Medical practice variations

Spine surgery

Analysis of the distribution of medical practice in Belgium, in terms of volume and expenditure per patient and per insured (distribution, occurrence, trends by region, province and district), for the year **2025**

NIHDI – Healthcare Service – Directorate for Research, Development and Quality promotion

Appropriate care unit

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CONTENTS

CONTENTS **2**

1. INTRODUCTION **3**

2. KEY DATA SUMMARY **4**

3. SPECIFIC METHOD OF ANALYSIS **5**

A. NIHDI NOMENCLATURE CODES SELECTED FOR ANALYSIS 5
B. PAST HISTORY OF NOMENCLATURE CODES 11
C. TRENDS IN THE BREAKDOWN OF NOMENCLATURE CODES PROVIDED, BY VOLUME 12
D. SOURCE OF DATA AND ANALYSIS PERIOD 13
E. SPECIFIC SELECTION CRITERIA 14
F. SPECIALTY OF HEALTHCARE PROVIDERS 15
G. SPECIALTY OF PRESCRIBERS 16
H. (ESTIMATED) NUMBER OF PATIENTS PER YEAR 17
I. STANDARDISATION 18

4. RESULTS **19**

A. NATIONAL STANDARDISED USAGE RATE 19
B. STANDARDISED USAGE RATE BY SEX AND AGE 20
C. RATE OF OUTPATIENT CARE 24
D. STANDARDISED USAGE RATE BY REIMBURSEMENT SCHEME 26
E. TRENDS IN STANDARDISED USAGE RATES 28
F. GEOGRAPHICAL VARIATIONS IN STANDARDISED USAGE RATES 32
G. STANDARDISED HEALTHCARE EXPENDITURE BORNE BY THE INSURANCE 36

5. APPENDICES **42**

A. ANALYSIS OF VARIANCE (ANOVA), EXCEPT BRUSSELS 42
B. FREQUENCY OF PRACTICE OCCURRENCES (PER PATIENT) 43
C. TYPES OF PATIENT CARE 47
D. CODING VARIATIONS AND PRACTICE ALTERNATIVES 50

1. INTRODUCTION

The Appropriate Care Unit was set up within the NIHDI's Directorate for Research, Development and Quality under NIHDI's Administration Contract for 2016-2018[1]. Article 35 of this contract refers to 'the setting up of an Appropriate Care Unit, aiming specifically to promote an integrated approach to the rational use of resources'. The Appropriate Care Unit has been up and running since the second quarter of 2017.

The tasks of the Unit were set out formally in the '2016-2017 Healthcare monitoring Action plan', published by NIHDI on 18 July 2016[1]. This plan lists around thirty measures designed to make healthcare provision more efficient, by encouraging appropriate practice and tackling unnecessary or inappropriate care.

The plan states that one of the tasks of the Appropriate Care Unit is to analyse the 'appropriateness of care', in order to identify un-explained variations in consumption patterns, identified after standardisation. Such variations can potentially point to non-optimal use of resources.

'Variations in medical practice' documents report on the analyses carried out in this framework. Each report focuses on a particular topic.

In this document, we present the figures and graphs relating to analyses2 of practice in the area of Spine surgery, and give the explanations necessary to understand these.

We have deliberately chosen not to attempt to interpret the figures, preferring to present the results to experts who are in a better position to do so. This document has nevertheless been made available to the public in order to provide objective, open input to discussions on this issue..

The data presented in this analysis reflect the coverage of healthcare costs by compulsory health insurance. However, this does not mean that all services are provided in accordance with regulations and/or guidelines.

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

[2] Readers interested in the methodology used in these quantitative analyses should consult the document entitled 'Variations in practice – Methodology'.

2. KEY DATA SUMMARY

		TOTAL	Δ[1]
PROVIDERS & PRESCRIBERS			
Main healthcare providers:	*Neurosurgery*	**75,60%**	
Main prescribers:	*Undefined*	**-**	
USAGE RATE			
Number of services per year		**36.875**	
Average occurrence per patient per day (services)		**1,00**	
Average occurrence per patient per year (days)		**1,07**	
Total average occurrence		**1,07**	
Estimated number of patients (per year)		**34.446**	
Standardised usage rate (per 100 000 insured persons)		**295**	
Percentage of outpatient care		**0,81%**	
Percentage One-day/(One-day + Inpatient)		**NA**	
POPULATION			
% of the selected population compared to the total number of insured people		**100,00%**	
Median age of patients		**60** years	
Ratio of standardised usage rate women/men (patients)		**1**	**δ**
Ratio of standardised usage rate preferential rate/general rate (patients)		**1,3**	**δ**
TRENDS			
Trends[2] (2015-2025)		**-0,76% NS**	
Trends (2015-2023)		**-0,12%**	
Trends[3] (2023-2025)		**-3,26% NS**	
DIRECT EXPENSES			
Annual expenditure		**36.439.664** €	
Average annual expenditure per insured[4]		**3,12** €	
Average annual expenditure per patient		**1.057,88** €	

[1] **Δ Dispersion marker: comparison of the coefficient of variation (CV) of the indicator with the median (MED) of the CVs of all analyses for this indicator: δ if CV > MED + 10%, δδ if CV > MED + 20%, δδδ if CV > MED + 30%.**
Exception: For median age, δ means CV > MED + 30%.

[2] The test indicates whether the observed slope is statistically significantly different from 0%.

[3] The test indicates whether the break in trend between the two periods is statistically significant.

[4] Expenditure is based on the insured people selected

3. SPECIFIC METHOD OF ANALYSIS

A. NIHDI nomenclature codes selected for analysis

The NIHDI nomenclature codes selected for the analysis are listed below :

Outpatient	Inpatient	Rates	Expenses	Label	Creation	Deletion	Group N	Value
224011	**224022**	yes	yes	^^ Décompression de la moelle épinière au niveau de la colonne cervicale par voie transorale, transmaxillaire ou transmandibulaire	01-09-2022		N35	K500
224033	**224044**	yes	yes	^^ Décompression de la moelle épinière au niveau de la colonne cervicale par voie transorale, transmaxillaire ou transmandibulaire, y compris la reconstruction	01-09-2022		N35	K555
224055	**224066**	yes	yes	^ Fixation de l'odontoïde par vissage antérieur	01-09-2022		N35	K335
224070	**224081**	yes	yes	^ Discectomie cervicale par abord antérieur, y compris la reconstruction sur 1 niveau	01-09-2022		N35	K350
224092	**224103**	yes	yes	^ Discectomie cervicale par abord antérieur, y compris la reconstruction sur 2 niveaux	01-09-2022		N35	K435
224114	**224125**	yes	yes	^ Discectomie cervicale par abord antérieur, y compris la reconstruction sur 3 niveaux ou plus	01-09-2022		N35	K520
224136	**224140**	yes	yes	^ Corporectomie de la colonne cervicale par abord antérieur, y compris la reconstruction sur 1 niveau	01-09-2022		N35	K430
224151	**224162**	yes	yes	^ Corporectomie de la colonne cervicale par abord antérieur, y compris la reconstruction sur 2 niveaux	01-09-2022		N35	K540
224173	**224184**	yes	yes	^ Corporectomie de la colonne cervicale par abord antérieur, y compris la reconstruction sur 3 niveaux ou plus	01-09-2022		N35	K650
224195	**224206**	yes	yes	^ Foraminotomie cervicale antérieure ou latérale, avec ou sans décompression de l'artère vertébrale sur 1 niveau	01-09-2022		N35	K350
224210	**224221**	yes	yes	^ Foraminotomie cervicale antérieure ou latérale, avec ou sans décompression de l'artère vertébrale sur 2 niveaux	01-09-2022		N35	K435
224232	**224243**	yes	yes	^ Foraminotomie cervicale antérieure ou latérale, avec ou sans décompression de l'artère vertébrale sur 3 niveaux ou plus	01-09-2022		N35	K520
224254	**224265**	yes	yes	^ Fusion et / ou fixation occipito-cervicale, y compris l'éventuelle décompression	01-09-2022		N35	K310
224276	**224280**	yes	yes	^ Fusion et / ou fixation postérieure des vertèbres cervicales C1 et C2 à l'aide de crochets ou de fils	01-09-2022		N35	K170
224291	**224302**	yes	yes	^ Fusion et / ou fixation postérieure des vertèbres cervicales C1 et C2 à l'aide de vis	01-09-2022		N35	K310
224313	**224324**	yes	yes	^ Laminectomie cervicale quel que soit le nombre de niveaux	01-09-2022		N35	K280
224335	**224346**	yes	yes	^ Laminoplastie cervicale sur 1 niveau	01-09-2022		N35	K250
224350	**224361**	yes	yes	^ Laminoplastie cervicale sur 2 niveaux	01-09-2022		N35	K310
224372	**224383**	yes	yes	^ Laminoplastie cervicale sur 3 niveaux ou plus	01-09-2022		N35	K370
224394	**224405**	yes	yes	^ Foraminotomie cervicale postérieure sur 1 niveau	01-09-2022		N35	K350
224416	**224420**	yes	yes	^ Foraminotomie cervicale postérieure sur 2 niveaux	01-09-2022		N35	K435
224431	**224442**	yes	yes	^ Foraminotomie cervicale postérieure sur 3 niveaux ou plus	01-09-2022		N35	K520

This table shows the NIHDI nomenclature codes selected for this analysis, stating whether or not they were included in the analyses of services and expenditure, and giving, for each one, a description, dates of creation and deletion, where appropriate, their N group (in the NIHDI nomenclature) and their value.

Outpatient	Inpatient	Rates	Expenses	Label	Creation	Deletion	Group N	Value
224453	224464	yes	yes	^ Fixation cervicale ou cervico-thoracique postérieure, y compris l'éventuelle décompression, sur 1 niveau	01-09-2022		N35	K225
224475	224486	yes	yes	^ Fixation cervicale ou cervico-thoracique postérieure, y compris l'éventuelle décompression, sur 2 niveaux	01-09-2022		N35	K280
224490	224501	yes	yes	^ Fixation cervicale ou cervico-thoracique postérieure, y compris l'éventuelle décompression, sur 3 niveaux ou plus	01-09-2022		N35	K335
224512	224523	yes	yes	^^ Reconstruction cervicale avec une fixation tant antérieure que postérieure ou une fixation antérieure et une décompression postérieure ou une laminoplastie au cours d'une seule intervention chirurgicale	01-09-2022		N35	K560
224556	224560	yes	yes	^ Résection ou debulking d'une masse cervicale rachidienne néoplasique ou inflammatoire	01-09-2022		N35	K300
224571	224582	yes	yes	^^ Résection ou debulking d'une masse cervicale rachidienne néoplasique ou inflammatoire avec reconstruction	01-09-2022		N35	K500
224593	224604	yes	yes	^^ Spondylectomie cervicale totale en bloc pour une tumeur et reconstruction sur 1 niveau	01-09-2022		N35	K670
224615	224626	yes	yes	^^ Spondylectomie cervicale totale en bloc pour une tumeur et reconstruction sur 2 niveaux	01-09-2022		N35	K835
224630	224641	yes	yes	^^ Spondylectomie cervicale totale en bloc pour une tumeur et reconstruction sur 3 niveaux ou plus	01-09-2022		N35	K1000
224652	224663	yes	yes	Ablation chirurgicale de matériel d'ostéosynthèse, au niveau de la colonne cervicale	01-09-2022		N35	K155
224696	224700	yes	yes	Placement chirurgical d'un fixateur ou d'une traction externe pour l'immobilisation de fractures, de luxations ou de fractures-luxations de la colonne cervicale et/ou thoracique haute	01-09-2022		N35	K80
224733	224744	yes	yes	^^ Résection d'une hernie discale thoracique par abord antérieur, par voie chirurgicale ouverte ou endoscopique sur 1 niveau	01-09-2022		N35	K400
224755	224766	yes	yes	^^ Résection d'une hernie discale thoracique par abord antérieur, par voie chirurgicale ouverte ou endoscopique sur 2 niveaux	01-09-2022		N35	K490
224770	224781	yes	yes	^^ Résection d'une hernie discale thoracique par abord antérieur, par voie chirurgicale ouverte ou endoscopique sur 3 niveaux ou plus	01-09-2022		N35	K580
224792	224803	yes	yes	^^ Corporectomie d'une vertèbre thoracique avec reconstruction, par abord antérieur, par voie chirurgicale ouverte ou endoscopique, sur 1 niveau	01-09-2022		N35	K430
224814	224825	yes	yes	^^ Corporectomie d'une vertèbre thoracique avec reconstruction, par abord antérieur, par voie chirurgicale ouverte ou endoscopique, sur 2 niveaux	01-09-2022		N35	K540
224836	224840	yes	yes	^^ Corporectomie d'une vertèbre thoracique avec reconstruction, par abord antérieur, par voie chirurgicale ouverte ou endoscopique, sur 3 niveaux ou plus	01-09-2022		N35	K650
224851	224862	yes	yes	^ Laminectomie thoracique quel que soit le nombre de niveaux	01-09-2022		N35	K170
224873	224884	yes	yes	^ Fixation de vertèbre(s) thoracique(s) par abord postérieur, quel que soit le nombre de niveaux	01-09-2022		N35	K250
224895	224906	yes	yes	^ Fixation du rachis thoracique par abord postérieur, y compris une laminectomie, quel que soit le nombre de niveaux	01-09-2022		N35	K305
224910	224921	yes	yes	^ Décompression thoracique par voie costo-transversaire	01-09-2022		N35	K335
224932	224943	yes	yes	^ Décompression thoracique par voie costo-transversaire, y compris la reconstruction	01-09-2022		N35	K390
224976	224980	yes	yes	^ Résection / debulking d'une masse thoracique rachidienne néoplasique ou inflammatoire	01-09-2022		N35	K300
224991	225002	yes	yes	^^ Résection / debulking d'une masse thoracique rachidienne néoplasique ou inflammatoire, y compris la reconstruction	01-09-2022		N35	K500
225013	225024	yes	yes	^^ Spondylectomie thoracique totale en bloc pour une tumeur et reconstruction sur 1 niveau	01-09-2022		N35	K670
225035	225046	yes	yes	^^ Spondylectomie thoracique totale en bloc pour une tumeur et reconstruction sur 2 niveaux	01-09-2022		N35	K835

