



Health Professionals Report : Capacity, Accessibility and Production

Specialty of Interest : Biological Pharmacist

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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.

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 2023 for health professionals
- 2018 to 2023 for health professionals subspecialties

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 registered 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](#)

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 2012 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.
- [Indicators of Density](#) : FTE/10.000 insured, total activity/FTE, reimbursement/FTE, number of patients/FTE.

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.
- 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 (2023) : Biological Pharmacist

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

Biological Pharmacist	
Competency Code	Description
68800	Biologist Pharmacists (before January 1, 1983) - Group SP
68801	Biologist Pharmacists (before January 1, 1983) - Group SP + G
68804	Biologist Pharmacists (before January 1, 1983) - Group SP + RIA
68830	Biologist Pharmacists (before January 1, 1983) - Group C
68851	Biologist Pharmacists (before January 1, 1983) - Group E + F
68900	Biologist Pharmacists (from January 1, 1983) - Group A
68990	Biologist Pharmacists (from January 1, 1983) - Group SP
68991	Biologist Pharmacists (from January 1, 1983) - Group SP + 4
68992	Biologist Pharmacists (from January 1, 1983) - Group SP + RIA
68993	Biologist Pharmacists (from January 1, 1983) - Group SP + 4 + RIA

	Biological Pharmacist	Medical Biologist
# N SubSpecialities	1	1
# N Total	750	711
# N Active	429	455
# Full-Time Equivalent (FTE)	300	268
€ Expenses per FTE	1,853,504	1,704,915
65+	% Active	% FTE
	16%	8%
Convention	% Active	% FTE
	92%	92%
Weighted Convention	% Active	% FTE
	92%	92%
Accreditation	% Active	% FTE
	87%	96%

Medical Biologist
Profession
Medical Biologist

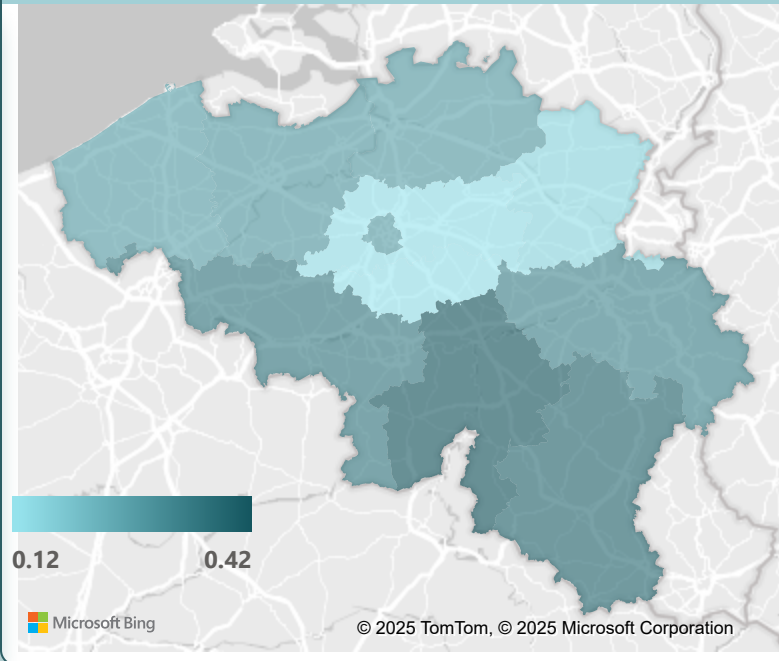
Geographical Accessibility (2023) : Biological Pharmacist

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

Indicators :

- Geographical distribution which enables to check for homogeneity.
- Evolution over 10 years and growth rate within that period.
- Comparison of number of FTE and number of insured to detect correlation.

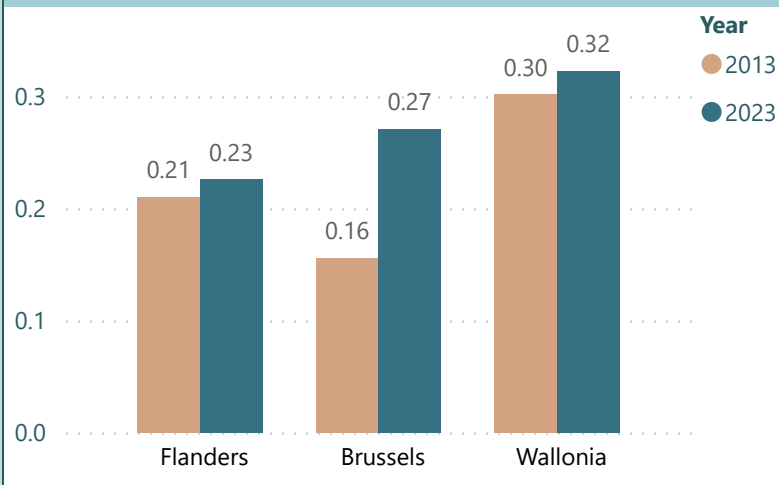
FTE per 10.000 Insured by Province



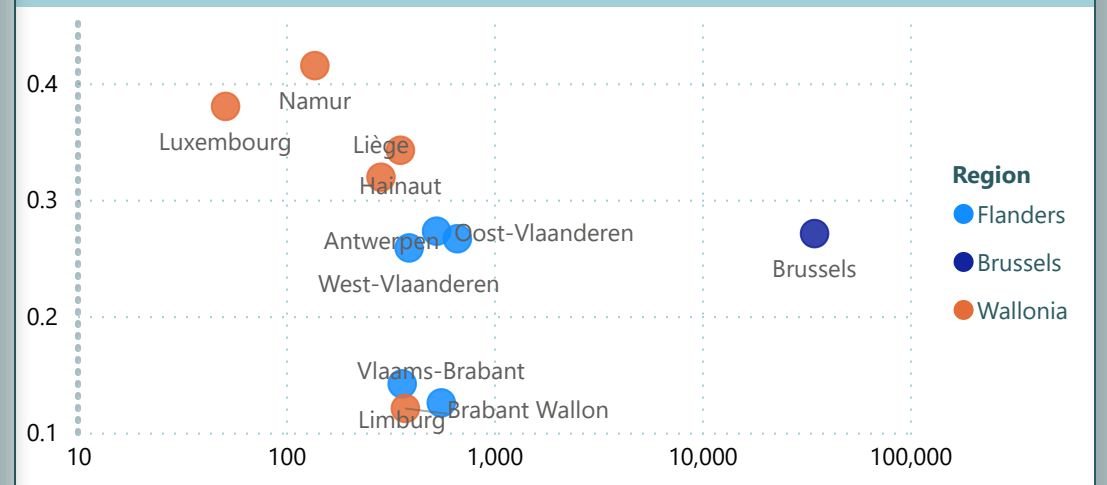
Demographic Information by Province

Province	#FTE	Density (FTE per 10.000 Insured)	%65+ (FTE)	%Women (FTE)
West-Vlaanderen	31.77	0.26	8%	72%
Oost-Vlaanderen	43.10	0.27	18%	56%
Antwerpen	50.95	0.27	8%	60%
Limburg	12.43	0.14	2%	48%
Vlaams-Brabant	14.75	0.13	9%	69%
Brussels	31.08	0.27	3%	79%
Brabant Wallon	4.94	0.12	0%	59%
Hainaut	46.01	0.34	6%	41%
Namur	20.95	0.42	5%	53%
Liège	35.29	0.32	6%	57%
Luxembourg	8.64	0.38	0%	0%
Total	299.91	0.26	8%	57%

