Health Professionals Report : Capacity, Accessibility and Production

Specialty of Interest : Neuropediatrician

Authors : P. Meeus, A. Khalil, S. De Pril, K. Declercq, K. Daïnou, V. Maton

Contents

Introduction
Specialty Metrics and Comparison
Geographical Accessibility
Financial Accessibility
Continuous Professional Development
Activity Level, Working Place and Composition
Activity Level, Working Place and Composition by Language
Subspecialties Activity and Working Place
Subspecialties Repartition by Language
Accessibility, Insured Coverage
Accessibility, Insured Frequentation
Patient Frequentation
Frequentation Complementarity
Workload
Evolution of the Workforce Demography
Demographic Evolution by Age Group
Annex 1 : FTE Details
Annex 2 : Types of Practice



Introduction

Introduction

This report provides a comprehensive overview per healthcare specialty working within the Belgian health insurance system, within hospital and ambulatory settings.

Professional perspective :

- Aspects covered are: capacity, production (numbers and financials), subspecialties, replacement rates. Those aspects are described by gender, age, geography, type of activity, workplace, evolution.

Patient perspective :

- Accessibility and frequentation are described by gender, age, social status, geographical distribution, evolution.

Data Sources & Transformations

This report draws insights from the "Doc P" database, encompassing patients who sought care in Belgium and claimed insurance reimbursement. The database spans from accounting years :

- 2013 to 2024 for health professionals
- 2018 to 2024 for health professionals subspecialties
- 2018 to 2023 for insured coverage and patient frequentation

Each studied year N is coupled with socio-demographic data on providers as of December 31 N.

To address GDPR (General Data Protection Regulation) compliance for small cell data, numbers from fewer than 5 active providers are hidden.

Contact

appropriatecare@riziv-inami.fgov.be

Additional information

For official information regarding the number of healthcare providers :

- NIHDI : please click FR | NL
- MOH : please click FR | NL

For the detailed methodology of this report : please click EN | FR | NL

Key Variables & Metrics

Healthcare professional perspective (specialty is determined by grouping NIHDI competency codes) :

- Demographic characteristics are age (groups by 10Y), sex (M/F), working address (or contact address if not available), communication language (Dutch/French) , convention status (full, partly), activity status (>1 intervention/year), type of prestation (see NIHDI nomenclature).
- Numeric characteristics are number of professionals (all providers registered within INAMI-RIZIV), number and cost of (reimbursed) prestations. Evolution is available since 2013 for professionals figures and since 2018 for the study of their activity.
- FTE (full-time equivalent) is calculated to determine the workload of a healthcare provider (= total reimbursements by provider in a given year divided by the median amount of reimbursements for providers aged 45 to 54 in the same specialty, see Annex 1). FTE values are capped at 1. The FTE for employed doctors in medical homes (lump sum financing) was estimated at 0.82 per doctor because the actual FTE cannot be evaluated given the absence of activity registration. Medical homes with lumpsum are not included in the productivity calculation. General practitioners with "Fee for Service" in the title specifies that doctors and patients in medical homes with lumpsum are excluded from the analysis. Weighted conventioned FTE refers to the adjusted calculation where FTEs for partially conventioned providers are multiplied by 0,5.
- Working place : distinction is made between private, polyclinic, day hospitals, or hospital stays, depending on the place of prestation.
- Subspecialty Clusters : Healthcare providers within a specialty can be clustered based on ([sub] group of similar) nomenclature codes reimbursed or working place.
- Denominators : Denominators of density are expressed by 10.000 insured (for example FTE / 10.000 insured). Other denominators are usually FTE (for example number of patients / FTE, reimbursement / FTE, total activity / FTE).

Patient perspective :

- Demographic characteristics are age, sex (M/F), address of residence (not treatment place !) (by region, province, etc.), social status (normal and preferential regime [BIM])) , type of specialty contacted during the year.
- Patients Indicators : insured coverage (% at least 1 contact) (N.B. Specialists in training included), insured frequentation (number of contacts/insured), patient frequentation (number contacts/patient).

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

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

Limitations & Assumptions

- Professional density : metrics in this report were not standardized to a consistent population size, which means comparisons between regions or provinces may not be entirely fair or accurate.
- Patient analysis uses actual care years, not accounting years, unlike other analyses. If the analysis year is N, the last available year for patient analysis is N-1 in order to present relevant data.
- The calculation of FTEs may be impacted by modifications of competency codes over the years. A change within a specialty affects the median of reimbursements and thus generates breaks in the evolution of FTEs (see the recognition of nephrologists since 2022 for internal medicine). The median value changes depending on the year (see Annex 1).

Speciality Metrics and Comparison (2024) : Neuropediatrician

This sheet compares the specialty of interest (left) with comparison group (right).

Neuropediatrician

Competency Code	Description
10691	Pediatric Specialists with a special professional title in Pediatric Neurology
10696	Pediatric Specialists with a special professional title in Pediatric Neurology and recognition in functional and professional rehabilitation for the disabled

	Neuropediatrician	Pediatrician
# N SubSpecialities	1	2
# N Total (registered)	129	2.313
# N Active (>1 prestation)	107	1.733
# Full-Time Equivalent (FTE)	74	1.151
€ Expenses per FTE	200.569	202.655
65+	% Active: 11% / % FTE: 8%	% Active: 12% / % FTE: 6%
Convention	% Active: 93% / % FTE: 95%	% Active: 84% / % FTE: 85%
Weighted Convention	% Active: 91% / % FTE: 91%	% Active: 82% / % FTE: 82%
Accreditation	% Active: 82% / % FTE: 91%	% Active: 86% / % FTE: 94%

Pediatrician

Profession
General Pediatrician
Neuropediatrician

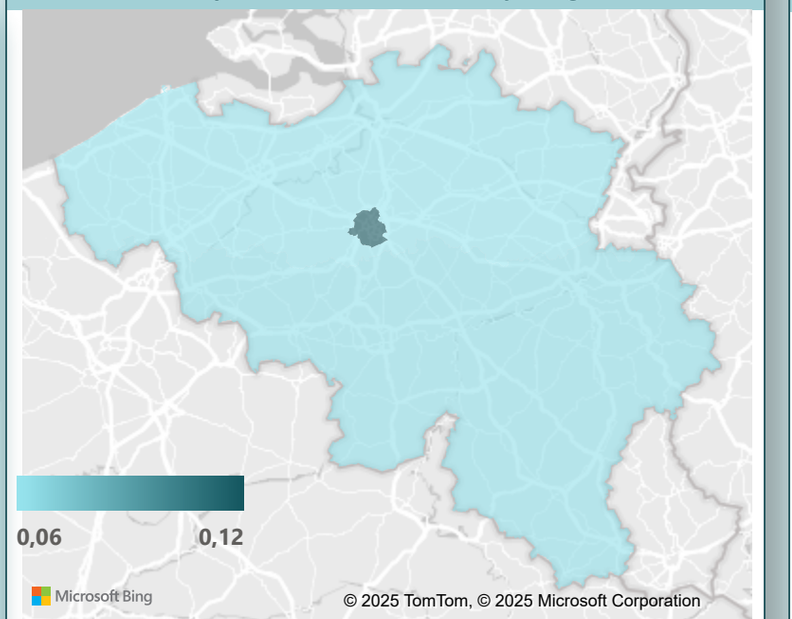
Geographical Accessibility (2024) : Neuropediatrician

Geographical accessibility is measured by density, calculated as the number of FTE (Full Time Equivalent) per 10.000 insured and comparing the results between regions. Metrics in this report were not standardized to a consistent population size. Providers are regrouped by regions for GDPR reasons.

Indicators :

- Geographical distribution which enables to check for homogeneity.
- Evolution and growth rate.
- Comparison of number of FTE and number of insured to detect correlation.

FTE per 10.000 Insured by Region



Demographic Information by Region

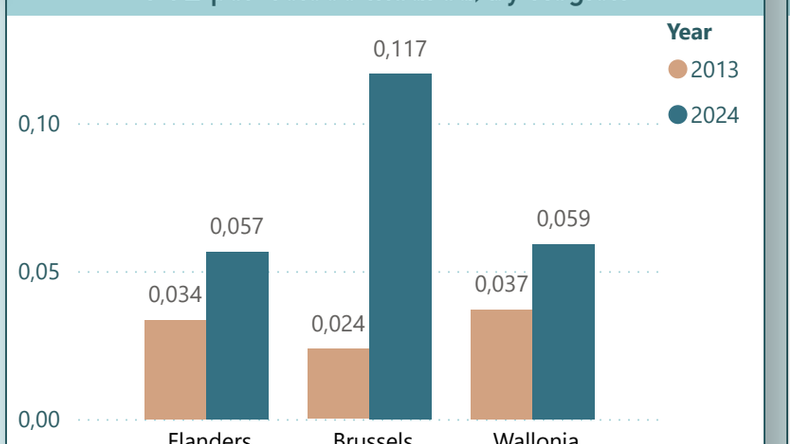
Region	#FTE	Density (FTE per 10.000 Insured)	%65+ (FTE)	%Women (FTE)
Flanders	38,8	0,06	3%	72%
Brussels	13,6	0,12	6%	67%
Wallonia	21,5	0,06	17%	76%
Total	**73,9**	**0,06**	**8%**	**72%**

FTE per 10.000 Insured in Belgium

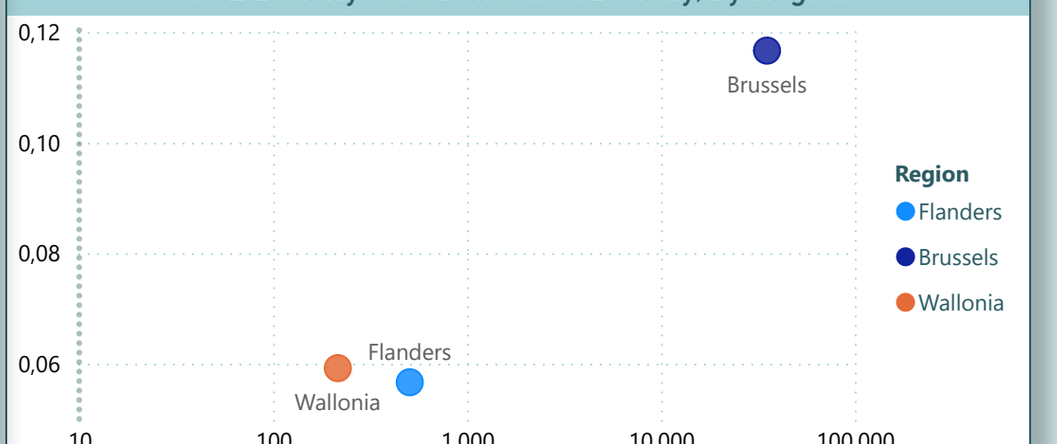
0,06

2013: 0,03 (+88.63%)

FTE per 10.000 Insured, by Region



FTE Density versus Insured Density, by Region



Financial Accessibility (2024) : Neuropediatrician

Financial accessibility is measured by the number of weighted conventioned FTE (Full time equivalent) by 10.000 insured. Weighted conventioned FTE refers to the adjusted calculation where FTEs for partially conventioned providers are multiplied by 0,5. Convention means that the professional is committed to respect prices determined in the NIHDI convention. This agreement can occur partly (at specific hours during the week) or totally (all the working hours). The conventioned FTE for partially conventioned providers is calculated as half of their total FTE. Providers are regrouped by regions for GDPR reasons.