Outpatient	Inpatient	Rates	Expenses	Label	Creation	Deletion	Group N	Value
225050	225061	yes	yes	^^ Spondylectomie thoracique totale en bloc pour une tumeur et reconstruction sur 3 niveaux ou plus	01-09-2022		N35	K1000
225072	225083	yes	yes	^ (Micro)discectomie unilatérale lombaire ou décompression unilatérale (interlaminaire) en cas de sténose foraminale ou du récessus latéral ou de kyste sur 1 niveau	01-09-2022		N35	K200
225094	225105	yes	yes	^ (Micro)discectomie unilatérale lombaire ou décompression unilatérale (interlaminaire) en cas de sténose foraminale ou du récessus latéral ou de kyste sur 2 niveaux	01-09-2022		N35	K250
225116	225120	yes	yes	^ (Micro)discectomie unilatérale lombaire ou décompression unilatérale (interlaminaire) en cas de sténose foraminale ou du récessus latéral ou de kyste sur 3 niveaux ou plus	01-09-2022		N35	K300
225131	225142	yes	yes	^^ Discectomie lombaire y compris la reconstruction, par abord antérieur ou latéral, sur 1 niveau	01-09-2022		N35	K350
225153	225164	yes	yes	^^ Discectomie lombaire y compris la reconstruction, par abord antérieur ou latéral, sur 2 niveaux	01-09-2022		N35	K435
225175	225186	yes	yes	^^ Discectomie lombaire y compris la reconstruction, par abord antérieur ou latéral, sur 3 niveaux ou plus	01-09-2022		N35	K520
225190	225201	yes	yes	^^ Discectomie lombaire par abord antérieur ou latéral, y compris la reconstruction antérieure ou latérale et la fixation postérieure complémentaire à l'aide de vis pédiculaires sur 1 niveau	01-09-2022		N35	K460
225212	225223	yes	yes	^^ Discectomie lombaire par abord antérieur ou latéral, y compris la reconstruction antérieure ou latérale et la fixation postérieure complémentaire à l'aide de vis pédiculaires sur 2 niveaux	01-09-2022		N35	K575
225234	225245	yes	yes	^^ Discectomie lombaire par abord antérieur ou latéral, y compris la reconstruction antérieure ou latérale et la fixation postérieure complémentaire à l'aide de vis pédiculaires sur 3 niveaux ou plus	01-09-2022		N35	K690
225256	225260	yes	yes	^^ Corporectomie y compris la reconstruction d'une vertèbre lombaire par abord antérieur ou latéral, sur 1 niveau	01-09-2022		N35	K450
225271	225282	yes	yes	^^ Corporectomie y compris la reconstruction de vertèbres lombaires par abord antérieur ou latéral, sur 2 niveaux	01-09-2022		N35	K560
225293	225304	yes	yes	^^ Corporectomie y compris la reconstruction de vertèbres lombaires par abord antérieur ou latéral, sur 3 niveaux ou plus	01-09-2022		N35	K670
225315	225326	yes	yes	^^ Corporectomie d'une vertèbre lombaire par abord antérieur ou latéral, y compris la reconstruction et la fixation postérieure à l'aide de vis pédiculaires sur 1 niveau	01-09-2022		N35	K560
225330	225341	yes	yes	^^ Corporectomie de vertèbres lombaires par abord antérieur ou latéral, y compris la reconstruction et la fixation postérieure à l'aide de vis pédiculaires sur 2 niveaux	01-09-2022		N35	K700
225352	225363	yes	yes	^^ Corporectomie de vertèbres lombaires par abord antérieur ou latéral, y compris la reconstruction et la fixation postérieure à l'aide de vis pédiculaires sur 3 niveaux ou plus	01-09-2022		N35	K840
225374	225385	yes	yes	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du récessus latéral ou de kyste, sur 1 niveau	01-09-2022		N35	K250
225396	225400	yes	yes	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du récessus latéral ou de kyste, sur 2 niveaux	01-09-2022		N35	K325
225411	225422	yes	yes	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du récessus latéral ou de kyste, sur 3 niveaux ou plus	01-09-2022		N35	K400
225455	225466	yes	yes	^ Fixation lombaire au moyen de vis pédiculaires par abord postérieur, sur 1 ou plusieurs niveaux	01-09-2022		N35	K280
225470	225481	yes	yes	^ Fixation lombaire au moyen de vis pédiculaires par abord postérieur et décompression, y compris une éventuelle fusion postérolatérale sur 1 niveau	01-09-2022		N35	K300
225492	225503	yes	yes	^ Fixation lombaire au moyen de vis pédiculaires par abord postérieur et décompression, y compris une éventuelle fusion postérolatérale sur 2 niveaux	01-09-2022		N35	K380

Outpatient	Inpatient	Rates	Expenses	Label	Creation	Deletion	Group N	Value
225514	225525	yes	yes	^ Fixation lombaire au moyen de vis pédiculaires par abord postérieur et décompression, y compris une éventuelle fusion postérolatérale sur 3 niveaux ou plus	01-09-2022		N35	K460
225536	225540	yes	yes	^^ Arthrodèse lombaire par abord postérieur ou transforaminal au moyen de vis pédiculaires (PLIF, TLIF), sur 1 niveau	01-09-2022		N35	K360
225551	225562	yes	yes	^^ Arthrodèse lombaire par abord postérieur ou transforaminal au moyen de vis pédiculaires (PLIF, TLIF), sur 2 niveaux	01-09-2022		N35	K450
225573	225584	yes	yes	^^ Arthrodèse lombaire par abord postérieur ou transforaminal au moyen de vis pédiculaires (PLIF, TLIF), sur 3 niveaux ou plus	01-09-2022		N35	K540
225595	225606	yes	yes	^ Cure chirurgicale d'une spondylolyse lombaire	01-09-2022		N35	K280
225610	225621	yes	yes	^^ Cure chirurgicale d'un spondylolisthèse lombaire de grade III ou IV par résection du dôme sacré et reconstruction (classification de Meyerding)	01-09-2022		N35	K560
225654	225665	yes	yes	^ Résection ou debulking d'une masse lombaire rachidienne néoplasique ou inflammatoire	01-09-2022		N35	K300
225676	225680	yes	yes	^^ Résection ou debulking d'une masse lombaire néoplasique ou inflammatoire, y compris la reconstruction	01-09-2022		N35	K500
225691	225702	yes	yes	^^ Spondylectomie lombaire totale en bloc pour une tumeur et reconstruction sur 1 niveau	01-09-2022		N35	K670
225713	225724	yes	yes	^^ Spondylectomie lombaire totale en bloc pour une tumeur et reconstruction sur 2 niveaux	01-09-2022		N35	K835
225735	225746	yes	yes	^^ Spondylectomie lombaire totale en bloc pour une tumeur et reconstruction sur 3 niveaux ou plus	01-09-2022		N35	K1000
225750	225761	yes	yes	^ Corporectomie thoraco-lombaire et reconstruction par abord postérieur sur 1 niveau	01-09-2022		N35	K670
225772	225783	yes	yes	^^ Corporectomie thoraco-lombaire et reconstruction par abord postérieur sur 2 niveaux	01-09-2022		N35	K835
225794	225805	yes	yes	^^ Corporectomie thoraco-lombaire et reconstruction par abord postérieur sur 3 niveaux	01-09-2022		N35	K1000
225816	225820	yes	yes	Ablation chirurgicale de matériel d'ostéosynthèse au niveau de la colonne thoraco-lombaire, sur 5 niveaux maximum	01-09-2022		N35	K140
225831	225842	yes	yes	Ablation chirurgicale de matériel d'ostéosynthèse au niveau de la colonne thoraco-lombaire, sur 6 niveaux ou plus	01-09-2022		N35	K195
225890	225901	yes	yes	^^ Scoliose thoraco-lombaire de plus de 6 niveaux et de moins de 12 niveaux, y compris le neuromonitoring	01-09-2022		N35	K670
225912	225923	yes	yes	^^ Correction de l'alignement sagittal au moyen d'une ostéotomie par soustraction pédiculaire en cas de déformation thoraco-lombaire	01-09-2022		N35	K560
225934	225945	yes	yes	^^ Correction de l'alignement sagittal par ostéotomie vertébrale de soustraction par abord postérieur, sur 1 niveau en cas de déformation thoraco-lombaire	01-09-2022		N35	K300
225956	225960	yes	yes	^^ Correction de l'alignement sagittal de la colonne par ostéotomie vertébrale de soustraction par abord postérieur, sur 2 niveaux en cas de déformation thoraco-lombaire	01-09-2022		N35	K375
225971	225982	yes	yes	^^ Correction de l'alignement sagittal de la colonne par ostéotomie vertébrale de soustraction par abord postérieur, sur 3 niveaux ou plus en cas de déformation thoraco-lombaire	01-09-2022		N35	K450
225993	226004	yes	yes	^^ Scoliose thoraco-lombaire de 12 niveaux ou plus, y compris le neuromonitoring	01-09-2022		N35	K800
226015	226026	yes	yes	^^ Scoliose par une libération antérieure avec interposition de greffons, sur 3 niveaux ou plus	01-09-2022		N35	K390
226030	226041	yes	yes	^ Scoliose à l'aide de tiges de croissance ("growing rods") - implantation de tiges	01-09-2022		N35	K140
226052	226063	yes	yes	^ Scoliose à l'aide de tiges de croissance ("growing rods") - implantation d'ancres ("anchors")	01-09-2022		N35	K140
226074	226085	yes	yes	Scoliose à l'aide de tiges de croissance ("growing rods") - prolongation	01-09-2022		N35	K140
226111	226122	yes	yes	^ Résection d'une masse néoplasique ou inflammatoire du sacrum	01-09-2022		N35	K225
226133	226144	yes	yes	^^ Résection d'une masse néoplasique ou inflammatoire du sacrumavec reconstruction de la charnière lombo-sacrée	01-09-2022		N35	K670
226155	226166	yes	yes	^^ Sacrectomie totale en bloc pour une tumeur sans reconstruction	01-09-2022		N35	K400

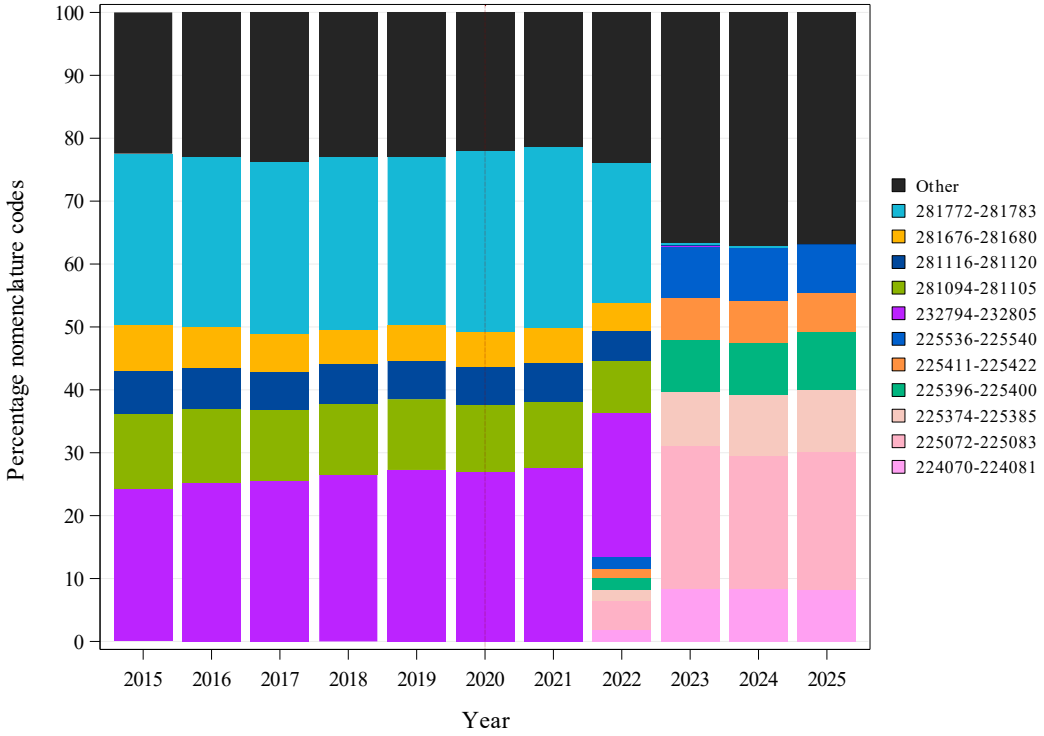
Outpatient	Inpatient	Rates	Expenses	Label	Creation	Deletion	Group N	Value
226170	226181	yes	yes	^^ Sacrectomie totale en bloc pour une tumeur avec reconstruction	01-09-2022		N35	K835
226214	226225	yes	yes	Coccygectomie	01-09-2022		N35	K80
226236	226240	yes	yes	^ Fixation de l'articulation sacro-iliaque	01-09-2022		N35	K195
226273	226284	yes	yes	^^ Traitement chirurgical d'une fistule ou malformation artério-veineuse rachidienne	01-09-2022		N35	K1000
226310	226321	yes	yes	^^ Résection d'une tumeur intradurale extramédullaire	01-09-2022		N35	K800
226332	226343	yes	yes	^^ Résection d'une tumeur intramédullaire	01-09-2022		N35	K1000
226354	226365	yes	yes	^^ Résection d'une tumeur de la gaine du nerf spinal	01-09-2022		N35	K800
226391	226402	yes	yes	^^ Traitement chirurgical d'excroissances arachnoïdiennes en cas de syringomyélie	01-09-2022		N35	K500
226413	226424	yes	yes	^^ Traitement chirurgical d'une méningomyélocèle congenitale	01-09-2022		N35	K400
226435	226446	yes	yes	^^ Traitement chirurgical d'une lipoméningomyélocèle (syndrome congénital de la moelle attachée ou "tethered cord" congenitale)	01-09-2022		N35	K1000
226450	226461	yes	yes	^^ Traitement chirurgical du syndrome acquis de la moelle attachée ("tethered cord" acquis)	01-09-2022		N35	K600
226516	226520	yes	yes	Traitement chirurgical d'une infection profonde, sous-aponévrotique, après une chirurgie rachidienne	01-09-2022		N35	K225
226590	226601	yes	yes	Placement d'un spacer inter-épineux	01-09-2022		N35	K85
226612	226623	no	yes	Supplément d'honoraire pour les prestations de l'article 14 n), §1 précédées du signe ^	01-09-2022		N35	K70
226634	226645	no	yes	Supplément d'honoraire pour les prestations de l'article 14 n), §1 précédées du signe ^^	01-09-2022		N35	K120
230716	230720	yes	yes	Cordotomie	01-04-1985		N21	K225
230731	230742	yes	yes	Intervention chirurgicale pour pathologie médullaire	01-04-1985	31-08-2022	N21	K225
230753	230764	yes	yes	Radicotomie	01-04-1985		N21	K225
231475	231486	yes	yes	Rhizotomie postérieure pluriétagée sélective sous microscope	01-04-2003		N21	K1000
232492	232503	yes	yes	(Re) mise en place percutanée ou chirurgicale, dans l'espace épidural, d'une ou de deux électrode(s) multipolaire(s) pour la stimulation de la moelle épinière	01-11-1998		N21	K186
232750	232761	yes	yes	Exérèse de lésion expansive envahissant les gaines médullaires, sous microscope opératoire	01-08-1988	31-08-2022	N21	K400
232794	232805	yes	yes	Laminarthrectomie lombaire de plus de deux niveaux pour compression de la queue de cheval due à une étroitesse congénitale (Syndrome de Verbiest) ou acquise du canal rachidien	01-08-1988	31-08-2022	N21	K400
281035	281046	yes	yes	Ostéosynthèse cervicale, y compris la greffe éventuelle	01-04-1985	31-08-2022	N32	N500
281050	281061	yes	yes	Arthrodèse cervicale postérieure, y compris le prélèvement du greffon	01-04-1985	31-08-2022	N32	N400
281072	281083	yes	yes	Arthrodèse occipito-cervicale, y compris le prélèvement du greffon	01-04-1985	31-08-2022	N32	N500
281094	281105	yes	yes	Arthrodèse intercorporéale cervicale y compris le prélèvement du greffon	01-04-1985	31-08-2022	N32	N625
281116	281120	yes	yes	Cure chirurgicale d'une hernie discale cervicale	01-04-1985	31-08-2022	N32	N625
281514	281525	yes	yes	Réduction sanglante d'une luxation, fracture ou fracture-luxation de la colonne dorso-lombaire	01-04-1985	31-08-2022	N32	N400
281536	281540	yes	yes	Ostéosynthèse vertébrale	01-04-1985	31-08-2022	N32	N400
281551	281562	yes	yes	Arthrodèse vertébrale postérieure avec greffon apposé unilatéral ou bilatéral, y compris le prélèvement du greffon	01-04-1985	31-08-2022	N32	N400
281573	281584	yes	yes	Arthrodèse vertébrale postérieure avec greffon encastré (Bosworth ou similaire) ou avec évidement élargi (Hibbs ou similaire), y compris le prélèvement du greffon	01-04-1985	31-08-2022	N32	N500
281632	281643	yes	yes	Arthrodèse inter-articulaire postérieure, y compris le prélèvement du greffon	01-04-1985	31-08-2022	N32	N450
281654	281665	yes	yes	Arthrodèse ou vissage intercorporéal par voie antérieure, y compris le prélèvement éventuel du greffon	01-04-1985	31-08-2022	N32	N650
281676	281680	yes	yes	Arthrodèse intercorporéale par voie postérieure intrarachidienne	01-04-1985	31-08-2022	N32	N625