FTE per 10.000 Insured, by Region (2013 vs 2023)



FTE Density versus Insured Density, by Province



FTE per 10.000 Insured in Belgium (2023)

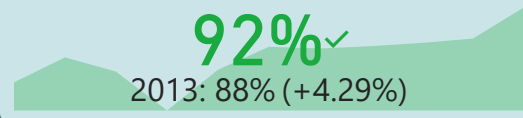
0.26 ✓
2013: 0.23 (+11.4%)

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.

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 (2023)



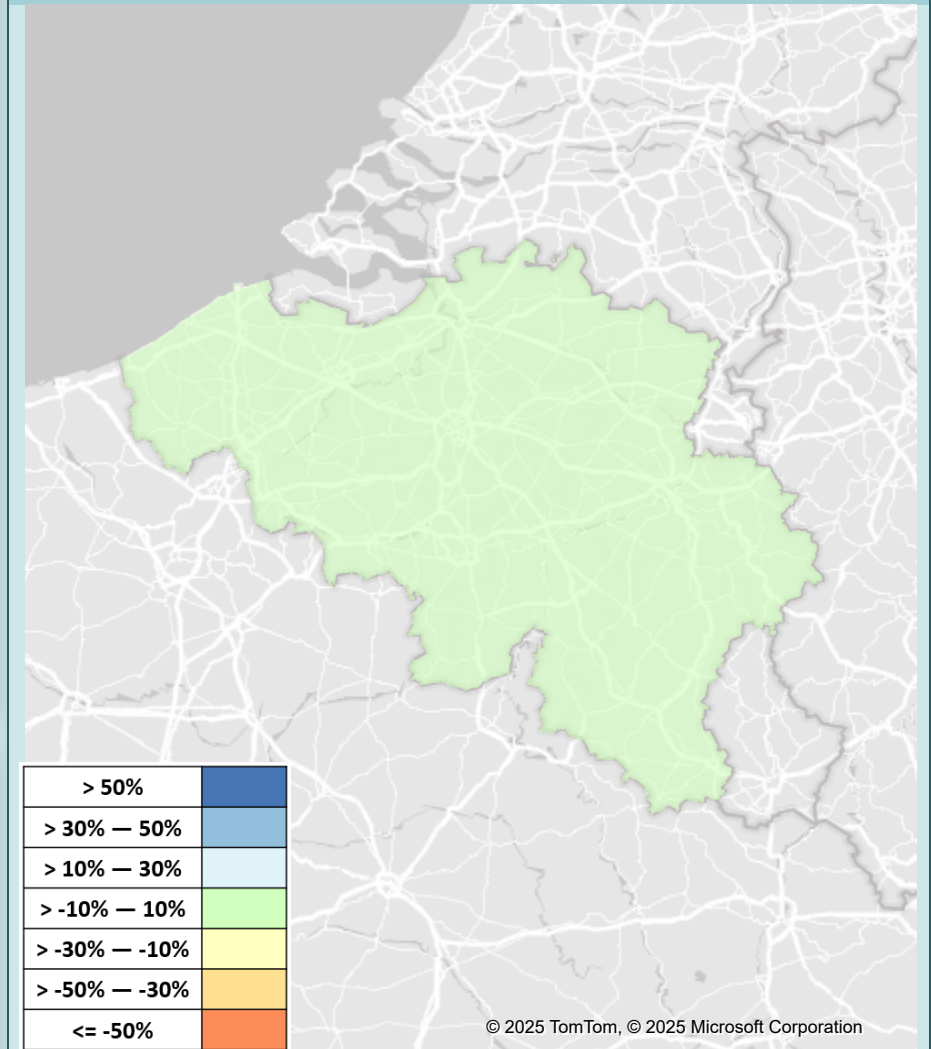
% Conventioned FTE by Language and Regime

Language	Part	Full	Total	Weighted
FR		98%	98%	98%
NL		87%	87%	87%
Total		92%	92%	92%

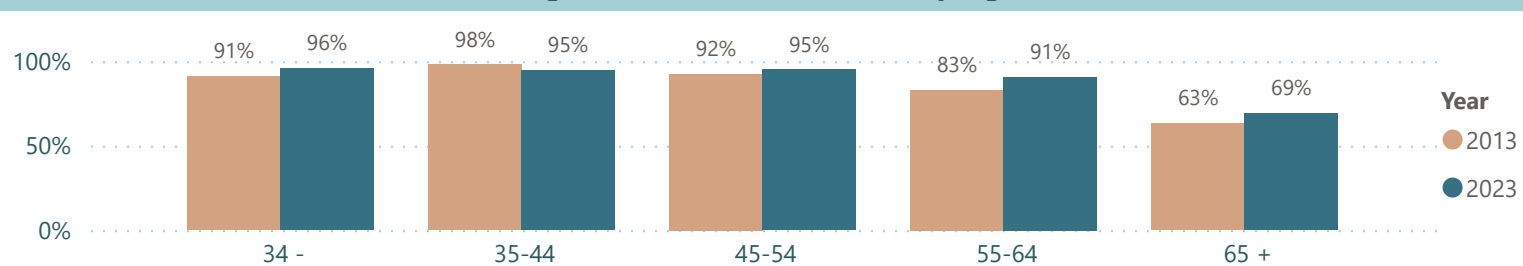
Demographic Information by Province

Province	Density (FTE per 10.000 Insured)	Density (Weighted Conventioned FTE per 10.000 Insured)	% Weighted Conventioned FTE
West-Vlaanderen	0.26	0.22	86%
Oost-Vlaanderen	0.27	0.23	86%
Antwerpen	0.27	0.23	87%
Limburg	0.14	0.12	84%
Vlaams-Brabant	0.13	0.13	100%
Brussels	0.27	0.25	92%
Brabant Wallon	0.12	0.12	100%
Hainaut	0.34	0.34	98%
Namur	0.42	0.42	100%
Liège	0.32	0.31	97%
Luxembourg	0.38	0.38	100%
Total	0.26	0.24	92%

% Differences Weighted Conventioned FTE by Province



Evolution of Weighted Conventioned FTE by Age (2013 vs 2023)



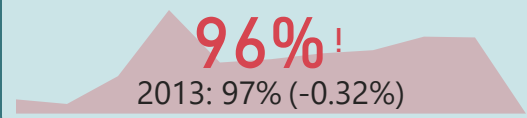
CPD (continuous professional development) is measured by accreditation criteria.

