



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de la Santé
et de la Sécurité sociale
Inspection générale de la sécurité sociale

Luxembourg
Microdata
Platform
on Labour
and Social
Protection

Luxembourg Microdata Platform on Labour and Social Protection

Data Dictionary

Inspection générale de la sécurité sociale

*Last update: 19/01/2024
Contact: microdata.platform@igss.etat.lu*



Data User's Guide

Sources of data

Microdata available in the Platform are administrative data that have been transformed and prepared for statistical purposes. They come from different national institutions:

- the centre commun de la sécurité sociale (CCSS),
- the agence pour le développement de l'emploi (ADEM)
- the service national de la statistique (STATEC)
- the caisse nationale de santé (CNS)
- the caisse nationale d'assurance pension (CNAP)
- the fonds national de solidarité (FNS)
- the caisse pour l'avenir des enfants (CAE)
- pension public schemes.

Administrative data field

Administrative data provided in the platform are related to people living in Luxembourg or directly related to the Luxembourgish social protection system. For people living in Luxembourg but not registered in the Luxembourgish social protection system (as international civil servants), only few sociodemographic characteristics are known.

How is data organized and delivered?

Microdata are organized in thematic registers. Provided variables are defined according to the "need to know" rule. Registers can be joined using different key variables:

- reference_period
- individual_IDnumber (pseudonymised individual identification number),
- employer_IDnumber (pseudonymised employer identification number)
- job_IDnumber (job identification number).

In the field of health, registers can be joined using the following key variables: act_IDnumber, hosp_stay_treat_IDnumber, executioner_IDnumber, invoicer_IDnumber, prescriber_IDnumber, provider_IDnumber, practitioner_IDnumber and hospital_IDnumber.





Most of the time, variables are prefixed:

- for variables which concern individuals, the prefix is i_
- for variables which concern jobs, the prefix is j_
- for variables which concern employers, the prefix is e_
- for variables which concern work absences, the prefix is a_
- for variables which concern medical acts, the prefix is act_
- for variables which concern stays and treatments in hospital, the prefix is hosp_
- for variables which concern healthcare providers, the prefix is provider_.

Specific values of variables : -9 = not applicable / -8 = not available / -1 = not provided

By default, variables are available since January 2002, except for health data which are available since January 2012 or 2018, depending the type of variables.

By default and to limit the risk of re-identification, only months and years are provided for date variables (the day is always recoded in 01). If the project requires more precise dates, it is up to the applicant to justify in order to comply with the "need to know" rule.

Signs  and  indicate that measures of protection for personal data have been taken. Two levels of protection have been introduced.



These variables are provided at an aggregate level. If the project requires a more detailed level of information, it will be up to the applicant to justify it in order to comply with the "need to know" rule.



These variables are not provided by default. If the project requires this variable, it will be up to the applicant to justify it in order to comply with the "need to know" rule. Where appropriate, the level of aggregation provided to the applicant will also be decided according to the "need to know" rule.



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1. Individual data

1.1 Individual sociodemographic characteristics

All individual sociodemographic variables are related to a reference period (year and month). Some variables can change from month to month (like the age or the residence). Others do not change (like the country of birth).

| | |
|----------------------|-------------------------|
| Name of the variable | reference_period |
| Description | Year and month |
| Format | Character (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |


| | |
|----------------------|------------------------------|
| Name of the variable | i_gender |
| Description | |
| Format | Character |
| Values | 0 Male 1 Female |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_age |
| Description | Age at the end of the month |
| Format | Character |
| Values | 0 less than 20 years 1 20-24 years 2 25-29 years 3 30-34 years 4 35-39 years 5 40-44 years 6 45-49 years 7 50-54 years 8 55-59 years 9 60 years and more |
| Comments | |
| Source(s) | CCSS |



| | |
|----------------------|--|
| Name of the variable | i_civil_status |
| Description | |
| Format | Character |
| Values | 0 Single 1 Married or civil partnership 2 Separated-divorced Widow(er) |
| Comments | This variable is not reliable for people living outside Luxembourg. For them, the value is -8 (not available). |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_residence_country |
| Description | |
| Format | Character |
| Values | 0 Luxembourg 1 Germany 2 Belgium 3 France 4 Other |
| Comments | Residence country refers to the administrative address. When the country of residence is outside the Greater Region, one would assume the person lives in Luxembourg, at least during the week. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_location_residence |
| Description | Individual location residence refers to the following levels: "canton" for Luxembourg, "département" for France, "province" for Belgium and "Regierungsbezirk" for Germany. |
| Format | Character |
| Values |  |
| Comments | For countries other than Luxembourg, France, Germany and Belgium, the variable is not available. More detailed variables are available about residence. They will be provided according to the "need to know" rule. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_citizenship |
| Description | |
| Format | Character |
| Values | 0 Luxembourg 1 Germany 2 Belgium 3 France 4 Portugal 5 Other EU-27 6 Other |
| Comments | This variable refers to the main citizenship during the reference period. It can change from month to month for people who acquire another citizenship. In case of dual citizenship, the provided citizenship is the one considered as the first by the administration. For people who take Luxembourgish nationality, this is the one that is indicated. |
| Source(s) | CCSS |



| | |
|----------------------|--|
| Name of the variable | i_birth_country |
| Description | |
| Format | Character |
| Values | 0 Luxembourg 1 Germany 2 Belgium 3 France 4 Portugal 5 Other EU-27 6 Other |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | i_NIN_creation_date |
| Description | Date of creation of the national identification number |
| Format | Date yyyyymm |
| Values | |
| Comments | The variable refers to the date of creation of the national identification number. For people registered before the 1 st january 1977, the date is always january 1977. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | i_first_job_Luxembourg_date |
| Description | |
| Format | Date yyyyymm |
| Values | |
| Comments | "Not applicable" concerns people who have never worked. Student internships and summer jobs are not considered as a first job. |
| Source(s) | CCSS |

| | |
|----------------------|---------------------|
| Name of the variable | i_death_date |
| Description | |
| Format | Date yyyyymm |
| Values | |
| Comments | |
| Source(s) | CCSS |



1.2 Characteristics of individuals registered in the Luxembourgish social security

All variables concerning people registered in the Luxembourgish social security are related to a reference period (year and month). All of them can change from month to month.

| | |
|----------------------|-------------------------|
| Name of the variable | reference_period |
| Description | Year and month |
| Format | Character (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | i_coinsurance |
| Description | |
| Format | Character |
| Values | 0 Personal insurance 1 Co-insured |
| Comments | "Not applicable" concerns people not registered in the Luxembourgish social security system |
| Source(s) | CCSS |

1.3 Child-parents relationships

| | |
|----------------------|---|
| Name of the variable | parent_individual_IDnumber |
| Description | Parent pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | child_individual_IDnumber |
| Description | Child pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |



1.4 Spouses relationships

| | |
|----------------------|-------------------------|
| Name of the variable | reference_period |
| Description | Year and month |
| Format | Character (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | spouse_individual_IDnumber |
| Description | Spouse pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | Spouses relationships include married people or civil partnership. |
| Source(s) | |

1.5 Households characteristics

| | |
|----------------------|-------------------------|
| Name of the variable | reference_period |
| Description | Year and month |
| Format | Character (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | h_household_number |
| Description | Household identification number in December of the year |
| Format | Numeric |
| Values | |
| Comments | Information only available for residents. For residents, the household is defined as all persons living together in the same dwelling (dwelling-household) except for people living in the City of Luxembourg for whom this information is not available. For the latest, a dwelling-household has been built for the beneficiaries of a benefit calculated at the household level (minimum income and/or cost-of-living allowance) and, for the other persons, a fiscal-household has been built defined as married or civil partner persons with or without children living together. The composition of the household is as of the 31th December of each year. |
| Source(s) | NRNP, IGSS (Calculated) |



| | |
|----------------------|--|
| Name of the variable | h_household_number_type |
| Description | Household identification number type |
| Format | Numeric |
| Values | 0 dwelling-household 1 fiscal household |
| Comments | |
| Source(s) | NRNP, IGSS (Calculated) |

| | |
|----------------------|---|
| Name of the variable | h_month_total_income |
| Description | Monthly gross total income |
| Format | Numeric |
| Values | |
| Comments | $i_month_total_income = j_month_total_wage + i_family_allowance + i_school_allowance + i_birth_allowance + i_maternity_allowance + i_childrear_allowance + i_child_bonus + i_parental_leave_benefit + i_unemployment_benefit + i_compensation_benefits + i_tideover_benefit + i_early_retirement + i_invalid_pension + i_oldage_pension + i_survivor_pension + i_orphan_pension + i_child_rearing_fixed_allow + i_min_income + i_lifecost_allowance + i_disable_allowance$ |
| Source(s) | CCSS |



