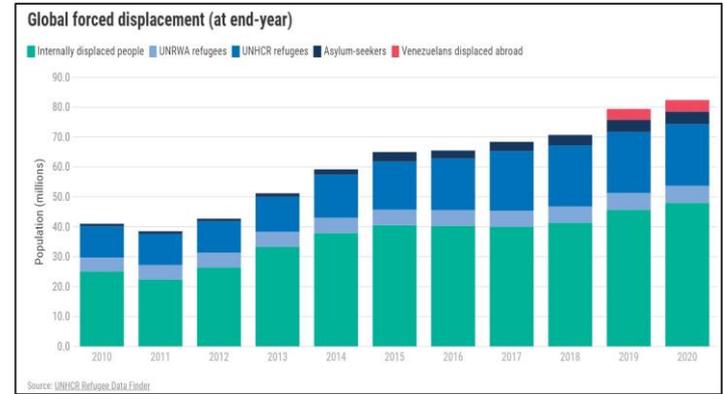
An important consequence of disasters: forced displacement (FD). Global rates have increased rapidly UNHCR, 2021

2008 – 2017 (84%) of all recorded disasters were related to climate issues
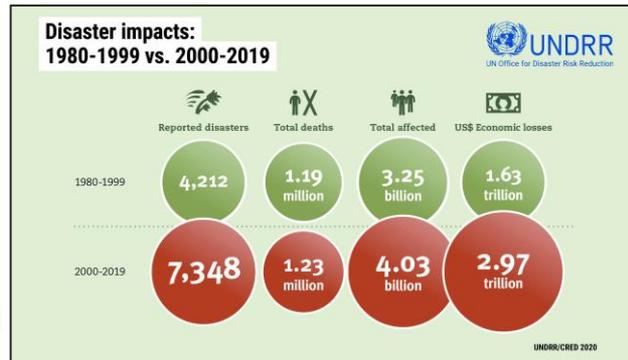
Between 1980 and 2017, disasters cost the EU more than 90,000 lives and over €500 billion of economic losses European Civil Protection and Humanitarian Aid Operations, 2018

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Climate change events and Mental health - Pathways

Berry et al (2010) categorise climate change related hazards into:

- **Acute**: floods, hurricanes, etc

- **Sub-acute**: pervasive droughts

- **Chronic**: rising sea-levels, increasing temperatures
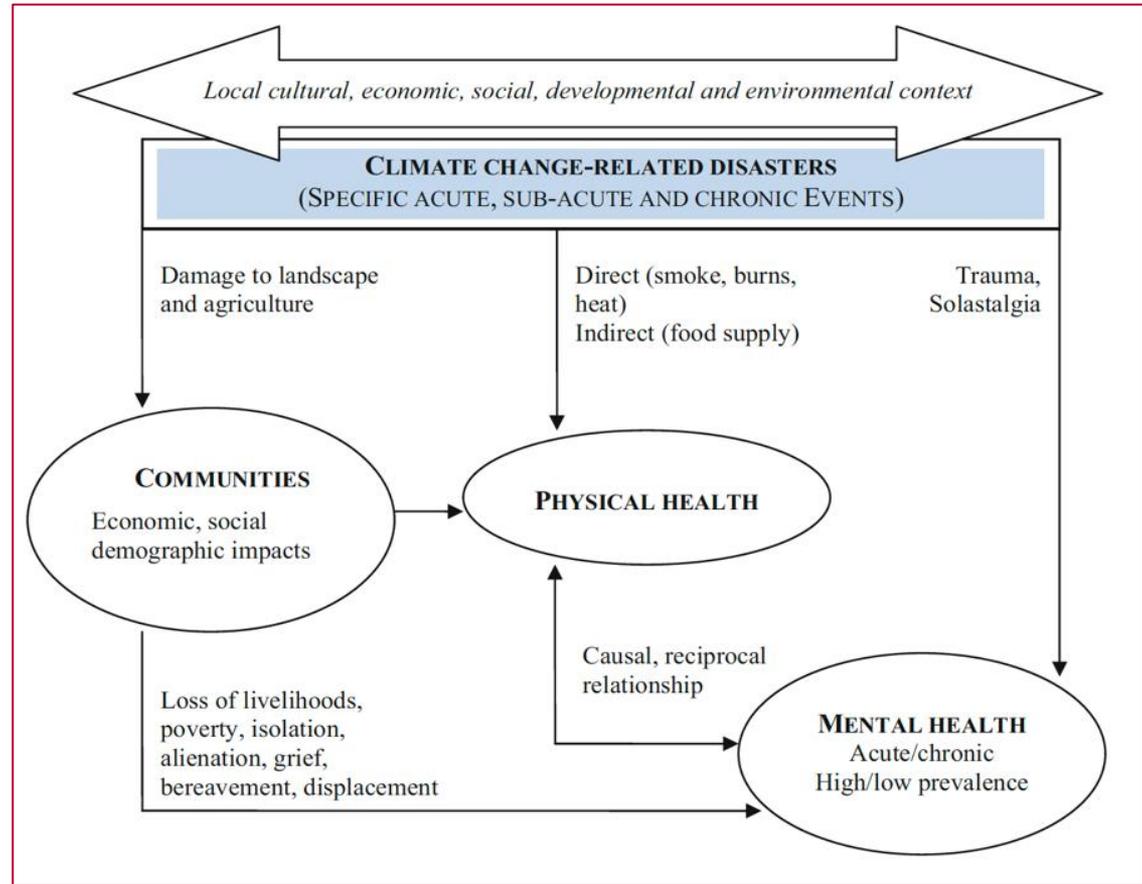
Extreme weather events pathways and impacts on MH