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 / total FTE

% Accredited FTE (2023)



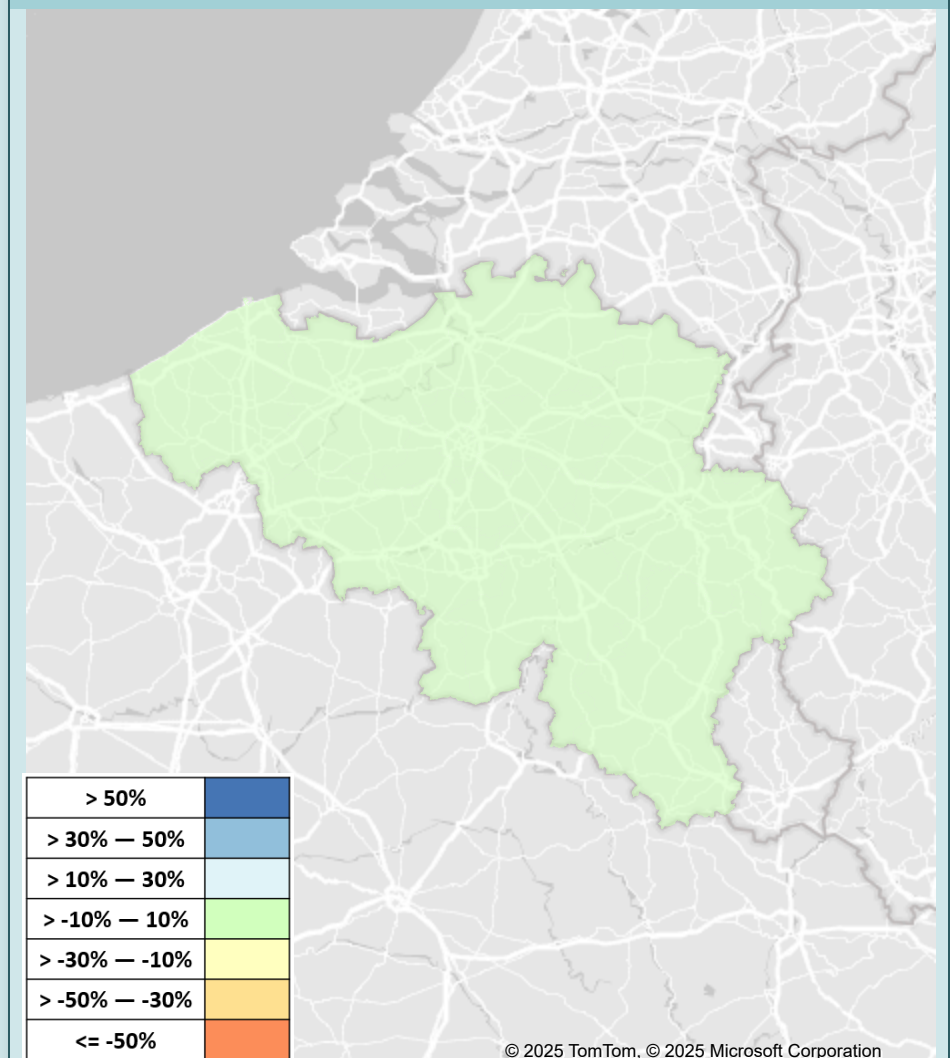
% Accredited FTE by Language and Gender

Language	F	M	Total
FR	95%	98%	96%
NL	98%	94%	96%
Total	97%	96%	96%

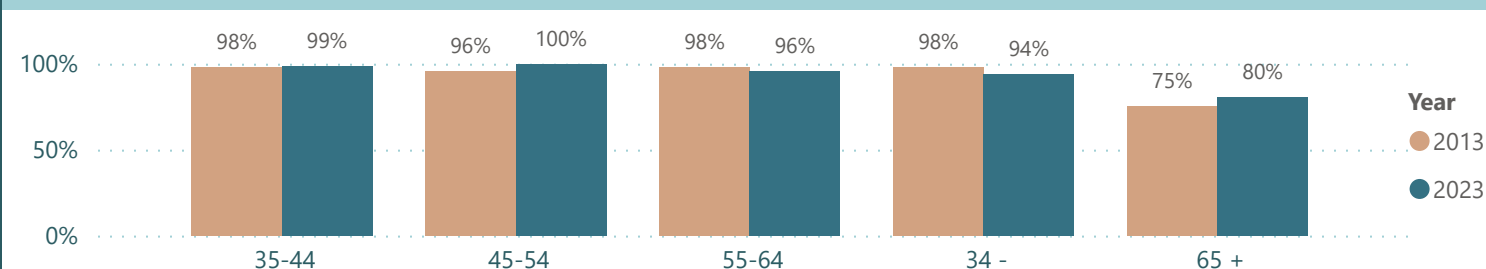
Demographic Information by Province

Province	Density (FTE per 10.000 Insured)	Density (Accredited FTE per 10.000 Insured)	% Accredited FTE
West-Vlaanderen	0.26	0.25	96%
Oost-Vlaanderen	0.27	0.26	96%
Antwerpen	0.27	0.26	97%
Limburg	0.14	0.13	92%
Vlaams-Brabant	0.13	0.12	98%
Brussels	0.27	0.26	97%
Brabant Wallon	0.12	0.12	100%
Hainaut	0.34	0.33	96%
Namur	0.42	0.38	91%
Liège	0.32	0.32	99%
Luxembourg	0.38	0.38	100%
Total	0.26	0.25	96%

% Differences Accredited FTE by Province



Evolution of Accredited FTE by Age (2013 vs 2023)



Subspecialties Activity and Working Place : Biological Pharmacist

Reimbursement by FTE (2023)

1,842,840
2018: 1,485,936 (+24.02%)

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:

