Methodology

Healthcare Professionals Reports

Methodology and elements of interpretation



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1. INTRODUCTION

The Appropriate Care Unit was created within the Research-Development-Quality Directorate of the NIHDI's Healthcare Service as a result of the NIHDI's 2016-2018 Administration Contract¹. In Article 35, this Contract refers to 'the setting up of an Appropriate Care Unit targeting, more specifically, an integrated approach to the rational use of resources'. The Appropriate Care Unit was set up since the second quarter 2017.

The concrete implementation of the Unit was formalised in the '2016-2017 Healthcare Monitoring Action Plan', published by the NIHDI on 18 July 2016². This plan lists around thirty measures aimed at optimizing health-care efficiency by encouraging appropriate practices and by avoiding unnecessary care.

The plan states that the tasks of the Appropriate Care Unit include analysing the 'relevance of care,' with the aim of identifying unexplained variations in consumption emerging after standardisation of the Belgian population. These variations are indeed potentially a sign of non-optimal use of resources.

In this context, the Healthcare Professionals Reports shed light on the variations in practice that would be linked to the distribution of professionals in the territory and their accessibility.

The Healthcare Professionals Reports provide a comprehensive overview by healthcare profession working within the Belgian health insurance system in hospital and ambulatory settings. The reports cover health professions and subspecialties in the following disciplines: medicine, dentistry, ambulatory nursing and midwifery, physiotherapy and logopaedics. Note that the activity of salaried healthcare professionals, such as nursing or physiotherapy in hospital, cannot be measured and those professionals are excluded from this report.

From the professional perspective, several aspects are covered: capacity, accessibility, continuous professional development, level of activity, working place, workload, patient base, evolution of workforce demographics.

From the patient perspective, accessibility and frequentation are covered.

¹ (National Institute for Health and Disability Insurance, 2016)

² (National Institute for Health and Disability Insurance, 2016)

2. GENERAL REMARKS

Compilation of data needs time. Data on professionals are available with a 1 year delay. Data on insured persons frequentation are available with 2 years delay.

The average amount of expenses cannot be equated to the income of healthcare providers. These expenses do not include any additional charges or copayments. Moreover, many hospital specialties must allocate a portion of these amounts to fund the technical facilities or the use of premises.

The patient analysis considers actual years during which the care took place, not accounting years unlike the other analyses.

To address General Data Protection Regulation (GDPR) compliance for small cells, numbers from fewer than five registered healthcare providers are hidden.

A KPI (Key Performance Indicator) colour system is used in this report. It is shown as:

- Grey for contextual information
- Green for positive performance compared to the starting year
- Red for negative performance compared to the starting year

The metrics in this report were not standardized to a specific population which implies that comparisons between regions or provinces may not be entirely fair or accurate.

For illustration purposes the sheets for general practitioners are shown throughout this methodologic document.

3. ANALYSIS METHODOLOGY: SELECTION AND COMPUTATION OF INDICATORS

A. Description of healthcare providers in 2023

The first section of the reports provides insight into the healthcare professionals of a specific specialty by showing:

- A set of basic metrics of the specialty versus a comparison group (metrics are total Full-Time Equivalent; distribution of healthcare providers according to convention and accreditation status, age class, etc.),
- The geographical accessibility (numbers of healthcare providers available per province, per insured person, per sex, etc.),
- The financial accessibility (by considering only conventioned healthcare professionals distributed per province or region, and per insured person),
- The continuous professional development (by highlighting accredited healthcare professionals in each province/region and their availability per insured person.
- Trainees are excluded from the current description of healthcare professionals.

1. Data source and data preparation

The description of the population of healthcare providers is carried out on the basis of the "SZV" database which is a compilation of all healthcare providers recognised by NIHDI (i.e. who have a NIHDI number). This database consists partly of information provided by the healthcare professionals themselves such as their activity status, addresses, etc., through the **ProSanté/ProGezondheid** platform (replacing MyInami platform). Only professionals with a NIHDI number have access to that platform.

Each healthcare provider is characterized on the basis of his activity status on December 31st 2023. Only self-declared active and retired professionals were considered. Retired persons are recorded because they keep their medical prescription authorisation (e.g. in 2023, around 20% of retired general practitioners carried out at least one medical activity). Some professionals display two distinct NIHDI numbers as they have qualifications in two distinct health care professions. In that case and to avoid double counting (which would lead to an overestimation of the total number of professionals), only the NIHDI number related to the highest diploma or the highest median annual income is considered. Other characteristics of each healthcare provider are extracted from the database or computed:

- Precise **qualification** (skill-area, or specialty; thereafter-called "competency code") as on NIHDI's website;
- **Convention status**. The values are fully conventioned, partly conventioned or not conventioned. A convention is a periodic agreement between healthcare providers and NIHDI. Especially, the convention guarantees that the health professional will apply the NIHDI tariffs or fees. In return, the professional receives various social benefits from the NIHDI;

- Birth date in order to calculate age or age-classes;
- **Gender** (male or female);
- Native language. Two groups are considered in reference to the two largest regions in Belgium: French-speaking (coded FR) which includes German-speaking people (Wallonia) and Dutchspeaking for Flanders (coded NL);
- **NIS code** (an administrative location number specific to each Belgian municipality) of either his work address or any known contact address if the work address is not available;
- Accreditation status. Accreditation covers physicians, dentists and pharmacist-biologists. Accreditation is different to the licence to practise. It refers to a recognition of continuing training by the health professional and is valid for a specific period. It is a guarantee of quality of care over time;
- The total annual services in terms of **number of cases** and **amount reimbursed** by insurance funds (thereafter-called "expenses"), as recorded in the NIHDI "P Documents" database (Doc_P; a compilation of individual services provided by insurance funds).

