

Economic burden of atherosclerotic cardiovascular diseases in France in 2021: results from the French nationwide claims database (SNDS)

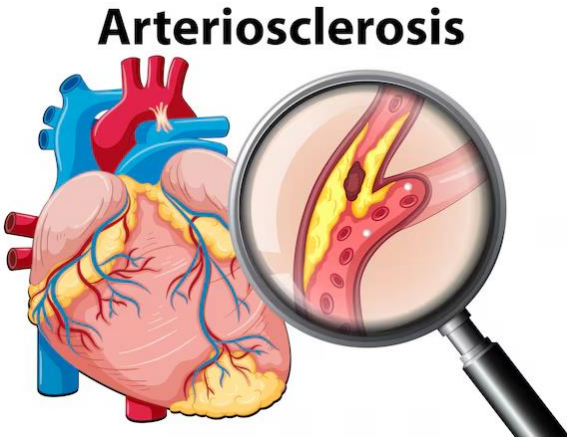
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INTRODUCTION

In France, according to French Health Insurance, cardiovascular diseases have a high economic burden, accounting for more than 10% of healthcare costs. Despite extensive studies on clinical outcomes, the impact of atherosclerotic cardiovascular diseases (ASCVD) on healthcare costs remains poorly documented.



OBJECTIVES

The objective of the study was to estimate on a national scale (in this case, France) 1) the 2021 ASCVD burden regarding healthcare expenditures and 2) the average additional cost of ASCVD compared to a population without ASCVD.

METHODS

A retrospective, observational database analysis was conducted using the French nationwide claims database (SNDS), collecting data from 99% of the population (68 million people). Adult patients with a history of ASCVD in the previous 10 years prior to December 31th, 2021 were selected based on long-term diseases status, hospitalizations coded using ICD-10, and/or revascularization procedures. Costs of healthcare resources use were described from a collective and societal perspective (overall and associated to ASCVD) including direct medical costs and direct non-medical costs : 1) using SNDS databases (non-aggregated costs), 2) using mapping of diseases and expenditure of SNDS database (annual aggregated costs). Total and mean annual costs per patient expressed in €2021 were estimated.

RESULTS-DISCUSSION

1) In 2021, 2,206,026 patients (4.95% among 45,082,270 adults) were identified with established ASCVD (mean age: 72.2 (±13.4) yo; 36.9% females). Average total annual healthcare costs per patient were estimated at €9,370 per patient (2,324€ related to ASCVD (25% of total cost)). The highest average annual cost per patient related to ASCVD is focused on hospitalizations, with over €1,188 (Figure 2)

Total annual costs from a collective perspective
€20.7 billion
(€5.1 billion related to ASCVD)

