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Using scientific evidence to integrate climate change and health solutions into policy development across sectors

SAPEA workshop on Climate change and health, 26 January 2021

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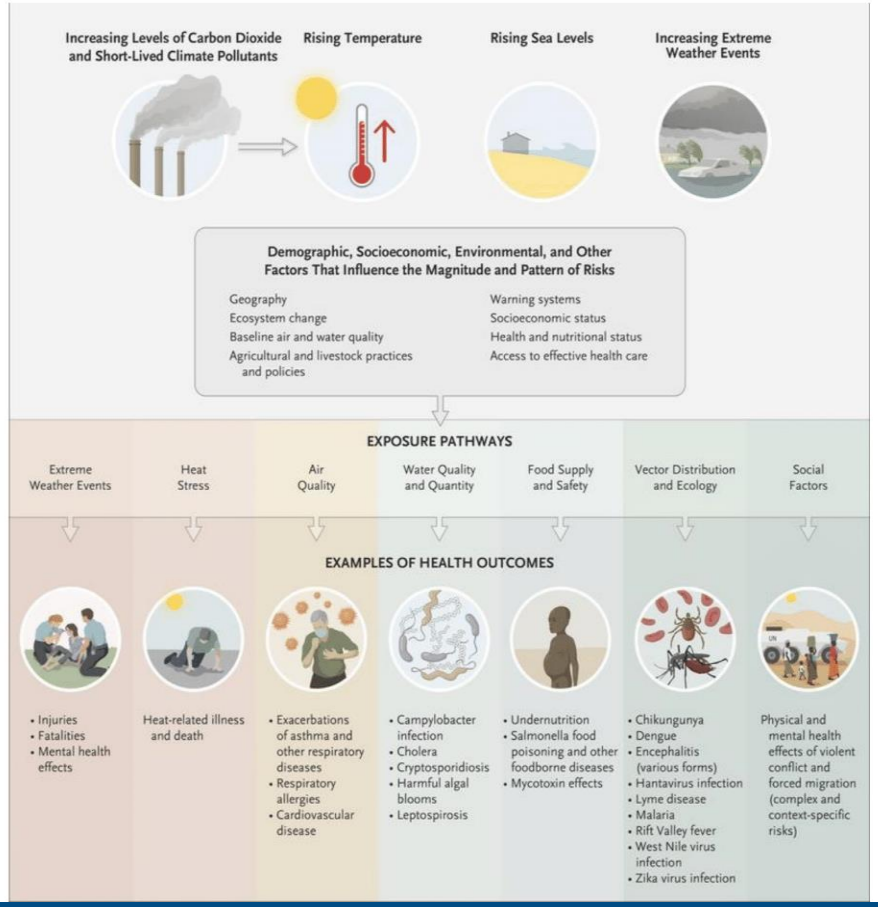
Climate-health : exposure pathways



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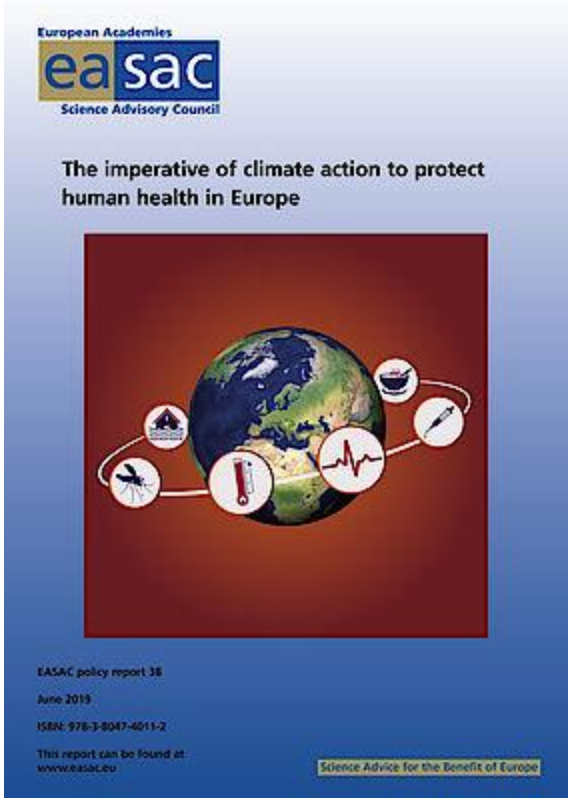
Starting points from the GCSA Opinion -1