With the exception of birth date and annual services, all these descriptors are considered at their individual specific value <u>on the last day of the year</u>. Annual services gathered from Doc_P refer to an accounting year: they cover not only the target year but also the previous two years because reimbursement can be done up to two years after the service date.

Thereafter, each healthcare provider is assigned to a particular **professional group** taking into account his qualification (or specialty) and following the general taxonomy of international bodies such as OECD (Organization for Economic Cooperation and Development) and the EC (European Commission). One notable exception concerns stomatologists who are included in the group of physicians (Belgium) rather than dentists (OECD/EU).

Active professionals: there is a distinction between self-declared active (including retired professionals) and active professionals: active professionals are self-declared active who either have performed at least two medical services during the year or were working in medical homes (true active professionals).

Finally, a **full-time equivalent (FTE)** is estimated for each healthcare professional. As NIHDI databases do not allow any estimate of work time, the FTE are approximated through the annual amount reimbursed as follows:

- A reference group-amount is computed for each professional group, equal to the median volume of reimbursements for 45-54 age group of the target professional group;
- The FTE of a given individual is the ratio between the annual amount reimbursed by insurance funds for the services provided by this individual divided by the reference group-amount;
- A maximum FTE of 1 is given to those exceeding that threshold, assuming that no one should perform more than one FTE.

The calculation of FTEs may be impacted by modifications of the competency code classification over the years, potentially generating breaks in the evolution of FTEs (e.g. nephrologists were recognised

as their own competency since 2022. Prior to that, they were bundled with specialists in internal medicine.). The median value changes depending on the year (see Annex 1).

As there is no detailed services for healthcare professionals working in medical homes (MH), their individual FTE is deemed to be equal to 0.8226, based on a historical assessment.

	Speciality Metrics and	d Comparison (2023) : (General Practitioner	
This sheet compares the specialty of interest (left) with compa	rison group (right).			
		General Practitioner	Internal Pathology	Internal Dath classes
Competency Description Code	# N SubSpecialities	1	13	Profession Cardiologist
10003 Licensed General Practitioners 10004 Licensed General Practitioners + ECG	# N Total	18.518	9.345	Dermatologist Endocrinologist Gastroenterologist
	# N Active	14.286	7.538	General Internal Medicine Geriatrician
	# Full-Time Equivalent (FTE)	9.615	5.194	Hematologist Medical Oncologist Neurologist
	€ Expenses per FTE	200.075	427.666	Physical Medicine Pulmonologist Radiotherapist
		% Active % FTE	% Active % FTE	Rheumatologist
	65+	25% 18%	14% 8%	
		% Active % FTE	% Active % FTE	
	Convention	89%84%95%	79% 74% 84% 92%	
				4

2. Specialty Metrics and Comparison

This sheet compares the specialty of interest on the left to the reference group on the right. The comparison group for each specialty generally includes all specialties within the same category (e.g., urology compared to all surgical specialties). If a specialty has no closely related category, the comparison is made with a similar specialty based on the patient profile or, if no suitable match is found, with general medicine (e.g. psychiatry is compared to general medicine). By default, general medicine is compared to internal medicine specialties.

The indicators shown are the total number of healthcare professionals, the number of true active healthcare professionals, the number of FTE, the reimbursed expenses per FTE, the number of 65+ healthcare professionals, the convention and accreditation both in numbers of active and in FTE.

"N total" is the number of self-declared active or retired professionals via **ProSanté/ProGezondheid** platform.

"N active" is the number of professionals that performed at least two medical services during the year or were working in medical homes (true active professionals).

	Geographical Accessibi	lity (2023) : Ge	eneral	Practitioner		
	FTE per 10.000 Insured by Province		Demog	aphic Information	n by Provinc	ce
Geographical accessibility is measured by density, calculated as the number of FTE	A CASE OF	Province	#FTE	Density (FTE per 10.000 Insured)	%65+ (FTE)	%Women (FTE)
(Full Time Equivalent) per 10.000 insured		West-Vlaanderen	1.034,33	8,42	20%	42%
provinces and regions. Metrics in this report		Oost-Vlaanderen	1.344,44	8,51	16%	51%
were not standardized to a consistent		Antwerpen	1.482,08	7,75	15%	53%
population size.		Limburg	822,48	9,38	17%	47%
Indicators :		Vlaams-Brabant	915,95	7,80	18%	51%
Geographical distribution which enables to		Brussels	929,02	8,10	17%	52%
check for homogeneity.		Brabant Wallon	336,82	8,24	15%	58%
Evolution over 10 years and growth rate within that paying		Hainaut	1.074,96	8,00	21%	46%
Comparison of number of FTE and number of		Namur	456,20	9,04	16%	48%
insured to detect correlation.		Liège	984,05	8,90	20%	46%
		Luxembourg	235,07	10,34	17%	51%
	E Magazetting 2224 TomTom, 8 2024 Marcovet Corporation	FTE	Density	versus Insured D	ensity, by Pi	rovince
FTE per 10.000 Insured in Belgium (2023) 8,35 2013: 7,89 (+5.95%)	8	9	Namur Lim Liege Oosi Brabar West-V	burg -Vlaanderen Tyllion Panderen naut Antwerpen	Brus	Region Flander Brussels Walloni sels
	Elanderr Brussels Wallonia	10	100	1.000	10,000	100.000

3. Geographical Accessibility

Geographical accessibility is measured by the density, calculated as the number of FTEs per 10.000 insured person per region or province. Metrics in this report were not standardized.