Indicators :

- % FTE meeting the criteria / total FTE
- Financial accessibility is gauged by weighted conventioned FTE (Full Time Equivalent) per 10.000 insured.

% Weighted Conventioned FTE

91%

2013: 85% (+6.04%)

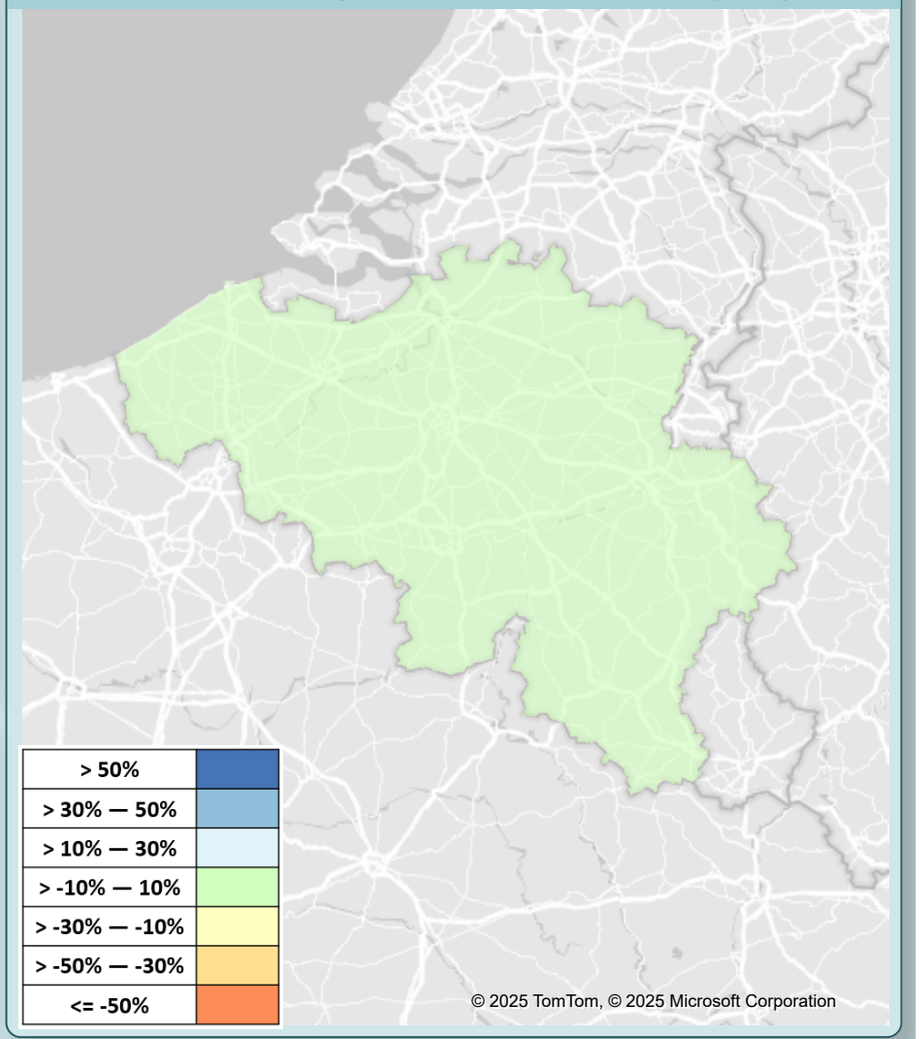
% Conventioned FTE by Language and Regime

Language	Part	Full	Total	Weighted
FR	3%	89%	95%	92%
NL	5%	84%	94%	89%
Total	**4%**	**87%**	**95%**	**91%**

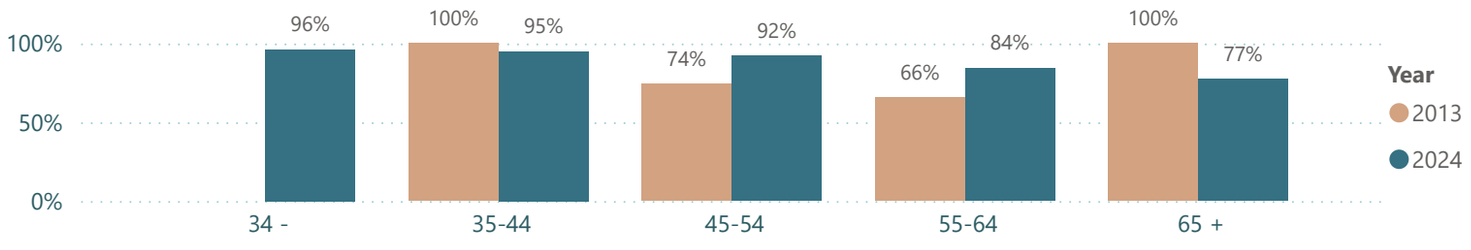
Demographic Information by Region

Region	Density (FTE per 10.000 Insured)	Density (Weighted Conventioned FTE per 10.000 Insured)	% Weighted Conventioned FTE
Flanders	0,06	0,05	90%
Brussels	0,12	0,11	92%
Wallonia	0,06	0,05	92%
Total	**0,06**	**0,06**	**91%**

% Differences Weighted Conventioned FTE by Region



Evolution of Weighted Conventioned FTE by Age (2013 vs 2024)



Continuous Professional Development (2024) : Neuropediatrician

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).
Providers are regrouped by regions for GDPR reasons.

Indicator :
- % FTE meeting the criteria / total FTE

% Accredited FTE

91%✓

2013: 82% (+10.91%)

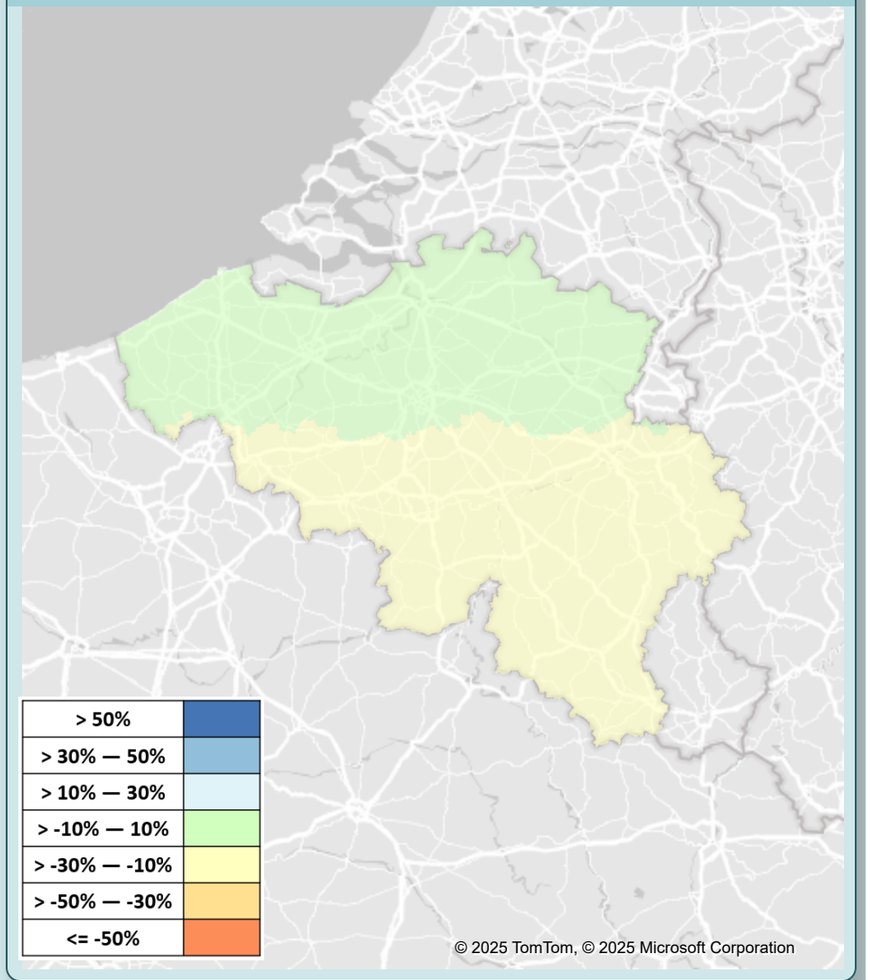
% Accredited FTE by Language and Gender

Language	F	M	Total
FR	92%	67%	**86%**
NL	97%	88%	**95%**
Total	**95%**	**79%**	**91%**

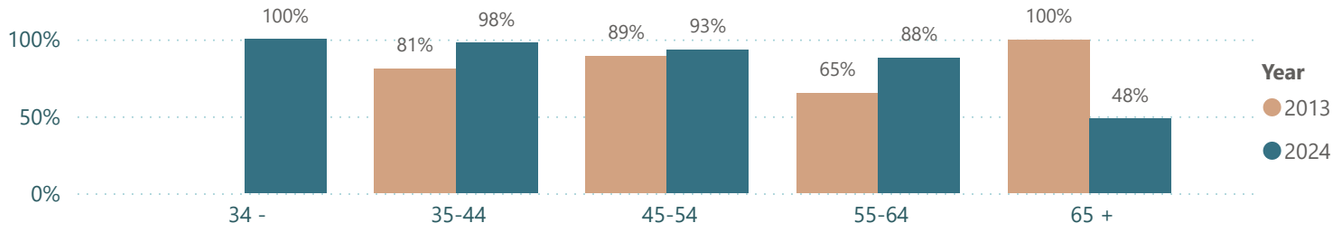
Demographic Information by Region

Region	Density (FTE per 10.000 Insured)	Density (Accredited FTE per 10.000 Insured)	% Accredited FTE
Flanders	0,06	0,05	95%
Brussels	0,12	0,11	95%
Wallonia	0,06	0,05	80%
Total	**0,06**	**0,06**	**91%**