- *"...the integration of climate adaptation into EU policies has proven to be a very complex process, progress has been uneven as confirmed by the EC's own evaluation, and "health in all adaptation policies" approach has not yet become a major focus"* (Summary, p6)
- *"Extending capabilities of the EU to deal with cross-border threats, based on formal competence, in relation to for example infectious diseases, and reviewing ways for the EU to address international dimensions of health risks"* (Recommendation 2, p9)
- *"Design policies to support the most vulnerable social groups and geographical areas"* (Recommendation 3, p9)

EASAC report, June 2019



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Infectious disease threats (from EASAC 2019)

- Vector-borne:

  Human, e.g. West Nile virus, Lyme disease, dengue, chikungunya

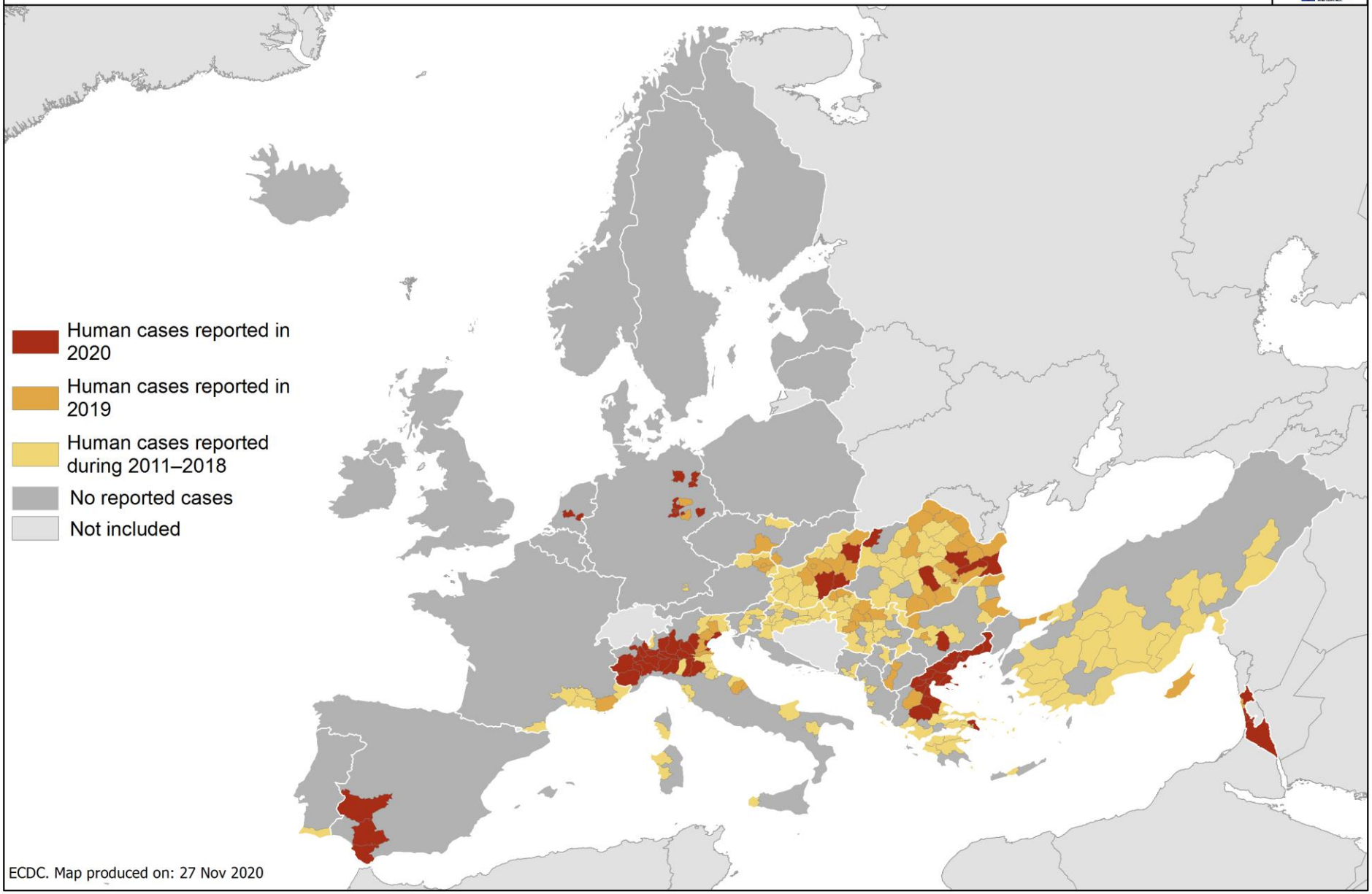
  Animal, e.g. African swine fever
- Water-borne:

  e.g. *Vibrio*
- Food-borne:

  e.g. *Salmonella*
- Mechanisms for increasing threats:

  e.g. increasing geographical distribution and replication rate, human exposure and other ecosystem changes

