

- DATA COLLECTION AND FTE CALCULATION IN THE BELGIAN PLANNING SYSTEM

Reference information:

Statistical Reports produced by the Team Workforce Planning are published on the website of the planning commission : www.health.belgium.be/hwf

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One of the main data sources in the Belgian data linking method is the Datawarehouse Labour Market & Social Protection, which serves as a national administrative data clearing house. Website : <https://www.bcss.fgov.be/fr/dwh/homepage/index.html>

Main aspects:

- *Data used in the forecasting model are regularly updated in order to have a realistic picture of what is the current situation of the HWF demand and supply;*
- *The HWF planning tool considers the entire work life cycle (supply side);*
- *Data collected on current stock of HWF allow to know: number of active professionals, number of full-time equivalent, types of providers, where they work, their skills, the services they provide, workloads and Skills defined here as acquired certifications (e.g. diabetes care, intensive care);*
- *The HWF planning tool uses demand data which allow estimating the health care utilization and the population needs, in addition to size and structure (age and sex) of the population being this data obtained from the National Institute of Health Insurance;*
- *The followed approach allows the planning commission to work with accurate, recent and comprehensive data, increasing the power of its forecasts and strengthening its authority in the Belgian health policy field.*

Description:

The main tool for monitoring the Belgian workforce of the health care professionals is the National Register of Health Care Professionals, maintained by the Ministry of Public Health.

Every health professional who wants to practice a recognised health profession on the Belgian territory is required by law to register him or herself in this National Register. This ‘Cadastre’ therefore contains information about the diploma, the licence to practice and further personal details of all the health professionals in Belgium. Over the last decade, both the number of registered professions and the capabilities of this Register have grown. The current implementation consists of an electronic register built on an Oracle backbone.

While the available information in this National Register of Health Care Professionals allows for the monitoring of the size and composition of the registered workforce (i.e.



with licence to practice), no information is available about this workforce's actual labour market participation and activity.

However, by linking the National Register with other administrative databases, mainly from social security and health insurance administrations, it is possible to obtain a detailed image of the participation and activity levels of the licensed Health Workforce. This method provides invaluable data for health workforce monitoring and planning purposes.

More specifically, to obtain this data, a formal request is addressed to the Belgian Privacy Commission, seeking the permission to carry out an individualized, anonymous data linking between the concerned administrative databases. This request describes the various variables, their level of detail, the measures taken to protect the privacy of sensitive data, and all other relevant specifications.

If approved by this Commission, the data linking can start via the intermediary of the Crossroads Bank for Social Security, a federal institute founded to centralize administrative data and organise data flows (E-government).

For each individual who is present in the National Register, the data linking can then determine his or her activity status, sector of activity, full time equivalent, region of activity, number of jobs...

The inclusion of health insurance data makes this data linking particularly useful for health care planning, since it provides information about the volumes of care which are 'produced' by an individual health care professional.

With regards to the full time equivalents, two types of data are available. For the employees, information is available about contractual and actual working hours. For those persons who are paid via the health insurance system on the basis of performed 'medical acts', this number of acts needs to be 'transformed' into a FTE.

Different formulas are used for the different professions, but the principle is universal. The mean or median observed number of care acts of a given reference age group is used as the reference value of 1 FTE. A person who performs exactly half the number of acts of this reference receives an FTE of 0,5. Instead of acts, the formula can also use the amount that is reimbursed by the health insurance.

One major caveat: the data linking method relies on existing data, collected by specific



administrations to carry out their objectives and missions. As such, the raw data does not necessarily align with the health workforce analysis perspective and may require either re-formatting, careful (re)-interpretation, or the combining of several variables to construct the desired parameter.

As of the end of 2014, data linking projects have been undertaken for the professional groups of the registered Nurses, Physiotherapists, Physicians and Dentists. While the Team Workforce Planning has succeeded in setting up the basic structure and workflow which already provide very insightful data, the data linking process is still a work in progress and much remains to be done. As such, work is being done (as of 2014) to expand the included source material to other administrative databases and to improve the quality of certain existing parameters.

In parallel, steps are being taken to evolve from ‘one shot’ data linking projects to a more systemic, ‘permanent’ data linking approach, which would make it possible to link the data for all the recognised health professions on a yearly basis. This approach will centre around automatisation, standardisation and streamlined data flows.

While the technical difficulty of the data linking procedures requires qualified personnel to carry out, it does not constitute the main difficulty in setting up this type of data collection. The main challenge consists rather in obtaining the necessary permissions, access rights and the cooperation of the different data providers. The necessary legal and regulatory framework has to be in place to allow the data linking to proceed successfully. Making sure that the data linking stays within the boundaries defined by national privacy protection laws also requires time and attention.

An important factor in the successful completion of these steps is support and cooperation for the project among the different involved decision makers and levels of government.

Results:

The investment in the creation of an ‘enriched’ Cadastre leads to the availability of a detailed and exhaustive image of the workforce of a given health profession. In fact, the amount of available data can be so large that the next challenge lies in managing, analysing and finding ways to graphically represent the collected data.

A related aspect that cannot be ignored is the way that the results of this data analysis are presented and communicated to both the general public and the health care



professionals. Depending on budget and priorities, options range from static printed reports to dynamic interactive websites.

Most importantly, the collected data can be used as reliable input data for forecasting and planning models.

Helpful tips:

- *A data linking system, if properly designed, does require an important investment of time and effort to set up, but can then be easily maintained and operated to provide regularly scheduled, qualitative and insightful reports and forecast source data;*
- *Acquire political support in order to establish a legal framework (e.g. data access rights);*
- *Tackle privacy concerns / methods of data anonymisation;*
- *Identify existing sources and data providers;*
- *Set up communication lines with concerned data managers / institutions;*
- *Start with the low hanging fruit and work your way up; managing a data linking system consists in both improving the data quality and increasing the data quantity (inclusion of additional parameters / sources) on a continuous basis;*
- *Design and implement standardised and automated approaches for data collection, analysis and reporting (templates, macros, statistical programming codes).*