

FRANCE vs SPAIN vs GERMANY vs BELGIUM

European comparison of spinal surgery hospitalizations from 2010 to 2013 according to patient profiles

OBJECTIVES

Aim of the study was to compare the evolution of hospitalizations for spinal surgery across France, Spain, Germany and Belgium from 2010 to 2013 and to analyze the patients' characteristics.

METHODS

A retrospective analysis was conducted from hospital databases PMSI for France, CMBD for Spain¹, SHI for Germany and RHM for Belgium between 2010 and 2013.

All spinal surgery hospitalizations were identified through procedure codes according to the respective classification of each country (CCAM for France, ICD-9 for Spain and Belgium, and OPS for Germany). The mapping of ICD-9 and OPS codes was undertaken from the French procedures. Standardized rates of spinal surgery patients were based on age from the EU population².

RESULTS

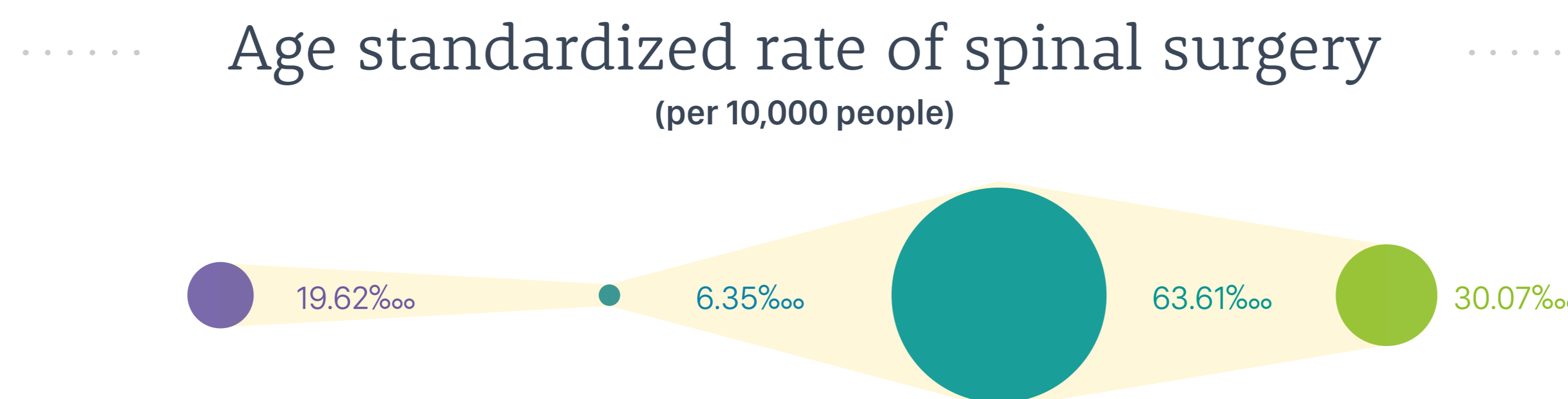
