



KATHOLIEKE
UNIVERSITEIT
LEUVEN

Managed Migration and the Labour Market The Health Sector The Belgian case

Report prepared for the European Migration Network, Small Scale Study II

Authors: Prof. dr. Jozef Pacolet and Sigrid Merckx

FOD Binnenlandse Zaken and European Commission

July, 10th 2006



Hoger instituut
voor de arbeid



The European Migration Network is established in order to collect and classify information on migration and asylum, provide access to this information and facilitate the exchange of it. The EMN also analyses this kind of information and has its own research projects. The intention is to identify similarities and differences in the approaches of the EU Member States towards migration phenomena by comparing studies made on the national level, to stimulate the exchange of information, to promote goodwill and understanding between the Member States and, in this way, to contribute to well-founded and well-informed policy making. More information about the EMN will soon be available on: www.european-migration-network.org

The Belgian Contact Point is financed both by the Belgian Ministry of the Interior and the European Commission.

Contact details:

Mr Alain Schmitz, tel +32.2.206.19.20 – alain.schmitz@dofi.fgov.be

Mr Benedikt Vulsteke, tel +32.2.206.19.37 – benedikt.vulsteke@dofi.fgov.be

1. EXECUTIVE SUMMARY

We documented the information on foreign students in the health education system and medical schools and the information on foreign professionals by their request on recognition of their certificates, their recognition to practice and presence in health professional registers and their real practice. This information remained fragmented. We confronted it with more global information on the health profession labour market as we could obtain it from previous and recent manpower planning studies for the health professions.

We observe a limited inflow of foreign professionals, characterised by higher inflows for more qualified professions, which is in line with some theories on migration that make it more rewarding for better qualified professions. However the inflow is to a large extent concentrated to the neighbouring countries in combination with no language barrier (Netherlands, France, Germany) and two traditional immigration countries for Belgium, namely Italy and Morocco (the latter also with limited language barrier since French is a widespread used language). There is limited migration from the new member states up until now. More remarkable, but seeming to be a cross frontier phenomenon is the widespread presence of students of France in the French speaking education system of Belgium, and previously also students from the Netherlands. They are avoiding measures or rationing and supply control in their home country, while other migration flows risk to disturb similar measures in Belgium. For that reason some measures to limit this presence is announced in the French speaking part of the county, while additional measures are announced to include foreign medical doctors in the supply control or to limit the possibilities to acquire complete training here.

This Belgian situation and our previous studies on manpower problems at European level made us conclude however that migration of foreign health professionals seems to be in some cases undesirable, unrealistic and unfeasible. It is **undesirable** if it would imply that there is a brain drain of qualified workers from developing countries that will need those professionals to establish a decent health care system. It is **unrealistic** when it concerns migration flows from developed and neighbouring countries all confronted with coming shortages, even though those shortages are sometimes created by themselves by rationing in the education system and the supply of new trained personnel and by trying to export their shortage or rationing in education expenditures. Finally it seems to be **unfeasible** when it is observed how for instance language barriers exist and other reasons restraining people from migration.

2. INTRODUCTION THE NATIONAL HEALTH SECTOR

Belgium has an highly developed health care and social care system where as well acute care, long term care, community care as hospital care is well organised. It is characterised by a reasonable high level of public financing and a balanced mix of provision of the care by as well private as public non profit providers and independent workers.

Table 1 Employment in heads in health care in Belgium, 1982-1999

	1982	1990	1995	1996	1997	1998	1999
Independent health professions ¹	35 062	53 674	60 648	62 105	64 364	65 870	67 394
Employees working for a liberal profession in health care ²	5 122	6 840	17 493	17 491	16 339	16 413	16 448
Employees in health care	122 052	147 563	146 298	147 378	152 439	156 195	159 880
Total health care	162 236	208 077	224 439	226 974	233 142	238 478	243 722
Proportion independents/total	25	29	35	35	35	35	34

1 Registered persons in RSVZ (NISSE, National institute for the social security of the self-employed) and workers abroad are ignored, besides the statistics contain also the number of veterinarians up to 1994, from 1995 only physicians, dentists, pharmacists and paramedics are considered.

2 This is someone who is paid by physicians, dentists, pharmacists or paramedics.

Source: Calculations HIVA on RSZ and RSVZ, in Pacolet, 2002

A difference can be made between the licence to practise and the organisation of the profession. The practice of the health professions is regulated by the RD nr. 78. Hereafter we give an overview of the health services and the health professions (and some related professions/ not all are regulated by RD nr. 78) which are involved.

The control and follow up of this health manpower is the responsibility of national medical commissions, and the ministry of health: Geneeskundige commissie: a commission for specialists and general practitioners, FOD Public Health. The planning of (some of) the medical professions is the responsibility of the Planning commission medical supply.

Since 2005 (law 24 November 2004) (Borgions, 54) the visum for the profession will not be recognised by the medical commission, but directly by the FOD Health, (Directoraat-generaal Gezondheidsberoepen, Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu).

To organise the administrative follow up of the licence to practice, the number, address, and in the future also the real practice, a central register for all health professions has been created. A streamlining of administrative processes and recognition is planned. This administrative process is described in scheme 1. More recently (March 2006) a Central Data Management unit has been created in DG2 to act as a user interface between the FOD, Health professional planning unit and external users (M. Van Hoegaerden, 6 March 2006 Nota).

Table 2 Principal sectors for health practitioners

Sector
<p><i>a. Consulting room of a medical doctor/ dentist / physiotherapist/ district nurse : A room to keep consultations and from where the house calls can be organised</i></p>
<p><i>b. General hospitals</i></p> <p>0 short stay or acute (including day hospitals, assessment centres, maternity hospitals);</p> <p>1 long term (including geriatric beds or units in general hospitals).</p>
<p><i>c. Psychiatric hospitals:</i></p> <p>0 short stay or acute;</p> <p>1 long term (including geriatric beds or units in psychiatric hospitals).</p>
<p><i>d. Residential services:</i></p> <p>'Residential services' refer to non-hospital institutional nursing or care services offered to persons (elderly, disabled, psychiatric patients, ...) who cannot remain in their own home or stay with relatives, friends, etc.. They include nursing homes, old age homes, rehabilitation homes, ... The facilities may provide services on a temporary or on a permanent basis. Most countries make the distinctions between nursing homes or the equivalent for disabled and residential homes or the equivalent for disabled.</p> <p>Remark: the criterion to distinguish hospital and non-hospital services can be the permanent presence of a medical specialist. However, the distinction is not always easy since residential care is becoming more and more 'medicalised'.</p>
<p><i>e. Community care:</i></p> <p>Encompasses services provided to persons (elderly, disabled, psychiatric or other patients, ...) who live at home or in supported housing schemes (service flats, sheltered housing, ...) but have difficulties in managing activities of daily life or need medical or nursing care. The most important sectors are 'home nursing' (mainly district nursing but also preventive health care such as child care at home) and 'primary care' (general medical practice).</p>
<p><i>f. Other social service sectors:</i></p> <p>Education (in schools and in school related services, teaching), in industry (medical services in organisations and related services), employment in other public or private institutions (ministries, military services, the Red Cross, aid in developing countries, ...)</p>
<p><i>g. Other sectors of the economy: for example, journalism, politics, ...</i></p>

Source: 'Plus est en vous herbekeken, deel 3' (Pacolet J. e.a., 2002) and reports on 'l'offre et la demande' (Leroy X. e.a., 2002).

Table 3 Different health practitioners in Belgium (in broad sense)**A. Doctors**

Candidates general practitioner

General practitioners

- Approved
- Not approved

Candidates specialist (according to specialization)

Specialists (according to specialization)

Doctor (without other qualification)

B. Dentists**C. Pharmacists****D. Nursing/midwifery professionals**

The following classification has been made:

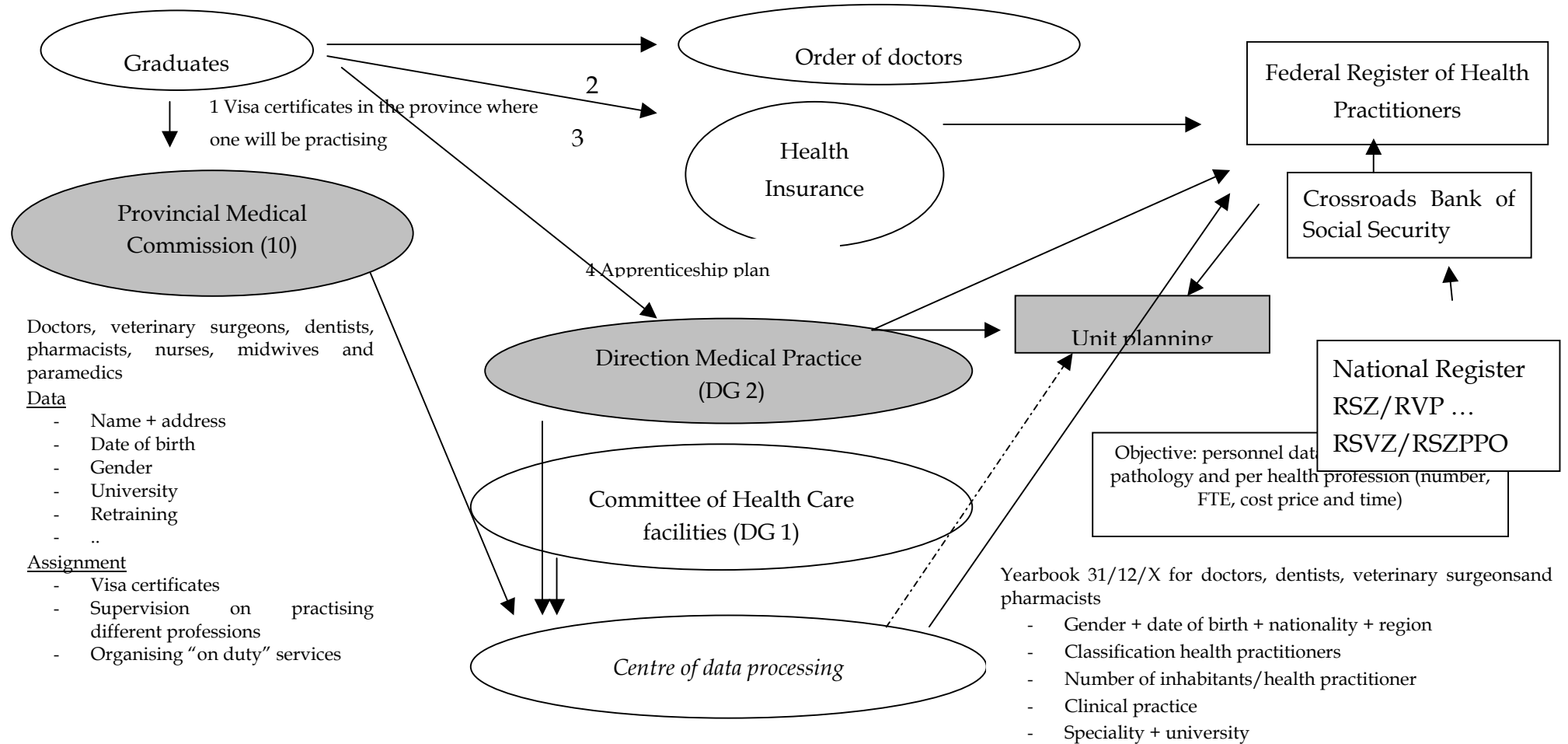
1. 'General-nurses (EC)': nurses with a diploma in accordance with EC Nursing Directives 77/452/EEC, 77/453/EEC, 77/454/EEC, 77/455/EEC and amendments of 10/10/1989 and 30/10/1989 : 'nurses responsible for general care (NRGC)' with basic educational training of at least 3 years; two categories exist in Belgium, a graduate nurse, now a professional bachelor degree, and a certificate nurse, which is a post secondary vocational degree of also 3 years
2. Nursing professionals with an education differing from diplomas mentioned in the EC Nursing Directives :
 - nurses with a basic specialist training, 'specialist nurses (non-EC)' : a nurse other than a general trained nurse who receives a basic training in a speciality and is equipped to work only in this speciality;
 - 'second level nurses (non-EC)': nurses with basic general training shorter than 3 years, second level nurses should be distinguished from 'caring personnel';
3. Midwives:
 - those with a training in accordance with the EC Midwifery Directives (80/154/EEC, 80/155/EEC, 80/156/EEC, 80/157/EEC);
 - those with a training not in accordance with these EC Midwifery Directives.

