



FEDERAL RESEARCH INSTITUTE FOR
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DISTILLED SPIRITS OVERCONSUMPTION AS THE MOST IMPORTANT FACTOR OF EXCESSIVE ADULT MALE MORTALITY IN EUROPE

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INTRODUCTION

Aims: To explain comprehensively variations in adult male mortality rate in Europe.

And in particular, high mortality in some East European countries with particular focus on specific patterns of alcohol consumption.

Life expectancy of men in 2015

68.6 in Belarus

74.2 in Bosnia and

67.5 in Kazakhstan

Herzegovina

66.7 in Kyrgyzstan

76.2 in Albania

69.1 in Latvia

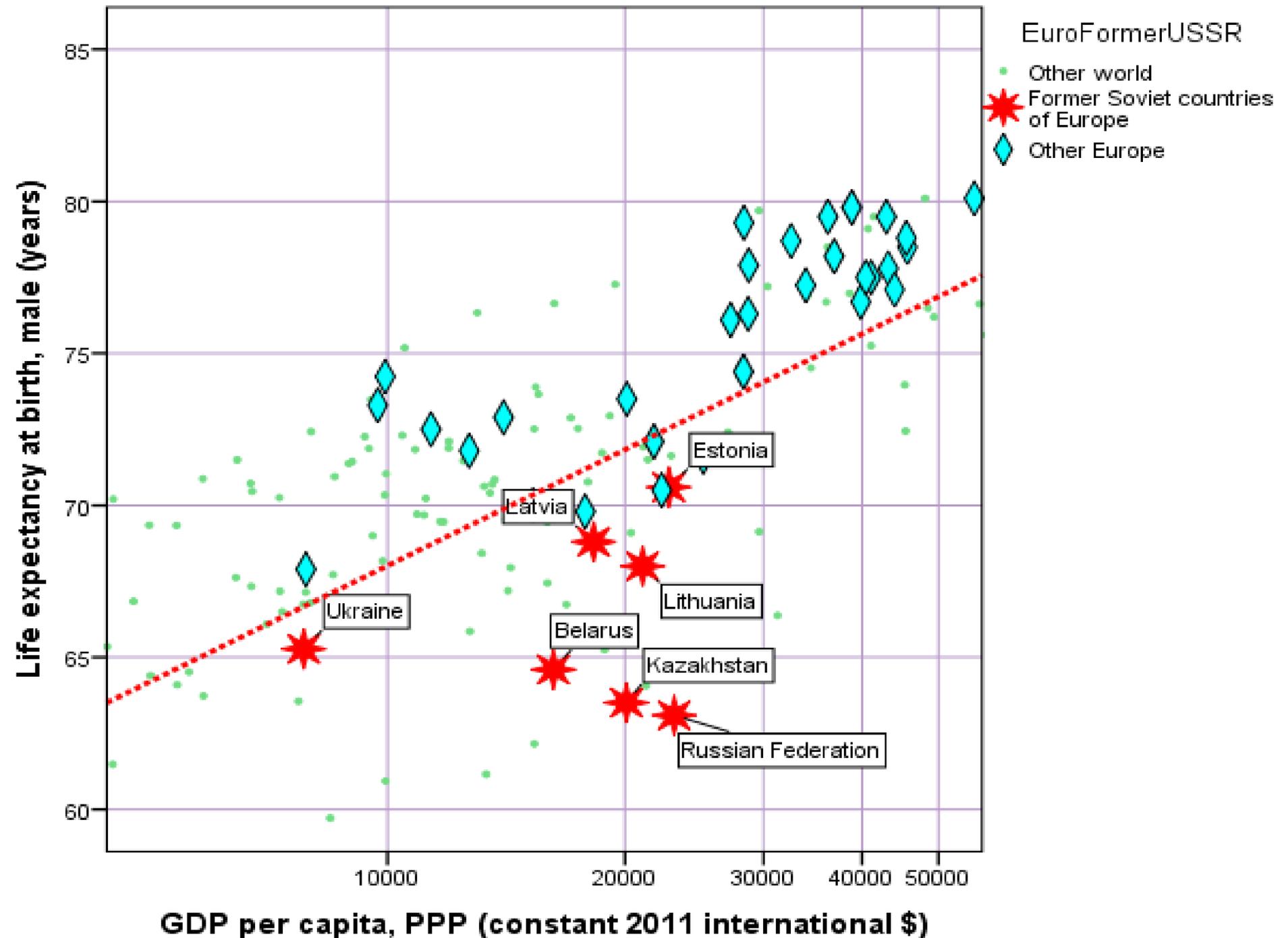
(despite the fact that GDP per capita levels there are much lower than in Belarus or Kazakhstan)

