Date last modification documentation sheet: 16-04-2012

Compared to previous version documentation sheet (09-08-2010) the following issues were adapted:
- New section on relevant policy areas added to the documentation sheet
- Relevant dimension added: birth weight group
- No data available for birth weight group; this information was added to the data availability section
- Rationale adapted
- Remark added on possible bias/incomparability due to the inclusion of very low birth weight infants in the calculation of the indicator
- Reference to ICD manual added

ECHIM Indicator name	**B) Health status** 11. Infant mortality
Relevant policy areas	- Health inequalities (including accessibility of care) - Health system performance, quality of care, efficiency of care, patient safety - Maternal and perinatal health - Child health (including young adults)
Definition	The number of deaths of infants (younger than one year of age at death) per 1000 live births (based on one year data).
Calculation	Number of deaths under one year of age (aged 0-364 days) in a given year, per 1000 live births in that year.
Relevant dimensions and subgroups	- Calendar year - Country - Region (according to ISARE recommendations) - Sex - Socio-economic status (see data availability and remarks) - Birth weight group (specific operationalization to be established, see data availability)
Preferred data type and data source	Preferred data type: (In preference order) 1) National population statistics 2) Civil registration and medical registers Preferred source: Eurostat
Data availability	Data are available for the EU-27 in the Eurostat database (from 1960 onwards). Data available also by region for the EU-27 (from year 1990 onwards, NUTS-II level), but no data by sex, socio-economic status or birth weight group is available. The ISARE project on regional data has collected data on infant mortality (indicator: Infant mortality per 1000 live births).
Data periodicity	Data are being updated annually.
Rationale	"Basic indicator for population health and quality of health care services, infant mortality is highly correlated to countries' level of development. An important part of the infant mortality rate measures the consequences of perinatal events (low birth weight, prematurity) or birth defects. Moreover, infant mortality comprises the deaths in the post-neonatal period; those include accidents and infections, Sudden Infant Death Syndrome (SIDS) and lack of the essentials of life (adequate food, water, maternal care). Those post-neonatal deaths are often preventable and are highly influenced by social factors. This indicator can thus serve as a measure of the quality of medical care, preventive services and health promotion interventions" (PERISTAT project).
Remarks	- Infant mortality and Infant mortality by socio-economic status are also indicators of the health and long term care strand of the Social Protection Committee, developed under the Open Method of Coordination (OMC). Data for infant mortality by socio-economic status are currently under preparation. - PERISTAT is an EU-funded project on evaluating and monitoring perinatal health in

	Europe. PERISTAT definition, which is scientifically preferable, is: Number of infant deaths (day 0 through 364) after live birth at or after 22 completed weeks of gestation in a given year , per 1000 live births in the same year. PERISTAT has data only for years 2000 (15 countries) and 2004 (26 countries). Next data round is planned for 2010 data. - For PERISTAT definition, records of gestation time are needed, if not all live births are to be included in the statistics. Comparability is less affected by variation in the registration criteria for live births than by the variation in registration criteria for perinatal mortality. However, the registration of infants with very short gestation may cause variation between countries. - PERISTAT plans in the next phase to explicitly work on integrating their recommendations into the regular Eurostat data collections. - For international comparisons, it is noteworthy that some differences exist between countries in a) the recording rules of extremely low birth weight newborns, and b) the ethical attitudes of neonatologists in case of extremely low births weight. This can lead to bias in comparisons of infant death rates including the lowest birth weight categories. Therefore, the WHO recommends for international comparison purposes, to compute the infant mortality rate excluding births weighing less than 1000 grams. This restricted indicator, however, is currently not routinely available, but it can be calculated based on ad hoc reports, e.g. the EURO-PERISTAT report on 2004 data. - OECD notes: Some of the international variation in infant and neonatal mortality rates may be due to variations among countries in registering practices of premature infants (whether they are reported as live births or not). In several countries, such as in the Nordic countries, very premature babies (with relatively low odds of survival) are registered as live births. This increases mortality rates compared with other countries that do not register them as live births.
References	- Eurostat database, infant mortality rates (select infant mortality rate): http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_minfind&lang=en - Eurostat database, infant mortality rate by region (select infant mortality rate): http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=reg_d2infmo&lang=en - Eurostat metadata, mortality: http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/demo_mor_esms.htm - Health Indicators in the European Regions (ISARE) project: http://www.isare.org - PERISTAT: www.europeristat.com - For PERISTAT project 2000 data please see: the Special Issue of the European Journal for Obstetrics & Gynecology and Reproductive Biology, Volume 111 (2003), Supplement 1, S1–S87. - For PERISTAT project 2004 data please see: "European Perinatal Health Report", http://www.europeristat.com/publications/european-perinatal-health-report.shtml - OMC, indicators of the health and long term care strand, Eurostat website: http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_and_social_policy_indicators/omc_social_inclusion_and_social_protection/health_long_term_care_strand - WHO. International Statistical Classification of Diseases and Related Health Problems, 10th revision. Volume 2. 2d Ed, Geneva: 2004: http://www.who.int/classifications/icd/ICD-10_2nd_ed_volume2.pdf (p.94: Standards and reporting requirements related to fetal, perinatal, neonatal and infant mortality).
Work to do	- Monitor Eurostat and PERISTAT developments regarding indicator definition and data collection - Monitor developments OMC with regard to data by socio-economic status.