The main competences of nursing and caring professionals: Nursing and caring professionals can perform tasks situated in different areas (Bakker & le Grand-van den Bogaard, 1988):

- preventive and instructive tasks (informing patients or other nursing staff on treatments, providing health advice or instructions, ...);
- caring and guiding tasks (providing aid in eating and drinking, providing aid in movements of the body, providing emotional support to patients, ...);
- diagnostic and therapeutic tasks (administering medicines, taking care of wounds, administering oxygen, assisting doctors during operations, observing patients or registering reactions and symptoms, giving injections, ...);
- co-ordinating tasks (co-ordinating the tasks the nurse has to perform herself and constructing a personal work plan, co-ordinating activities per patient and constructing a work plan per patient, co-ordinating, delegating and controlling tasks and activities of other members of the nursing and caring staff, ...);
- reporting, registration and administrative tasks (participating in conversations about patients with other health professions, reporting facts and observations concerning the situation of a patient in order to develop a diagnosis and the right treatment for a patient, registering facts and observations concerning patients and nursing activities, ...);

-
- E. Caring professionals:** The EC directives for nurses do not refer to caring professionals, categories of health professionals who are unqualified as a nurse but of whom the scope of practice can overlap with nurses' tasks (e.g. care for the elderly in old age homes or at home), including a new category of 'zorgkundige'.
- F. Paramedical professionals :** Paramedical professionals are non-medical, non-nursing, non-caring allied health professionals
- Occupational therapist
 - Podiatrist
 - Orthopedist
 - Medical - laboratory technologist
 - Speech therapist
 - Nutritionists - dietician
 - Bandager
 - Orthesist
 - Prothetist
 - Orthopaedist
- G. Physiotherapist**
- H. Social workers**
- Social assistant
 - Psychology assistant
- I. Educator**
- J. Helping Personal and logistic assistant**
- K. Psychologist (and especially clinical psychologist)**
- L Others, among others housekeeping tasks (making beds, distributing meals, ...).**

Source: Pacolet J. e.a. (2002), Plus est en vous herbekeken and Pacolet, Bouten en Versieck, Manpower problems in the nursing profession.



Source: Deliège, Pacolet, Artoisenet, Cattaert, Lorant, 2004

Figure 1 Overview of data flow, in the year 2004

3. METHODOLOGY

We tried to identify the number of migrant workers in the available sources on health manpower. As well information on the present stock of the workforce, as the newcomers and inflow are closely related with the educational system that provides additional information on present inflow according to nationality. The main information source comes from our own and other present manpower planning studies for the health professionals in Belgium and its Communities, but a further assessment of the relevance of the information of the basic source has been done. A distinction need to be made between those having or acquiring a degree of a health profession, those who are really practicing their profession in the health care sector and finally (for planning and controlling the health expenditures) those eligible for reimbursement by the health insurance. The recognition of the qualification and diplomas is one step. A second step is the recognition for practicing and finally, and it is not al the time identical, the recognition for reimbursement of the health insurance. For the moment no information was found for the latter group. For those licensed to practice, a central register ('kadaster') has been further developed and is becoming more easily accessible and it can provide more information on the nationality of the practitioners. We provide information for physicians, dentists and physiotherapists. The information we found for nurses is preliminary. In the coming months this register for nurses will be updated and will become more reliable. In our manpower planning studies we have more detailed information on the nationality of students.

4. MIGRATION POLICY AND THE NATIONAL HEALTH SECTOR

Migration and mobility touches the health care sector in the same way as other industries. The European integration results in 3 important freedoms: the free movement of workers, the free provision of services (providing services here as a foreign country) and of establishing abroad (see a.o. HRW, Advies 2006). On top of that we should consider the growing importance of mobility of the patients towards other countries. The freedom of movement of the workers can take the form of salaried employment or of independent work. For the moment the EU regulation makes the distinction between the EU citizen (including the EEA) who does not need a work permit (and neither does the employer), with exception for the moment for 8 New Member states ('A8' countries) (Malta and Cyprus are in the same situation as the old MS). Those NMS need a work permission, such as the non EU-migrants. The independent workers do not need a work permission, but there is a need for compliance with the national regulations for independent workers. (HRW, Advies 2006, p. 4). The European citizens do not need a work permit, but they have to register in the population register of the town when they want to stay longer than 3 months (Health Professionals Abroad, they have to apply here for a residence permit ('verblijfsvergunning')), Model B Mauve Card for stay up to 1 year, Blue card for more than 5 years. For the non EU a white card is a permit to stay for a limited period, the yellow card is for a non-EU for an unlimited period.

The migrants from the NMS and non EU-countries are since the law of 30/4/1999 obliged to have a work permit as an employee: a card A (arbeidskaart) for an unlimited period for all employers and activities, for the migrants who stay here for a longer period. The employer does not require a work permit (arbeidsvergunning).

The work permit B is limited to one employer and one profession for 12 months, but extendible. The employer needs a permission but it is issued only in case neither nationals nor other EU15 nationals can fill the position (Traser J. et al, 2005, p. 8).

In 2003 a new type C was introduced, with a maximum of 12 months, but extendible, for all employers and professions. The employer is not required to have a permission. The target groups are candidate refugees and students. The request for card A and C must be introduced by the employee, the request for card B and the permission must be introduced by the employer. The request must be introduced at the office of the regional work offices, VDAB in Flanders, BGDA in Brussels and FOREM in Wallonia (HRW, Advies 2006, p. 5).

The independent workers of non-EU origin need a professional card (Beroepskaart), attributed by the local municipality of residence, or the Belgian embassy in the country of origin.

There are other ways to enter the Belgian labour market than via independent work or being employee in a Belgian firm. Alternatives are as a foreign provider or via direct establishing of an activity in Belgium. The provision of services from abroad can be by direct activities, or via 'detaching'. The employees of a NMS are not obliged to have a work card in the case of 'detaching', and even if they are 'gedetacheerd' by a firm of the EEA, and not being a citizen of the EU, they still are exempted when they are well established in the home country. A special case, and well controlled, is interim labour, by national or foreign interim bureaus. For the new MS citizens, the Belgian 'Dienst Toezicht op de Sociale Wetten' of FOD WASO (Federal Service Work and Industrial Relations) requires that they have a work permission for Belgium. Further possibilities of 'detaching' are subcontracting, for the moment especially existing in the building industry.

A large share of immigration comes from EU-member states. In 2000 the largest group of migrants (23% of total) came from Italy, followed by France, Morocco and the Netherlands (FOD Werkgelegenheid, Arbeid en Sociaal Overleg, 2003, p. 9). Those four groups are also prominent present in the active population (Ibidem., p. 34). The inflow of A8-workers in general has been limited (Traser J. et al, 2005, p. 19) in the first year: in May 2004 the inflow for the Walloon and Brussels Region was stated on 622, compared with 426 for Belgium in the pre-enlargement period (Ibidem., information from "Office des Etrangers"). In the period 2004-2006 Belgium applied the maintenance of the present system of granting work permits for the 8 new Member States. In 2006-2009 Belgium prefers to maintain this system, but a political compromise has been introduced for so called 'knelpuntberoepen', where open shortages apply. A list of such professions has to be made for the different regions, namely the Flemish region, Walloon region, Brussel-Capital region, but also the German-speaking community. 'Nursing', that has been called a 'knelpuntberoep', is included in these four lists. This will imply that for nursing (and other professions) card B will be awarded after 5 working days, without an investigation of this labour market (<http://www.petervanvelthoven.be/article.php?id=320>).

Since 1991 there is an increased facility to obtain the Belgian nationality for children of the second and third generation, a policy reinforced in 1995 and again in 2000 (in that year 62 000 naturalisations occurred, compound to an average of

25 000 - 30 000). This implies that the proportion of foreign nationalities decreased (Ibidem, p. 15).