2. Labor market data

2.1 Characteristics of jobs

**All variables concerning jobs are related to a reference period (year and month).
Some variables can change from month to month (like the number of worked hours or the wage).
Others do not change over time (like the starting date of the job).**


| | |
|----------------------|-------------------------|
| Name of the variable | reference_period |
| Description | Year and month |
| Format | Character (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|----------------------------------|
| Name of the variable | job_IDnumber |
| Description | Identification number of the job |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |


| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | employer_IDnumber |
| Description | Pseudonymised employer identification number |
| Format | Character |
| Values | |
| Comments | If the employer is self-employed or a private person, the value is "Not applicable". |
| Source(s) | |


| | |
|----------------------|---|
| Name of the variable | temporary_jobs_employer_IDnumber |
| Description | Pseudonymised employer identification number for temporary jobs |
| Format | Character |
| Values | -10 Firms established abroad |
| Comments | "Not applicable" concerns non temporary jobs. |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | j_job_start_date |
| Description | Date the job starts |
| Format | Date yyyymm |
| Values |  |
| Comments | |
| Source(s) | CCSS |



| | |
|----------------------|---|
| Name of the variable | j_job_end_effective_date |
| Description | Date the job ends |
| Format | Date yyyyymm |
| Values |  |
| Comments | Not applicable concerns current jobs. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_contract_type |
| Description | |
| Format | Character |
| Values | 0 Permanent contract 1 Fixed-term contract 2 Temporary contract 3 Apprenticeship contract 4 Summer or student job |
| Comments | Not applicable concerns self-employed. Information is unavailable before 2005. Summer or student jobs correspond to jobs for which the person has worked less than two months per year. Otherwise, the job is fixed-term contract or a temporary contract. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_job_end_planned_date |
| Description | |
| Format | Date yyyyymm |
| Values |  |
| Comments | Not applicable concerns permanent contracts and self-employed. This variable refers to the date when the contract is expected to end (as decided at the moment of recruitment). |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_contract_planned_duration |
| Description | Duration of the contract as planned when hiring |
| Format | character |
| Values | 0 < 2 weeks 1 [2 weeks - 1 month[2 [1 - 2 months[3 [2 - 6 months[4 [6 - 12 months[5 [12 - 24 months[6 ≥ 24 months |
| Comments | Not applicable concerns permanent contracts and self-employed. This variable refers to the duration fixed at the moment of recruitment. $j_contract_planned_duration = j_end_planned_date - j_start_date$ |
| Source(s) | CCSS |



| | |
|----------------------|---|
| Name of the variable | j_job_status |
| Description | |
| Format | Character |
| Values | 0 Private sector worker 1 Civil servant 2 Self-employed |
| Comments | |
| Source(s) | CCSS |





| | |
|----------------------|--|
| Name of the variable | j_blue-collar |
| Description | Whether the worker performs manual tasks |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | This variable is not reliable for self-employed and civil servants. For them, the value is -8. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_posted_worker |
| Description | Posted worker abroad |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_assisting_family_member |
| Description | |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Person living with the owner of the unit and working regularly for the unit, but do not have a contract of service and do not receive a fixed sum for the work they perform. This is limited to those persons who are not included on the payroll of another unit as their principal occupation. For assisting family members, relevant variables are j_job_start_date, j_job_end_planned_date and employer_IDnumber. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_activation_measure |
| Description | Whether the worker is registered in an active labour market policy at the public employment service (ADEM) |
| Format | Character |
| Values |   0 No 1 Yes |
| Comments | "Not applicable" concerns self-employed. Only activation measures assimilated to jobs are registered in the file. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_activation_measure_type |
| Description | Name of the activation measure |
| Format | Character |
| Values |   Changing values according to new measures |
| Comments | "Not applicable" concerns self-employed and workers out of activation schemes. http://www.adem.public.lu/fr/demandeurs-demploi/aides-financieres-mesures/mesures-emploi/index.html |
| Source(s) | ADEM |



| | |
|----------------------|--|
| Name of the variable | j_internal_redeployment |
| Description | Whether the worker is concerned by an internal redeployment (<i>reclassement interne</i>), due to a loss of working capacity |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_trial_period |
| Description | Whether the contract has a trial period |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | "Not applicable" concerns self-employed and workers without trial period. The variable is available from 2008 on. Before 2008, the value is -8 |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_trial_period_end_date |
| Description | |
| Format | Date yyyyymm |
| Values | |
| Comments | "Not applicable" concerns self-employed and workers without trial period. The variable is available from 2008 on. Before 2008, the value is -8. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_trial_period_length |
| Description | |
| Format | Numeric |
| Values | Number of weeks (rounded to the nearest integer) |
| Comments | "Not applicable" concerns self-employed and workers without trial period. The variable is available from 2008 on. Before 2008, the value is -8. $j_trial_period_length = j_trial_period_end_date - j_job_start_date$ |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_F_short_time_working |
| Description | Whether the worker is concerned by short-time working during the month |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_short_time_working_benefit |
| Description | Monthly amount of short-time working |
| Format | Numeric |
| Values | |
| Comments | "Not applicable" concerns self-employed. Short time working benefit is included in $j_F_month_base_wage$. |
| Source(s) | CCSS |



| | |
|----------------------|---|
| Name of the variable | j_short_time_working_hours |
| Description | Monthly hours concerned by short-time working |
| Format | Numeric |
| Values | |
| Comments | "Not applicable" concerns self-employed. Short time working hours are included in j_nb_base_worked_hours. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_F_month_base_wage |
| Description | Whether receiving a base wage during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | "Not applicable" concerns self-employed. This variable is missing before January 2009. Before this date, corresponding to the introduction of the single status (<i>statut unique</i>), the different components of the wage were not distinguishable. |
| Source(s) | CCSS |

| | |
|----------------------|--------------------------|
| Name of the variable | j_month_base_wage |
| Description | Monthly gross base wage |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_F_month_additionnal_wage |
| Description | Whether receiving a additionnal wage during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | "Not applicable" concerns self-employed. This variable is missing before January 2009. Before this date, corresponding to the introduction of the single status (<i>statut unique</i>), the different components of the wage were not distinguishable. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_month_additionnal_wage |
| Description | Monthly gross additionnal wage, excluding overtime wage |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_F_month_overtime_wage |
| Description | Whether receiving an overtime wage during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | "Not applicable" concerns self-employed. This variable is missing before January 2009. Before this date, corresponding to the introduction of the single status (<i>statut unique</i>), the different components of the wage were not distinguishable. |
| Source(s) | CCSS |



| | |
|----------------------|------------------------------|
| Name of the variable | j_month_overtime_wage |
| Description | Monthly gross overtime wage |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_F_month_total_wage |
| Description | Whether receiving a wage during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_month_total_wage |
| Description | Monthly gross total wage |
| Format | Numeric |
| Values | |
| Comments | After 2009, $j_month_total_wage = j_month_base_wage + j_month_additionnal_wage + j_month_overtime_wage$ |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_F_nb_base_worked_hours |
| Description | Flag for base worked hours during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | "Not applicable" concerns self-employed. This variable is missing before January 2009. Before this date, corresponding to the introduction of the single status (<i>statut unique</i>), the different components of the worked hours were not distinguishable. Only the total number of worked hours was declared (base hours + overtime) |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_nb_base_worked_hours |
| Description | |
| Format | Numeric |
| Values | |
| Comments | The number of worked base hours is related to the number of working days in the month. Thus, depending on the month and the number of days off, the number of worked hours can vary from 144 hours to 184 hours. |
| Source(s) | CCSS |



| | |
|----------------------|--|
| Name of the variable | j_F_nb_overtime_paid_hours |
| Description | Flag for overtime paid hours during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | This variable is missing before January 2009. Before this date, corresponding to the introduction of the single status (<i>statut unique</i>), the different components of the worked hours were not distinguishable. Only the total number of worked hours was declared (base hours + overtime) |
| Source(s) | CCSS |

| | |
|----------------------|---------------------------------|
| Name of the variable | j_nb_overtime_paid_hours |
| Description | |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_F_nb_total_worked_hours |
| Description | Flag for total worked hours during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | This variable exists before January 2009. "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_nb_total_worked_hours |
| Description | |
| Format | Numeric |
| Values | |
| Comments | After 2009, $j_nb_total_worked_hours = j_nb_base_worked_hours + j_nb_overtime_paid_hours$ As the number of contractual worked hours, the number of total worked hours is related to the number of working days in the month. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_F_nb_base_worked_hours_ADJ |
| Description | Flag for adjusted base worked hours during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | This variable is missing before January 2009. "Not applicable" concerns self-employed. |
| Source(s) | CCSS |



| | |
|----------------------|---|
| Name of the variable | j_nb_base_worked_hours_ADJ |
| Description | Adjusted number of base worked hours |
| Format | Numeric |
| Values | . |
| Comments | Since j_nb_base_worked_hours refers to the effective time spent working, this variable is dependent on the number of working days in the month. Then, it is IMPOSSIBLE to calculate a correct hourly base wage using this variable. Indeed, the hourly wage of a worker receiving the same monthly wage would change, leading one to consider significant fluctuations in wages while they are purely artificial. This is why we have calculated adjusted base worked hours, ADJUSTED for calendar effects. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_F_nb_total_worked_hours_ADJ |
| Description | Flag for adjusted total worked hours during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | This variable is missing before January 2009. "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_nb_total_worked_hours_ADJ |
| Description | Adjusted number of total worked hours |
| Format | Numeric |
| Values | |
| Comments | $j_nb_total_worked_hours_ADJ = j_nb_base_worked_hours_ADJ + j_nb_overtime_paid_hours$ |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_F_hourly_base_wage |
| Description | Flag for hourly base wage during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | This variable is missing before January 2009. "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | j_hourly_base_wage |
| Description | |
| Format | Numeric |
| Values | |
| Comments | $j_hourly_base_wage = j_month_base_wage / j_nb_base_worked_hours_ADJUSTED$ For jobs with a duration of 12 months or less, the monthly hourly wage adjusted for the calendar effect is not provided. For these jobs, the researcher can compute by himself an average hourly wage over the entire occupation. |
| Source(s) | CCSS |



| | |
|----------------------|---|
| Name of the variable | j_F_hourly_total_wage |
| Description | Flag for hourly total wage during the month |
| Format | Character |
| Values | -9 Not applicable -8 Missing data 1 Yes |
| Comments | "Not applicable" concerns self-employed. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_hourly_total_wage |
| Description | |
| Format | Numeric |
| Values | |
| Comments | $j_hourly_total_wage = \sum (j_month_base_wage + j_month_additionnal_wage + j_month_overtime_wage) / j_nb_total_worked_hours \text{ ADJUSTED}$ <p>For jobs with a duration of 12 months or less, the monthly hourly wage adjusted for the calendar effect is not provided. For these jobs, the researcher can compute by himself an average hourly wage over the entire occupation.</p> |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | j_F_official_stat |
| Description | Whether the job is included in monthly official employment statistics |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | This flag has to be used to select jobs retained for calculation of monthly official employment statistics published by IGSS. These monthly statistics refer to the number of persons working the last working day of the month. Consequently, official statistics exclude jobs that end before the last working day and secondary jobs. That means that in case of multiple jobs, we keep only one job per worker (the main one). |
| Source(s) | CCSS |