% Differences Accredited FTE by Region



Evolution of Accredited FTE by Age (2013 vs 2024)



Activity and Working Place (2024) : Neuropediatrician

Reimbursement by FTE (2024)

201.099 €

2018: 159.070 (+26.42%)

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 2 criteria: the place of work and the nature of the activity:

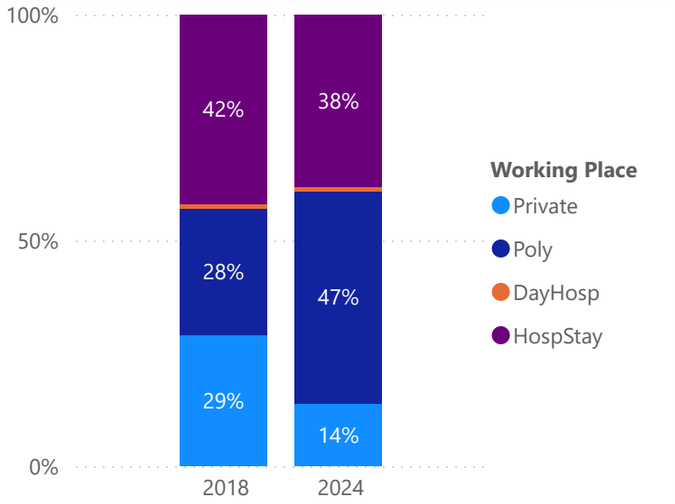
- The place of work is the place where the activity takes place (private, polyclinic, day hospital, hospital stay).
- The nature of the activity is described according to 2 logics of grouping. The traditional distribution of reimbursements within NIHDI (N01 contacts, N20 surgery, etc.) and a specific, more detailed breakdown to identify sub-specialties within the specialty (i.e. cardiac surgery within surgery).

Indicators :

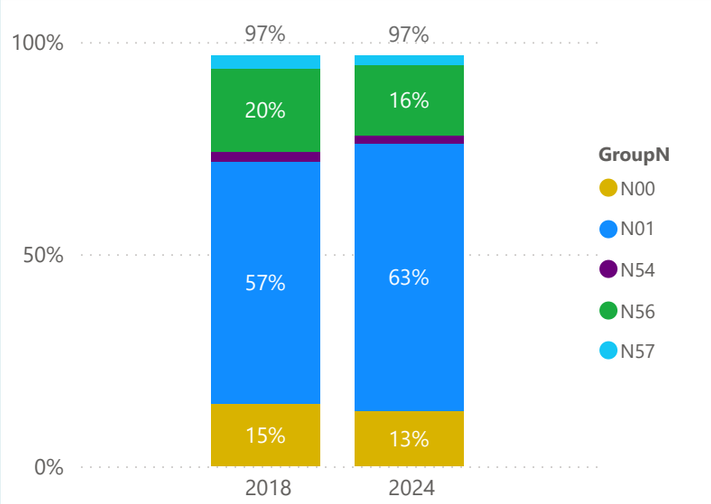
- Reimbursement (in Euros) / FTE
- % Reimbursement (in Euros) by category / total reimbursement (in Euros)

The evolution provides information on the stability of the patterns of the activity comparing year N with N-6.

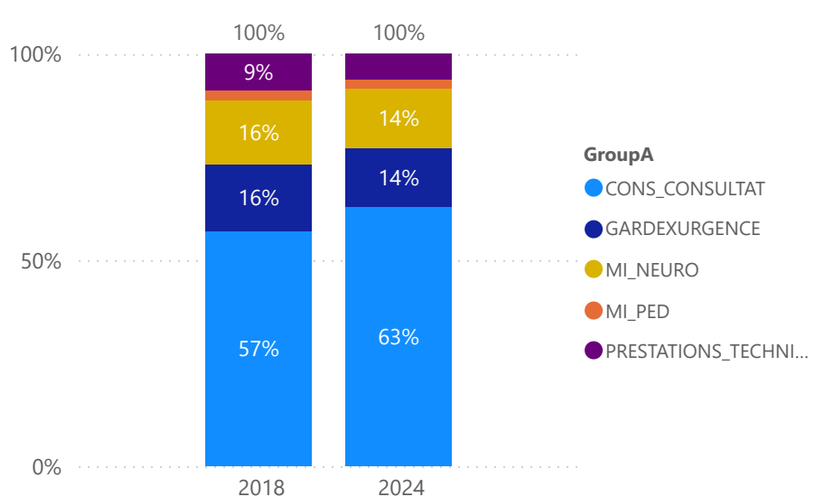
Reimbursement by Working Place (2018 vs 2024)



Top 5 Reimbursement (NIHDI Groups, 2018 vs 2024)



Top 5 Reimbursement (Specific Groups, 2018 vs 2024)



GroupN	Description
N00	Supervision of hospitalized beneficiaries
N01	Consultations visits and medical advices
N54	Pediatrics
N56	Neuropsychiatry
N57	Physical therapy

GroupA	Description
CONS_CONSULTAT	Consultation
GARDEXURGENCE	Hosp. Surveillance
MI_NEURO	Neurology
MI_PED	Pediatry
PRESTATIONS_TECHNIQUE	Technic prest.

Activity and Working Place by Language (2024) : Neuropediatrician

Reimbursement by FTE (FR)

185.711 €

2018: 136.151 (+36.4%)

Reimbursement by FTE (NL)

213.700 €

2018: 176.933 (+20.78%)

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 3 criteria: the provider's language, the place of work and the nature of the activity:

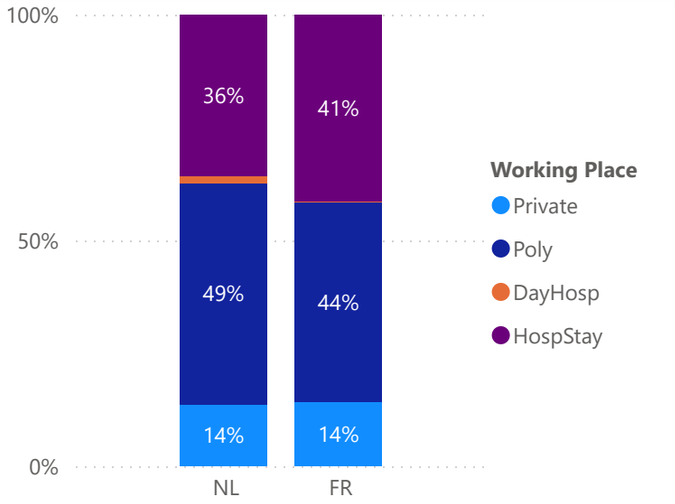
- The place of work is the place where the activity takes place (private, polyclinic, day hospital, hospital stay).
- The nature of the activity is described according to 2 logics of grouping. The traditional distribution of reimbursements within NIHDI (N01 contacts, N20 surgery, etc.) and a specific, more detailed breakdown to identify sub-specialties within the specialty (i.e. cardiac surgery within surgery).

Indicators :

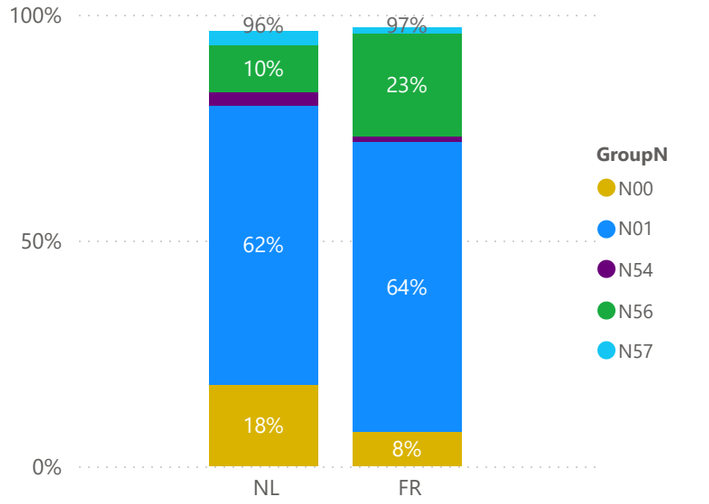
- Reimbursement (in Euros) / FTE
- % Reimbursement (in Euros) by category / total reimbursement (in Euros)

This sheet shows how activity differ between French speaking and Dutch speaking providers.

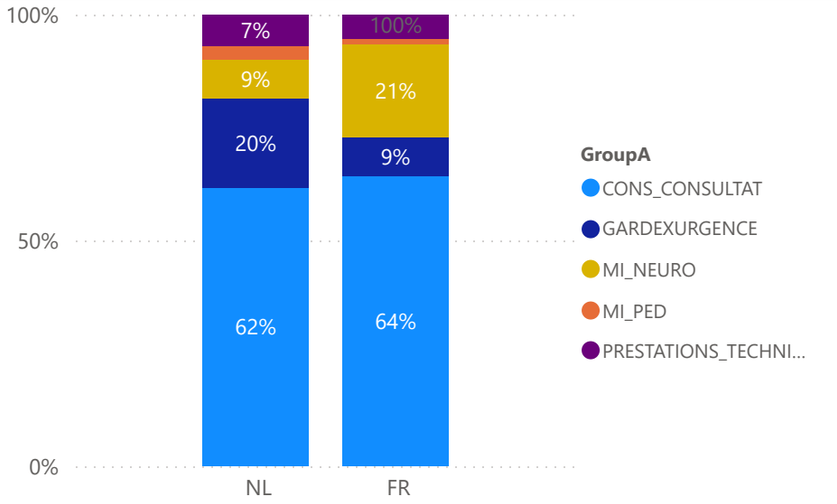
Reimbursement by Working Place by Language



Top 5 Reimbursement by Language (NIHDI Groups)



Top 5 Reimbursement by Language (Specific Groups)



GroupN	Description
N00	Supervision of hospitalized beneficiaries
N01	Consultations visits and medical advices
N54	Pediatrics
N56	Neuropsychiatry
N57	Physical therapy

GroupA	Description
CONS_CONSULTAT	Consultation
GARDEXURGENCE	Hosp. Surveillance
MI_NEURO	Neurology
MI_PED	Pediatry
PRESTATIONS_TECHNIQUE	Technic prest.

Subspecialties Activity and Working Place (2024) : Neuropediatrician

Subspecialties are identified by the working place and/or type of activity (see previous page): the assignment of a health care provider to a sub-specialty prioritizes the type of activity exercised. In general, the type of activity with the most reimbursements, if the amount exceeds 10% of reimbursements in all types of activity, determines the specialty of the health care 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". Comparison of subspecialties helps to understand differences in nature of work.