Distribution of West Nile virus infections in humans by affected areas in the EU/EEA countries and EU neighbouring countries
Transmission season 2020 and previous transmission seasons; latest data update 26 Nov 2020



ECDC. Map produced on: 27 Nov 2020

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Dengue and *Vibrio* in Europe

- Latest trends presented in Lancet Countdown 2020 (Watts et al)
- Dengue: Although average suitability for dengue remained low in Europe, 2018 was the most suitable year yet recorded for both mosquito vector species. Change from 1950s baseline:
  - *A. aegypti* = 26%
  - *A. albopictus* = 41%
- *Vibrio:* In the past 5 years, the area of coastline in the Baltics suitable for *Vibrio* has increased by 61%

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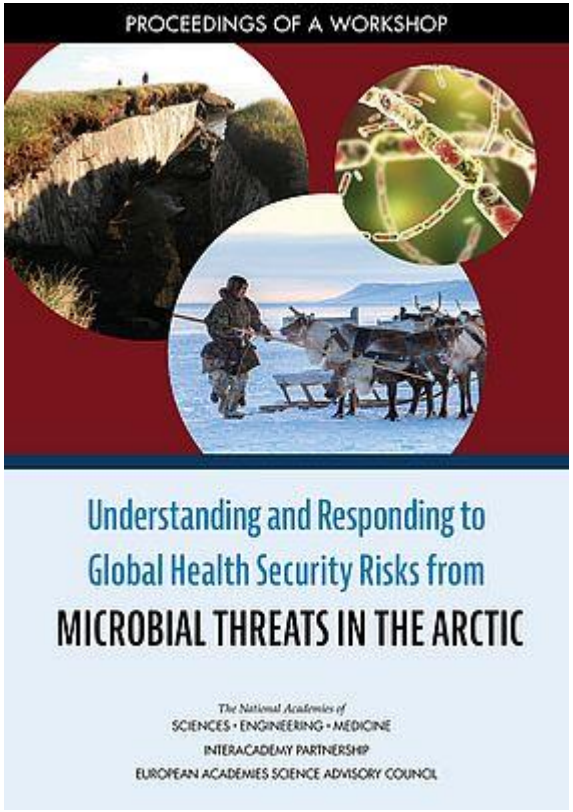
Arctic permafrost thawing and (re-)emerging pathogens



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EASAC key points from the Arctic workshop

https://easac.eu/news/details/arctic-warming-and-microbial-threats-perspectives-from-iap-and-easac-following-an-international-academies-workshop/

Focus on Arctic issues provides generalizable, international messages – also consistent with GCSA Opinion regarding infectious disease*

- Researchers should engage with local communities/access indigenous knowledge*
- Need to develop standardised surveillance systems*
- One Health perspective for reporting and response systems across public health/animals as food sources/other wildlife*
- Connecting different public sector research networks and sharing novel technologies e.g. data mining*
- Using data to inform policy and practice at local, regional and global levels*
- Invest in basic research e.g. determinants of transmission between/within species

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Starting points from the GCSA Opinion -2

- *"….seek and prioritise synergies with climate mitigation activities"* (Recommendation 1, p7)
- *"Another relevant long-term health consideration is sustainable food and healthy nutrition"* (p 33). *This Opinion follows on our earlier work "Towards a Sustainable Food System" where transformations related to climate change were already noted."* (p 17)

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Agricultural innovation

Food system efficiency

Nutrition, public health

Competition for land

FNSA & environment

An integrated approach to Food and Nutrition Security and Agriculture (FNSA)