2.2 Characteristics of employers

All variables concerning employers are related to a reference period (year and month). All of them can change from month to month.

| | |
|----------------------|-------------------------|
| Name of the variable | reference_period |
| Description | Year and month |
| Format | Character (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | employer_IDnumber |
| Description | Pseudonymised employer identification number |
| Format | Character |
| Values | |
| Comments | Employers can change their registration number from one period to another just because they change their status. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | e_activity_sector |
| Description | Activity sector according to the NACE Rev.2 classification |
| Format | Character |
| Values |  Nace 2 digits See https://environnement.public.lu/content/dam/environnement/documents/offall_a_ressourcen/codes-d%C3%A9chets/code-nace-rev2.pdf |
| Comments | |
| Source(s) | CCSS/STATEC |

| | |
|----------------------|---|
| Name of the variable | e_legal_status |
| Description | |
| Format | Character |
| Values | 0 Private 1 Public 2 Other |
| Comments | The value "other" includes associations, NGOs, etc. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | e_size_employer |
| Description | Number of workers working for the employer |
| Format | Character |
| Values | 0 1 worker 1 2-4 workers 2 5-24 workers 3 25-49 workers 4 50-149 workers 5 150-499 workers 6 500 workers and more |
| Comments | The number of workers is calculated at the end of the month. Temporary workers are excluded. People in parental leave full time are excluded as well. By using the "jobs characteristics" register, it is possible to compute many indicators about the composition of the workforce of the employer. To that end, select the existing jobs at the end of the month (variable j_flag_jobs_official_stat = 'yes') and aggregate by employer and by the variables you want to split the workforce by. |
| Source(s) | CCSS |



2.3 Work absences

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | job_IDnumber |
| Description | Pseudonymised job identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | CCSS |



| | | | | | | | | | | | | | |
|----------------------|--|---|---------|---|---|---|-----------------------------------|---|--------|---|----------------------|---|---|
| Name of the variable | a_absence_type | | | | | | | | | | | | |
| Description | | | | | | | | | | | | | |
| Format | Character | | | | | | | | | | | | |
| Values | <table> <tr> <td>0</td> <td>Illness</td> </tr> <tr> <td>1</td> <td>Maternity/special leave for adopted child</td> </tr> <tr> <td>2</td> <td>Work exemption for pregnant women</td> </tr> <tr> <td>3</td> <td>Injury</td> </tr> <tr> <td>4</td> <td>Family reasons leave</td> </tr> <tr> <td>5</td> <td>Palliative care leave (<i>congé d'accompagnement</i>)</td> </tr> </table> | 0 | Illness | 1 | Maternity/special leave for adopted child | 2 | Work exemption for pregnant women | 3 | Injury | 4 | Family reasons leave | 5 | Palliative care leave (<i>congé d'accompagnement</i>) |
| 0 | Illness | | | | | | | | | | | | |
| 1 | Maternity/special leave for adopted child | | | | | | | | | | | | |
| 2 | Work exemption for pregnant women | | | | | | | | | | | | |
| 3 | Injury | | | | | | | | | | | | |
| 4 | Family reasons leave | | | | | | | | | | | | |
| 5 | Palliative care leave (<i>congé d'accompagnement</i>) | | | | | | | | | | | | |
| Comments | Absences concern only workers from private scheme. | | | | | | | | | | | | |
| Source(s) | CCSS | | | | | | | | | | | | |

| | |
|----------------------|--|
| Name of the variable | a_start_date |
| Description | |
| Format | Date yyyyymmdd |
| Values | |
| Comments | Absences concern only workers from private scheme. |
| Source(s) | CCSS |


| | |
|----------------------|--|
| Name of the variable | a_end_date |
| Description | |
| Format | Date yyyyymmdd |
| Values | |
| Comments | Absences concern only workers from private scheme. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | a_length_absence |
| Description | Length of absence taking into account calendar days |
| Format | Numeric |
| Values | |
| Comments | Absences concern only workers from private scheme. |
| Source(s) | CCSS |





| | |
|----------------------|--|
| Name of the variable | a_diagnosis |
| Description | |
| Format | Character |
| Values |   See nomenclature ICD-10 http://apps.who.int/classifications/icd10/browse/Content/Statichtml/ICD10Volume2_en_2016.pdf |
| Comments | Absences concern only workers from private scheme. Diagnosis are only available for resident persons. The ICD-10 classification is derived from a national classification. |
| Source(s) | CCSS |

2.4 Redeployments

| | |
|----------------------|---|
| Name of the variable | r_date_decision |
| Description | |
| Format | Date yyyyymm |
| Values |   |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | Individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | employer_IDnumber |
| Description | Pseudonymised employer identification number |
| Format | Character |
| Values | |
| Comments | Employers can change their registration number from one period to another just because they change their status. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | r_redeployment_type |
| Description | Whether the worker is concerned by an internal or external redeployment (<i>reclassement interne ou externe</i>), due to a loss of working capacity |
| Format | Character |
| Values |   0 External 1 Internal |
| Comments | "Not applicable" concerns self-employed. |
| Source(s) | CCSS |



3. Social benefits data

All variables concerning social benefits are related to a reference period (year and month).

| | |
|----------------------|-------------------------|
| Name of the variable | reference_period |
| Description | Year and month |
| Format | Character (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | Individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

3.1 Family benefits

| | |
|----------------------|---|
| Name of the variable | i_F_family_allowance_right |
| Description | Whether the individual has children entitled for family allowances (<i>allocations familiales</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Family allowances are a right of the child and not of the parent. Therefore, the variable is 'yes' for both parents if appropriate. For a part of the crossborder workers, the information is not available at the individual level. Consequently, this variable is not provided for the crossborder workers. Since October 2010, family allowances eligibility conditions have changed after the introduction of the law concerning the State scholarships and loans to students grant system. |
| Source(s) | CAE |

| | |
|----------------------|---|
| Name of the variable | i_family_allowance |
| Description | Monthly amount of the family allowances (<i>allocations familiales</i>) |
| Format | Numeric |
| Values | |
| Comments | Family allowances are a right of the child and not of the parent. So, it is not an individualised income which is impossible to calculate according to the ignorance of the income sharing rules between parents (the latest may be living in couple or be separated). Therefore, considering the whole amount for estimating the financial situation of the individual results of an overestimation of the latest. For a part of the crossborder workers, the information is not available at the individual level. Consequently and to keep coherence of data, this variable is not provided for the crossborder workers. Since October 2010, family allowances eligibility conditions have changed after the introduction of the law concerning the State scholarships and loans to students grant system. |
| Source(s) | CAE |



| | |
|----------------------|---|
| Name of the variable | i_F_school_allowance_right |
| Description | Whether the individual has children entitled to the new school year allowance (<i>allocation de rentrée scolaire</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | <p>The school year allowance is a right of the child and not of the parent. Therefore, the variable is 'yes' for both parents if appropriate.</p> <p>For a part of the crossborder workers, the information is not available at the individual level. Consequently and to keep coherence of data, this variable is not provided for the crossborder workers.</p> <p>Since October 2010, the school year allowance eligibility conditions have changed substantially after the introduction of the law concerning the State scholarships and loans to students grant system.</p> <p>Data on the school year allowance are not available before 2003.</p> |
| Source(s) | CAE |

| | |
|----------------------|---|
| Name of the variable | i_school_allowance |
| Description | Monthly amount of the school year allowance (<i>allocation de rentrée scolaire</i>) |
| Format | Numeric |
| Values | |
| Comments | <p>The school year allowance is a right of the child and not of the parent. So, it is not an individualised income which is impossible to calculate according to the ignorance of the income sharing rules between parents (the latest may be living in couple or be separated). Therefore, considering the whole amount for estimating the financial situation of the individual results of an overestimation of the latest.</p> <p>For a part of the crossborder workers, the information is not available at the individual level. Consequently and to keep coherence of data, this variable is not provided for the crossborder workers.</p> <p>Since October 2010, the school year allowance eligibility conditions have changed substantially after the introduction of the law concerning the State scholarships and loans to students grant system.</p> <p>Data on the school year allowance are not available before 2003.</p> |
| Source(s) | CAE |

| | |
|----------------------|--|
| Name of the variable | i_F_birth_allowance |
| Description | Whether receiving the birth allowance (<i>allocation de naissance</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | <p>The birth allowance which is paid in three instalments (prenatal, natal, postnatal) during a three years period is made conditional to different medical examinations the mother and the child must have undergone at different moment of the pregnancy or during the early years of the child's life. For recent beneficiaries, all instalments may not have been paid.</p> <p>The absence of the birth allowance for an eligible mother that should benefit it could therefore indicate a certain type of behaviour. That is why, by default, the variable is not provided.</p> |
| Source(s) | CAE |



| | |
|----------------------|--|
| Name of the variable | i_type_birth_allowance |
| Description | Rank of the instalment |
| Format | Character |
| Values | 0 prenatal 1 natal 2 postnatal |
| Comments | The birth allowance is paid in three instalments (prenatal, natal, postnatal) during a three years period. Eligibility is made conditional to different medical examinations for mothers and children. For recent beneficiaries, all instalments may not have been paid. The absence of the birth allowance for an eligible mother could therefore indicate a certain type of behaviour. That is why, by default, the variable is not provided. |
| Source(s) | CAE |

