

Per capita alcohol consumption  
& alcohol-related harm:  
an analysis of long-term evidence from  
Nordic & Mediterranean countries

**Presentation prepared for the Addiction conference in Lisbon (November 2022)**

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# Outline & summary

- **Research question**

- Is the ‘total consumption model/public health approach/population-based hypothesis’ to tackle alcohol-related harm backed up by empirical evidence?

- **Method**

- A backward-looking, a–posteriori approach, using longer-term data & descriptive statistics as well as a comparative analysis (comparing Nordic to Mediterranean countries).

- **Main findings**

- The affordability of alcoholic beverages seems to have little/no impact on per capita alcohol consumption.
- Per capita alcohol consumption levels & trends appear to be unrelated to drinking patterns as well as alcohol-related harm indicators, such as heavy episodic drinking, underage drinking indicators, drink-driving deaths, life expectancy at birth and several chronic diseases.
- Neither restrictive nor laissez-faire alcohol policies appear to have a strong explanatory power as regards alcohol-related harm trends.

- **Conclusion**

- The ‘public health approach/population-based hypothesis’ is not supported by longer-term real-life experience in Nordic & Mediterranean countries.
- A look into past experiences shows that it is not possible to claim that the Nordic or the Mediterranean policy approach is more suitable/effective/efficient to reduce alcohol-related harm.
- Future research should transcend empiricism & look for underlying, often unobservable, social conditions that generate (encourage/discourage) certain behaviours. One possible avenue is to use contrast explanations, such as why event x rather than the expected event y? A turn to the critical realist approach, focusing on ontology, might be a fruitful option to improve not only our understanding but also to come up with more realistic explanations, which, in turn, may help designing more adequate policy interventions.

# Background to the research question

- The 'population-based/public health approach' – mainly based on Ledermann's (1964) log-normal distribution of alcohol consumption theory and on Skog's (1985) theory of the collectivity of drinking cultures – is gaining popularity & spreading across countries.
- Historically, countries with Protestant, Calvinist, and Puritan traditions where many in the population have reservations against any alcohol consumption, **aim to control & protect their citizens from the potentially harmful substance ethanol** (Nordic countries).
- Alcohol policy measures affecting the entire drinking population, e.g. price policies, are assumed to be most effective & efficient to reduce alcohol-related harm (the evidence is often derived from models), since the **level of per capita alcohol consumption is claimed to be closely related to problem drinking**.
- Traditionally, in countries with catholic (orthodox) roots (including **Mediterranean countries**), most citizens tolerate & view **alcohol consumption as compatible to a healthy lifestyle**. Hence, alcohol policy measures tend to focus not on the substance but attempt to support people (behaviour) with the intention to minimize risky drinking patterns, without putting excessive burden on moderate drinkers (**proportionality principle**).
- A comparison between Nordic & Mediterranean countries is interesting furthermore because of **different culture, climate, & alcohol policy approaches**.

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# Reasons for the choice of method

- We can & should learn from the past. A backward looking approach adds and complements to contemporary popular approaches, such as forecasting models.
- Models that aim to predict the next 30 years, for example, have some fundamental limitations. They
  1. need to rely on many assumptions, and
  2. require stability within the social world if the results should have a chance to be true/realistic.

***“The only function of economic forecasting is to make astrology look respectable”***

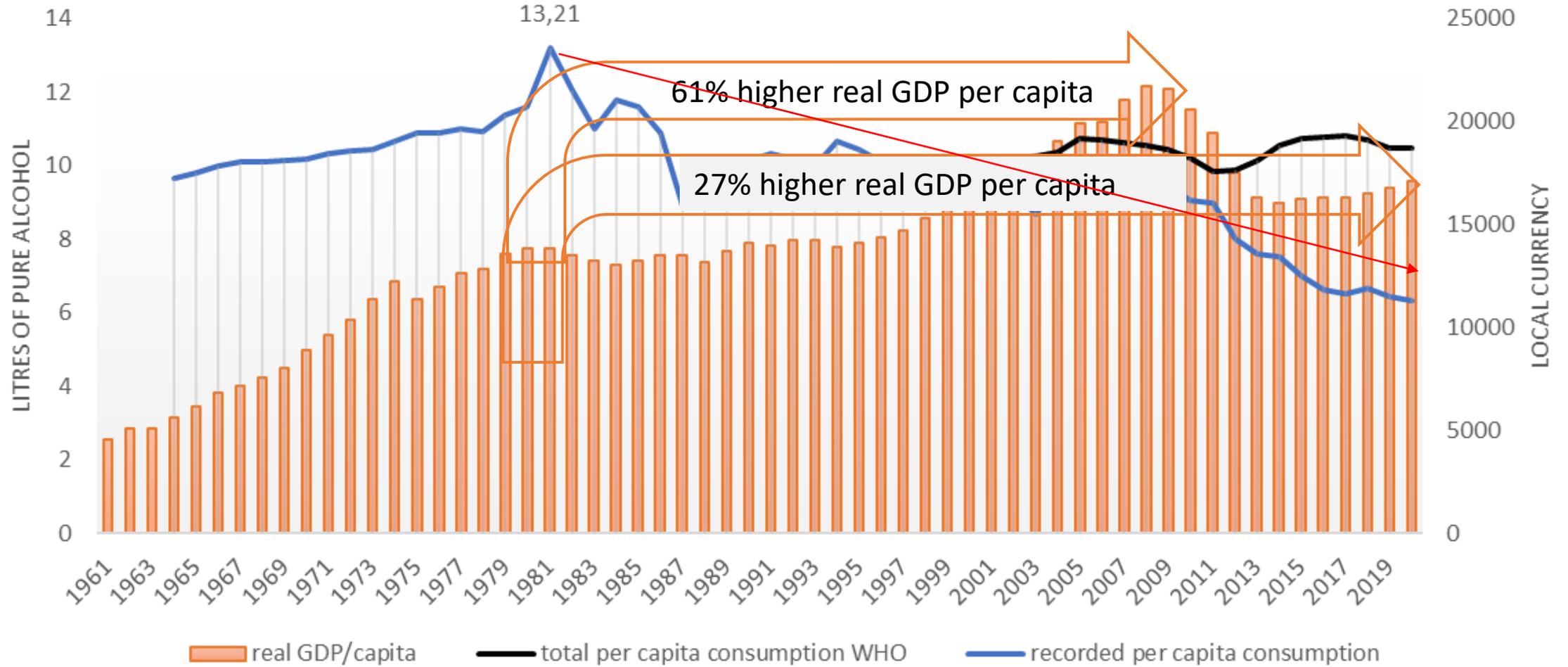
John Kenneth Galbraith (1908-2006, economist)

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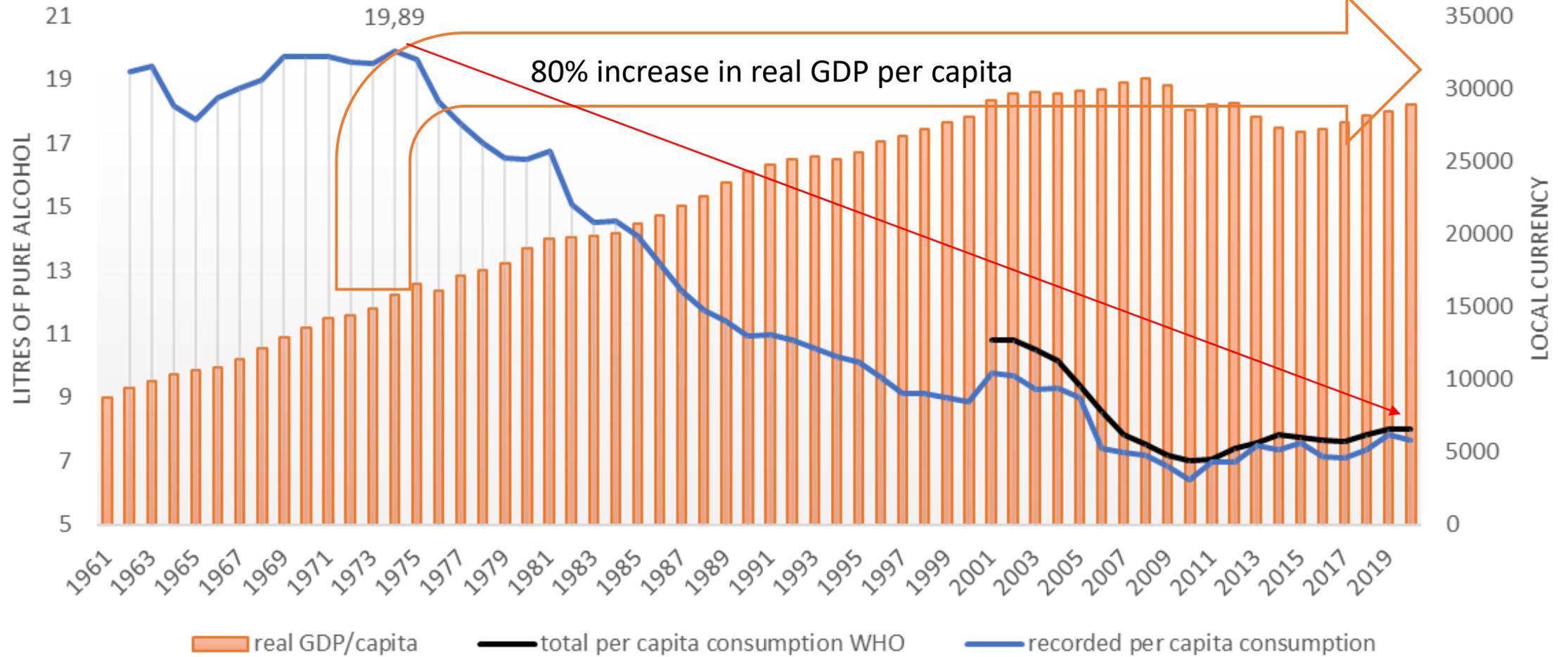
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# Greece: Recorded Per Capita Alcohol Consumption & Real GDP Per Capita in Constant Local Currency (Source: WHO & World Bank)