Outpatient	Inpatient	Rates	Expenses	Label	Creation	Deletion	Group N	Value
281713	**281724**	yes	yes	Laminectomie sans ouverture de la dure-mère	01-04-1985	31-08-2022	N32	N250
281735	**281746**	yes	yes	Laminectomie avec arthrodèse	01-04-1985	31-08-2022	N32	N500
281750	**281761**	yes	yes	Flavoligamentectomie	01-04-1985	31-08-2022	N32	N250
281772	**281783**	yes	yes	Cure chirurgicale d'une hernie discale autre que cervicale	01-04-1985	31-08-2022	N32	N450
281794	**281805**	yes	yes	Cure chirurgicale de hernie discale et arthrodèse, y compris le prélèvement éventuel du greffon	01-04-1985	31-08-2022	N32	N625
281816	**281820**	yes	yes	Résection de l'arc postérieur	01-04-1985	31-08-2022	N32	N350
281853	**281864**	yes	yes	Résection de l’arc postérieur avec arthrodèse	01-04-1985	31-08-2022	N32	N550
281875	**281886**	yes	yes	Résection d'une ou plusieurs apophyses épineuses	01-04-1985	31-08-2022	N32	N200
281890	**281901**	yes	yes	Résection d'apophyse transverse	01-04-1985	31-08-2022	N32	N225
281971	**281982**	yes	yes	Résection - reconstruction d'un ou plusieurs corps vertébraux	01-04-1985	31-08-2022	N32	N700
282052	**282063**	yes	yes	Cure chirurgicale de scoliose par la technique de Harrington, y compris le prélèvement du greffon	01-04-1985	31-08-2022	N32	N650
300355	**300366**	yes	yes	Nucléotomie percutanée pour hernie discale sous contrôle d'amplificateur de brillance	01-07-1990	31-08-2022	N32	N350

B. Past history of nomenclature codes

[No modification implemented during the period]

C. Trends in the breakdown of nomenclature codes provided, by volume



Combined codes	Label
Other	Other codes
281772-281783	Cure chirurgicale d'une hernie discale autre que cervicale
281094-281105	Arthrodèse intercorporéale cervicale y compris le prélèvement du greffon
232794-232805	Laminarthrectomie lombaire de plus de deux niveaux pour compression de la queue de cheval due à une étroitesse congénitale ...
225536-225540	^^ Arthrodèse lombaire par abord postérieur ou transforaminal au moyen de vis pédiculaires (PLIF, TLIF), sur 1 niveau
225411-225422	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du récessus ...
225396-225400	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du récessus ...
225374-225385	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du récessus ...
225072-225083	^ (Micro)discectomie unilatérale lombaire ou décompression unilatérale (interlaminaire) en cas de sténose foraminale ou du ...
224070-224081	^ Discectomie cervicale par abord antérieur, y compris la reconstruction sur 1 niveau

This graph is limited to the main nomenclature codes in terms of volume. All nomenclature codes used for the analysis are described on page 5.

Note : The year 2020 was highlighted by a vertical dashed line, in order to draw the attention on the impact of the COVID-19 crisis.

D. Source of data and analysis period

The data used in the analyses have been taken from the following databases :

Document N	For the utilisation rate and amount of expenses of persons insured and residing in Belgium, in 2015-2025
Document P	For the utilisation rate and amount of expenses by type of medical specialities, in 2025 For the trend in the day hospitalisation rate, in 2015-2025
Document P, SHA, ADH	for the practice occurrences and analysis of patient care settings (private ambulatory or polyclinic, day or inpatient hospitalisation), in 2024

Analysis period	2015-2025

Document N : are monthly data sent by the health insurance funds to NIHDI, within three months. These data show the number of services provided, dates and the fees involved. Every six months, these data are compiled by the insurers, which also add data on patients: age, gender, social category and district of residence. N Documents, however, cannot be used to analyse the combinations of services received by individual patients

Document P : are six-monthly data sent by the health insurance funds to NIHDI, within four months. These data show the services provided, the service-provider, the prescriber, the place of provision of service, and the hospital where patients were treated. P Documents can be used to monitor medical consumption and pricing, but not (yet) to analyse services per patient.

Document SHA, ADH : are sent annually and within six months by the insurance funds to the NIHDI. They include all the services provided respectively in day admission and standard hospitalisation, in general hospitals per hospital stay..

Occurrence : Occurrence values are based on the most recent year that allows consolidation by patient between P and SHA-ADH documents, usually the year preceding the last year of the analysis period.

E. Specific selection criteria

Several filters may have been applied to the data, so that only a selection of the population is considered in the analyses. If so, the filters used are shown in the table below :

FILTERS APPLIED TO DATA	
Sex	All
Age	All
-	-

The indicators presented in the analysis always refer to this population.

F. Specialty of healthcare providers

Specialty of the provider	Total providers	Concerned providers	% Providers	Median of H.C. services	Q3 of H.C. services	% Total H.C. services	% Total expenses
Neurosurgery	238	203	85,3%	123	192	75,6%	72,7%
Orthopedical surgery	1.168	125	10,7%	38	87	22,1%	22,3%
Anesthesia-reanimation	2.584	73	2,8%	5	13	1,8%	0,8%
Specialists in training	2.069	<5				0,0%	3,4%
Others	1.334	<5				0,4%	0,8%
Total	7.393	403 - 409	-	-	-	100,0%	100,0%

This table shows the following non-standardised data, by medical specialty (figures for the year 2025) :

- The number of service-providers who have recorded at least one service
- The number of service-providers recording services under the nomenclature codes selected for this analysis
- The service-providers for these codes as a percentage of the total number of service-providers recording provision of at least one service
- The median number and third quartile of services per service-provider (recording provision under these codes)
- Percentage of services provided (for codes included in volume)
- Percentage of expenditure (for codes included in expenditure)

G. Specialty of prescribers

[Specialty of prescribers unknown or not applicable]

H. (Estimated) number of patients per year

Sometimes several codes (similar or different) relating to the same practice are charged several times on the same day and/or in the same year for the same patient.

To estimate the number of patients treated, the total number of services accounted for per year is divided by an average division factor (total average occurrence)

In this analysis, the average division factor is 1,07. The latter is calculated based on 2024 and results from dividing the total number of services provided by the total number of different insured persons who have used these services (by age group, sex and district).

This average division factor is called the total average occurrence. This total average occurrence is the product of the average occurrence per patient per day (**average number of services per day per patient**) and the average occurrence per patient per year (**average number of days per year per patient**). Explanations of these average occurrences per day and per year can be found in the appendix 'Frequency of practice occurrences (per patient)'.

However, volumes are not divided for the data on providers and prescribers (cf. sections 3.F et G), nor for the graphs and tables showing the distribution of volumes and occurrences of the practice (cf. 4.C et Annexes B à D).

I. Standardisation

Data presented by geographical subset* or population category are standardised per year, based on age (by year), sex and preferential regime of the national population in 2025.

Note: Districts with fewer than 100 000 insured persons are associated with a neighbouring district from the same province. The following districts are therefore considered together: Oostende/Veurne, Ieper/Diksmuide, Roeselare/Tielt, Gent/Eeklo, Charleroi/Thuin, Huy/Waremme, Namur/Philippeville, Neufchâteau/Marche-en-Famenne, Virton/Bastogne/Arlon. These regroupings and labels apply to all measurements, maps and graphs produced by district. Throughout the document, the concept of regrouped district is reflected in the use of the term "district"

Standardisation renders populations comparable in relation to one or several criteria. If a difference is observed between these populations, we can therefore assume that it is not due to the criteria covered by the standardisation process.

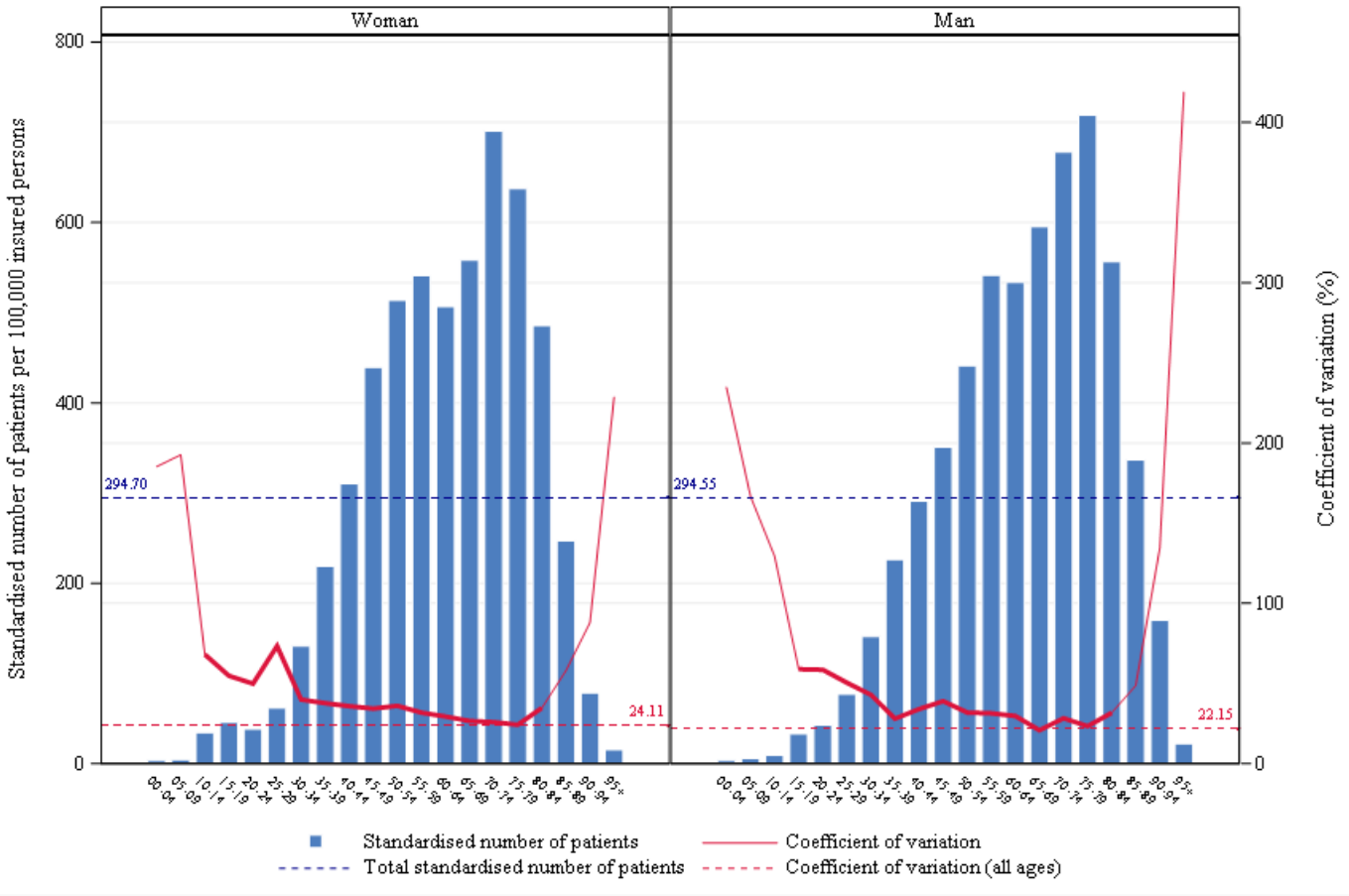
4. RESULTS

A. National standardised usage rate

	TOTAL
Number of services per year	*36.875*
Average occurrence per patient per day (average number of services per day)	1,00
Average occurrence per patient per year (average number of days per year)	1,07
Total average occurrence (divides the number of services)	1,07
Estimated number of patients per year	*34.446*
Standardised usage rate per 100 000 insured persons	295

B. Standardised usage rate by sex and age

	TOTAL
Estimated number of patients per year	*34.446*
Median age (years)	60
Mean age (years)	59,13
Standardised usage rate: women (per 100 000)	295
Standardised usage rate: men (per 100 000)	295
Ratio women/men	1
Percentage of women	51,69%

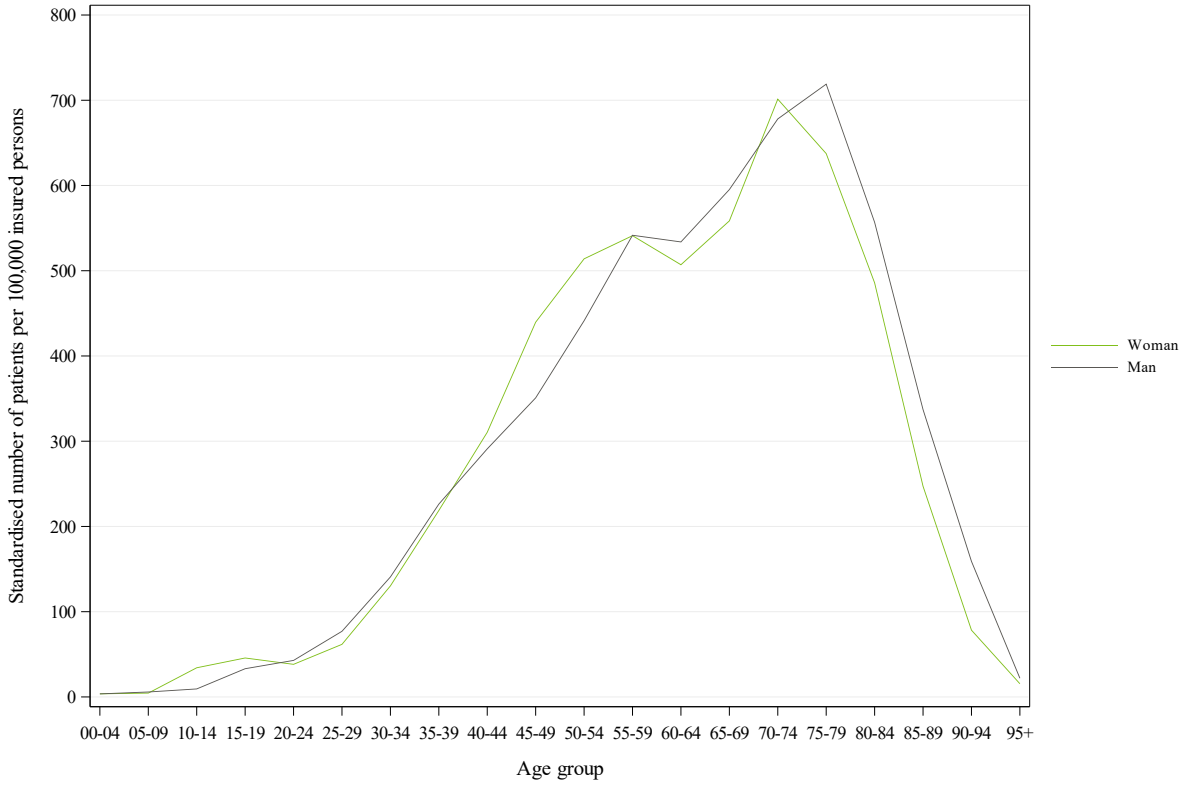


Standardised usage rate per 100 000 insured persons, and coefficient of variation for the districts*, by age group and sex, for the year 2025