| | |
|----------------------|--|
| Name of the variable | i_birth_allowance |
| Description | Monthly amount of the birth allowance (<i>allocation de naissance</i>) |
| Format | Numeric |
| Values | |
| Comments | The birth allowance is paid in three instalments (prenatal, natal, postnatal) during a three years period. Eligibility is made conditional to different medical examinations for mothers and children. For recent beneficiaries, all instalments may not have been paid. The absence of the birth allowance for an eligible mother could therefore indicate a certain type of behaviour. That is why, by default, the variable is not provided. |
| Source(s) | CAE |

| | |
|----------------------|--|
| Name of the variable | i_F_maternity_allowance |
| Description | Whether receiving the maternity allowance (<i>allocation de maternité</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | This allowance has been abolished since the 1st June 2015. |
| Source(s) | CAE |

| | |
|----------------------|--|
| Name of the variable | i_maternity_allowance |
| Description | Monthly amount of the maternity allowance (<i>allocation de maternité</i>) |
| Format | Numeric |
| Values | |
| Comments | This allowance has been abolished since the 1st June 2015. |
| Source(s) | CAE |

| | |
|----------------------|--|
| Name of the variable | i_F_childrear_allowance |
| Description | Whether receiving child rearing allowance (<i>allocation d'éducation</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | This allowance has been abolished since the 1st June 2015 but persons receiving this allowance the 31 May 2015 continue to benefit from this allowance until the end of the entitlement of the allowance. For a part of the crossborder workers, the information is not available at the individual level. Consequently and to keep coherence of data, this variable is not provided for none of the crossborder workers. |
| Source(s) | CAE |



| | |
|----------------------|---|
| Name of the variable | i_childrear_allowance |
| Description | Monthly amount of the child rearing allowance (<i>allocation d'éducation</i>) |
| Format | Numeric |
| Values | |
| Comments | <p>This allowance is abolished since the 1st June 2015 but persons receiving this allowance the 31 May 2015 continue to benefit from this allowance until the end of the entitlement of the allowance.</p> <p>For a part of the crossborder workers, the information is not available at the individual level. Consequently and to keep coherence of data, this variable is not provided for none of the crossborder workers.</p> |
| Source(s) | CAE |

| | |
|----------------------|--|
| Name of the variable | i_F_child_bonus_right |
| Description | Whether the individual has children entitled to the child bonus (<i>boni pour enfant</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | <p>The child bonus is a tax reduction (introduced in 2008) but can be compared to a family benefit. It is linked to the child and not to the parent. Therefore, the variable is 'yes' for both parents if appropriate.</p> <p>For a part of the crossborder workers, the information is not available at the individual level. Consequently, the variable is not provided for crossborder workers.</p> <p>Since October 2010, child bonus eligibility conditions have changed substantially after the introduction of the law concerning the State scholarships and loans to students grant system. Since August 2016, the child bonus is merged with the family allowances (<i>allocations familiales</i>).</p> |
| Source(s) | CAE |

| | |
|----------------------|---|
| Name of the variable | i_child_bonus |
| Description | Monthly amount of the child bonus (<i>boni pour enfant</i>) |
| Format | Numeric |
| Values | |
| Comments | <p>The child bonus is a tax reduction (introduced in 2008) but can be compared to a family benefit. It is linked to the child and not to the parent. So, it is not an individualised income which is impossible to calculate according to the ignorance of the income sharing rules between parents (the latest may be living in couple or be separated). Therefore, considering the whole amount for estimating the financial situation of the individual results of an overestimation of the latest.</p> <p>For a part of the crossborder workers, the information is not available at the individual level. Consequently, this variable is not provided for none of the crossborder workers.</p> <p>Since October 2010, child bonus eligibility conditions have changed substantially after the introduction of the law concerning the State scholarships and loans to students grant system. Since August 2016, the child bonus is merged with the family allowances (<i>allocations familiales</i>).</p> |
| Source(s) | CAE |



3.2 Replacement benefits

| | |
|----------------------|---|
| Name of the variable | i_F_parental_leave |
| Description | Whether the individual is on parental leave (<i>congé parental</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|------------------------------------|
| Name of the variable | i_parental_leave_start_date |
| Description | |
| Format | Date yyyy-mm |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|----------------------------------|
| Name of the variable | i_parental_leave_end_date |
| Description | |
| Format | Date yyyy-mm |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_parental_leave_type |
| Description | |
| Format | Character |
| Values | 0 Full time 1 Part time 2 Split parental leave (4 months over 20 months max) 3 Split parental leave (1 day/week during 20 months) |
| Comments | Workers on full time parental leave or on split leave (4 months over 20 months max) are not considered as employees. Therefore they are not present in the employment register during the parental leave. In contrast, workers on part-time parental leave or on split parental leave (1 day/week during 20 months) are in work simultaneously to the parental leave. The parental leave was reformed the 1st December 2016. This reform introduced the split parental leave. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_parental_leave_rank |
| Description | |
| Format | Character |
| Values | PL1 PL2 |
| Comments | The parent can request: - either the "first parental leave" (PL1), which must be taken immediately after the maternity or adoption leave; - or the "second parental leave", which must be taken before the child's 6th birthday (the 12th birthday for adopted children). |
| Source(s) | CAE |



| | |
|----------------------|--|
| Name of the variable | i_parental_leave_childIDnumber |
| Description | Individual IDnumber of the child reared during the parental leave |
| Format | Character |
| Values | |
| Comments | Prior to parental leave reform of the 1 st December 2016, the ID of the child reared during the parental leave was unknown. For these reason the value is -8. |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | i_parental_leave_benefit |
| Description | Gross monthly amount of the parental leave benefit (<i>congé parental</i>) |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | i_F_unemployment_benefit |
| Description | Whether receiving unemployment benefits (<i>indemnité de chômage</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Included individuals receiving unemployment benefits because of an external redeployment (<i>reclassement externe</i>) |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_F_external_redeployment |
| Description | Whether receiving unemployment benefits because of an external redeployment (<i>reclassement externe</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | i_unemployment_benefit |
| Description | Gross monthly amount of unemployment benefit (<i>indemnité de chômage</i>) |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_F_tideover_benefit |
| Description | Whether receiving tideover benefit (<i>indemnité d'attente or indemnité professionnelle d'attente</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Workers in external redeployment receive this benefit when the unemployment benefit ends. The calculation of this benefit changed with the 2015 law on the professional redeployment. Before the law, this benefit was called "indemnité d'attente". After the law, it is called indemnité professionnelle d'attente. |
| Source(s) | ADEM/CNAP |



| | |
|----------------------|---|
| Name of the variable | i_type_tideover_benefit |
| Description | Type of tideover benefit |
| Format | Character |
| Values | 0 Indemnité d'attente 1 Indemnité professionnelle d'attente |
| Comments | Workers in external redeployment receive this benefit when the unemployment benefit ends. |
| Source(s) | ADEM/CNAP |

| | |
|----------------------|---|
| Name of the variable | i_tideover_benefit |
| Description | Gross monthly amount of tideover benefit (<i>indemnité d'attente or indemnité professionnelle d'attente</i>) |
| Format | Numeric |
| Values | |
| Comments | Workers in external redeployment receive this benefit when the unemployment benefit ends. The calculation of this benefit changed with the 2015 law on the professional redeployment. |
| Source(s) | ADEM/CNAP |

| | |
|----------------------|---|
| Name of the variable | i_F_early_retirement |
| Description | Whether receiving early retirement (<i>préretaire</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Admission to early retirement concerns in principle only employees of the private sector, except for civil servants concerned by shift work and night work. |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | i_early_retirement |
| Description | Gross monthly amount of early retirement (<i>préretaire</i>) |
| Format | Numeric |
| Values | |
| Comments | Admission to early retirement concerns in principle only employees of the private sector, except for civil servants concerned by shift work and night work. |
| Source(s) | CCSS |



| | |
|----------------------|---|
| Name of the variable | i_F_invalid_pension |
| Description | Whether receiving an invalidity pension (<i>pension d'invalidité</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | The pension is paid by the general or the public scheme. From the entitlement to old-age pension (at the age of 65 years), invalidity pension is replaced by old-age pension. |
| Source(s) | CNAP/ public schemes |



| | |
|----------------------|--|
| Name of the variable | i_invalid_pension |
| Description | Gross monthly amount of the invalidity pension (<i>pension d'invalidité</i>) |
| Format | Numeric |
| Values | |
| Comments | The pension is paid by the general or the public scheme. From the entitlement to old-age pension (at the age of 65 years), invalidity pension is replaced by old-age pension |
| Source(s) | CNAP/ public schemes |







| | |
|----------------------|--|
| Name of the variable | i_F_oldage_pension |
| Description | Whether receiving an old-age pension (<i>pension de vieillesse</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Including old-age anticipated pension and invalidity pension replaced by old-age pension at the age of 65 years. The pension is paid by the general or the public scheme. |
| Source(s) | CNAP/ public schemes |

| | |
|----------------------|--|
| Name of the variable | i_oldage_pension |
| Description | Gross monthly amount of the old-age pension (<i>pension de vieillesse</i>) |
| Format | Numeric |
| Values | |
| Comments | Including old-age anticipated pension and invalidity pension replaced by old-age pension at the age of 65 years. The pension is paid by the general or the public scheme. |
| Source(s) | CNAP/ public schemes |

| | |
|----------------------|---|
| Name of the variable | i_F_survivor_pension |
| Description | Whether receiving a survivor pension (<i>pension de survie</i>) |
| Format | Character |
| Values |   0 No 1 Yes |
| Comments | The pension is paid by the general or the public scheme. |
| Source(s) | CNAP/ public schemes |

| | |
|----------------------|---|
| Name of the variable | i_survivor_pension |
| Description | Gross monthly amount of the survivor pension (<i>pension de survie</i>) |
| Format | Numeric |
| Values |   |
| Comments | The pension is paid by the general or the public scheme. |
| Source(s) | CNAP/ public schemes |

| | |
|----------------------|---|
| Name of the variable | i_F_orphan_pension |
| Description | Whether receiving an orphan pension (<i>pension d'orphelin</i>) |
| Format | Character |
| Values |   0 No 1 Yes |
| Comments | |
| Source(s) | CNAP/ public schemes |

| | |
|----------------------|---|
| Name of the variable | i_orphan_pension |
| Description | Gross monthly amount of the orphan pension (<i>pension d'orphelin</i>) |
| Format | Numeric |
| Values |   |
| Comments | |
| Source(s) | CNAP/ public schemes |



| | |
|----------------------|--|
| Name of the variable | i_F_child_rearing_fixed_allow |
| Description | Whether receiving fixed allowance for child-rearing (<i>forfait d'éducation=Mammerent</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | The allowance is paid by the general or the public scheme or by the FNS. |
| Source(s) | CNAP/ public schemes/ FNS |

| | |
|----------------------|--|
| Name of the variable | i_child_rearing_fixed_allow |
| Description | Gross monthly amount of fixed allowance for child-rearing (<i>forfait d'éducation=Mammerent</i>) |
| Format | Numeric |
| Comments | The allowance is paid by the general or the public scheme or by the FNS. |
| Source(s) | CNAP/ public schemes / FNS |