Indicators :

- % FTE (activity) by subspecialty
- Median reimbursement (in €)

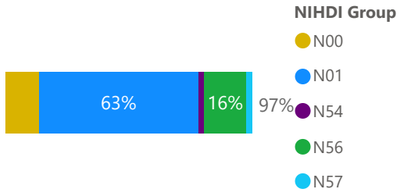
FTE and median Reimbursement by Subspecialty

Subspecialty	FTE	% FTE	Median Reimb
Hospi	5	7%	170.149 €
Poly	15	20%	75.167 €
Mixed	49	65%	154.163 €
Private	7	9%	97.094 €

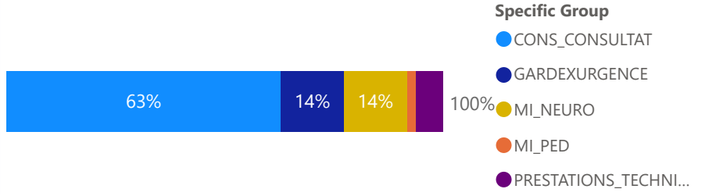
Reimbursement by Working Place



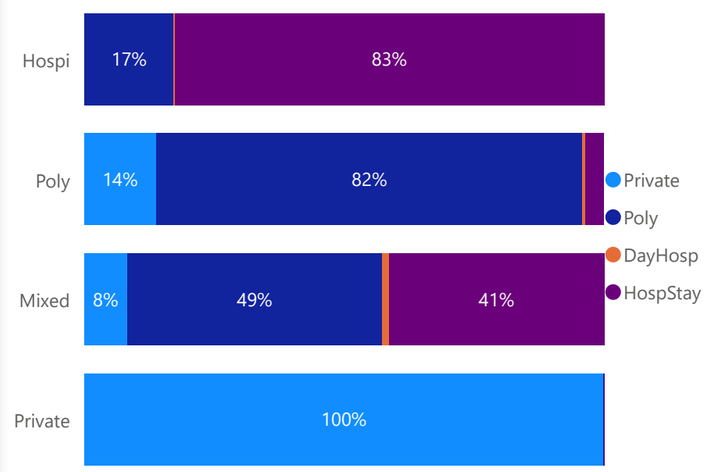
Top 5 NIHDI Groups



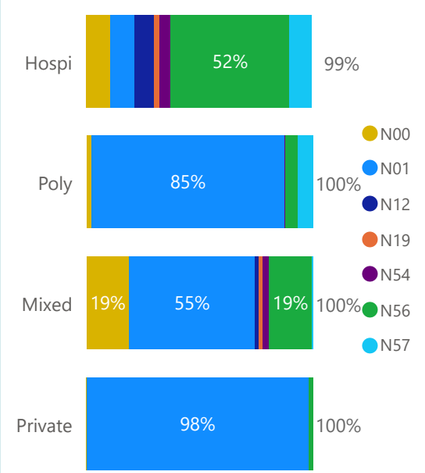
Top 5 Specific Groups



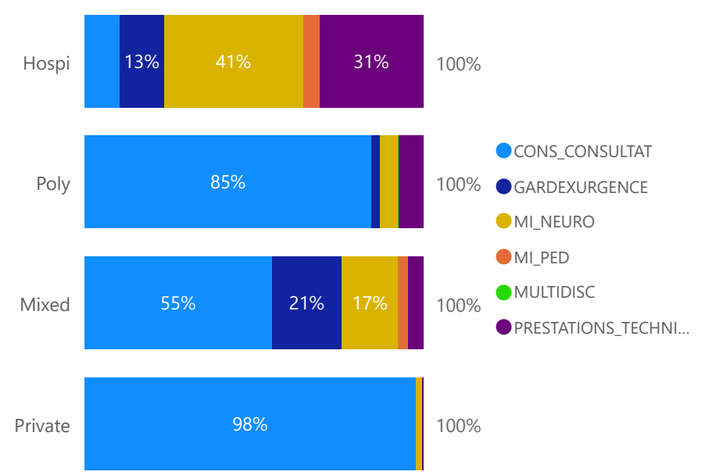
Reimbursement by Working Place, by Subspecialty



Top NIHDI Groups by Subspecialty



Top Specific Groups by Subspecialty



Subspecialties Repartition by Language (2024) : Neuropediatrician

This sheet shows the number of full-time equivalents (FTE) by subspecialty and by the provider's language (French or Dutch). It provides insight into how work and services are distributed across subspecialties and between language communities. Stricter filtering is applied on this sheet: statistics are only displayed when at least 15 active providers are available. It is necessary to avoid GDPR issues and comparisons based on too few individuals.

Indicators :

- FTE & % FTE by subspecialty & provider's language
- Reimbursements (in €) per FTE

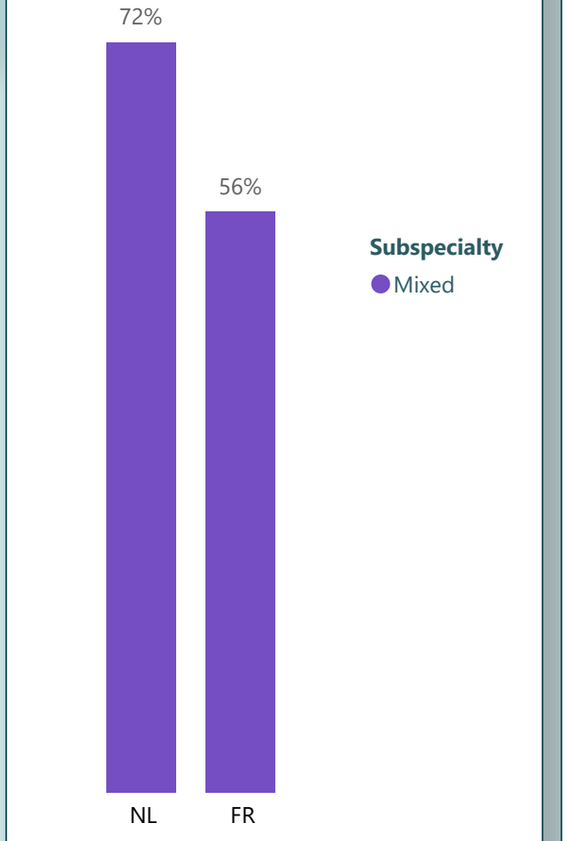
FTE by Subspecialty (NL)

Subspecialty	FTE
Mixed	30

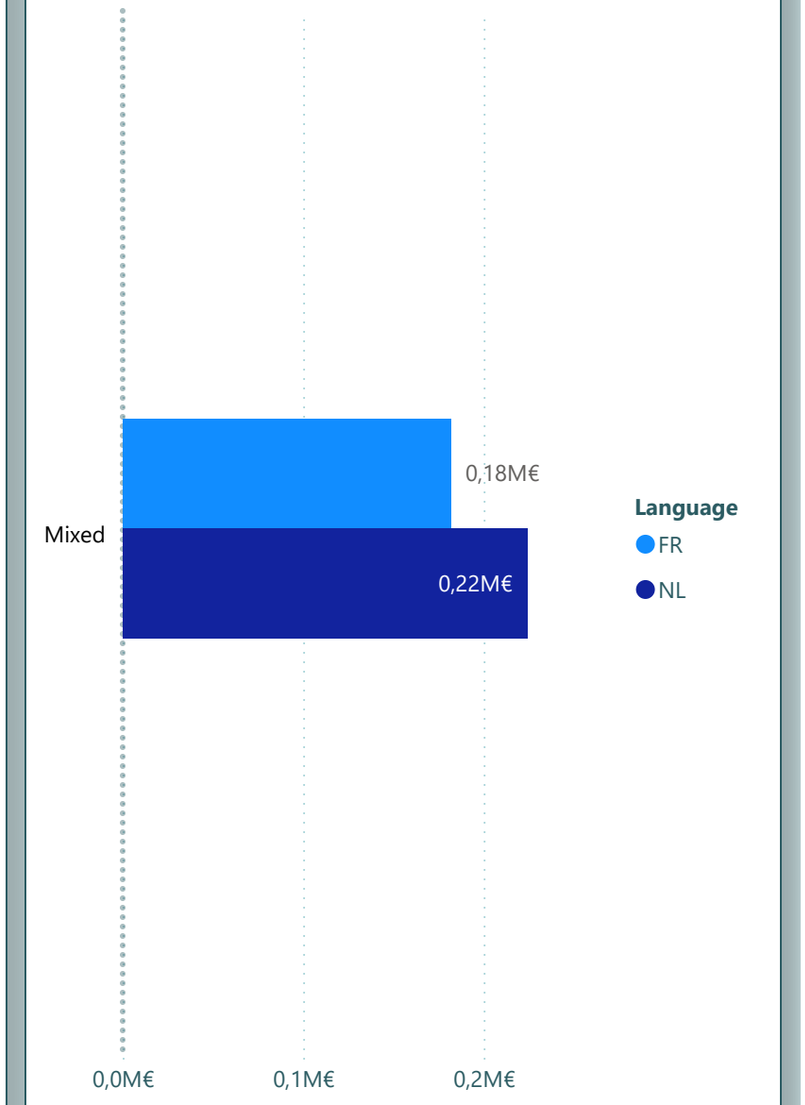
FTE by Subspecialty (FR)

Subspecialty	FTE
Mixed	19

% FTE by Subspecialty & Language



Reimbursement per FTE by Subspecialty & Language



Accessibility, Insured Coverage (2023) : Neuropediatrician

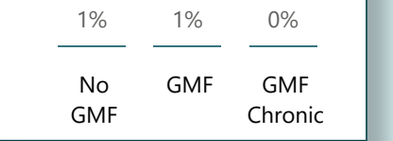
Disparities in insured coverage can help to understand accessibility.

Indicator:

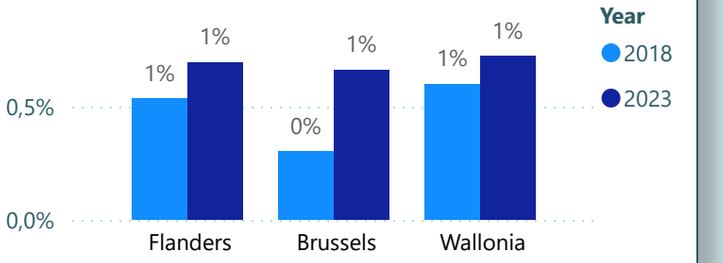
- Percentage of insured persons having at least one contact per year with the specialty (by category of patient) (N.B. Specialists in training included)

Comparison between categories of patients helps to identify possible disparities in accessibility by criterium (gender, age group, geography or socio-economic status, Global Medical File (GMF) status).

