
# STATE OF THE ART

## SOCOST2

Prof. Dr. Nick Verhaeghe

Prof. Dr. Brecht Devleesschauwer

Dr. Pieter Vynckier

Ms. Sarah Nayani

Social cost – substance use – gambling – Belgium - BELSPO



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## INTRODUCTION

This project aims to estimate the social costs of psychoactive substances and (online) gambling in Belgium, focusing on health-, traffic-, and crime-related impacts. It builds on the 2016 SOCOST study, which highlighted the significant economic burden of legal and illegal drug use. This study faced limitations due to lack of socioeconomic data and long-term monitoring. Alcohol and tobacco will only be assessed for traffic- and crime-related costs, as their health-related costs were addressed in the SUBOD project. For illegal drugs, psychoactive pharmaceuticals, and gambling, the project will capture the full scope of health, traffic, and crime costs. A key innovation is the integration of health-related costs into the Belgian national burden of disease study, ensuring sustainable and systematic monitoring. The project will also explore integrating traffic- and crime-related costs into this platform. Stakeholder collaboration, policy transfer, and proactive communication are central, ensuring that findings support evidence-based policymaking and enhance the visibility of relevant data collections.

## STATE OF THE ART

### 1. Introduction

Psychoactive substance use and (online) gambling represent a significant challenge to public health, social welfare, and the economy worldwide. Their impact extends beyond individual morbidity and mortality to encompass healthcare costs, productivity losses, traffic accidents, and crime-related consequences. In Belgium, earlier efforts to quantify these impacts culminated in the SOCOST study (2016), funded by BELSPO, which provided the first national estimates of the social costs of legal and illegal drugs. However, methodological shortcomings and data gaps limited the robustness and sustainability of those findings. Building on that foundation, the SOCOST 2 project seeks to advance the state of knowledge by estimating the economic impact of psychoactive substances and (online) gambling, while integrating methodological improvements into the Belgian National Burden of Disease Study (BeBOD).

### 2. Body of Knowledge and Main Findings

International evidence underlines the global burden of substance use. According to the Global Burden of Disease (GBD) study, tobacco use accounted for 7.2 million deaths and nearly 194 million disability-adjusted life years (DALYs) in 2021, while harmful alcohol use was linked to nearly 1.8 million deaths and 72 million DALYs (GBD 2021 Risk Factors Collaborators, 2021). Illicit drug use accounted for 28 million DALYs in 2021 (GBD 2021 Alcohol and Drug Use Collaborators, 2021). Comparable evidence for gambling shows that it is associated with physical and mental health

problems, productivity losses, and social harm, with global prevalence estimates indicating 46.2% of adults engaged in gambling in the past year and 1.41% meeting criteria for problem gambling (Tran et al., 2024).

Economic analyses demonstrate the high costs of these behaviours. Lievens et al. (2017) documented the substantial healthcare costs and productivity losses resulting from tobacco, alcohol, and drug use in Belgium. Gambling-related harms have been shown to generate additional economic burdens, such as reduced work performance and increased healthcare utilisation (Rumpf et al., 2022; Hofmarcher et al., 2020). Internationally, social cost studies are considered powerful tools for informing policy and resource allocation (Bhattacharya, 2016; Ritter et al., 2015).

### 3. Key Hypotheses in the Field

Research in this domain generally rests on three key hypotheses. First, substance use and gambling are believed to contribute significantly to the burden of disease, primarily through causal links with morbidity, mortality, and injuries. Second, these behaviours generate substantial economic costs that extend well beyond the healthcare sector, encompassing traffic accidents, criminal justice involvement, and productivity losses. Third, reliable, locally rooted, and methodologically sound cost estimates are considered indispensable for guiding evidence-based policymaking and for monitoring the progress of health and social strategies.

### 4. Existing Gaps in Past Research

Despite considerable advances, important gaps remain in past research. One limitation lies in incomplete and inconsistent data sources. The SOCOST study, for instance, relied heavily on registrations that were not designed for cost analysis, which resulted in biased estimates (Lievens et al., 2016). Methodological inconsistencies form a second challenge, as social cost studies differ widely in their definitions, included cost categories, and valuation techniques, thereby undermining comparability and reliability (Verhaeghe et al., 2017a; Jarl, 2010). A third gap concerns the limited scope of earlier work, given that gambling has rarely been systematically integrated into national social cost frameworks, despite clear evidence of its health and social harms. Finally, national burden of disease frameworks remain insufficiently connected with social cost research. While the GBD study offers valuable global insights, national studies such as BeBOD provide stronger integration with local data and expertise. Nevertheless, the economic costs attributable to risk factors have so far been insufficiently explored in these national contexts.

### 5. New Research Contributions of SOCOST 2

The SOCOST 2 project aims to address these shortcomings through several innovative contributions. A first major step is the integration of the economic impact of substance use and gambling into the Belgian burden of disease framework (BeBOD). This approach ensures a sustainable, reproducible, and transparent monitoring system. In addition, SOCOST 2 introduces methodological advancements by adapting international best practices in causal inference and comparative risk assessment to the Belgian context, which will improve both the accuracy and the comparability of the results. The

scope of the project is also expanded compared to the 2016 SOCOST study: gambling is now explicitly included as an addictive behaviour, and updated cost estimates will be produced for illicit drugs and psychoactive pharmaceuticals. For alcohol and tobacco, the project will complement the ongoing SUBOD work by quantifying traffic-related and crime-related costs, which have been largely neglected in previous studies.

## 6. Policy Implications and Expected Recommendations

The policy relevance of SOCOST 2 is considerable. The project is designed to provide direct support to several federal policy initiatives, including the Tobacco and Alcohol Plan, the Interfederal Strategy for an Integrated Drug Policy (2024–2025), and the Gambling Policy Action Plan (2022–2028). The expected contributions are multiple. Reliable cost estimates will offer policymakers a solid foundation for evidence-based prioritisation and for guiding the allocation of resources across prevention, treatment, and law enforcement. By embedding cost estimates into the BeBOD framework, SOCOST 2 will establish an integrated monitoring tool that allows for regular updates and alignment with international reporting standards. The project will also enhance the visibility and valorisation of local data systems, creating important synergies for broader public health surveillance. Finally, the methodological framework developed within SOCOST 2 can be applied to evaluate the impact of regulatory or preventive policies on the economic burden of substance use and gambling.

## 7. Bibliographic Overview


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**Conclusion:**

The SOCOST 2 project is positioned to substantially improve the methodological quality and policy relevance of economic impact estimates for psychoactive substances and gambling in Belgium. By integrating into BeBOD, it will ensure sustainable monitoring, provide robust evidence for policymaking, and ultimately contribute to reducing the societal burden of substance use and addictive behaviours.