3.3 Social assistance benefits

| | |
|----------------------|--|
| Name of the variable | i_F_min_income |
| Description | Whether the person belongs to a domestic community receiving the guaranteed minimum income supplementary allowance (<i>allocation complémentaire au titre du revenu minimum garanti – RMG ou du revenu d'inclusion sociale - REVIS</i>) |
| Format | Character |
| Values | 0 No 1 Yes and the person is beneficiary 2 Yes and the person is non-beneficiary |
| Comments | The supplementary allowance is fixed according to the composition and the incomes of the domestic community. Persons of the domestic community that could not fulfil the eligibility conditions for being beneficiary of the guaranteed minimum income supplementary allowance is a non-beneficiary. |
| Source(s) | FNS |

| | |
|----------------------|--|
| Name of the variable | i_min_income |
| Description | Gross monthly amount of the guaranteed minimum income supplementary allowance (<i>allocation complémentaire au titre du RMG ou du REVIS</i>) paid to the domestic community |
| Format | Numeric |
| Values | |
| Comments | If several members composed the domestic community, the amount of the guaranteed minimum income supplementary allowance indicated for each is the same and corresponds to the total amount paid to the domestic community. So, it is not an individualised income which is impossible to calculate according to the ignorance of the sharing rules within the domestic community and of the financial situation of their members. Therefore, considering the whole amount for estimating the financial situation of the person results of an overestimation of the latest. |
| Source(s) | FNS |



| | |
|----------------------|---|
| Name of the variable | i_F_lifecost_allowance |
| Description | Whether the person belongs to a domestic community receiving the cost-of-living allowance (<i>allocation de vie chère</i>) |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Before 2012, only the person of the domestic community to whom the cost-of-living is paid is known. Before this date, the information concerning the other members of the domestic community is not available. Before 2009, the cost-of-living allowance was named heating allowance (<i>allocation de chauffage</i>). |
| Source(s) | FNS |



| | |
|----------------------|--|
| Name of the variable | i_lifecost_allowance |
| Description | Gross monthly amount of the cost-of-living allowance (<i>allocation de vie chère</i>) paid to the domestic community |
| Format | Numeric |
| Values | |
| Comments | If several members compose the domestic community, the amount of cost-of-living allowance indicated for each is the same and corresponds to the total amount paid to the domestic community. So, it is not an individualised income which is impossible to calculate according to the ignorance of the sharing rules within the domestic community and of the financial situation of their members. Therefore, considering the whole amount for estimating the financial situation of the person results of an overestimation of the latest. |
| Source(s) | FNS |



| | |
|----------------------|---|
| Name of the variable | i_nb_ind_lifecost |
| Description | Size of the domestic community receiving the cost-of-living allowance (<i>allocation de vie chère</i>) |
| Format | Numeric |
| Values | |
| Comments | This variable is provided in view of an individualisation of the cost-of-living allowance. $nb_ind_alloc_vie_chere = nb_adul_alloc_vie_chere + nb_enf_alloc_vie_chere$ |
| Source(s) | FNS |

| | |
|----------------------|--|
| Name of the variable | i_nb_adults_lifecost |
| Description | Number of adults (14 years old and more) in the domestic community receiving the cost-of-living allowance (<i>allocation de vie chère</i>) |
| Format | Numeric |
| Values | |
| Comments | This variable is provided in view of an individualisation of the cost-of-living allowance |
| Source(s) | FNS |

| | |
|----------------------|---|
| Name of the variable | i_nb_children_lifecost |
| Description | Number of children (less than 14 years old) in the domestic community receiving the cost-of-living allowance (<i>allocation de vie chère</i>) |
| Format | Numeric |
| Values | |
| Comments | This variable is provided in view of an individualisation of the cost-of-living allowance |
| Source(s) | FNS |



| | |
|----------------------|---|
| Name of the variable | i_F_disable_allowance |
| Description | Whether receiving the income for seriously disabled persons (<i>revenu pour personnes gravement handicapées</i>) and/or the specific allowance for seriously disabled persons (<i>allocation spéciale pour personnes gravement handicapées</i>) |
| Format | Character |
| Values |   0 No 1 Yes |
| Comments | |
| Source(s) | FNS |

| | |
|----------------------|---|
| Name of the variable | i_disable_allowance |
| Description | Gross monthly amount of the income for seriously disabled persons (<i>revenu pour personnes gravement handicapées</i>) and/or the specific allowance for seriously disabled persons (<i>allocation spéciale pour personnes gravement handicapées</i>) |
| Format | Numeric |
| Values |   |
| Comments | |
| Source(s) | FNS |



4. Health data


4.1 Medical acts

All variables concerning medical acts are related to a reference period (year and month).

| | |
|----------------------|---|
| Name of the variable | reference_period |
| Description | Reference period of the execution of the act |
| Format | Date (yyyymm) |
| Values | |
| Comments | More detailed date information is available on demand according to the "Need to know" rule. |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | act_IDnumber |
| Description | Act identification number |
| Format | Character |
| Values | |
| Comments | This identification number links the act with its auxiliary services which are performed for an individual on the same day, such as anaesthesia, operating assistance or rental of medical equipment or material. A person may have several principal services on a same day. Auxiliary services are in the register " Auxiliary services related to medical acts " |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | act_code |
| Description | Type of the medical act |
| Format | Character |
| Values |  See <i>Nomenclature des actes et services des médecins et médecins-dentistes</i> Livre bleu CNS |
| Comments | Data only rely to medical acts performed by doctors and dentists. Those performed by other healthcare providers than doctors and dentists (e.g. nurses, physiotherapists etc.) are not included. Data only rely to medical acts covered by social security and which take place in Luxembourg, for residents and non-residents directly related to the Luxembourgish social protection system. The <i>Nomenclature des actes et services des médecins et médecins-dentistes</i> was designed to define the fees for acts. As a result, it can include codes that do not necessarily relate to medical procedures. For example, codes ending with "X" or "M" are replaced by a corresponding auxiliary service of type "Rental equipment or material". |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | act_F_medical_imaging_equipment |
| Description | Whether the medical act requires a medical imaging equipment |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | The variable is "Yes" if act requires a medical imaging equipment. |
| Source(s) | CNS |



| | |
|----------------------|--|
| Name of the variable | act_medical_imaging_equipment |
| Description | Type of medical imaging equipment required |
| Format | Character |
| Values | 00 Conventional digital radiography 01 Angiography 02 Various examinations including image intensifier 03 Mammography 04 Bone densitometry 05 Computed tomography (CT), scanography, tomography 06 Sonogram/ Ultrasound scan 07 Doppler echography of vessels 08 Magnetic Resonance Imaging (MRI) 09 Scintigraphy 10 PET CT, PET-scan 11 Colofibroscopy |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | act_F_auxiliary_services |
| Description | Whether auxiliary services exist for the medical act |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | Medical acts by doctors and dentists may need auxiliary services. Auxiliary services can be an anaesthesia, an operating assistance or rental of medical equipment or material. They are considered as auxiliary services if they are performed on the same day than the principal medical act. If any, they are recorded in the register " Auxiliary services related to medical acts ". These auxiliary services are linked with the medical act using the variable act_IDnumber. |
| Source(s) | CNS |



| | |
|----------------------|--|
| Name of the variable | act_coefficient |
| Description | Composite indicator of the complexity, the time and the medical specialty required for the execution of the act |
| Format | Numeric |
| Values | |
| Comments | This coefficient can be used instead of costs to exclude inflation or other kinds of price increases of a given medical service. |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | act_F_accident |
| Description | Whether the act is linked to work place accidents, commuting accidents or occupational illnesses |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | |
| Source(s) | CNS |



| | |
|----------------------|--|
| Name of the variable | act_in_hospital |
| Description | Whether the act is carried out in a hospital setting |
| Format | Character |
| Values | 0 No 1 Yes - Inpatient case (at least one night in hospital) 2 Yes - Day case (entry and exit on same day) 3 Yes - Outpatient case (ambulatory treatment) |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | hosp_stay_treat_IDnumber |
| Description | Pseudonymised identification number of stay or treatment in hospital |
| Format | Character |
| Values | |
| Comments | Not applicable (-9) when act_in_hospital = 0 |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | executioner_IDnumber |
| Description | Pseudonymised identification number of the executing healthcare provider |
| Format | Character |
| Values |   |
| Comments | To get information about the executioner, executioner_IDnumber can be linked to provider_IDnumber in register " Healthcare providers ". |
| Source(s) | |



