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# Spain: the effect of country of birth on patterns of pharmaceutical use

Dolores Jiménez Rubio and Cristina Hernández Quevedo

Summary: Despite the universality of health care in Spain for virtually all of the population, irrespective of nationality or country of origin, there is substantial evidence that the level of health and especially the use of health services differs in important ways between immigrants and the Spanish-born population. Differences in pharmaceutical use on the basis of immigrant status have, however, received much less attention. This study reviews the limited evidence in Spain on this issue, finding a lower consumption of medicines by some immigrant groups relative to Spaniards.

Key words: immigrants, Spain, access, drug consumption, self-medication

Ensuring equal access to effective treatments for individuals in equal need of health care, regardless of their country of origin, is a fundamental goal for any health care system. The Spanish case is relevant from a policy perspective, given that the rapid increase in immigration has placed important pressures on health expenditure in a health system where virtually all the population are legally entitled to free access to health care. While a growing body of literature in Spain has explored whether, despite the universality of health benefits, differences in health status and in the utilisation of health services exist between immigrants and the Spanish population, differences in the consumption of medications or self-medicated drug use have received less attention. The common practice in many countries of consuming drugs without a medical prescription could not only have important direct consequences for the health of the individual but also considerable unintended consequences for the health of the population at the community level, namely that an inad-

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Cristina Hernández-Quevedo is Research Officer, European Observatory on Health Systems and Policies, LSE Health, London School of Economics and Political Science, UK. Email: dolores@ugr.es equate consumption of medications might reduce drug resistance. In Spain both the demand for and sale of drugs without the need for a medical prescription is a relatively frequent phenomenon. As a consequence, the Spanish Ministry of Health has now launched specific campaigns aimed at improving the rational use of medicines.

### The international context

The international literature, mainly from the United States, provides evidence of significant differences in the consumption of pharmaceuticals by immigrant populations. For example, one study found that Black or Hispanic users of Medicare consume fewer pharmaceuticals than White users with the same chronic illness and pharmaceutical coverage. Another important conclusion of this study is that the type of pharmaceutical consumed by ethnic minorities is also cheaper. 1 More recently, another US study confirmed these results, showing that a large proportion of the disparities in out-of-pocket expenditure and in the consumption and expenditure in pharmaceuticals of White, Black and Hispanic ethnic minorities are not completely due to differences in population characteristics, such as the lower socioeconomic status of minority groups, but to factors related to the race or ethnicity of the individual.<sup>2</sup> The authors attribute ethnic inequalities in the consumption of pharmaceuticals to the

scepticism of these patients with respect to medicine and health care in general, lower compliance with medical advice, communication problems with doctors and possibly differences in physician prescribing habits.

### The Spanish case

While there is a growing number of studies in Spain that explore differences in health and health care use between immigrants and Spaniards, the literature on differences in pharmaceutical consumption is limited. One recent report shows that the (age-sex adjusted) pharmaceutical spending of immigrants is much lower than that of their Spanish counterparts.<sup>3</sup> The findings of another study in the city of Lleida in Catalonia suggest that both pharmaceutical drug spending and drug consumption are lower for non-Spanish-born individuals relative to Spanish-born individuals of the same age and sex<sup>4</sup>. Finally, one study using data from the 2003 Spanish National Health Survey also reaches similar conclusions.5 However this study found no significant difference between the Spanish national and non-national populations in self-medication patterns.

Another study has made use of the 2006 Spanish National Health Survey. This survey includes a sufficiently large sample of the foreign-born population. The use of this survey allowed the authors to make a detailed comparison of drug consumption between Spaniards and several

categories of immigrants, thus taking into account the heterogeneity inherent to the immigrant population living in Spain. The analysis is based on a multilevel multinomial probit model that compares three consumption options (no consumption of drugs, consumption of prescribed drugs and self-medicated consumption) for the five most consumed drugs in Spain. Evidence from this study suggests that there are some important differences in pharmaceutical consumption linked to country of birth. In particular, Africans, Europeans (from non European Union countries) and European Union individuals show a lower probability of consuming prescription medicines than Spaniards, while citizens from the European Union and Africa also show a higher probability of using no drug treatment at all for the same level of need. Interestingly, the results obtained by this study reveal that for Romanian born citizens the probability of consuming medicines without a medical prescription is higher than for Spanish born citizens, while individuals born in the European Union have a lower probability of selfmedication.

While there are many factors that could explain differences in prescribed consumption and no consumption of medicines,<sup>2</sup> the observed disparities in patterns of self-medication could be attributed to cultural differences. This is because according to one recent survey of nineteen European countries, Romania has one of the highest self-medication rates for antimicrobial drugs, while other European countries show lower self-medication rates than Spain.<sup>7</sup>

Another important result from this study is that there are factors, in addition to those accounting for the effect of cost sharing, such as health limitations and retirement status, that are relevant in explaining drug consumption in Spain. In particular, being in receipt of private insurance is found to be associated with a higher probability of drug consumption, implying that the actual cost sharing structure in Spain, which is not means tested, may generate inequalities in access to drugs, particularly for poorer individuals who do not meet age and disability criteria to be exempt from co-payments.

### **Key conclusions**

The rapid increase in the immigration phenomenon in Spain has placed important pressures on health care expenditure in a health system where virtually all the pop-

ulation is legally entitled to free access to health care. While there is a growing body of research in Spain that analyses whether, despite the universality of health benefits, differences in health status and health care access exist on the basis of the country of origin of an individual, to date there is limited evidence on the existence of differences in the consumption of prescription medicines or self-medication.

According to the most recent empirical literature reviewed in this article, in Spain, as in other countries with a longer tradition as immigrant recipient countries such as the United States, consumption of medicines varies by country of birth. Overall, immigrants tend to consume fewer pharmaceuticals and are more likely not to have any treatment at all compared to Spaniards with the same illness and socioeconomic characteristics. A small group of immigrants, however, tend to have higher self medication rates than the Spanish population, which all else being equal is probably due to cultural factors.

The differences in the use of health services and in the consumption of medicines in Spain suggest that the Spanish National Health System has an important role to play in the design of more effective health services for immigrants. Policy proposals have been put forward and discussed elsewhere. Given the decentralisation of the health system, it is expected that only those regions with a higher proportion of immigrants in their total population will bring forward measures to better integrate immigrant groups.

However, the reduction in the foreignborn population now being observed as a consequence of the current economic recession in Spain might reduce incentives to adopt new measures to improve the access of ethnic minorities to health services. At the same time, if the arrival of new immigrants decreases, it is likely that the differences in pharmaceutical use between established immigrants and the native population will narrow significantly, since most of the international evidence suggests that disparities in the use of health services tend to decrease with the number of years in the recipient country.

There is a wide scope for future research in this area. Most of the limitations of studies in this area are related to data availability. If data become available, it would be very interesting to explore whether divergences in drug consumption really tend to reduce with the number of years living in Spain. Also, future studies may consider exploring the links between disparities in drug consumption related to country of birth and inequalities in health, or in access to medications, respectively.

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