## Data quality information — Emergency management sector overview (sector overview D)

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| Data Quality Information |
| Data quality information (DQI) was prepared for the first time for the 2011 Report on Government Services. DQI provides information for a selection of performance indicators in the Emergency management sector summary. DQI for additional indicators will be progressively introduced in future reports.  Where RoGS indicators align with National Agreement indicators, DQI has been sourced from the Steering Committee’s reports on National Agreements to the COAG Reform Council.  Technical DQI has been supplied or agreed by relevant data providers. Additional Steering Committee commentary does not necessarily reflect the views of data providers. |
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**DQI are available for the following performance measures:**

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Total asset from emergency events 2

Deaths from emergency events 5

### Total asset from emergency events

Data quality information for this indicator has been drafted by the Secretariat in consultation with the Australian Government, with additional Steering Committee comments.

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| **Indicator definition and description** | | |
| **Element** | Emergency management sector performance indicator framework – Sector wide indicators | |
| **Indicator** | Total asset loss from emergency events | |
| Measure (computation) | Insured losses from disaster events.  ‘Insured losses from disaster events’ data are defined as the insured asset losses incurred by the community following disaster event.  Estimates of asset losses are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers.  To be included as a disaster event, natural, technological and human‑caused events must meet at least one of the following criteria:   * three or more deaths * 20 injuries or illnesses * significant damage to property, infrastructure, agriculture or the environment; or disruption to essential services, commerce or industry; or trauma or dislocation of the community at an estimated total cost of $10 million or more at the time the event occurred.   For the *Report on Government Services* the following event types are in scope: | |
| * Bushfire * Cyclone * Earthquake * Environmental * Flood * Hail | * Landslide * Severe Storm * Tornado * Tsunami * Urban fire. |
| Deflator  Time series financial data are adjusted to real dollars using the General Government Final Consumption Expenditure (GGFCE) chain price deflator. | |
| **Data source/s** | Australian Government 2013, *Australian Emergency Management: Knowledge Hub*, maintained by the Australian Emergency Management Institute, http://www.emknowledge.gov.au (accessed 23 April 2013  Denominator  ABS 2013, Australian National Accounts: National Income, Expenditure and Product, June 2013, Cat. no. 5206.0 | |
| **Data Quality Framework dimensions** | | |
| **Institutional environment** | Data Collector: Insurance Council of Australia (ICA)  Collection authority: Data are derived from the submissions of ICA member general insurance companies following large events incurring cost to the community and insurers.  The Insurance Council of Australia is the representative body of the general insurance industry in Australia. Its members represent more than 90 per cent of total premium income written by private sector general insurers.  Data Compiler: The Australian Emergency Management Institute (AEMI)  The AEMI hosts the Australian Emergency Management Knowledge Hub. The Knowledge Hub provides research, resources and news relevant to emergency management and includes statistics and information, photos, video and media about past disaster events.  The AEMI is a centre of excellence for knowledge and skills development in the national emergency management sector. As a part of the Attorney‑General’s Department, AEMI provides a range of education, training, professional development, information, research and community awareness services to the nation and our region. | |
| **Relevance** | Data topic: Estimates of asset losses are derived from the submissions of general insurance companies following large events incurring cost to the community and insurers.  Level of geography: The incurred cost of claims is available for each declared emergency event can be coded to state/territory locations.  Key Data Items: The incurred cost of claims is available for each declared emergency event by disaster/event type, Catastrophe Number (if declared), date, location, state, original cost and normalised cost.  Additional information: Value of asset loss is a measure of the economic cost of emergency events. The prevention/mitigation, preparedness, and response activities of government contribute to reduce the value of total asset loss from emergency events. A low or decreasing value of total asset loss from emergency events is desirable. | |
| **Timeliness** | Data collected: Data are available for individual emergency events, allowing for the creation of financial year and/or calendar year data.  Data available: Reports are available approximately four months after the reference period. 2012‑13 financial year data should be available for inclusion in the 2014 RoGS.  Additional information: The final loss figure for an event can take many years to resolve. | |
| **Accuracy** | The asset loss data do not represent the entire cost of the event, it is only an approximation of the insured loss based upon reported data.   * The final loss figure for an event can take many years to resolve. * Events are only recorded where there is a potential for the insured loss to exceed $10 million. Many large single losses occur on a day to day basis in Australia that are not part of a larger catastrophe event. * Other costs not taken into account include:   the losses of insurance companies that are not a member of the Insurance Council.  costs incurred by emergency services; local, State, Territory and Commonwealth governments; non‑government organisations; and by local governments during clean‑up  remedial and environmental damage costs (including pollution of foreshores and riverbanks and beach erosion)  costs associated with community dislocation  costs associated with job losses  costs associated with rehabilitation/recovery  medical and funeral costs associated with injuries and deaths. | |
| **Coherence** | Insurance companies must adhere to common accounting practices for insurance companies, and provide data according to an agreed classification system. | |
| **Accessibility** | The Attorney‑General’s Department aims to make information on the Knowledge Hub website accessible to all users. Data are available in a variety of formats on the website, www.emknowledge.gov.au. | |
| **Interpretability** | Insurance Statistics Australia publishes an Operations Guidebook, which documents the key collection processes, standards and classifications. The guidebook is available at:  http://www.insurancestats.com.au/objectives.html | |
| **Data Gaps/Issues Analysis** | | |
| **Key data gaps/issues** | The Steering Committee notes the following key data gaps/issues:   * Volatility — due to the sporadic nature of emergency events, there is a high level of volatility in reported asset loss data. It is important therefore to assess longer term trends where data are available. | |

