PAYING FOR FORMERLY FREE MEDICINES IN SPAIN: DRAMATIC PRESCRIPTION DROPS, LOOKING FOR UNANSWERED QUESTIONS

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July, 2013

CRES-UPF Working Paper #201307-76

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Paying for formerly Free Medicines in Spain: Dramatic Prescription Drops, Looking for Unanswered Questions

After a rapid and continuous increase in the number of dispensed prescriptions in Spain during the last decade, the total number of prescriptions has been dramatically cut by nearly a quarter after 10 months of the "three payment" reforms in Catalonia, and by more than one seventh in 14 out of 17 Spanish regions.

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The purpose of this analysis is to present the first attempt to provide accurate estimates of the overall impact at the regional level of a cost sharing reform on pharmaceutical prescriptions with regional variants established in Spain since July 2012 in the framework of heavy austerity reforms on public financing1,2. We estimated the reform´s impact on the quantity of dispensed medicines during the first ten months after its establishment. The evidence on this impact is also of high interest for those many European countries that since 2008 have applied heavy cuts to public health financing through high copayments or coinsurance rates on drug prescriptions dispensed in pharmacies3,4.

Background

The sudden fall of public revenues after the 2008 initiated and long-lasting economic crisis has led many public health systems in European countries to cut public health financing through high copayments or coinsurance rates on drug prescriptions dispensed in pharmacies. This is specially the case in Spain, where until July 2012 nearly three out of four prescriptions where dispensed free of charge, being Spain until then one of the European countries with a higher number of prescriptions per capita5.

Unlike in private insurance systems such as those of the US, and also unlike in national health insurance systems, medical treatments are free for a large sector of the population in some national health systems funded primarily though taxation, which have greater concern about equity of access to healthcare. Since 1978, Spanish pensioners, whether they were in a low, middle or high-income bracket, had enjoyed free access to practically all medicines prescribed by national health system physicians.

Since 1978, the extension of the insurance from 60% coverage to free prescription drugs for Spanish pensioners and their beneficiaries of all ages, regardless of their financial circumstances, led to a significant increase in the number of prescriptions that would not have occurred without this change: expenditure per patient rose by around 25% in the first year of free medication6. Potential moral hazard – the increase in consumption by those who acquire the right to free medicines, attributable solely to this change in status – was concentrated in the consumption of medicines affected by 40% coinsurance before free medication, i.e., those that had been most expensive for the patient.

Free medication for all Spanish pensioners for over 30 years has also been shown to be clearly inequitable. As it is independent of financial circumstances, a pensioner who received a large pension or has assets worth millions pays nothing, while an unemployed person or a family with young mouths to feed and an income of barely €1,000 per month, have to pay their share. Half of all the cost sharing contributed by patients is concentrated in a small group of sick people: it is provided by just 5% of users, for whom it can represent a heavy burden7.

But the severe economic crisis in Spain and the subsequent need for a reduction in public expenditure were the main drivers of change1. After more than three decades of free medicines for elderly, in mid 2012 co-payment was in force.

"Three-payment" Reforms

In July 2012 a combined set of cost sharing policies ("three-payment") abruptly described in Table 1 ended with this scenario by first introducing a national coinsurance rate of 10% for retirees with a monthly income-related cap. Second, two regions (Catalonia and Madrid) charged temporally a linear one-euro copayment per prescription with a monthly cap. And, third, the national reform stopped funding a long list of medicines indicated for minor symptoms, which is similar to a 100% coinsurance rate in case of need of those medicines. A region (the Basque Country) did not apply the national co-insurance reform.

[Insert Table 1 about here]

The good news is that the new co-insurance formula respects the gratuity for the disadvantaged. Pensioners no longer have free medicines, but the percentage they pay is moderate (10%), and has monthly maximum (8, 18 or 60 euros, depending on income).

