

# BUDGET IMPACT ANALYSIS OF AMISULPRIDE IN TREATMENT OF SCHIZOPHRENIA IN POLAND

## Background

Schizophrenia is a chronic, severe, and disabling brain disorder that affects men and women between the late teens and the mid-30s, but in rare cases, can appear in childhood. Symptoms can include hallucinations, disordered thinking, movement disorders, delusions and social withdrawal. The causes of the disease have not yet been determined, but current treatments can eliminate many of the symptoms and allow people with schizophrenia to live independent in the community.

The registry of patients treated for mental disorders indicated that there were approximately 126,000 patients treated for schizophrenia only in specialist centers in 2007 in Poland. National Health Fund (NHF) reports indicated that in 2005 health care expenditures alone for olanzapine account for around 3.0 percent of Poland's total health care expenses for drugs. Therefore an overview of substances and generics newly launched, current products and their market share in antipsychotics is essential from NHF perspective.

## Methods

The analysis was performed in 5-year time horizon (2010-2014) from the payer (National Health Fund, NHF) perspective and payer+patient perspective (co-payment).

Because of individual schizophrenia treatment schemes, frequently observed low compliance and heterogeneity in prevalence and morbidity data, implementation of budget impact (BIA) methods based on population and prevalence in the analysis was not possible. Health care expenses for schizophrenia in Poland were therefore calculated based on predicted antipsychotics sales over a span of the next five years. Sales data, when there is no possibility to estimate on population and prevalence, is the best information on the past expenses and optimal basis for the prognosis. On the base of IMS Health Poland pharmaceuticals sales data for years 2005-2010 linear regression was conducted to predict consumption and prevalence of antipsychotics drugs in Poland. The prognosis performed indicates constant growth of total antipsychotics sale (in terms of defined daily dose - DDD) in years 2010-2014 (Figure 1). In contrast amisulpride market share was growing in the first two years after reimbursement in December 2007 but since 2009 the share is stable and does not tend to grow. (Figure 2).

## Results

From the payer perspective, cost of amisulpride is approximately €7.13 million in 2010 and €9.15 million in 2014. The total cost of schizophrenia treatment was estimated at approximately €154.22 million in 2010 and €213.87 million in 2014 (Table 1, Figure 3).

From the payer+patient perspective, cost of amisulpride is approximately €7.26 million in 2010 and €9.32 million in 2014. The total cost of schizophrenia treatment was estimated at approximately €181.11 million in 2010 and €241.81 million in 2014 (Table 2, Figure 4).

After five years NHF expenses on schizophrenia treatment should rise up by 58% with respect to expenses in year 2009. Growth of patients expenses should be smaller – about 3% with respect to expenses in year 2009.

The declining trend in the share of amisulpride cost in total cost of schizophrenia is noticeable. From the payer perspective, cost of amisulpride represents from 4.62% in 2010 to 4.28% in 2014 of the total cost of schizophrenia treatment. From the payer+patient perspective, cost of amisulpride represents from 4.01% in 2010 to 3.85% of the total cost of schizophrenia treatment.

## Conclusion

Cost of treatment with amisulpride represent a small proportion of the total costs of schizophrenia treatment both from the payer and payer+patient perspectives estimated at approximately €213.87 million in 2010 and €241.81 million in 2014 respectively. Amisulpride costs accounts for €7.13 million in 2010 and €9.15 million in 2014 from the payer perspective and €7.26 million in 2010 and €9.32 million in 2014 from the payer+patient perspective. The declining trend in the share of amisulpride cost in total cost of schizophrenia and at the same time growing trend of amisulpride sale is noticeable. Amisulpride is an alternative therapeutic option that do not generate added cost of schizophrenia treatment in Poland and its reimbursement from public funds is justified.

## Summary

### Objectives

To estimate the impact of amisulpride continued reimbursement in schizophrenia treatment on payer's budget in Poland.