69.9 in Lithuania

67.2 in Moldova

65.5 in Russia

66.4 in Ukraine



METHODS

Cross-national analysis

Ordinary least squares multiple regression, 2005 and 2010

Dependent variable - Adult male mortality rate (the probability of dying between the ages of 15 and 60--that is, the probability of a 15-year-old male dying before reaching age 60)

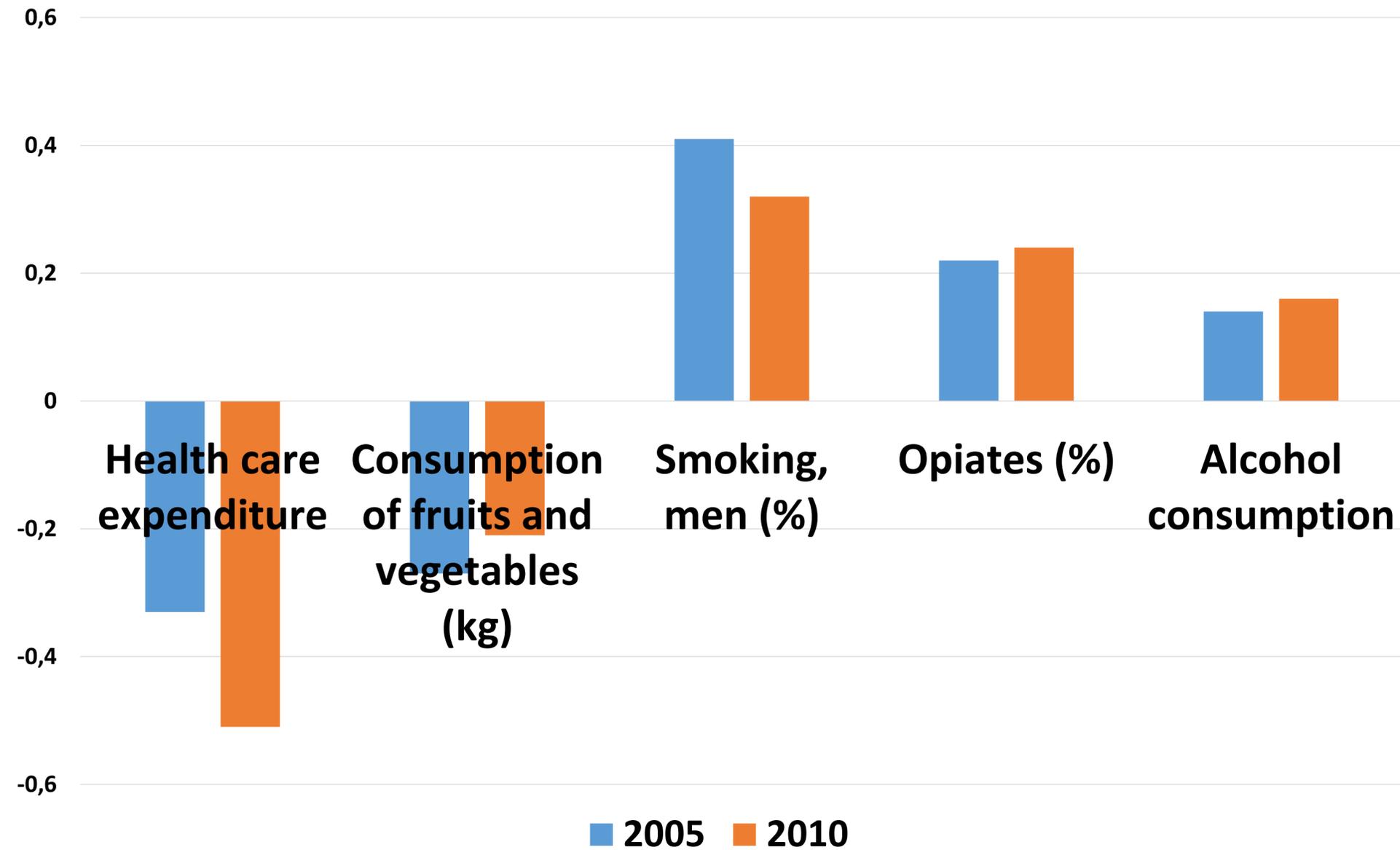
Independent variables:

- Total per capita health expenditure, logarithm
- Consumption of vegetables and fruits (kg/person/year) per capita per year (FAO)
- Smoking prevalence, males (% of adults)
- Opiates / injected drugs consumption (% of population 15-60 y.o.) (UNODC)
- Alcohol recorded per capita (15+ y.o.) consumption (in litres of pure alcohol per year) (WHO)

Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom

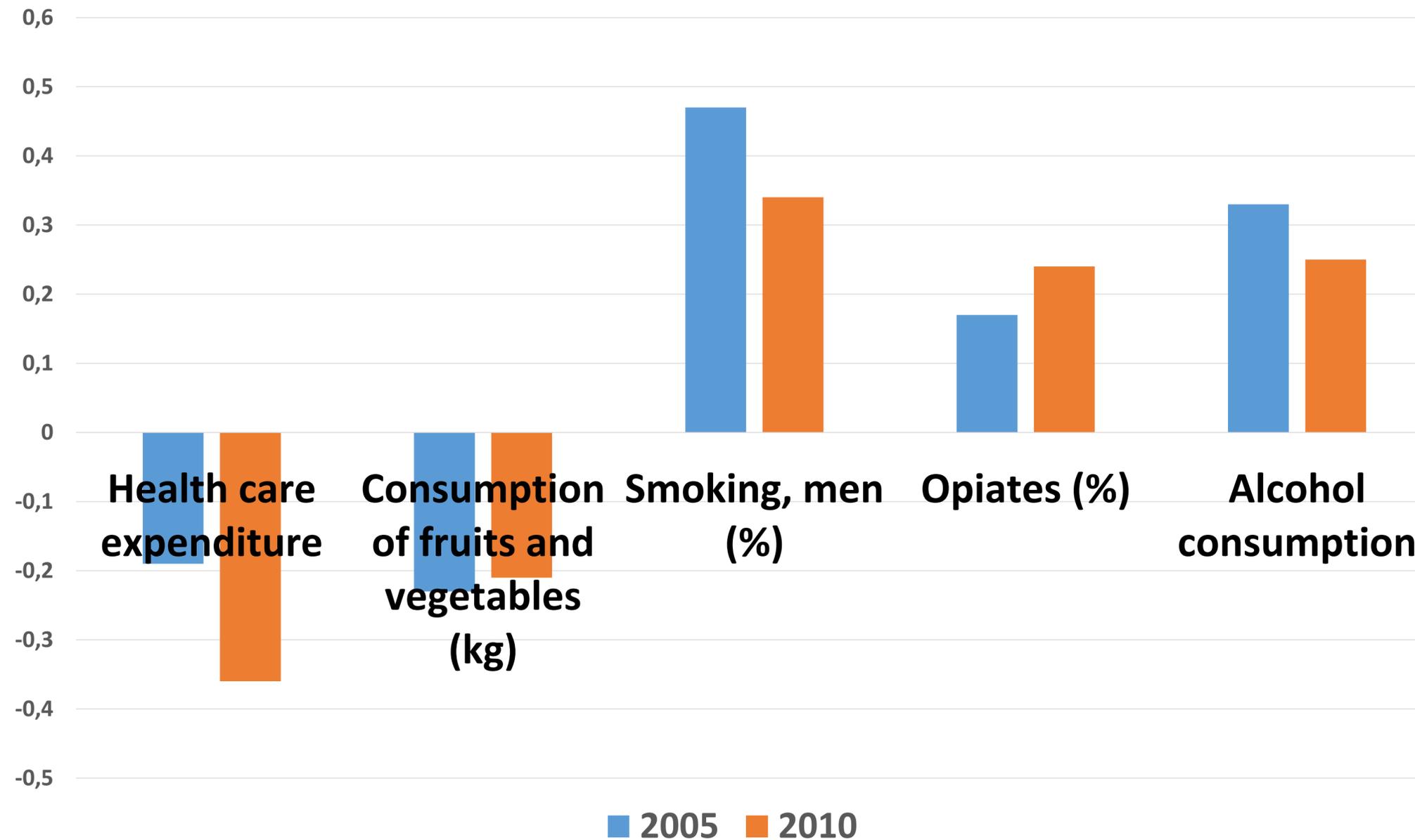
RESULTS

1. Only recorded alcohol consumption



Here the effect of alcohol consumption is not significant

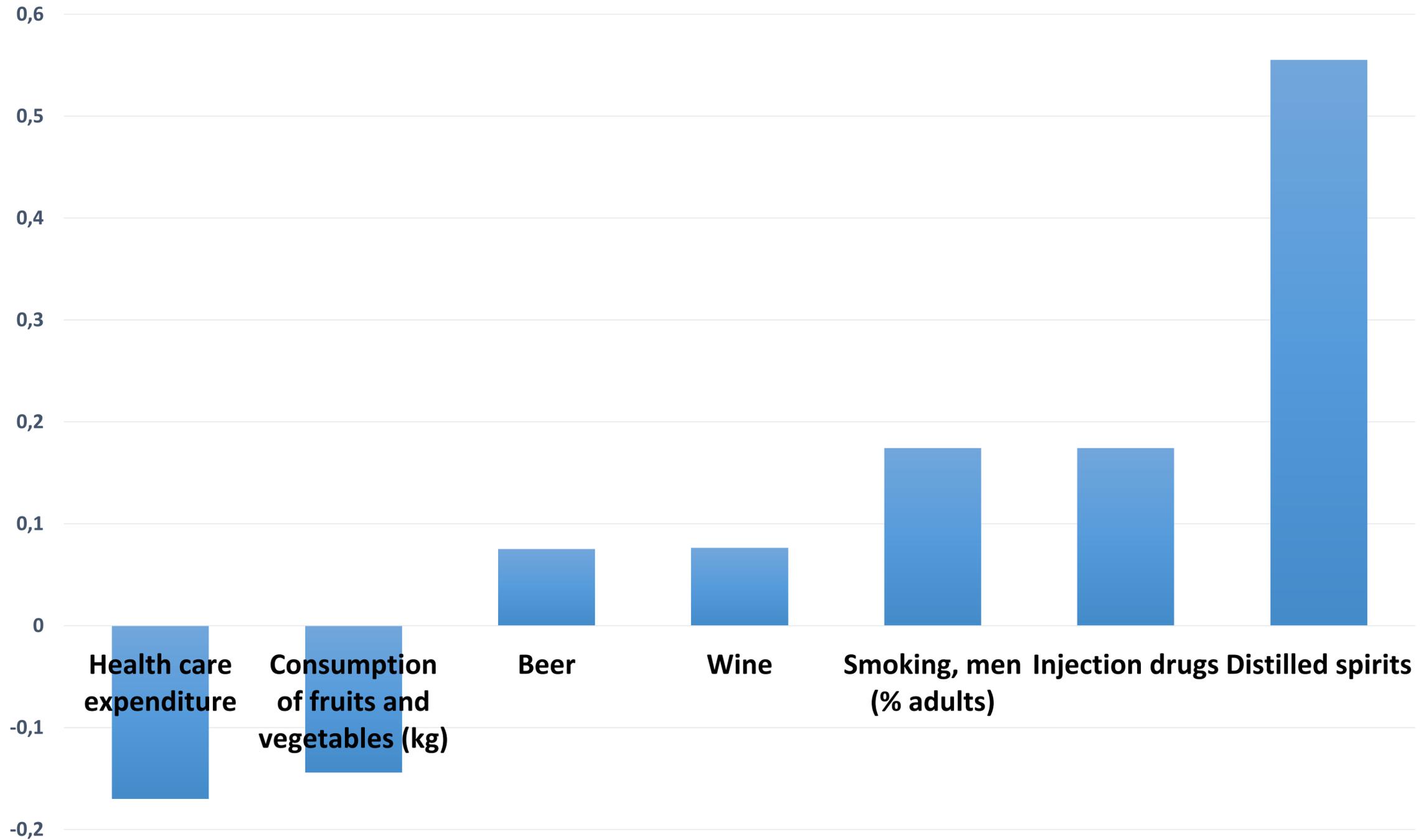
2. Recorded + unrecorded alcohol consumption



Alcohol consumption becomes the third strongest factor for 2010, and the second strongest factor for 2005.