Grantham Center, 2021
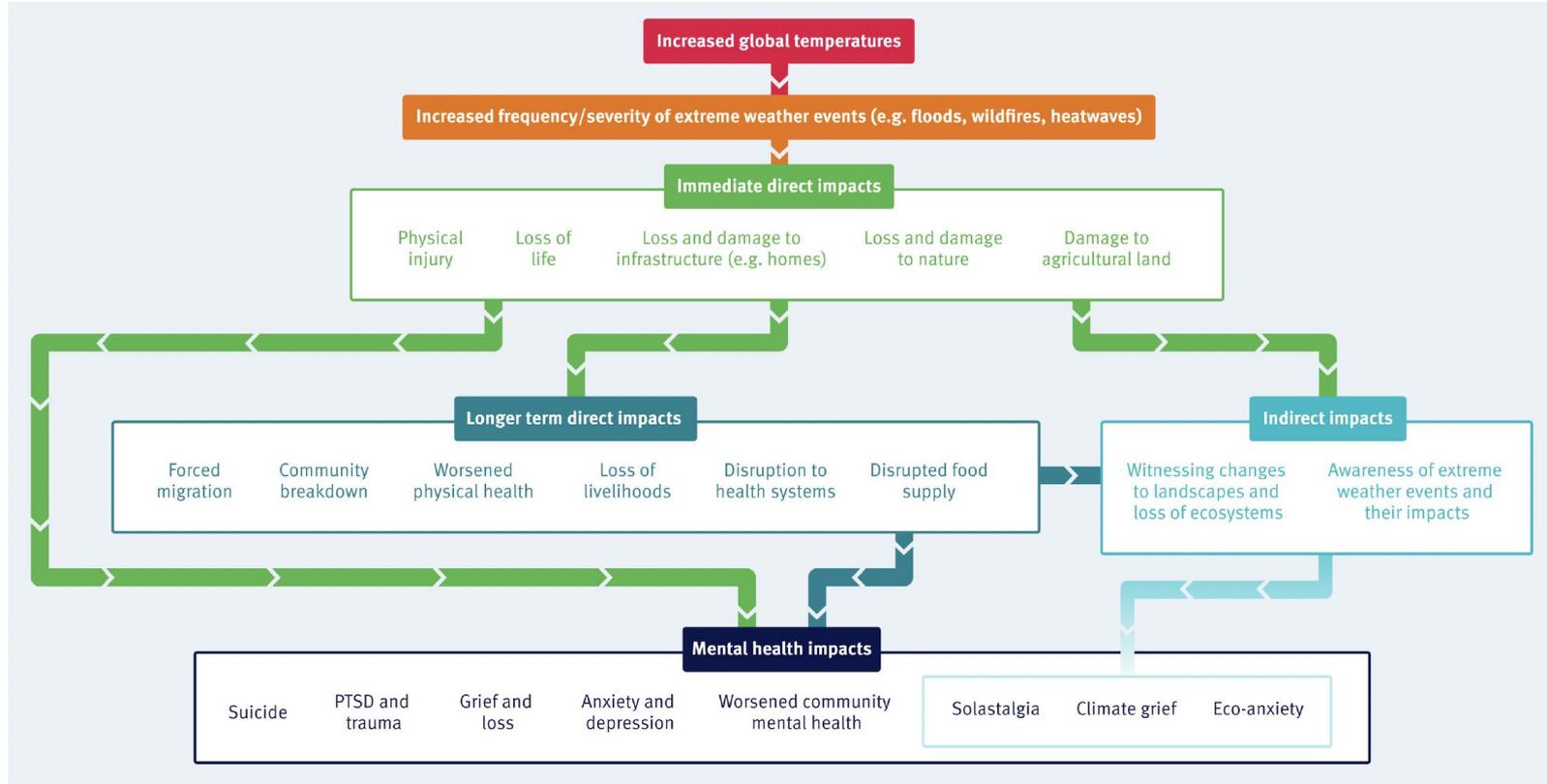
Other relevant exposures and mental disorders
Some examples

- Pesticides

Organophosphate pesticide exposure with **anxiety** and **depression** (Harrison et al., 2016)

- Air Pollution

Schizophrenia / Psychosis with air suspended particle concentrations (Yackerson et al., 2014)

- Endocrine Disruptors

Prenatal BPA exposure with higher **anxiety, hyperactivity and depression** scores (Evans et al., 2014, Perera et al., 2016)

- Metals

Pb exposure and increased odds of major depression/panic disorder (Bouchar et al., 2009)

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What can be done?

Implications for policy and research

Decision making process must include the cost of **mental health burden**

Strengthen existing **research networks** - key stakeholders' **collaborations**

Prioritise successful **adaptation and mitigation strategies: co-benefits**

Targeted research – Identifying and scaling-up successful interventions

Implement **evidence-based strategies**

Vulnerable groups → Address structural inequities, social determinants and tailor interventions **to their needs**

Increase **awareness and preparedness** at public level.

Individual efforts / self-care is not enough: **Promote and engage collective action**

"**Climate change is like no other** environmental problem that humanity has ever faced…requires such a **strong interdisciplinary knowledge base** to tackle; **research to support effective policymaking** and other actions must cut across the full range of natural sciences, social sciences, and humanities…"

The Oxford handbook of Climate Change and Society, 2011

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