The monthly limit encourages chronic patients to concentrate their prescriptions in the minimum number of months. To avoid this opportunistic behavior would be advisable to set annual limits, which also are easier to manage. In some Autonomous Communities the patient has to pay as if there's no monthly limit, and wait for the reimbursement. This is expensive and overrides the protective effect of co-payment ceiling. It would be better either wait or design a simpler procedure if you cannot handle real-time limits for lack of income data. This is the case of most Autonomous Communities during the first months of the new system, since only Catalonia and Andalusia have been able to apply the coinsurance caps in real time.

Coinsurance rates for working people earning more than 18.000€ year increased from 40% to 50% or 60% depending on income. There is no cap for working people. Some medications for chronic treatments have a co-payment rate of 10% with a maximum per prescription. In the new scheme, the percentage of the price paid depends on income, but, contrary to what you might

think at first glance, the new copayment is not progressive, because few patients that require a lot of medication and are not pensioners bear the greatest load.

The regional fee of 1 € for each prescription would be possibly more appropriate to reduce the overconsumption associated with the gratuitousness, but the problem is that overlapped the Spanish copayment. The regional rate is universal (with a few exemptions to the most deprived), is of low intensity (one euro), puts an annual limit per person quite low and is reasonably easy to manage. Unfortunately, this fee has been suspended in January 2013 by the Spanish Constitutional Court, not because of lack of effectiveness or for any side effects, but by a conflict of competency raised by the Spanish government against the regions.

Dynamic forecasts

This is the first attempt to estimate the short term overall impact at the regional level of those three combined cost sharing reforms on the quantity of dispensed medicines during the first ten months after their establishment.

We estimated seventeen ARIMA time series models for the January 2003-May 2012 monthly number of prescriptions dispensed in pharmacies in each one of the 17 regions (Autonomous Communities) of Spain. We calculated dynamic forecasts for the horizon June 2012-March 2013 in order to estimate the counterfactual (number of prescriptions that would had been observed without the intervention), and we estimated the impact of cost sharing changes as the difference between the observed number of accumulated prescriptions at 3, 6 and 10 months and the number predicted by our time-series models (in percentages). Although the reform entered into force in July 2012, our forecast horizon starts in June 2012 to consider the anticipation effect (stockpiling) in the month before the reform. 95% Confidence Intervals adjusted by correlations between subsequent forecasts have been also calculated.

Dramatic prescriptions drop

Simple descriptive time series for the monthly number of prescriptions from January 2003 to March 2013 points to a dramatic change in July 2012. Figure 1 presents three of those time

series for three selected regions that represent three "models" of cost sharing being implemented: Catalonia (fee of 1 € per prescription), Castilla-León (only national co-insurance), and Basque Country (no change in cost sharing). According to these descriptive data, an anticipation effect happened the month before the measure being enacted in the form of stockpiling in all regions. And, also, it appears that in Catalonia there is a similar o higher drop than in other regions in the number of prescriptions in July 2012, despite only the regional 1 € fee was applied in this region. This immediate drop was equal or higher than in other regions where the national co-insurance was applied to all patients, as it is the case of Castilla-León.

[Insert Figure 1 about here]

According to the results of our ARIMA models, a significant, dramatic and sudden reduction in the number of dispensed prescriptions compared to the counterfactual has been estimated after 3, 6 and 10 months in all regions with the exception of the Basque Country, where only the delisting policy has been applied, with only a 4.4% decrease in 10 months [-5.8, -3.0]. Figure 2 presents the results of the estimated impact as a percentage of change in the number of prescriptions at 10 months.

[Insert Figure 2]

The highest impact of the intervention has been observed in Catalonia, where the coinsurance reform and the new regional copayment where applied concurrently. Our estimation of the impact in Catalonia is a 24.8% decrease in the number of prescriptions after 10 months [-28.1, -21.4]. Applying the cap in the moment of the purchase reduces the impact of the co-payment. Andalusia, the only region among those who applied only the state co-payments that applied the cap in time had the smallest reduction in that group (11.0% [-14.4, -7.7]). Retirees in the other regions have to pay the 10% coinsurance rate for all their prescriptions and they would be reimbursed after an undetermined number of months.

