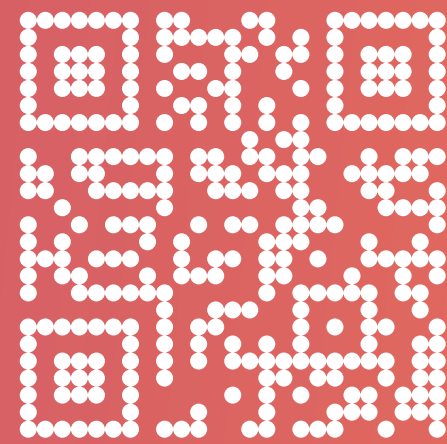


Economic burden of biosimilar delivery in France:

Real world analysis from the permanent sample of National Health Insurance Beneficiaries (EGB) between 2007 to 2017



Context

Biosimilar drugs represent significant savings for the French National Insurance. The biologic drugs environment is challenging in France with the ongoing loss of drug commercial patents and the strong incentives from the health authorities that led to encourage the biosimilar prescription.

Objective

To study the economic burden and the market share rate evolution of biosimilar drugs based on claims data “permanent sample of national health insurance” between 2007 (index date of the first biosimilar launch) and 2017.

Methods

It is a retrospective study from the EGB (a 1/97th random sample of SNIIRAM) of biosimilar and reference drugs consumptions. We have extracted the health insurance reimbursement for all biosimilar and reference drugs commercialized in France during the study period. Market shares were calculated by dividing the number of biosimilars packages delivered to all drug packages (biosimilar and references). Costs (in Euro) and number of patients were extrapolated to national level by using coefficient published by the national health insurance office (CNAM).

Discussion

It is the first study conducted on the regarding all the biosimilars commercialized between 2007 to 2017.

There are heterogeneities in market shares and expenditures between all the biosimilars, probably explained by differences in:

- Commercialization date / Diseases / Dosage and treatment regimen / Prices

An evaluation by pathologies, instead of by treatment, could avoid these heterogeneities

Limitations:

- Related to the EGB: its sample nature does not allow to study rare disease, and results had to be extrapolated to estimate them at a national level. Expenditures and patients number must be carefully interpreted.
- Market shares were not calculated by unit (because of the data availability). So they can be overestimated or underestimated.

Conclusion

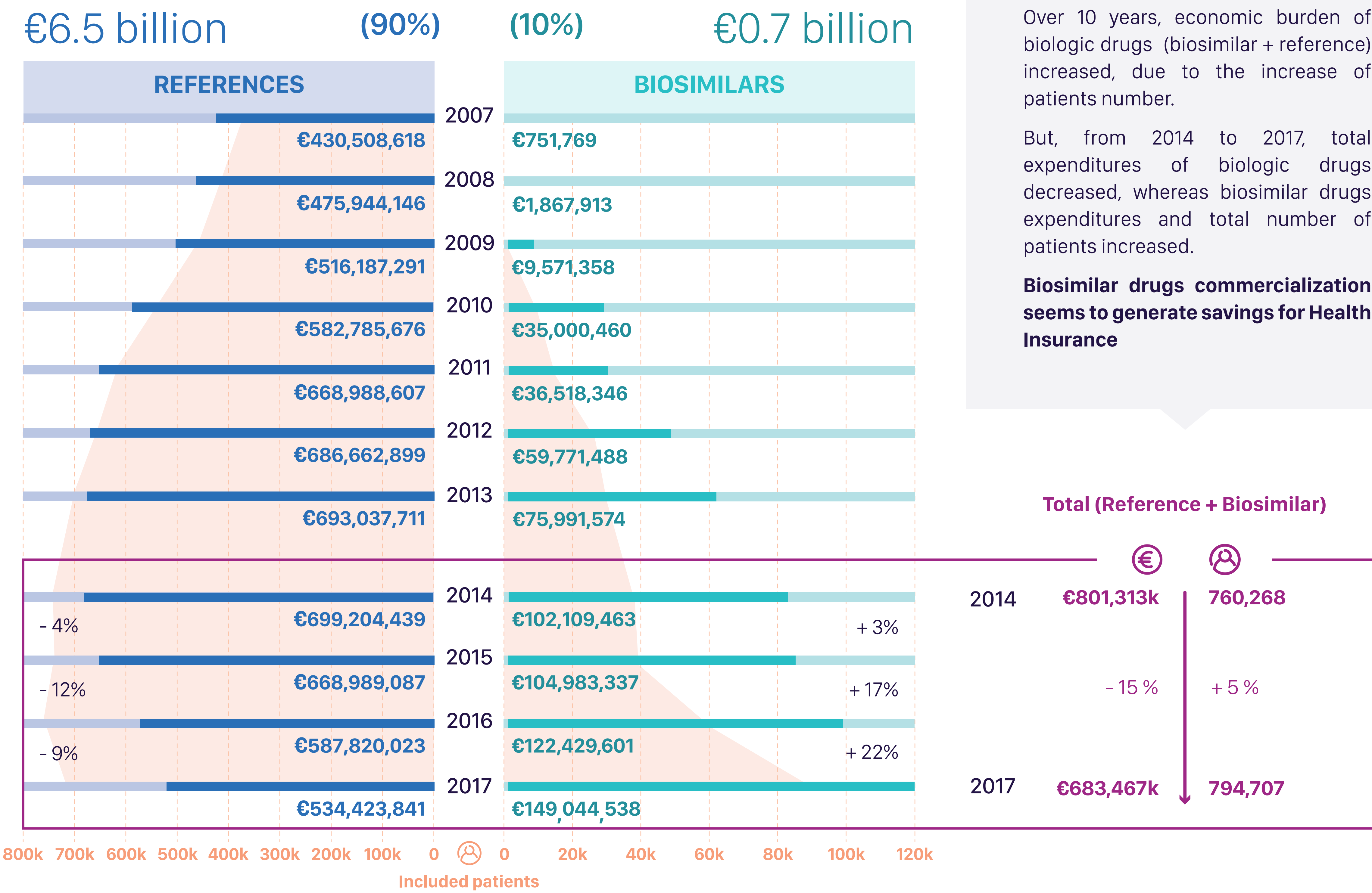
This study confirms that biosimilars have generated savings from the National Health Insurance by decreasing total expenditures on biologic drugs