Table 4 Work permits A, B and C, delivered in 2003, 2004 and 2005

	2003				2004				2005			
	Work permit A	Work permit B		Work permit C	Work permit A	Work permit B		Work permit C	Work permit A	Work permit B		Work permit C
		Total	Of which 1 st work permit			Total	Of which 1 st work permit			Total	Of which 1 st work permit	
Total New Member States, of whom for:	15	1 641	1 067	290	17	1 893	1 312	489	17	3 535	2 321	574
- Brussels-Capital Region	5	213	115	73	6	236	129	95	6	241	94	101
- Flemish Region	6	1 211	852	184	2	1 497	1 098	345	1	3 127	2 128	418
- Walloon Region	3	169	88	33	5	116	69	48	5	132	81	51
- German-Speaking Community	1	48	11	0	4	44	17	1	5	35	18	4
Total foreigners, of whom for:	329	9 362	4 627	24 143	108	9 104	4 320	29 550	154	11 033	5 489	27 720
- Brussels-Capital Region	117	2 407	969	9 025	37	2 455	969	10 375	50	1 990	526	9 035
- Flemish Region	142	5 402	2 799	9 779	35	5 269	2 799	12 581	31	7 551	4 290	12 175
- Walloon Region	62	1 417	507	5 101	27	1 215	507	6 281	41	1 380	643	6 251
- German-Speaking Community	8	136	44	238	9	165	45	313	32	112	30	259

Source: Hoge Raad voor de Werkgelegenheid, 2006, p. 17-18

Table 5 **Number of independent workers and helpers who have started their activity in the course of the year**

	2003	2004
Total New Member States	583	1 320
Total foreigners	6 870	8 716
Pro memoria: Belgians and foreigners	55 031	60 238

Source: Hoge Raad voor de Werkgelegenheid, 2006, p. 19 on information RSVZ

5. THE EMPLOYMENT OF IMMIGRANTS IN THE HEALTH SECTOR

5.1 Workforce in total and of foreign origin

Table 6 Total employment of nursing and caring personnel in Belgium, 2000, number of jobs

	Dutch - speaking	French - German speaking	Belgium
Graduate nurse	34 130	22 849	56 979
Certificate nurse	28 491	13 094	41 585
Second level nurse	5 228	2 011	7 239
Total nurses	67 851	37 954	105 803
Caring personnel	43 771	33 024	76 795
Total nursing and caring personnel	111 622	70 978	182 598

Bron: Pacolet, Deliège, Cattaert, Coudron, 2005

Table 7 Employment of a number of health care professions (ISCO-classification)² in the health care sector (NACE 85) in Flanders, according to place of residence¹, 1999-2000

ISCO-code	ISCO-description	1999	2000
222	Health professionals (except nursing) ³	22 757	22 647
223	Nursing and midwifery professionals	66 380	69 316
244	Social science and related professionals ⁴	19 978	19 939
322	Modern health associate professionals (except nursing) ⁵	19 888	23 898
323	Nursing and midwifery associate professionals	1 720	2 228
513	Personal care and related workers ⁶	39 508	43 460
Total considered health care professions ⁷		170 231	181 488

1 In this table people living in Flanders are taken into account.

2 ISCO: International Standard Classification of Occupations

3 Health professionals includes medical doctors, dentists, veterinarians, pharmacists, ...

4 Social science and related professionals includes social workers, but also economists, philosophers, ...

5 Health associate professionals includes medical assistants, dental assistants, dieticians, opticians, ...

6 Personal care and related workers includes child-care workers, institution-based personal care workers, home-based personal care workers

7 Only the health care professions are in the table, so that the total number is different from table 25.

Source: NIS, Enquête naar de arbeidskrachten (Labour Force Survey)

Table 8 Employment of a number of health care professions (ISCO-classification)¹ in the health care sector (NACE 85) in Belgium, 2004

ISCO-code	ISCO-description	2004
222	Health professionals (except nursing) ²	44 798
223	Nursing and midwifery professionals	119 213
244	Social science and related professionals ³	33 373
322	Modern health associate professionals (except nursing) ⁴	34 276
323	Nursing and midwifery associate professionals	13 361
411	Secretaries and keyboard-operating clerks	18 014
419	Other office clerks	29 168
512	Housekeeping and restaurant services workers	16 777
513	Personal care and related workers ⁵	67 264
913	Domestic and related helpers, cleaners and launderers	21 838
914	Building caretakers, window and related cleaners	16 064
Total considered health care professions		414 145
Total personnel of NACE 85		508 625

1 ISCO: International Standard Classification of Occupations

2 Health professionals includes medical doctors, dentists, veterinarians, pharmacists, ...

3 Social science and related professionals includes social workers, but also economists, philosophers, ...

4 Health associate professionals includes medical assistants, dental assistants, dieticians, opticians, ...

5 Personal care and related workers includes child-care workers, institution-based personal care workers, home-based personal care workers

Source: NIS, Enquête naar de arbeidskrachten (Labour Force Survey)

Table 9 Employment¹ in the health care sector (NACE 85) in Belgium according to profession (ISCO-classification)² and education (ISCED-classification)³, 2004

	Primary school	Lower secondary education	Higher secondary education	Higher education short type	Higher education long type	University education	Total
ISCO 0 Armed forces	0	0	352	0	0	0	352
ISCO 1 Legislators, senior officials and managers	337	700	1 743	4 696	499	5 222	13 198
ISCO 2 Professionals	329	2 707	36 077	102 356	9 726	60 076	211 271
ISCO 3 Technicians and associate professionals	779	3 612	28 171	37 222	6 114	7 635	83 532
ISCO 4 Clerks	1 333	3 582	27 507	15 700	1 601	3 562	53 284
ISCO 5 Service workers and shop and market sales workers	7 235	18 060	55 272	4 551	298	448	85 863
ISCO 6 Skilled agricultural and fishery workers	117	358	375	0	112	0	961
ISCO 7 Craft and related traders workers	603	1 466	1 785	0	0	86	3 941
ISCO 8 Plant and machine operators and assemblers	1 010	1 072	1 193	0	0	0	3 275
ISCO 9 Elementary occupations - Handicapped persons in sheltered workshops	17 261	16 841	17 432	986	116	311	52 947
Total	29 004	48 397	169 907	165 511	18 466	77 341	508 625

1. Cells with less than 5 000 persons can be unreliable

2. ISCO: International Standard Classification of Occupations

3. ISCED: International Standard Classification of Education

Source: NIS, Sociale statistieken, enquête naar de arbeidskrachten 2004 (Labour Force Survey)

According to the newly created register of health professionals, based on the moment of recognition, some 17 to 70 (in 2001) physicians came from abroad between the year 1999 and 2005, of which 11 to 30 from the EU. They were more numerous in the French speaking part of the country (Deliège, Artoisenet, note 17 July 2005). According to the information of the international recognition of diplomas (information Caroline Jadot, quoted in Deliège and Artoisenet) there were some 115 diploma's recognised in 2003 and 138 in 2004 for medical doctors. Many of them were recognized to obtain further qualifications in Belgium either as a general practitioner or as a specialist. Distinction need to be made between those asking for recognition as a physician with a basic degree, and those qualified as a general practitioner or specialist. Of the latter some additional 17 and 30 physicians are recognized in 2003 and 2004. In the register of medical professions those will however also be licensed to practice. In a preliminary comparison between the register and the recognitions of certificates, about 75% are found in the register, which implies that they are in principle licensed to practice. The register is based on this recognition to practice. There is a growing debate whether or not the national medicine students, confronted with the contingency, are discriminated towards the foreign students with a foreign degree who come here to specialize (sometimes to avoid a numerus clausus in their home country). So the issue is if they should also be subject to a similar contingency. The federal Minister of Health is investigating if there is a need for such a specific contingency on top of those for the national students (Algemene Beleidsnota Minister Demotte, p 73). To maintain the support to developing countries the Minister also considers that MD from non-EU countries can continue to obtain further specialization in our country but no longer for a complete discipline but only for a specific field of specialization, so avoiding there is a misunderstanding that they are obtaining the degree of specialization (Algemene Beleidsnota Minister Demotte, 2005). This will imply that they will not be allowed to follow a complete programme of specialization in Belgium, but only a limited number of years (3, communication D. Deliège, 2006).

The inflow of foreign dentists is considered limited: \pm 19 for the Dutch speaking community, 18 for the French-speaking Community over a period of 5 years, and for a total workforce of some 7 984 in 2000 for Belgium (of whom 7 442 practising) (Deliège, Artoisenet, April 2005, p. 23).

Table 10 Migrant workers employed in ISCO occupation in the Health Sector in 2004 by nationality including totals for EU-15, the new member states (EU-10), EU/EEA & non-EU/EEA.

Year 2004	Occupation										
	Nationality and/or country of origin	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives *	Caretaker	Psychologists	Physiotherapists & assoc. professionals	Total
Belgium	43 679	0				120 004				27 257	190 940
France	881	1				831				752	2 465
Germany	268	776				107				171	1 322
Italy	311	0				1 165				44	1 520
The Netherlands	1 037	0				327				218	1 582
Other EU-15	688	95				391				127	1 301
Total EU-15 (without Belgium)	3 185	872				2 821				1 312	8 190
Total EU-10	18	0				43				17	78
Other EU/EEA-countries	22	1				22				53	98
Total EU/EEA-countries (without Belgium)	3 225	873				2 886				1 382	8 366
Morocco	31	0				510				69	610
Other non-EU/EEA-countries	457	17				665				394	1 533
Total non-EU/EEA-countries	488	17				1 175				463	2 143
Total (without Belgium)	3 713	890				4 061				1 845	10 509
Total (including Belgium)	47 392	890				124 065				29 102	201 449

* Preliminary figures.

Source: Federal register of health practitioners

Table 11 Migrant workers employed in ISCO occupation in the Health Sector in 2004 by nationality including totals for EU-15, the new member states (EU-10), EU/EEA & non-EU/EEA.

Year 2005		Occupation								
Nationality and/or country of origin	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives *	Caretaker	Psychologists	Physiotherapists & assoc. professionals	Total
Belgium	44 455	8 560				120 004			27 564	200 583
France	930	154				831			759	2 674
Germany	302	23				107			174	606
Italy	339	43				1 165			44	1 591
The Netherlands	1 118	73				327			222	1 740
Other EU-15	720	76				391			128	1 315
Total EU-15 (without Belgium)	3 409	369				2 821			1 327	7 926
Total EU-10	44	3				43			17	107
Other EU/EEA-countries	27	5				22			53	107
Total EU/EEA-countries (without Belgium)	3 480	377				2 886			1 397	8 140
Morocco	35	3				510			73	621
Other non-EU/EEA-countries	480	55				665			398	1 598
Total non-EU/EEA-countries	515	58				1 175			471	2 219
Total (without Belgium)	3 995	435				4 061			1 868	10 359
Total (including Belgium)	48 450	8 995				124 065			29 432	210 942

* Preliminary figures.