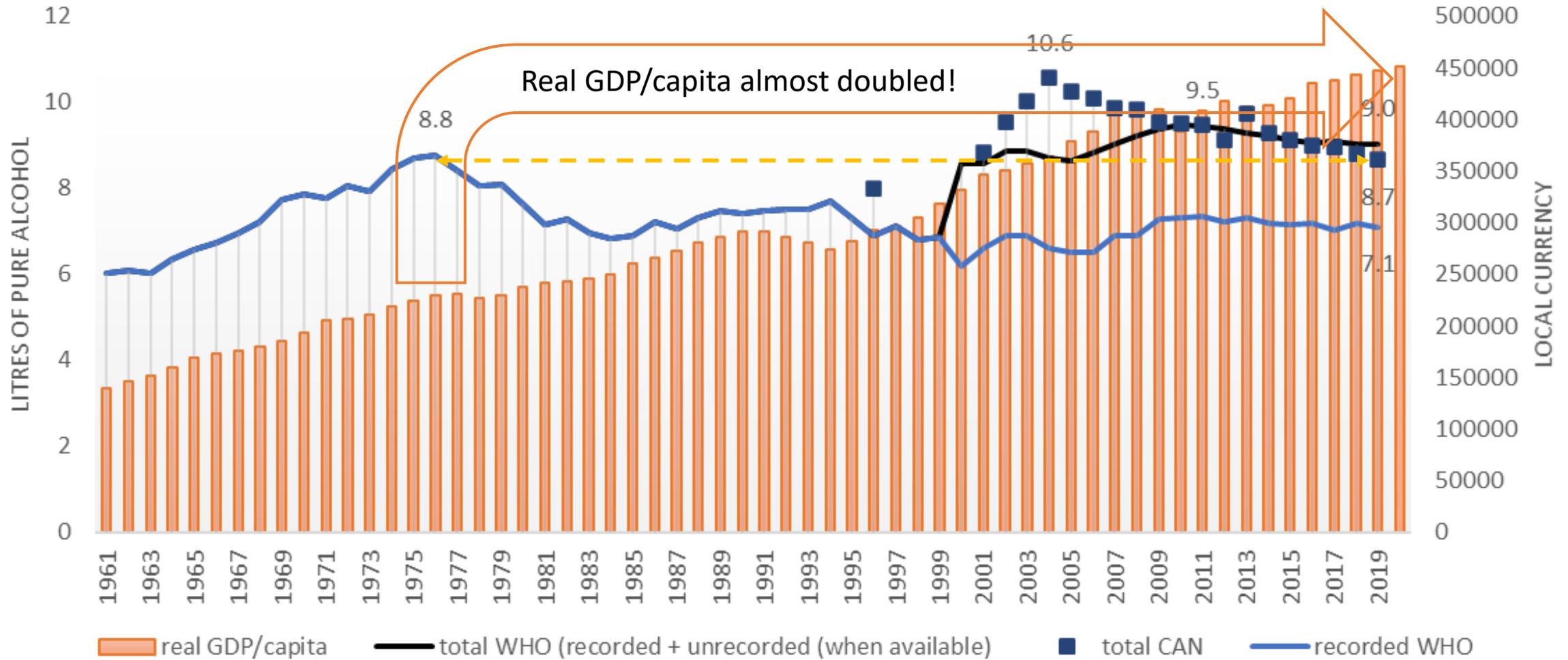
# Italy: Recorded Per Capita Alcohol Consumption & Real GDP Per Capita in Constant Local Currency (Source: WHO & World Bank)





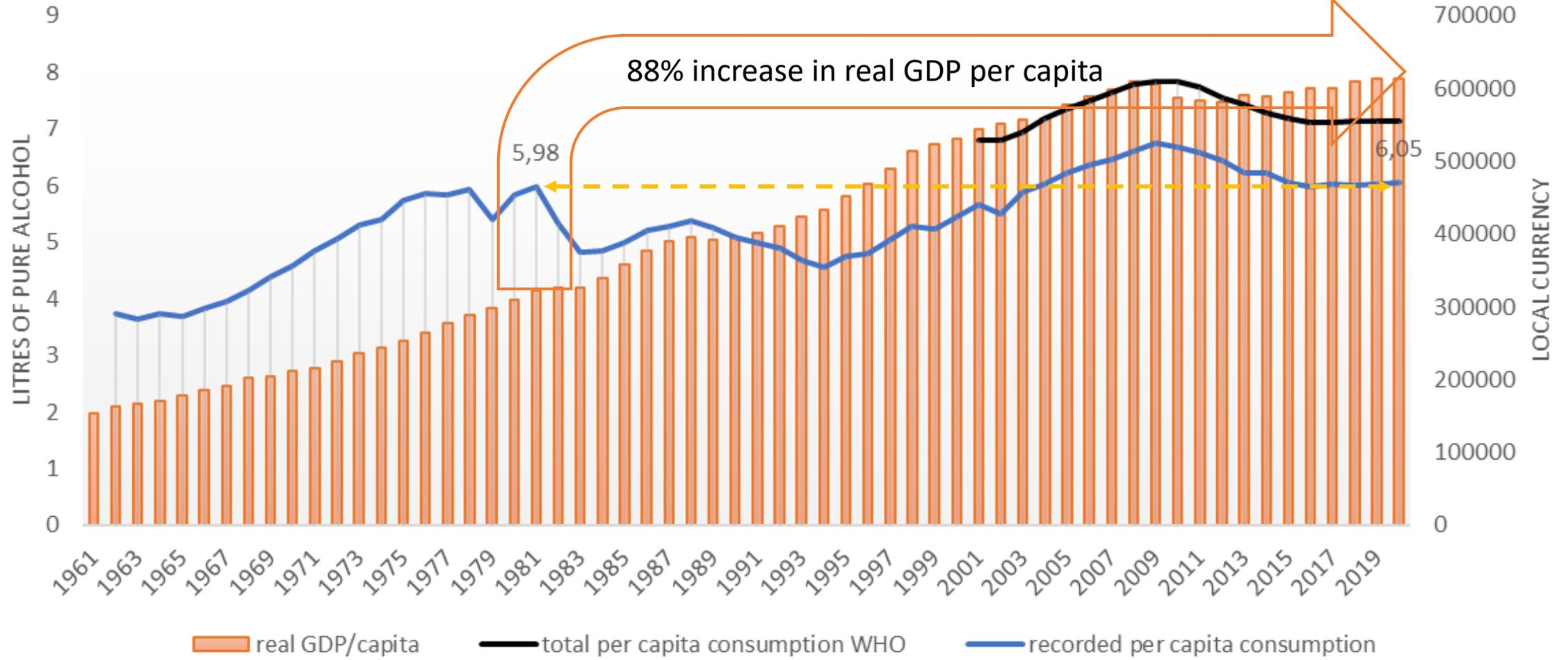
# Sweden: Per Capita Consumption Trends Age 15+ & Real GDP Per Capita

(Source: WHO, CAN & World Bank)