### Methods

The analysis was performed in 5-year time horizon from the payer (National Health Fund, NHF) perspective and payer+patient perspective. Only costs of medicines were included. On the base of IMS Health Poland sale data for years 2005-2010 linear regression was conducted to predict consumption and prevalence of antipsychotics in Poland. Cost data of reimbursed medicines were obtained from Ministry of Health and for not reimbursed medicines from internet portals. One-way sensitivity analysis were performed for the key input parameters.

### Results

From the payer perspective, cost of amisulpride is approximately €7.13 million in 2010 and €9.15 million in 2014 and it represents from 4.62% in 2010 to 4.28% in 2014 of the total cost of schizophrenia treatment estimated at approximately €154.22 million in 2010 and €213.87 million in 2014. From the payer+patient perspective, cost of amisulpride is approximately €7.26 million in 2010 and €9.32 million in 2014 and it represents from 4.01% in 2010 to 3.85% of the total cost of schizophrenia treatment estimated at approximately €181.11 million in 2010 and €241.81 million in 2014. Increase of NHF and patients expenses result from an increase of antipsychotics sales over a span of the next five years caused by expanding awareness of schizophrenia and the importance of treatment.

### Conclusions

Our findings suggest that the cost of treatment with amisulpride are at a reasonable level and represent a small proportion of the total costs of schizophrenia treatment both from the payer perspective and common payer+patient perspective. The declining trend in the share of amisulpride cost in total cost of schizophrenia is noticeable. Amisulpride is an alternative therapeutic option of schizophrenia treatment in Poland and its reimbursement from public funds is justified.