Source: Federal register of health practitioners

Table 12 Nurses and midwives in Belgium, by nationality and year of graduation, 1980 (1995 and earlier) to 2004, preliminary results

Nationality and/or country of origin	1995 and earlier	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total
Belgium	55 294	3 029	2 716	2 086	1 544	1 291	760	221	32	3	66 976
France	476	50	25	12	14	34	42	37	21	6	717
Germany	60	3	1	1	0	1	6	2	4	1	79
Italy	781	49	28	21	12	10	16	6	2	0	925
The Netherlands	188	7	6	4	0	2	12	12	5	1	237
Other EU-15	264	9	7	4	2	0	7	6	7	3	309
Total EU-15 (without Belgium)	1 769	118	67	42	28	47	83	63	39	11	2 267
Total EU-10	31	2	1	2	1	1	0	0	0	0	38
Other EU/EEA-countries	12	1	1	0	0	0	0	0	0	0	14
Total EU/EEA-countries (without Belgium)	1 812	121	69	44	29	48	83	63	39	11	2 319
Morocco	362	49	25	14	9	1	1	2	0	0	463
Other non-EU/EEA-countries	400	34	30	15	6	8	13	13	8	0	527
Total non-EU/EEA-countries	762	83	55	29	15	9	14	15	8	0	990
Total (without Belgium)	2 574	204	124	73	44	57	97	78	47	11	3 309
Total (including Belgium)	57 868	3 233	2 840	2 159	1 588	1 348	857	299	79	14	70 285

Source: Federal register of health practitioners

Table 13 Percentage of foreign nurses and midwives in Belgium, by nationality and year of graduation, 1980 (1995 and earlier) to 2004, preliminary results

Nationality and/or country of origin	1995 and earlier	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total
France	18,5	24,5	20,2	16,4	31,8	59,6	43,3	47,4	44,7	54,5	21,7
Germany	2,3	1,5	0,8	1,4	0,0	1,8	6,2	2,6	8,5	9,1	2,4
Italy	30,3	24,0	22,6	28,8	27,3	17,5	16,5	7,7	4,3	0,0	28,0
The Netherlands	7,3	3,4	4,8	5,5	0,0	3,5	12,4	15,4	10,6	9,1	7,2
Other EU-15	10,3	4,4	5,6	5,5	4,5	0,0	7,2	7,7	14,9	27,3	9,3
Total EU-15 (without Belgium)	68,7	57,8	54,0	57,5	63,6	82,5	85,6	80,8	83,0	100,0	68,5
Total EU-10	1,2	1,0	0,8	2,7	2,3	1,8	0,0	0,0	0,0	0,0	1,1
Other EU/EEA-countries	0,5	0,5	0,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4
Total EU/EEA-countries (without Belgium)	70,4	59,3	55,6	60,3	65,9	84,2	85,6	80,8	83,0	100,0	70,1
Morocco	14,1	24,0	20,2	19,2	20,5	1,8	1,0	2,6	0,0	0,0	14,0
Other non-EU/EEA-countries	15,5	16,7	24,2	20,5	13,6	14,0	13,4	16,7	17,0	0,0	15,9
Total non-EU/EEA-countries	29,6	40,7	44,4	39,7	34,1	15,8	14,4	19,2	17,0	0,0	29,9
Total (without Belgium)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: Federal register of health practitioners

Table 14 Physiotherapists in Belgium, by nationality and year of approval, 2000-2005

Nationality and/or country of origin	2000	2001	2002	2003	2004	2005	Total
Belgium	162	0	1 577	20 460	297	307	4 761
France	0	0	24	300	22	7	406
Germany	1	0	4	127	3	3	36
Italy	0	0	0	37	0	0	7
The Netherlands	0	1	11	131	15	4	60
Other EU-15	1	0	4	53	11	1	58
Total EU-15 (without Belgium)	2	1	43	648	51	15	567
Total EU-10	0	0	0	9	2	0	6
Other EU/EEA-countries	0	0	1	18	5	0	29
Total EU/EEA-countries (without Belgium)	2	1	44	675	58	15	602
Morocco	0	0	2	48	1	4	18
Other non-EU/EEA-countries	0	0	12	256	3	6	128
Total non-EU/EEA-countries	0	0	14	304	4	10	146
Total (without Belgium)	2	1	58	979	62	25	748
Total (including Belgium)	164	1	1 635	21 439	359	332	5 509

Source: Federal register of health practitioners

Table 15 Percentage of foreign physiotherapists in Belgium, by nationality and year of approval, 2000-2005

Nationality and/or country of origin	2000	2001	2002	2003	2004	2005	Total
France	0,0	0,0	41,4	30,6	35,5	28,0	54,3
Germany	50,0	0,0	6,9	13,0	4,8	12,0	4,8
Italy	0,0	0,0	0,0	3,8	0,0	0,0	0,9
The Netherlands	0,0	100,0	19,0	13,4	24,2	16,0	8,0
Other EU-15	50,0	0,0	6,9	5,4	17,7	4,0	7,8
Total EU-15 (without Belgium)	100,0	100,0	74,1	66,2	82,3	60,0	75,8
Total EU-10	0,0	0,0	0,0	0,9	3,2	0,0	0,8
Other EU/EEA-countries	0,0	0,0	1,7	1,8	8,1	0,0	3,9
Total EU/EEA-countries (without Belgium)	100,0	100,0	75,9	68,9	93,5	60,0	80,5
Morocco	0,0	0,0	3,4	4,9	1,6	16,0	2,4
Other non-EU/EEA-countries	0,0	0,0	20,7	26,1	4,8	24,0	17,1
Total non-EU/EEA-countries	0,0	0,0	24,1	31,1	6,5	40,0	19,5
Total (without Belgium)	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: Federal register of health practitioners

Table 16 Doctors in Belgium, by nationality and year of visa, 1995 (and earlier) to 2005

Nationality and/or country of origin	1995 and earlier	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Un-known	Total
Belgium	33 222	1 289	1 167	1 192	1 283	1 270	1 387	1 117	733	1 011	776	8	44 455
France	442	35	30	44	30	53	50	77	64	56	49	0	930
Germany	150	4	13	7	14	11	22	23	11	12	34	1	302
Italy	170	11	17	14	14	15	15	13	14	26	28	2	339
The Netherlands	473	29	56	33	52	65	84	95	93	57	81	0	1 118
Other EU-15	420	23	19	20	27	32	37	37	49	24	32	0	720
Total EU-15 (without Belgium)	1 655	102	135	118	137	176	208	245	231	175	224	3	3 409
Total EU-10	1	2	0	3	1	1	0	1	3	6	26	0	44
Other EU/EEA-countries	13	0	0	1	0	1	2	2	1	2	5	0	27
Total EU/EEA-countries (without Belgium)	1 669	104	135	122	138	178	210	248	235	183	255	3	3 480
Morocco	22	0	0	2	0	0	1	1	3	2	4	0	35
Other non-EU/EEA-countries	226	25	19	23	15	19	36	32	35	27	23	0	480
Total non-EU/EEA-countries	248	25	19	25	15	19	37	33	38	29	27	0	515
Total (without Belgium)	1 917	129	154	147	153	197	247	281	273	212	282	3	3 995
Total (including Belgium)	35 139	1 418	1 321	1 339	1 436	1 467	1 634	1 398	1 006	1 223	1 058	11	48 450

Source: Federal register of health practitioners

Table 17 Percentage of foreign doctors in Belgium, by nationality and year of visa, 1995 (and earlier) to 2005

Nationality and/or country of origin	1995 and earlier	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Un-known	Total
France	23,1	27,1	19,5	29,9	19,6	26,9	20,2	27,4	23,4	26,4	17,4	0,0	23,3
Germany	7,8	3,1	8,4	4,8	9,2	5,6	8,9	8,2	4,0	5,7	12,1	33,3	7,6
Italy	8,9	8,5	11,0	9,5	9,2	7,6	6,1	4,6	5,1	12,3	9,9	66,7	8,5
The Netherlands	24,7	22,5	36,4	22,4	34,0	33,0	34,0	33,8	34,1	26,9	28,7	0,0	28,0
Other EU-15	21,9	17,8	12,3	13,6	17,6	16,2	15,0	13,2	17,9	11,3	11,3	0,0	18,0
Total EU-15 (without Belgium)	86,3	79,1	87,7	80,3	89,5	89,3	84,2	87,2	84,6	82,5	79,4	100,0	85,3
Total EU-10	0,1	1,6	0,0	2,0	0,7	0,5	0,0	0,4	1,1	2,8	9,2	0,0	1,1
Other EU/EEA-countries	0,7	0,0	0,0	0,7	0,0	0,5	0,8	0,7	0,4	0,9	1,8	0,0	0,7
Total EU/EEA-countries (without Belgium)	87,1	80,6	87,7	83,0	90,2	90,4	85,0	88,3	86,1	86,3	90,4	100,0	87,1
Morocco	1,1	0,0	0,0	1,4	0,0	0,0	0,4	0,4	1,1	0,9	1,4	0,0	0,9
Other non-EU/EEA-countries	11,8	19,4	12,3	15,6	9,8	9,6	14,6	11,4	12,8	12,7	8,2	0,0	12,0
Total non-EU/EEA-countries	12,9	19,4	12,3	17,0	9,8	9,6	15,0	11,7	13,9	13,7	9,6	0,0	12,9
Total (without Belgium)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: Federal register of health practitioners

Tabel 18 Dentists in Belgium, by nationality and year of entry in RIZIV (the National Sickness and Disablement Insurance Institute), 1995 (and earlier) to 2005

Nationality and/or country of origin	1995 and earlier	1996	1997	1998	1999	2000	2001	2002	2005	Un-known	Total
Belgium	7 245	184	161	168	169	152	152	133	3	193	8 560
France	57	12	5	13	8	12	14	9	2	22	154
Germany	16	1	0	0	2	2	0	2	0	0	23
Italy	34	1	2	0	1	1	0	1	0	3	43
The Netherlands	41	2	2	1	0	1	1	3	0	22	73
Other EU-15	40	8	4	4	1	5	6	1	0	7	76
Total EU-15 (without Belgium)	188	24	13	18	12	21	21	16	2	54	369
Total EU-10	0	0	0	0	2	0	0	0	0	1	3
Other EU/EEA-countries	4	0	0	0	0	0	0	0	0	1	5
Total EU/EEA-countries (without Belgium)	192	24	13	18	14	21	21	16	2	56	377
Morocco	1	0	0	1	1	0	0	0	0	0	3
Other non-EU/EEA-countries	26	2	3	6	3	4	5	0	0	6	55
Total non-EU/EEA-countries	27	2	3	7	4	4	5	0	0	6	58
Total (without Belgium)	219	26	16	25	18	25	26	16	2	62	435
Total (including Belgium)	7 464	210	177	193	187	177	178	149	5	255	8 995

Source: Federal register of health practitioners

Table 19 Percentage of foreign dentists in Belgium, by nationality and year of entry in RIZIV, 1995 (and earlier) to 2005