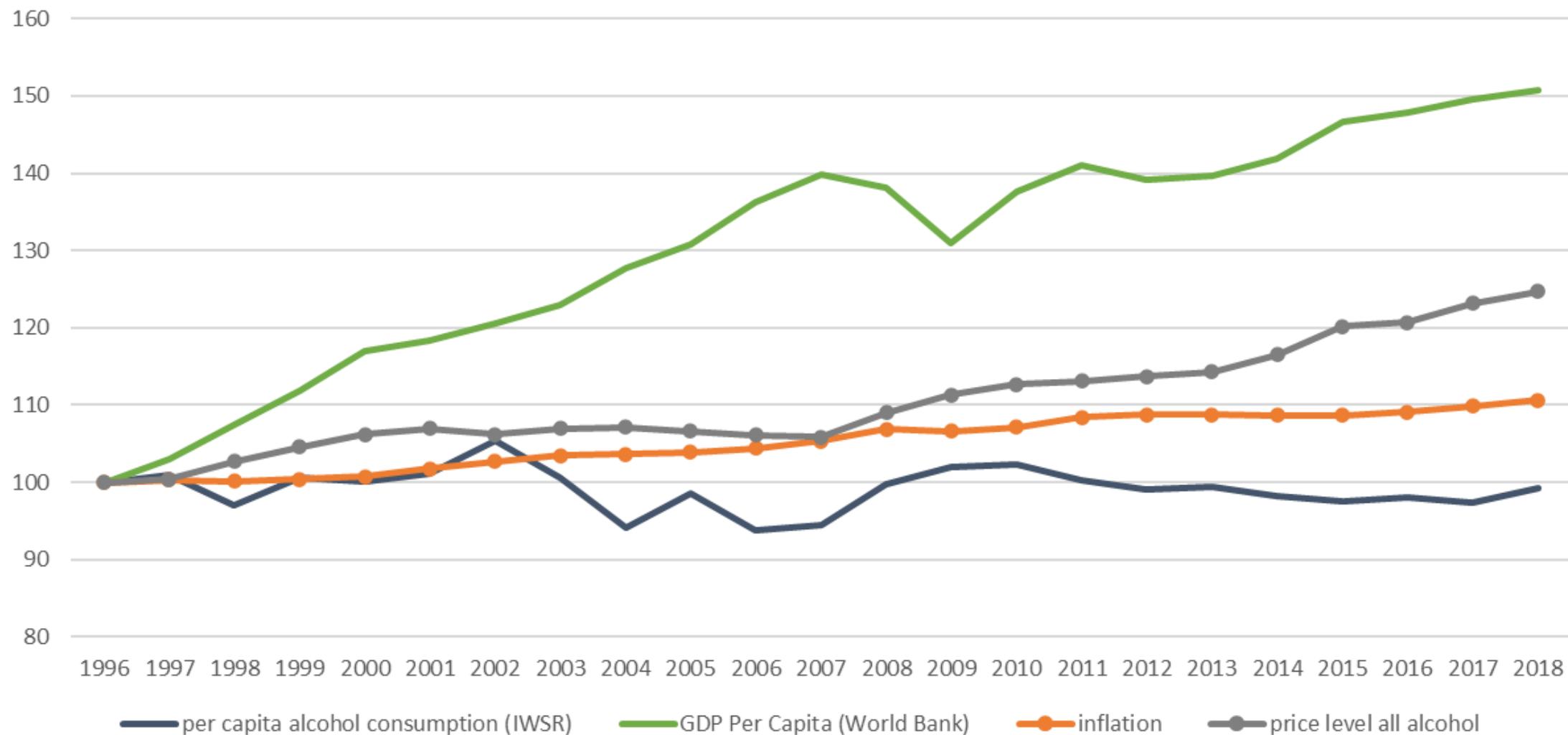


# Norway: Recorded Per Capita Alcohol Consumption & Real GDP Per Capita in Constant Local Currency (Source: WHO & World Bank)



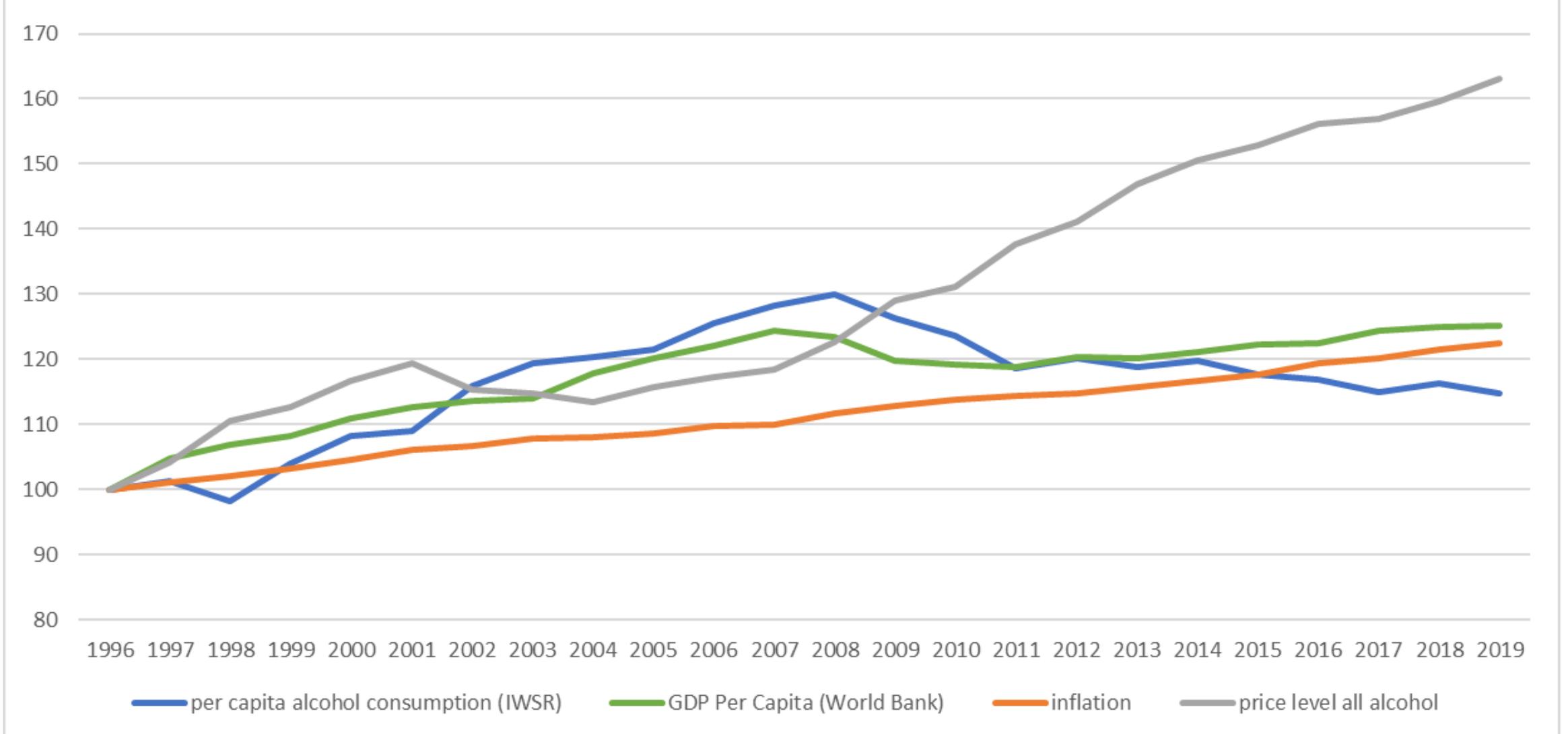


Sweden: Recorded Per Capita Alcohol Consumption, Real GDP Per Capita, Inflation & Price Level for Alcoholic Beverages Indexed  
(Source: IWSR, World Bank, & Eurostat)



