How can public health agency support the integration of health in climate policies?
DIRECT IMPACTS

- Heat waves
- Floods, storms, hurricanes
- Forest fires
- ...

INDIRECT IMPACTS

- Air, water; soil pollution
- Ecosystem changes
- Water quality and accessibility
- Infectious diseases
- Mental health
- ...

IMPACTS ON THE SOCIO-ECONOMIC DETERMINANTS OF HEALTH

- Migration, war
- Poverty
- Destruction of infrastructures
- ...

- Earth is facing environmental changes of unprecedented speed, magnitude and extent

- Public health is already impacted, and the severity of future impacts will depend on adaptation and mitigation policies

- Yet, health is poorly taken into account in those policies

- Delay in acting is a lost opportunity

“Climate change will shape the health of nations for centuries to come”

N. Watts, Lancet 2018
• The health risks and impacts of climate change in countries are evolving rapidly
  - changes in geographical patterns, emerging threats
  - cascading risks

• Mitigation policies with potentially large health co-benefits are experimented locally
  - need to support those initiatives to maximise the public health benefits and to reduce health inequities
Mean global temperature (compared to 1880-1919), according to various models and socio-economic scenarios (Météo-France)

“A warming of +2°C is viewed as “an upper limit beyond which the risks of grave damage to ecosystems, and of non-linear responses, are expected to increase rapidly” (Rijsberman, F. R.; Swart, R., 1990)
• Climate and health project since 2004
  - Heat warning system since 2004
  - Review of the health risks that were likely to be modified by climate change before 2030
  - Ad hoc epi studies to support adaptation
  - Advocacy and capacity building
  - Conceptual framing to develop health indicators of climate change
NEED FOR A CONCEPTUAL FRAMEWORK TO DEVELOP HEALTH INDICATORS

- Recommandation of the « Our common future under climate change » conference 2015
  - “Health researchers and others must develop appropriate health indicators that may be integrated into the follow-up and evaluation of adaptation and mitigation plans”

- 2nd French adaptation plan (2017-2022)
  - to reinforce the integration of the health impacts of climate change at the regional scale
  - to develop health indicators that would document and support local policies

- World Meteorological Organisation census of health indicators in climate change strategies 2017
  - great variety of indicators
  - lack of transparency on the reason why they were chosen
  - relevance to support policies?
WHY A FRAMEWORK?

- An indicator must synthetize a complex knowledge, while being accessible to a wide range of audiences, most of them not familiar with public health.

- It pre-supposes *a minimum* of construction and structuration of knowledge and data.

- It makes sense in a given context, with regard to a given objective:
  - Local construction of objective-oriented indicators would be more efficient than an *a priori* list to engage stakeholders and promote local action.

- But we also need to increase comparability of indicators:
  - A shared conceptual framework would ensure consistency and creativity.
WHAT IS AN HEALTH INDICATOR?

- For a given health issue, consider the possible climate influence based on a Dpssea approach
  - direct/indirect influence of climate change?
  - influences of adaptation and mitigation?
  - assess the degree of confidence based on the current knowledge

- An indicator gives a summarized quantitative information on a health issue that may directly or indirectly be influenced by present of future climate change
  - it is not necessary to quantify the fraction of the indicator attributable to climate change
  - it is not always an health data
MAIN STEPS DISCUSSED IN THE FRAMEWORK

1. Select an health issue of interest
2. State your targets
3. Identify a set of possible indicators
4. Check their qualities
5. Produce and disseminate the indicators
6. Evaluate
**KEY QUESTIONS**

- Which dimension do you want to capture in the indicator?
- Geographical and temporal scale?
- Stratification by sub-populations?
- Data availability and fitness for purpose?
- Scientific and pedagogic qualities?

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Type of data</th>
</tr>
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<tbody>
<tr>
<td>Danger</td>
<td>Environmental data</td>
</tr>
<tr>
<td>Exposure</td>
<td>Population / Environmental data</td>
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<tr>
<td>Vulnerability</td>
<td>Risk factors / Exposure</td>
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<tr>
<td>Impact</td>
<td>Health outcome</td>
</tr>
<tr>
<td>Intervention</td>
<td>Actions to reduce the exposure, the vulnerability or the impacts</td>
</tr>
</tbody>
</table>
Millions of people exposed to at least one heat wave during the summer in France since 1970
Excess mortality during heat waves in France since 1970

http://geodes.santepubliquefrance.fr
EXAMPLE HEAT WAVES - INTERVENTION

Number heat warnings since 2004 (one warning = one departement one day)
PERSPECTIVES ON INDICATORS

• What is the role of a national public health agency?
  - to improve and disseminate the framework
  - to monitor its use
  - to mutualise knowledge and data production
  - to facilitate consistency across scales
  - to communicate the indicators

• How to interact with regional agencies and stakeholders?
  - top-down: creating a basic set of common indicators at the national/ international level, to be declined locally
  - bottom-up: get inspiration from local indicators that could be reproduced elsewhere
How IANPHI can inspire leadership on climate change, adaptation, mitigation and health?
- advocacy
- capacity building
- networking and sharing of good practices