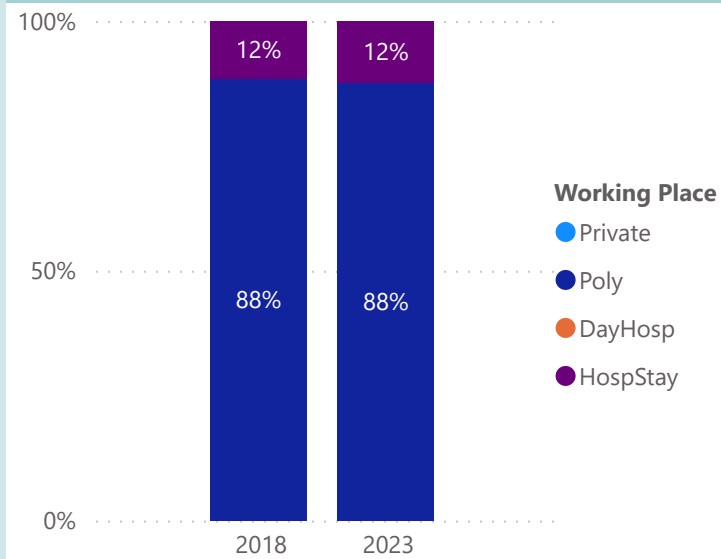
- The place of work is the place where the activity takes place (private, polyclinic, day hospital, hospital stay).
- The nature of the activity is described according to 2 logics of grouping. The traditional distribution of reimbursements within NIHDI (N01 contacts, N20 surgery, etc.) and a specific,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

Indicators :

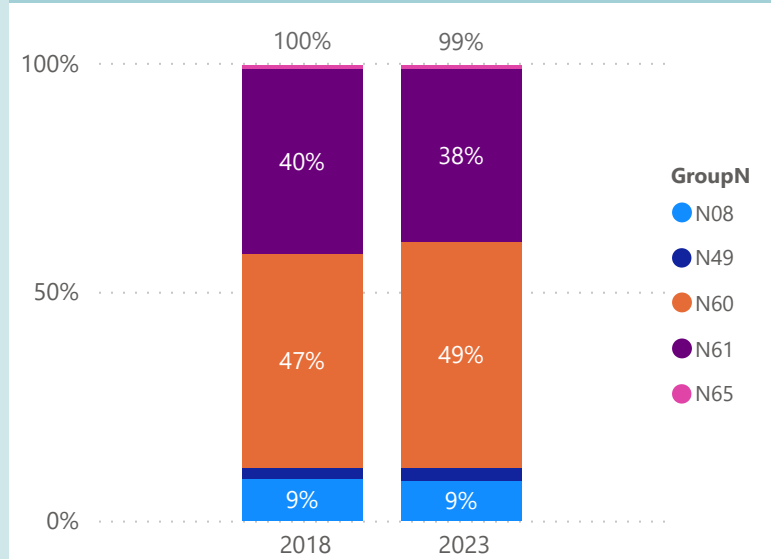
- Reimbursement (in Euros) / FTE
- % Reimbursement (in Euros) by category / total reimbursement (in Euros)

The evolution provides information on the stability of the patterns of the activity comparing year N with N-5.

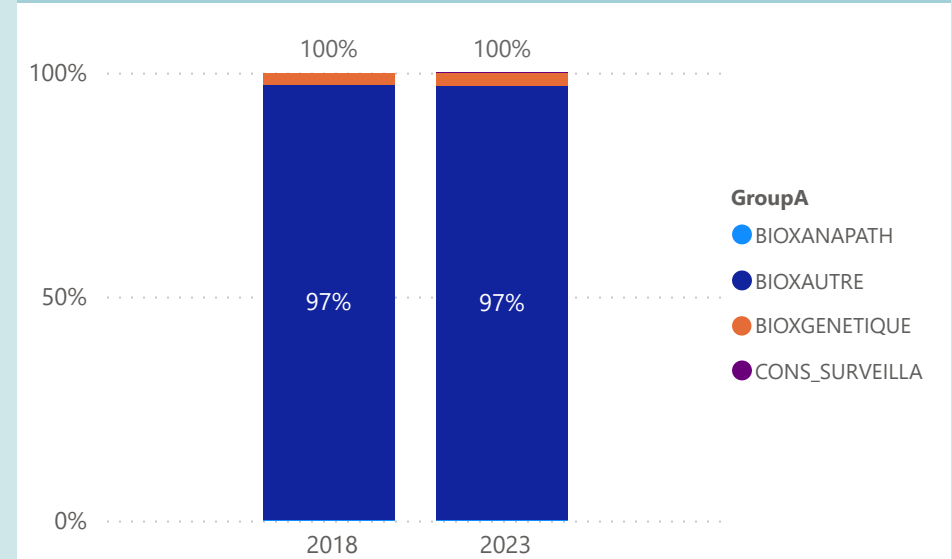
Reimbursement by Working Place (2018 vs 2023)



Top 5 Reimbursement (NIHDI Groups, 2018 vs 2023)



Top 5 Reimbursement (Specific Groups, 2018 vs 2023)



GroupN	Description
N08	Clinical biology - Article 3 + pseudo codes
N49	Molecular biological testing on human genetic material
N60	Clinical biology - Article 24§1 + pseudocodes
N61	Flat fees - outpatient clinical biology
N65	Molecular biology - genetic material microorganisms

GroupA	Description
BIOXANAPATH	Anapath
BIOXAUTRE	Biology
BIOXGENETIQUE	Genetics Test
CONS_SURVEILLA	Monitoring

Subspecialties Activity and Working Place (2023) : Biological Pharmacist

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 cluster is named "Mixed". Clusters less than 5 FTE or less than 0,5% of total FTE are left out. Comparison of clusters helps to understand differences in nature of work.

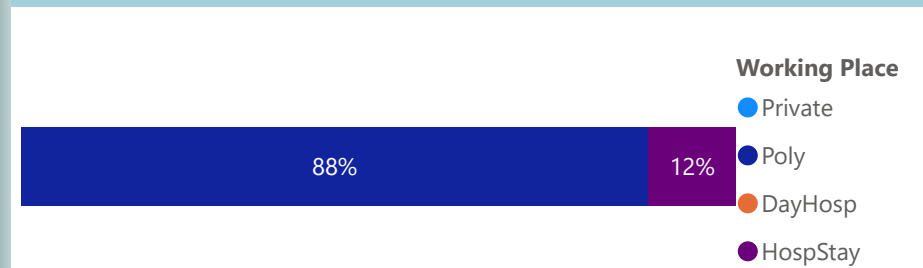
Indicators :

- % FTE by type of cluster
- % type of activity (in Euro) / total reimbursement (in euro) by cluster

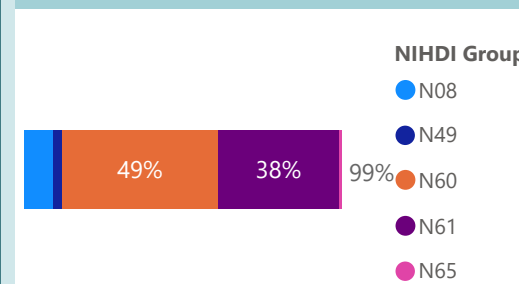
FTE and median Reimbursement by Subspecialty

