

26 Incidence of climate-related vector-borne diseases

Indicator type **Core indicator**

Published

Versioning

First publication Latest update

Area and sub-area

Area and sub-area

Presentation

| | |
|--------------------------------------|--|
| Tier | <input type="text" value="2"/> |
| Indicator definition and description | Incidence of vector-borne diseases influenced by climatic conditions reported during a year. Vector-borne diseases influenced by climatic conditions include: Lyme disease (A69.2), malaria (B50-B54), West Nile virus (A92.3), yellow fever (A95), dengue(A97). |
| Unit of measure | <input type="text" value="Percentage"/> |
| Coverage | <input type="text" value="Resident population"/> |
| Spatial aggregation | <input type="text" value="National territory"/> |
| Reference period | <input type="text" value="Calendar year"/> |
| Update frequency | <input type="text" value="Annual"/> |
| Base period | <input type="text" value="Not applicable"/> |

Disaggregation (operational indicators)

| Disaggregation (operational indicators) | Comments |
|--|----------------------|
| <input type="text" value="Disease"/> | <input type="text"/> |
| <input type="text" value="Spatial"/> | <input type="text"/> |
| <input type="text" value="Temporal (by month, by season)"/> | <input type="text"/> |
| <input type="text" value="Gender, age groups and disabilities"/> | <input type="text"/> |

Other related -indicators (e.g.contextual, proxy, other core indicators)

| ID | Subindicator | Type |
|---------------------------------|--|---|
| <input type="text" value="77"/> | <input type="text" value="Estimated number of cases of the selected vector-borne diseases"/> | <input type="text" value="Contextual indicator"/> |
| <input type="text" value="85"/> | <input type="text" value="Reported number of cases of the selected vector-borne diseases"/> | <input type="text" value="Contextual indicator"/> |

Relevance

| | |
|------------------------------|---|
| Policy context and rationale | <p>Numerous climate change vulnerability assessments anticipate that rising global temperatures will increase the incidence of communicable diseases including vector-borne diseases (VBDs). Globally, vector-borne diseases account for more than 17% of all infectious diseases, causing more than 1 million deaths annually. Globalization of travel and trade, unplanned urbanization and environmental challenges such as climate change are having a significant impact on disease transmission in recent years. Some diseases, such as dengue, chikungunya, and West Nile virus, are emerging in countries where they were previously unknown.</p> <p>Changes in climate are likely to lengthen the transmission seasons of important vector-borne diseases and to alter their geographic range.</p> <p>Malaria (transmitted by Anopheles mosquitoes) is strongly influenced by climate. The Aedes mosquito vector of dengue is also highly sensitive to climate conditions, and studies suggest that climate change is likely to continue to increase exposure to dengue (WHO).</p> |
|------------------------------|---|

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The development and survival of ticks, their animal hosts, and the bacterium that causes Lyme disease are all strongly influenced by climatic factors, especially temperature, precipitation, and humidity (CDC). Future climate change in Europe is therefore likely to facilitate the spread of Lyme borreliosis in the same way, while reducing its occurrence in areas that become hotter and drier.

Related SDG indicator (SDG I.)

Not applicable

Relation w SDG-I.

Related Sendai Framework I.

Not applicable

Policy references

| Document title | Link |
|--|---|
| WHO climate change and vector-borne diseases (World Health Organization, 2000) | https://www.who.int/bulletin/archives/78(9)1136.pdf |

Methodology

Methodology for indicator calculation

Number of reported new cases of the selected diseases divided by the resident population of a country at the beginning of the year.

Methodology references

Classification syst.

International Statistical Classification of Diseases and Related Health Problems (<http://www.who.int/classifications/icd/en/>)

Data sources

Main source

Other than official statistics

Explanation

Surveillance systems, ministries of health

SEEA Accounts that can serve as data sources

UN-FDES

5.2.3: Vector-borne diseases

International databases containing this indicator

| | |
|--|---|
| WHO Database | http://apps.who.int/gho/data/node.imr |
| European Centre for Disease Control and Prevention | https://ecdc.europa.eu/en/publications-data?f%5B0%5D=diseases%3A194 |

Comments

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The number of reported cases may differ from number of estimated cases. The reported number can be affected by:

- The completeness of reporting: the number of reported cases can be lower than the estimated cases if the percentage of health facilities reporting in a month is less than 100%
- The extent of malaria diagnostic testing
- The use of private health facilities which are usually not included in reporting systems.
- The indicator is estimated only where malaria transmission occurs.