High entry costs, slower growth: A nationwide register study on newly reimbursed biologic medicines in Finland, 2011–2021

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Introduction

Biologic medicines, with their high prices and growing market share, are frequently cited as key contributors to increasing outpatient medicine costs. This study examined the development of entry-phase treatment costs for biologic medicines compared to other newly reimbursed medicines in Finland during 2011–2021.

Methods

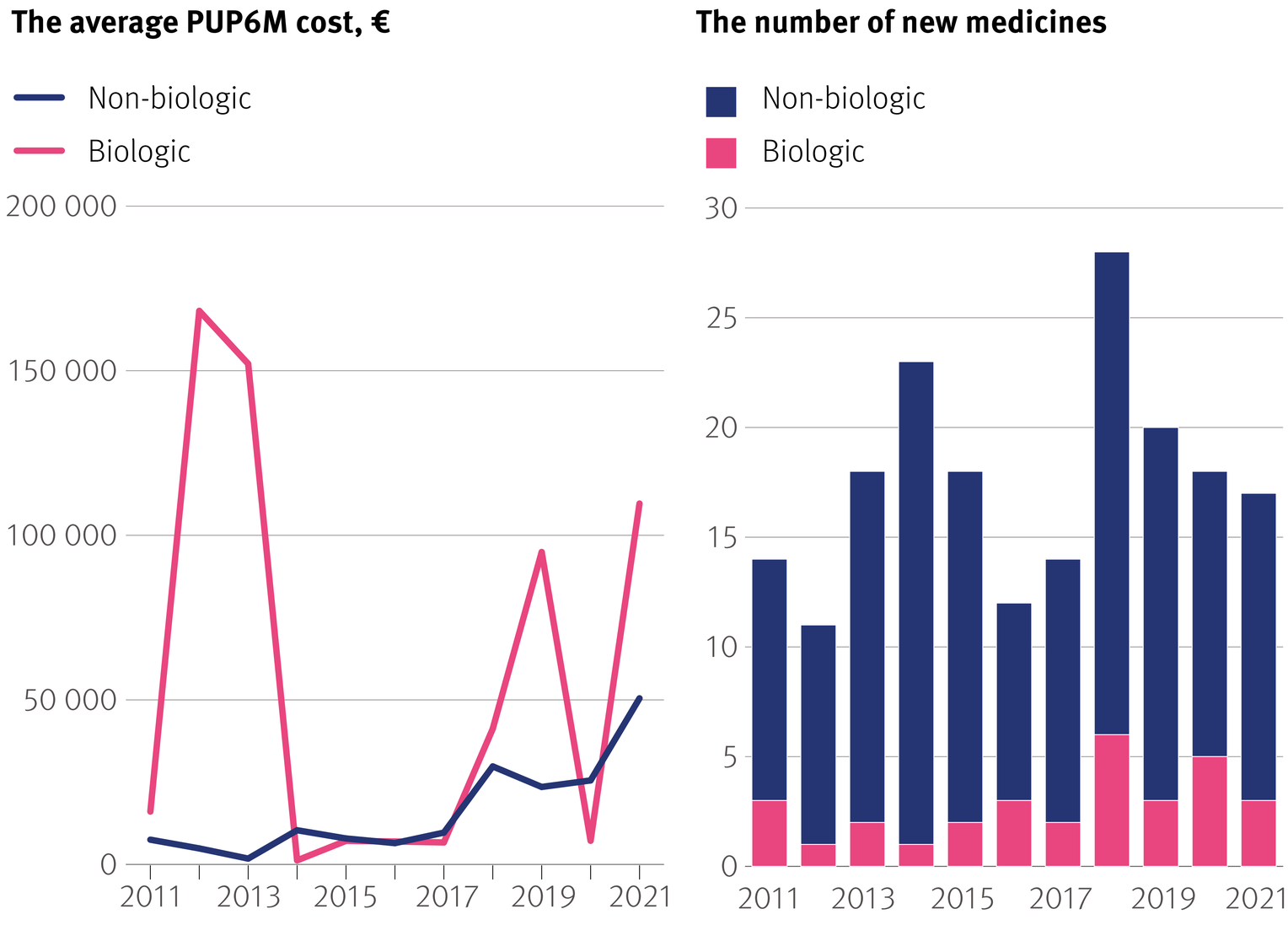
Data on active ingredients newly accepted for reimbursement between 2011–2021 and their six-month entry-phase treatment costs, converted to 2022 monetary value, were retrieved from the national register of reimbursed medicine purchases. These data were further supplemented with publicly available information on medicine characteristics. Linear regression models, including one with an interaction term between year and biologic status, were used to examine the relative importance of biologic versus non-biologic medicines in overall cost evolution and assess whether their annual cost trends differed.

Results

Between 2011 and 2021, 16% (n=31) of new medicines entering the reimbursement system were biologics. Their number increased over time, with over half (55%) approved during the final four years of the observation period. The largest share of new biologics belonged to ATC group L (32%), followed by group A (19%) and group B (16%).

The median six-month treatment cost per patient for newly reimbursed biologics was €8,296, compared to €1,514 for non-biologic medicines. On average, entry-phase costs for biologics were 5.6 times higher than those of non-biologics ($p<0.05$). However, when examining annual cost trends, biologics showed 14% lower cost growth compared to non-biologics, although this difference was not statistically significant ($p=0.26$).

Figure 1. The entry-phase treatment cost per user per six months (PUP6M) on newly reimbursed biologic and non-biologic medicines 2011-2021



Conclusions

Biologic medicines had significantly higher entry-phase treatment costs than non-biologics, though their cost growth over time was slower. These findings suggest that although biologics contribute to higher expenditure at the entry-phase, their long-term cost trajectory may be more stable. This distinction is important for healthcare policymakers and payers managing budgets while ensuring access to innovative therapies.

Key findings

Rising Share of Biologics

Biologics accounted for 16% of newly reimbursed medicines (2011–2021), with 55% approved in the final four years.

Significantly Higher Initial Costs

Median six-month treatment cost: €8,296 for biologics vs. €1,514 for non-biologics.

Slower Cost Growth Over Time

Annual cost growth for biologics was 14% lower than for non-biologics.

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