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

**Target C: Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030**

Despite progress during the implementation of the Hyogo Framework in building physical resilience to disasters, economic losses remain substantive. This Target seeks to develop reliable and consistent economic-loss calculations which will improve understanding of the cascading impact of disasters on economic welfare and productivity. The indicator on direct economic loss is included in the SDGs. As far as health is concerned, the direct economic loss is focused on costs associated with damage to health facilities and is linked to Target D.

1. **Indicator**

The table below lists the indicators recommended by the OIEWG for measurement of global Target C of the Sendai Framework, and which were endorsed by the UN General Assembly in its resolution A/RES/71/276, *Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction.*

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| --- | --- | --- | --- |
| No. | Indicators for measurement at the global level | Health Data required from MoH | Link to SDG indicators |
| C-1 | Direct Economic loss attributed to disasters in relation to global gross domestic product. (compound indicator) | Yes – health data needs to be included in compound | 1.5 , 11.5Sendai Target D |
| C-2 | Direct agricultural loss attributed to disasters | No |  |
| C-3 | Direct economic loss due to all other damaged or destroyed productive assets attributed to disasters | Yes | Sendai Target D |
| C-4 | Direct economic loss in the housing sector attributed to disasters | No |  |
| C-5 | Direct economic loss resulting from damaged or destroyed critical infrastructure attributed to disasters | Yes | Sendai Target D |
| C-6 | Direct economic loss to cultural heritage damaged or destroyed attributed to disasters | No |  |

1. **Policy context**

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| Why is this important? | Detailed assessments of economic loss are regularly carried out by governments and multilateral organisations following large-scale disasters, using methodologies derived from the ECLAC methods[[1]](#endnote-1)[[2]](#footnote-1). However, the economic losses associated with small and medium scale events are rarely assessed or even documented. For Ministries of Health it is important that health facilities and other health infrastructure are included in the calculations of Target C, particularly in indicators C-3 and C-5.  |
| Baseline data and variation | * In 1998-2017 disaster-hit countries also reported direct economic losses valued at US$ 2,908 billion1, of which climate-related disasters caused US$ 2,245 billion or 77% of the total and uneven reporting patterns are reported with high income countries reporting damages for 61%, but only 13% in low income countries.[[3]](#footnote-2)
* Based on the UNISDR 2017 Data Readiness Review, data for ‘direct economic loss due to all other damaged or destroyed productive assets attributed to disasters’ are currently available in 36 countries (representing 41% of reporting countries, while data for ‘direct economic loss resulting from damaged or destroyed critical infrastructure’ are currently available in 48 countries (representing 55% of reporting countries).[[4]](#footnote-3)
 |
| Issues/ challenges* Role of health
* Policy
* Governance
* Adoption and implementation
* Temporal aspect – data collection
 | Temporal – see overviewFacility size – there are different methods for the calculation of health facilities. These are shown in the examples at the end of this guidance.Determination of which health services should be considered as productive assets in C-3**- Types of Hazard:**. Hazards within the scope of the Sendai Framework should be covered in this target for Sendai Framework reporting. Customizable indicators should consider all types of hazards. For full details of hazards, see overview.**- Scale of hazardous events.** All deaths associated with different scales of hazardous events, including emergencies and disasters, should be coveredDisaggregation – see overview |

1. **Methods**

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| What is measured | Sendai Framework: What is the pattern over time in direct disaster economic loss in relation to national GDP for hazards within the scope of the Sendai FrameworkCustomisable: What is the pattern over time in direct disaster economic loss in relation to national GDP for all types of hazards |
| Key terms | * **Economic loss** - Total economic impact that consists of direct economic loss and indirect economic loss
* **Direct economic loss** - Monetary value of total/partial destruction of physical assets existing in the affected area
* **Indirect economic loss** - Decline in economic value added as a consequence of direct economic loss and/or human and environmental impacts
* **Replacement cost** – the cost of replacing damaged assets with materials of like kind and quality
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| Health input  | Target C reports on the economic loss due to damage to key services during events. Health facilities and services have a core impact on these calculations. Data from Ministry of Health is required to complete indicators C-3 and C-5, which in turn support the calculation of C-1.Data on health services and facilities that are damaged or destroyed is required and these should be detailed by size and coverage. These also a need to determine the impact on communities on the reduction of service delivered following an event caused by damaged/destroyed health services. |
| 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  | * (a + b + c + d + e)/f
* b = direct economic loss to all other damaged/destroyed productive assets attributed to disasters
	+ Health facilities forms one component
	+ Disaggregated by economic sector (including services) according to standard international classifications
	+ b.i. = Average facility size\*construction cost\*additional % equipment\*additional % associated infrastructure
	+ Number of workers
	+ Apply replacement cost per unit to estimate economic value of replacement cost
		- b.ii = b.i\*number of productive assets of each type\*average ratio of damage of all productive assets
	+ Convert the value expressed in national currency into USD and derive global loss value
* d = direct economic loss resulting from damaged/destroyed infrastructure attributed to disasters
	+ Health facilities forms one component
	+ Health facilities + educational facilities + critical infrastructure units (roads, railways, ports, airports)
	+ Buildings: Number of affected facilities\*average size of facility\*construction cost\*additional % equipment\*additional % associated infrastructure\*affected ratio
	+ Critical infrastructure: length of affected elements\*rehabilitation cost per unit length
* Other components with no direct role for health
	+ a = direct agricultural loss attributed to disasters (direct crop loss + livestock loss + forestry loss + aquaculture loss + fisheries loss)
	+ c = direct economic loss in the housing sector attributed to disasters
	+ e = direct economic loss to cultural heritage damaged/destroyed attributed to disasters
	+ f = GDP
 |
| Indicator Components | **C-3 Direct economic loss to all other damaged/destroyed productive assets*** Data source
	+ Health facilities, others owned by different departments
* Data requirements
	+ Minimum = Total by type of asset (e.g. health, education), by hazard type
	+ Recommended = by damaged/destroyed, by geography
	+ Desirable = by size category

**C-5 Direct economic loss resulting from damaged/destroyed infrastructure (including health facilities)*** Data source
	+ Health facilities, others owned by different departments
* Data requirements
	+ Minimum = Total by hazard type
	+ Recommended = by damaged/destroyed, by size of facility
 |
| Represented population | The population covered in this indicator is those affected by the event. If a health facility is damaged/ destroyed, the impact on the community it served needs to be calculated as well as the cost to repair/replace the facility. |
| Interpretation considerations | * Health is a component, particularly in C-3 and C-5
* Determination of how health services should be treated in C-3.
* Definition
	+ Variation in classification of facilities
* Methodology
	+ Price adjustment
	+ Variable methodologies used, more so than other indicators
	+ A range of estimates feeding in, meaning wider error bars
 |
| Customisable indicastors | The health sector has a strong interest in reducing direct and indirect economic loss due to all types of hazards. Ministries of health should consider reporting on direct and indirect economic losses attributable to all types of hazardous events, with a focus on biological hazards. *NB. Further guidance needed.*  |

**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 C.

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 report 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. [↑](#endnote-ref-1)
2. <https://www.gfdrr.org/damage-loss-and-needs-assessment-tools-and-methodology> [↑](#footnote-ref-1)
3. CRED & UNISDR. 2017. Economic losses, poverty & disasters [↑](#footnote-ref-2)
4. <https://www.unisdr.org/files/53080_entrybgpaperglobalsummaryreportdisa.pdf> [↑](#footnote-ref-3)