26 Incidence of climate-related vector-borne diseases

Indicator type **Core indicator** *Published*

Versioning

First publication	1/26/2017	Latest update	9/27/2019

Area and sub-area

Area and sub-area	Impacts	Human settlements and human health

Presentation

Tier	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	Percentage
Coverage	Resident population
Spatial aggregation	National territory
Reference period	Calendar year
Update frequency	Annual
Base period	Not applicable

Disaggregation (operational indicators)

Disaggregation (operational indicators)	Comments
Disease	
Spatial	
Temporal (by month, by season)	
Gender, age groups and disabilities	

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

ID	Subindicator	Type
77	Estimated number of cases of the selected vector-borne diseases	Contextual indicator
85	Reported number of cases of the selected vector-borne diseases	Contextual indicator

Relevance

Policy context and rationale	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. Changes in climate are likely to lengthen the transmission seasons of important vector-borne diseases and to alter their geographic range. 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).

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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,)	http://www.wpro.who.int/mvp/climate_change/en/

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

Comments	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 diagnostice tsting - the use of private health facilities which are usually not included in reporting systems. - the indicator is estimated only where malaria transmission occurs.