Nationality and/or country of origin	1995 and earlier	1996	1997	1998	1999	2000	2001	2002	2005	Un-known	Total
France	26,0	46,2	31,3	52,0	44,4	48,0	53,8	56,3	100,0	35,5	35,4
Germany	7,3	3,8	0,0	0,0	11,1	8,0	0,0	12,5	0,0	0,0	5,3
Italy	15,5	3,8	12,5	0,0	5,6	4,0	0,0	6,3	0,0	4,8	9,9
The Netherlands	18,7	7,7	12,5	4,0	0,0	4,0	3,8	18,8	0,0	35,5	16,8
Other EU-15	18,3	30,8	25,0	16,0	5,6	20,0	23,1	6,3	0,0	11,3	17,5
Total EU-15 (without Belgium)	85,8	92,3	81,3	72,0	66,7	84,0	80,8	100,0	100,0	87,1	84,8
Total EU-10	0,0	0,0	0,0	0,0	11,1	0,0	0,0	0,0	0,0	1,6	0,7
Other EU/EEA-countries	1,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,6	1,1
Total EU/EEA-countries (without Belgium)	87,7	92,3	81,3	72,0	77,8	84,0	80,8	100,0	100,0	90,3	86,7
Morocco	0,5	0,0	0,0	4,0	5,6	0,0	0,0	0,0	0,0	0,0	0,7
Other non-EU/EEA-countries	11,9	7,7	18,8	24,0	16,7	16,0	19,2	0,0	0,0	9,7	12,6
Total non-EU/EEA-countries	12,3	7,7	18,8	28,0	22,2	16,0	19,2	0,0	0,0	9,7	13,3
Total (without Belgium)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: Federal register of health practitioners

5.2 Vacancies and shortages

Especially in Flanders an employment policy indicator has been created to identify the professions where vacancies seem to be more difficult to fill in ('knelpuntberoepen'). This indicator helps to concentrate on efforts of training and it gives a signal to the general public and the education system where job opportunities occur. However it must be taken into account that those are relative difficulties to fill in those jobs, relative within a context of continued or even massive unemployment (especially in Wallonia and the Brussels Region). For that reason the degree of filling those vacancies does not differ so much between vacancies that are difficult to fill and the rest of the vacancies (see table 24). In Flanders, nurses, but also other caring personnel and educational personnel (the latter two categories that we discover frequently in the unemployment statistics), are already for a long time present in this list.

Table 20 “Knelpuntberoepen” in Flanders in 2004 and 2005, in number of vacancies and percentage

	2004		2005	
	Number of vacancies	Percentage	Number of vacancies	Percentage
Nurses, other caring personnel, educators, of which:	2 904	7,1	2 695	6,8
<i>Nurses</i>	1 362	3,3	1 339	3,4
- Head nurse	74	0,2	78	0,2
- Certificate hospital nurse	736	1,8	643	1,6
- Graduate hospital nurse	254	0,6	279	0,7
- Certificate psychiatric nurse	32	0,1	30	0,1
- Graduate geriatric nurse	41	0,1	64	0,2
- Graduate psychiatric nurse	22	0,1	39	0,1
- Graduate nurse palliative care	8	0,0	9	0,0
- Graduate paediatric nurse	8	0,0	6	0,0
- Nurse urgent assistance	2	0,0	3	0,0
- Graduate midwife	7	0,0	145	0,4
- Home nurse	135	0,3	6	0,0
- Graduate social nurse	43	0,1	37	0,1
<i>Other medical and paramedical personnel</i>	233	0,6	376	1,0
- Occupational therapist	/	/	129	0,3
- Speech therapist	182	0,4	196	0,5
- Pharmaceutical assistant	51	0,1	51	0,1
<i>Qualified caring personnel</i>	860	2,1	752	1,9
- Qualified caretaker	666	1,6	553	1,4
- Child care worker	194	0,5	199	0,5
<i>Educators</i>	449	1,1	228	0,6
- Educator class 1 - remedial educationalist	242	0,6	180	0,5
- Educator class 2	177	0,4	/	/
- Monitor sheltered workshops	30	0,1	48	0,1
TOTAL ALL ‘KNELPUNTBEROEPEN’	40 682	100,0	39 538	100,0

Source: VDAB - lijst knelpuntberoepen 2004 en 2005

Table 21 “Knelpuntberoepen” in Brussels in 2004, in number of vacancies and percentage

	2004	
	Number of vacancies	Percentage
Nurses, other caring personnel, educators, of which:	149	3,6
<i>Nurses</i>	113	2,8
- Certificate hospital nurse	64	1,6
- Graduate hospital nurse	49	1,2
<i>Qualified caring personnel</i>	14	0,3
- Familial helper	14	0,3
<i>Assistance personnel</i>	22	0,5
- Consultant in the professional orientation	22	0,5
TOTAL ALL ‘KNELPUNTBEROEPEN’	4 098	100,0

Source: Bron: BGDA - Analyse van de knelpuntberoepen in het Brussels Hoofdstedelijk Gewest in 2004

Table 22 “Knelpuntberoepen” in Wallonia in 2003, in number of vacancies and percentage

	2004	
	Number of vacancies	Percentage
Nurses, other caring personnel, educators, of which:	1 048	6,4
<i>Nurses</i>	1 048	6,4
- Certificate hospital nurse	318	1,9
- Graduate hospital nurse	730	4,5
TOTAL ‘ALL KNELPUNTBEROEPEN’	16 366	100,0

Source: Forem - Détection des fonctions critiques en Région Wallonne en 2003

Table 23 Number of vacancies and fulfilled vacancies¹, in Flanders, in 2004

Occupation	Vacancies AMI	Vacancies AMI + jobmanager	Fulfilled AMI	Vacancy rate (% fulfilled)
Total vacancies without temporary employment	99 987	148 492	81 426	81,4
Medical doctors/physicians	61	89	49	80,3
Dentists	3	6	3	100,0
Dental assistants				
Pharmacists	34	88	22	64,7
Pharmaceutical assistants	57	79	43	75,4
Nurses and midwives	1 710	2 883	1 289	75,4
Clinical psychologists	31	59	27	87,1
Assistant in psychology	14	14	10	71,4
Psychotherapist	17	23	14	82,4
Physiotherapists	236	347	205	86,9
Occupational therapist	289	371	236	81,7
Speech therapist	274	334	190	69,3
Audiologist	6	6	2	33,3
Optometrist	5	5	6	120,0
Podiatrist	2	10	2	100,0

Source: VDAB STUDIEDIENST (Paul Poels: va4836.sas)

¹ Excluding temporary employment.

Table 24 Number of vacancies and fulfilled vacancies, in Brussels, in 2004

Occupation	Vacancies	Fulfilled	Vacancy rate (% fulfilled)
Total vacancies without temporary employment	911	669	73,4
Medical doctors/physicians	9	4	44,4
Dentists	1	0	0,0
Dental assistants			
Pharmacists	17	4	23,5
Pharmaceutical assistants	7	3	42,9
Nurses and midwives	233	110	47,2
Caretaker	520	454	87,3
Clinical psychologists			
Assistant in psychology			
Psychotherapist			
Physiotherapists	22	14	63,6
Occupational therapist	22	18	81,8
Speech therapist	32	24	75,0
Audiologist	1	0	0,0
Optometrist			
Podiatrist			

Source: ORBEM (Patricia Vroman)

Table 25 Number of vacancies and fulfilled vacancies, in Wallonia, in 2004

Occupation	Vacancies AMI	Fulfilled AMI*	Vacancy rate (% fulfilled)*
Total vacancies without temporary employment	3 036	/	/
Medical doctors/physicians	47	/	/
Dentists	4	/	/
Dental assistants		/	/
Pharmacists		/	/
Pharmaceutical assistants	86	/	/
Nurses and midwives	1 229	/	/
Caretaker	562	/	/
Clinical psychologists	132	/	/
Assistant in psychology		/	/
Psychotherapist		/	/
Physiotherapists	180	/	/
Occupational therapist	76	/	/
Speech therapist		/	/
Audiologist		/	/
Optometrist		/	/
Podiatrist	4	/	/
Advisory specialist in public health	154	/	/

* No information available

Source: Forem - Nathalie Dechèvres

5.3 Recognition of foreign certificates

Tabel 26 Recognition of foreign certificates in Belgium and comparison with those in Federal Register of Health Practitioners

A. Foreign Medical Doctors - (2004)

	Belgium (Dutch & French)				Dutch - speaking				French - speaking			
	Total	M ¹	W ²	Un-known	Total	M ¹	W ²	Un-known	Total	M ¹	W ²	Un-known
2001	129				36				93			
2002	128				39				89			
2003	115	59	50	6	35	20	15	0	80	39	35	6
2004	138	68	58	12	31	17	11	3	107	51	47	9
Total	510				141				369			

1 M=Men

2 W=Women

Source: calculations Prof. Delière D, UCL, personal communication based on information "Cellule de reconnaissance" - Caroline Jadot and Federal Register of Health Practitioners

B General Practitioner and specialist

	Belgium			Dutch -speaking			French -speaking		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
2000	35			11			24		
2001	40			14			26		
2002	42			12			30		
2003	14	7	7	8	3	5	6	4	2
2004	30	17	13	9	8	1	21	9	12
Total 2000-2004- Dipl. UE recognized	161			54			107		

Source: calculations Prof. Delière D, UCL, personal communication based on information "Cellule de reconnaissance" - Caroline Jadot and Federal Register of Health Practitioners

C. Summary

	Belgium	Dutch -speaking	French -speaking
EU in register 2004	121	31	89
Total 2000-2004 - Dipl. EU recognized	161	54	107
Total licensed 2001-04	510	141	369
Register versus EU :			
- medical doctor	23.5%	22%	24%
- licensed	75,0%	57%	83%

Source: calculations Prof. Delière D, UCL, personal communication based on information “Cellule de reconnaissance” - Caroline Jadot and Federal Register of Health Practitioners

Perhaps the numbers for the recent years illustrate that mobility, here shown by the request for recognition of foreign certificates, is higher if the education level is higher. For a labour market of some 28 000 active physicians, about 127 to 201 (it has been growing from 2003 up until 2005) recognitions are counted; for the nursing profession, now roughly 90 000 practising nurses or even 135 000 in the national register of health professionals, ‘only’ 107 to 150 are counted (excluding Belgian citizens – they still can be of foreign origin- asking for recognition of their foreign degree); about 77 000 caring professionals are active in 2000, from whom 32 to 35 are counted. The majority comes from the neighbour countries France and the Netherlands and to a lesser degree also from Germany, these are also the countries where people speak one of the official languages in Belgium. This confirms that language is an important barrier and condition for international migration in health professions.