Subspecialty	FTE	Reimb per Provider
Poly	90	2,253,950
Mixed	208	870,712

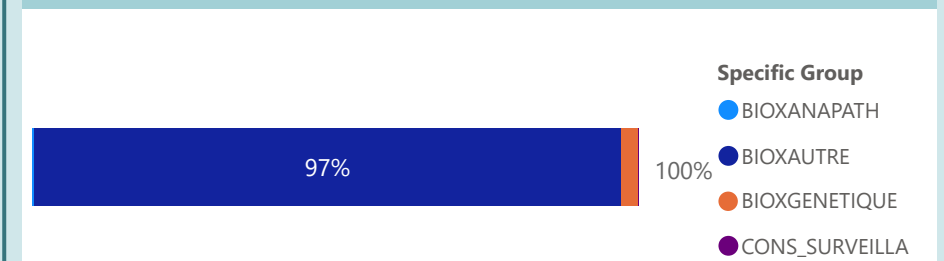
Reimbursement by Working Place



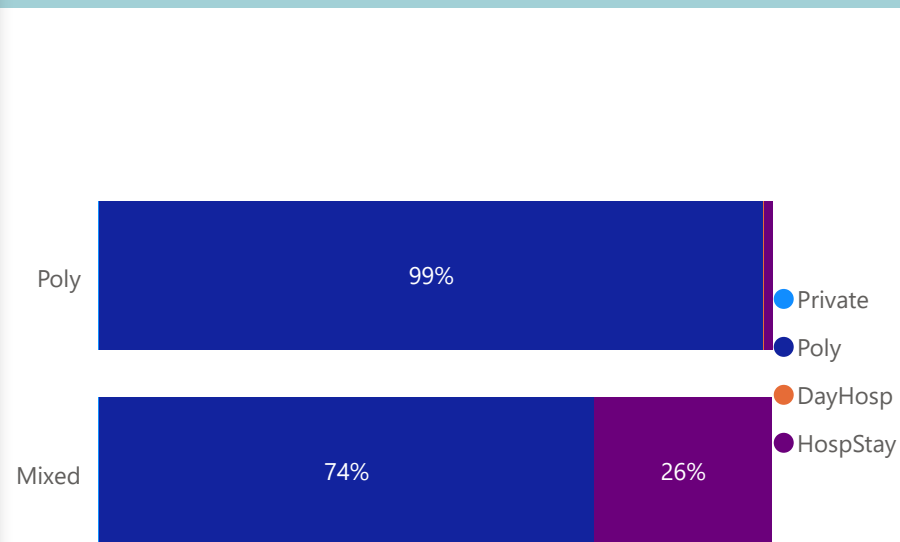
Top 5 NIHDI Groups



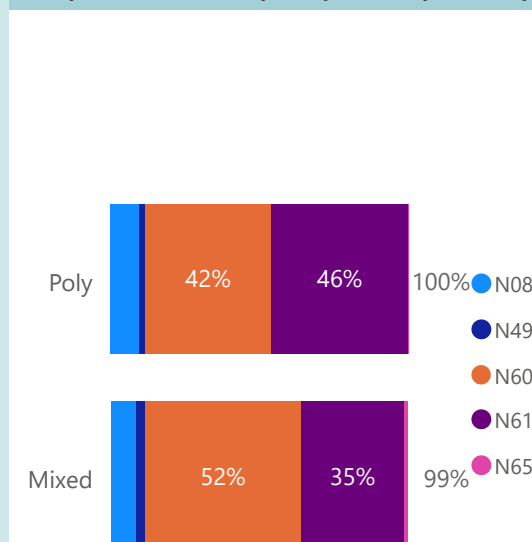
Top 5 Specific Groups



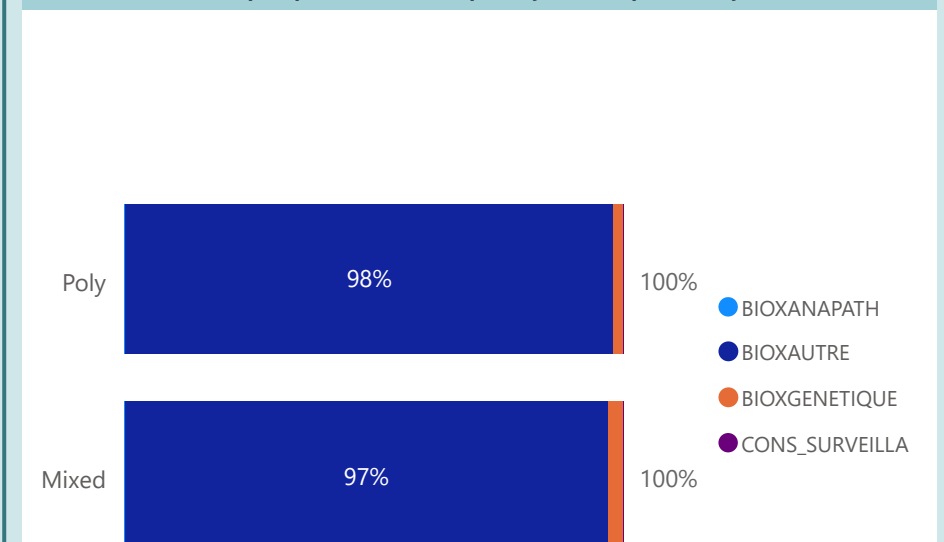
Reimbursement by Working Place, by Subspecialty