Insured Coverage by GMF Status



Insured Coverage Evolution by Region (2018 vs 2022)



Insured Coverage by Gender



Insured Coverage by Social Status



Insured Coverage

1%✓

2018: 1% (+31.93%)

Ratio Female/Male

0,71

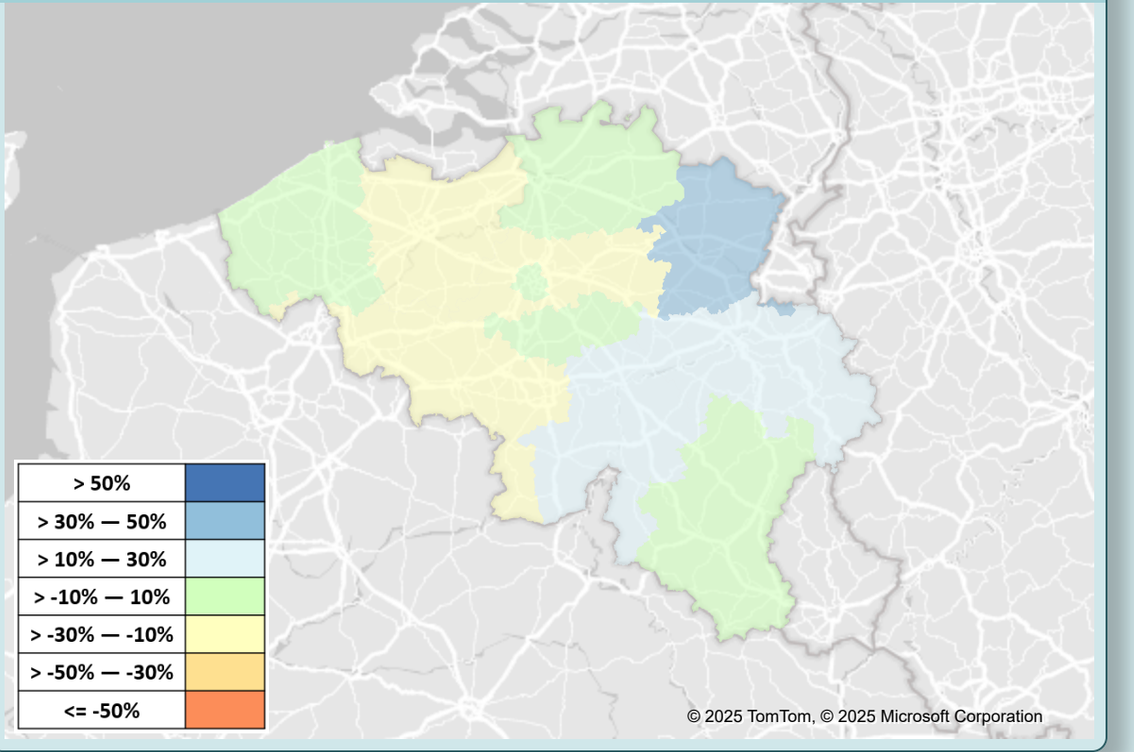
2018: 0,75 (-4.47%)

Ratio Bim/Standard

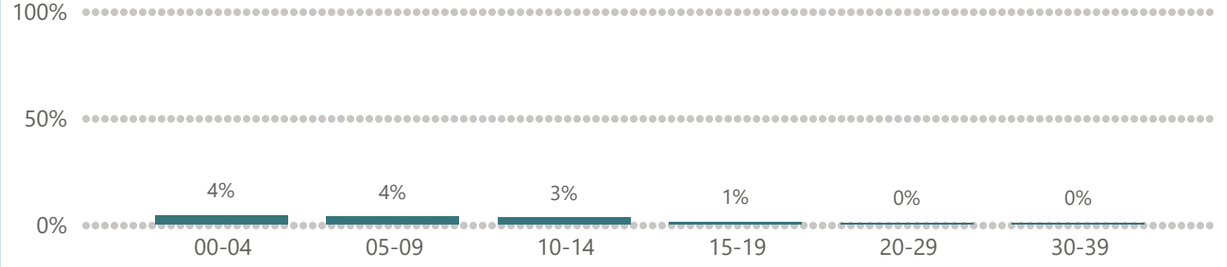
1,49

2018: 1,65 (-9.59%)

% Differences Insured Coverage between Provinces



Insured Coverage by Age of Patients



Accessibility, Contacts per Insured (2023) : Neuropediatrician

Number of contacts per insured is a complementary measure to understand accessibility.

Indicator : number of contacts (by category of insured) is respectively calculated
- per insured
- per patient (insured who at least has one contact with health provider)

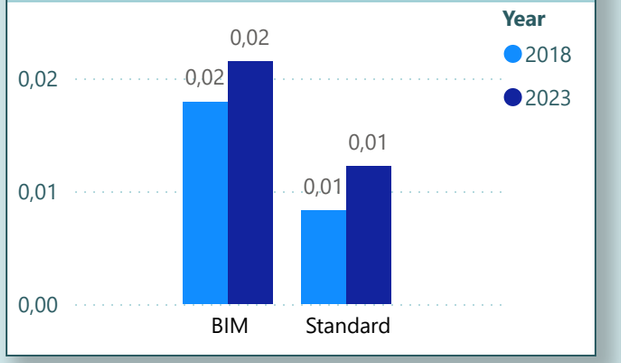
Categories of insured are defined by several criteria : gender, social status, age group, residence geography.

Contacts per Insured = **Insured Coverage** × **Contacts per Patient**

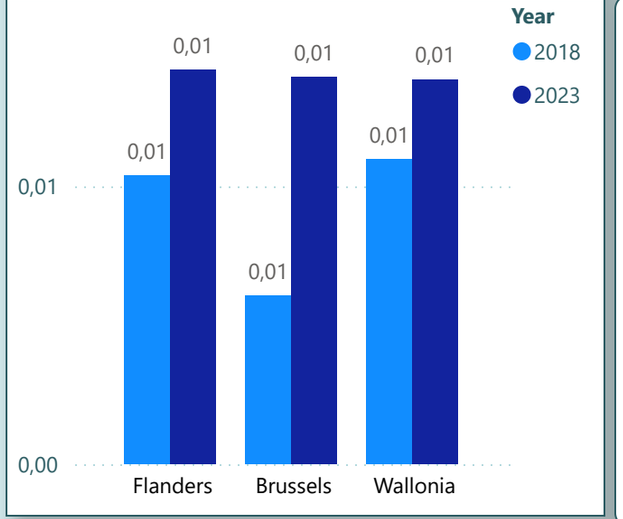
Contacts per Insured	Insured Coverage	Contacts per Patient
0,01	1%	2,01
2018: 0,01 (+38.71%)	2018: 1% (+31.93%)	2018: 1,91 (+5.14%)

Age Patient	Contacts per Insured	Insured Coverage	Contacts per Patient
00-04	0,09	4%	2,15
05-09	0,07	4%	2,01
10-14	0,06	3%	1,92
15-19	0,02	1%	1,97
20-29	0,00	0%	1,78
30-39	0,00	0%	1,62

Average Contacts per Insured by Social Status (2018 vs 2023)

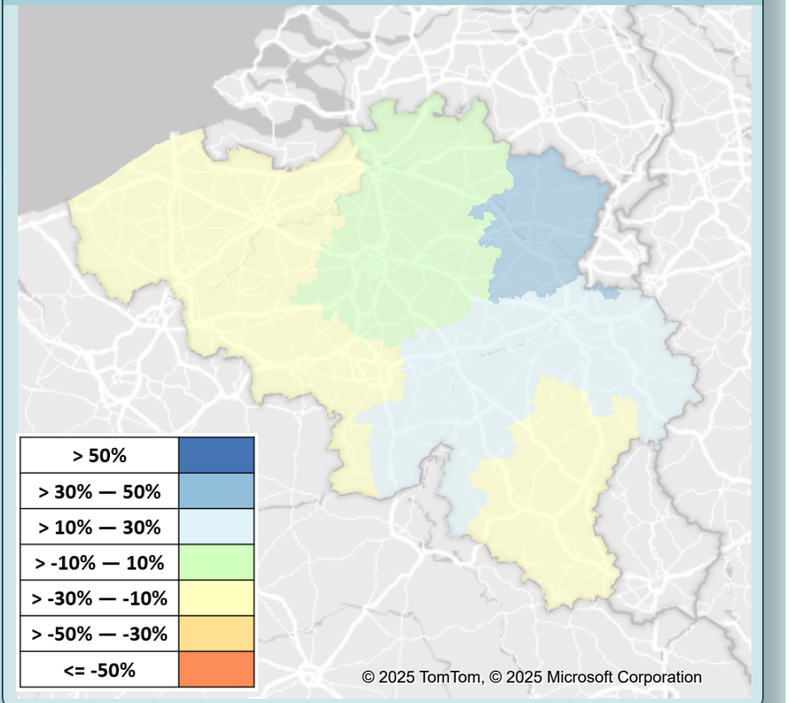


Average Contacts per Insured (2018 vs 2023)



Province	Contacts per Insured	Insured Coverage	Contacts per Patient
West-Vlaanderen	0,01	1%	1,83
Oost-Vlaanderen	0,01	1%	2,03
Antwerpen	0,01	1%	1,93
Limburg	0,02	1%	2,12
Vlaams-Brabant	0,02	1%	2,41
Brussels	0,01	1%	2,10
Brabant Wallon	0,01	1%	2,22
Hainaut	0,01	1%	1,90
Namur	0,02	1%	1,89
Liège	0,02	1%	1,87
Luxembourg	0,01	1%	1,81

% Differences Contacts per Insured between Provinces



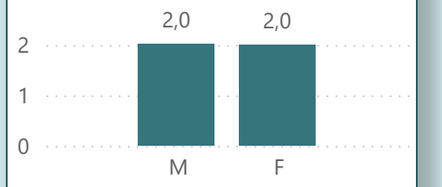
Patient Frequentation (2023) : Neuropediatrician

Frequentation of patients (number of contacts) is a measure to understand health consumption and workload.

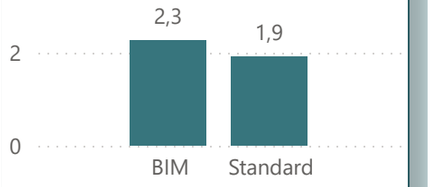
Indicator : number of contacts (by patient category) is calculated per patient (insured who at least has one contact with a health provider).

Categories of patients are defined by several criteria : gender, social status, age group, residence geography, GMF (Global Medical File) Status.