What are the perspectives ?

- The growth of the biosimilars market is expected to accelerate in the next years with the patent loss of Humira® (adalimumab), Lovenox® (enoxaparine) and Herceptin® (trastuzumab).
- Market shares of etanercept and insulin glargin biosimilars should increase in next years because they are targeted by the incentives.

For example we analyzed the retail market share of these two biosimilars in 2019 (retail data, by unit, from January to August). They were 26% for etanercept and 20% for insulin glargin biosimilars. The incentives seem to be effective.

1 - Evolution of expenditures and patients included

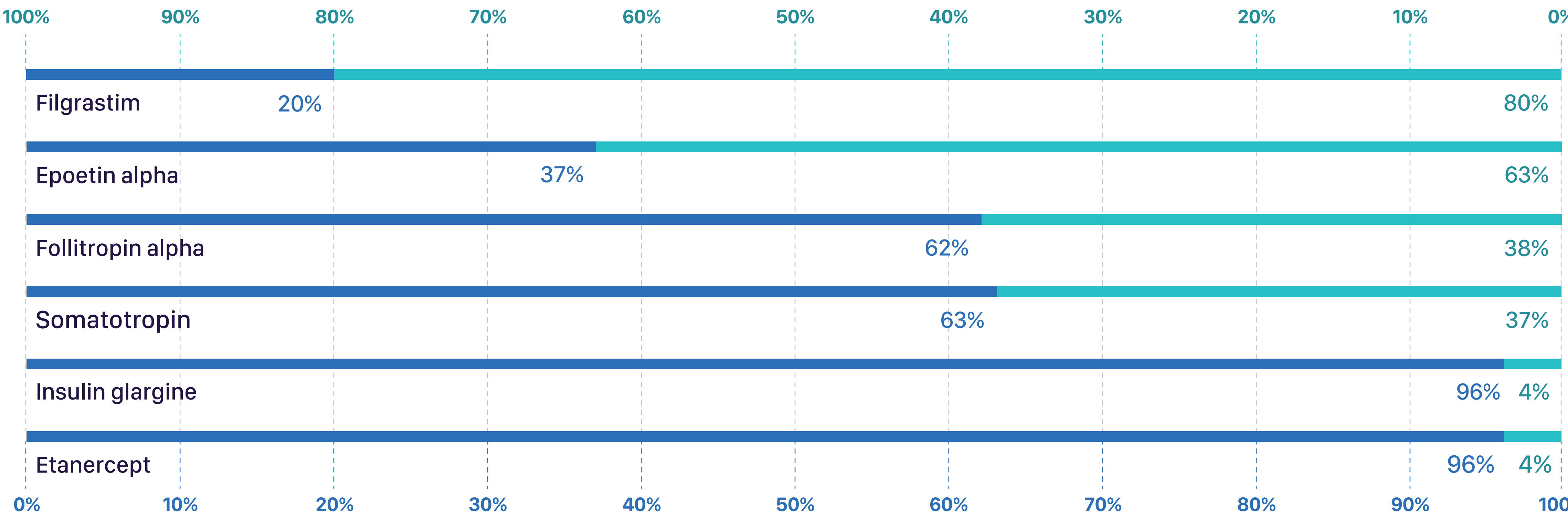


Over 10 years, economic burden of biologic drugs (biosimilar + reference) increased, due to the increase of patients number.