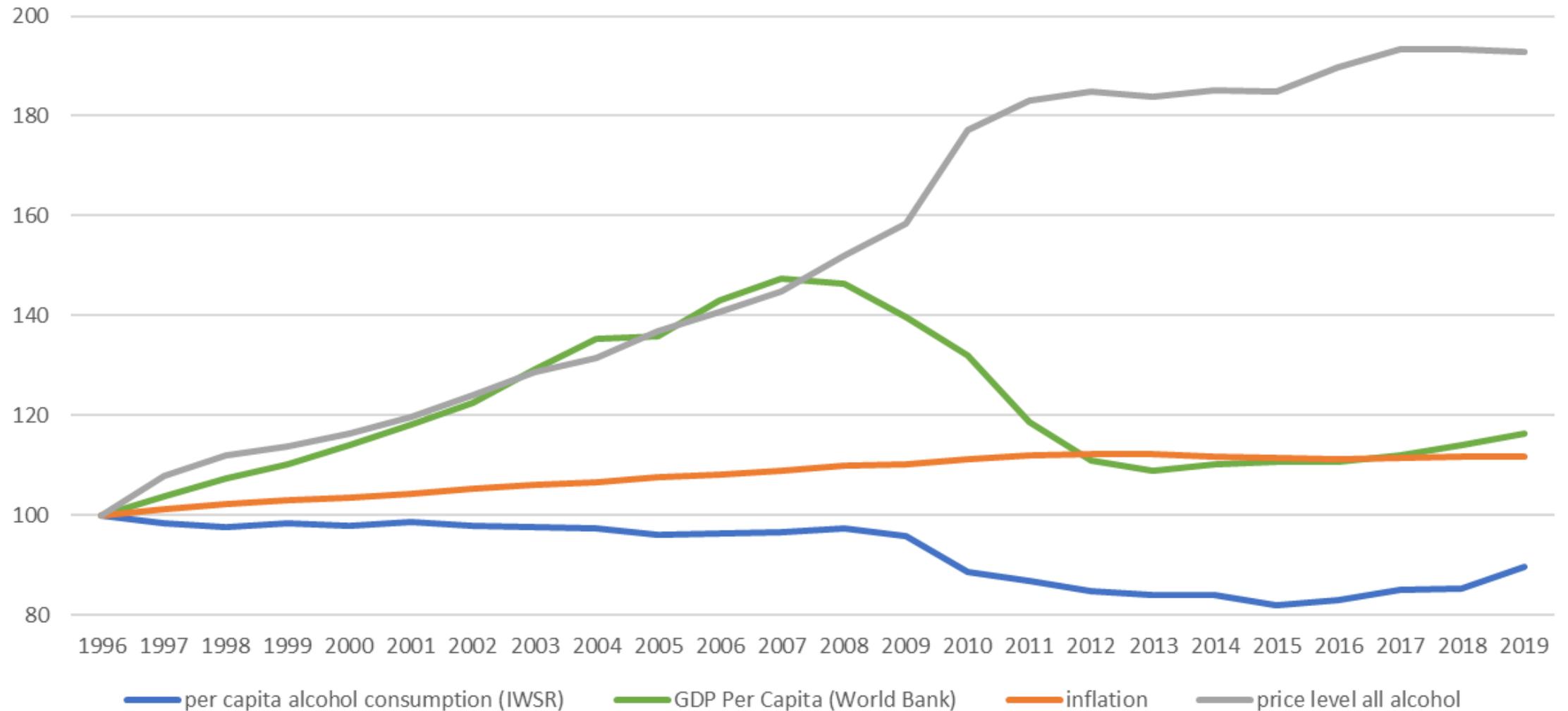


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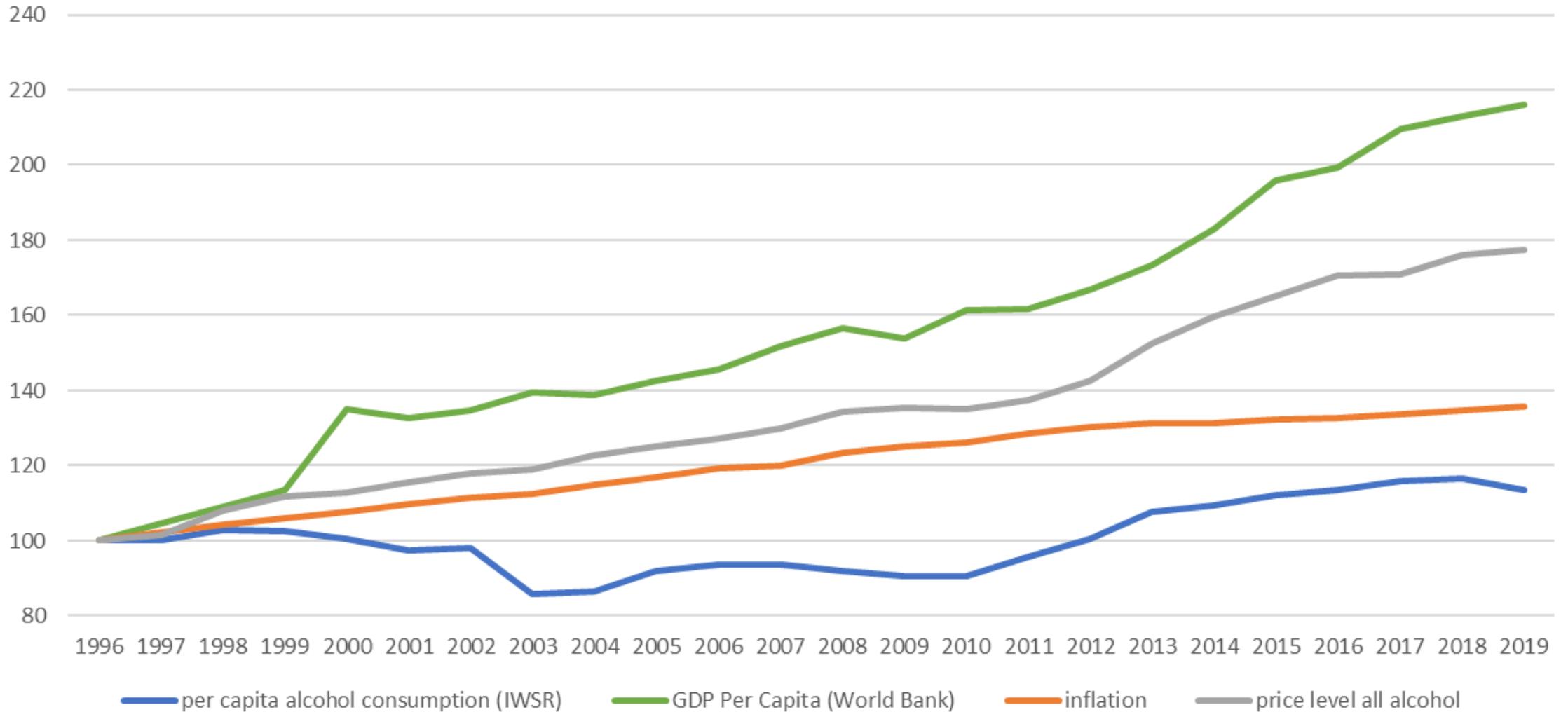


Greece: Recorded Per Capita Alcohol Consumption, Real GDP Per Capita, Inflation & Price Level for Alcoholic Beverages Indexed  
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### Malta Recorded Per Capita Alcohol Consumption, Real GDP Per Capita, Inflation & Price Level for Alcoholic Beverages Indexed (Source: IWSR, World Bank, & Eurostat)