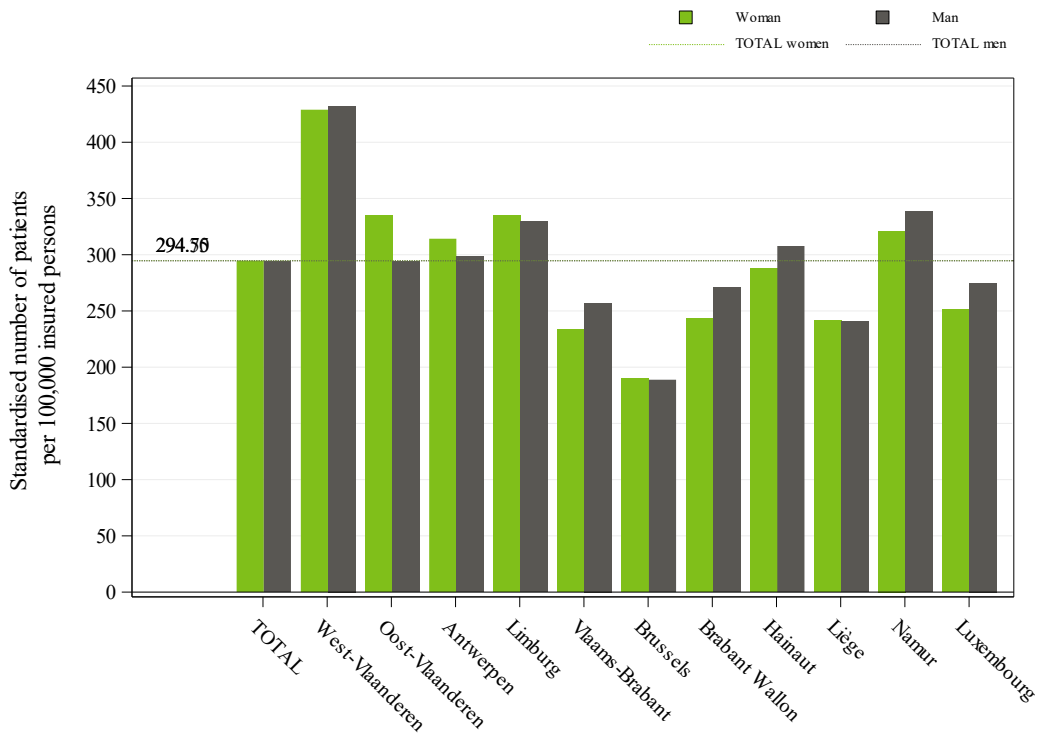
This figure is made up of bar charts for each sex.

The **coefficient of variation**, shown by the red line, measures the relative dispersion of the standardised usage rates observed for each district*, by age group and sex (standard deviation divided by the mean). This line is shown in bold for age groups where the coefficient of variation can be validly interpreted (i.e. for age groups in which there are sufficient insured persons per district* to allow for a proper comparison).

The left-hand vertical axis of the graph represents the standardised usage rate, and the right-hand axis the coefficient of variation. The horizontal axis shows the age groups. The horizontal dotted lines show the total values of the standardised usage rates (in blue) and of the coefficient of variation (in red).



Comparison of the standardised usage rates by age group and by sex (per 100 000 insured persons) in 2025



Standardised usage rate per 100 000 insured persons, by sex and by province for the year 2025

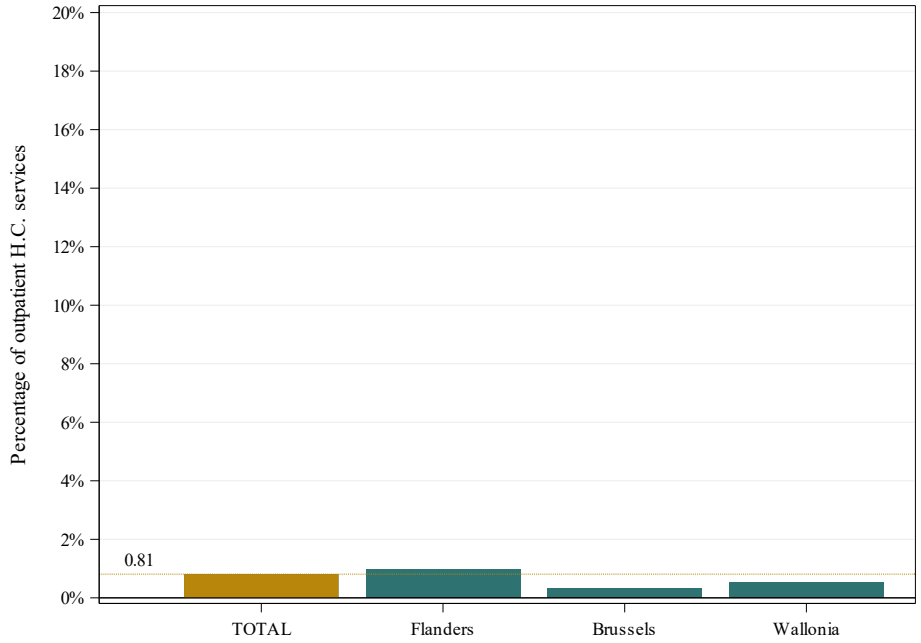
This histogram shows standardised usage rates by province and by sex.

The grey bars show the rates for men, while the green bars show the rates for women, for each province.

The grey and green broken lines show the total standardised usage rates, again grey for men, green for women.

C. Rate of outpatient care

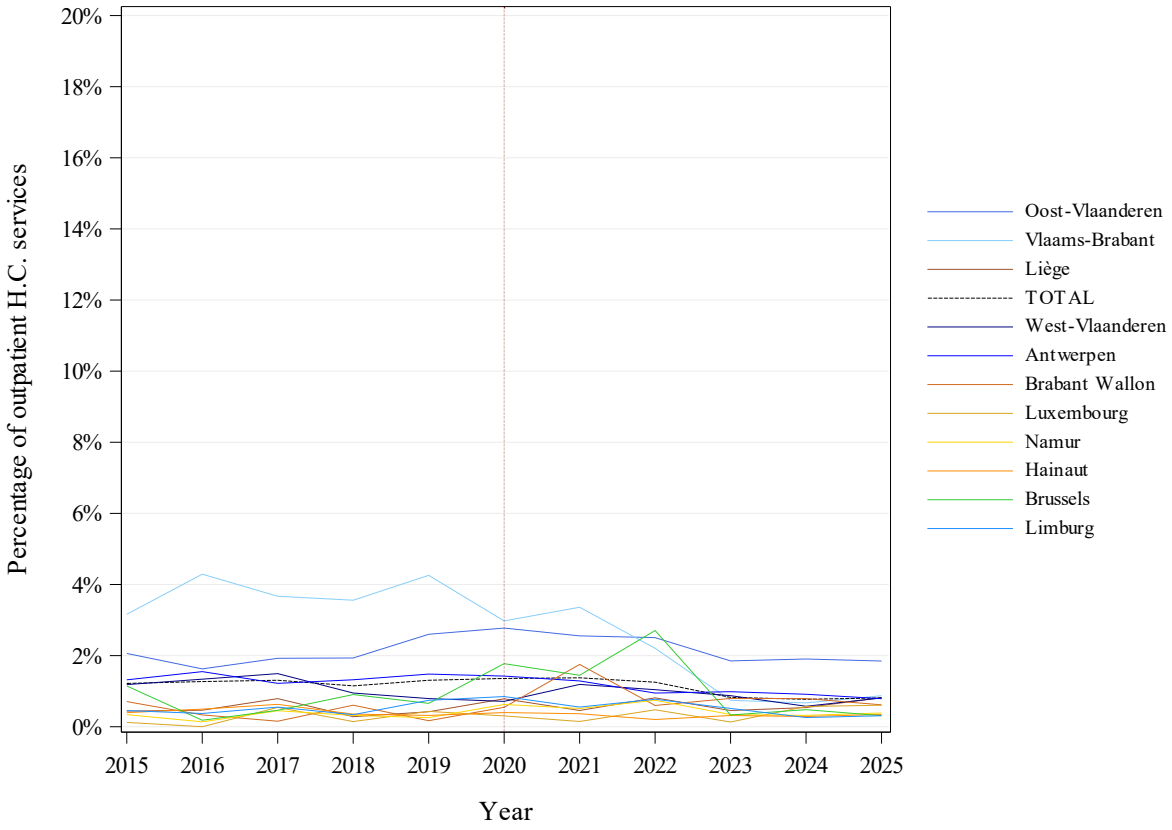
	TOTAL
Number of services per year	*36.875*
Percentage of out-patient care	0,81%



Percentage of outpatient care, total and by region

This graph shows the percentage of outpatient services (including hospital day admissions), i.e. the number of outpatient services provided as a percentage of total services (outpatient and hospital stays).

Besides the bar per region, there is a bar for the entire Belgian population. A dotted line also shows this overall ratio.



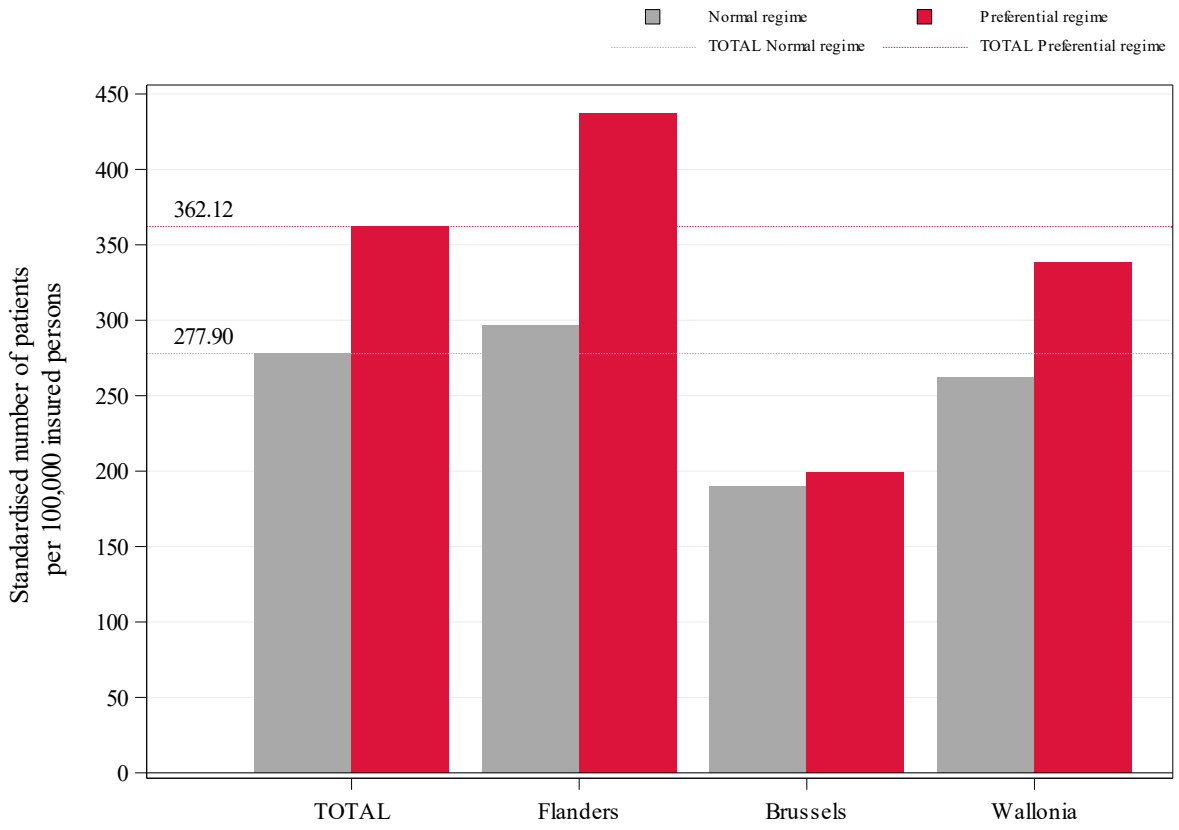
Trends in the percentage of outpatient care by province

The year 2020 was highlighted by a vertical dashed line, in order to draw the attention on the impact of the COVID-19 crisis.

A complement to this chapter, about the patient care per type, is enclosed in this report (see Appendix C).

D. Standardised usage rate by reimbursement scheme

	TOTAL
Estimated number of patients per year	*34.446*
Percentage provided under the preferential reimbursement scheme	25,60%
Standardised usage rate with preferential reimbursement scheme (per 100 000)	362
Standardised usage rate without preferential reimbursement scheme (per 100 000)	278
Ratio Preferential scheme /General scheme	1,3



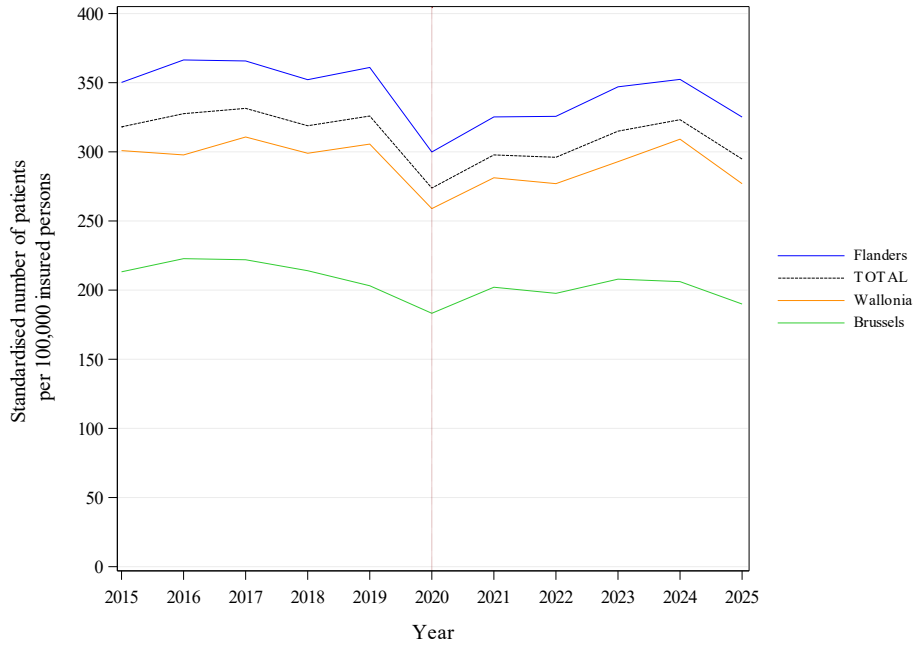
Standardised usage rate by reimbursement scheme and by region

This graph shows the standardised usage rates per 100 000 insured with (in red) and without (in grey) the preferential reimbursement scheme, by region and in total.

