

Solution

Master's degree in environmental science and engineering

Occupational and environmental health

6.1 Health and climate change

1) Mental health and climate

Mental health problems are one of the possible consequences of climate change. What phenomenon(s) do you think could explain this hypothesis?

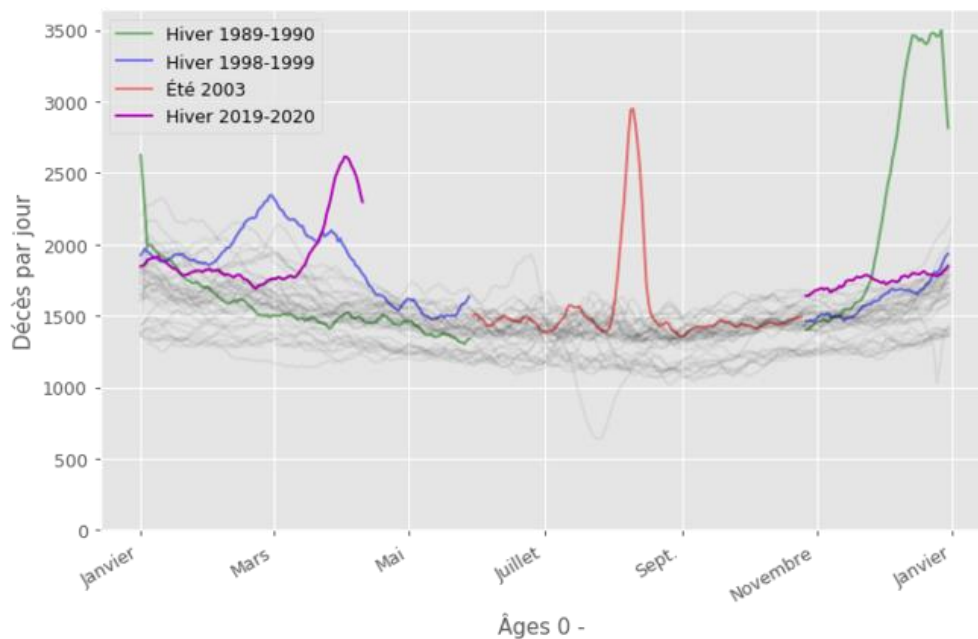
This field of research is still largely underdeveloped, nevertheless experts consider that climate change increases the risks for mental health due to the increase in frequency, duration, intensity and unpredictability of hazards related to extreme weather conditions.

The feeling of insecurity and the precariousness of populations exposed or re-exposed to climatic events are aggravating factors for psychological problems, which manifest themselves in the extreme in suicides.

Heat waves have been associated with an increase in depression, psychiatric hospital admissions and suicides

2) Extreme temperatures

Heat waves and cold waves are two phenomena known to generate an increase in mortality. By searching the literature and web resources



a) Can you compare the magnitude of these two phenomena (in terms of mortality)?

- b) What, in your opinion, explains the particular attention paid to the prevention of heat waves?

Cold waves generate more deaths than heat waves (about 20x more).

- The (mortality) peaks are often less intense, but their duration is longer, which leads to a high total number of victims.
- In addition to the extreme cold periods, the moderate drop in temperature leads to a noticeable increase in mortality in winter (visible on the graph). These are premature deaths that affect the most fragile populations (influenza, respiratory diseases, cardiovascular diseases...)

However, cold waves receive less attention from the public and the media. Several phenomena can explain this.

- The risk associated with moderate temperature variations is considered "normal"
- The excess mortality associated with hot weather increases dramatically with extreme temperatures, while the increase is more moderate with extreme cold.
- The "peak" of heat manifests itself in acute effects - some of which are specific (heat stroke, dehydration) – and is therefore more visible.