The indicators are the geographical distribution which enables to check for homogeneity, the evolution over 10 years and the growth rate over that period and a comparison of number of FTEs per 10.000 insured persons and number of insured persons to check for putative relationships and disparities between provinces.

4. Financial Accessibility



Since convention offers a clear advantage to patients in terms of expenses, financial accessibility was measured by the number of conventioned FTEs per 10.000 insured persons. It was compared between languages, age classes and provinces. The conventioned FTEs for partially conventioned providers are calculated as half of their total FTEs.

The indicator shown is the percentage of conventioned FTEs relative to the total FTEs, globally, by language, province and age category.

5. Continuous Professional Development

		Continu	ous Pro	fessional I	Developmer	ent (2023) : General Practitioner			
CPD (continuous professional development) is measured by accreditation criteria. Accreditation means that the professional meets several CPD (continuous professional development) criteria (which indicates the will for quality of care).									
Indicator : • % FTE meeting the criteria / to	otal FTE								
	Í	Demog	raphic Info	rmation by Pro	vince	% Differences Accredited FTE by Province			
% Accredited FTE (202 95% 2013: 92% (+2.7	23)	Province	Density (FTE per 10.000 Insured)	Density (Accredited FTE per 10.000 Insured)	% Accredited FTE				
		West-Vlaanderen	8,42	8,21	98%	-C2-07577385850			
		Oost-Vlaanderen	8,51	8,28	97%				
		Antwerpen	7,75	7,51	97%	A CAN DE THE			
% Accredited FTE by	Language	Limburg	9,38	9,12	97%	A CARLAN AND AND AND AND AND AND AND AND AND A			
and Gende	r	Vlaams-Brabant	7,80	7,46	96%				
Language F M 1	Total	Brussels	8,10	7,27	90%				
FR 94% 88%	91%	Brabant Wallon	8,24	7,51	91%				
NL 99% 95%	97%	Hainaut	8,00	7,40	92%				
Total 97% 92%	95%	Namur	9,04	8,43	93%				
		Liège	8,90	7,97	90%				
		Luxembourg	10,34	9,65	93%				
		Total	8,35	7,90	95%				
	Evolution of Ac	credited FIE by Ag	e (2013 vs	2023)		> 50%			
96% 97%	92% 98%	93% 94%	91% 95%		%······	> 30% - 50%			
50%					• 2013 • 2023	>-10% -10% >-30% -10% >-50% -30%			
0%	35-44	55-64	45-54	65 +		<= -50% © 2024 TomTom, © 2024 Microsoft Corporation			

The continuous professional development (CPD) was measured via the accreditation status.

The indicator used is the percentage of FTEs fulfilling the accreditation criteria. The indicator is shown globally, by gender, by language, by age class and by province.

B. Subspecialties Activity and Working Place

In order to get a more detailed picture of the specific activity of practitioners, two main subdivisions were made:

- A categorization of their activity (FTE) helps to identify the specific field (subspeciality) in which practitioners mostly work, if any. This categorization is further divided according to two different logics of grouping (NIHDI groups from RIZIV/INAMI and more detailed activity patterns).
- A categorization of "type of working place" helps to identify where practitioners perform the majority of their services.

1. Data source and data preparation

To assign a health provider to a subspecialty, a link is first made between a service performed by a specialty of healthcare providers and the subspecialty field that this service corresponds to. For example, the service 'Pericardectomy' performed by a general surgeon corresponds to the subspecialty field of 'Cardiac surgery'.

The data source used for the analysis is the "P documents" database. For each provider, the totality of the performed services is compiled and analysed to highlight the subspecialty field that represents the majority of the healthcare provider's activity.

The main subspecialty field can then be relabelled as the subspecialty of the provider. For example, if a general surgeon's main subspecialty field is 'Cardiac surgery', the subspecialty of the provider will be "General surgeon – Cardiac".

The working place type is determined by identifying the care place where the majority of reimbursed services was registered.



2. Type of Activity, Working Place and Composition

The level of activity is measured by the total reimbursement amount of the specialty. The distribution of the reimbursement by specialty allows to distinguish different types of activity which are grouped to study what kind of procedures are done and where. The type of activity is described by two criteria: the type of working place and the nature of the activity:

- **The type of working place** is the place where the activity takes place (private, polyclinic, day hospital, hospital stay).
- The nature of the activity is described according to two logics of grouping. The traditional distribution of reimbursements within NIHDI (N01 contacts, N25 Thoracic surgery, etc.) and a specific, more detailed breakdown to identify sub-specialties within the specialty (i.e. subspecialty "CHG_CARDIAQUE" (cardiac surgery) for general surgeons).