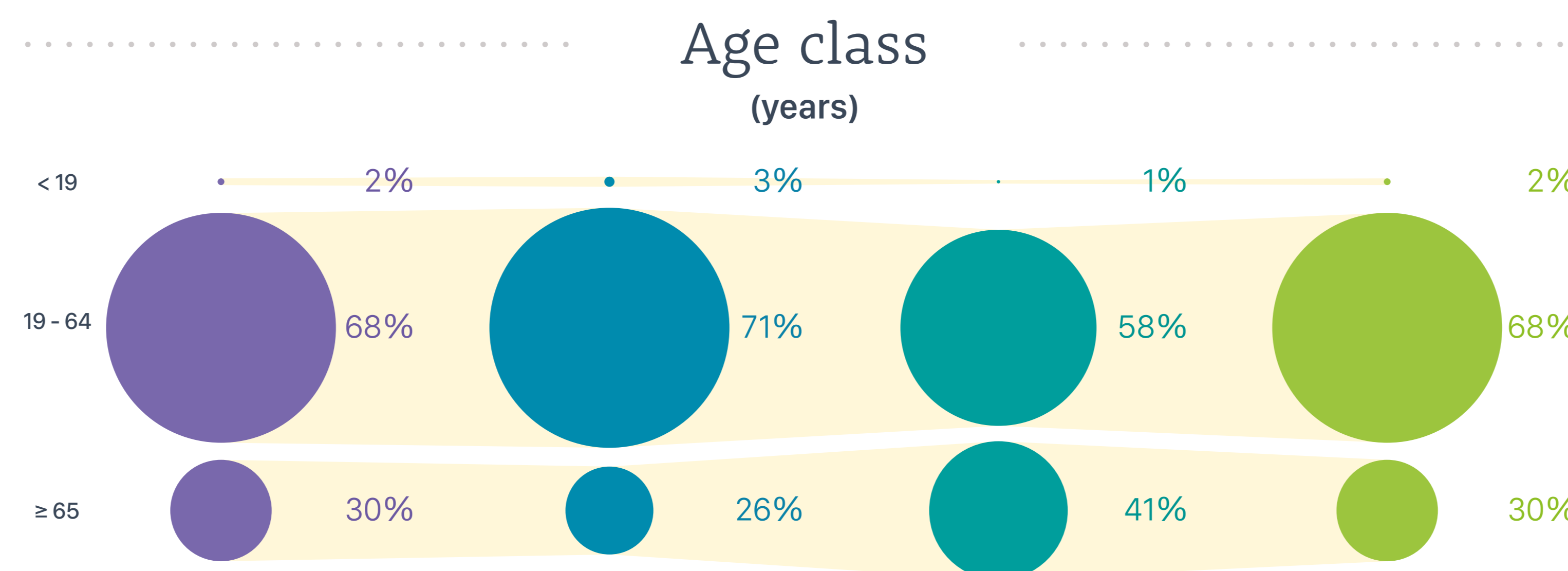
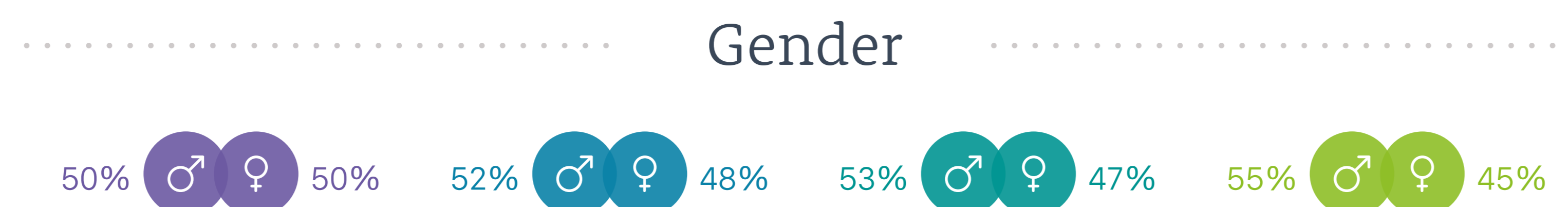
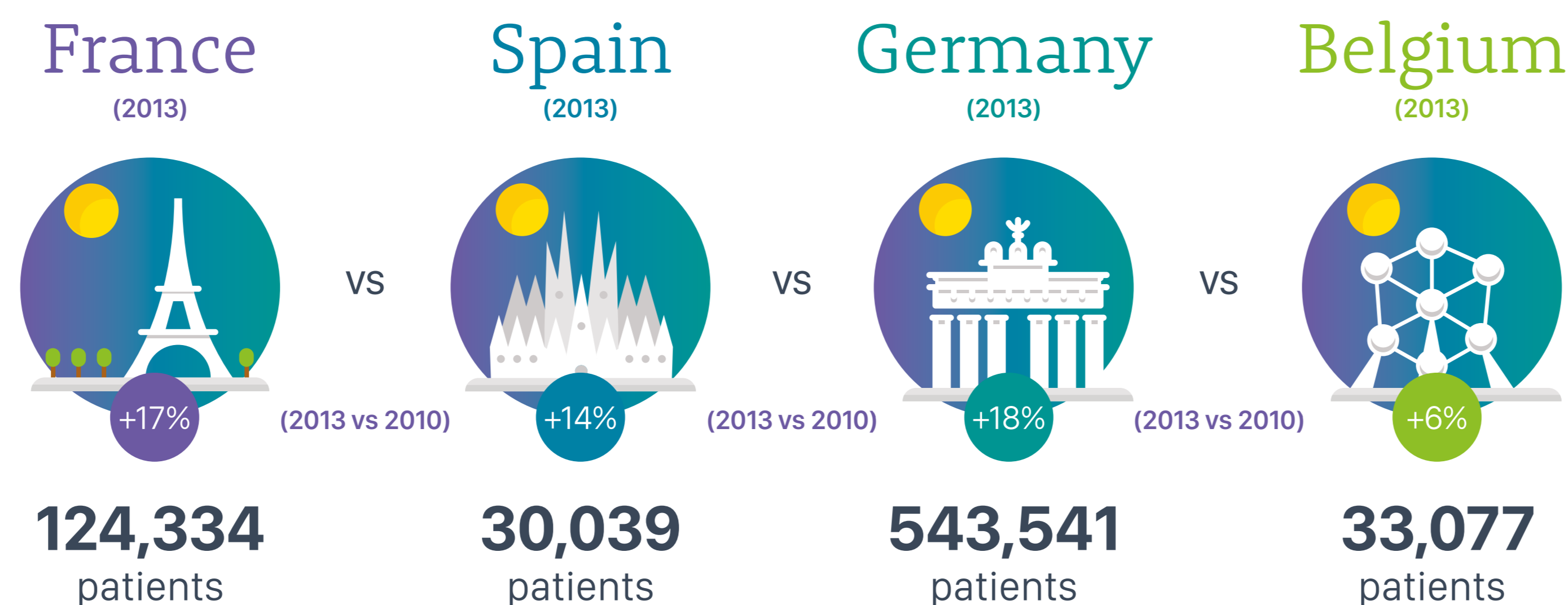
In 2013, crude rates of hospitalized patients undergoing spinal surgery were 18.95 per 10,000 in France, 6.43 per 10,000 in Spain, 67.50 per 10,000 in Germany and 29.63 per 10,000 in Belgium. All countries experienced an increase of the number of patients from 2010 to 2013: +17% in France, +14% in Spain, +18% in Germany and +6% in Belgium.