| | |
|----------------------|---|
| Name of the variable | executioner_specialty |
| Description | Medical specialty of the executioner |
| Format | Character |
| Values | A0 General practitioner A7 Emergency medicine B0 Anaesthesiology C0 Clinical biology C1 Pathological anatomy C2 Biological chemistry C3 Biological haematology C4 Microbiology-bacteriology C5 Forensic medicine C6 Neuro-pathology D0 Cardiology E0 General surgery E1 Thoracic surgery E2 Plastic surgery E3 Vessel surgery E4 Pediatric surgery E5 Maxillo-facial surgery E6 Dental, oral and maxilla-facial surgery E7 Gastrointestinal surgery F0 Dermato-venerology F1 Dermatology F3 Allergology G0 Radiodiagnosis G1 Nuclear medicine G2 Radiotherapy H0 Endocrinology I0 Gastroenterology J0 Gynaecology-obstetrics K0 General haematology L0 Internal medicine L1 Nephrology L3 Contagious diseases L4 Medical oncology L5 Genetic medicine M0 Neurosurgery MT Occupational medicine N0 Neuropsychiatry O0 Neurology P0 Psychiatry P1 Child psychiatry Q0 Physical medicine and rehabilitation R0 Ophthalmology S0 Orthopaedics S1 Traumatology and emergency medicine SP Public health and social medicine T0 Oto-rhino-laryngology U0 Paediatrics V0 Pneumonology W0 Rheumatology X0 Urology |



| | | |
|-----------|---------------|--|
| | Z0 | Dentist |
| | Z1 | Stomatology |
| | Z2 | Orthodontics |
| | Z3 | Oral surgery |
| Comments | -8 if missing | Based on Grand-ducal Regulation (<i>Règlement grand-ducal du 10 juillet 2011 fixant la liste des spécialités en médecine et médecine dentaire reconnues au Luxembourg</i>) |
| Source(s) | CNS | |

| | |
|----------------------|---|
| Name of the variable | act_cost |
| Description | |
| Format | Numeric |
| Values | |
| Comments | In some cases, the cost might be different to the amount indicated in the <i>Nomenclature des actes et services des médecins et médecins-dentistes</i> (e.g. first class in hospitals, personal convenience fees etc.). |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | act_cost_paid_SS |
| Description | Part of the act cost covered by the Social Security |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | act_nb_invoices |
| Description | Number of invoiced services linked to the act_cost |
| Format | Numeric |
| Values | |
| Comments | Number of times the same act has been repeated on the same patient, on the same date and performed by the same practitioner. (Ex: Multiple tooth extractions during a visit to the dentist) |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | act_total_cost |
| Description | Cost of the medical act and auxiliary services if any |
| Format | Numeric |
| Values | |
| Comments | Medical acts by doctors and dentists may need auxiliary services. Auxiliary services can be an anaesthesia, an operating assistance or rental of medical equipment or material. They are considered as auxiliary services if they are performed on the same day than the principal medical act. If any, their cost are added to act_cost. Auxiliary services are in the register " Auxiliary services related to medical acts ". |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | act_total_cost_paid_SS |
| Description | Part of the total cost (act_total_cost) covered by the Social Security |
| Format | Numeric |
| Values | |
| Comments | Auxiliary services are in the register " Auxiliary services related to medical acts " |
| Source(s) | CNS |



4.2 Auxiliary services related to medical acts

All variables concerning auxiliary services are related to a reference period (year and month).



Auxiliary services, if any, are always linked to a principal medical act recorded in the register "[Medical acts](#)". Auxiliary services can be an anaesthesia, an operating assistance or rental of medical equipment or material. They are considered as auxiliary services if they are performed on the same day than the principal medical act.

| | |
|----------------------|---|
| Name of the variable | reference_period |
| Description | Reference period of the execution of the auxiliary service |
| Format | Date (yyyymm) |
| Values | |
| Comments | More detailed date information is available on demand according to the "Need to know" rule. |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | act_IDnumber |
| Description | Act identification number |
| Format | Character |
| Values | |
| Comments | This act_ID number links the auxiliary service with the principle act reported in the register " Medical acts ". |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | auxiliary_service_type |
| Description | Type of the auxiliary service |
| Format | Character |
| Values | 0 Anaesthesia 1 Surgical assistance 2 Rental equipment or material |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | executioner_IDnumber |
| Description | Pseudonymised identification number of the executing healthcare provider |
| Format | Character |
| Values |   |
| Comments | To get information about the executioner, executioner_IDnumber can be linked to provider_IDnumber in register " Healthcare providers ". |
| Source(s) | |



| | |
|----------------------|--|
| Name of the variable | auxiliary_service_cost |
| Description | |
| Format | Numeric |
| Values | |
| Comments | The cost might be different to the amount indicated in the <i>Nomenclature des actes et services des médecins et médecins-dentistes</i> (e.g. first class in hospitals, personal convenience fees etc.). |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | auxiliary_service_cost_paid_SS |
| Description | Part of the cost covered by the Social Security |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | auxiliary_service_nb_invoices |
| Description | Number of invoiced auxiliary services |
| Format | Numeric |
| Values | |
| Comments | Number of times the same act has been repeated on the same patient, on the same date and perform by the same practitioner. (Ex: Multiple tooth extractions during a visit to the dentist) |
| Source(s) | CNS |



4.3 Stays and treatments in hospital

| | |
|----------------------|---|
| Name of the variable | hosp_start_date |
| Description | Start date of stay or treatment in hospital |
| Format | Date (yyyymm) |
| Values | |
| Comments | More detailed date information is available on demand according to the "Need to know" rule. |
| Source(s) | CNS |


| | |
|----------------------|---|
| Name of the variable | hosp_end_date |
| Description | End date of stay or treatment in hospital |
| Format | Date (yyyymm) |
| Values | |
| Comments | More detailed date information is available on demand according to the "Need to know" rule. |
| Source(s) | CNS |


| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | hosp_stay_treat_IDnumber |
| Description | Pseudonymised identification number of the stay or treatment in hospital |
| Format | Character |
| Values | |
| Comments | <p>hosp_stay_treat_IDnumber allows to linked the stay or treatment in hospital with medical acts carried out during the stay or treatment in hospital (registered in "Medical acts") and with "Hospital activities" register.</p> <p>The information of stays or treatments in hospital results from the merge between the data of hospitalization declarations sent to CNS by hospitals on a monthly basis and the hospital documentation data ("Documentation et Classification des séjours hospitaliers-DCSH"), which has been operational since 2016 (first dataset refers to 2018). Thus, variables coming from DCSH are only provided from 2018 onwards, while CNS hospital declarations go back until 2012.</p> |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | hospital_IDnumber |
| Description | Pseudonymised identification number of the establishment in which the stay or treatment took place |
| Format | Character |
| Values | |
| Comments | To get information about the hospital, hospital_IDnumber can be linked to provider_IDnumber in register " Healthcare providers ". |
| Source(s) | |



| | |
|----------------------|--|
| Name of the variable | hosp_length_in_days |
| Description | Length in days of the stay or treatment in hospital |
| Format | Character |
| Values |  0 2 days 1 3-4 days 2 5-6 days 3 7-10 days 4 11 days and more |
| Comments | hosp_length_in_days = hosp_end_date - hosp_start_date + 1 -9 if hosp_stay_treatment_type ≠ 1 |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_length_in_nights |
| Description | Length in nights of the stay or treatment in hospital |
| Format | Character |
| Values |  0 1 nights 1 2-3 nights 2 4-5 nights 3 6-9 nights 4 10 nights and more |
| Comments | hosp_length_in_nights = hosp_end_date - hosp_start_date -9 if hosp_stay_treatment_type ≠ 1 |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_stay_treatment_type |
| Description | Type of the stay or treatment in hospital |
| Format | Character |
| Values | 1 Inpatient case (at least one night in hospital) 2 Day case (entry and exit on same day) 3 Outpatient case (ambulatory treatment) |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | hosp_exit_type |
| Description | Type of patient discharge |
| Format | Character |
| Values | 0 Hospital discharge 1 Transfer to another hospital 2 Death 3 Other |
| Comments | |
| Source(s) | CNS |



| | |
|----------------------|--|
| Name of the variable | grouping_stay_IDnumber |
| Description | Pseudonymized grouping stay identification number |
| Format | Character |
| Values | |
| Comments | <p>Not applicable (-9) for isolated stay or treatment</p> <p>In most cases, a period of hospitalization for an individual translates into one single hospital stay in the register “Stays and treatments in hospital”. However, for administrative reasons mainly linked to invoicing, a continuous hospitalization period can be composed of multiple hospital stays in the same register. For example:</p> <ul style="list-style-type: none">- An individual can change the hospital during the hospitalization. In that case, the hospitalization period is composed of two contiguous hospital stays in the register “Stays and treatments in hospital”- A hospitalized individual may need a short transfer to another hospital for a specific medical treatment. In that case, the hospitalization period is composed of two nested hospital stays in the register “Stays and treatments in hospital”- During a hospitalization period in the same hospital, there can be multiple stays, for example in some cases a change of hospital services may lead to an additional hospital stay in the register “Stays and treatments in hospital” <p>This identification number links the different stays or treatment in hospital with nested or contiguous dates for the same patient.</p> <p>The grouping described above is only based on dates. Therefore, it is possible that the variable <code>grouping_stay_IDnumber</code> combines hospital stays with potentially very different medical diagnosis codes.</p> |
| Source(s) | |