The indicators provided are the reimbursement in euros per FTE and the reimbursement breakdown by category versus the total reimbursement. The evolution provides information on the stability of the patterns of the activity comparing year N with year N-5.

3. Description of category of activities and repartition of healthcare providers by category of activities

Subspecialties are ide amount exceeds 10% there is no clear disti <u>Indicators</u> : • % FTE by type of o • % type of activity	ntified by the w of reimbursem nction between luster (in Euro) / tota	orking place and/o ents in all types of the different locati reimbursement (ii	or type of activity (see previous activity, determines the special ons, then the cluster is named n euro) by cluster	page): the assignment of a ty of the health care provi "Mixed". Clusters less than	a health care provider to der. If no particular activit 5 FTE or less than 0,5% o	a sub-specialty prioritiz ty was identified for the of total FTE are left out.	es the type of activity exerc specialty, the assignment w Comparison of clusters help	ised. In general, the ras done on the crit is to understand di	type of activity with the erium of the workplace: ferences in nature of wo	e most reimbursements hospital, polyclinic, pri srk.	, if the vate. If
ETE and medi	an Reimhurs	ement by	Reimbur	sement by Working P	lace	Top 5 N	IHDI Groups		Top 5 Specif	ic Groups	
Subspecialty Cardiac Thoracic Obese Abdominal Aascular - P	FTE Ref 94 29 23 328 31 31	mb per Provider 404,019 251,554 270,362 237,499 169,779	16% 10%	69%	Working Place Private Poly DayHosp HospStay	29% 1	NIHDI Group N00 N01 70%-N23 N25 N25	20%	10% 8% 13%	Specifi CHG CHG CHG 60% CHG CON PRES	t Group _ABDOMINALS XAUTRE XCARDIAQUE S_CONSULTAT GTATIONS_TE
scular - A eneral	134	299,407 206,691	Reimbursement	w Working Place by	Subspecialty	Top NIHDI Grou	ine by Subenecialty		on Specific Groups	by Subspecialty	
ergency spi xed	33 6 77	46,636 192,868 254,111	Cardiac 11% Thorack 11% Obee 11% Abdominal 13% 13% Vascular - P 42% Vascular - A 10% 7% General 22% Emergeny 22% Hospi 13% 28%	98% 85% 82% 72% 21% 69% 20% 69% 20% 57% 84% 7% 55%	Private Proy DayHosp HospStay	Cardiac Thoracic Abdo	85% 90% 0.00 97% 90% 0.01 70% 90% 0.13 70% 90% 0.13 57% 20% 97% 0.23 75% 20% 94% 0.18 97% 30% 94% 0.18 97% 30% 94% 0.18 97% 30% 94% 0.13 97% 30% 94% 0.13 97% 0.03 95% 0.13 97% 0.03 0.95% 0.13 97% 0.02 0.95% 0.13 97% 0.02 0.95% 0.13 97% 0.02 0.95% 0.13	Cardiac Thoracic Obese Abdominal Vascular - A General Emergency Hospi Mixed	85% 41% 42% 43% 50% 50% 50% 50% 44% 22% 44% 22% 20%	100% 100% 100% 100% 100% 100% 100% 100%	ABDOMINAL VASCYARTER XAUTRE XCARDIAQUE XCIADIAQUE XDIGESTIFXO XONCOLOGIE XONCOLOGIE S, CONSULTAT S, SURVEILLA S, URGENCE TATIONS_TE

Health care providers are assigned to **subspecialities** according to the specific type of activity or, failing that, according to the type of workplace The assignment of a health care provider to a subspecialty prioritizes the type of activity exercised. In general, the type of activity with the most reimbursements determines the subspecialty of the healthcare provider. If no particular activity was identified for the specialty, the assignment was done on the criterium of the workplace: hospital, polyclinic, private. If there is no clear distinction between the different locations, then the subspecialty is named "Mixed". Subspecialties with less than 5 active practitioners or less than 0,5% of total FTE are left out. Comparison of subspecialties helps to understand differences in the type of activity.

The indicators shown are the FTEs and median reimbursement by subspecialty, the percentage of reimbursement by cluster, the top 5 NIHDI groups and the top 5 specific groups.

C. Patients perspective and healthcare providers workload

This part of the report focuses on the patient point of view of healthcare professionals in terms of the accessibility of healthcare providers - insured persons coverage and the number of contacts per insured person - and the **patient frequentation**. On the other hand the **workload** of the healthcare professionals is analysed in terms of the number of patients per FTE, the number of contacts per FTE and the number of contacts per povider.

1. Data source and data preparation

The starting point for the analyses from the patients perspective is the "P Documents" database, consisting of data sent semi-annually and within four months by the insurer-organisations to the NIHDI, based on patients who sought care in Belgium and claimed insurance reimbursement. These data include the services provided by healthcare professionals in the outpatient and hospital sectors.

The analyses from the patients perspective consider the actual years in which the place took care, not accounting years, unlike the other analyses in this report. For each analysis year, the last year available for patient analysis is the year before in order to present complete and reliable data. For the actual report, data are available for the care years 2018 to N-2 (time period to collect data).