The number of recognitions of foreign certificates is not representative for the total potential of foreign practitioners in Belgium since there is the phenomenon of huge participation of foreign students in the Belgium education system whose degrees will not need to be certified later on. For instance in the register of physiotherapist we discover a huge number of French nationality, although there is no indication that they are really practising the profession in Belgium.

Table 27 Influx foreign diplomas, approved by the unit “International Recognitions” of the FOD Public Health, 2003

Year 2003	Occupation										
	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives	Caretaker	Psychologists	Physiotherapists & assoc. professionals	Paramedics	Total
Belgium	4	0		1		20	6		0	6	37
France	34	4		5		47	10		0	5	105
Germany	25	2		0		20	0		3	3	53
Italy	14	0		4		4	0		1	2	25
The Netherlands	18	4		3		15	12		7	2	61
Other EU-15	24	2		4		20	4		2	4	60
Total EU-15 (without Belgium)	115	12		16		106	26		13	16	304
Total EU-10	0	0		0		0	0		0	0	0
Other EU/EEA-countries	1	0		0		1	0		0	0	2
Total EU/EEA-countries (without Belgium)	116	12		16		107	26		13	16	306
Morocco	0	0		0		1	0		0	0	1
Other non-EU/EEA-countries	7	0		1		4	0		0	0	12
Total non-EU/EEA-countries	7	0		1		5	0		0	0	13
Total (without Belgium)	123	12		17		112	26		13	16	319
Total (including Belgium)	127	12		18		132	32		13	22	356

Source: Federal register of Health Practitioners

Table 28 Influx foreign diplomas, approved by the unit "International Recognitions" of the FOD Public Health, 2004

Year 2004	Occupation										
	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives	Caretaker	Psychologists	Physiotherapists & assoc. professionals	Paramedics	Total
Belgium	11	1		0		30	10		2	3	57
France	45	3		9		81	31		4	9	182
Germany	28	6		0		37	2		2	2	77
Italy	32	2		0		0	1		0	2	37
The Netherlands	18	7		2		26	12		16	5	86
Other EU-15	22	5		3		14	4		2	4	54
Total EU-15 (without Belgium)	145	23		14		158	50		24	22	436
Total EU-10	5	2		0		1	1		1	0	10
Other EU/EEA-countries	5	0		0		5	0		1	0	11
Total EU/EEA-countries (without Belgium)	155	25		14		164	51		26	22	457
Morocco	0	0		0		0	0		0	0	0
Other non-EU/EEA-countries	3	0		1		1	0		0	0	5
Total non-EU/EEA-countries	3	0		1		1	0		0	0	5
Total (without Belgium)	158	25		15		165	51		26	22	462
Total (including Belgium)	169	26		15		195	61		28	25	519

Source: Federal Register of Health Practitioners

Table 29 Influx foreign diplomas, approved by the unit "International Recognitions" of the FOD Public Health, 2005

Nationality and/or country of origin	Occupation										
	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives	Caretaker	Psychologists	Physiotherapists & assoc. professionals	Paramedics	Total
Belgium	10	0		1		31	2		4	1	49
France	20	5		10		68	24		7	11	145
Germany	28	0		0		19	1		0	0	48
Italy	29	1		1		1	0		1	0	33
The Netherlands	35	3		3		46	17		7	9	120
Other EU-15	35	2		1		16	2		4	1	61
Total EU-15 (without Belgium)	147	11		15		150	44		19	21	407
Total EU-10	32	2		1		1	4		1	1	42
Other EU/EEA-countries	5	0		0		3	1		2	1	12
Total EU/EEA-countries (without Belgium)	184	13		16		154	49		22	23	461
Morocco	0	0		1		0	0		0	0	1
Other non-EU/EEA-countries	7	0		2		7	1		0	0	17
Total non-EU/EEA-countries	7	0		3		7	1		0	0	18
Total (without Belgium)	191	13		19		161	50		22	23	479
Total (including Belgium)	201	13		20		192	52		26	24	528

Source: Federal Register of Health Practitioners

Nurses are included in a sectoral European regulation (Richtlijn 77/452/EEG, P. Schoukens, p. 40). In Belgium this only applies to the general responsible nurse (which does not include psychiatric nurse) and is not relevant for the second level nurses (ziekenhuisassistente) (Ibidem, p. 41). The recognition of specialized nurses is unclear: within the general diploma it is possible to follow a specialization, but beyond that degree it is also possible to follow an additional specialization (P. Schoukens, *ibidem*, p. 41). In addition there is also a difference in the Dutch speaking and French speaking education system (see Pacolet, Merckx for further information). The regulation is applicable for as well salaried as independent work.

A recent manpower planning study for nurses in the Brussels region reveals there is a huge untapped reserve of female immigrants from the second generation who are confronted with high unemployment and lacking education opportunities (Pacolet J., Leroy X., Cattaert G., Coudron V. & Gobert M., 2005). Studies for the nursing and caring profession in Brussels illustrate that there are real opportunities for participation, integration and emancipation in those professions. Improving education trajectories with clear success rates are not only beneficiary to those persons themselves, but to society as a whole since it will help to cope with the growing needs for an adequate workforce for the health and caring sector. It speaks for itself that this participation in education is relevant for all health professions.

This observation is in line with a recent general study on the participation of migrant workers in the Belgian labour market. Their share in total employment is one of the highest (8% of the total workforce according to the OECD (quoted in Okkerse, Termote, 2004)) but low compared to the relative workforce and differentiated enormously according to nationality. The employment ratio of women of Turkish and Moroccan origin amounts to 1/5 (only 10%!) of the indigenous employment ratio for female population (table 1 in Okkerse, Termote). The difference in educational level between the autochthonous and the migrant population is, within the exception of two categories, very similar to the indigenous population, because they are most of the time a EU-member. One category is better qualified (those from other non EU countries) and one, the Turkish and Moroccan community, is definitively lower qualified. One final observation confirms those partial observations: the sectoral distribution of the autochthones and migrant population is similar with some under representation of migrants from EU countries and other non EU countries in the service sector in which the health and social care is the most important (also other public services),

but the most under representative is the share of the Turkish and Moroccan migrants. This is certainly because of the combination of the very low labour market participation of those women and the overall lower labour market participation of this group. This will imply a major problem of under representation of those categories in the caring sector, but hopefully the policy of diversity will improve this. It will certainly have a positive effect to alleviate the real or alleged phenomenon of shortages.

6. EDUCATION AND TRAINING

The organisation of the education system is the responsibility of the Flemish, French and German-Speaking Communities. They also regulate the conditions of entry and the degrees provided by the education system. For some of the medical professions the 'numerus clausus' or 'contingentering' is also organised by them.

During recent years more detailed information became available about nationality and of those entering and leaving the education system.

Recent analysis of the medical manpower planning in Belgium for medical doctors, dentists, physiotherapists and nurses and midwives should be responsive to the growing needs of the population. In the first three professions this implies that if the potential of over supply or over consumption is controlled, the control of medical school intake (or those licensed to practice) could be alleviated. The study of the nursing and caring profession illustrates how the last decennia the profession was characterised by a huge increase in employment, accommodated by, up until now, high or even increasing interest for those professions by the students. The education planning should further maintain this high level of attraction, avoiding rationing in education that could create shortages in the profession later on, which has been shown clearly in our study on the nursing profession. 'Rationing in the education system creates its own shortage', we could say paraphrasing 'supply creates its own demand'.

It could also create unneeded or at some time even undesired mobility because of spill over effects in neighbouring countries. The EU and its free movement of people, students and workers and now its completion of the internal market for services create the maximum of mobility that was intended. But certain types of regulation could create undesired side effects. In order to control costs and plan the supply of health care, health care planning resulted in many countries to rationing in education places, some time with the intended effect of limiting the number of health professionals, but sometime also with the unintended effect of shortages (see above). Some students look even for education opportunities in other countries. Especially when the control of intake in medical schools does not exist in one country, students from other countries where this does exist will be attracted. Belgium is one of the countries that introduced the control of students for MD and dentists rather late, and was one of the last to introduce such a control for physiotherapy (not until 2005 where the first contingency was applicable). For nursing there are no limits in the education system, while it does exist in some

way in neighbouring countries as France and the Netherlands. This is for the moment extremely the case in physiotherapy, but also for nurses, in the French speaking part of our country. As showing in next table the education system was in the last years flood with students from France

For physiotherapists two trajectories exist in Flanders as well as in the French speaking system: a professional bachelor and master system in a college of higher education and a university degree of at a certain moment five and for the further future again four years (Pacolet, Coudron, Merckx, Cattaert, Peetermans, 2005, p. 24-25). The professional master remains important in as well the Flemish and French speaking community, even though the professional degree was reduced significantly for the first time due to the fact that certain universities stopped organizing this training. This was in view of the announced numerus clausus in physiotherapy. In the French speaking region the professional degree remains important but more than 75% of these students were foreign students (from France). They were found in the recognized certificates. The optimal education system was for more than two decades the subject of much discussion, but in 1999 the federal minister of health announced a numerus clausus as from 2003. Later it was reported to 2005. One of the main reasons for an apprehension for further over consumption, was attributed to the expectation of a significant high inflow of health professionals since the attraction for this profession had reached a historical top. The disappearance of some of those schools in Flanders can be considered as some self regulation. In Wallonia it did not occur, but the bachelor programmes were less present.

For nurses the presence of foreign students is also remarkable in the French speaking educational system. In 2000 Xavier e.a. estimates that 14% of the diplomas of the bachelor degree and 52% of the 'certificats' were obtained by foreigners, of which for the latter group 32,9% were members of the EU but non-resident (most of them from France), while from the non-EU foreigners, most of them were resident and probably part of the foreign community (they are of course also within the Belgian student persons of foreign origin). Remark that both groups are attracted by the lower qualified educational trajectory. For the foreign non EU residents in Brussels we observe a greater barrier on all levels. For those coming for France, this is not so evident. Perhaps they choose the easier way, which is also the case for physiotherapy, but any way they choose a way with more chance of success, or perhaps the equivalent trajectory does not exist in their country (Xavier, p. 25). This situation is even more pronounced in Brussels

(Pacolet, Leroy, Cattaert, Coudron, Gobert, 2005). This situation did not change since then. In 2005 almost half of the students in the vocational training system ('certificate') are coming from France. For the moment the Walloon government is negotiating with France to limit this number of students. One conclusion is also clear: this internal migration of students can occur because of restrictions in the education system in the home country. It is of course, as we mentioned already in our previous European study on manpower problems, completely inefficient to mention on one hand shortages, and on the other hand organize limitations in access to the educational system.