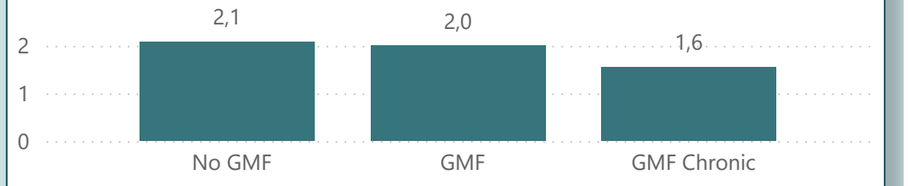
Contacts per Patient by Gender



Contacts Per Patient by Social Status



Contacts per Patient by GMF Status



Average Contacts per Patient

2,01

2018: 1,91 (+5.14%)

Average Providers per Patient

1,1

2018: 1,1 (+0.17%)

Average Age of Contacts

8,5

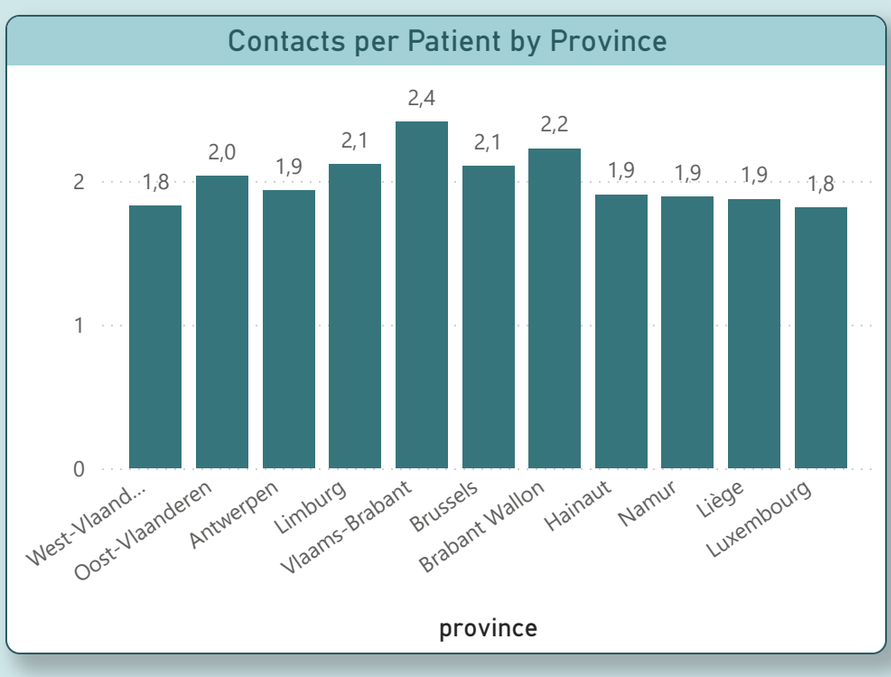
2018: 8,4 (+1.81%)

Average Age of Patients

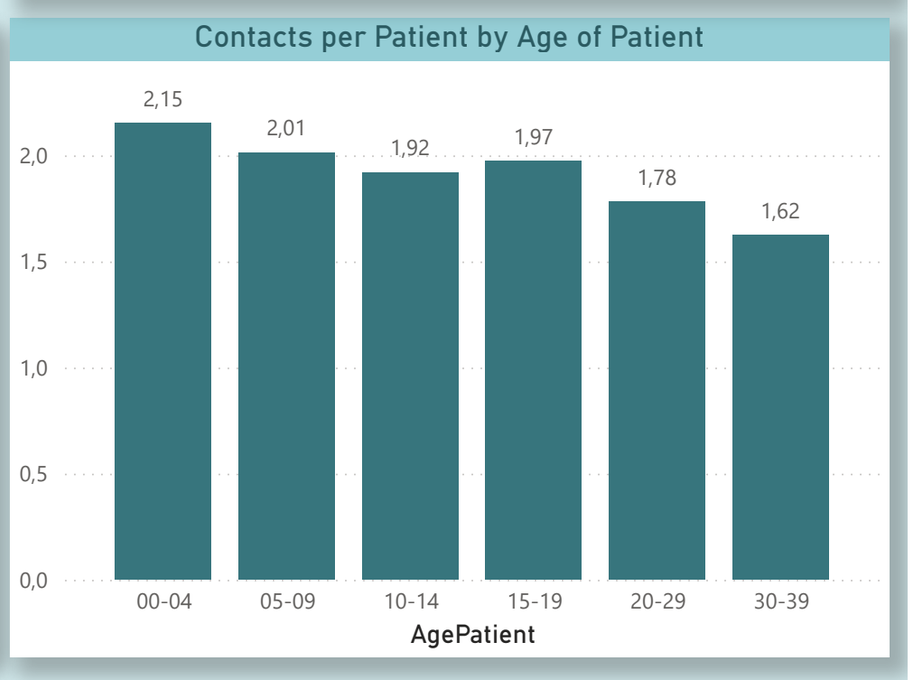
9,0

2018: 8,8 (+1.47%)

Contacts per Patient by Province



Contacts per Patient by Age of Patient

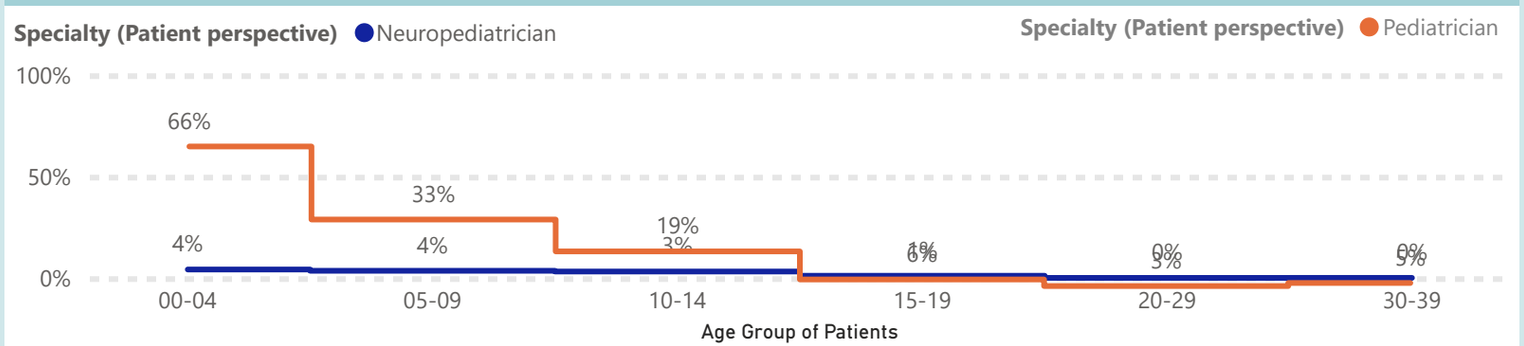


Complementarity with comparison group (2023) : Neuropediatrician

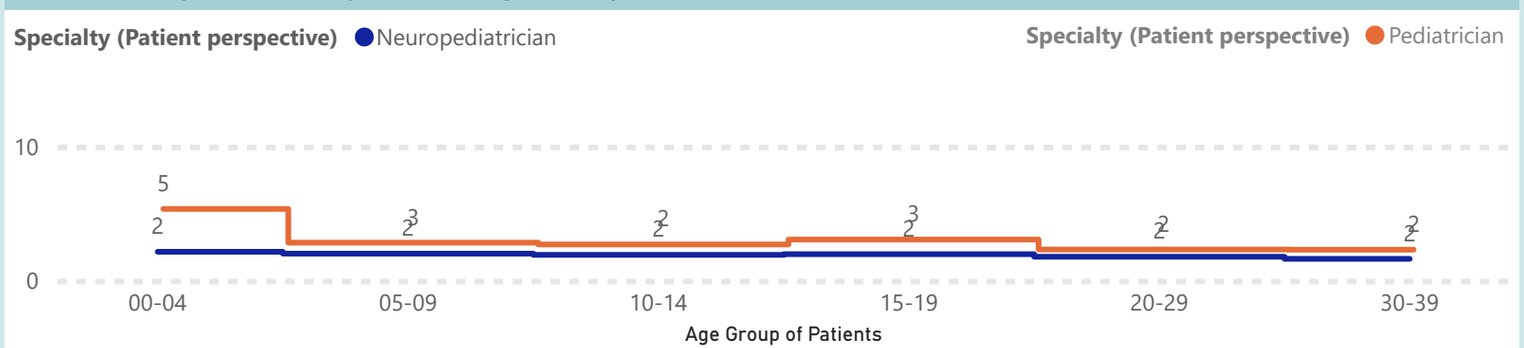
Complementarity compares on the one side insured coverage and on the other side patient frequentation (contacts per patient).

Indicators :
- Insured coverage
- Patient frequentation (contacts per patient)

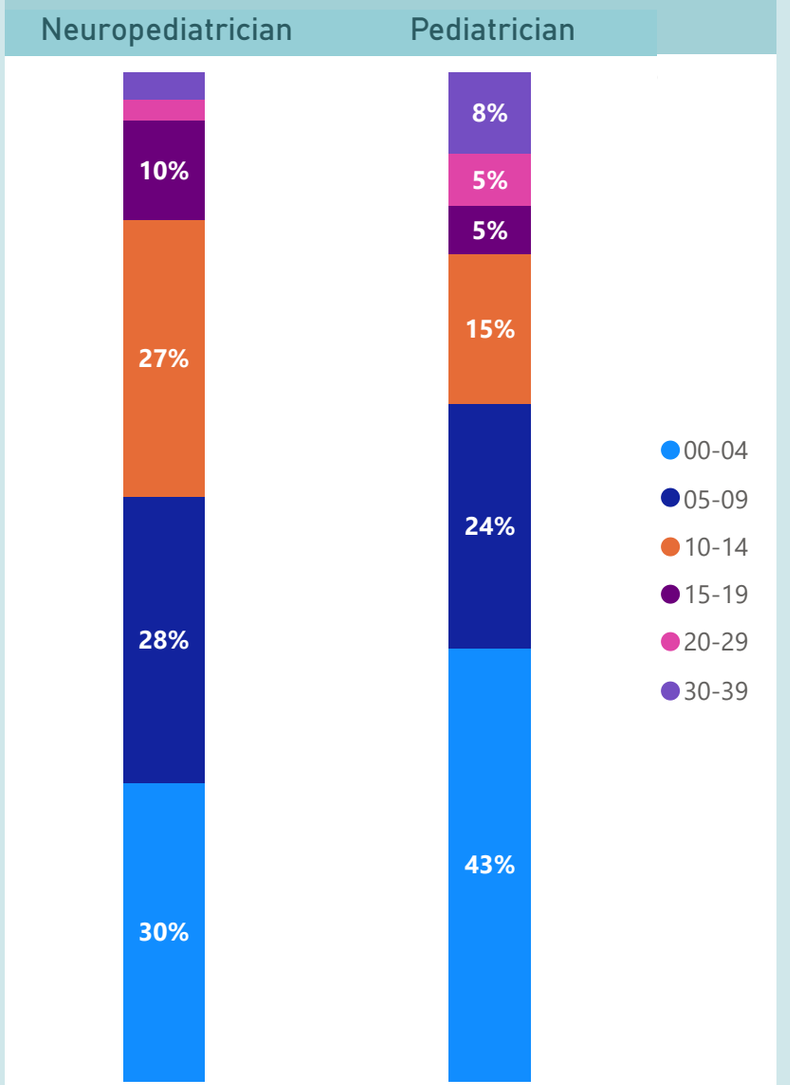
Insured Coverage by Age Group



Patient Frequentation by Patient Age Group



Age Group Distribution of Patients



Workload (2023) : Neuropediatrician

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

Limitation : 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.