In order to do a correct analysis of the workload per healthcare provider, each patient is assigned to a single provider in each specialty (providers in training are excluded). The provider who has seen the patient most often (different days) will be selected. In case of ex aequo, the provider who first saw the patient in the year was selected. For general medicine, the provider in charge of the Global Medical File (GMF) will be selected when the patient has one.

As a result, intermediate data are available per care year, per medical specialty, per patient with patient characteristics (sex, age, socio-economic status (standard vs. preferential reimbursement scheme), GMF, residence geography), the number of contacts and number of different healthcare providers seen.

Based on these intermediate data, two different summaries were derived:

- Patient perspective summary which serves as input for output sheets 1, 2, 3 and 4
- Healthcare provider perspective which serves as input for output sheet 5

The **patient perspective summary** was done by care year, medical specialty, region, province, sex, age category, socio-economic status, GMF status. Indicators related to GMF status are limited to age ranges from 30 to 85 years, because patients outside these age ranges can't have a chronic GMF. The main variables calculated are the number of patients and the number of contacts. The data includes healthcare providers in training.

The **healthcare provider perspective summary** was created by care year, medical specialty, sex*, age category*, accreditation status*, convention status*, language*. All characteristics with * are provider characteristics on December 31st of the considered year. The main variables calculated are the number of patients, the number of contacts and the number of contacts per provider. The data excludes healthcare providers in training.



2. Accessibility, Insured Coverage

The insure coverage was calculated as the percentage of insured persons having at least one contact per year with the specialty (including HCP in training). The global figure is shown as well as the values per gender, social status, age category, GMF status (insured persons between 30-85 years) and region of residence of the patients/insured population. The map shows the relative difference between the values in the provinces compared to the global national value.

Comparison between categories of patients helps to identify possible disparities in accessibility by criterium.

Insured persons must have physical contact to be counted. However there's an exception for general practitioners, because it includes patients registered in medical homes (with or without physical contact).

	ccessibility, C	contacts pe	r Insured (2	2022) : Gener	al Practiti	oner (fee for service)
Number of contacts per insured is a (2)	ontacts per Insure	d Insure (2022)	ed Coverage	Contacts po (2022)	er Patient	Average Contacts per Insured by Social Status (2018 vs 2022)
accessibility.	5,03		81%~	6,	23	6,49 6,69 Year
Indicator : number of contacts (by category	2018: 4,32 (+16.44%		8: 78% (+3.59%)	2018: 5,54	(+12.41%)	6
of insured) is respectively calculated	Age Patient	Contacts per Insured	Insured Coverage Co	ntacts per Patient		3.81
 per insured per patient (insured who at least has one 	00-04	3,40	69%	4,92		4
contact with health provider)	05-09	2,85	73%	3,88		
	10-14	2,71	73%	3,72		2
Categories of insured are defined by several criteria : gender, social status, age group.	15-19	3,66	78%	4,72		0
residence geography.	20-29	3,79	76%	4,97		BIM Standard
	30-39	4,34	79%	5,53		
	40-49	4,67	80%	5,87	% Diff	erences Contacts per Insured between
	50-59	5,38	83%	6,45		Provinces
	70.70	5,97	87%	6,69		
	70-79	11.04	91%	0,50		
Average Contacts per Insured (2018 vs	00+	11,04	34 70	11,05		
2022)						China haras
6	Province	Contacts per Insured	Insured Coverage Co	ntacts per Patient		
5,00	West-Vlaanderen	5.94	88%	6,73		
4,74	Oost-Vlaanderen	5,44	85%	6,44		and the second
4,08	Antwerpen	5,09	83%	6,16	\mathbb{N}	
4	Limburg	6,42	89%	7,20		Ky-contraction by
3,14	Vlaams-Brabant	4,91	82%	5,95		
2,64	Brussels	3,14	59%	5,28	> 50%	
2	Brabant Wallon	4,28	80%	5,37	> 30% - 50%	
	Hainaut	5,12	82%	6,22	> 10% - 30%	
	Namur	5,52	86%	6,44	> -10% - 10%	
	Liège	4,85	75%	6,46	> -30%10%	6 The share and
0	Luxembourg	5,13	86%	5,94	> -50%30%	
Flanders Brussels Wallonia				J	<= -50%	24 TomTom, © 2024 Microsoft Corporation, © OpenStreetMap
	-					

3. Accessibility, Insured Frequentation

As complementary measure to understand accessibility, the number of contacts was calculated:

- Per insured person
- Per patient (insured person who at least has one contact with the specialty)

The global figures for both indicators are shown as well as the values by age group and province of residence of the patients/insured population. The average number of contacts per insured person is shown by region and social status for 2018 and 2022. The map shows the relative difference between the values (2022) in the provinces compared to the global national value.



4. Patient Frequentation

Elaborating on the previous sheet, this sheet shows more details on the number of contacts per patient (insured person who at least has one contact with a specialty). The global figure is repeated and the breakdown by gender, social status, GMF status, province and age category are represented graphically.

Further the average number of providers per patient is shown, as well as the average age of the patients and the average patient age at contact (weighted average age taking into account the number of contacts each patient has).