The red and grey dotted lines show the overall standardised rates of use of patients per 100 000 insured, with and without the preferential reimbursement scheme, respectively.

E. Trends in standardised usage rates

	TOTAL	Statistical significance
Estimated number of patients per year	***34.446***	
Trend (2015-2025)	**-0,76%**	**NS (-0.82%)**
Trend (2015-2023)	-0,12%	NS
Trend (2023-2025)	-3,26%	



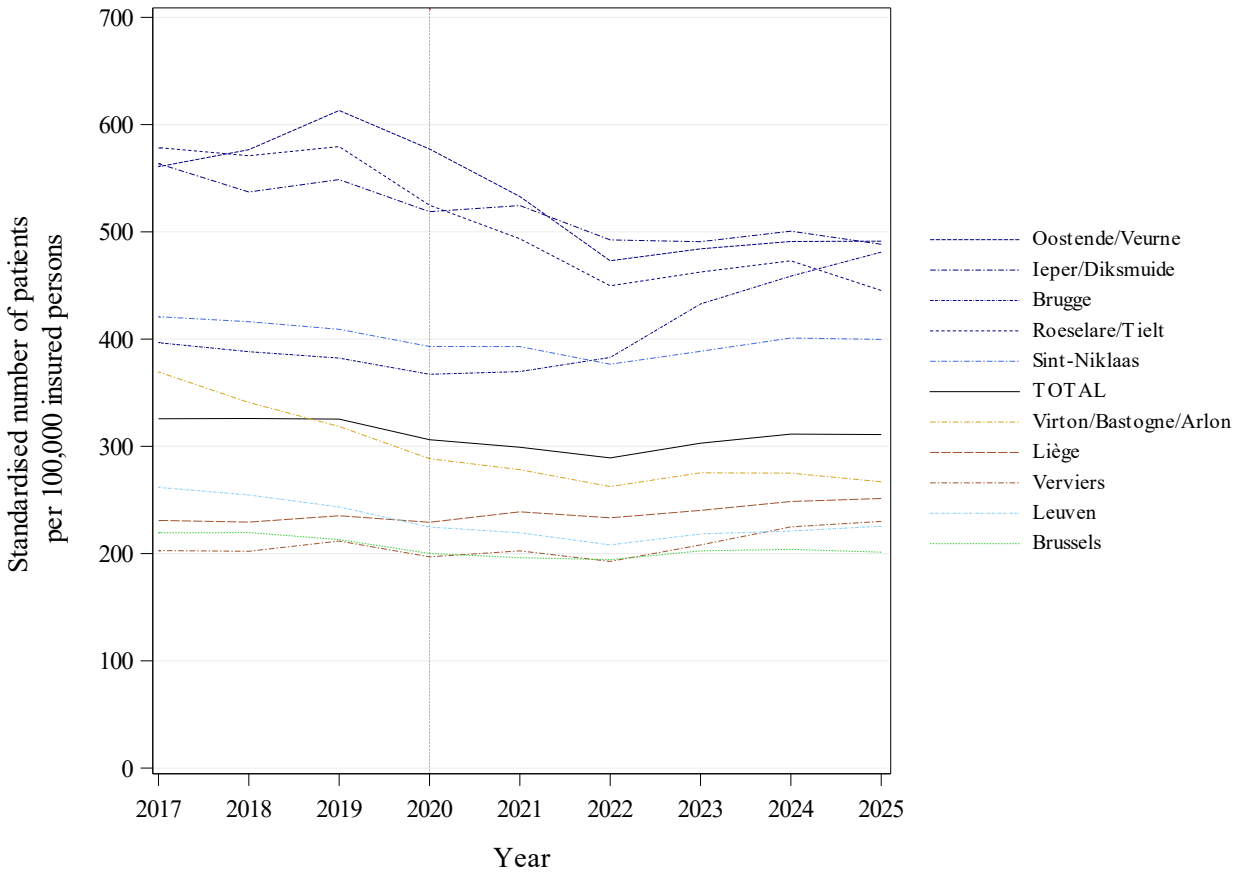
Trends in the standardised usage rate per 100 000 insured persons, by region

These trends correspond to the average annual growth rate.

A non-significant statistical test indicates that the trend estimated by the model (in brackets) is stable, or that there is no break in the trend.

This graph shows a coloured curve for each region and a black curve for the entire Belgian population. The horizontal axis shows the years, and the vertical axis shows the standardised usage rate per 100 000 insured persons.

Note : The year 2020 was highlighted by a vertical dashed line, in order to draw the attention on the impact of the COVID-19 crisis.



Trends in the standardised usage rate per 100 000 insured persons by district*

This graph shows a coloured line for each district* and a black line for the entire Belgian population. The horizontal axis shows the years, and the vertical axis shows the standardised usage rate per 100 000 insured persons.

To better highlight changes over time, the rates shown are **rolling averages** of the rates for the three years preceding the year in question (including the year itself).

The graph only shows the five districts* with the highest average rates and the five districts* with the lowest average rates over the last 3 years studied (excluding the districts of Hainaut heavily impacted by the 2019 administrative reorganization).

Note : The year 2020 was highlighted by a vertical dashed line, in order to draw the attention on the impact of the COVID-19 crisis.

		Usage Rate	Annual increase			
		2025 *(per 10^5 insured)*	**2015-2025**	**2015-2023**	**2023-2025**	**Structural break**
Provinces	West Flanders	*431*	-1,13%	-0,35%	-4,19%	NA
	East Flanders	*315*	-1,15%	-0,40%	-4,07%	NA
	Antwerp	*307*	0,02%	0,28%	-1,00%	NA
	Limburg	*333*	-0,36%	0,70%	-4,47%	NA
	Flemish Brabant	*245*	-1,37%	-1,08%	-2,52%	NA
	Brussels	*190*	-1,15%	-0,31%	-4,42%	NA
	Walloon Brabant	*256*	-2,65%	-2,95%	-1,44%	NA
	Hainaut	*297*	-1,64%	-0,66%	-5,47%	NA
	Liège	*241*	0,81%	0,97%	0,16%	NA
	Namur	*330*	1,10%	1,35%	0,08%	NA
	Luxembourg	*262*	-3,10%	-1,99%	-7,40%	NA
Regions	Flanders	*325*	-0,74%	-0,11%	-3,20%	NA
	Brussels	*190*	-1,15%	-0,31%	-4,42%	NA
	Wallonia	*277*	-0,83%	-0,34%	-2,76%	NA
	TOTAL	***295***	**-0,76%**	**-0,12%**	**-3,26%**	**NS**

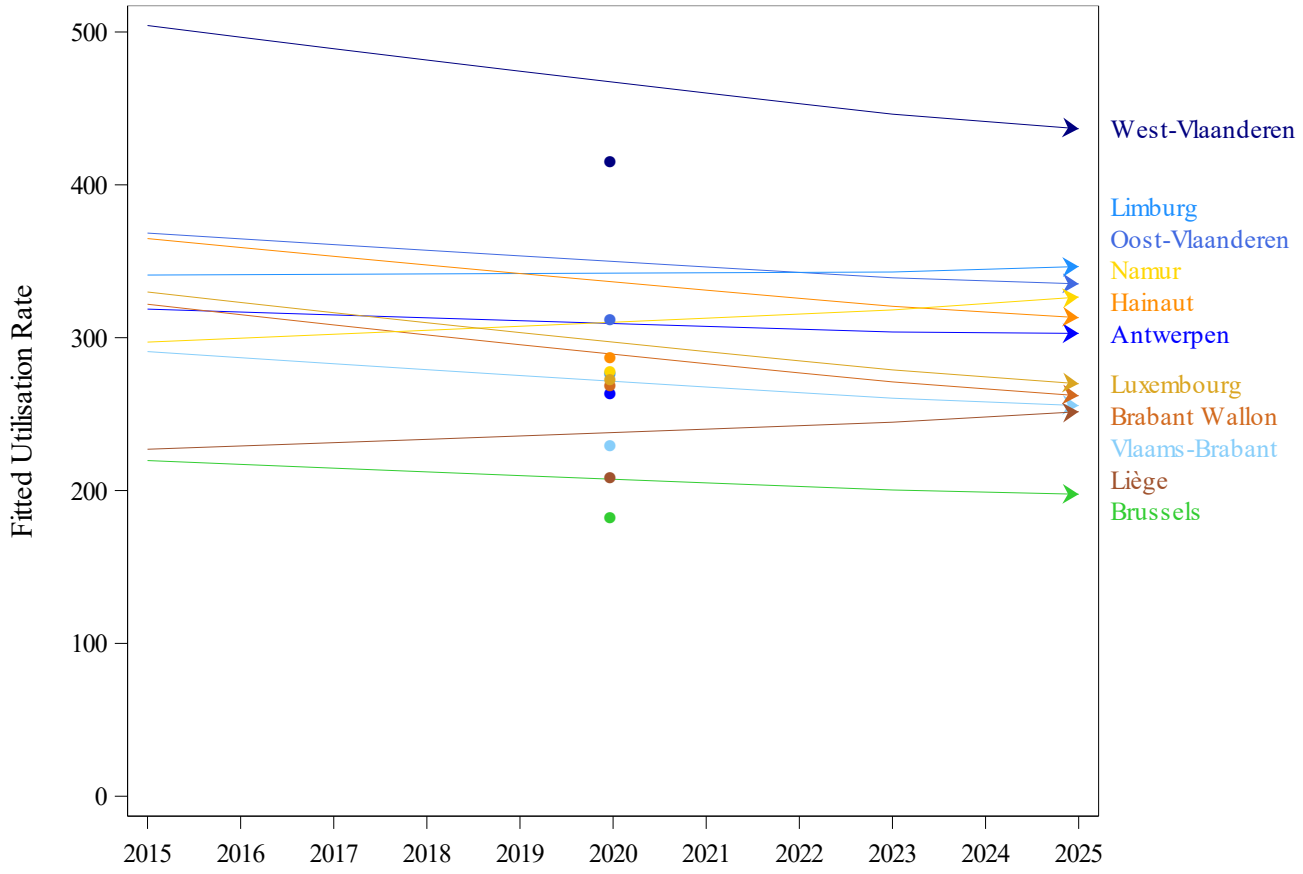
Trends in the usage rates, by province and region

This table reports the standardised **usage rates** for the last year analysed (2025), as well as the average **rates of increase**, by province, by region and in total, for the entire period (2015-2025), for the last years (2023-2025) and for the period preceding the last years (2015-2023).

In order to find out whether the trend in the last years differs from that in the years before, a linear mixed model was fitted in two steps. In the first step a change in trend on the national level is tested. If this test is significant, in a second step, the model tests whether the difference in trend is significant for each province, region and at the national level. The data of 2020 are excluded from the models.

The significance of the test for a change in trend is reported in the Structural break column : ***** P-value ≤ 0.05 / ****** P-value ≤ 0.01 / ******* P-value ≤ 0.001 and NS for a non-significant result.

'NA' is shown where the nomenclature codes selected for the analysis have not been used for the entire last period or when the statistical tests cannot be evaluated.



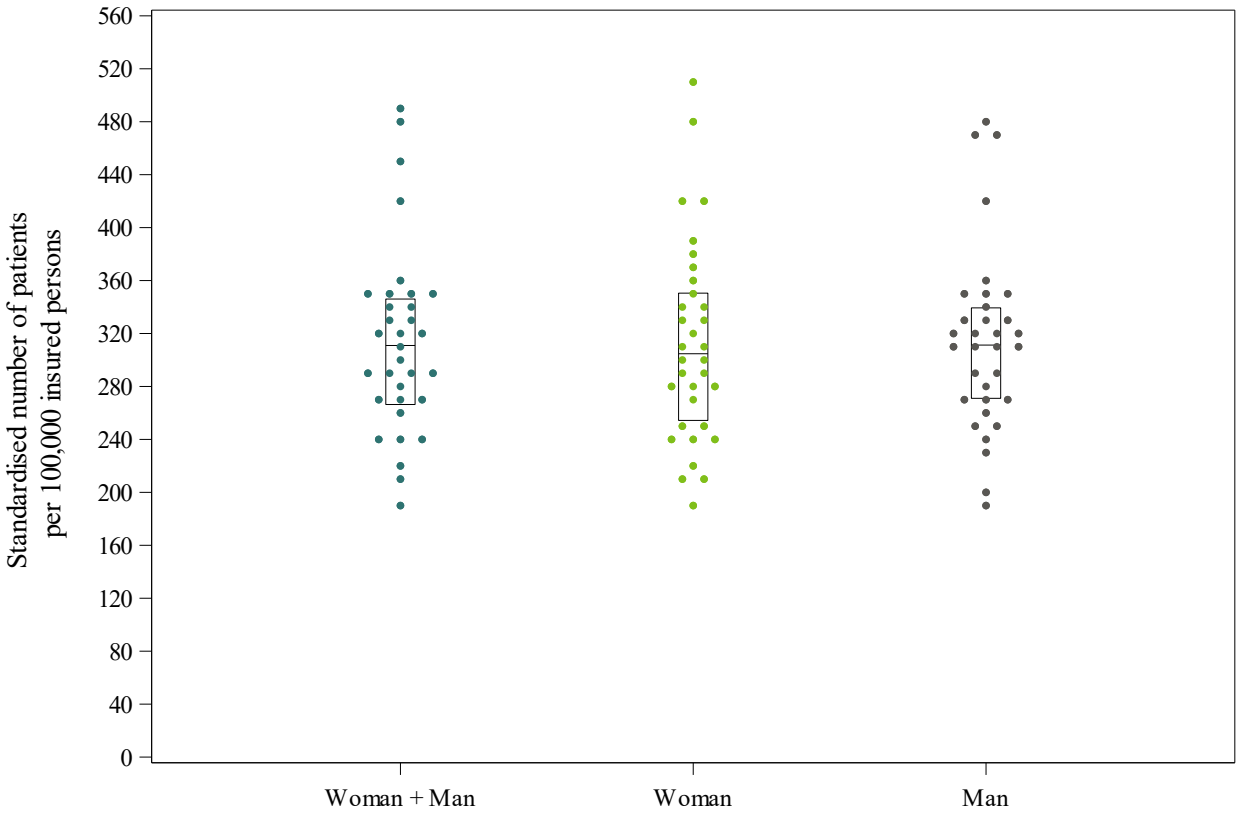
Trend break assessment model by province – Regression lines

Regression lines per province showing a possibly different slope for the last years (2023-2025) compared to the years before (2015-2023).

Data of 2020 was excluded from this analysis, but is indicated on the graph for information.