Average Contacts per FTE

2.287

2018: 2181 (+4.89%)

Average Patients per FTE

1.140

2018: 1142 (-0.24%)

Average Contacts per Patient and Provider

1,8

2018: 1,7 (+5.45%)

Province	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider
West-Vlaanderen	3.142	1.772	1,7
Oost-Vlaanderen	2.224	1.148	1,7
Antwerpen	3.014	1.621	1,8
Vlaams-Brabant	2.490	856	2,3
Brussels	1.852	986	1,6
Brabant Wallon	2.184	1.024	2,0
Hainaut	1.623	795	2,0
Namur	2.293	1.266	1,7
Liège	1.741	955	1,4

Age Class	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider
34 -	1.803	1.055	1,4
35-44	2.193	1.163	1,7
45-54	2.486	1.126	1,9
55-64	2.475	1.202	1,8
65 +	1.691	951	1,6

Gender	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider
F	2.241	1.089	1,8
M	2.405	1.270	1,7

Language	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider
FR	1.864	964	1,7
NL	2.693	1.308	1,8

Convention	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider
Full	2.273	1.131	1,8
No	2.614	1.179	2,1
Partial	2.199	1.184	1,5

Accredited	Contacts per FTE	Patients Per FTE	Contacts per Patient and Provider
No	1.993	999	1,8
Yes	2.323	1.157	1,7

Evolution of the Workforce Demography : Neuropediatrician

Healthcare workforce demographics present active professionals having more than one activity per year on the left side of the page, while Full-Time Equivalents (FTE) are displayed on the right side. The analysis spans the past decade and is segmented by professional characteristics such as age class, gender, and language.

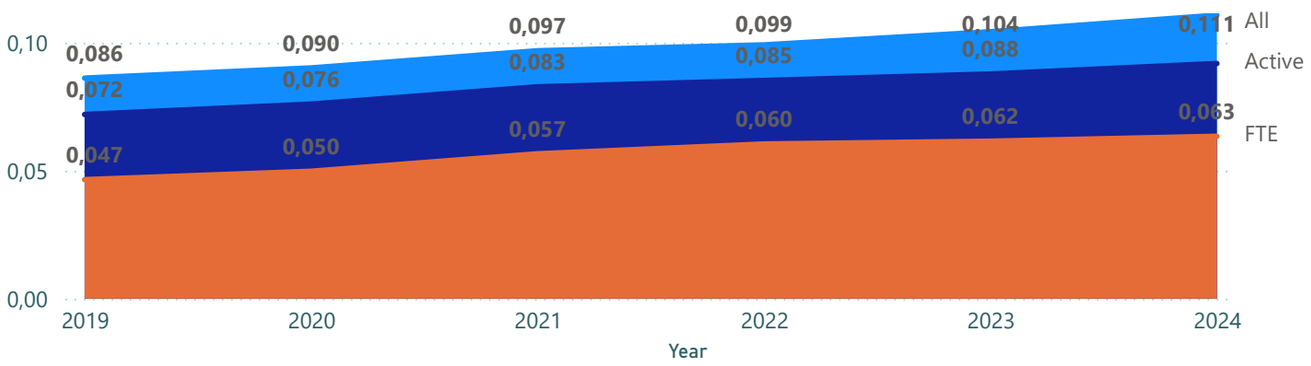
Active indicators (Left):

- 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: % of inactive professionals in relation to the total.

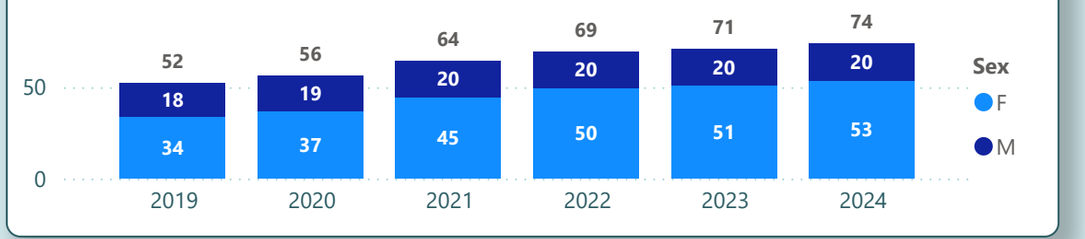
FTE indicators (Right):

- Equal proportion of gender: Indicates the percentage of female FTE in relation to the total FTE.
- Average FTE: Indicates the level of activity by dividing the FTE below 65 years with the total active workforce.

Evolution of All registered, Active Providers and FTE per 10.000 Insured



Evolution of Total FTE by Gender



% Growth Rate of FR Active Providers

7.0%

Replacement Rate FR (Active under 55 by 55+)

3,00✓

2019: 2,70 (+11.11%)

% of FR Inactive Providers < 65y

6%✓

2019: 3% (+100%)

Avg FTE per Active Provider < 65y

0,72✓

2019: 0,67 (+7.67%)

% Female among total FTE

72%

2019: 65% (+11.75%)

% Growth Rate of NL Active Providers

4.6%

Replacement Rate NL (Active under 55 by 55+)

2,24!

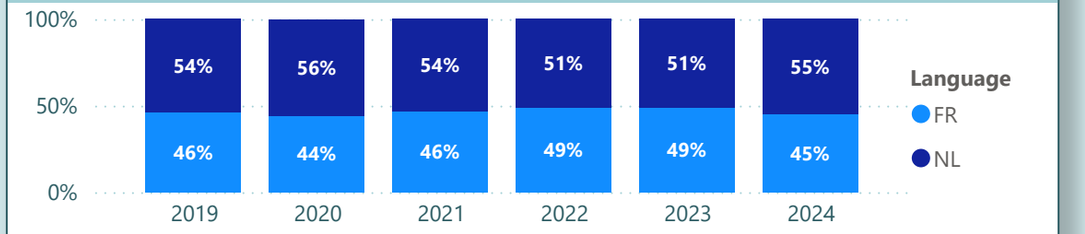
2019: 3,00 (-25.49%)

% of NL Inactive Providers < 65y

17%✓

2019: 15% (+9.52%)

Evolution of FTE Proportions by Language



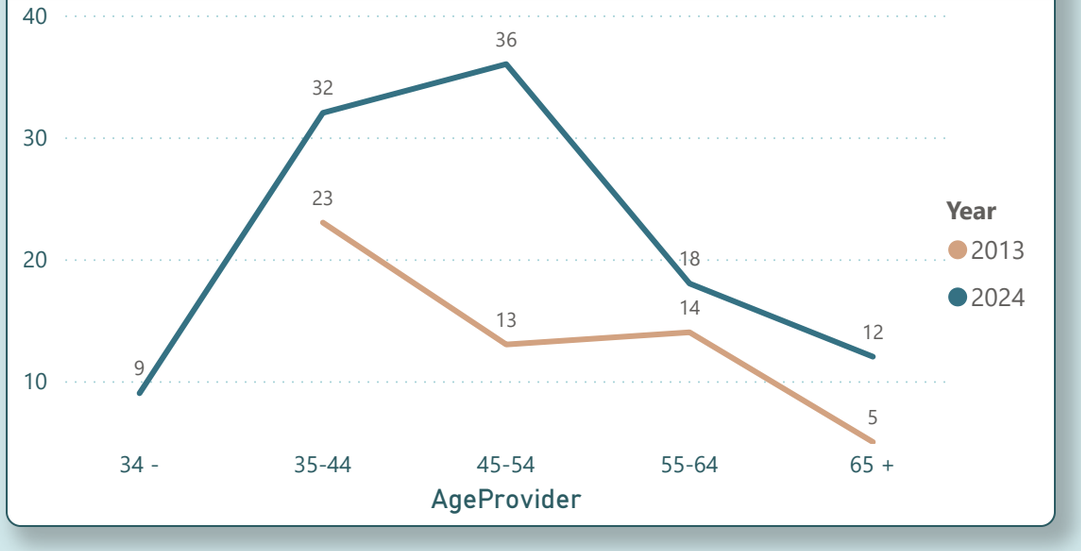
Demographic Evolution by Age Group (2024) : Neuropediatrician

Demographic evolution by age group and activity of professionals above 65 years (provides information on the demographic stability).

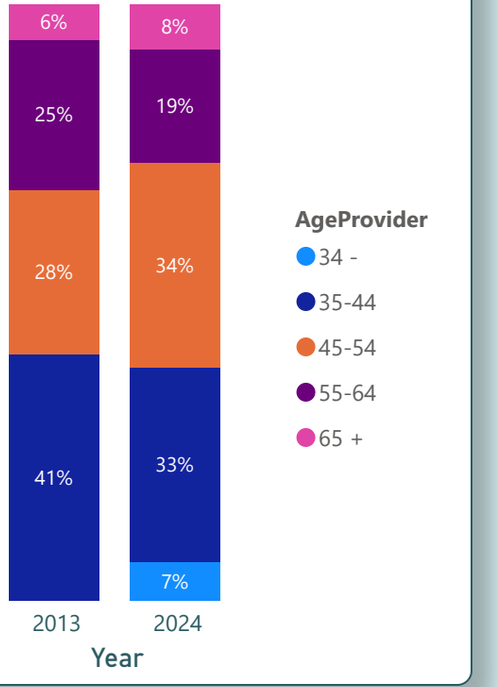
Indicators :

- Trend in age group distribution (active/FTE),
- Age FTE : average of a professional's age weighted by its corresponding Full-Time Equivalent (FTE) value, by language of the provider.
- Contribution of older practitioners to the overall activity: % 65+ FTE/ Total FTE

Workforce Evolution (Active Providers) by Age Group (2013 VS 2024)



Proportion (FTE) by Age Group (2013 VS 2024)



Average Age of a NL FTE

46,3 !