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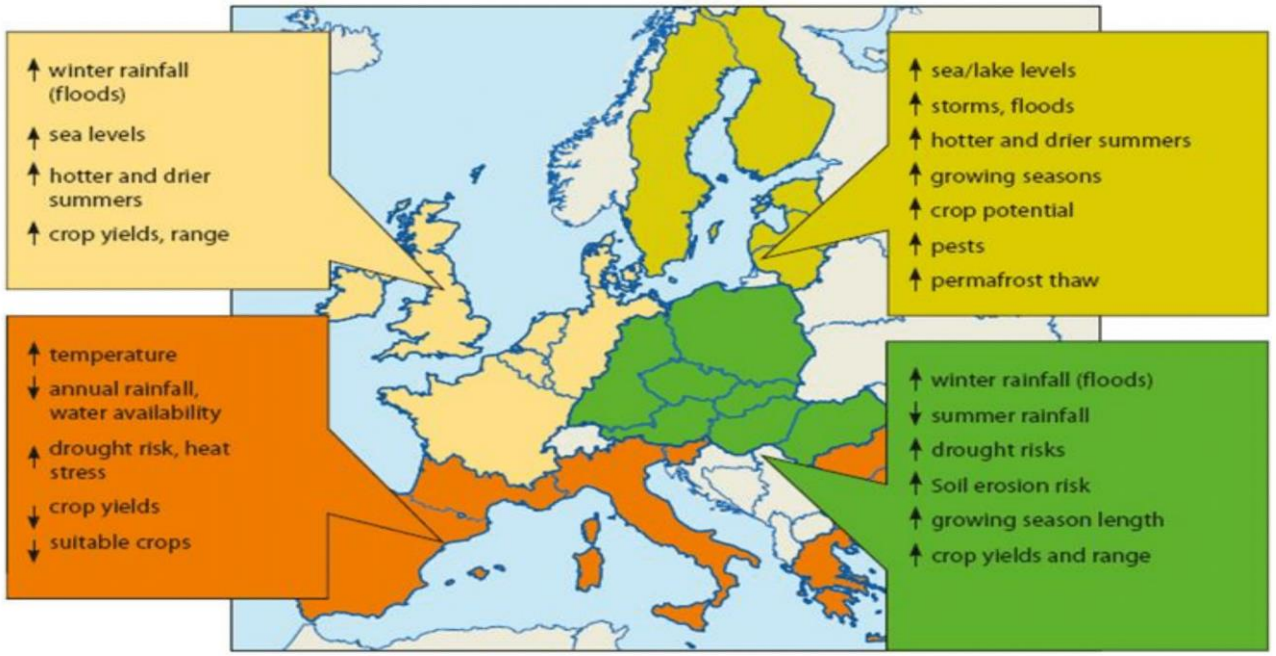
Potential effects on agriculture

http://adapt2clima.eu/en/climate-change-agriculture



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EASAC analysis for sustainable, healthy diets - 1 Adaptation

- Impacts of climate change on food systems:
  - Mediated by temperature, precipitation, carbon dioxide, pests and diseases: will vary across region
  - Impact on cereal yield, fruit and vegetable vitamin and mineral content, fisheries e.g. WHO scenario that southern Europe could experience 25% food production loss; drought in 2018 caused most severe problems in EU fruit and vegetable sector for 40 years; reduction in maize growing season >20d between 1981-2019 (Lancet Countdown)
- Opportunities for adaptation:
  - Biosciences research and plant breeding for resistance to stresses
  - Social sciences research for understanding farmer behaviour
  - Coordinated policy development

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EASAC analysis for sustainable, healthy diets - 2 Mitigation

- Agriculture's contribution to GHG emissions:
  - Agri-food systems worldwide account for about 30% GHGs
  - Animal-based foods responsible for about 75% European agricultural land use and high proportion of GHGs
- Mitigation – sustainable, healthy diets:
  - Requires combination of measures – reduction in food waste, improvement of farming practices, change in diets
  - Changing diets can also bring health co-benefits (for obesity, NCDs)
  - Issues for vulnerable groups and how to influence consumer choice

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Vulnerable groups in Europe

- Geographical e.g. Arctic, Mediterranean (EASAC current work with Cyprus Institute for Eastern Mediterranean/Middle East)
- Population groups vulnerable to climate-health effects broadly e.g. elderly, children, migrants, others marginalised
- For FNS specifically high levels of obesity; micronutrient deficiency in impoverished; increasing proportion of households unable to access recommended guidelines – concern for food taxes
- NB EU increases vulnerabilities in rest of world by contributing to GHGs, overconsumption, and exporting lack of food sustainability (land use etc)
- Interaction with COVID-19

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What are current opportunities for integrating health issues when informing EU policy making?

- Taking account of health in other sectoral policies e.g. Renovation Wave (buildings), transport, urban planning, environment, agriculture
- Updating Climate Adaptation Strategy
- Arctic Policy
- Farm 2 Fork, Common Agricultural Policy
- European Health Union e.g. cross-border health threats; medicines innovation
- European Green Deal plus COVID-19 recovery packages
- Action within the EU has consequences for rest of world and *vice versa*: EU leadership in international activities: SDGs, COP26, G7, G20

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78 members, of which
52 also belong to IAP for Science