

Target 9c: Health, health services morbidity & mortality

Health Indicator selection criteria (in bold, those beyond the ones provided by the secretariat)

- **The indicator reflects a relevant aspect adaptation for health, reflecting the intersection of both health and climate change**
- The indicator is already available for countries to which the subject monitored is relevant, or can be easily developed
- The indicator can be applied to, and reflects, different regional, national and local circumstances
- The indicator is easy to interpret
- The indicator methodology is clearly defined indicator or data sources have been identified
- The indicator can be applied at the sub-national level, and aggregated at the national, regional and international level
- The indicator is based on the best available science
- The indicator can be disaggregated by relevant demographics (eg age, gender, minoritised groups) the indicator is based on indigenous knowledge and local knowledge systems the indicator reflects issues of high priority to specific population groups, and its monitoring is important to monitor health inequities
- **Using the indicator would not incentivize potential maladaptation**

Selection of indicators for target 9a: health, health services, morbidity and mortality

Out of 501 indicators reviewed so far (scoring of some indicators pending):

- **56** indicators were identified as being repeated
- **65** indicators were excluded because they did not represent a relevant aspect of adaptation for health, reflecting the intersection of both health and climate change
- **111** indicators were excluded because they were not found to be already available for countries to which the subject monitored is relevant, or to be easily developed
- **64** were identified as potentially useful indicators, or indicators for which further consideration is needed (included those better suited for other targets)
- **28** were found suitable for inclusion, but prioritization is pending

Overall, few optimal indicators were identified. However, there is potentially for refining existing datasets, and work towards the development of better indicators on health adaptation

Quick reflections

- Prioritization is pending, and some criteria to follow would be useful
- No indicator was specific to indigenous people, or reflected indigenous knowledge
- Some indicators are not currently available, but could be easily developed by modifying existing indicators
- Most indicators monitor self-reported progress on process, rather than adaptation per se (for example, implementation of surveillance, early warning, or early response system, or the development of national adaptation plans for health)
- Indicator availability and quality will probably increase in the next few years. How should this be approached?

