

Belgium - country profile

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Overview of the health workforce planning process (series of actions taken)

The central actor in the Health Workforce Planning is the Planning Commission for the Medical Supply (French: *Commission de Planification de l'Offre Médicale* / Dutch: *Planingscommissie van het Medisch Aanbod*). This organ, composed of representatives of the different health professions, universities, health insurance, different government levels and invited experts, reflects on current and future challenges on the terrain of the health workforce. It advises the minister of Health on this issue in general and more specifically, whether access limitations (“quota”) need to be applied and if so, at which level these quota need to be set.

The planning commission is assisted by the Workforce Planning Unit at the Federal Public Service of Health, which provides administrative, scientific and statistical support.

The commission is organised in Working Groups for the different Health Professions. In 2013, working groups are active for the following professions: physiotherapist, nurse, dentist and medical doctor.

The process can be summarised as follows:

- The planning commission monitors the workforce levels and trends of the different health professions using the available statistical information and detects bottle-necks
- Where necessary further research and data-gathering is conducted (using the resources of the Workforce Unit or via public tender process)
- The collected quantitative data is analysed, and in combination with qualitative input from the members of the working groups based on their relevant professional expertise, consensus agreement is reached on possible future scenarios
- The agreed upon future scenarios are fed into the mathematical planning model to calculate the projected future workforce levels
- On the basis of these projections, policy recommendations are made to the Minister of Health, by the planning commission
- The Minister can take corresponding policy actions

Overview of the health workforce planning model

The Belgian Harmonized Mathematical Planning Model (BHMPM) originates from an effort to harmonize several existing mathematical planning models for different health professions. This harmonization aimed to standardize the Belgian health workforce planning. The BHMPM is conceived as a universal model, i.e. applicable for each of the different health professions implicated in workforce planning in Belgium.

The BHMPM is used as a tool in the evaluation of health workforce policy and future workforce needs.

It does not determine which goals and objectives have to be attained, but can be used to see how objectives, set by policy-makers, can be reached. It is also able to predict future shortfalls in relation to a pre-defined minimum 'desired density', i.e. the number of health professional for a given population.

The model is a stock and flow model, in which the future size of a given starting stock is influenced by yearly in- and outflows.

Essential in the correct functioning of the BHMPM is a precise definition of this starting stock. Exact information about the size and composition of the current workforce is a *conditio sine qua non* for reliable forecasting.

This starting stock is then modified by inflow and outflow. In a workforce model, inflows are defined as new graduates entering the labour pool, immigration, extra flows (e.g. people entering health sector from other sectors mid-career). Outflow is determined by, for example, the survival rate, halting of activities, emigration.

Expected changes concerning future inflows (e.g. education and migration) and outflows (e.g. emigration and retirement) of the profession and future level of activity are used to forecast the future levels of the (active) workforce. In combination with the projected population evolution, the BHMPM also produces expected densities (number of health professionals per 1000 inhabitants).

In its current incarnation, the BHMPM is a web-application with an Oracle back-end. It is accessed via a web browser and hosted on a web-server at the Ministry of Health. An administrator at the Ministry assigns 'roles' which have different levels of access. Users can access the application both inside and outside the Ministry, after receiving prior permission, identifying themselves via the Belgian nationwide e-id system.

The data managers of the Workforce Planning Unit upload all the required data for the proposed future scenarios. Users can then select parameters from among the various available parameter versions for each variable and create and save their own scenarios. The outcome of a scenario is saved as an excel-file with both numerical and graphical elements.

The mathematical formulas which calculate the outcomes based on the user-selected parameters are hard-coded into the application. One exception to the general data input method is the access quotas, which can be adapted directly by users and do not need prior data preparation.

Qualitative data collection

Qualitative data collection:

During the meetings of the working groups of the different health professions, hypotheses about future developments are formulated.

These insights are based on the expertise and background of the participants in the working groups. Next to the representatives of various sectors mentioned earlier, the working group can invite external experts to contribute to the discussion.

The goal is to construct various alternative future scenarios. These scenarios are then “run” in the mathematical model and their implications for future workforce levels and densities are calculated.

The members discuss and try to find common ground with regards to the main drivers influencing offer and demand for the different health professions.

The Belgian planning commission is satisfied with this working method, which can deliver tangible results with limited resources (human resources & budget).

Stage in the planning process:

The qualitative data is collected at the stage of future scenario development.

After the initial testing of a formulated hypothesis, the results are presented to the working group. At this stage, further qualitative input is possible to fine-tune a scenario/hypothesis.

Furthermore, specific workshops can be organised to tackle a certain topic with invited experts and the members of the planning commission.

How the qualitative data is collected:

In the working group meetings, the Workforce Planning Unit is present to take notes on the expressed viewpoints and agreements. Meeting reports are created and the collective vision of the participants on the evolution of the factors (drivers) is translated into input files for the mathematical model.

Important to note is the fact that the created scenarios result from the viewpoints of the participants, who represent their different professions and organisations.

Who collects the qualitative data and who it is collected from:

The composition of the working groups is defined by law (re-constituted periodically). Each individual member represents the viewpoint of the organisation or institute he/she belongs to.

On its own initiative each working group can invite experts to assist the working group in its activities.

Analysis of qualitative information

- How is qualitative information processed?
- Stages which use expert groups

The qualitative data collected from our working groups (the expert group in question) is fed into the mathematical planning model in order to calculate future workforce levels and detect possible choking points and future shortfalls.

In the discussions the qualitative input of the different experts is analysed and consensus is reached.