Concurrent copayment policies applied to a NHS system that used to provide free drugs to retired patients had a dramatic impact, statistically significant. Catalonia, where the linear euro per prescription was first applied and then the state copayment, suffered a 24% reduction in the

number of prescriptions in ten months. By contrast, the Basque Country, that did not apply any copayments, had a reduction of only 4%.

Conclusions

After a rapid and continuous increase in the number of dispensed prescriptions in Spain during the last two decades, insensitive to the many price control measures9, compared to our counterfactual without cost sharing reforms, the total number of prescriptions has been dramatically cut by nearly a quarter after 10 months of the "three payment" reforms in Catalonia, and by more than one seventh in 14 out of 17 Spanish regions.

Another notable contribution of this analysis is to provide evidence of the high sensitivity of the demand for prescription of medicines to price and to the fact that a small linear co-payment (1€ per prescription) has a large impact on medicine´s use. Our results exploiting regional differences in copayment policies are also consistent with the hypothesis that the first Euro of cost sharing has a large impact on drug use: the action may be happening at the first Euro of cost sharing10.

Overall our results provide new information on the price sensitivity of the prescriptions issued in a NHS, and they also raise several new questions relevant for policies. It is necessary and urgent to know which groups of patients and therapeutic groups have been most affected, in order to evaluate the potential reduction in the abuse (moral hazard) attributable to free medicines and the equity issues rose from the co-payment. These questions deserve urgent attention from health policy makers in order to evaluate overall welfare effects of these financial oriented reforms and to redefine copayment policies. Potential unwanted side effects on adherence, health and use of other health resources should also be investigated.

It would be a mistake to increase cost sharing on medication across chronic and effective treatments. If one thing is clear from randomised and natural experiments, it is that cost sharing should be lower the greater the need for the treatment and the more effective that treatment is11. The high concentration of expenditure in patients with chronic conditions suggests the maintenance of low rates, together with the application of upper limits to the amount payable out of the patient's pocket, either as a monetary amount that would be the same for all, or – a

finer adjustment – as a percentage of each patient's income. Otherwise, the cost in the form of greater use of emergency and hospital services may more than cancel out the savings made through cost sharing for chronic patients12.

KEY MESSAGES

Dramatic reductions of medications in Spain after co-payment

- After decades trying unsuccessfully to reduce drug spending in the Spanish national health system through actions on prices and prescribers, the copayment established in mid-2012 led to a dramatic reduction in the use of drugs whose effect on health is not known.

- Although the new copayment is modulated by income, a small portion of patients supports a large part of the expense.

- Without disaggregated data is not possible to know who have reduced their use or what medicines are being left to take. Perhaps the moral abuse is reduced without adverse health effects, or even improving. But certain groups of patients may be enduring a financial burden or reducing the use of treatments needed, with high cost in terms of health loss.