F. Geographical variations in standardised usage rates

	TOTAL
Estimated number of patients per year	***34.446***
Coefficient of variation (2025)	**22,62**
Coefficient of variation (2023-2025)	**21,97**
Coefficient of variation (2015-2017)	**27,18**
Statistically significant difference ? ($p \leq 0.05$)	*No*

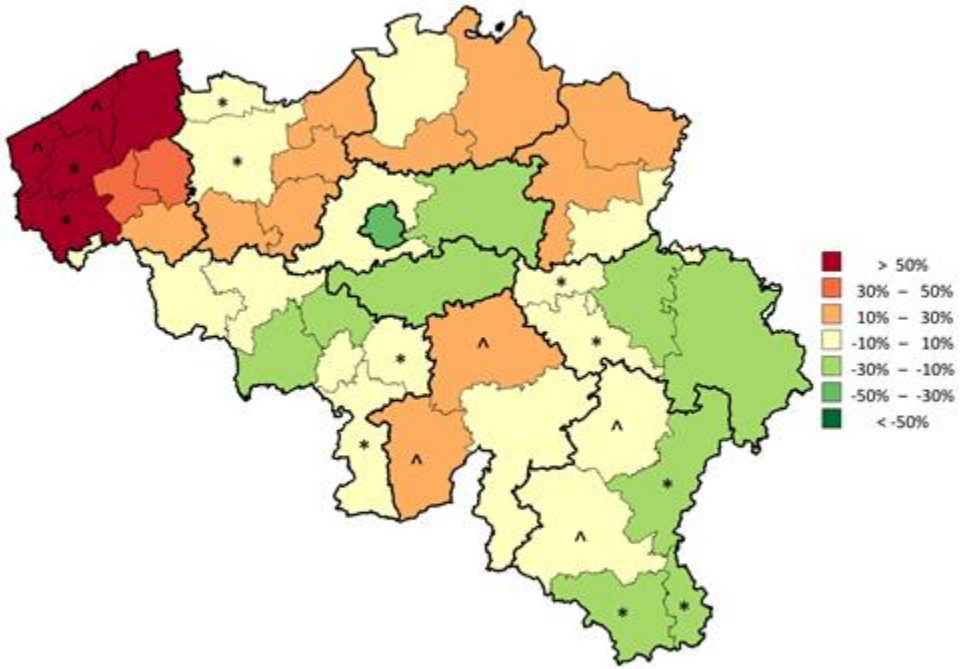


'Dot plot' showing standardised usage rates by district*, by sex

A **dot plot** is a distribution chart, which is useful for highlighting groups in the data, gaps in the distribution and outliers. Here, each dot represents the usage rate of a district*, for its entire population or broken down by sex.

The rates are rounded to the nearest unit, ten, hundred, etc., depending on the value of the maximum rate, in order to better group the values.

The graph also shows a box with the 25th, 50th and 75th percentiles of the non-rounded standardised usage rates for all districts. The bottom line of the box represents the 25th percentile, while the upper line represents the 75th percentile. The line inside the box represents the 50th percentile.



Map showing distribution of standardised usage rates, by district*

On this map of Belgium, thin lines show the boundaries of the districts, while thick lines show the provincial borders.

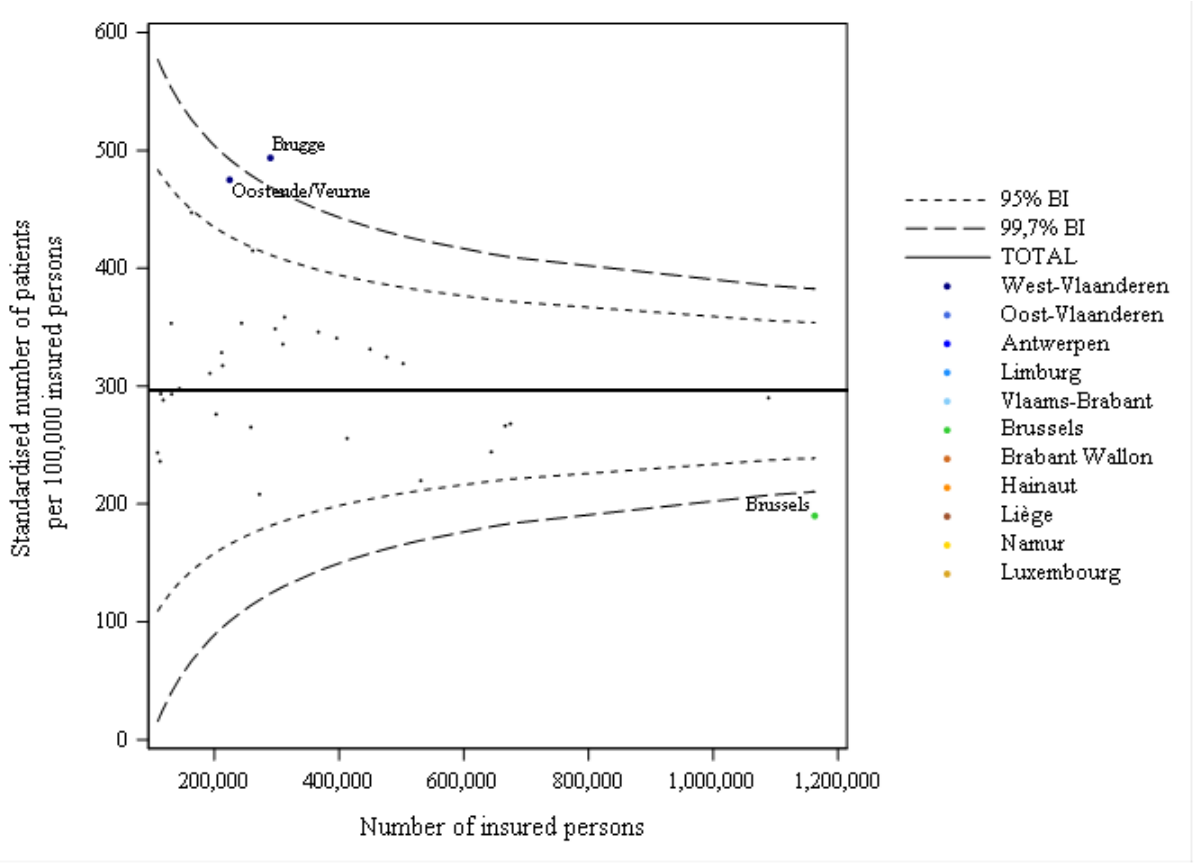
The districts* are coloured using a colour scale based on the level of usage rate in the district* compared to the Belgian national rate (overall rate). This ratio is expressed as a percentage: e.g. 0% if the district* rate is equal to the overall rate, 20% if the rate is 20% above the overall rate, and -20% if the rate is 20% below the overall rate.

The percentages are calculated using the standardised rates of the last year analysed, and are displayed in bands of 20%. The following colour coding applies:

Colour	Category
	More than 50%
	Between 30% and 50%
	Between 10% and 30%
	Between - 10% and 10%
	Between -30% and -10%
	Between -50% and - 30%
	Less than -50%
	Not used

N.B.: The interpretation of this map is to be done in parallel with the funnel plot (next page).

* Districts marked with * or ^ are grouped together within the same province.
see page 13, Standardisation



«Funnel plot » showing the standardised usage rates by district* by the number of insured persons

In this graph, the standardised usage rate in a district* is positioned versus the size of its population. Besides the dots representing the districts*, 95% and 99.7% **confidence intervals** are also shown on the graph. These are dependent of the size of the districts*.

The thicker horizontal line shows the national standardised usage rate. The outlier districts* are identified as those districts* that fall outside the 99.7% confidence intervals, the zone between the 95% and 99.7% confidence intervals being considered as “warning zone”.

N.B.: The interpretation of this graph is to be done in parallel with the map of the distribution of usage rates (previous page).

G. Standardised healthcare expenditure borne by the insurance

	TOTAL
Number of services per year	*36.875*
Annual expenditure (€)	*36.439.664*
Average cost per patient (€)	1.057,88
Average cost per insured [1] (€)	3,12

[1] Reminder: Expenditure is based on the insured selected for the analysis (see section 3.E, Specific selection criteria)

		Standardised expenditure (per insured[1])	Relative difference compared to total
Provinces	West Flanders	4,54 €	45,51%
	East Flanders	3,46 €	10,90%
	Antwerp	3,28 €	5,13%
	Limburg	3,39 €	8,65%
	Flemish Brabant	2,6 €	-16,67%
	Brussels	2,04 €	-34,62%
	Walloon Brabant	2,67 €	-14,42%
	Hainaut	3,1 €	-0,64%
	Liège	2,51 €	-19,55%
	Namur	3,47 €	11,22%
	Luxembourg	2,77 €	-11,22%
Regions	Flanders	3,46 €	10,90%
	Brussels	2,04 €	-34,62%
	Wallonia	2,9 €	-7,05%
	TOTAL	**3,12 €**	

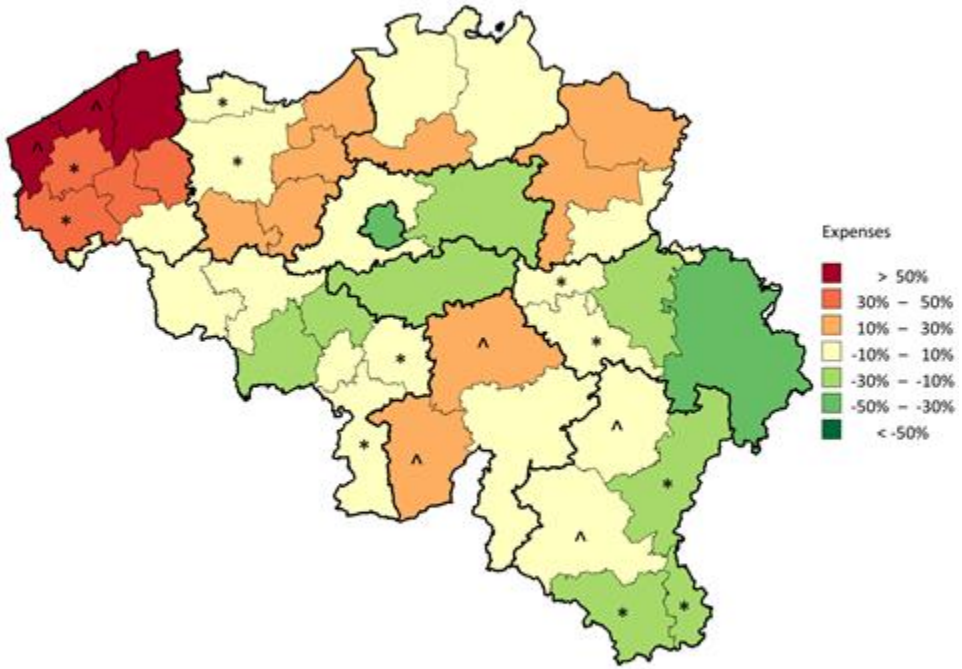
Regional and provincial distribution of standardised expenditure (2025)

[1] Reminder: Expenditure is based on the insured selected for the analysis (see section 3.E, Specific selection criteria)

Trends in expenditure, by service and by nomenclature code

Nomenclature Codes	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	% Average yearly growth	% Services 2025
225072-225083								527,58	550,77	584,07	606,73	4,77%	22,0%
225374-225385								662,81	691,30	732,71	759,31	4,63%	9,9%
225396-225400								858,15	897,63	952,65	987,70	4,80%	9,1%
224070-224081								923,49	966,35	1.023,16	1.060,44	4,72%	8,2%
225536-225540								956,66	996,31	1.052,85	1.094,99	4,60%	7,9%
225411-225422								1.055,21	1.103,58	1.170,51	1.209,10	4,64%	6,2%
224092-224103								1.145,35	1.200,05	1.272,15	1.319,01	4,82%	4,8%
232492-232503	350,30	349,01	352,68	356,49	358,35	357,41	358,64	364,91	388,34	413,81	431,83	2,11%	3,6%
225551-225562								1.184,26	1.244,44	1.315,18	1.364,32	4,83%	2,8%
225131-225142								921,93	961,24	1.018,39	1.056,01	4,63%	2,4%
225455-225466								728,94	766,25	813,78	845,46	5,07%	1,8%
225094-225105								652,45	687,42	727,62	758,47	5,15%	1,8%
225514-225525								1.199,75	1.274,08	1.349,01	1.400,83	5,30%	1,4%
224114-224125								1.368,29	1.426,84	1.507,75	1.567,26	4,63%	1,3%
225492-225503								996,96	1.047,74	1.110,94	1.157,75	5,11%	1,2%
224313-224324								736,63	771,10	819,48	846,99	4,76%	1,1%
226516-226520								592,53	617,26	653,39	681,59	4,78%	1,1%
225816-225820								365,08	381,72	408,12	418,06	4,62%	1,0%
225470-225481								796,55	825,67	871,28	906,25	4,39%	1,0%

The average expenditure per nomenclature code and per year is listed for the codes selected in terms of volume (see section 3.A), for which services were invoiced in 2025. They are ranked in descending order of frequency, according to the percentage of the volume served in 2025 (last column).
When there are a large number of nomenclature codes concerned, the list is limited to those that account for at least 1% of the total volume.



Map showing distribution of standardised expenditure, by district* (per insured person)

On this map of Belgium, thin lines show the boundaries of the districts, while thick lines show the provincial borders.

The districts* are coloured using a colour scale based on the level of expenditure per insured in the district* compared to Belgian national (overall) expenditure per insured. This ratio is expressed as a percentage: e.g. 0% if expenditure in the district* is equal to the overall expenditure, 20% if it is 20% higher, and -20% if it is 20% lower.

The percentages are calculated using the standardised expenditure of the last year analysed and are displayed in bands of 20%. The following colour coding applies:

Colour	Category
	More than 50%
	Between 30% and 50%
	Between 10% and 30%
	Between - 10% and 10%
	Between -30% and -10%
	Between -50% and - 30%
	Less than -50%
	No expenditure

* Districts marked with * or ^ are grouped together within the same province.
see page 13, Standardisation



On this map, the districts* are coloured using a colour scale based on the level of expenditure per patient in the district * versus the national expenditures per patient.

