

<i>ECHIM Indicator name</i>	A) Demographic and socio-economic factors 6. Population by education
<i>Definition</i>	Proportion (%) of population divided up into three classes of educational attainment (low, middle and high education). Attainment profiles are based on highest completed specified level of education.
<i>Calculation</i>	Percentage of total population in the 7 classes of ISCED (International Standard Classification of Education 1997), aggregated into three attainment groups comprising of: elementary and lower secondary education (ISCED level 0,1 and 2), upper/post secondary (ISCED levels 3 and 4) and tertiary (ISCED levels 5 and 6) (see remarks).
<i>Relevant dimensions and subgroups</i>	<ul style="list-style-type: none"> - Calendar year - Country - Region (according to ISARE recommendations; see data availability) - Sex - Age group (25-64)
<i>Preferred data type and data source</i>	Preferred data type: HIS Preferred source: Eurostat (based on Labour Force Survey (LFS))
<i>Data availability</i>	Data from the LFS are divided by sex and age groups (until the age of 74). Data by region according to ISARE recommendations are not available. Furthermore only absolute numbers are available. Percentages can be calculated from absolute numbers for different education groups and total numbers.
<i>Data periodicity</i>	Eurostat data based on EU-SILC annually, based on LFS annually and quarterly. EHIS will be implemented with five year intervals. A number of countries started the implementation of EHIS in 2009, a second round is planned for 2014.
<i>Rationale</i>	Together with occupation and income, education belongs to the classic three core indicators of socio-economic status. The different indicators emphasise the different dimensions of SES. Apart from being an important indicator for describing the general social condition of the population by itself, stratification schemes based on the indicator provide an important tool for monitoring socio-economic inequalities in health.
<i>Remarks</i>	<ul style="list-style-type: none"> - "Educational level should be measured by means of a hierarchical classification of the population according to their highest completed educational level" "An exception may be made to students, who might be classified according to the level of education they are attending" (see reference 1 below) - References 1 and 3 (see below) recommend to use 4 categories (elementary education, lower secondary, upper/post secondary and tertiary). However, all three databases (Eurostat, WHO, OECD) provide data on educational attainment divided into three categories instead of four. Eurostat has data aggregated into the categories ISCED0-2, ISCED3-4 and ISCED5-6. Because of this, for the time being three categories can be used, but in the future four categories are to be preferred. - "The recommendation on number attainment groups (four) is taking into account two conflicting requirements. On the one hand, the groups should be small enough to give a good impression of the size of inequalities. On the other hand, they should be large enough to have a sufficient number of cases per socio-economic group. In practice, the recommended 4-level scheme is found to be a good compromise" (see reference 1 below). In case three categories are used, the distribution among education groups is skewed for the population aged 50+ . - Eurostat is not very consistent when presenting other data by educational group: sometimes 7 groups and sometimes 3 groups are being used (in which case ISCED 4 is sometimes added to middle and sometimes added to high educational group). - The meaning of education differs between birth cohorts. Because of the general increase in educational level the comparability of the educational level of elderly and young people is hampered. Therefore differences in age-distribution of the population should be taken into account. - If possible elderly should be included because the prevalence/incidence of health problems is highest in the oldest age groups.

	<p>- Compared with LFS EU-SILC has the advantage of the inclusion of the elderly age groups and the availability of data in percentages. However a 2009 Equalsoc Working Paper concludes “As to internationally comparative studies concerning substantive issues related to education, the results found here do not suggest promoting at this stage EU-SILC as a promising data base” (see reference 9). Large discrepancies in education distributions result from EU-SILC and EU-LFS in spite of the fact that both databases are produced by the same National Statistical Institutes (NSIs). Both data sets are collected by NSIs from similar population samples. With a few exceptions, EU-LFS educational distributions were found to correspond relatively closely to educational distributions from national databases. Also because EU-LFS is usually based on larger samples than EU-SILC it may be taken as a reference” (see also reference 9).</p> <p>- Sample frame LFS: rotating random sample survey of persons (15+) in private households.</p> <p>- In the EHIS questionnaire the ISCED classification is used (no education and 6 ISCED classes, 7 categories in total). So data for 7 categories will become available from EHIS in the future. Whether the data quality of data on population by education from EHIS will be preferable over LFS is to be assessed when EHIS data are available for analysis.</p>
<i>References</i>	<p>1) Monitoring socio-economic differences in health indicators in the European Union-project: http://ec.europa.eu/health/ph_projects/1998/monitoring/monitoring_project_1998_full_en.htm#6</p> <p>2) EUROTHINE - Tackling Health Inequalities In Europe: an integrated approach: http://ec.europa.eu/health/ph_projects/2003/action1/action1_2003_16_en.htm</p> <p>3) Kunst, A. Development of health inequalities indicators for the Eurothine project. 2008 http://ec.europa.eu/health/ph_projects/2003/action1/docs/2003_1_16_rep3_en.pdf</p> <p>4) EHIS 2007-2008 Methodology: Information from CIRCA : http://circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/healthsinterveiwssurvey/2007-2008_methodology&vm=detailed&sb=Title</p> <p>5) LFS : http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/introduction</p> <p>6) LFS: http://circa.europa.eu/irc/dsis/employment/info/data/eu_lfs/LFSuserguide_htmlversion/10_Education_and_training/HATLEVEL.htm</p> <p>7) ISCED International Standard Classification of Education: http://www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_A.pdf</p> <p>8) Health Indicators in the European Regions (ISARE) project : http://www.isare.org/</p> <p>9) Schneider, 2009. Measurement of Education in EU-SILC Preliminary Evaluation of Measurement Quality. http://www.equalsoc.org/uploaded_files/publications/EducationinEU-SILC.pdf</p> <p>10) Eurostat database, dataset Population, aged 15 to 74 years by sex, age groups and highest level of education attained : http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsq_pgaed&lang=en</p> <p>11) LFS main indicators. Reference Metadata in Euro SDMX Metadata Structure (ESMS): http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/lfsi_esms.htm</p> <p>12) LFS series - Detailed quarterly survey results (from 1998). Reference Metadata in Euro SDMX Metadata Structure (ESMS): http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/lfsq_esms.htm</p>
<i>Work to do</i>	<p>- Check whether Eurostat can provide data on education by four ISCED classes (including in the future EHIS data)</p>