Top NIHDI Groups by Subspecialty



Top Specific Groups by Subspecialty



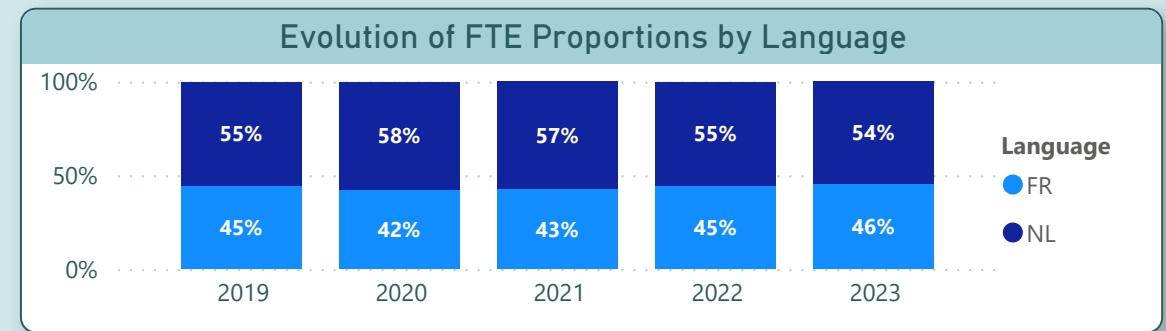
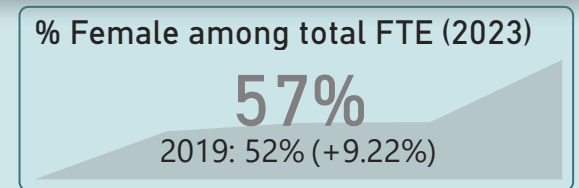
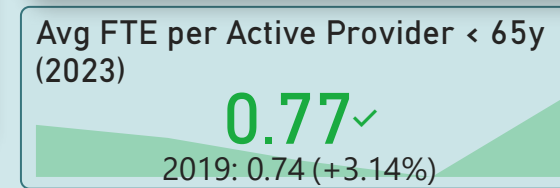
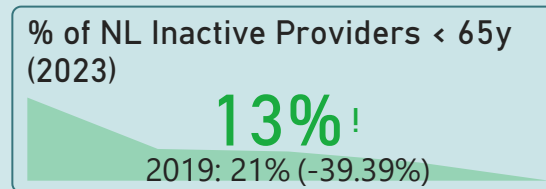
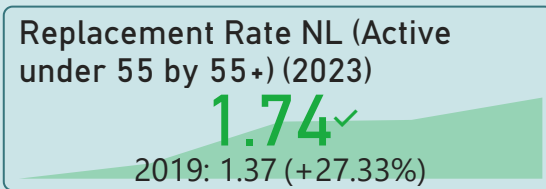
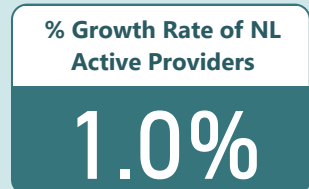
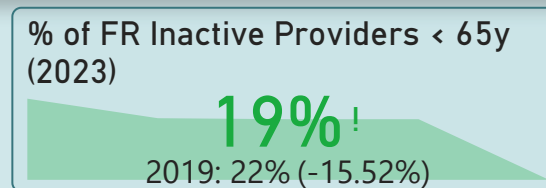
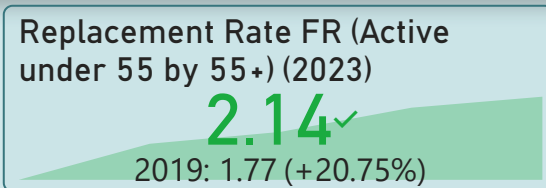
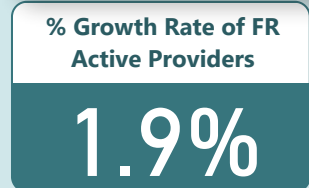
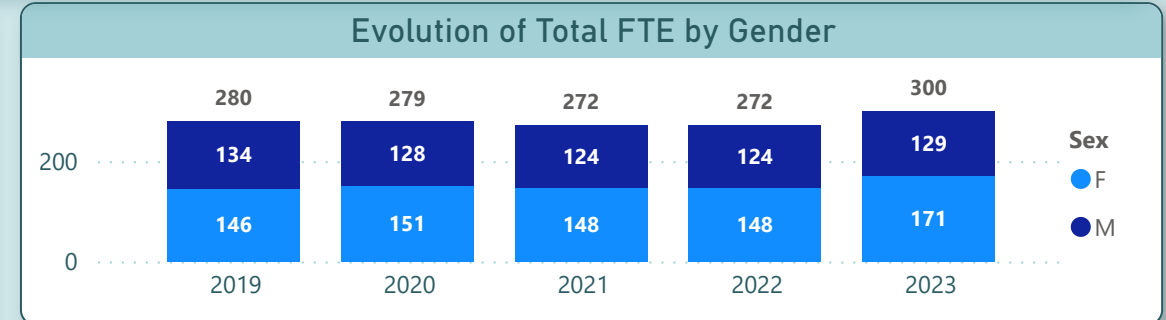
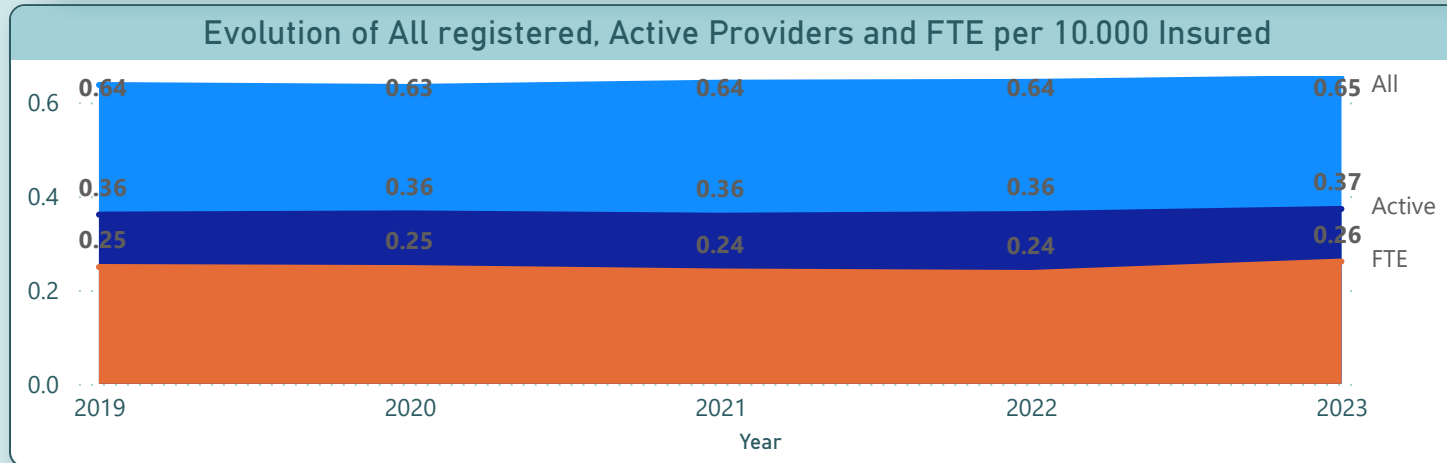
Healthcare workforce demographics present active professionals having more than one activity per year on the left side of the page, while Full-Time Equivalents (FTE) are displayed on the right side. The analysis spans the past decade and is segmented by professional characteristics such as age class,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