2013: 46,7 (-0.65%)

Average Age of a FR FTE

49,4 ✓

2013: 48,1 (+2.69%)

% of 65+ Activity of total FTE

8% ✓

2013: 5% (+39.33%)

FTE by Language

Language	#FTE	%65+ (FTE)
FR	33,3	13%
NL	40,6	3%
Total	**73,9**	**8%**

Annex 1: FTE Details (2024) : Neuropediatrician

FTE (full-time equivalent) is calculated to determine the workload of a healthcare provider (= total reimbursements by provider in a given year divided by the median of reimbursements for providers aged 45 to 54 in the same specialty).
The median amount of reimbursement for providers aged 45 to 54 is calculated each year. The median is displayed if it is calculated on at least 30 providers. Evolution is not adjusted for inflation.

FTE values are capped at 1. See the comparison per active provider by sex, language and age group.
N.B. The FTE for employed doctors in medical homes (lump sum financing) was estimated at 0,82 per doctor because the actual FTE cannot be evaluated given the absence of activity registration.

Avg FTE per Active Provider

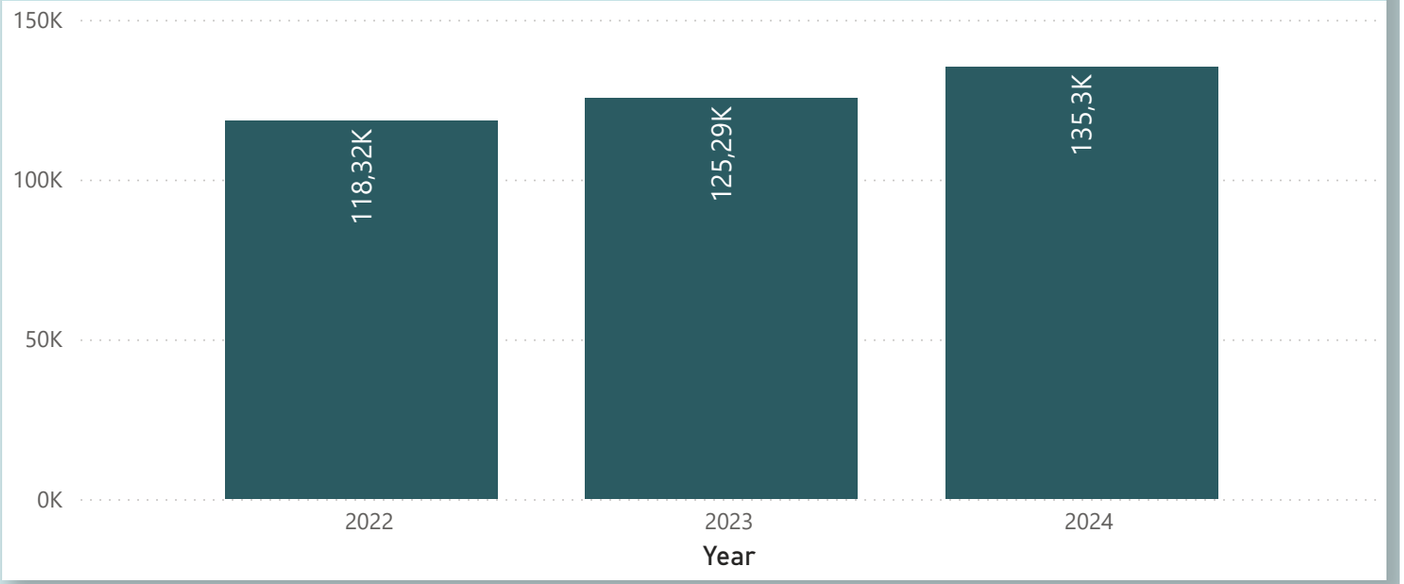
0,69

2013: 0,63 (+9.7%)

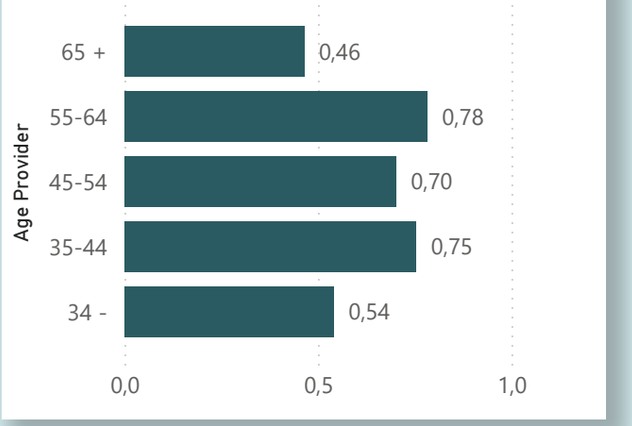
Avg FTE per Active Provider by Language and Gender

Language	F	M	Total
FR	0,64	0,65	**0,64**
NL	0,75	0,70	**0,74**
Total	**0,69**	**0,68**	**0,69**

Median of Reimbursements for Providers between 45 and 54 years old



FTE per Active Provider by Age



FTE by Age Group

Age Group	FTE
65 +	5,6
55-64	14,1
45-54	25,3
35-44	24,1
34 -	4,9
Total	**73,9**

Annex 2: Type of Practice (2024) : Neuropediatrician

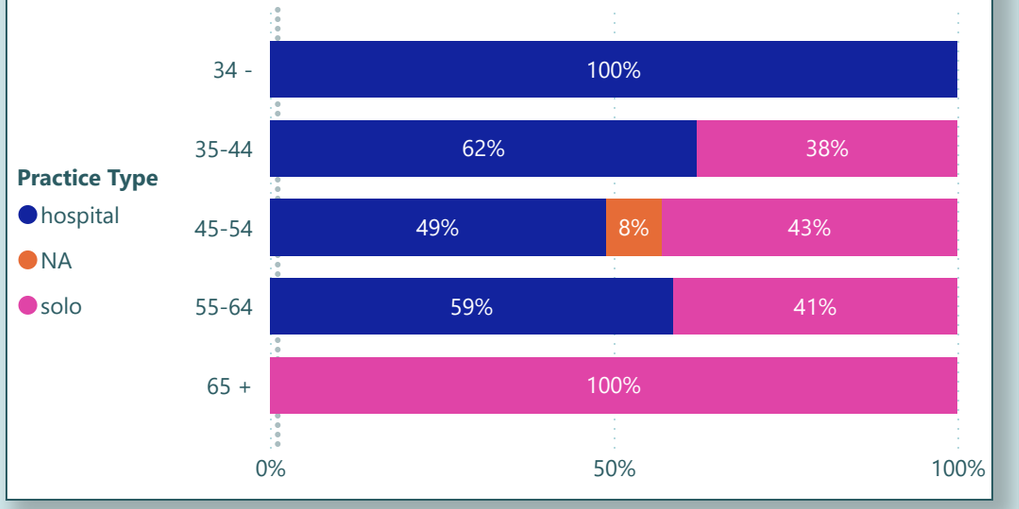
Type of practice (FTE) by age group and region. Evolution and trends

5 types of practices are represented:

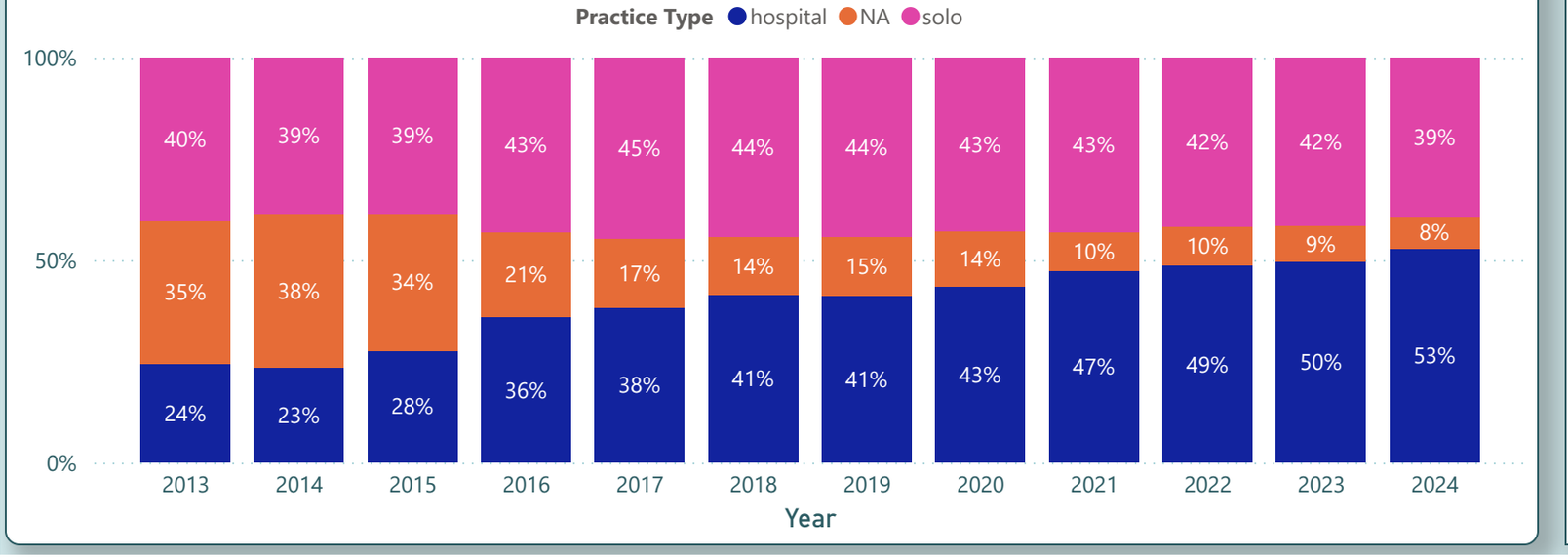
- Nursing home: represents care facilities for the elderly or individuals requiring psychiatric care.
- Group: represents collective practices or facilities where professionals work together (ex: medical house with lumpsum, mental health center, day care center, public pharmacies, medical laboratories, bandagist/orthopedist workshops, physiotherapy office).
- 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: tariff office, organizations with a registered business number)

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

Workforce (FTE) Distribution by Age Group



Workforce Evolution (FTE) by type of Practice



Workforce Distribution (FTE) by Region

