**WHO Technical Guidance Notes on Sendai Framework reporting for Ministries of Health**

**Target D: Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030**

Target D refers to two separate but interconnected situations. The first is the situation were critical infrastructure, including health facilities, is damaged (without services being disrupted or compromised in terms of quality) or destroyed, and the second is when basic services, including health services, are disrupted (which could potentially happen with or without damage). The indicators seek to develop a compound figure, D-1, developed from calculating the impact on a range of services including health facilities and services. The full reporting against Target D requires health data and is linked to the economic loss data in Target C.

1. **Indicator**

The table below lists the indicators recommended by OIEWG for the measurement of global Target D of the Sendai Framework, which were endorsed by the UN General Assembly in its Resolution A/RES/71/276.

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Indicators for measurement at the global level | Health data required from MoH | Link to SDG indicators |
| D-1 | Damage to critical infrastructure attributed to disasters (compound indicator) | Yes | 11.5  Sendai Target C |
| D-2 | Number of destroyed or damaged health facilities attributed to disasters | Yes | Sendai Target C |
| D-3 | Number of destroyed or damaged educational facilities attributed to disasters | No | Sendai Target C |
| D-4 | Number of other destroyed or damaged critical infrastructure units or facilities attributed to disaster | No | Sendai Target C |
| D-5 | Number of disruptions to basic services attributed to disasters (compound indicator) | Yes | Sendai Target C |
| D-6 | Number of disruptions to educational services attributed to disasters | No | Sendai Target C |
| D-7 | Number of disruptions to health services attributed to disasters | Yes | Sendai Target C |
| D-8 | Number of disruptions to other basic services attributed to disasters | No | Sendai Target C |

1. **Policy context**

|  |  |
| --- | --- |
| Why is this important? | Damage to healthcare facilities is important because of the costs of repair and rebuilding of key community and health assets(see Target C) and the likelihood of disruption to health services provided to affected populations during and after hazard events. Disruption may also be the result of the disruption to other services upon which the functioning of the health facility depends, for example, power or water supply, supply chain or the unavailability of staff who have been affected by the event. Increased cases of disease and death related to disasters are the expected health consequences from failure to access health and basic services during and after disasters. For example, patients with chronic conditions unable to get medical supply and potentially develop complications, or interrupted safe water supply leading to contaminated water and risk of food water borne outbreak.  Data held by Ministries of Health is vital in ensuring that full reporting of damage and disruption to health services undertaken after each event. |
| Baseline data and variation | * For Member States that have been working with the DesInventar system, national disaster loss databases that have been developed do not necessarily include historical data on damage to railways, ports, airports and other infrastructures, such as health facilities * Based on 2017 Data Readiness Review, data for ‘number of health facilities destroyed or damaged’ are currently available in 56 countries (representing 64% of reporting countries), and ‘number of disruptions to health services attributed to disasters’ are currently available in 39 countries (representing 45% of reporting countries)[[1]](#footnote-1) * Problems with the registry of the numbers, name, location and level of health facilities before, during and after an event * Reference to the package of health services that each level of facility is expected to deliver; the status of those services prior to the event, and level of services during and after the event to determine if there has been a reduction in services |
| Issues/ challenges   * Role of health * Policy * Governance * Adoption and implementation * Temporal aspect – data collection | **Definitions –** defining the thresholds for levels of damage, and disruption  **Available data**: The measurement of data for damage to critical infrastructure attributed to disasters would be extremely challenging, as some of the countries do not have readiness data.  As in 2017 Data Readiness Review, 22% of reporting countries indicated that they do not collect the number of health facilities destroyed or damaged (UNISDR, 2017a).  Health data may be available for specific events but may not be compiled into a national figure  For damage, countries are advised to focus on damage to health facilities  For disruption, countries are advised to link to data on damagetto health facilities, and to the level of disruption noting that disruption may not be due to direct damage to the health facility, e.g. loss of infrastructure, unavailability of staff  **Statistical processing**: Disaster loss data is greatly influenced by large-scale catastrophic events, which represent important outliers in terms of damage to critical infrastructure  **Temporal aspects of data collection**: temporal aspects for attribution and cut-off for data collection such as small-scale sudden-onset disasters versus large-scale, slow-onset and long duration disasters, and rapid assessment versus detailed assessment. There is merit in collecting data both during the event (where there is an operational imperative) and after the event (where data is likely to be more complete).  **Metadata**: the consistency between country in major categories and the elements in each category  Retrospective versus contemporaneous assessments of disruption of services, both have merit – do both  Retrospective – more rigorous, benefit of hindsight on level of disruption. May be more complete. Collected for restoration and rebuilding purposes.  Contemporaneous reporting – there is a key imperative to assess damage and disruption for health response.  Tools –WHO Health Resources and Services Availability Monitoring System (HeRAMS) tool enables monitoring of health facilities, services and resources availability in emergencies and the reason for gaps in service availability. HeRAMS, in full or modified form, could assist countries in reporting against this indicator (<http://www.who.int/hac/herams/en/> ) |