	Complementarity with comparison group (2022) : Ge	eneral Practitioner	(fee for service)
Complementarity compares Indicators : • Insured coverage	s on the one side insured coverage and on the other side patient frequentation (contacts per patient).	Age Group D	istribution of Patients
Patient frequentation (conta	acts per patient)	7% 10%	6% 9%
Insured Coverage by Ag	ge Group	13%	12%
Specialty (Patient perspective)	General Practitioner Specialty (Patient perspective) Healthcare Personnel with Patient Contact		• 05-09
69% 73%	73% 78% 71% 79% 80% 85% 67% 44% 44%	14%	13% • 10-14 • 15-19
0%		12%	12% • 30-39
Patient Frequentation b	Age Group of Patients	12%	13% • 50-59 • 60-69
Specialty (Patient perspective)	General Practitioner 12	11%	• 70-79 11% • 80+
10	4 5 5 6 6 7 8-	5%	6% 6%
0 05-09	10-14 15-19 20-29 30-39 40-49 50-59 60-69 70-79 80+ Age Group of Patients	5% 4%	6% 5%

5. Frequentation Complementarity

This sheets compares the insured coverage and the patient frequentation (contacts per patient) between the specialty that is analysed and a comparison group.

Furthermore, the age distribution for the patients of the analysed specialty is compared to that in the comparison group (except for GP).

6. Workload

	W	orkload (20	022) : Gene	eral Practition	er (fee for	service)				
Workload by specialty provides insight into the work volume per year of the specialty by FTE and the patient base population (Individual patients are allocated to one single professional per specialty per year to build the patient base population for each single professional/ provider) (N.B. Specialists in training are excluded). The classification criteria are linked to the healthcare professional (age, language, gender, work address, convention status, accreditation) Indicators: Workload : contacts / FTE Patient base population. Patients / FTE Contacts per patient per provider Umitation : working address of health professionals can be different than the location of patients. This can explain differences in workload results (contact/FTE, patients/FTE) and lead to misinterpretation for geographical criteria (province) especially for small numbers of working professionals. Also if the number of FTE by cell is inferior to 5, contacts per FTE and patients per FTE are hidden.										
	Province	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider	Gender	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider		
Average Contacts per FTE (2022)	West-Vlaanderen	7,161	1.065	4.2	м	7.430	1,153	4.2		
6.754	Oost-Vlaanderen	6.962	1.081	4.0	F	5.950) 984	3.5		
2018: 5714 (+18.2%)	Antwerpen	6.977	1.132	3,6			- L			
	Limburg	7.138	992	4,0						
	Vlaams-Brabant	6.337	1.048	3,7	Language	Contacts per FTE	Patients Per FTE	Contacts per Patient		
Average Patients per ETE (2022)	Brussels	6.074	1.174	3,5				and Provider		
Average Patients per FTE (2022)	Brabant Wallon	5.986	1.110	3,6	FR	6.754	1.076	3,9		
1.076	Hainaut	6.842	1.099	4,4	NL	6.754	1.076	3,9		
2018: 1031 (+4.36%)	Namur	6.671	1.036	4,3						
	Liège	6.759	1.047	4,3						
	Luxembourg	5.355	903	3,7	Convention	Contacts per FTE	Patients Per FTE	and Provider		
Average Contacts per Patient and				J	Eull	6,758	1.066	4.0		
Provider (2022)					No	6.772	1,162	3.8		
3,9	Age Class	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider	Partial	6.039	988	3,9		
2018: 3,7 (+5.74%)	34 -	4.215	676	3,4						
	35-44	6.889	1.098	3,6	Accredited	Contacts per ETE	Patients Per ETE	Contacts per Patient		
	45-54	7.684	1.244	3,9	Accreated	contacts per FTE		and Provider		
	55-64	7.840	1.257	4,2	No	5.977	1.001	4,2		
	65 +	7.173	1.107	4,4	Yes	6.792	1.080	3,9		
)						

This sheet provides insight into the workload per year of the specialty by FTE and describes the patient population.

The three indicators shown are:

- The average number of contacts per FTE
- The average number of patients per FTE
- The average number of contacts per patient per provider

For each indicator, the overall figure is shown as well as the breakdown by province, age category, gender, language, convention status and accreditation status. The classification criteria are linked to the healthcare professional.

Here, the province is the province of the work address of the healthcare professional, if available and otherwise that of the contact address. Note that the province of healthcare professionals can be different than that of their patients. This can explain differences in workload figures (contacts/FTE, patients/FTE) and lead to potential misinterpretation for the figures by province, especially for small numbers of professionals. Also if the number of FTE by cell is inferior to 5, the average number of contacts per FTE and the average number of patients per FTE are hidden.

D. Monitoring of health workforce (demography)

This section of the report shows the evolution of the workforce demography over the last five years. The number of active healthcare providers per 10.000 insured are shown as well as the number of active FTEs per 10.000 insured. The number of active providers per age category is shown over the last decade as well as the age distribution of the active FTEs. Furthermore, the average age per FTE is given for both language groups and the global percentage of 65+ activity.

As for the description of healthcare providers in 2023 (section 3.A), trainees are excluded from the current description of workforce dynamics.

1. Data source and data preparation

The procedures of annual data acquisition and preparation are as described for the year 2023; therefore the reader may refer to the section 3.A.1 above.

The dynamics of workforce demography shows the evolution of various indicators over the years (such as total FTEs per sex or per age class, FTEs for a fixed number of insured, etc.) and displays the corresponding growth rates in some cases.