This comparison is expressed as a percentage:

Colour	Category
	More than 50%
	Between 30% and 50%
	Between 10% and 30%
	Between - 10% and 10%
	Between -30% and -10%
	Between -50% and - 30%
	Less than -50%
	No expenditure

Map showing distribution of standardised expenditure, by district* (per patient)

* Districts marked with * or ^ are grouped together within the same province.
see page 13, Standardisation

Standardised expenditure per patient in 2025 and occurrences of practice per patient in 2024 (See Appendix B), by demographic category

	Estimated std. expenditure per patient		Occurrence per year	Occurrence per year	Occurrence per day
	(€)	Tot. Relative Diff. (%)	(Services)	(Days)	(Services)
TOTAL	1.057,88		1,07	1,07	1,00
Sex					
Men	1.051,85	-0,57%	1,07	1,07	1,00
Women	1.064,68	0,64%	1,07	1,07	1,00
Reimbursement scheme					
General	1.041,90	-1,51%	1,06	1,06	1,00
Preferential	1.105,96	4,55%	1,09	1,09	1,00
Region					
Flanders	1.063,97	0,58%	1,08	1,07	1,00
Brussels	1.072,97	1,43%	1,07	1,07	1,00
Wallonia	1.045,61	-1,16%	1,06	1,06	1,00
Age					
00-04	2.496,56	136,00%	1,05	1,05	1,00
05-09	1.700,04	60,70%	1,19	1,15	1,03
10-14	1.891,78	78,83%	1,12	1,11	1,01
15-19	1.785,80	68,81%	1,04	1,03	1,00
20-24	1.056,29	-0,15%	1,05	1,05	1,00
25-29	924,14	-12,64%	1,06	1,06	1,00
30-34	878,94	-16,92%	1,06	1,05	1,00
35-39	927,57	-12,32%	1,06	1,06	1,00
40-44	964,01	-8,87%	1,07	1,07	1,00
45-49	1.005,78	-4,93%	1,07	1,07	1,00
50-54	1.057,34	-0,05%	1,07	1,07	1,00
55-59	1.062,78	0,46%	1,08	1,08	1,00
60-64	1.076,77	1,79%	1,08	1,07	1,00
65-69	1.099,77	3,96%	1,07	1,07	1,00
70-74	1.086,95	2,75%	1,07	1,07	1,00
75-79	1.097,85	3,78%	1,07	1,07	1,00
80-84	1.055,03	-0,27%	1,06	1,05	1,00
85-89	1.037,37	-1,94%	1,05	1,05	1,00
90-94	1.087,89	2,84%	1,03	1,03	1,00
95+	992,37	-6,19%	1,00	1,00	1,00

5. APPENDICES

A. Analysis of variance (ANOVA), except Brussels

Statistical significance of the differences observed in 2025		
By region?	Yes	**
By sex?	No	NS
By reimbursement scheme?	Yes	***
By sex and per region?	No	NS
By reimbursement scheme and per region?	Yes	***
By sex and per reimbursement scheme?	Yes	**
By sex and reimbursement scheme and per region?	No	NS

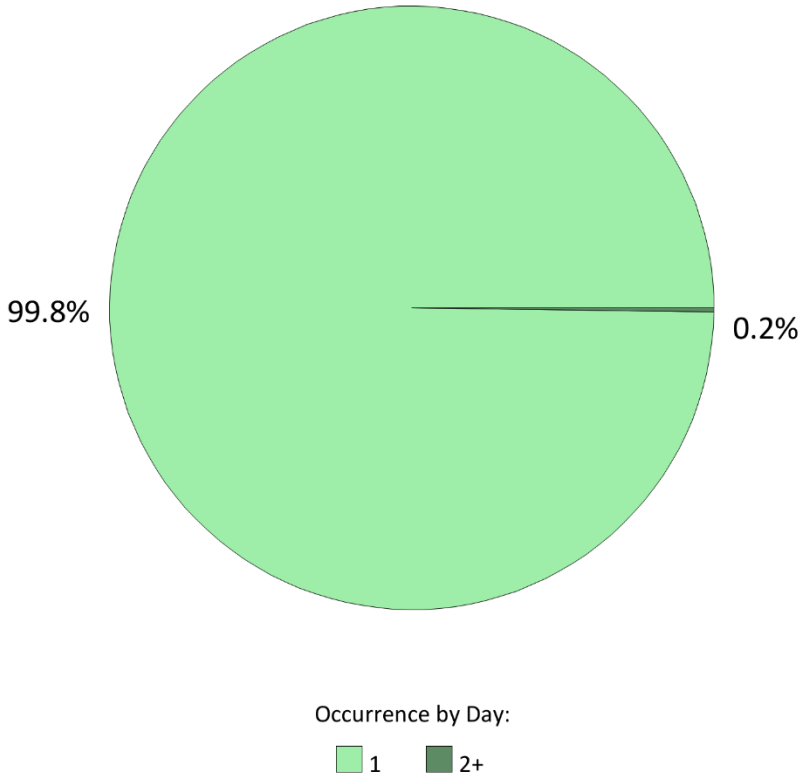
In order to be able to assess the significance of the observed differences, a linear mixed ANOVA model was fitted to the data of all districts* of the Walloon and Flemish regions, after standardising for age. The model has region, sex and reimbursement scheme as fixed effects and also contains all two-way and three-way interactions between these effects.

In order to interpret the model correctly, first the three-way interaction should be evaluated, followed by the two-way interactions and finally by the main effects. If the three-way interaction is significant, the interpretation of the model should be done at this level only and the two-way interactions and main effects should not be interpreted. If the three-way interaction is not significant, the two-way interactions are evaluated. Every main effects that appears in a significant interaction should be interpreted at the level of the interaction and not at the level of that main effect. Main effects can only be interpreted directly if they don't appear in a significant interaction.

The **asterisks** represent the level of statistical significance of the tests: * P-value ≤ 0,05 / ** P-value ≤ 0,01 / *** P-value ≤ 0,001 or NS for a non-significant result.

B. Frequency of practice occurrences (per patient)

Average number of services per day per patient : 1,00

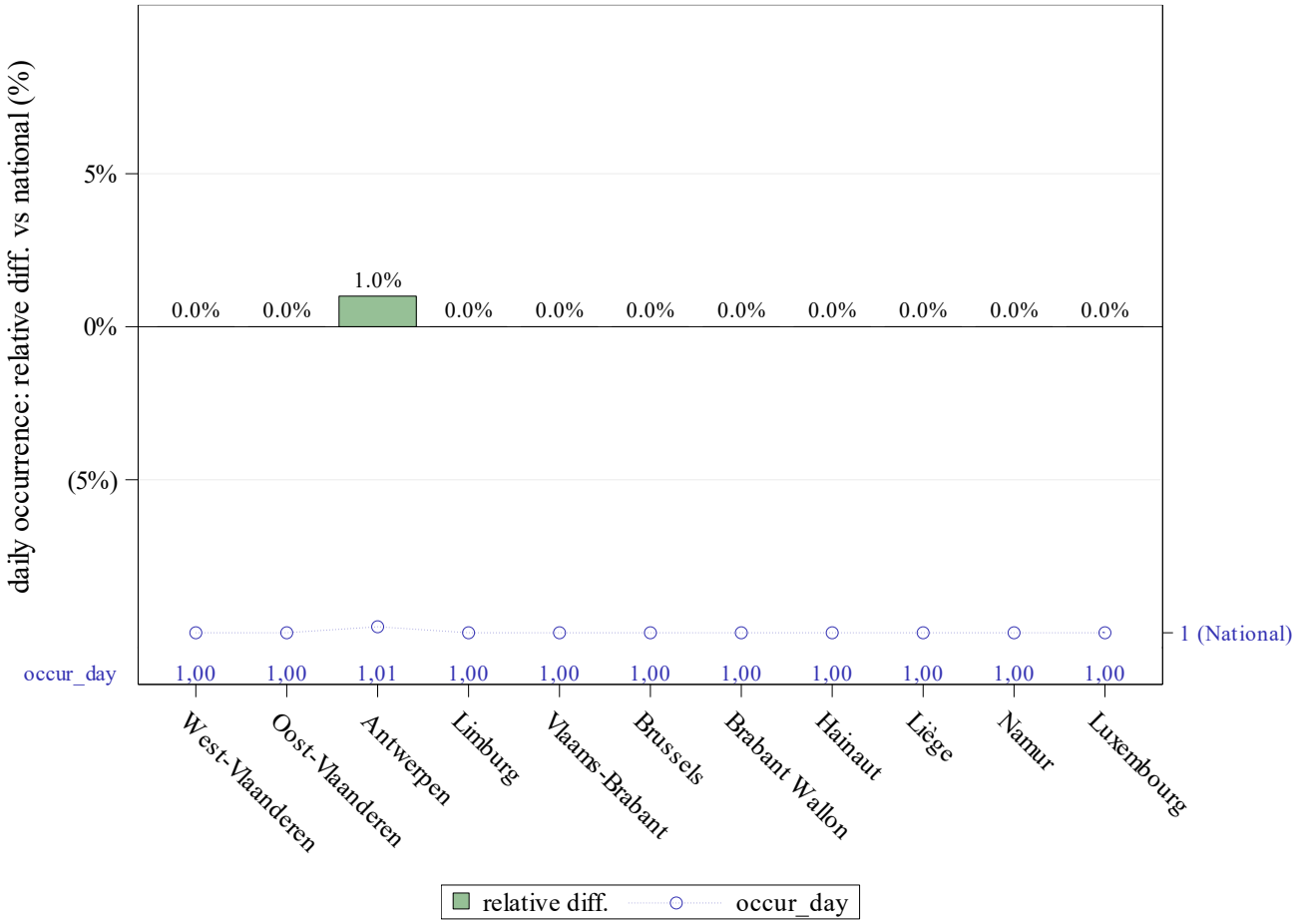


Distribution of patient days by occurrence of practice per day (2024)

Sometimes several codes (similar or different) relating to the same practice are charged on the same day for the same patient.

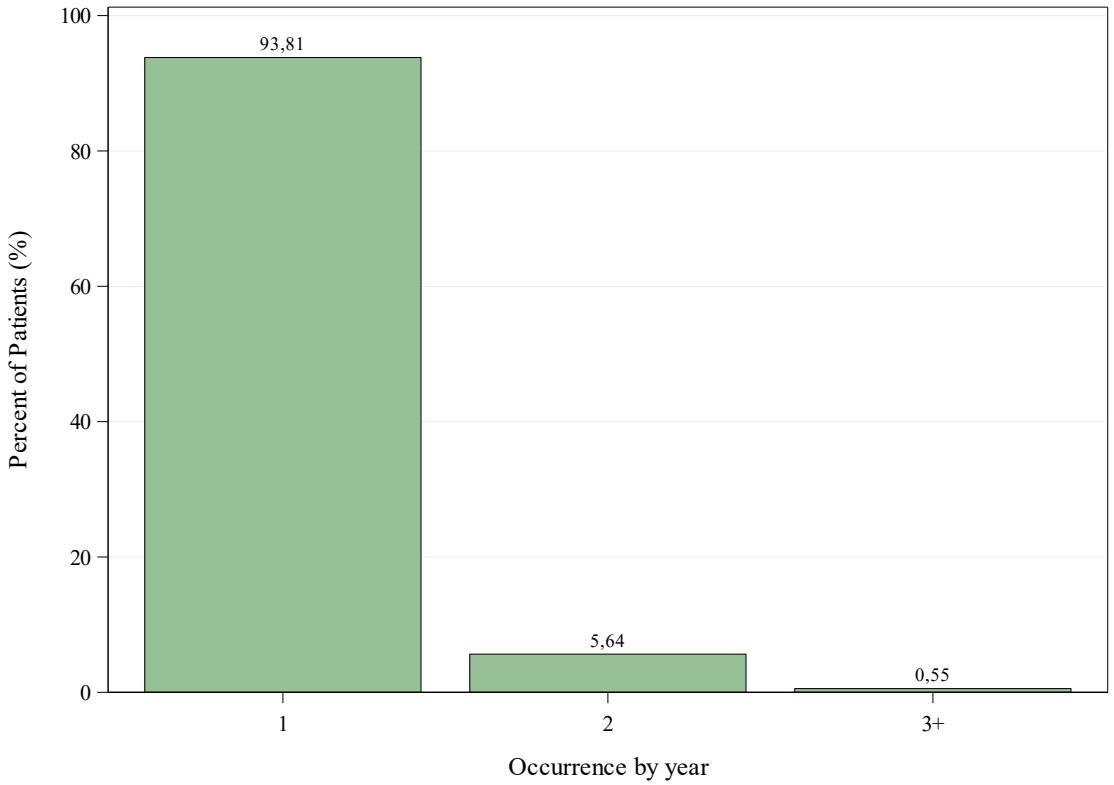
This pie chart shows the distribution of patient days according to the number of services performed on the same day for the same patient.

These frequency analyses of occurrences are carried out over the year **2024** using the following databases: Documents P, ADH and SHA.



Average number of services per day per patient by province and variation in relation to the national average (2024)

Average number of days per patient over the year : 1,07

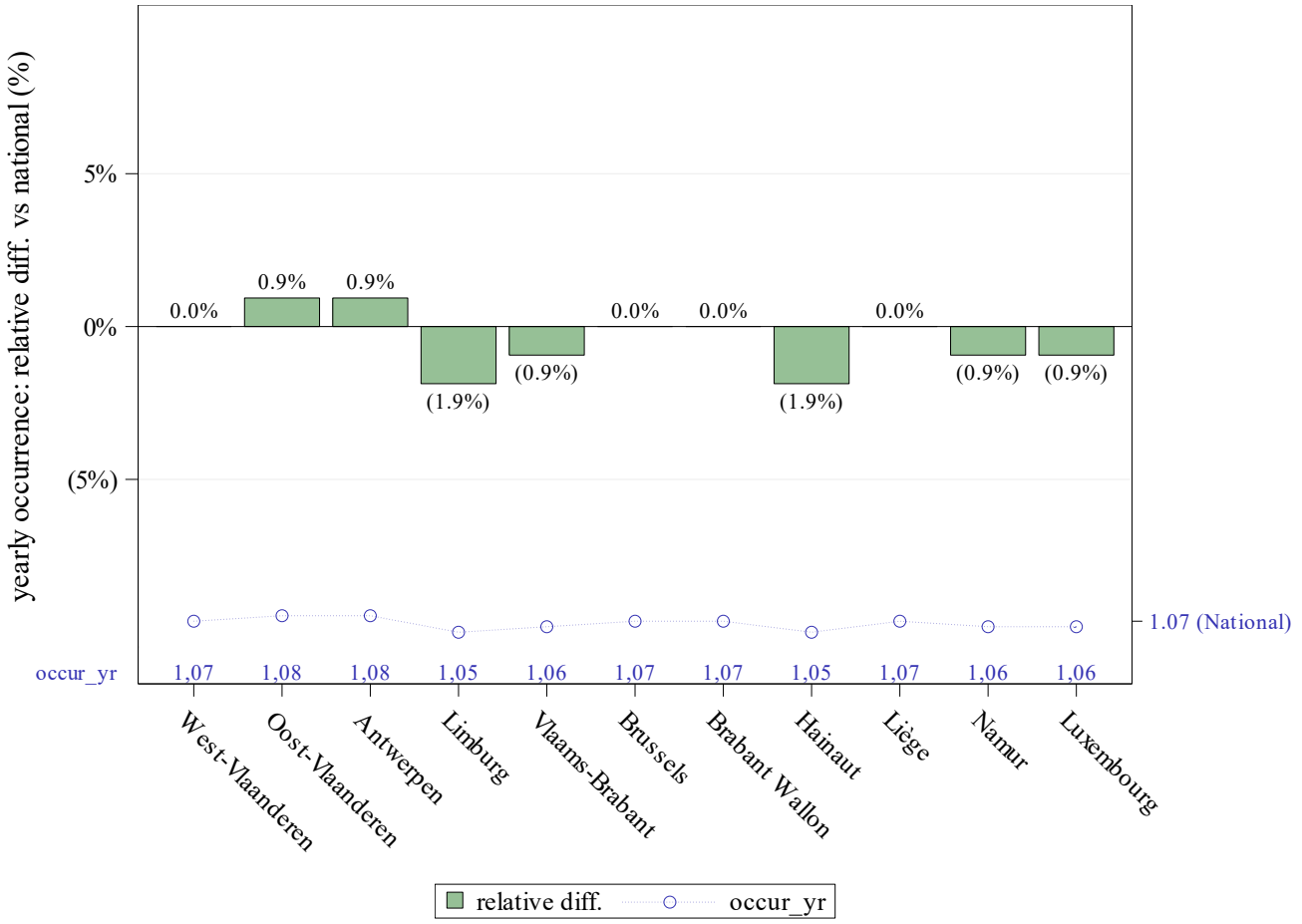


Distribution of patients by occurrence of practice over the year (2024)

After taking into account the occurrence per day, it is also possible for one or more services of the same practice to be charged on several different days for the same patient during the same year.