The gender distribution was similar between all countries, with slightly less men in France. In Belgium, the number of men treated was more important (55%).

Mean age was lower in France (54 ± 17 years), Spain (53 ± 16 years) and Belgium (56 years) compared to Germany (59 ± 15 years). The [70-79] year group was over-represented in Germany (24% of patients vs ≤15% in France and Spain) to the detriment of the [30-39] year group (6% of patients in Germany vs ≥12% in France and Spain).

The age standardized rates of spinal surgery patients were higher in Germany (63.61 per 10,000) and Belgium (30.07 per 10,000) than in France (19.62 per 10,000) and Spain (6.35 per 10,000).

The top 3 spinal surgeries for each country are described in the figure at the top right.



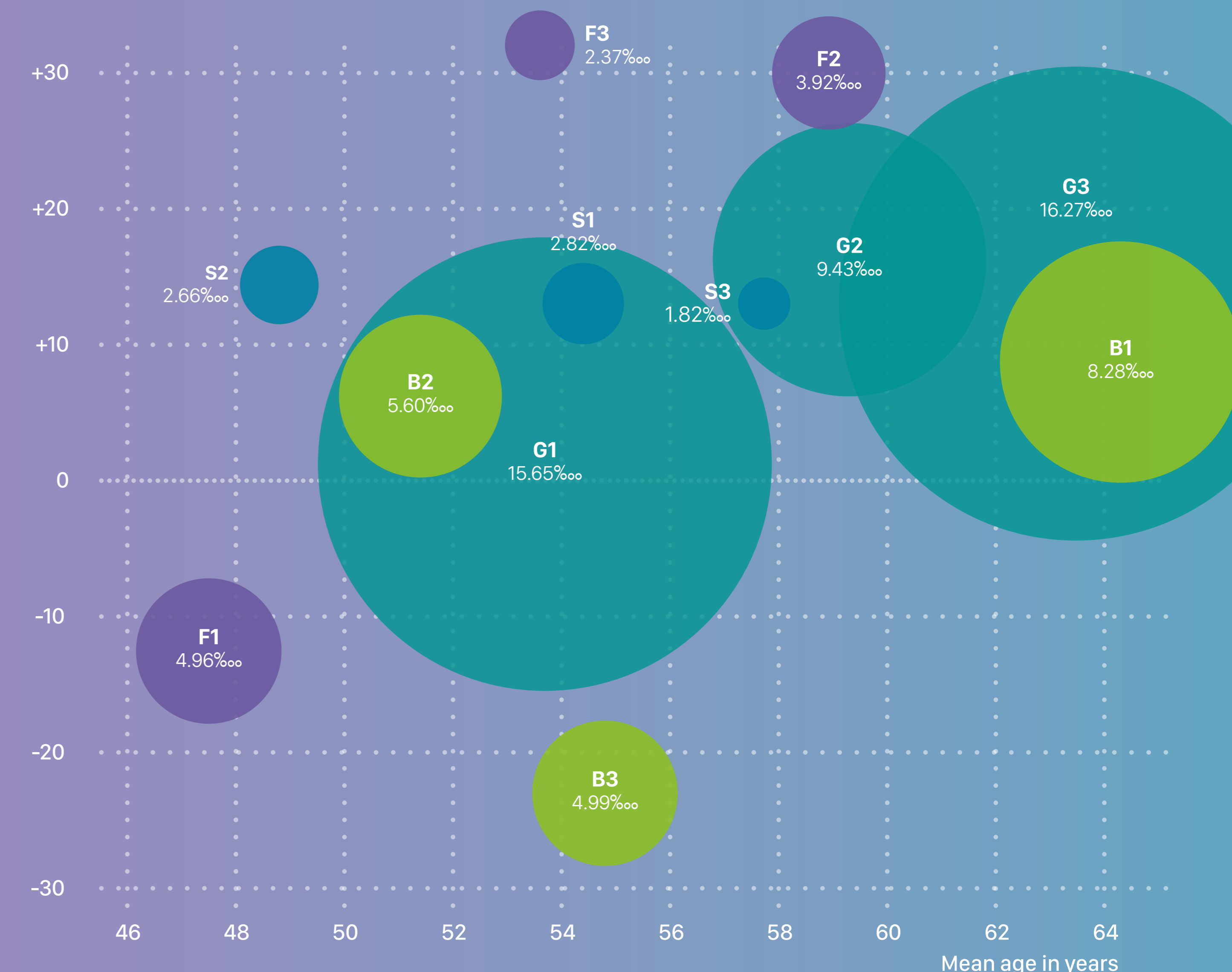
CONCLUSION

Between 2010 and 2013, spinal surgery was marked by a progression of more than 14% in each country except for Belgium with an increase of 6%. The standardized rate of spinal surgery patients varied considerably between the 4 countries, with Germany and Belgium having the highest standardized rate.

REFERENCES: (1)CMBD database collected from registro del atlas hospitalizacion - Instituto de Informacion sanitaria del ministerio de sanidad servicios sociales. (2) EUROSTAT (data extracted on 28/MARCH/2017)

Crude rate comparison of the top 3 spinal surgeries (per 10,000 people)

Evolution of rates in ‰ (2013 vs 2010)



FRANCE

F1: Exérèse de hernie discale de la colonne vertébrale par abord postérieur

F2: Recalibrage de la colonne vertébrale par abord postérieur

F3: Ostéosynthèse et arthrodèse de la colonne vertébrale par voie postérieure ou postérolatérale

SPAIN

S1: Fusión espinal

S2: Escisión, destrucción y otra reparación de disco intervertebral

S3: Otra exploración y descompresión del conducto espinal

BELGIUM

B1: Autre exploration et décompression du canal rachidien

B2: Autre fusion cervicale de la colonne antérieure, technique antérieure

B3: Arthrodèse lombaire ou lombosacrée, technique postérieure

GERMANY

G1: Excision of diseased intervertebral disc tissue

G2: Excision of diseased bone and joint tissue of the spine

G3: Other operations at the spine

Medtronic

