The Netherlands - country profile

These profiles are reproduced here in the same language as they were submitted to WP6. We have not edited or translated any of these submissions and the approaches are described in their own words.

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

The Advisory Committee on Medical Manpower Planning (ACMMP) was established in 1999 on instigation of the national government by the 3 major health care stakeholders: the universities/training institutes, the health insurance companies, and the professionals. Periodically, the ACMMP releases advices to government regarding the desired intake level for various official recognized medical and dental specialization courses. Government, in its role as a complete subsidizer for these training programmes, decides on the advices within one year and adapts the advices one year later after making financial arrangements with the universities/training institutes. Simultaneously, recommendations are made concerning the intake level believed necessary for medical schools and dental schools.

The professions included are:

- 27 clinical specialisms, 3 primary care specialisms, and 3 social medicine specialisms. Besides these, the Netherlands at present also legally recognizes 10 so-called “profile physicians”, which are functioning in between specialists and medical graduates;
- Clinical chemistry, clinical physiology, and clinical pharmacy;
- Dentists, dental surgeons, orthodontists, and oral hygienists;
- Psychotherapists, mental health psychologists, (clinical) neuropsychologists, and nurse specialists in mental health.

The advices are based on the anticipated healthcare demand in 12 to 18 years. In order to have a sound projection the ACMMP uses experts, research, and data on every available subject, including for example demographic change, epidemiological change, socio-cultural change, policy changes, unmet demand, vocational change, efficiency change, labour time change, horizontal substitution, and vertical substitution. When evidence is sufficient, we will use a single point value. If not (most of the time) experts will have to agree upon a most likely and a least likely value. These values are combined into 9 different scenarios.

Based on a vast amount of data on the healthcare supply side, we can calculate the corresponding intake levels for each profession. The ACMMP will choose the two most likely scenarios and offer the corresponding intake levels to government. This leaves the final call about the intake level with the government. It also depicts the levels of uncertainty for each profession and it is an indication for government about the margins that are thought wise by the major stakeholders in health care. In the recommendations 2008 and 2010 the major scenario uncertainties were about the implementation of vertical substitution. Although government advocated vertical substitution and significantly raised intake numbers for the training to become a nurse specialist (nurse practitioner in most MSs) or a physician assistant, they also used the (high intake) scenarios for clinical specialists without significant impact by vertical substitution.
Overview of the health workforce planning model

Basically, the model was implemented in an Excel spreadsheet which has become more sophisticated in time but which has not been changed. A diagram of this model is shown below.

1. Number of GP's in stock (male/female)
2. FTE per GP (male/female)
3. Available supply (total FTE)
4. Unfulfilled demand for care
5. Required supply (total FTE)
6. Demographic developments
7. Required supply (total FTE)
8. Outflow (male/female & projection year)
9. Number of GP's in stock (male/female)
10. Inflow from abroad (male/female)
11. Labour market return
12. Number of GP's in training (duration of training)
13. Return on training
14. Labour market return
15. FTE per GP (male/female)
16. Available supply (total FTE)
17. Difference between available and required supply
18. Policy advice
19. Required number of GP's in training (duration of training)
20. Epidemiological developments
21. Socio-cultural developments
22. Normalization of working hours per FTE
23. Technical developments regarding the profession
24. Developments regarding efficiency
25. Developments regarding horizontal substitution
26. Developments regarding vertical substitution

The modelling starts out with the number of self-reported fte by each profession, which after adjusting for unmet/ excess demand is taken as the actual demand for health care. This demand is then projected to our future in 12 to 18 years, with all kinds of parameters mingled in 9 different projections. This leads to 9 different projected demands for the future in 12 to 18 years. Next, the supply present in 12 to 18 years originating from the present supply, the present trainees and the immigration is estimated. The difference between the projected demand and the projected supply is the gap that has to be bridged by training. The intake numbers are calculated for each profession.

For data on the demand projections, we use utilisation data from the Dutch Hospital Data association, the data organisation from the health insurers Vektis, data from the Central Bureau of Statistics, the National Institute for Health and the Environment, NIVEL, KIWA Carity, and epidemiological research by institutes, universities, research groups, professionals, and consumer panels. This mostly concerns demographic or epidemiologic data. Socio-cultural changes include policy changes, which can origin from government, health insurance companies, universities/ teaching institutes, or professionals and their scientific organisations.
For data on the supply projections, we use data from the Royal Dutch Medical Association, the Registration for Individual Health Professionals, membership of professional organisations, Tax data and professional Pension Funds, and surveys on instigation of ourselves or others.

For data on the working process, we confront the experts with studies on efficiency, vocational developments, working hours, consulting times, horizontal and vertical substitution, not patient related activities.

As of 1999, we also put into place a system dynamics model which allows us to confront experts instantaneously with the impact of certain changes.

**Qualitative data collection**

*Qualitative data collection:*
Three to four times a year, each of our 5 Chambers and 3 focus groups meets to discuss the latest research, data, policies/politics, and vocational developments. We decide on what data we are missing and where research can answer our questions and where experts can. Besides these structural meetings, there are also invited expert meetings and sometimes expert counselling to provide us with intelligence and counterintelligence. The ACMMP personnel takes field trips and has meetings with professionals, members of the boards, researchers, and government to have as much knowledge about the past and the present as possible.

*Stage in the planning process:*
Qualitative data collecting is an ongoing process. We collect these data permanently. Once every two or three years, the data are “frozen” at values every member in the Chamber agrees upon. According to sensitivity analyses of our models, vertical substitution is one of the most powerful parameters in the model. Unfortunately, this parameter lacks sufficient quantitative data for most (medical) professions. Qualitative data are paramount for this parameter.

*How the qualitative data is collected:*
Qualitative data are collected in several ways. The most obvious way is by collecting literature with quantitative data and scrutinizing/analysing these for consistency. Next, we separate the parameters with reliable quantitative data from the rest. We will discuss the parameters with lacking quantitative data (almost always the epidemiological and socio-cultural parameters plus working process parameters like vertical substitution and labour time changes) with experts in different ways. Interviewing them separately, discussing in Delphi-like settings, meetings in our Chambers, and electronic group decision rooms, workshops, depending on the preferences of the group. The experts are from all three parties: insurance companies, universities/hospitals, and the professionals. They have to reach consensus.

Next we will build scenarios and use the parameters. Normally, nine different scenarios can be compared. Experts will comment on the likelihood of the scenarios and make a final choice of two scenarios with the corresponding influx of medical trainees. These scenarios are presented to our board and after finalization sent to the ministry and to the field parties.

Currently, we are experimenting with a system dynamics model that can give visual feedback instantaneously about the effects of slight changes in parameters.
**Collection of qualitative data:**
There are particular experts identified to provide qualitative data. Identifying occurs by literature on forecasting, by colleague experts, by authority, by government, by research desks and by universities. We have consulted experts on this field for the separate professions and for intermingling of professions.

**Analysis of qualitative information**
- How is qualitative information processed
- Stages which use expert groups

These experts, different for each profession, are used in the stage of sampling the qualitative data and in the stage of reaching consensus on the extremes in the range of these data.