2. Evolution of the Workforce Demography

The demography of Healthcare workforce considers active professionals (more than 1 care per year). The corresponding FTE is also shown. The analysis is performed on the past decade and the numbers are distributed by age class, gender or language.

		E	volution of the	Workforce De	mography : General Practitioner					
Healthcare workforce demographics present active professionals having more than one activity per year on the <u>left side</u> of the page, while Full-Time Equivalents (FTE) are displayed on the <u>right side</u> . The analysis spans the past decade and is segmented by professional characteristics such as age class, gender, and language. <u>Active indicators</u> (Left): Number of Actives (>1 prestation /accounting year) and its % growth rate over the past 5 years. Replacement Rate: Active professionals above 55 years compared to those below 55 years. Inactivity; 50 in active professionals in relation to the total. <u>FTE indicators</u> (Right): 5 qual proportion of gender. Indicates the level of activity by dividing the FTE below 65 years with the total active workforce.										
Evolutio	n of All register	ed, Active Providers an	d FTE per 10.000 Ins	sured	Evolution of Total FTE by Gender					
15 14.6	14.9	15.3	15.5	16.1 All	10K 9,185 9,227 9,304 9,412 9,615					
11.8 10 8.2 5 ···	11.9 8.2	8.2	8.2	Active	5,313 5,168 5,052 4,968 4,906 Sex ● F 3,872 4,059 4,252 4,444 4,708 ● M 0K 2019 2020 2021 2022 2023					
0 2019	2020	2021 Year	2022	2023	Avg FTE per Active Provider < 65y (2023) 0.74! % Female among total FTE (2023)					
% Growth Rate of FR Active Providers	rowth Rate of FR ctive Providers Replacement Rate FR (Active under 55 by 55+) (2023)		% of FR Inactive P (2023)	roviders < 65y	2019: 0.74 (-0.56%) 2019: 42% (+16.18%)					
2.5% % Growth Rate of NL Active Providers 1.3%	2019: 0 Replacement F under 55 by 5 1 2019:		15 2019: 14% % of NL Inactive P (2023) 11 2019: 11%	% (+9.04%) Providers < 65y % (+1.68%)	100% 61% 60% 59% 59% Language 50% 39% 40% 40% 41% ● NL 0% 2019 2020 2021 2022 2023					

Some illustrations exhibit both active professionals (on the left) and FTE on the right. The indicators provided are:

- The number of active providers per 10.000 insured persons over the last 5 years
- The growth rate over the past five years of the active providers by language regime
- The replacement rate, being the ratio of active professionals above 55 years to those below or equal to 55 years
- The percentage of inactive providers below 65 years old by language regime
- The evolution of the total FTEs by gender over the past 5 years
- The average FTE per active provider below 65
- The percentage females among the total FTEs
- The evolution of the FTEs distribution by language over the last 5 years

3. Demographic Evolution by Age Group



This section aimed at comparing certain demographic characteristics of healthcare professionals between 10 years . The indicators shown are:

- The frequency distribution of active healthcare professionals
- The FTE proportion per age class
- The mean age of one FTE per language group
- The percentage of 65+ FTEs from the total (only 2023)
- The mean age weighted by FTE by language

4. APPENDIXES

A. Annex 1: FTE Details

This section provides more details on the reference value used as a basis for calculating FTEs.

This reference value correspond to the median of reimbursements for providers aged 45 to 54 in the same specialty for a year of reference and is calculated each year. Evolution is not adjusted for inflation.

The FTE (full-time equivalent) of a provider is [his/her total reimbursements in a given year] divided by [the median of reimbursements for providers aged 45 to 54 in the same specialty].

The total reimbursement for a specific health provider as an activity measure may be biased by the fact that some providers (e.g. internship supervisors) combine their activities with those of doctors in training. To limit this bias, when the result of the division for a specific health provider exceeded 1, it was capped at 1.

N.B. FTE in medical home cannot be evaluated given the absence of activity registration. The FTE for employed doctors in medical homes (lump sum financing) was estimated at 0,8226 per doctor in 2009 through an one shot registration based on their contracts. An updated estimation will be soon available practice registries, but is not yet done.

This sheet describes the evolution of the reference value and the average FTE per active provider by sex, language and age group.



The indicators shown here are:

- The average FTE per active provider, globally and per language and gender
- The FTE per active provider by age category
- The median reimbursements for providers between 45 and 54 over the past decade

B. Annex 2: Type of Practice

The practice registry provides information on the location of the activity of each health care provider.

The location is grouped into categories, namely solo practices, group practices, nursing homes, hospitals, and other facilities.

The different practice types are grouped into 5 categories: solo, group, nursing home, hospital, other.