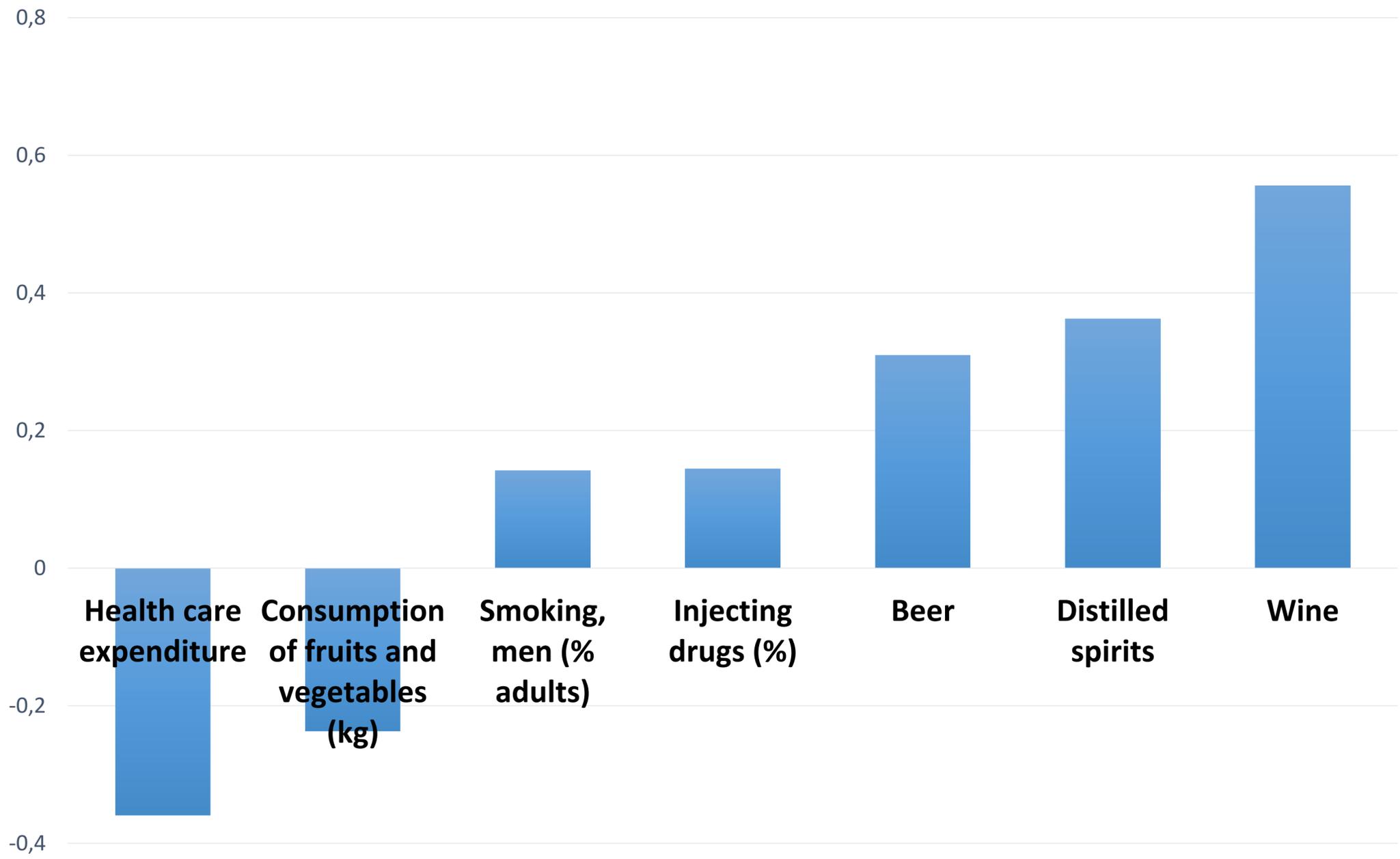
Note: Unrecorded consumption includes home-made spirits, illicit spirits, surrogates such as pseudo-drugs, medical alcohol, colognes, cleaners, etc.

3. Alcohol consumption - separately distilled spirits, wine and beer



Per capita spirits consumption becomes by far the strongest determinant of the adult male mortality rate in Europe both in 2005 and 2010 datasets.

4. Distilled spirits, wine and beer consumption separately for wine and beer drinking European Countries, 2010



Predominantly wine and beer drinking countries of Europe (according to the classification by Rehm et al. (2006): Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, the UK)

In these countries the wine consumption might be a stronger determinant of adult male mortality than the consumption of distilled spirits, whereas the beer consumption appears as a marginally significant determinant of the adult male mortality rate.

DISCUSSION AND CONCLUSIONS

- **Per capita distilled spirits consumption appears as the strongest determinant of the adult male mortality rate (15-60 y.o.) in Europe as soon as the unrecorded alcohol consumption is taken into account.**
- **It turns out to be much stronger than the other tested significant determinants of the adult male mortality rate such as per capita health expenditure, smoking prevalence, consumption of hard drugs or vegetables and fruits.**
- **Higher wine consumption appears as significant determinant of the higher adult male mortality in the wine or beer drinking countries, while beer consumption is marginally significant.**
- **Spirits consumption is a major risk factor of adult male mortality in Europe, with significantly greater impact compared to beer or wine. Therefore, reduction in distilled spirits consumption in hard liquor drinking areas should be a major target in health policies.**

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