| | |
|----------------------|--|
| Name of the variable | grouping_rank |
| Description | Chronological position of the current stay or treatment within the grouping |
| Format | Character |
| Values | 1.1 ... |
| Comment | <p>Not applicable(-9) for isolated stay or treatment</p> <p>Based on the beginning date of the treatment or stay</p> <p>In case of grouping, different configurations can be observed: nested stays, contiguous stays, nested stays within contiguous stays.</p> <p>The variable grouping_rank identifies the chronologic position of each hospital stay with the hospitalization period of the individual.</p> <p>Contiguous stays have a grouping_rank of one position/number. Contiguous stays are characterized by an end date of the first stay that is identical to the starting date of the second stay. In some rare cases, the start date of second stay precedes the end date of the first one (overlapping).</p> <p>Nested stays have a grouping_rank of two positions/numbers. Nested stays are characterized by a stay or treatment that begins the same day or after the start date and ends the same day or before the end date of an inpatient stay.</p> <p>Example 1: Two contiguous stays</p> <p>Grouping rank</p> <p>Example 2: Two nested stays</p> <p>Grouping rank</p> <p>Example 3: Two contiguous stays with several nested stays</p> <p>Grouping rank</p> |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | hosp_ICD_code |
| Description | Principal diagnosis code related to the stay or treatment in hospital (declared at hospital exit) |
| Format | Character |
| Values | See nomenclature ICD-10 |
| Comments | Aggregation level of the variable is decided according to research needs. |
| Source(s) | CNS |



| | |
|----------------------|--|
| Name of the variable | hosp_F_secondary_diag |
| Description | Whether secondary diagnosis have been declared during the stay or treatment in hospital |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | If any other diagnosis, hosp_stay_treat_IDnumber can be linked to " Secondary identified diagnostics related to hospital stays " |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_MDC_code |
| Description | Major Disease Category (MDC) of the principal diagnosis code related to the stay or treatment in hospital |
| Format | Character |
| Values | See nomenclature MDC: cms.gov |
| Comments | Not available (-8) before 2018. The MDC is formed by dividing all possible principal diagnoses into 25 mutually exclusive diagnosis areas. The diagnosis in each MDC correspond to a single organ system or etiology and in general are associated with a particular medical speciality. |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_DRG_code |
| Description | Diagnosis-Related Group (DRG) of the patient during the stay or treatment in hospital |
| Format | Character |
| Values |  See nomenclature DRG: cms.gov |
| Comments | Not available (-8) before 2018. A DRG is a case-mix complexity system implemented to categorize patients with similar clinical diagnoses in order to better control hospital cost and determine reimbursement rates. |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | hosp_F_severity_illness |
| Description | Whether the severity illness is available |
| Format | Character |
| Values | -8 not available 1 yes |
| Comments | Never available (-8) before 2018 and sometimes missing since 2018. |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_severity_illness |
| Description | Patient disease severity factor |
| Format | Character |
| Values | 1 Minor 2 Moderate 3 Major 4 Severe |
| Comments | Missing if F_hosp_severity_illness = -8 Severity of illness (SOI) is defined as the extent of organ system derangement or physiologic decompensation for a patient. It gives a medical classification to provide a basis for evaluating hospital resource use or to establish patient care guidelines. |
| Source(s) | CNS |



| | |
|----------------------|---|
| Name of the variable | hosp_F_risk_mortality |
| Description | Whether the risk mortality is available |
| Format | Character |
| Values | -8 not available 1 yes |
| Comments | Never available (-8) before 2018 |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | hosp_risk_mortality |
| Description | Risk of patient mortality during the stay |
| Format | Character |
| Values | 1 Minor 2 Moderate 3 Major 4 Severe |
| Comments | Missing if F_hosp_risk_mortality = -8 The risk of mortality (ROM) provides a medical classification to estimate the likelihood of hospital death for a patient. |
| Source(s) | CNS |



4.4 Secondary identified diagnosis related to stays or treatment in hospital

| | |
|----------------------|---|
| Name of the variable | hosp_stay_treat_IDnumber |
| Description | Pseudonymised identification number of the stay or treatment in hospital |
| Format | Character |
| Values | |
| Comments | If hosp_F_secondary_diag = 1 then this register can be linked to the " Stays and treatments in hospital " register using the variable hosp_stay_treat_IDnumber. |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | secondary_diag_ICD_code |
| Description | Code ICD10 of secondary diagnosis if any |
| Format | Character |
| Values | See nomenclature ICD-10 |
| Comments | Available since 2018 |
| Source(s) | CNS |



4.5 Hospital activities



All variables concerning hospital activities are related to a reference period (year and month).

Hospital activities represent the costs invoiced by a hospital establishment during a stay or treatment in hospital. This is to be considered as the counterpart to medical acts that are performed in a hospital setting. In most cases (due to administrative imprecision), you can find a medical act in the register "[Medical Acts](#)" on the same date for the same individual than the hospital activity in this register. However, this register can also be used standalone if the request is based on research that focuses on hospital planning and/or budgeting.

| | |
|----------------------|---|
| Name of the variable | reference_period |
| Description | Reference period of the beginning of the hospital activity |
| Format | Date (yyyymm) |
| Values | |
| Comments | More detailed date information is available on demand according to the "Need to know" rule. |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | hosp_stay_treat_IDnumber |
| Description | Pseudonymised identification number of the stay or treatment in hospital |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | invoicer_IDnumber |
| Description | Pseudonymised identification number of the hospital establishment in which hospital activities are invoiced. |
| Format | Character |
| Values |   |
| Comments | To get information about the hospital, invoicer_IDnumber can be linked to provider_IDnumber in register " Healthcare providers ". |
| Source(s) | |



| | |
|----------------------|--|
| Name of the variable | hosp_activity_code |
| Description | Functional entity code linked to the hospital activity |
| Format | Character |
| Values | <ul style="list-style-type: none">01 Hospitalisation – normal care02 Hospitalisation – intensive care03 Operating rooms and recovery rooms04 Delivery rooms05 Laboratories06 Medical imaging07 Magnetic Resonance Imaging (MRI)08 Radiotherapy09 Extracorporeal lithotripsy10 Hyperbaric oxygen therapy chamber11 Hemodialysis12 Physiotherapy13 Polyclinic14 Chemotherapy15 Lump sum for medication in case of accommodation16 Cardiac surgery17 Interventional cardiology18 Psychiatric day hospital19 Nuclear medicine20 PET-Scan21 Ambulatory patients monitoring places22 Occupational therapy23 Hydrotherapy24 Palliative care25 In Vitro Fertilisation (IVF)26 Gymnasium27 Therapeutic apartments29 Brachytherapy30 Endoscopic polyclinic31 Emergencies/SMTNPT (« Services médico-techniques non programmes triés »)33 Human genetics34 Pathological anatomy35 Pediatric day hospital36 Surgical day hospital37 Non-surgical day hospital |
| Comments | <p>Every passage inside a hospital, whether it is in the context of an inpatient stay or an ambulatory treatment, leads to an invoicing of one or more hospital activity(ies) (“unité(s) d’oeuvre”) inside the functional entities of the hospital.</p> <p>The term “functional entity” designates a cost center of the establishment, which produces billable activities invoiced to the healthcare insurance.</p> <p>Generally, these complementary hospital activities represent a hospital counterpart to medical and dental practitioner bills, in the sense that they can possibly refer to a same medical treatment but they give additional information about what has been done in the hospital setting. However, due to the nature of administrative data, it is possible that a medical service has been performed in a hospital setting, but no hospital activity can be found in this register, or inversely, a hospital activity exists, but no medical service can be found for the same day and the same patient. If such a link between both exists, it is purely artificial based on the patient identifier and the date.</p> <p>No data before 2019 for emergency, surgical day hospital and non-surgical day hospital.</p> |



| | |
|-----------|-----|
| Source(s) | CNS |
|-----------|-----|

| | |
|----------------------|--|
| Name of the variable | hosp_activity_nb_invoices |
| Description | Number of invoiced services of a given hospital activity |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_activity_F_accident |
| Description | Whether the hospital activity is linked to work place accidents, commuting accidents or occupational illnesses |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | It is useful to note that the CNS might initially reimburse the medical service, but the cost will be subsequently charged to accident insurance. |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_activity_cost |
| Description | Cost of hospital activity |
| Format | Numeric |
| Values | |
| Comments | This variable includes fixed costs of the hospital. |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | hosp_activity_cost_paid_SS |
| Description | Part of the cost of hospital activity covered by the Social Security |
| Format | Numeric |
| Values | |
| Comments | In Luxembourg, only extra costs are not reimbursed by CNS as supplements for personal convenience as well as excess fees for doctors in first class hospitalizations. |
| Source(s) | CNS |



4.6 Healthcare providers

All variables concerning healthcare providers are related to a reference period (year and month).