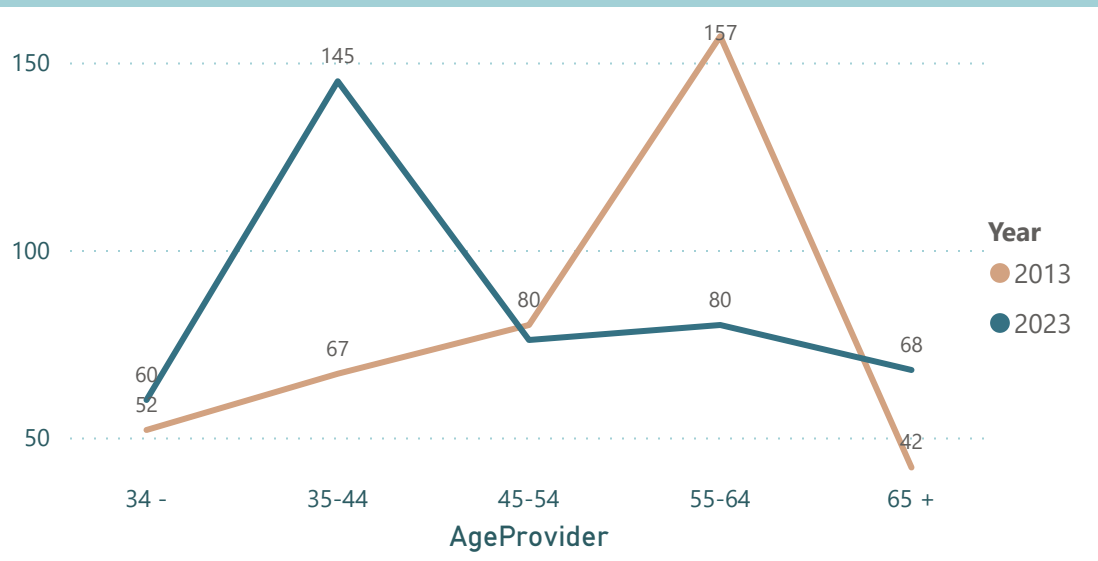


Demographic evolution by age group and activity of professionals above 65 years (provides information on the demographic stability).

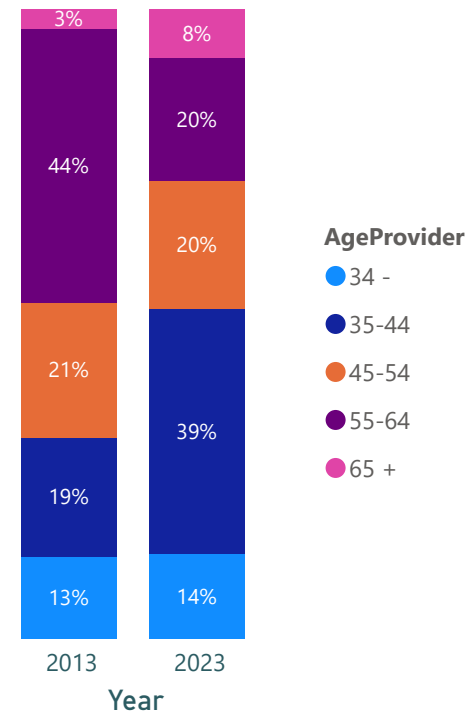
Indicators :

- 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 2023)



Proportion (FTE) by Age Group (2013 VS 2023)



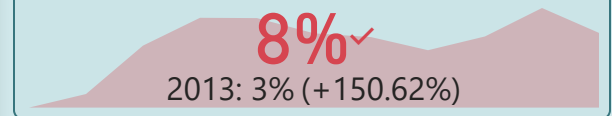
Average Age of a NL FTE (2023)



Average Age of a FR FTE (2023)



% of 65+ Activity of total FTE (2023)



FTE by Language

Language	#FTE	%65+ (FTE)
FR	136.60	5%
NL	163.31	10%
Total	299.91	8%

Annex 1: FTE Details (2023) : Biological Pharmacist

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. 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 (2023)

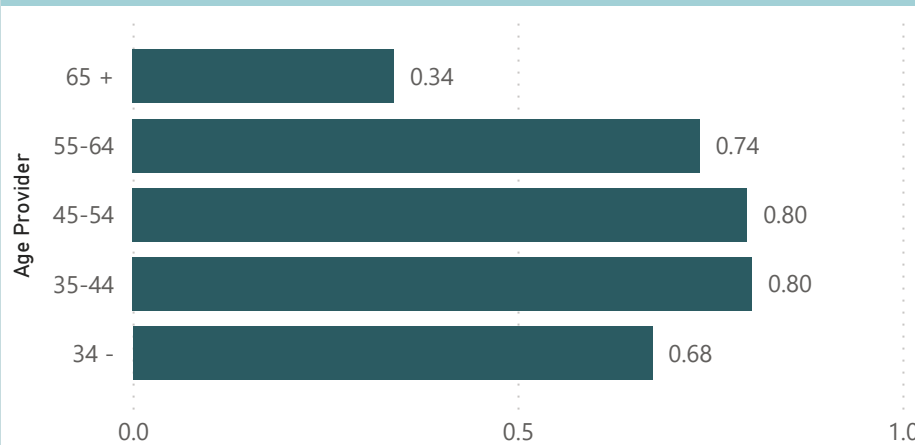
0.70

2013: 0.65 (+7.71%)

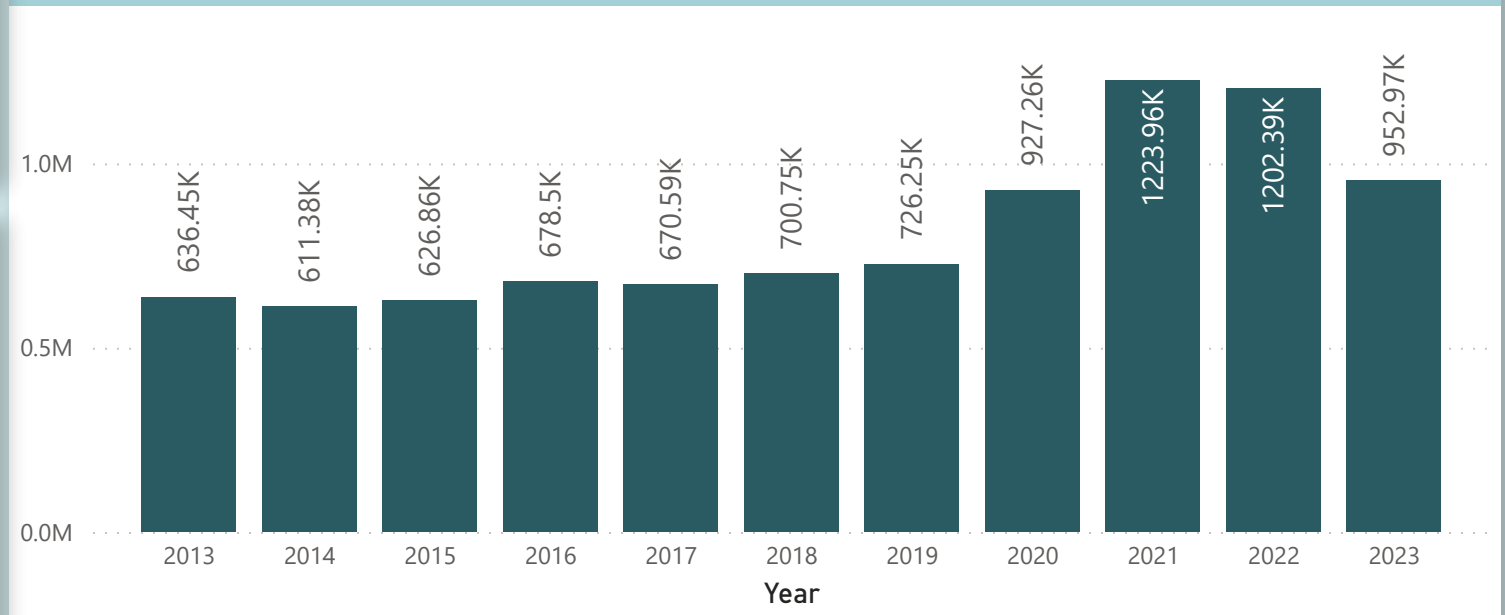
Avg FTE per Active Provider by Language and Gender