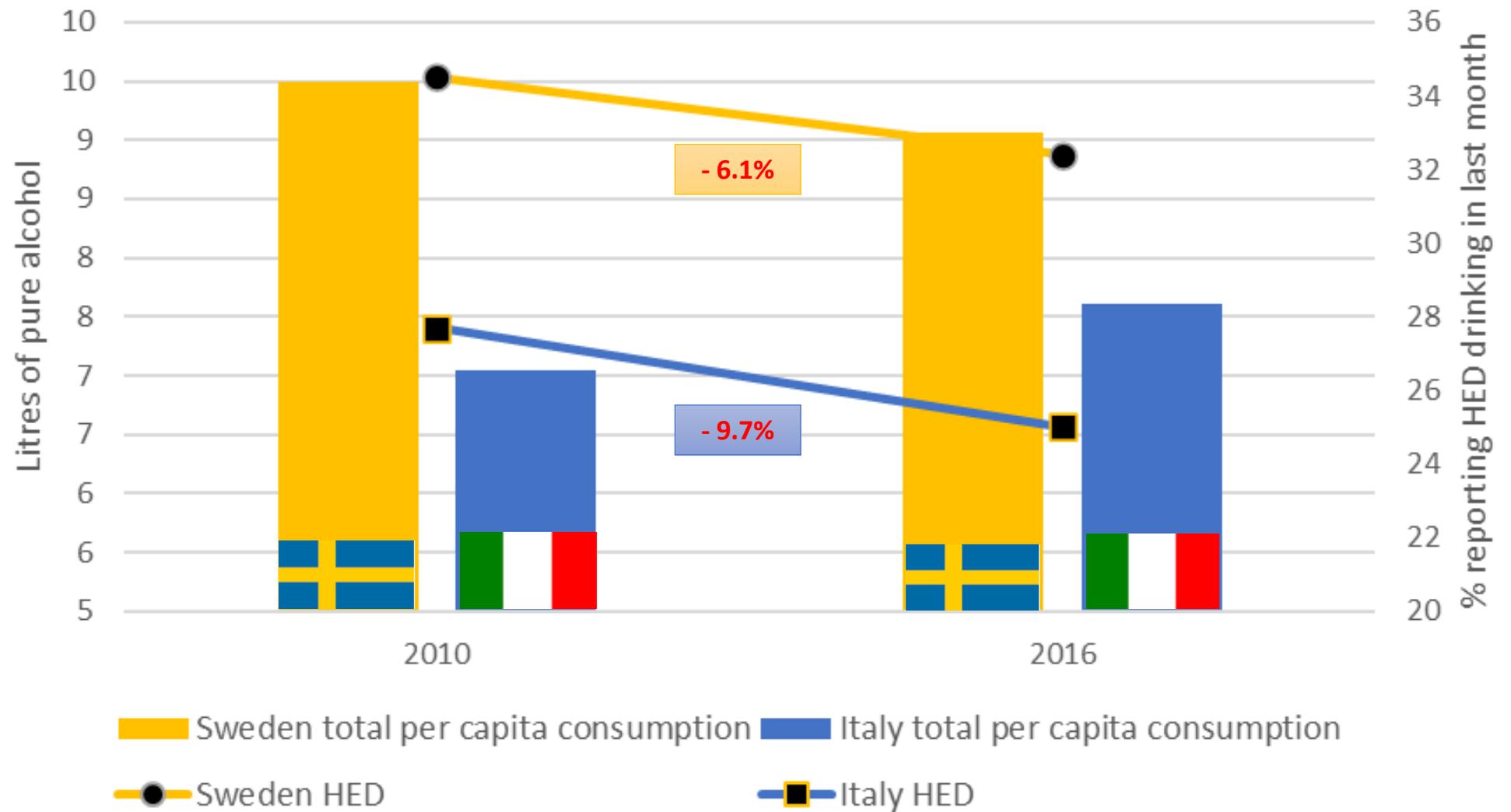


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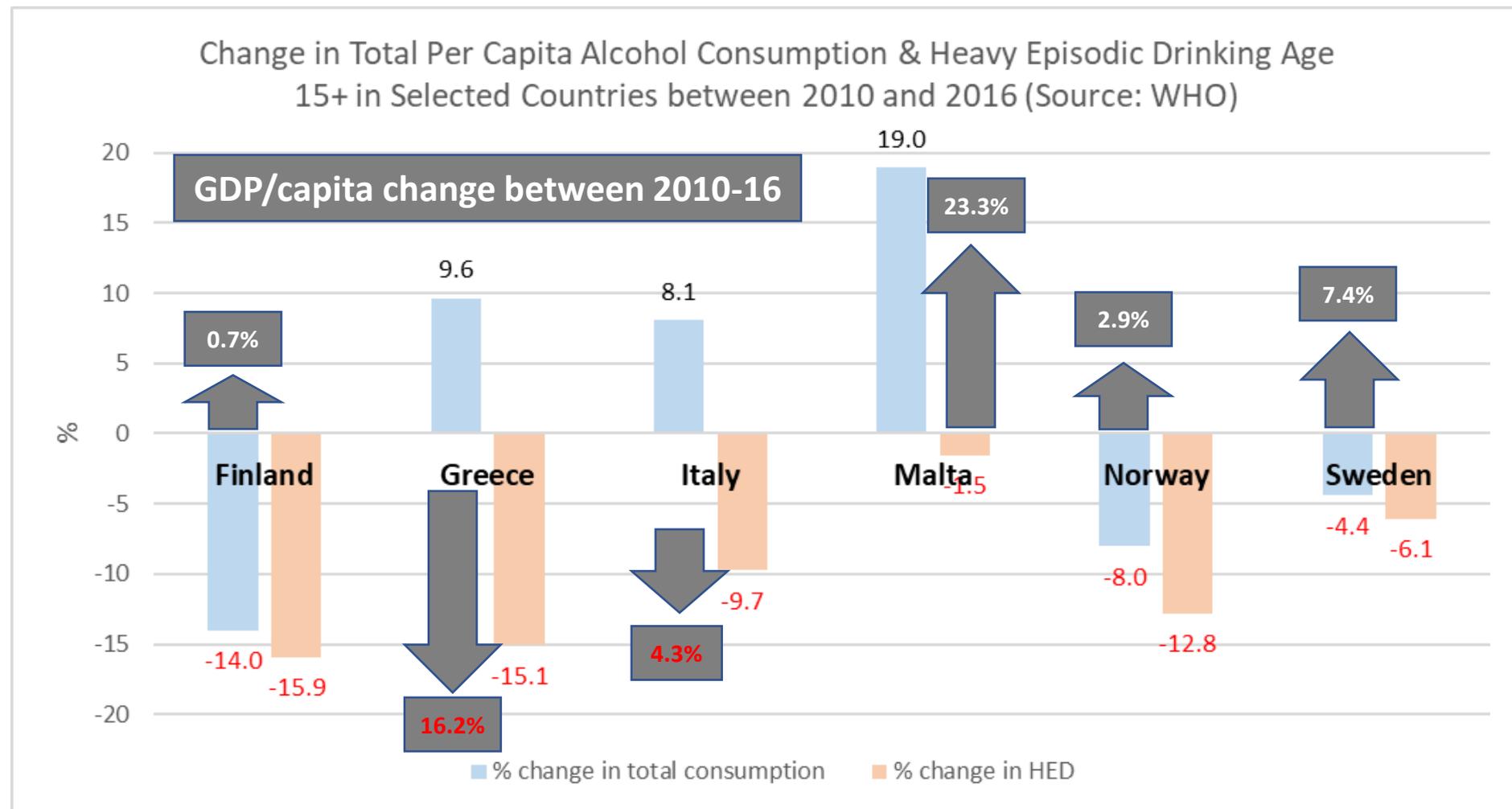
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A declining trend in HED drinking in both countries, while total per capita alcohol consumption decreased in Sweden & increased in Italy between 2010 & 2016.

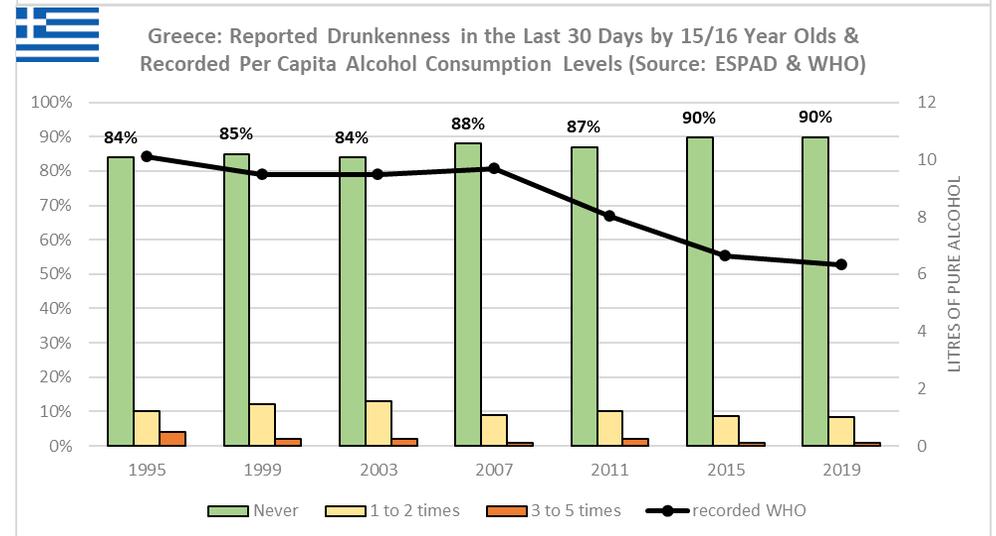
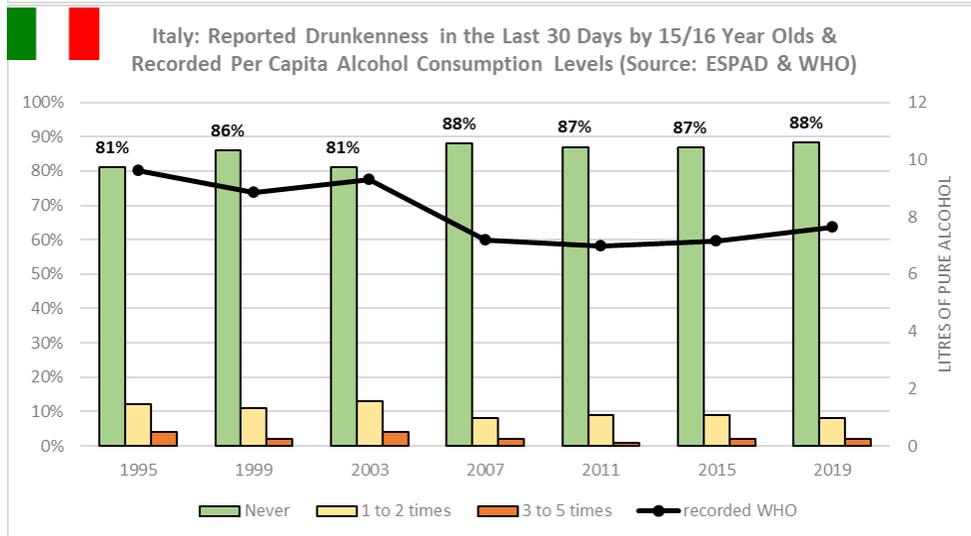
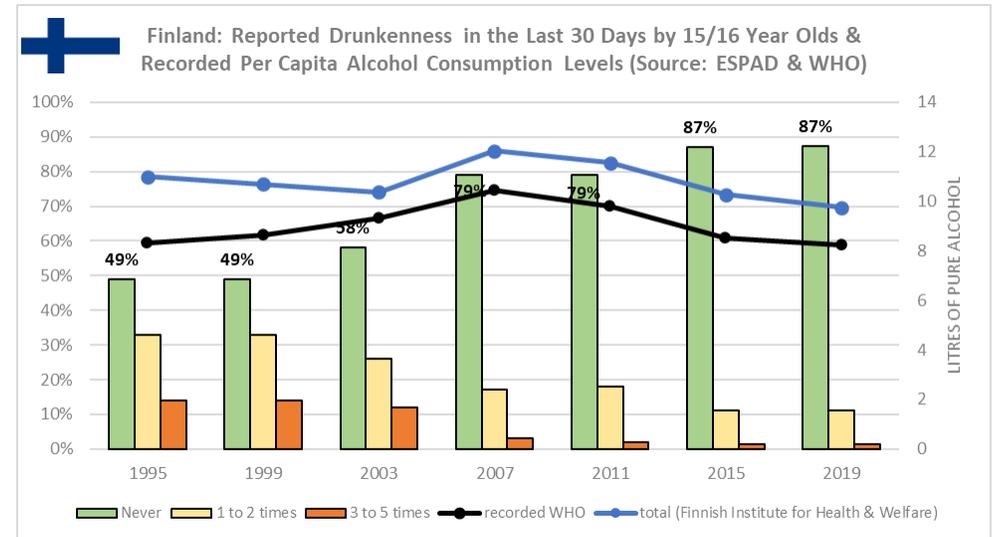
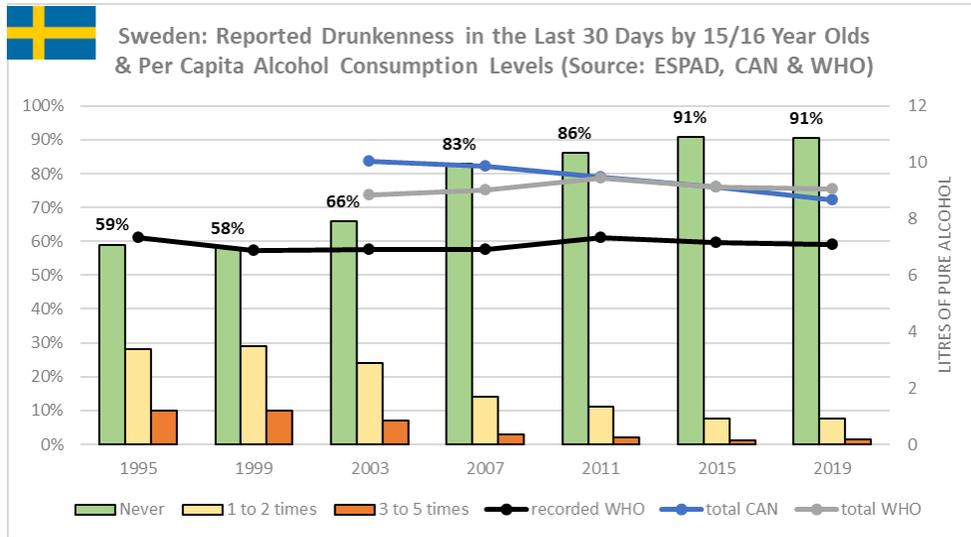
Sweden vs. Italy: Total per capita alcohol consumption & proportion reporting HED in 2010 and 2016 (Source: WHO)