The free movement of workers interferes also with the national strategies on contingency of doctors or other professions. It would imply that there is a limit to enter the profession for the inhabitants, while foreign practitioners could not be prohibited to enter the field. On the other hand a contingent of national practitioners, based on national planning and confronted with outward migration, could be confronted with shortages.

Something similar existed in Flanders for the physicians².

There is also limited information on the emigration of Belgian medical professionals. The last years some 180 physician left Belgium for France, and also from the Dutch speaking side at a certain moment there was a growing emigration towards the Netherlands. Nevertheless, the number of those practitioners remained limited.

Language, numerus clausus and migration are recently creating unexpected new problems. In Brussels and the Dutch speaking region around, problems are signalled for medical urgency units (MUG) where the medical staff from Brussels hospitals is sometime, because of numerus clausus, a foreign student specialising in Belgium, but not knowing the Dutch language (what of course can also be the case with staff from the French speaking community). The Health inspection for Brussels and Flemish Brabant (Reginald Moreels, a former state secretary) is

² This interest from the Netherlands for our education system in the Dutch speaking part is spread over the complete educational system. From the primary school already there is a growing interest for school participation, another reason of interest for the secondary school system is the attractiveness of technical and vocational schools ('technisch en beroepsonderwijs'). This creates a growing concern of growing costs for Flanders to finance those Dutch pupils and a European compensation fund is proposed in Flanders. For the higher education, the flows seems to be more balanced and there are agreements between Flanders and The Netherlands WWI in Nieuwsblad, 14 april 2006, see also Vlaams Parlement, Van Baelen, Vanderpoorten in week nadien.

asking that measures are taken to avoid this, for example requiring also the foreign doctors in training to follow a language course Dutch of one or two weeks (De Standaard, 13 april 2004).

7. ANY OTHER RELEVANT ASPECTS

In the French speaking community, there is a flood of students from France in several medical professions and the veterinary discipline. Following figures illustrate this situation. For that reason the Minister of higher education from the French Community proposed in February 2006 (Dossier de Presse Marie-Dominique Simonet, 2006), within the possibilities of the European free movement of persons to guarantee a democratic and large access to a system of qualification of high degree, (P. 5) to limit the number of foreign students to 30%. Even with this restriction they qualify Belgium as an education system with a high degree of foreign students. The reason of the presence of those foreign students is mostly because of restrictions in the home country, what makes it an exporting of the need to train adequately their workforce. So the French speaking region in Belgium is confronted with a relatively large number of French speaking students from France which provides a huge inflow, which is similar to the situation that Austria was confronted with because of the inflow from Germany³. Those proposals have been discussed with the authorities in France (La Libre Belgique, 29/09/2005), and by the way are not without discussion in Wallonia itself because some schools (Doornik for instance) are expecting an enormous decline in the number of their students, putting the viability of the institutions at risk and therefore implying a loss of jobs in those institutions (Persoverzicht KU Leuven, 26 february 2006).

³ Austria excluded foreign EU students from medical studies if they were in their home country confronted with a numerus clausus, as was the case in Germany. The Court of Justice cancelled this regulation in July 2005, leading to a spectacular inflow of German students in Austria. The French Community is taking the arguments of the decision of the Court of Justice into account to propose its own regulation. Dossier de presse 3 februari 2006).

8. CONCLUSION

Belgium is not sheltered against the discussion about shortages in health professionals on one hand and plethora and so need to control the entrance in the medical schools on the other hand. The policy to control entrance in the education system of medical doctors, dentists and physiotherapists is of recent date, and is going to have its effect from now on. The numerus clausus organised in neighbouring countries created a greater inflow of foreign students and caused demands for applying the supply control also on foreign students in Belgium, or limit them further in those education system (physiotherapy, nursing) where their relative importance becomes problematic for a proper organising of education for the local population.

The migration flows are however limited, as can be expected because of linguistic barriers to entry. Those asking recognition of their foreign certificate are most of the time coming from France, the Netherlands and to a lesser degree from Germany. The lower the level of the health professional, the smaller those groups are. For the nursing profession, where there is a public discourse about the present or future danger of shortages, the migration flow remains limited and does not seem to be a significant factor in avoiding shortages. Several recent manpower planning studies for those professionals indicate furthermore that Belgium succeeds fairly well in providing new practitioners for those professions because of historical high levels of attraction of those studies. Further and improved participation of migrant students could increase the success. The policy should further try to maintain a broad and attractive education system in health professions to accommodate further needs. Since rationing and lack of supply in the national educational system might provoke shortages or international mobility and migration, those side-effects should be taken into account when designing a supply policy for health professions.

Migration of foreign health professionals seems to be in some cases undesirable, unrealistic and unfeasible. It is undesirable if it would imply that there is a brain drain of qualified workers from developing countries that will need those professionals to establish a decent health care system, it is unrealistic when it concerns migration flows from developed and neighbouring countries which are confronted with coming shortages, sometimes creating those shortages themselves by rationing in the education system and the supply, and trying to export their shortage or rationing in education expenditures. And finally it seems to be

unfeasible when it is observed how for instance language barriers remain to exist, and other reasons restraining people from migration.

ANNEXES

Annex 1: Institutions and organisations involved in managing migration with regard to the health sector.

Provinciale Geneeskundige Commissies

Internationale erkenningen

Diensten Arbeidsbemiddeling Gewesten

Municipalities

Dienst Vreemdelingen FOD Binnenlandse Zaken

RSVZ- INASTI

FOD WASO en TSW

RIZIV- INAMI, Dienst voor geneeskundige verzorging

FOD Volksgezondheid, Veiligheid van de voedselketen en Leefmilieu, DG

Basisgezondheidszorg, Dienst Organisatie en Planning, Cel planning

FOD Volksgezondheid, Veiligheid van de voedselketen en Leefmilieu, DG

Basisgezondheidszorg, Dienst Organisatie en Planning, Cel kadaster van gezondheidsberoepen

FOD Volksgezondheid, Veiligheid van de voedselketen en Leefmilieu, DG

Basisgezondheidszorg, Dienst Erkenning Gezondheidszorgberopen, Cel

Internationale Zaken

Toekennen beroepskaarten voor vreemdelingen De FOD Economie, KMO, Middenstand en Energie, Algemene Directie KMO- beleid Dienst "beroepskaarten"

WTC III, Simon Bolivarlaan 30 te 1000 BRUSSEL

Tel.: 02/208 51 04 of 208 51 29

Fax: 02/ 208 51 47

Annex 2: An annotated bibliography in accordance with the documentation structure of the EMN.

Annex 3: Relevant statistics.

Table 30 Foreign certificates, approved by the unit “International Recognitions” of the FOD Public Health in 2003

Year 2003										
Nationality and/or country of origin	Occupation									
	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives	Psychologists	Physiotherapists & assoc. Professionals	Paramedics	Total
Austria	0	0		0		1		0	0	1
Belgium	4	0		1		20		0	6	31
Denmark	0	0		0		0		1	0	1
Finland	1	0		0		3		0	1	5
France	34	4		5		47		0	5	95
Germany	25	2		0		20		3	3	53
Greece	11	1		0		0		0	0	12
Ireland	1	0		0		1		0	0	2
Italy	14	0		4		4		1	2	25
Luxembourg	0	0		0		1		0	0	1
The Netherlands	18	4		3		15		7	2	49
Portugal	0	0		1		0		0	0	1
Spain	2	0		3		12		1	1	19
Sweden	1	1		0		0		0	0	2
United Kingdom	8	0		0		2		0	2	12
Total EU-15	119	12	0	17	0	126	0	13	22	309
Slovakia	0	0		0		0		0	0	0
Slovenia	0	0		0		0		0	0	0
Poland	0	0		0		0		0	0	0
Lithuania	0	0		0		0		0	0	0
Latvia	0	0		0		0		0	0	0
Malta	0	0		0		0		0	0	0
Cyprus	0	0		0		0		0	0	0
Czech Republic	0	0		0		0		0	0	0
Estonia	0	0		0		0		0	0	0
Hungary	0	0		0		0		0	0	0

Total EU-10	0	0	0	0	0	0	0	0	0	0
Norway	0	0		0		0		0	0	0
Iceland	0	0		0		0		0	0	0
Liechtenstein	0	0		0		0		0	0	0
Switzerland	1	0		0		1		0	0	2
Total EU/EEA	120	12	0	17	0	127	0	13	22	311
Cameroon	1	0		1		1		0	0	3
Canada	1	0		0		0		0	0	1
Congo	1	0		0		0		0	0	1
Cuba	1	0		0		0		0	0	1
Philippines	0	0		0		1		0	0	1
Iran	0	0		0		1		0	0	1
Morocco	0	0		0		1		0	0	1
Romania	2	0		0		0		0	0	2
Tunisia	0	0		0		1		0	0	1
U.S.A.	1	0		0		0		0	0	1
Total non-EU/EEA	7	0	0	1	0	5	0	0	0	13

Source: Unit "International Recognitions" FOD Public Health

Table 31 Foreign certificates, approved by the unit “International Recognitions” of the FOD Public Health in 2004

Year 2004										
Nationality and/or country of origin	Occupation									
	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives	Psychologists	Physiotherapists & assoc. Professionals	Paramedics	Total
Austria	2	0		0		0		1	0	3
Belgium	11	1		0		30		2	3	47
Denmark	0	0		0		0		0	0	0
Finland	1	1		0		2		0	0	4
France	45	3		9		81		4	9	151
Germany	28	6		0		37		2	2	75
Greece	7	3		0		0		0	0	10
Ireland	0	0		0		0		0	0	0
Italy	32	2		0		0		0	2	36
Luxembourg	0	0		0		0		0	0	0
The Netherlands	18	7		2		26		16	5	74
Portugal	3	0		0		2		0	0	5
Spain	6	0		3		5		1	3	18
Sweden	1	1		0		0		0	0	2
United Kingdom	2	0		0		5		0	1	8
Total EU-15	156	24	0	14	0	188	0	26	25	433
Slovakia	1	0		0		0		0	0	1
Slovenia	0	0		0		0		0	0	0
Poland	2	2		0		0		1	0	5
Lithuania	0	0		0		0		0	0	0
Latvia	0	0		0		0		0	0	0
Malta	0	0		0		0		0	0	0
Cyprus	0	0		0		0		0	0	0
Czech Republic	1	0		0		1		0	0	2
Estonia	0	0		0		0		0	0	0
Hungary	1	0		0		0		0	0	1