1. **Methodology**

|  |  |
| --- | --- |
| What is measured | Sendai Framework: What is the national impact of disasters on critical infrastructure and basic services in terms of damage and disruption due to hazards within the scope of the Sendai Framework.  Customisable: What is the national impact of disasters on critical infrastructure and basic services in terms of damage and disruption due to all types of hazards |
| Key terms | * **Disruption** – one or a combination of the below:   + Interruptions, either single or multiple, short or long term, of the services   + Damage to the facilities or networks that provide the service   + A measureable/noticeable reduction in the quality of the service   + Reduction in the population covered by the service * **Critical infrastructure** – the physical structures, facilities, networks and other assets which provide services that are essential to the social and economic functioning of a community or society * **Basic services** – services which are needed for all of society to function effectively or appropriately * **Health-care facilities** – health centres, clinics, local, regional and tertiary hospitals, outpatients centres, health laboratories and in general facilities used by primary health providers |
| Health input | * Healthcare and public health sector: hospitals, clinics, health centres * Education sector: training centres for health * Government facilities sector: government buildings |
| Who to engage with | * Ministry of health   + Health statistics office/Health information management systems   + National disease surveillance system * National disaster management offices * National focal point for Sendai Framework reporting * National Statistics Offices * National focal point (?) for SDG reporting * WHO Country Offices/Regional Offices – WHO Health Emergencies Programme/Global Health Observatory   Other sectors contributing |
| Indicator formula | **D-1. Damage to infrastructure**   * [(a + b + c)/d]\*100,000 * a = number of destroyed or damaged health facilities attributed to disasters * Other components with no direct role for health   + b = number of destroyed or damaged educational facilities attributed to disasters   + c = number of other destroyed or damaged critical infrastructure units attributed to disasters (decision regarding those elements of critical infrastructure to be included in the calculation will be left to the Member States) * d = population   **D-5. Disruption to basic services**   * [(e + f + g)/d]\*100,000 * f = number of disruptions to health services attributed to disasters (consider healthcare staff) * Other components with no direct role for health   + e = number of disruptions to educational services attributed to disasters   + g = number of disruptions to other basic services attributed to disasters (decision regarding those elements of critical infrastructure to be included in the calculation will be left to the Member States; e.g. power/energy, sewerage, solid waste management, transport, water supply, ICT, emergency response) |
| Indicator Components | **Health facilities**   * Infrastructure damage   + Data source: (hospitals, clinics, health centres)   + Data requirements     - Minimum = Total number by hazard     - Recommended = by geography, damaged/destroyed, size of facility * Service disruption – interruption of the service either partial or full; decrease in the quality of service; reduction in the coverage of the service; or the infrastructure supporting the service was damaged or destroyed.   + Data requirements     - Minimum = Total number by hazard     - Recommended = by geography * Facility disruption due to reduction in staffing levels |
| Represented population | * National census (National Statistics Office) * Query over timeliness - may need inter-census estimates (e.g. World Bank, UNStats) |
| Interpretation considerations | * Definition   + Number of facilities not reflecting the size   + Subjective definition of critical infrastructure/basic services   + Critical infrastructure classification defined by UNISDR includes major categories and list of proposed elements which can vary * Methodology   + Report damage by event to allow for sensitivity analysis w/w/o catastrophic events |
| Customisable indicators | The health sector is concerned with damage and disruption to health services from all types of hazards. Ministries of Health should consider monitoring and reporting on the following:   * Number of disruptions to health services attributed to all types of hazardous events disasters * Number of destroyed or damaged health facilities attributed to all types of hazardous events   The HeRAMS tool could be applied to all types of events. |

**4. Reporting**

This guidance notes has outlined the key role that Ministries of Health have in providing data to support reporting against Sendai Framework Target D.

Each country’s Sendai Framework Monitoring National Focal Point has responsibility for submitting national reports for the Sendai Framework. UNISDR developed a web based tool to support Member States in reporting against the indicators. The Sendai Framework Monitor <https://sendaimonitor.unisdr.org/> not only functions as a reporting tool but also functions as a management tool to help countries develop disaster risk reduction strategies, make risk-informed policy decisions and allocate resources to manage risks.

As of March 1, 2018, Member States have been reporting against the indicators for measuring the global targets of the Sendai Framework, and disaster risk reduction-related indicators of the SDGs, using the online Sendai Framework Monitor. It is important that the relevant officials in the Ministries of Health are either linked to the National Focal point or is granted access to the Sendai framework Monitor to input health data as outlined in the Guidance Note above.”

1. https://www.unisdr.org/files/53080\_entrybgpaperglobalsummaryreportdisa.pdf [↑](#footnote-ref-1)