HED is declining in all analysed countries, irrespective of the level & trend in total per capita alcohol consumption between 2010 & 2016.



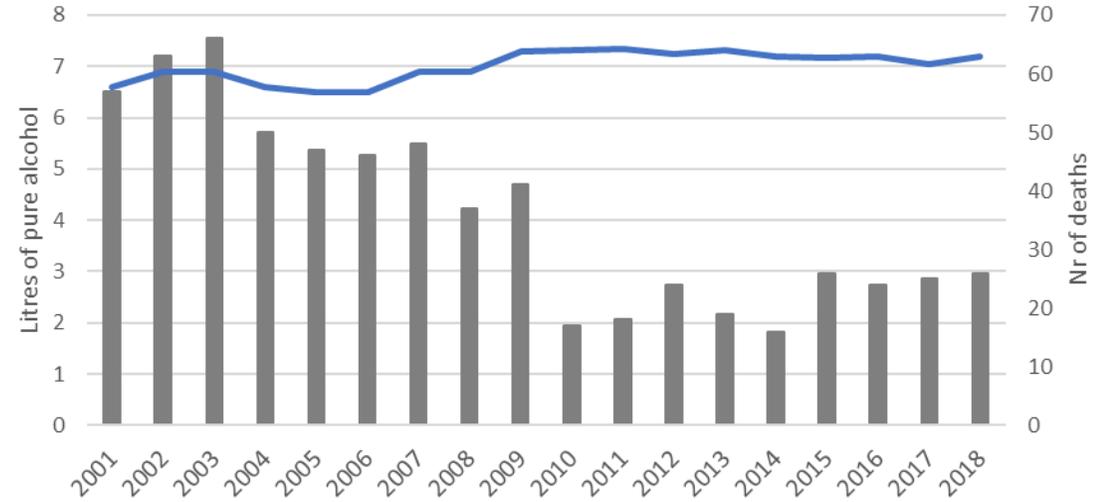
# Per capita alcohol consumption levels & trends appear to be unrelated to underage reported drunkenness trends



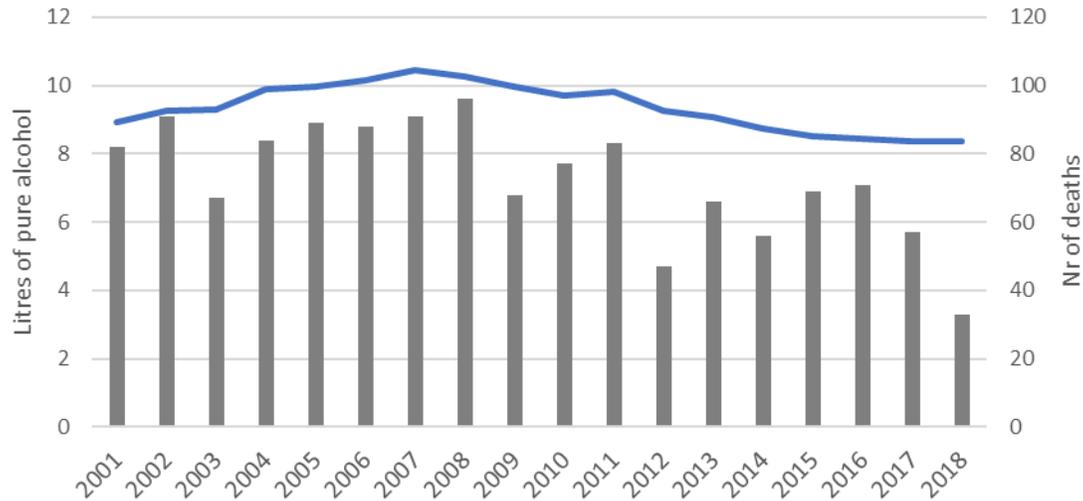
Drink-driving deaths are declining  
 (where data is available, apart from  
 Italy, based on limited data)  
 irrespective of the level & trend in  
 per capita alcohol consumption.



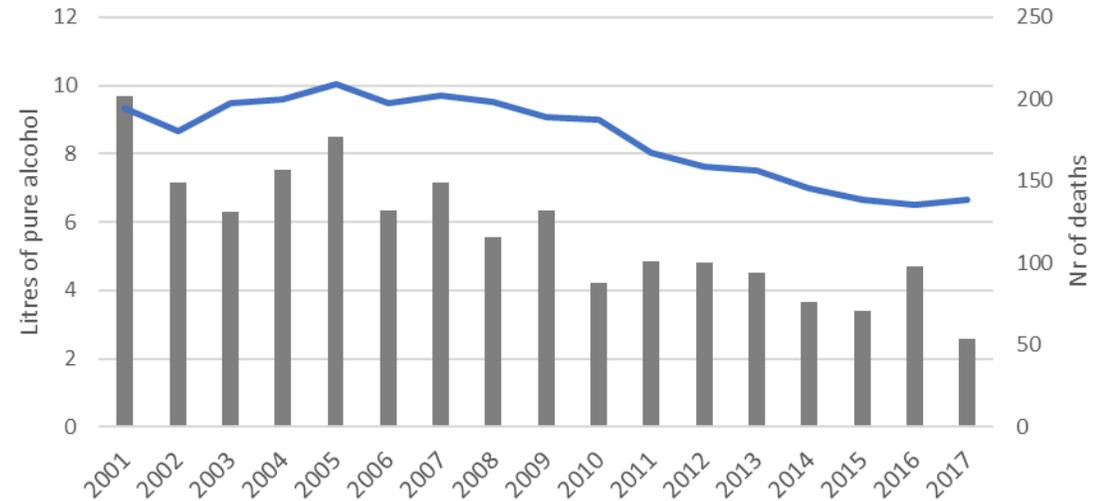
Sweden: Drink driving attributable deaths & recorded per capita alcohol consumption (Source: ETSC & WHO)