FIGURE 1: COST DISTRIBUTION IN ASCVD PATIENTS

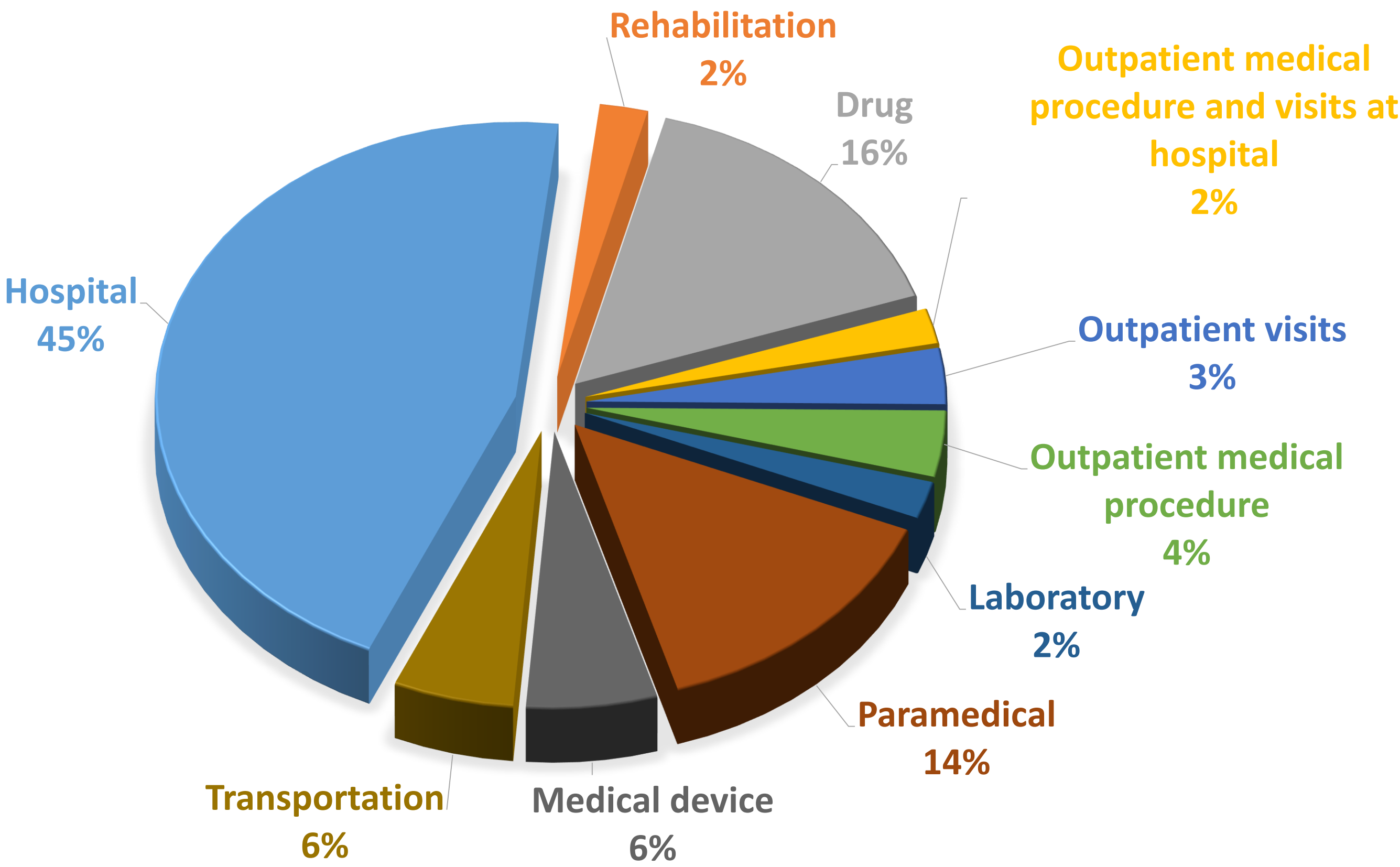
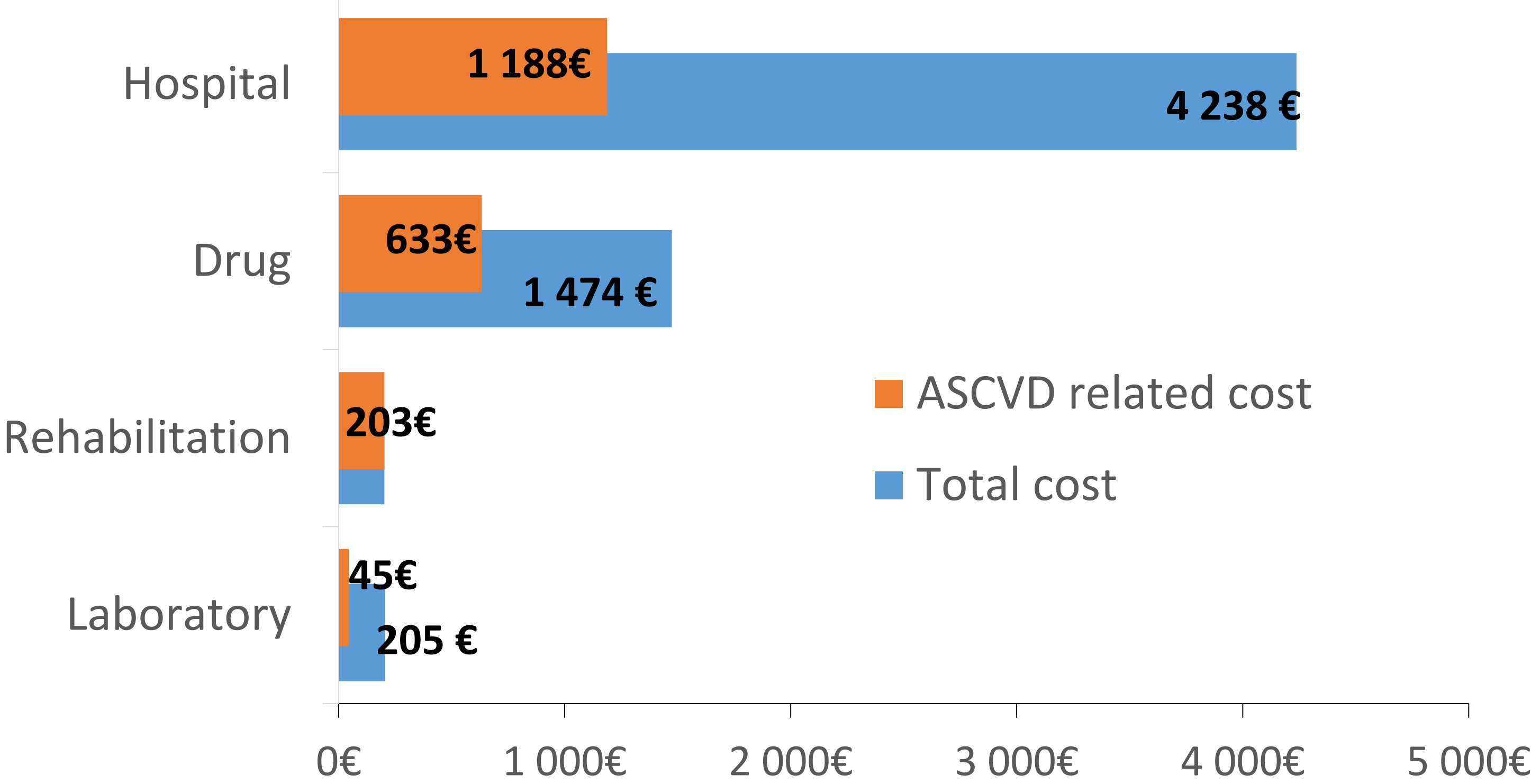