Total EU-10	5	2	0	0	0	1	0	1	0	9
Norway	0	0		0		1		0	0	1
Iceland	0	0		0		0		0	0	0
Liechtenstein	0	0		0		0		0	0	0
Switzerland	5	0		0		4		1	0	10
Total EU/EEA	166	26	0	14	0	194	0	28	25	453
Colombia	1	0		0		0		0	0	1
The Dominican Republic	1	0		0		0		0	0	1
Nigeria	0	0		1		0		0	0	1
Philippines	0	0		0		1		0	0	1
Venezuela	1	0		0		0		0	0	1
Total non-EU/EEA	3	0	0	1	0	1	0	0	0	5

Source: Unit "International Recognitions" FOD Public Health

Table 32 Foreign certificates, approved by the unit "International Recognitions" of the FOD Public Health in 2005

Year 2005	Occupation									
Nationality and/or country of origin	Medical doctors/physicians	Dentists	Dental assistants	Pharmacists	Pharmaceutical assistants	Nurses/midwives	Psychologists	Physiotherapists & assoc. Professionals	Paramedics	Total
Austria	8	0		0		2		0	0	10
Belgium	10	0		1		31		4	1	47
Denmark	0	1		0		2		0	0	3
Finland	2	0		0		0		0	0	2
France	20	5		10		68		7	11	121
Germany	28	0		0		19		0	0	47
Greece	9	0		0		0		0	0	9
Ireland	0	0		0		2		0	0	2
Italy	29	1		1		1		1	0	33
Luxembourg	0	0		0		0		0	0	0
The Netherlands	35	3		3		46		7	9	103
Portugal	1	1		0		1		0	0	3
Spain	8	0		1		2		3	0	14
Sweden	1	0		0		3		0	0	4
United Kingdom	5	0		0		3		1	0	9
Total EU-15	156	11	0	16	0	180	0	23	21	407
Slovakia	3	0		1		0		0	0	4
Slovenia	0	0		0		0		0	0	0
Poland	12	0		0		1		0	1	14
Lithuania	2	1		0		0		0	0	3
Latvia	0	0		0		0		0	0	0
Malta	0	0		0		0		0	0	0
Cyprus	0	0		0		0		0	0	0
Czech Republic	3	0		0		0		1	0	4
Estonia	0	0		0		0		0	0	0

Hungary	12	1		0		0		0	0	13
Total EU-10	32	2	0	1	0	1	0	1	1	38
Norway	1	0		0		0		0	0	1
Iceland	0	0		0		2		0	0	2
Liechtenstein	0	0		0		0		0	0	0
Switzerland	4	0		0		1		2	1	8
Total EU/EEA	193	13	0	17	0	184	0	26	23	456
Benin	1	0		0		0		0	0	1
Bolivia	1	0		0		0		0	0	1
Brazil	2	0		0		0		0	0	2
Cameroon	0	0		0		1		0	0	1
Congo	0	0		1		0		0	0	1
India	0	0		0		1		0	0	1
Iraq	1	0		0		0		0	0	1
Morocco	0	0		1		0		0	0	1
Russia	0	0		1		0		0	0	1
Turkey	0	0		0		1		0	0	1
USA	0	0		0		1		0	0	1
Philippines	0	0		0		3		0	0	3
Venezuela	1	0		0		0		0	0	1
Total non-EU/EEA	6	0	0	3	0	7	0	0	0	16
Belgium and France	0	0		0		1		0	1	2
Germany and France	1	0		0		0		0	0	1
Missing	1	0		0		0		0	0	1

Source: Unit "International Recognitions" FOD Public Health

Malta									
Cyprus									
Czech Republic	7					6			2
Estonia									
Hongary	7	1				7			5
Total EU-10	44	3	0	0	0	43	0	0	17
Norway	5	3				4			11
Iceland									
Liechtenstein									
Switzerland	22	2				18			42
Total EU/EEA	47 935	8 937	0	0	0	122 890	0	0	28 961
Total EU/EEA (without Belgium)	3 480	377	0	0	0	2 886	0	0	1 397
Albania						64			2
Algeria	4	3				105			15
Brazil	1					1			3
Burundi	1	1				10			6
Cameroon	4					11			20
Canada	96	12				7			11
Chile	13					14			15
Colombia	5					2			12
Congo	2					88			7
Philippines	77	3				10			44
Gabon						1			2
Indonesia	3					3			3
Iran	29					7			7
Israel	23	9				2			27
Ivory Coast	9	3				4			11
Lebanon	1					2			9
Mauritius	44	13				15			21
Morocco	7					510			1
Romania	35	3				24			73
Rwanda	5					25			3

Syria	3					0			27
Tunisia	1	1				17			4
U.S.A.	15	1				6			22
Other African countries	33	5				21			12
Other American countries	50	1				42			29
Other Asian countries	22					122			25
Other European countries	27	2				16			57
Total non-EU/EEA	5	1				1 129			3
Missing	515	58	0	0	0	15 366	0	0	471
Displaces persons	920	74				2			4 703
UN-refugee						44			

Total: Federal Register of Health Practitioners

Bibliography

- Pacolet J., Merckx S., (2006), *Managed Migration and the Labour Market The Health Sector. The Belgian case*, Report prepared for the European Migration Network Small Scale Study II, HIVA, 2006
- Pacolet J., Merckx S., (2006), *Het planningmodel kinesitherapie: vraag en aanbod voor de totale beroepsgroep* Federale Overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu
- Jozef Pacolet, Sigrid Merckx (2006), *Het planningmodel verpleegkunde en vroedkunde: vraag en aanbod*, Federale Overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu
- Pacolet J., Cattaert G. , Coudron V., Peetermans A., S. Merckx (2005), 'Het planningmodel kinesitherapie- The planning model physiotherapy, *FOD Volksgezondheid Planningcel Planningcommissie en HIVA KULeuven*.
- Pacolet J., Deliège D., Cattaert G. & Artoisenet C. (2004), *Manpowerplanning voor gezondheidsberoepen. Ressources humaines en santé. Offre, demande et 'besoins' actuellement et à l'avenir*, HIVA-K.U.Leuven, SESA-UCL, Leuven/Brussel.(also synthesis report available in Dutch and French)
- Schneider M., Pacolet J. & Van der Velden L. (2004), *HLA. Implementing the concept of health care manpower in member states on a prototype basis*, Basys/Hiva/Nivel, Augsburg/Leuven/Utrecht.
- Pacolet J., Leroy X., Cattaert G., Coudron V. (2004), *Plus est en vous herbekeken: Manpowerplanning in de zorgsector en de socioculturele sector, Deel 6. Synthese voor de zorgsector 1995-2020 in België*, HIVA-K.U.Leuven/SESA-UCL, Leuven/Brussel.
- Leroy X., Pacolet J., Cattaert G., Coudron V. (2004), *Plus est en vous révisé. Manpower planning dans le champ de la santé et de l'aide sociale, Synthèse pour la Belgique, 1995-2020*, SESA-UCL/HIVA-K.U.Leuven, Brussel /Leuven.

-
- Pacolet J., Leroy X., Cattaert G., Coudron V., Gobert M. (2004), *Plus est en vous driemaal. Manpowerplanning in de zorgsector in Brussel – Plus est en vous 3ième. Manpower planning dans le champ de la santé à Bruxelles*, HIVA-K.U.Leuven/SESA-UCL, Leuven/Brussel
- Pacolet J., Leroy X., Cattaert G., Coudron V., Gobert M. (2004), *Plus est en vous herbekeken: Manpowerplanning in de zorgsector en de socioculturele sector, Deel 6. Synthèse voor de zorgsector 1995-2020 in België*, HIVA-K.U.Leuven/SESA-UCL, Leuven/Brussel.
- Pacolet J., Van De Putte I (2004), *Zorgplanning voor voorzieningen voor personen met een handicap in Oost-Vlaanderen*, HIVA-K.U.Leuven, Leuven.
- Pacolet J., Van De Putte I., Marchal A., Cattaert G., Degreeef T., Verbrugghe K., Dewilde S (2002), *Plus est en vous herbekeken. Manpowerplanning in de zorgsector en de socioculturele sector, Deel 2. De vraag naar zorgberoepen in de Vlaamse Gemeenschap, 1995-2000*, HIVA-K.U.Leuven, Leuven.
- Pacolet J., Van De Putte I., Cattaert G., Coudron V., Degreeef T., Verbrugghe K. (2002), *Plus est en vous herbekeken. Manpowerplanning in de zorgsector en de socioculturele sector, Deel 3. Prognose tot 2005 en scenario's tot 2020 voor de zorgsector in de Vlaamse Gemeenschap*, HIVA-K.U.Leuven, Leuven.
- Pacolet J., Van De Putte I., Cattaert G., Coudron V. (2002), *Plus est en vous herbekeken. Manpowerplanning in de zorgsector en de socioculturele sector, Deel 5. Synthèse voor de zorgsector in de Vlaamse Gemeenschap, 1995-2020*, HIVA-K.U.Leuven, Leuven.
- Pacolet J., Cattaert G. & Coudron V. (2002), *Plus est en vous herbekeken. Manpowerplanning in de zorgsector en de socioculturele sector. De kinesitherapie in Vlaanderen 1995-2020*, HIVA-K.U.Leuven, Leuven.
- Pacolet J., Versieck K., Bouten R., Deschamps M. (1998), *The nursing profession: issues of demand, status and working conditions in OECD, The future of female-dominated occupations.*

OECD, *The Nursing Profession: Issues of Demand, Status and Working Conditions*, 1998, in OECD, *The Future of Female - dominated occupations*, OECD, 1998.

Pacolet J., Versieck K., Bouten R., Deschamps M., *The Nursing and Midwifery Profession in OECD-Countries*, Research Paper, HIVA, 1998.

Versieck K., Bouten R. & Pacolet J., *Manpower problems in the nursing/midwifery profession in the EC. Country-comparative report*, HIVA-K.U.Leuven, Leuven, 1995.

Versieck K., Bouten R. & Pacolet J., *Employment problems in the field of nurses and midwives in the EC, summary and political recommendations*, HIVA-K.U.Leuven, Leuven, 1995.

Versieck K., Bouten R. & Pacolet J., *Employment problems for nurses in Belgium and the EC*, HIVA-K.U.Leuven, Leuven, 1995.

Versieck K., Bouten R. & Pacolet J., *Personalprobleme bei Krankenpflegern und Hebammen in der EG. Zusammenfassung und Empfehlungen zum Betreiben einer Politik*, HIVA-K.U.Leuven, Leuven, 1995.

Versieck K., Bouten R. & Pacolet J., *Manpower Problems in the Nursing/Midwifery Profession in the EC. Country-comparative report*, HIVA-K.U.Leuven, Leuven, 1995.