Finland: Drink driving attributable deaths & recorded per capita alcohol consumption (Source: ETSC & WHO)



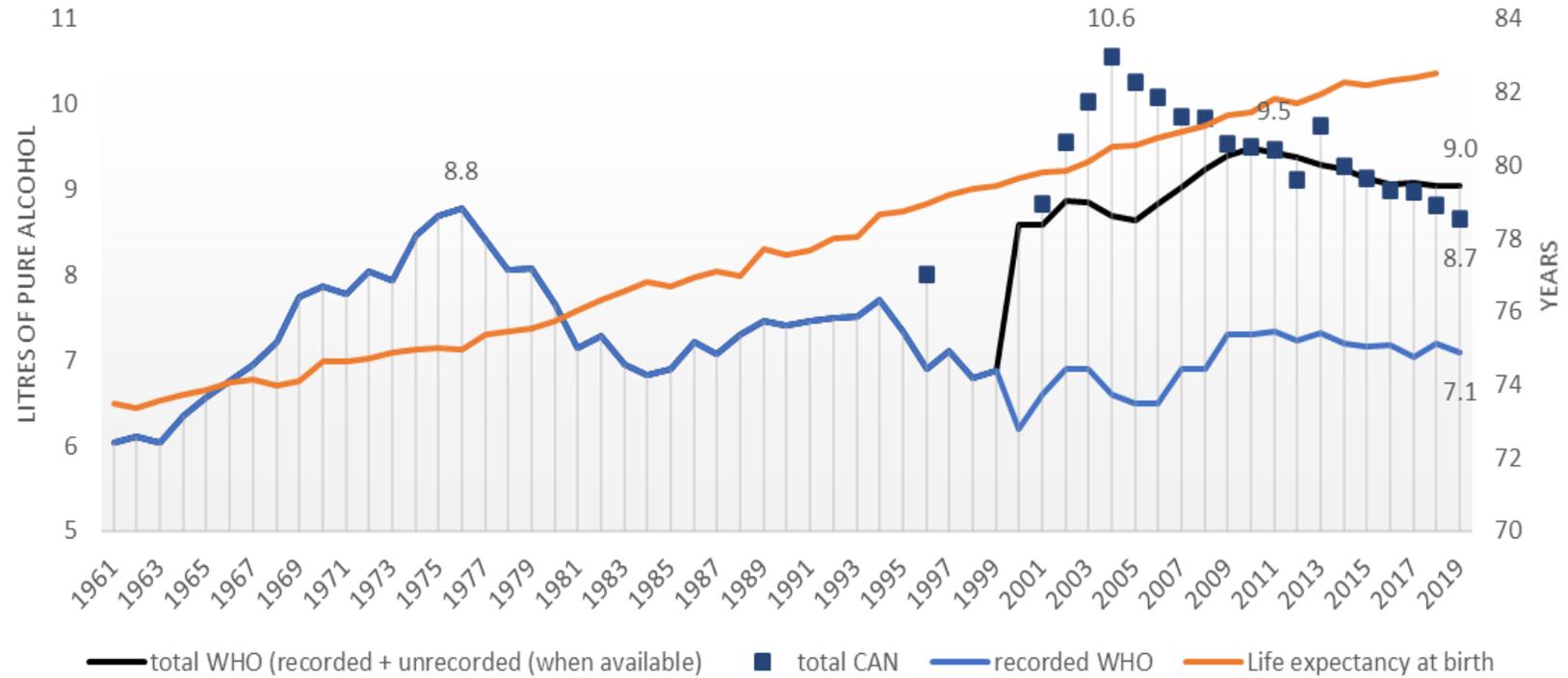
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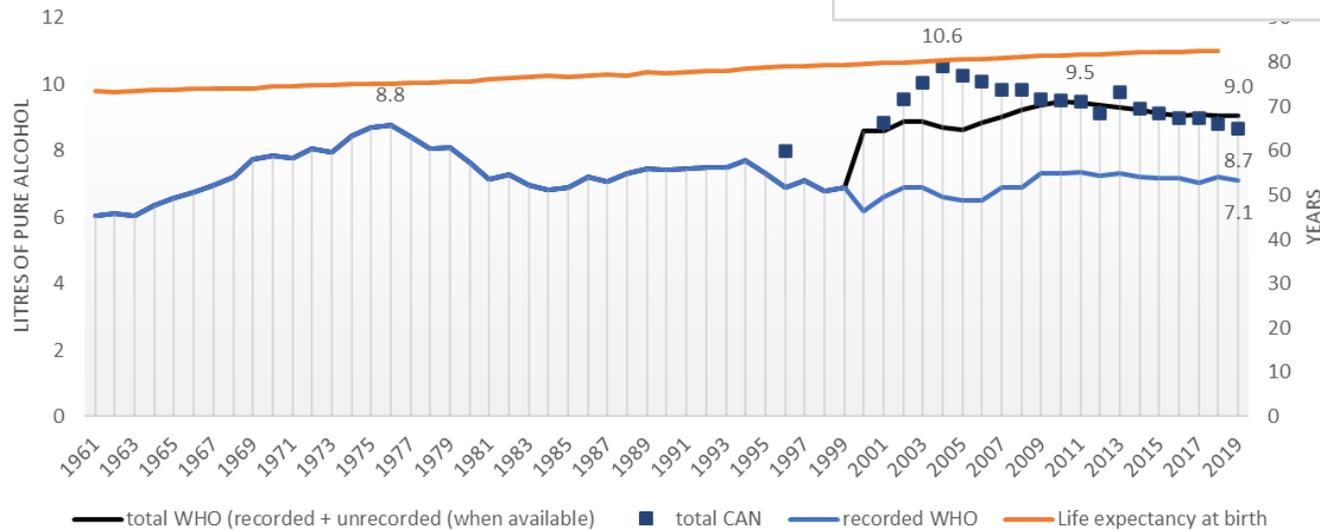


Sweden: Total Per Capita Alcohol Consumption Age 15+ & Life Expectancy at Birth Trend (Source: WHO, CAN & World Bank)

Life expectancy at birth is increasing irrespective of the level & trend in per capita alcohol consumption.