Language	F	M	Total
FR	0.70	0.82	0.75
NL	0.68	0.63	0.66
Total	0.69	0.71	0.70

FTE per Active Provider by Age



Median of Reimbursements for Providers between 45 and 54 years old



Annex 2: Type of Practice (2023) : Biological Pharmacist

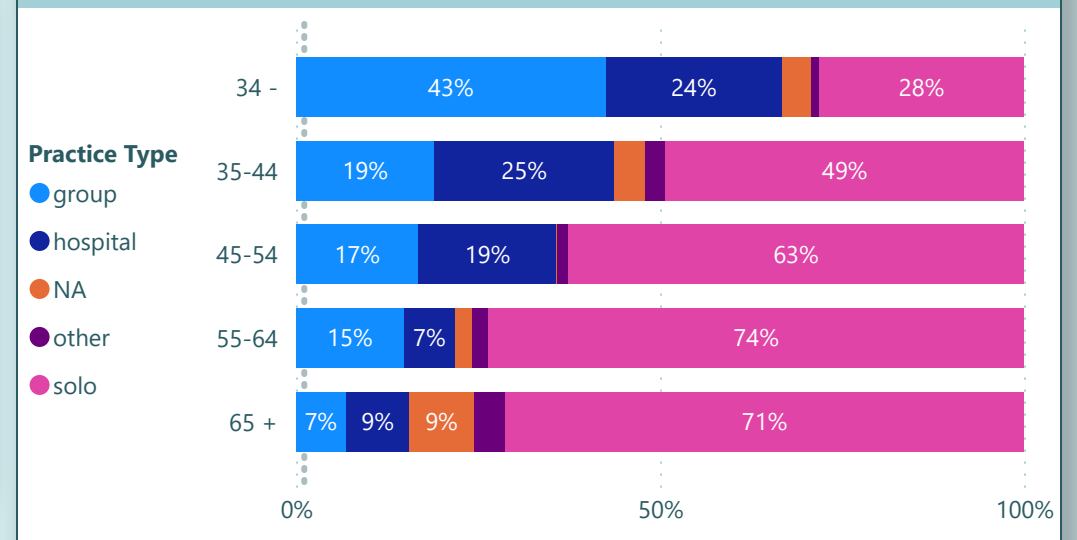
Type of practice (FTE) by age group and region. Evolution and trends

5 types of practices are represented:

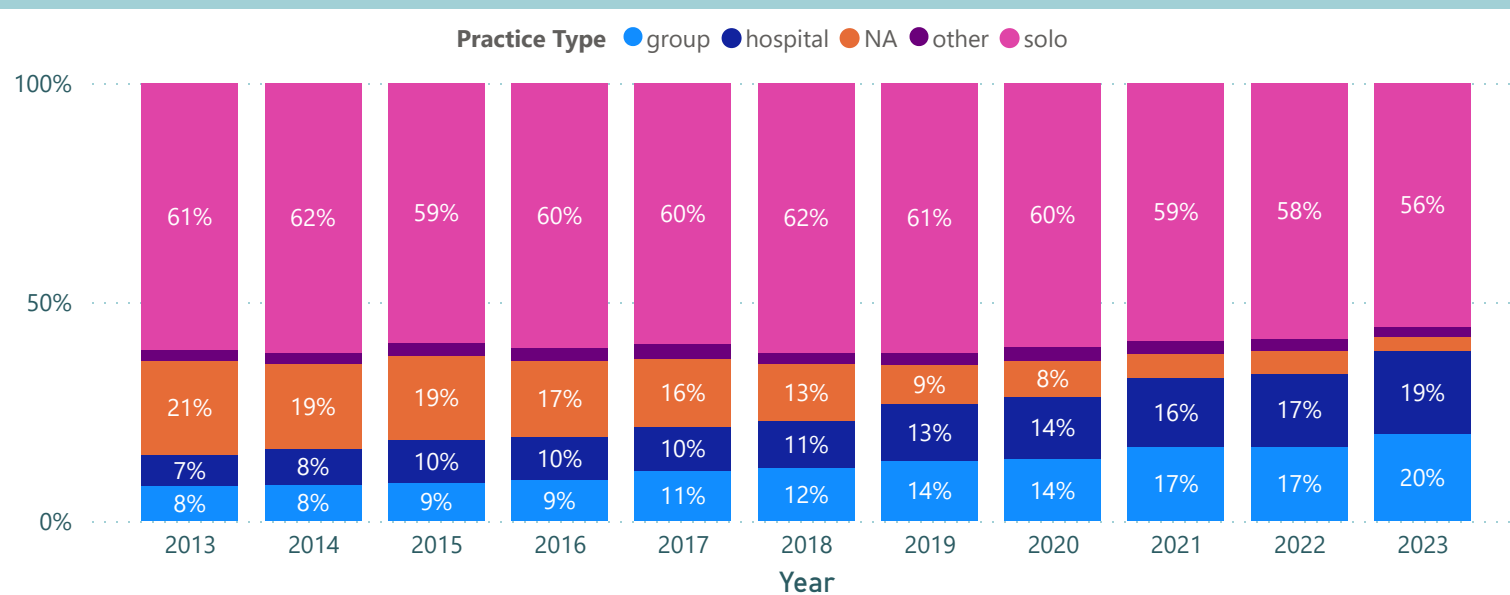
- Nursing home: represents care facilities for the elderly or individuals requiring psychiatric care.
- Group: represents collective practices or facilities where professionals work together (ex: medical house with lumpsum, mental health center, day care center, public pharmacies, medical laboratories, 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