Figure 1. Total antipsychotics sale (in terms of DDD) in years 2005-2014

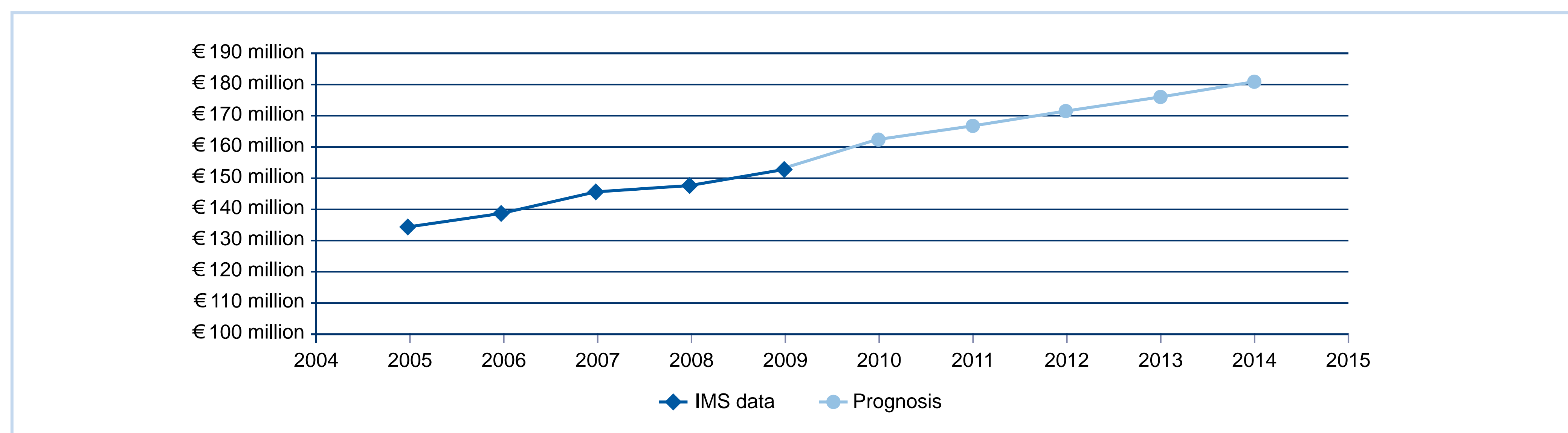


Figure 2. Amisulpride market share (in terms of DDD) in years 2005-2014

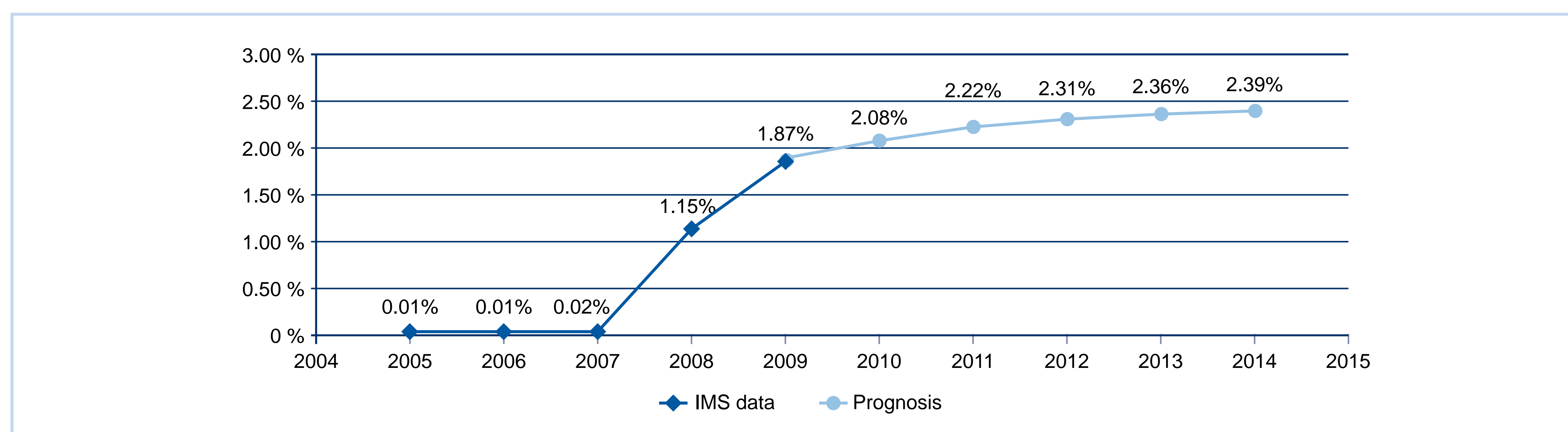


Table 1. Changes in the payer's expenditure on schizophrenia treatment in the years 2009-2014

Year	2009	2010	2011	2012	2013	2014
Amisulpride	€ 6 062 567	€ 7 129 407	€ 7 820 915	€ 8 357 424	€ 8 787 718	€ 9 147 065
Other	€ 128 986 767	€ 147 088 741	€ 161 563 162	€ 176 226 565	€ 190 598 152	€ 204 720 502
Total	€ 135 049 334	€ 154 218 149	€ 169 384 077	€ 184 583 989	€ 199 385 870	€ 213 867 567

Table 2. Changes in the payer and patients' expenditure on schizophrenia treatment in the years 2009-2014

Year	2009	2010	2011	2012	2013	2014
Amisulpride	€ 6 176 759	€ 7 262 770	€ 7 966 999	€ 8 513 292	€ 8 951 434	€ 9 317 334
Other	€ 156 103 586	€ 173 842 037	€ 188 356 907	€ 203 324 847	€ 218 024 353	€ 232 493 739
Total	€ 162 280 345	€ 181 104 807	€ 196 323 906	€ 211 838 138	€ 226 975 788	€ 241 811 073

Figure 3. Changes in the payer's expenditure on schizophrenia treatment in the years 2009-2014