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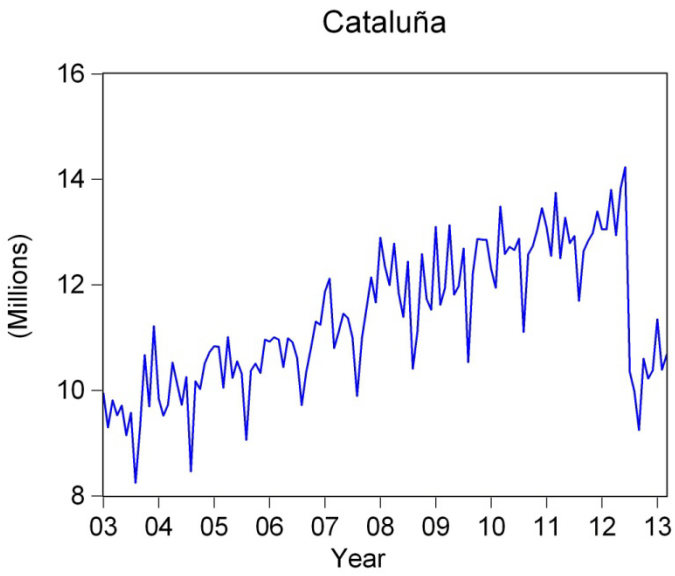
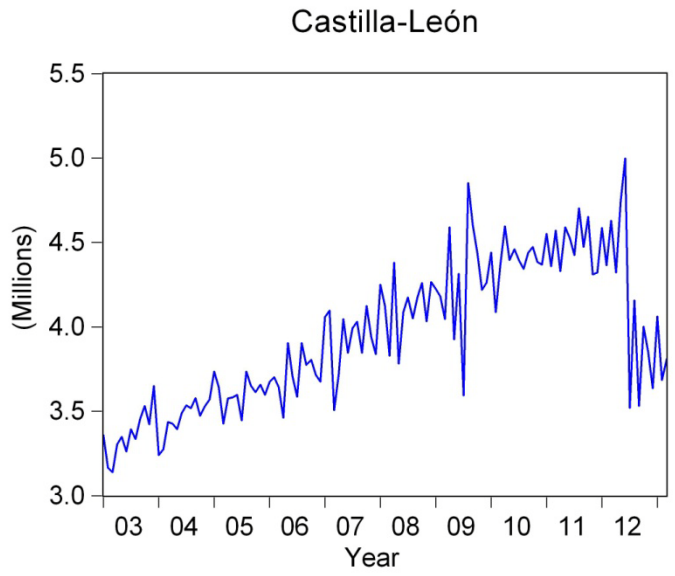
Table 1: Spanish national and regional cost sharing measures adopted in 2012

Government level	Cost sharing measure	Description	Regional implementation
National	Changes in drug co-payment rates (RD16/2012). Since July 1st 2012	Pensioners: co-payment rate 10% of Price with monthly cap depending on income Changes in co-payment rates for non-pensioners: 40%, 50% or 60% depending on income. No cap.	General: from July 1st 2012 Exceptions: **Pais Vasco** (not applied) **Cataluña** (applied to non pensioners since August 1st 2012 and to pensioners since October 1st 2012 General: the patient pays the co-payment rate even thougth he has reached the month`s cap. He would request the reimbursmen afterwards Exceptions: **Cataluña and Andalucía**: Caps are applied in the pharmacy
National	A list of medicines is excluded of public coverage from September 1st 2012 (RD16/2012).	417 medicines indicated for minor symptoms are excluded	General. From September 1st 2012. No exceptions
Regional	1 Euro per prescription	All patients pay a 1€ rate per prescription. Annual cap independent on income	Cataluña: from June 23th 2012 to January 15th 2013 Madrid: from January 1st

			2013 to January 29th 2013

Figure 1. Monthly number of prescriptions from January 2003 to March 2013 in three Autonomous Communities


Cataluña
16
14
12
10
8
(Millions)
03 04 05 06 07 08 09 10 11 12 13
Year


Castilla-León
5.5
5.0
4.5
4.0
3.5
3.0
(Millions)
03 04 05 06 07 08 09 10 11 12
Year