### Deaths from emergency events

Data quality information for this indicator has been drafted by the Secretariat in consultation with the ABS, with additional Steering Committee comments.

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| **Indicator definition and description** | |
| **Element** | Emergency management sector performance indicator framework – Sector wide indicators |
| **Indicator** | Deaths from emergency events |
| **Measure (computation)** | Deaths from emergency events’ is defined as the number of deaths per calendar year in three categories:   * *Road traffic deaths* — deaths primarily caused by accidents involving transport vehicles (mainly cars) * *Fire deaths* — deaths primarily caused by exposure to smoke, fire or flames * *Deaths from exposure to forces of nature* — deaths primarily caused by exposure to forces of nature, such as natural disasters, or extreme climatic or weather conditions.   Numerator/s  The following International Classification of Diseases (ICD) codes are aggregated to define the data set:   * *Road traffic deaths* — include ICD codes Road traffic accidents  (V01–V79), Intentional self‑harm by crashing of motor vehicle (X82), Assault by crashing of motor vehicle (Y03), and Crashing of motor vehicle, undetermined intent (Y32). * *Fire deaths* — include ICD codes Exposure to smoke, fire and flames (X00–X09), Intentional self‑harm by smoke, fire and flames (X76), Assault by smoke, fire and flames (X97), and Exposure to smoke, fire and flames, undetermined intent (Y26). * *Deaths from exposure to forces of nature* — includes ICD codes Exposure to excessive natural heat (X30), Exposure to excessive natural cold (X31), Exposure to sunlight (X32), Victim of lightning (X33), Victim of earthquake (X34), Victim of volcanic eruption (X35), Victim of avalanche, landslide and other earth movements (X36), Victim of cataclysmic storm (X37), Victim of flood (X38), and Exposure to other and unspecified forces of nature (X39).   Denominator  Population by State and Territory and Australian total  The measure is expressed by State and Territory and Australian total, by ICD code detail and total, as an annual, and a three year rolling weighted average rate per million people. |
| **Data source/s** | Numerator  ABS *Causes of Death, Australia*, Cat. no. 3303.0 (Underlying causes of death, State and Territory tables, published and unpublished data).  Denominator  ABS *Estimated Residential Population*, Cat. no. 3101.0 (for more detail about the population data used in the Report see RoGS Statistical context (chapter 2)). |
| **Data Quality Framework dimensions** | |
| **Institutional environment** | The Causes of Death collection is published by the Australian Bureau of Statistics (ABS), with data sourced from deaths registrations administered by the various State and Territory Registrars of Births, Deaths and Marriages. It is a legal requirement of each State and Territory that all deaths are registered.  The ABS operates within a framework of the Census and Statistics Act 1905 and the Australian Bureau of Statistics Act 1975. These Acts ensure the confidentiality of respondents and ABS’ independence and impartiality from political influence. For more information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment. |
| **Relevance** | The ABS Causes of Death collection includes all deaths that occurred and were registered in Australia, including deaths of persons whose usual residence is overseas. Deaths of Australian residents that occurred outside Australia may be registered by individual Registrars, but are not included in ABS deaths or causes of death statistics.  Data in the Causes of Death collection include demographic items, as well as Causes of Death information coded according to the International Classification of Diseases (ICD). The ICD is the international standard classification for epidemiological purposes and is designed to promote international comparability in the collection, processing, classification, and presentation of cause of death statistics. The classification is used to classify diseases and causes of disease or injury as recorded on many types of medical records as well as death records. The ICD has been revised periodically to incorporate changes in the medical field. The 10th revision of ICD (ICD‑10) has been used since 1997. |