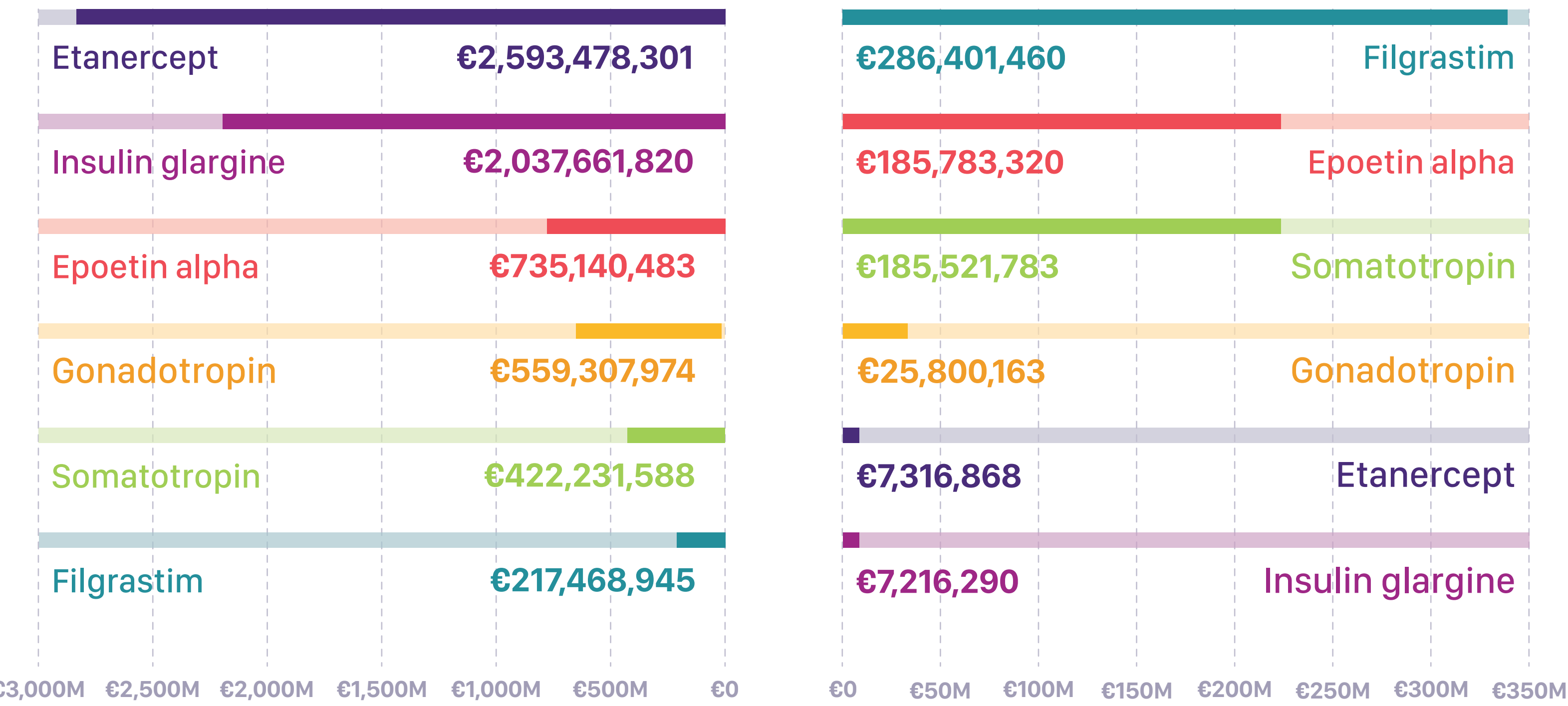
But, from 2014 to 2017, total expenditures of biologic drugs decreased, whereas biosimilar drugs expenditures and total number of patients increased.

Biosimilar drugs commercialization seems to generate savings for Health Insurance

2 - Biosimilar retail market share rate in 2017



3 - Total expenditures from 2007 to 2017 of all interest drugs



The two most reference drugs expenditures are etanercept and Insulin glargine.

On the other side the two biosimilar related are the lowest expenditures of biosimilar drugs.

Biosimilars of etanercept and insulin glargin were marketed in 2016 and are targeted by the incentives