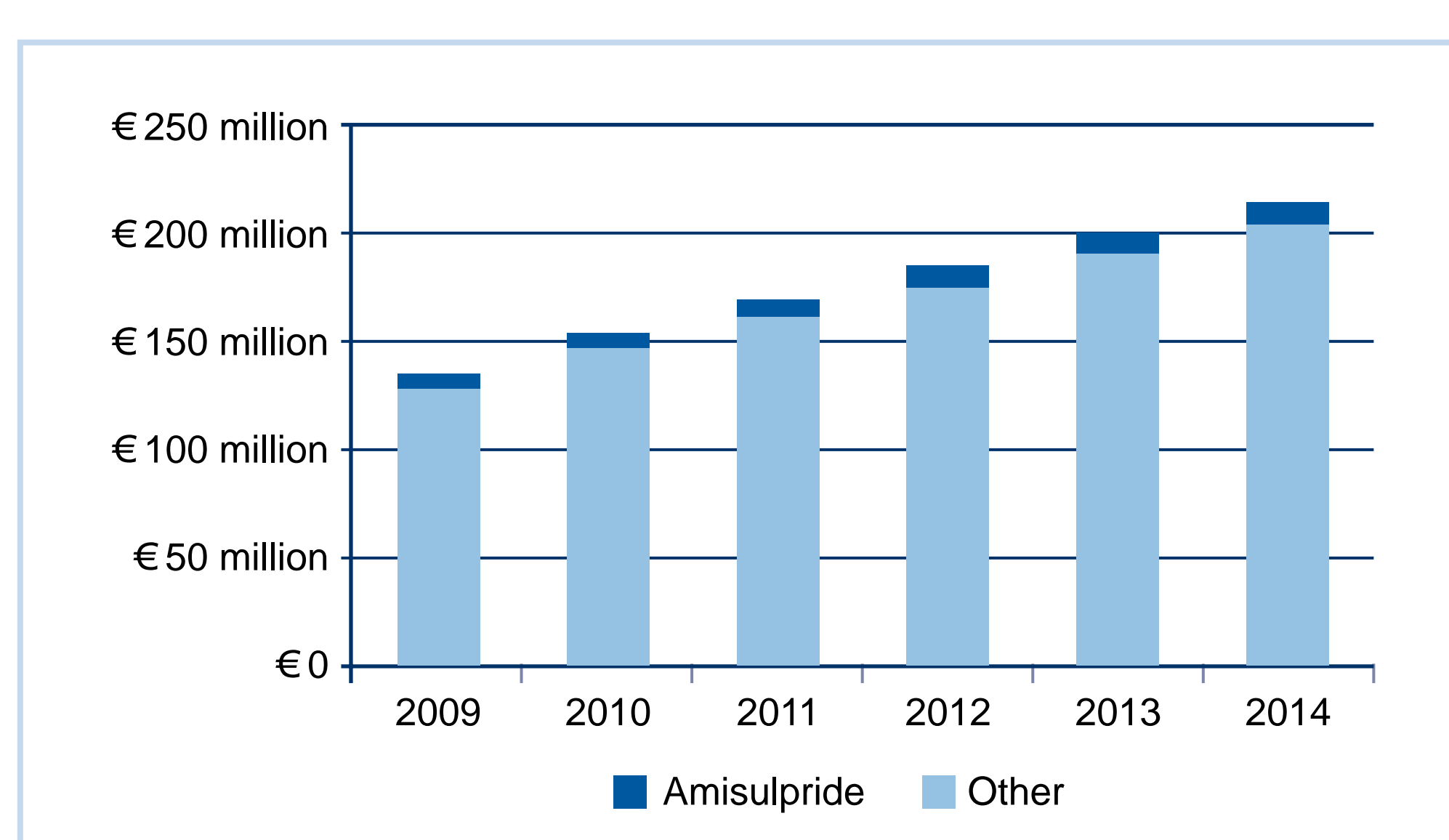


Figure 4. Changes in the payer and patients' expenditure on schizophrenia treatment in the years 2009-2014