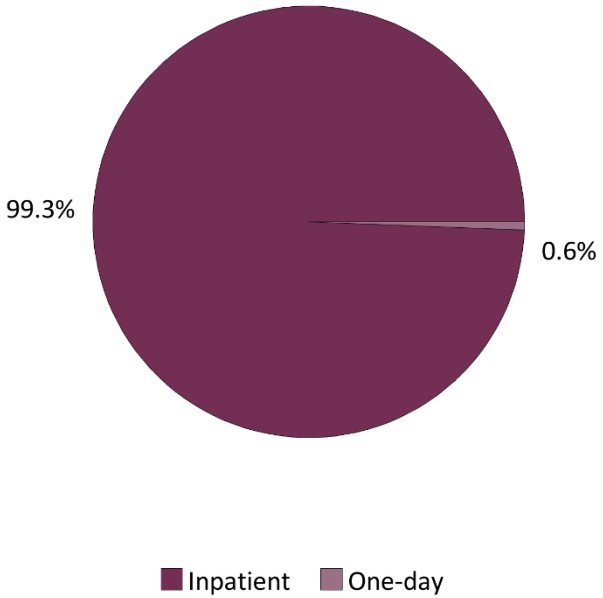
This histogram shows the distribution of patients by the occurrence of the practice over the year (which does not include the occurrence per day).

The year **2024** was taken into account to calculate the occurrence of the services (from the following databases: Documents P, ADH and SHA).



Average number of days per patient over the year by province and variation in relation to the national average (2024)

C. Types of patient care

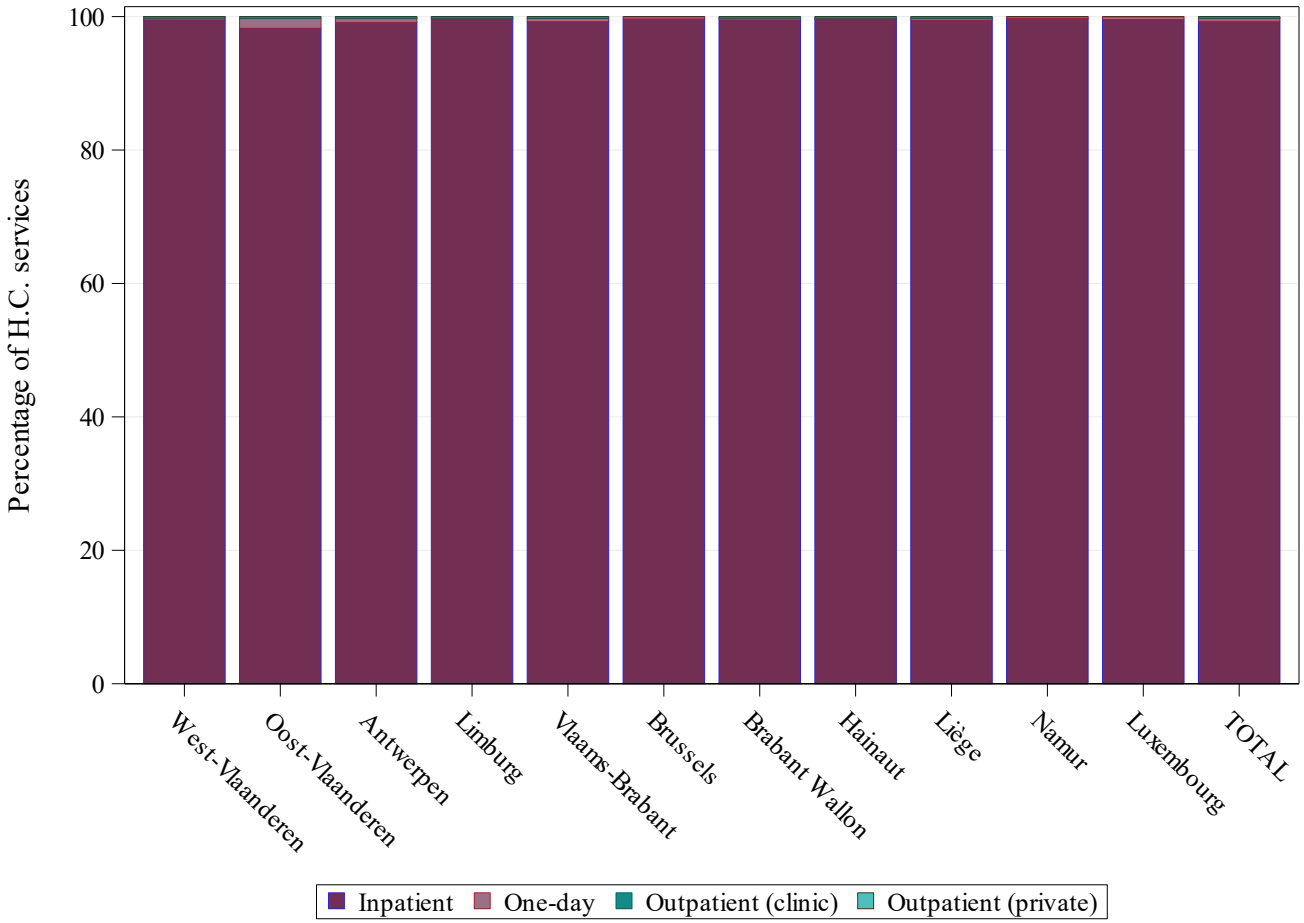


Distribution of types of patient care in 2024

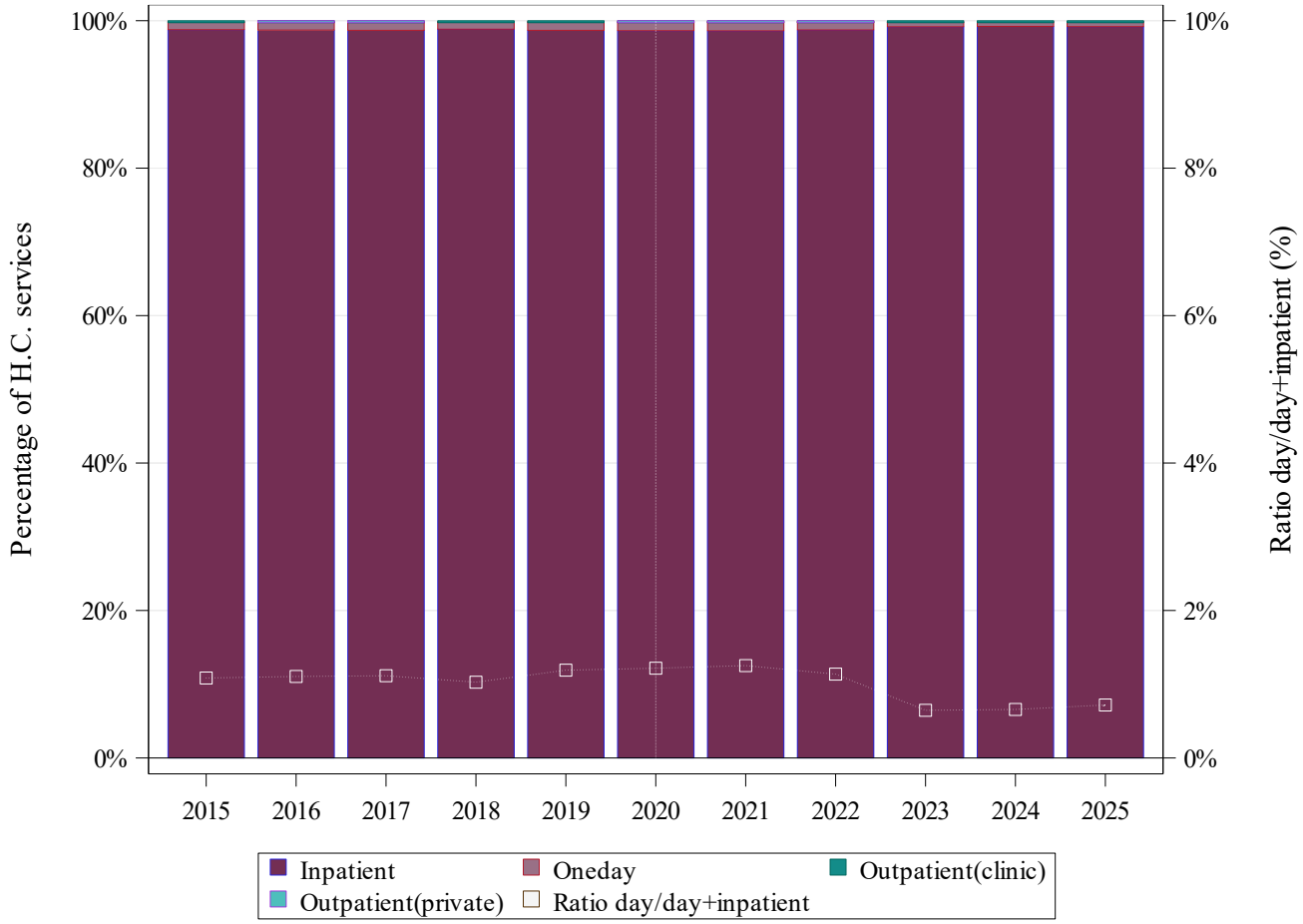
Care Settings	
Outpatient (private)	0,0%
Outpatient (polyclinic)	0,1%
(Day) Hospital	0,6%
Hospital (stay)	99,3%

In addition to the chapter on the rate of outpatient care (see p.18), the analysis of types of patient care can be refined by identifying the outpatient (private and polyclinic) and inpatient (day or standard hospitalisation) sub-sectors.

These analyses are carried out over the year **2024** using the following databases: Documents P, ADH and SHA.



Distribution of types of patient care by province (2024)



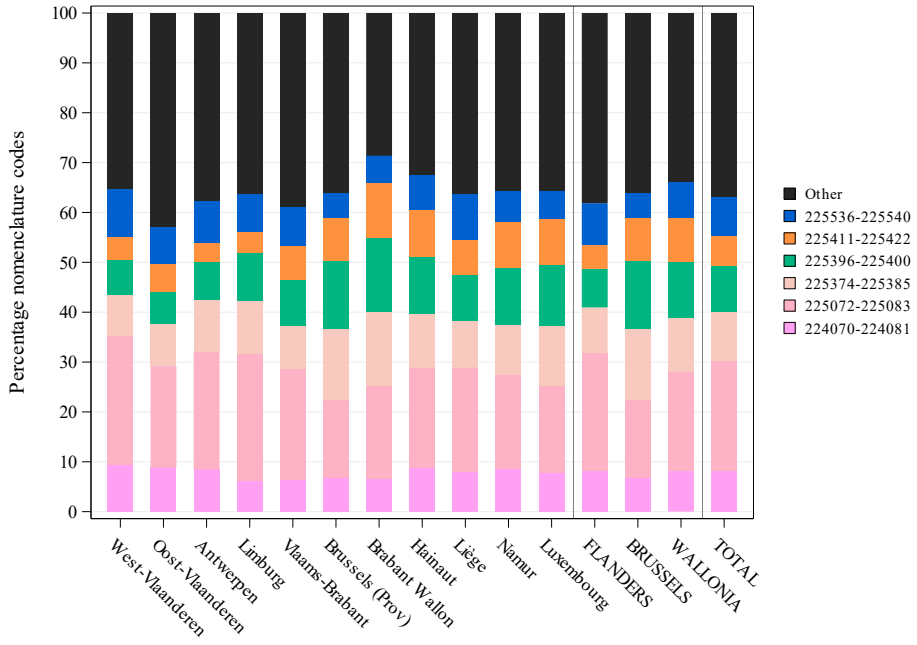
Evolution of the distribution of types of patient care (of services), per year

This graph illustrates the distribution of types of care by service provided, allowing their evolution to be followed over the period 2015-2025. (In the case of clinical biology services, however, outpatient types cannot be fully differentiated).

The left-hand scale refers to the distribution by sector in % (bars). Where applicable, the right-hand scale refers to the rate of day hospitalisation as a percentage of total hospitalisations (white squares).

D. Coding variations and practice alternatives

➔ Variations in coding :



Volume breakdown of nomenclature codes

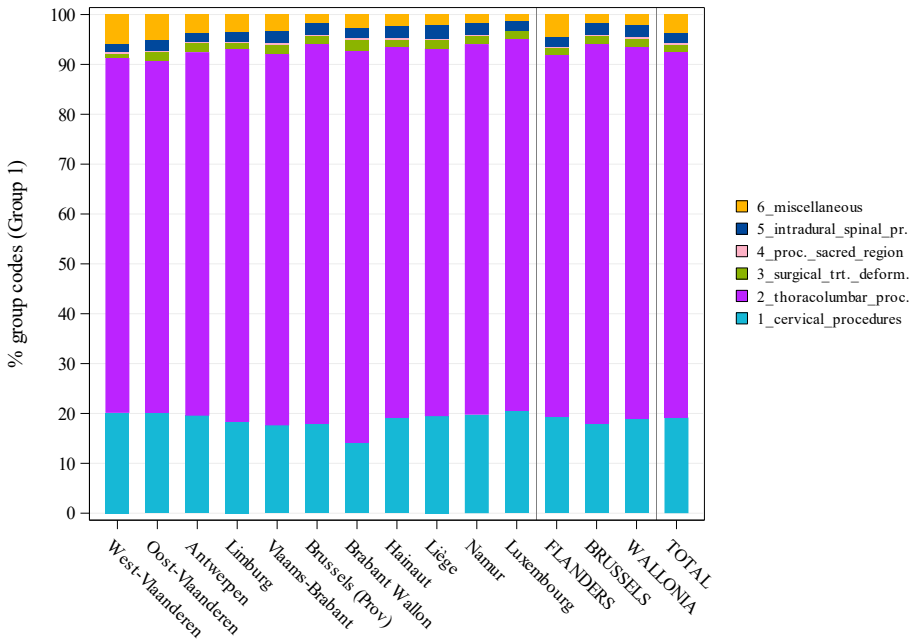
Combined codes	Label
Other	Other codes
225536-225540	^^ Arthrodèse lombaire par abord postérieur ou transforaminal au moyen de vis pédiculaires (PLIF, TLIF), sur 1 niveau
225411-225422	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du ...
225396-225400	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du ...
225374-225385	^ Décompression lombaire (interlaminaire ou par laminectomie) bilatérale en cas de sténose centrale ou foraminale ou du ...
225072-225083	^ (Micro)discectomie unilatérale lombaire ou décompression unilatérale (interlaminaire) en cas de sténose foraminale ou ...
224070-224081	^ Discectomie cervicale par abord antérieur, y compris la reconstruction sur 1 niveau

Significance	By region	By province
Use of **Nomenclature codes**[1]	***	***

The **asterisks** represent the level of statistical significance of Chi-square test: * P-value ≤ 0,05 / ** P-value ≤ 0,01 / *** P-value ≤ 0,001. **NS** and **NA** respectively indicate that the variations are not significant or not applicable.

[1] The calculation of significance is carried out here by comparing the geographical differences in the use of the different nomenclature codes to code the practice.

➔ **Variations in practice alternative :**



Breakdown of choice for practice alternatives

[Due to the large number of nomenclature codes selected for this analysis, we cannot include them in the legend here. We therefore invite you to read the details on page 4 of this report.]

Significance	Par région	Par province
Choice of **Practice alternatives**	***	***

According to the nature of the practice and the analytical tools available, it may be possible to identify and define alternatives for carrying out the practice. In this case, the nomenclature codes defined for the analysis of the practice are grouped together with the aim of analysing whether or not the choices of these alternatives are homogeneous across the territory. The calculation of significance displayed in the table is carried out by comparing these groups of codes with each other.