| **Timeliness** | Causes of Death data are published on an annual basis.  Death records are provided electronically to the ABS by individual Registrars on a monthly basis for compilation into aggregate statistics on a quarterly and annual basis. One dimension of timeliness in death registrations data is the interval between the occurrence and registration of a death. As a result, a small number of deaths occurring in one year are not registered until the following year or later.  Preliminary Estimated Residential Population (ERP) data are compiled and published quarterly and are generally made available five to six months after the end of each reference quarter. Commencing with data for September quarter 2006, revised estimates are released annually and made available 21 months after the end of the reference period for the previous financial year, once more accurate births, deaths and net overseas migration data becomes available. In the case of births and deaths, the revised data are compiled on a date of occurrence basis. In the case of net overseas migration, final data are based on actual traveller behaviour. Final estimates are made available every 5 years after a census and revisions are made to the previous inter‑censal period. ERP data are not changed once finalised. Releasing preliminary, revised and final ERP involves a balance between timeliness and accuracy. |
| **Accuracy** | Information on Causes of Death is obtained from a complete enumeration of deaths registered during a specified period and is not subject to sampling error. However, deaths data are subject to non‑sampling error. Non‑sampling error can arise from inaccuracies in collecting, recording and processing the data. The most significant of these errors are: misreporting of data items; deficiencies in coverage; non‑response to particular questions; and processing errors. Every effort is made to minimise error by working closely with data providers, the careful design of forms, training of processing staff and efficient data processing procedures.  All ERP data sources are subject to non‑sampling error. Non‑sampling error can arise from inaccuracies in collecting, recording and processing the data. In the case of Census and Post Enumeration Survey (PES) data, every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures.  All coroner certified deaths registered after 1 January 2007 will be subject to a revision process. See Causes of Death, 2007, Australia (Cat. no  3303.0).  Some rates are unreliable due to small numbers of deaths over the reference period. All rates in this indicator must be used with caution. |
| **Coherence** | The ABS provide source data for the numerator and denominator for this indicator.  The number of road traffic deaths provided in *Causes of Death* (ABS Cat. no. 3303.0) is different to the number of ‘Road fatalities’ presented in Police services (chapter 6). The ABS source their data from death registrations recorded by the State and Territory Registrars of Births, Deaths and Marriages (where each death must be certified by either a doctor using the Medical Certificate of Cause of Death, or by a coroner). ‘Road fatalities’ in chapter 6 provides more recent data sourced by the Australian Road Deaths Databases reported by the police each month to the State and Territory road safety authorities. |
| **Accessibility** | Causes of Death data are available in a variety of formats on the ABS website, www.abs.gov.au, under Causes of Death, Australia (Cat. no 3303.0).  ERP data are available in a variety of formats on the ABS website, www.abs.gov.au, under the 3101.0 and 3201.0 product families.  Further information on deaths and mortality may be available on request. The ABS observes strict confidentiality protocols as required by the Census and Statistics Act (1905). This may restrict access to data at a very detailed level. |
| **Interpretability** | Data for this indicator are presented as crude rates, per million estimated resident population, and as three year rolling averages due to volatility of the small numbers involved.  Information on how to interpret and use the cause of death data is available from the Explanatory Notes in Causes of Death, Australia (Cat. no 3303.0).  Small value data are randomly adjusted to avoid the release of confidential data.  Causes of death statistics for states and territories have been compiled in respect of the state or territory of usual residence of the deceased, regardless of where in Australia the death occurred and was registered.  The ERP is Australia’s population reported by state and territory and by place of usual residence. |
| **Data Gaps/Issues Analysis** | |
| **Key data gaps/issues** | The Steering Committee notes the following key data gaps/issues:   * Timeliness — data available for the Report on Government Services are delayed by one reference year. This is due to a tradeoff between accuracy and timeliness. * Volatility — due to the small numbers of emergency event deaths annually, there is a high level of volatility in reported indicator rates. It is important therefore to assess longer term trends where data are available. |