Date last modification documentation sheet: 22-06-2012

Compared to previous version documentation sheet (16-04-2012) the following issues were adapted:
- Data availability and data periodicity updated
- Remarks updated (e.g. relating to new ISCED version) and clarified
- Reference to Eurostat data set on population by educational attainment level updated
- Reference to new ISCED version (2011) added
- Work-to-section updated

Compared to previous version documentation sheet (07-06-2010) the following issues were adapted:
- New section on relevant policy areas added to the documentation sheet

ECHIM Indicator name	**A) Demographic and socio-economic factors** 6. Population by education
Relevant policy areas	- Health inequalities (including accessibility of care) - Health in All Policies (HiAP)
Definition	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.
Calculation	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).
Relevant dimensions and subgroups	- Calendar year - Country - Region (according to ISARE recommendations; see data availability) - Sex - Age group (25-64)
Preferred data type and data source	Preferred data type: HIS Preferred source: Eurostat (based on Labour Force Survey (LFS))
Data availability	In the Eurostat database data on educational attainment level (%) from the LFS are divided by sex and several age groups, including 25-64. Data by region according to ISARE recommendations are not available. Data on educational attainment level are however available by NUTS 2 level in the Eurostat database.
Data periodicity	Eurostat data based on the LFS are available annually and quarterly.
Rationale	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.
Remarks	- "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). So, students have not reached their highest level of education yet, and this should be taken into account when interpreting data on population by education. - References 1 and 3 (see below) recommend to use 4 categories (elementary education, lower secondary, upper/post secondary and tertiary); "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+ .

	- 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. Usually comparability and sample size are not sufficient to allow a breakdown in more than 3 groups. - In 2011 a new ISCED version was released, which contains 9 classes (0 -8). How these could best be aggregated into larger groups needs to be discussed with experts and Eurostat (see work-to-do-section). - 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. - Compared with LFS EU-SILC has the advantage of the inclusion of the elderly age groups. 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). - Sample frame LFS: rotating random sample survey of persons (15+) in private households. - 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.
References	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 2) EUROTHINE - Tackling Health Inequalities In Europe: an integrated approach: http://ec.europa.eu/health/ph_projects/2003/action1/action1_2003_16_en.htm 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 4) EHIS 2007-2008 Methodology: Information from CIRCA : http://circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/healthsinterviewssurvey/2007-2008_methodology&vm=detailed&sb=Title 5) LFS : http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/introduction 6) LFS: http://circa.europa.eu/irc/dsis/employment/info/data/eu_lfs/LFSuserguide_htmlversion/10_Education_and_training/HATLEVEL.htm 7) ISCED International Standard Classification of Education: http://www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_A.pdf 8) Health Indicators in the European Regions (ISARE) project : http://www.isare.org/ 9) Schneider, 2009. Measurement of Education in EU-SILC Preliminary Evaluation of Measurement Quality. http://www.equalsoc.org/uploaded_files/publications/EducationinEU-SILC.pdf 10) Eurostat database, dataset Persons with a given education attainment level by sex and age groups (%): http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfs_9903&lang=en 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 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 13) ISCED 2011 version: http://www.uis.unesco.org/Education/Documents/UNESCO_GC_36C-19_ISCED_EN.pdf
Work to do	- Discuss with (Extended) Core Group (or comparable body, if (E)CG is no longer maintained

	after the Joint Action for ECHIM) the suggestion made by Eurostat to change the indicator's name into 'population by educational attainment level', in accordance with ISCED 2011 terminology. - Discuss with experts and Eurostat how the 9 classes of the new ISCED version (compared with the 7 classes in ISCED 1997) could be best aggregated into larger groups. N.B.: Eurostat announced that they intend to publish LFS data on educational attainment level, when collected according to ISCED 2011, by at least 4 groups.