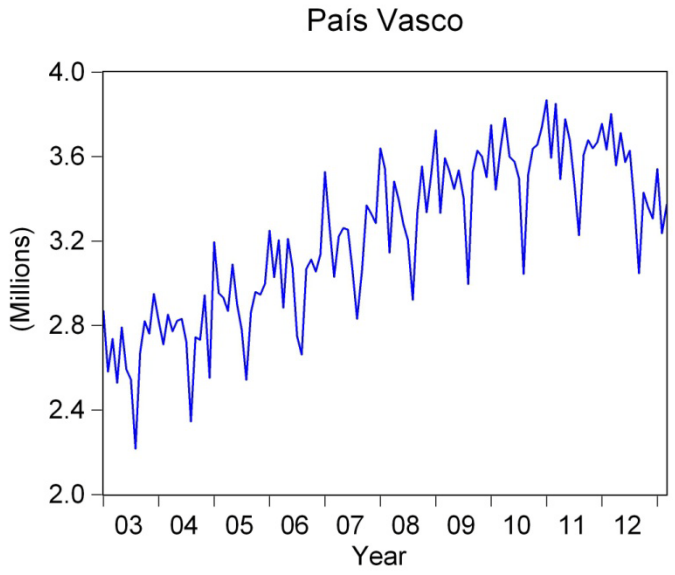
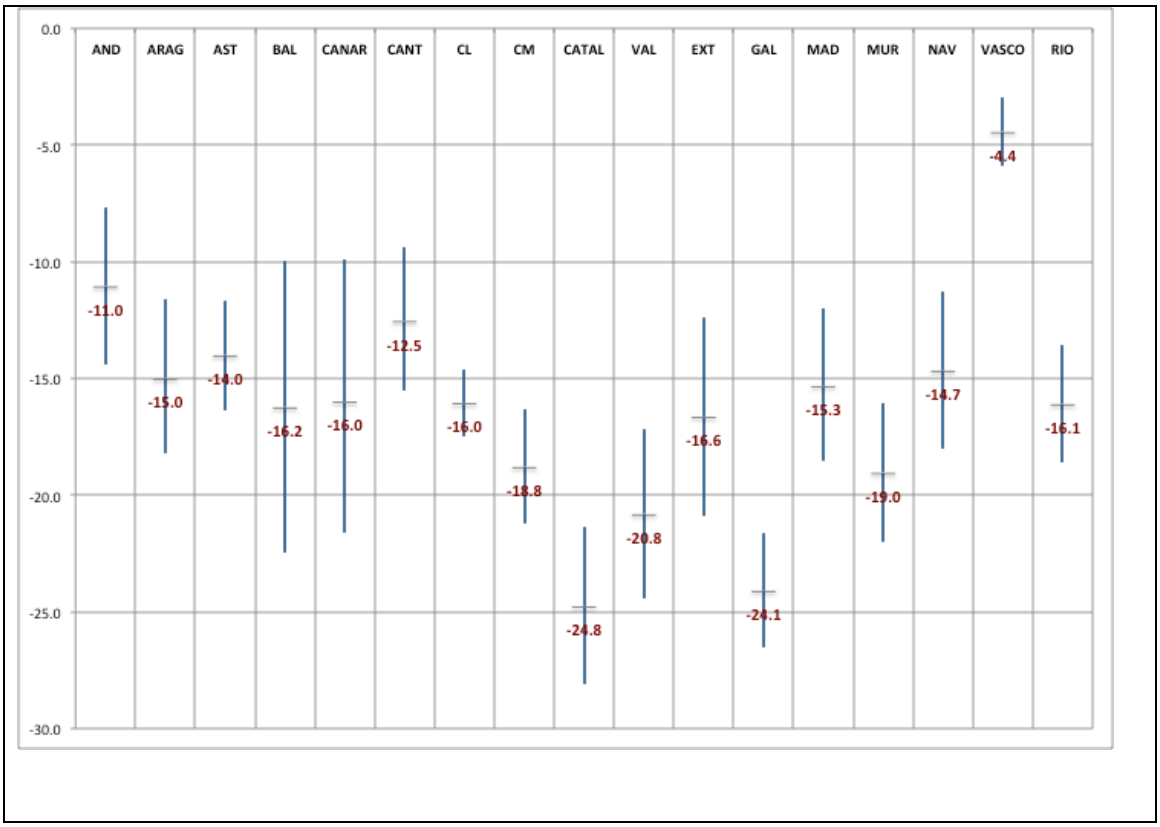

País Vasco
4.0
3.6
3.2
2.8
2.4
2.0
(Millions)
03 04 05 06 07 08 09 10 11 12
Year

Figure 2: Estimated impact of the cost sharing measures adopted in July 2012 during the first 10 months (June 2012 to March 2013)

Percentage of reduction in the number of prescriptions



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