- Nursing home: represents care facilities for the elderly or individuals requiring psychiatric care
- Group: represents collective practices or facilities where professionals work together (e.g. medical house with lumpsum, mental health facilities, day care facilities, public pharmacies, medical laboratories, bandagist/orthopedist workshops)
- Hospital: represents hospitals or medical establishments (ex: general hospitals, psychiatric hospitals, hospital pharmacies)
- Solo: represents individual practitioners or private addresses
- Other: represents facilities or organizations not falling into the above categories (ex: physiotherapy office, tariff office, organizations with a registered business number)

💩 MainPractAddrType	MainPractAddrTypDescFR	(#) Importance	💩 MainPractAddrTypClass
000	Adresse privée	1	solo
655	Atelier de bandagiste/orthopédiste	2	group
678	Poste de garde	3	group
500	Cabinet de kinésithérapie	4	group
940	Groupement avec un n° INAMI tiers payant (infirmiers, sages-femmes e.a.)	5	group
212	Groupement de médecins généralistes au même lieu d'installation	6	group
214	Groupement de médecins généralistes à différents lieux d'installation	7	group
213	Pratique de médecine générale avec financement mixte	8	group
805	Maison médicale (système forfaitaire)	9	group
740	Maison de repos pour personnes âgées (MRPA)(BxI)	10	nursing home
730	Maison de repos pour personnes âgées (MRPA)(Fr)	11	nursing home
760	Maison de repos pour personnes âgées (MRPA) (NI)	12	nursing home
751	Maison de repos et de soins (MRS) (Fr)	13	nursing home
752	Maison de repos et de soins (MRS) (BxI)	14	nursing home
722	Centre de santé mentale	20	group
726	Initiative d'habitations protégées (IHP)	21	group
756	Centre de soins de jour (CSJ) (Fr)	22	group
755	Centre de soins de jour (CSJ) (NI)	23	group
725	Maison de soins psychiatriques (MSP)	24	nursing home
210	Office de Tarification	30	other
200	Pharmacie publique	31	group
800	Laboratoire	40	group
201	Pharmacie hospitalière	100	hospital
720	Etablissement psychiatrique	101	hospital
710	Hôpital général	102	hospital
001	Organisation avec Nr BCE	0	other

The repartition of health care providers into those 5 categories is measured in Full Time Equivalents (FTEs) and broken down according to the professionals characteristics (gender, age classes, language) and trend over the past decade.



N.B. Not Available (NA) values are decreasing over time as the database becomes increasingly complete.

C. Annex 3: Informatisation of General Practitioners & Dentists

Healthcare professionals (General Practitioners & Dentists) receive financial incentives if they meet certain criteria related to the use of information technology (e-services) and digital tool in their practice. This sheet presents the percentage of full-time equivalents (FTE) who met e-service usage thresholds in 2023. It is only available for General Practitioners & Dentists (general dentistry, periodontology, orthodontics). It assesses the growth of digital tool adoption, identifies commonly used services, and highlights differences across professional characteristics.



Criteria Used:

- Patient Management (PM) criteria is a combination of these 6 e-services : Recip-e, Chapter IV, eFact, Informed Consent, DMG-GMD (global medical file) and eAttest.
- Patient Management & Care Plan (PM-CP) criteria is a combination of PM criteria with these 2 eservices : Medication Regimen and Medic-e Disability Assessment.
- Patient Management & Care Plan & Decision Support (PM-CP-DS) is a combination of PM-CP criteria with these 2 e-services : Sumehr and CEBAM Evidence Linker.
- Patient Management & Care Plan & Decision Support & Self-Assessment (PM-CP-DS-SA) is a combination of PM-CP-DS criteria with this e-service : Barometer.

Note: The Sumehr threshold increased to 55% in 2023 (previously 25%).

Data Sources:

- Recip-e: provided by ASBL Recip-e & NIHDI Medical Evaluation and Control Service

- Chapter IV, eFact, DMG-GMD, eAttest: provided by CIN-NIC
- Informed Consent: based on DMG-GMD holders (CIN-NIC) cross-verified by eHealth Platform for consent registration
- Sumehr & Medication Scheme: from regional health vaults (Abrumet, RSW, Vitalink)
- CEBAM: data provided by CEBAM
- Disability Assessment: from FPS Social Security



Criteria Used:

- Obligatory criteria is a combination of these 3 e-services : Electronic Invoicing (eAttest and eFact), Check Insurability via MyCareNet and Verification of Official Pricing MyCareNet
- All criteria is a combination of Obligatory criteria with these 4 facultative e-services: GMF (General Medical File), Download Messages via eHealthBox, Medication and Recipe e

Data Sources:

- Most data are provided by the Intermutualist College (CIN-NIC)
- For eHealthBox: data are provided by the eHealth Platform
- For Medication Scheme: data are provided by regional health vaults: Abrumet (Brussels), RSW (Wallonia) and Vitalink (Flanders)

Note: Recip-e was used prior to 2021, with data from ASBL Recip-e.

D. Annex 4: Insured Coverage of General Practitioners Fee for Service vs Medical Homes

Annex 4 is only available in the general practitioners report.

In annex 4 the insured coverage is compared between general practitioners Fee for Service (left) and general practitioners in medical homes (right).

For general practitioners with Fee For Service, the insured coverage is the percentage of insured persons who had at least one contact with a general practitioner in the year. It includes patients with DMG without physical contact. For general practitioners in medical houses (lump sum) the insured coverage is the percentage of insured having at least one lump sum reimbursed in the year.



The indicators shown here are:

- The global insured coverage as well as by region, with the evolution between 2018 and 2023
- The ratio of insured coverage of females versus males
- The ratio of insured coverage for social status (BIM versus standard reimbursement scheme)
- The average age of patients
- The map shows the relative differences of the provinces versus the national value of the insured coverage