Indicators pre-selected for inclusion

Indicator description	General typology	Health impact considered
Number of children covered by climate and environmental health prevention in primary health care	risk assessment, planning and implementation of adaptation interventions for health	General
Proportion of government expenditure in early warning or Early Warning Systems (EWS) in relation to GDP	risk assessment, planning and implementation of adaptation interventions for health	General
Occurrence of tick-borne encephalitis (TBE)	Impact of climate-sensitive hazards	
Number of countries with a system in place for mental health and psychosocial support for emergency preparedness and/or disaster risk management	risk assessment, planning and implementation of adaptation interventions for health	mental and psychosocial health
Extreme weather and sentiment - Lancet Countdown 2023 indicator 1.2.3	Impact of climate-sensitive hazards	mental and psychosocial health
Vulnerability to mosquito-borne disease - Lancet Countdown 2023 indicator 2.3.1	vulnerability	disaster-related health risks
Number of countries integrating mental health and psychosocial considerations as components of their disaster preparedness/ risk reduction plans - WHO Mental Health Atlas	Impact of climate-sensitive hazards	mental and psychosocial health
SDG indicator 3.3.3: Malaria incidence per 1,000 population - this ~SDG indicator could be augmented by tracking geographic spread of malaria, understanding how newly exposed populations can be protected.	risk assessment, planning and implementation of adaptation interventions for health	infectious diseases
Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population SFDRR C-2	Impact of climate-sensitive hazards	disaster-related health risks
Proportion population exposed to hazards in the past 12 months who encountered barriers to accessing medical care or hygiene products as a result, by sex, location and displacement	Impact of climate-sensitive hazards	disaster-related health risks
Number of hazardous events per year (per type of hazard)	Impact of climate-sensitive hazards	disaster-related health risks
Proportion of hazardous events with deaths per year (per type of hazard).	Impact of climate-sensitive hazards	disaster-related health risks
Number of disasters (per hazard type) declared by government per year	Impact of climate-sensitive hazards	disaster-related health risks
D-2 Number of destroyed or damaged health facilities attributed to disasters.(Source: Sendai Framework D-2)	Impact of climate-sensitive hazards	disaster-related health risks
D-7 Number of disruptions to health services attributed to disasters. (Source: Sendai Framework D-7)	Impact of climate-sensitive hazards	disaster-related health risks
Sendai Indicator C-5: Number of health facilities destroyed or disrupted by disasters	Impact of climate-sensitive hazards	disaster-related health risks
Sendai Indicator D-4: Number of other destroyed or damaged critical infrastructure units and facilities attributed to disasters.	Impact of climate-sensitive hazards	disaster-related health risks
Health emergency preparedness and response for climate change and disaster risks in place at the national and local levels.	risk assessment, planning and implementation of adaptation interventions for health	General
Number of countries with functional active surveillance systems surveillance system for the most climatesensitive diseases and hazards	risk assessment, planning and implementation of adaptation interventions for health	General
Number of countries that have conducted climate and health risk assessments using WHO guidelines	risk assessment, planning and implementation of adaptation interventions for health	General
Proportion of Public Health District Services or (SDSP) with a functional climate and health early warning and surveillance system	risk assessment, planning and implementation of adaptation interventions for health	General
Health National Adaptation Plan (NAP) developed	risk assessment, planning and implementation of adaptation interventions for health	General
Climate-informed health early warning systems that predict the risk of outbreaks of priority infectious diseases, sanitation and mental health s (e.g., malaria, dengue, cholera) developed and implemented	risk assessment, planning and implementation of adaptation interventions for health	General
Number of Health National adaptation Plans (HNAPs) that have been completed and adopted (Source: WHO Alliance for Transformative Action on Climate and Health Programme)	risk assessment, planning and implementation of adaptation interventions for health	General
Number of people per 100,000 that are covered by early warning information through local governments or through national dissemination mechanisms (SF G-3)	vulnerability	General
Implementation of the International Health Regulations core capacities 7 (health emergency management)	risk assessment, planning and implementation of adaptation interventions for health	General
Urban greenspace exposure (Lancet Countdown indicator 2.2.3)	risk assessment, planning and implementation of adaptation interventions for health	General
Delivery of tailored meteorological services for health (WMO indicator, reported through Lancet Countdown indicator 2.2.1)	Vulnerability	General
City-level climate change health-related risk assessments undertaken (Lancet Countdown indicator 2.1.3)	risk assessment, planning and implementation of adaptation interventions for health	General
Lethality of extreme weather events (Lancet countdown indicator 2.3.2)	Vulnerability	infectious diseases

Other considerations to be discussed for target 9a

- **Should indicators monitoring hazards and vulnerabilities be included?**
 - Some indicators monitor changes in climate hazards (and therefore areas in which adaptation is needed), but are not sensitive to progress in adaptation (for example, indicators monitoring changes in the environmental suitability of disease transmission, the population living in areas exposed to climate hazards, or proportion of workers working outdoors).
- **Should indicators monitoring vulnerability or underlying health risks be monitored?**
 - Some indicators monitor underlying conditions that are important for health resilience and that could deliver adaptation for health, but which are related to progress beyond climate adaptation. These include, for example, healthcare access and quality; healthcare spend as proportion of income; or poverty.
- **How should we address indicators that are relevant, but fit better within other targets?**
 - Some indicators monitor aspects that are relevant for health, but that are better classified as part of other thematic targets. These include indicators on sanitation and water supply (target 9a); poverty eradication and livelihoods (target 9f); or food & agriculture production and supply (target 9b)
- **How to address insufficient global coverage?**
 - Some indicators are available only for a very small group of countries, or just one country. These are often those put forward in countries' NDCs and LTLEDs. Given the importance of these documents as inputs for indicator selection, how should these be dealt with?
- **How should we approach indicators that are not yet available, but which could be developed?**
 - Some indicators could be developed in the future, especially if included in existing country surveys, or if disease notification can be mandated. Some indicators could also be developed by modifying existing indicators, or developing them based on existing data. How should these be treated?