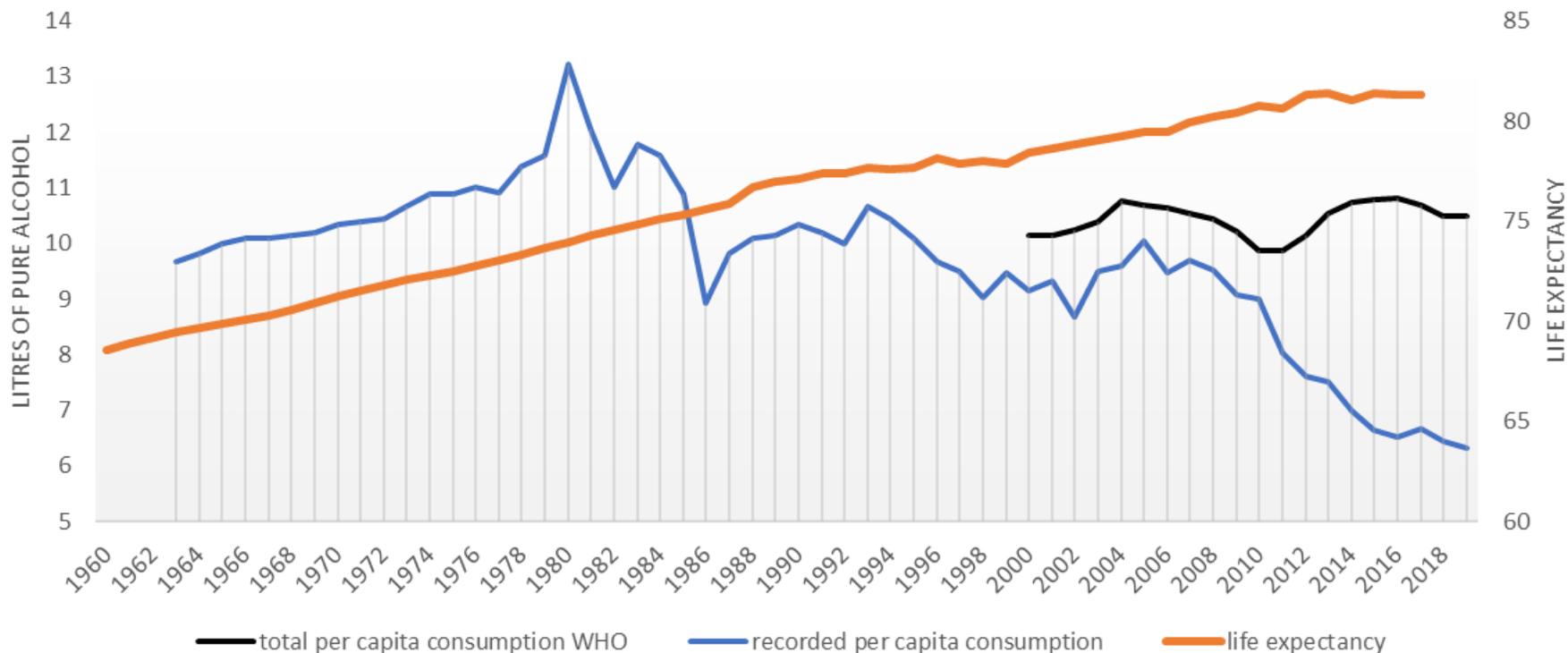


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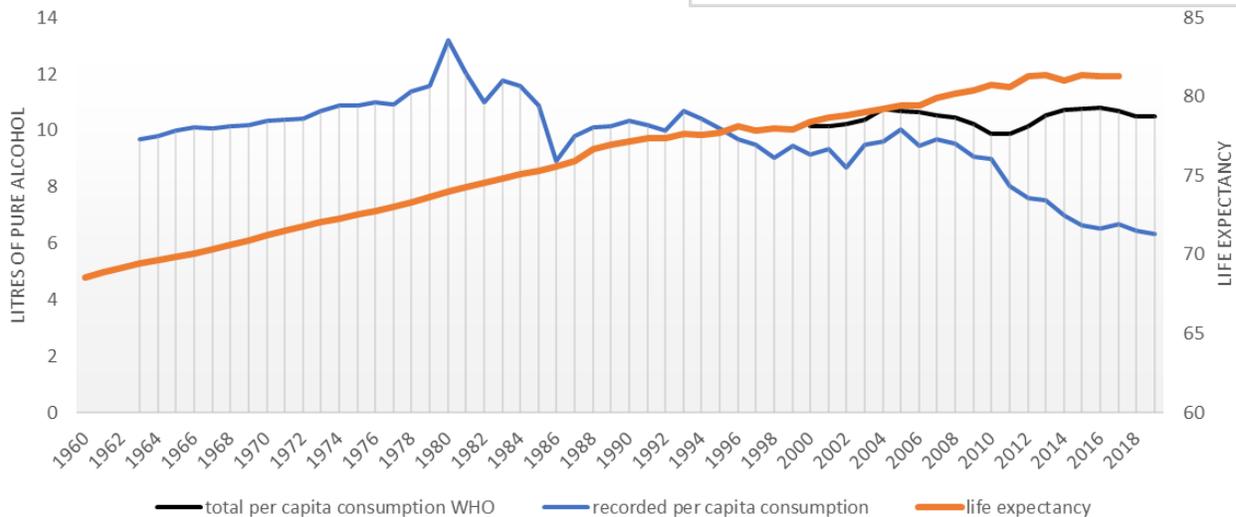




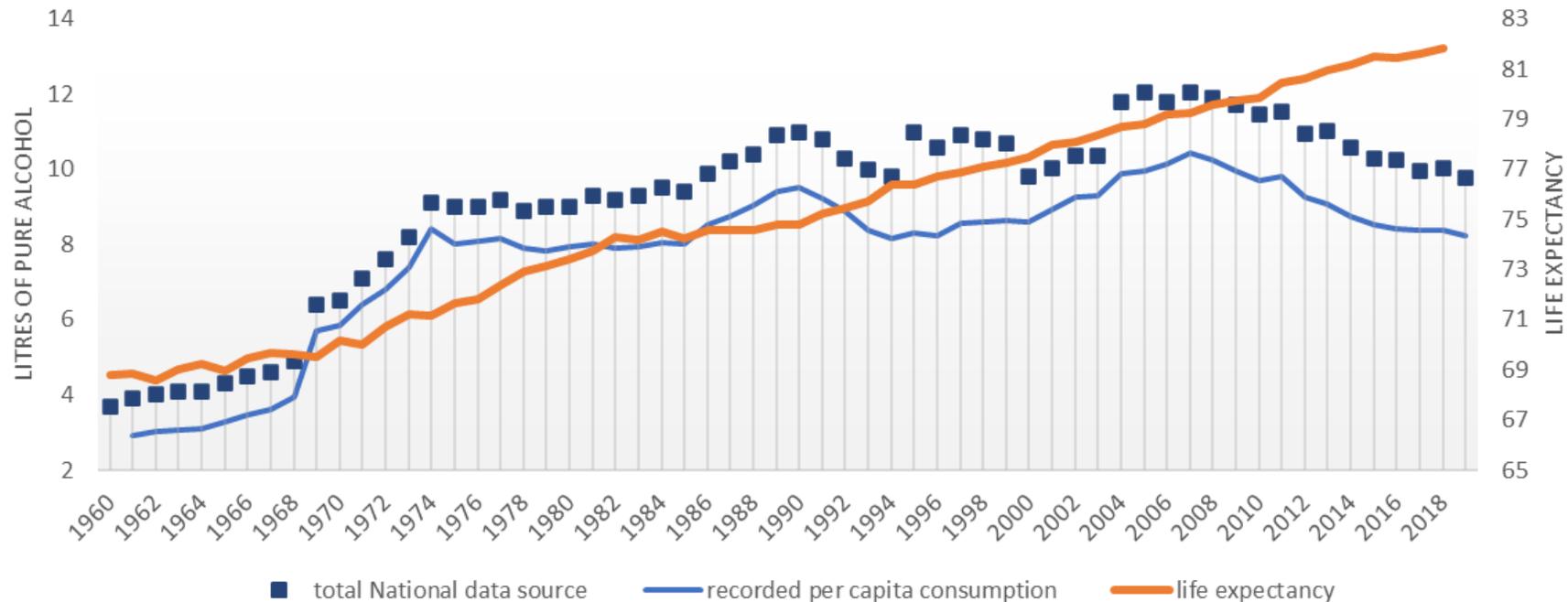
## Greece: Recorded & Total Per Capita Alcohol Consumption & Life Expectancy at Birth (Source: WHO & World Bank)



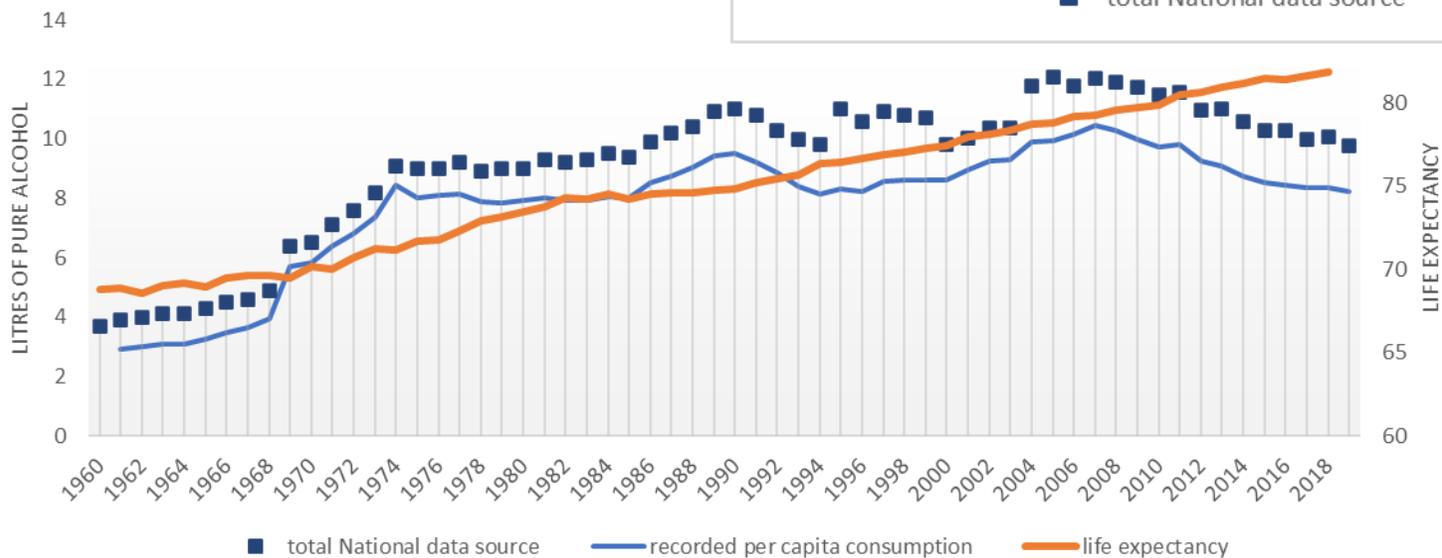
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Finland: Recorded & Total Per Capita Alcohol Consumption & Life Expectancy at Birth (Source: Finnish Institute for Health & Welfare. WHO & World Bank)



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Thank you for your attention!  
**I am happy to take any questions.**