| | |
|----------------------|--|
| Name of the variable | reference_period |
| Description | Reference period during which the healthcare provider is providing healthcare services |
| Format | Date (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | provider_IDnumber |
| Description | Pseudonymised identification number for healthcare provider |
| Format | Character |
| Values | |
| Comments | A provider appears in the file for a given month if he has invoiced at least one medical act or service during the month. provider_IDnumber can be linked by the executioner_IDnumber, invoicer_IDnumber, prescriber_IDnumber or hospital_IDnumber of other registers |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | provider_type |
| Description | Type of healthcare providers |
| Format | Character |
| Values | 0 Doctors and dentists 1 Hospital establishments (as defined in the <i>Loi hospitalière 04/2018</i>) |
| Comments | Doctors and dentists can practice their medical activity in several ways simultaneously or according to different statuses also simultaneously (salaried and liberal). In this case, they are considered as several providers. A same practitioner can therefore have several provider_IDnumber. The practitioner_IDnumber variable is used to group the provider_IDnumber relating to the same practitioner. If the provider_IDnumber corresponds to an association, the information of provider_type refers to the association type (e.g. association of doctors). |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | provider_F_is_association |
| Description | If the provider is an association of more than one provider |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | -9 if provider_type = 1 |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | practitioner_IDnumber |
| Description | Pseudonymised identification number for healthcare provider when physical person |
| Format | Character |
| Values | |
| Comments | -9 if provider_F_is_association = 1 or provider_type = 1 |
| Source(s) | |



| | |
|----------------------|--|
| Name of the variable | hosp_estab_type |
| Description | Type of hospital establishment |
| Format | Character |
| Values | 0 Centre hospitalier 1 Etablissement hospitalier spécialisé 2 Other |
| Comments | Not applicable (-9) if provider_type ≠ 1 These types are defined according to the law of 8 mars 2018 relative aux établissements hospitaliers et à la planification hospitalière. |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | hosp_estab_group |
| Description | Group to which the hospital establishment belongs |
| Format | Character |
| Values | 0 CHL (Centre Hospitalier de Luxembourg) 1 HRS (Hôpital Robert Schuman) 2 CHEM (Centre Hospitalier Emile Mayrisch) 3 CHdN (Centre Hospitalier du Nord) 4 INCCI (Institut National de Chirurgie Cardiaque et de Cardiologie Interventionnelle) 5 HIS (Hôpital Intercommunal de Steinfort) 6 CHNP (Centre Hospitalier Neuro-Psychiatrique) 7 CFB (Centre François Baclesse) 8 RHZ (Centre National de Rééducation Fonctionnelle et de Réadaptation) 9 OMEGA (Haus Omega) 10 COLPACH (Centre de Réhabilitation du Château de Colpach) |
| Comments | Not applicable (-9) if provider_type ≠ 1 |
| Source(s) | CNS |





| | |
|----------------------|---|
| Name of the variable | provider_specialty |
| Description | Medical specialty of the provider (doctors and dentists) |
| Format | Character |
| Values | A0 General practitioner A7 Emergency medicine B0 Anaesthesiology C0 Clinical biology C1 Pathological anatomy C2 Biological chemistry C3 Biological haematology C4 Microbiology-bacteriology C5 Forensic medicine C6 Neuro-pathology D0 Cardiology E0 General surgery E1 Thoracic surgery E2 Plastic surgery E3 Vessel surgery E4 Pediatric surgery E5 Maxillo-facial surgery E6 Dental, oral and maxilla-facial surgery E7 Gastrointestinal surgery F0 Dermato-venerology F1 Dermatology F3 Allergology G0 Radiodiagnosis G1 Nuclear medicine G2 Radiotherapy H0 Endocrinology I0 Gastroenterology J0 Gynaecology-obstetrics K0 General haematology L0 Internal medicine L1 Nephrology L3 Contagious diseases L4 Medical oncology L5 Genetic medicine M0 Neurosurgery MT Occupational medicine N0 Neuropsychiatry O0 Neurology P0 Psychiatry P1 Child psychiatry Q0 Physical medicine and rehabilitation R0 Ophthalmology S0 Orthopaedics S1 Traumatology and emergency medicine SP Public health and social medicine T0 Oto-rhino-laryngology U0 Paediatrics V0 Pneumonology W0 Rheumatology X0 Urology |





| | | |
|-----------|---|--------------|
| | Z0 | Dentist |
| | Z1 | Stomatology |
| | Z2 | Orthodontics |
| | Z3 | Oral surgery |
| Comments | -9 if provider_type ≠ 0 Based on Grand-ducal Regulation (<i>Règlement grand-ducal du 10 juillet 2011 fixant la liste des spécialités en médecine et médecine dentaire reconnues au Luxembourg</i>) | |
| Source(s) | CNS | |



| | |
|----------------------|---|
| Name of the variable | provider_practice_location |
| Description | Practice location refers to the "canton" level |
| Format | Character |
| Values | |
| Comments | More detailed variables are available about practice location. They will be provided according to the "need to know" rule. The location corresponds to the official address registered in social security databases. |
| Source(s) | CNS |



| | |
|----------------------|---|
| Name of the variable | practitioner_professional_status |
| Description | Professional status of the healthcare provider |
| Format | Character |
| Values | 0 Salaried 1 Liberal / Self-employed 2 Mixed |
| Comments | Not applicable(-9) if provider_type ≠ 0 or provider_F_is_association = 1 This information is calculated using the presence of the practitioner in labour market data as an employee, a self-employed or both |
| Source(s) | CNS |



| | |
|----------------------|---|
| Name of the variable | practitioner_residence_country |
| Description | |
| Format | Character |
| Values |   0 Luxembourg 1 Germany 2 Belgium 3 France 4 Other |
| Comments | Not applicable(-9) if provider_type ≠ 0 or provider_F_is_association = 1 |
| Source(s) | CCSS |

| | |
|----------------------|--|
| Name of the variable | practitioner_residence_location |
| Description | Refers to the "canton" level. |
| Format | Character |
| Values |   |
| Comments | Not applicable(-9) if provider_type ≠ 0 or provider_F_is_association = 1 More detailed variables are available about residence. They will be provided according to the "need to know" rule. |
| Source(s) | CCSS |



| | |
|----------------------|---|
| Name of the variable | practitioner_citizenship |
| Description | |
| Format | Character |
| Values | 0 Luxembourg 1 Germany 2 Belgium 3 France 4 Portugal 5 Other EU-27 6 Other |
| |   |
| Comments | This variable refers to the main citizenship during the reference period. It can change from month to month for people who acquire another citizenship. In case of dual citizenship, the provided citizenship is the one considered as the first by the administration. Not applicable(-9) if provider_type ≠ 0 or provider_F_is_association = 1 |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | practitioner_age |
| Description | Age at the end of the month |
| Format | Character |
| Values | 0 less than 30 years 1 30-34 years 2 35-39 years 3 40-44 years 4 45-49 years 5 50-54 years 6 55-59 years 7 60 years and more |
| |   |
| Comments | Not applicable(-9) if provider_type ≠ 0 or provider_F_is_association = 1 |
| Source(s) | CCSS |

| | |
|----------------------|---|
| Name of the variable | practitioner_gender |
| Description | |
| Format | Character |
| Values | 0 Male 1 Female |
| |   |
| Comments | Not applicable(-9) if provider_type ≠ 0 or provider_F_is_association = 1 |
| Source(s) | CCSS |





4.7 Medications


All variables concerning medications are related to a reference period (year and month).



| | |
|----------------------|-----------------------------------|
| Name of the variable | reference_period |
| Description | Period of the medication purchase |
| Format | Date (yyyymm) |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|--|
| Name of the variable | individual_IDnumber |
| Description | Pseudonymised individual identification number |
| Format | Character |
| Values | |
| Comments | |
| Source(s) | |

| | |
|----------------------|---|
| Name of the variable | pharmacy_IDnumber |
| Description | Pseudonymised pharmacy identification number |
| Format | Character |
| Values |   |
| Comments | |
| Source(s) | |


| | |
|----------------------|--|
| Name of the variable | pharmacy_type |
| Description | |
| Format | Character |
| Values | 0 Public pharmacy 1 Hospital pharmacy |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | pharmacy_location |
| Description | refers to the "canton" level |
| Format | Character |
| Values |  |
| Comments | More detailed variables are available about residence. They will be provided according to the "need to know" rule. |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | prescriber_IDnumber |
| Description | Pseudonymised identification number of the prescribing healthcare provider |
| Format | Character |
| Values |   |
| Comments | To get information about the prescriber, prescriber_IDnumber can be linked to provider_IDnumber in register " Healthcare providers ". |
| Source(s) | |



| | |
|----------------------|---|
| Name of the variable | medication_code |
| Description | |
| Format | Character |
| Values | See Liste positive des médicaments - triée par nom — CNS - Luxembourg (public.lu) |
| Comments | Only prescribed medications reimbursed by the CNS are included. Medications prescribed in the context of an inpatient stay or treatment in hospital are not included. |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | medication_ATC_code |
| Description | Anatomical Therapeutic Chemical (ATC) Classification System |
| Format | Character |
| Values |  WHOCC - Structure and principles |
| Comments | Aggregation level of the variable is decided according to research needs. The Anatomical Therapeutic Chemical (ATC) classification uses codes to identify the medication active substance. The ATC classification system groups the active medical substances according to the organ or system on which they act and according to their therapeutic, pharmacologic and chemical properties. |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | medication_DDD |
| Description | Daily Defined Dose (DDD) per packaging of fifth level ATC code |
| Format | Numeric |
| Values | |
| Comments | The defined daily dose (DDD) of a medication, which is a unit of measurement and is linked to the ATC code. The definition of the DDD is: “The assumed average maintenance dose per day for a drug used for its main indication in adults”. See introductory chapter for more explanations about ATC methodology and the limitations of the DDD concept. WHOCC - Definition and general considerations |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | medication_dose_delivered |
| Description | Daily Defined Dose (DDD) delivered |
| Format | Numeric |
| Values | |
| Comments | Calculated by multiplying DDD per packaging (medication_DDD) by the number of packaging |
| Source(s) | CNS |

| | |
|----------------------|---|
| Name of the variable | medication_nb_packages_delivered |
| Description | Number of medication packages delivered |
| Format | Numeric |
| Values | |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|-------------------------------------|
| Name of the variable | medication_F_generic |
| Description | Whether the medication is a generic |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | |
| Source(s) | CNS |



| | |
|----------------------|--|
| Name of the variable | medication_F_accident |
| Description | Whether the fee is linked to work place accidents, commuting accidents or occupational illnesses |
| Format | Character |
| Values | 0 No 1 Yes |
| Comments | |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | medication_cost |
| Description | |
| Format | Numeric |
| Values | |
| Comments | The cost is about the medication_dose_delivered. |
| Source(s) | CNS |

| | |
|----------------------|--|
| Name of the variable | medication_cost paid_SS |
| Description | Part of the cost covered by the Social Security |
| Format | Numeric |
| Values | |
| Comments | The cost paid by Social Security is about the medication_dose_delivered. |
| Source(s) | CNS |