Figure 2: 2021 Mean annual Healthcare Cost and related to ASCVD per patient

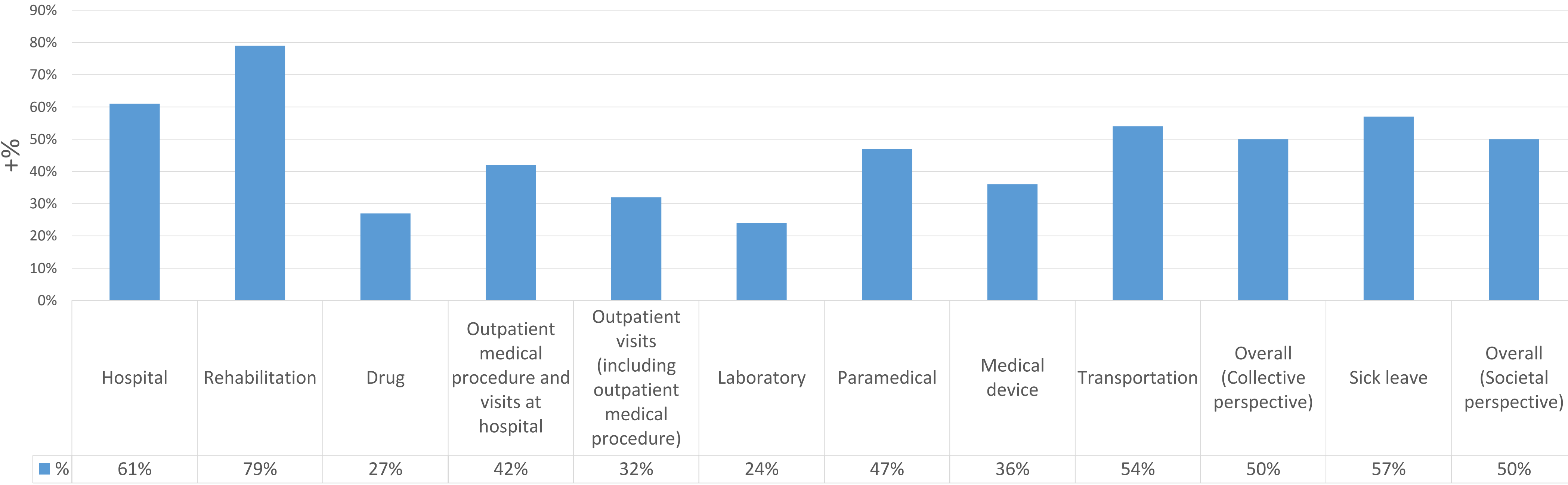


When considering the total expenditure: Hospitalizations for ASCVD, including rehabilitation care, accounted for over 60% of the total ASCVD annual cost with €3.1 billion, followed by drug delivery €1.4 billion (27.2%). Among ASCVD-related drugs, lowering lipid therapies represented €187.9 million (13% of drugs cost). Although sick leave represents only a small percentage of expenses, it only concerns at most 27% of the population affected by ASCVD.

2) Compared to the general population, adjusting for comorbidities, age and sex, ASCVD led to an average additional healthcare cost of €3.181 per patient in 2021 (+50%) (Figure 3).

The burden of ASCVD directly linked to the pathology represents a percentage increase in health expenditure of between 24 and 50%. It was not possible to consider only healthcare consumption directly linked to ASCVD as the SNDS does not contain the associated medical reasons and Diagnosis Related Group tariff may be increased due to comorbidities.

Figure 3: ASCVD absolute burden



CONCLUSION

This real-world study highlights the huge economic burden of ASCVD in France, hospitalizations being the primary cost driver. These findings underscore the need for better control of risk factors to prevent recurrence of cardiovascular events and therefore to reduce their economic impact.

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