

<i>ECHIM Indicator name</i>	<b>D) Health interventions: health services</b> 66. Medical technologies (CT/MRI)
<i>Definition</i>	1) Number of Computer tomography scanners (CT units) per 100,000 inhabitants. 2) Number of Magnetic resonance imaging units (MRI units) per 100,000 inhabitants.
<i>Calculation</i>	1) The total number of computer tomography scanners (CT units) in hospitals and ambulatory sector registered by 31 December in a given calendar year, per 100,000 inhabitants (end of year population). 2) The total number of magnetic resonance imaging units (MRI units) in hospitals and ambulatory sector by 31 December in a given calendar year, per 100,000 inhabitants (end of year population).
<i>Relevant dimensions and subgroups</i>	- Calendar year - Country - Region (according to ISARE recommendations; see data availability) - Provider (hospital, ambulatory sector), - Sector (public, not-for-profit and private hospitals)
<i>Preferred data type and data source</i>	Preferred data type: - National administrative sources  Preferred source: - Eurostat
<i>Data availability</i>	Full geographical coverage for 17 states from 2005 onwards, partial coverage since 2000. For 2000 data are available for: Spain, Italy, Cyprus, Bulgaria, Luxembourg, Slovakia, Finland, and Iceland. From 2001: Poland, from 2003: Latvia, from 2004: Malta, Netherlands, Slovenia, from 2005: Estonia, Austria, Romania, Lithuania. Not a consistent series, for a large part of the countries data are unavailable for 2008 and to a lesser extent for 2007. Data on type of provider (hospitals, providers of ambulatory health care) is available, though data on the latter is limited. Data by region and sector is unavailable. The ISARE project on regional data has not collected data on the number of CT scanners and MRI units.
<i>Data periodicity</i>	Data are updated annually.
<i>Rationale</i>	The availability of modern medical equipments is an indicator for the delivery of up-to-date health care services. There is no general recommendation which per population ratio for the above listed medical technologies is regarded optimal. However, a high per population ratio may indicate over treatment (overprovision), e.g. the diagnostic measures are applied without indication-based requirement. Due to the high costs of acquisition and operation of these techniques a careful, indication-based use is regarded essential.
<i>Remarks</i>	- The data are based on different administrative sources. As a result coverage, data validity, reliability and comparability may vary. - Some countries provide annual averages rather than end of year estimates. The Eurostat meta-data currently however do not provide more details on the original data/data sources for medical technologies, so it is not possible to deduce from the meta-data which country is using what reference period. - The Eurostat dataset also provides information on numbers of other types of technology (gamma cameras, angiography units, lithotripters, PET scanners, radiation therapy equipment, mammographs). - The density rate used for the indicator medical technologies is based on the System of Health Accounts (SHA) methodological framework. - As of 2010 Eurostat, OECD and WHO-Europe carry out a joint data collection in the field of health care non-expenditure (human and physical resources). Publication of the (meta-)data is expected shortly.
<i>References</i>	- Health Indicators in the European Regions (ISARE) project: <a href="http://www.isare.org">http://www.isare.org</a> - Eurostat "Definitions and data collection specifications on health care statistics (non-expenditure data)": ( <a href="http://circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/health_care/">http://circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/health_care/</a> )

	<a href="#">estat-oecd-definitions-c/ EN 1.0 &amp;a=i</a> ) - Eurostat, Medical technology - Absolute numbers and rate per 100,000 inhabitants: <a href="http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_rs_equip&amp;lang=en">http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_rs_equip&amp;lang=en</a> - Metadata Health care: resources and patients (non-expenditure data): <a href="http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/hlth_care_esms.htm">http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/hlth_care_esms.htm</a>
<i>Work to do</i>	- Monitor publication of (meta)data collected in joint Eurostat/WHO/OECD questionnaire and update documentation sheet accordingly.