

# Science for Environment Policy

## Guidelines presented for adapting infectious disease policy to climate change

**Climate change** may increase the risk of outbreaks of infectious diseases, such as salmonella or tick-borne encephalitis. A new study has outlined five main steps in assessing policies to ensure that they can respond effectively to this challenge and highlights the importance of involving stakeholders at every stage of policy assessment.

Public [health](#) policy is well experienced in developing measures that reduce the health impacts of infectious diseases, but current strategies are not designed to account for the effects of a changing [climate](#). This study suggests that adaptation assessments can be used to identify options for reducing the current and future health risks attributed to climate change.

It describes the basic stages of conducting an adaptation assessment, based on the handbook for vulnerability, impact and adaptation assessment, developed by the European Centre for Disease Prevention and Control<sup>1</sup>. Although each assessment will depend on local context, the process can follow the same general stages:

- 1) Evaluate the effectiveness of existing policies and measures to address infectious diseases that are sensitive to weather and climate. These measures may focus on climate change, on health or more specifically on climate-sensitive infectious diseases. Representatives from all relevant organisations (e.g. health ministries, NGOs, environmental agencies) need to determine what is working well, what could be improved and the capacity for policies and measures to address future trends.
- 2) Identify adaptation options to manage health risks of current and projected climate change. Possible measures to monitor and evaluate diseases that are affected by weather and climate include surveillance and control programmes, early warning systems, child health programmes and educational programmes. In some areas, this may involve modifying and expanding current surveillance programmes or early warning systems. For example, the early warning system for tick-borne encephalitis in the Czech Republic has been altered to include climate information to predict tick activity several days in advance of it occurring.
- 3) Evaluate and prioritise adaptation options. This involves comparing options and weighting them according to what is considered important at a local and national level. Considerable input from stakeholders is therefore needed, to help judge which options need to be implemented and in what order.
- 4) Identify human and financial resources needs, as well as possible barriers, constraints and limits to implementation. Adaptation measures require resources and financial support and must be economically feasible. There may also be barriers to implementation, which must be assessed, such as the complexities of disease transmission and the inherent uncertainties around future health impacts. These can be managed by using a 'learning by doing' approach that emphasises monitoring and evaluation that feeds back into a programme's development.
- 5) Develop monitoring and evaluation programmes to ensure continued effectiveness of policies and measures in a changing climate. These can use a range of metrics that can be environmental (e.g. temperature) health-related (morbidity and mortality) or more focused on vulnerability (e.g. factors that increase susceptibility to climate change). If used early, this monitoring can inform the programme as it develops.

These five steps can help guide adaptation assessment, but must be tuned to the needs of the country or community involved. This will involve consultation of a range of stakeholders at each of the stages and co-ordination across ministries and organisations dealing with environment, water, agriculture, transport and planning, as well as health.



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1. See: [http://www.ecdc.europa.eu/en/publications/Publications/1003\\_TE\\_D\\_handbook\\_climatechange.pdf](http://www.ecdc.europa.eu/en/publications/Publications/1003_TE_D_handbook_climatechange.pdf)