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A time series of tobacco use in Belgium based on a critical appraisal of data sources, 1997-2020

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By being the leading risk factor for most of the leading causes of death worldwide, tobacco use represents an important public health issue that causes a significant health and economic burden. Despite policy regulations, the prevalence of the use remains substantial in many countries, such as Belgium. A comprehensive framework for the quantification of the health impact of tobacco use, based on representative data, is however still lacking. As a preliminary step, we aimed to map and critically assess the past and current trends of tobacco use from 1997 to 2020 in Belgium for establishing a time series of the true extent of tobacco use. Data sources assessing tobacco use in Belgium, meeting our inclusion criteria: frequency, type of survey, international comparability, consistency over time, and representativeness of the sample were included in the critical appraisal. The selected data source forms the basis for a time series of tobacco use from 1997 to 2020. We applied a Bayesian inference model using the integrated nested Laplace approximation, to estimate the distribution of tobacco use by age, sex, and region. We identified four data sources containing information on tobacco use in Belgium. The best available data source for creating a time series of tobacco use was the Belgium Health Interview Survey. The modelled time series based on this data shows a decrease in the prevalence of daily smoking from 1997 (25%) to 2020 (15%). In 2020, daily smoking was estimated to be the highest in the Walloon region (19%) followed by the Brussels region (16%) and the Flemish region (14%). In 2020, the prevalence of daily smoking was estimated to be higher among men (19%) and in the age category 45-59 (20%). This study provides a critical review of data sources monitoring tobacco use in Belgium. Time trends derived from modelling show the overall smoking trends are decreasing but the use remains a public health concern in Belgium.

Key messages:

- Understanding the role of tobacco on population health as an attributable burden can improve health monitoring.
- Tobacco use is still a public health concern in 2020 with an estimated prevalence of daily smoking of 15% in the population. Different patterns of tobacco use can be seen at the regional level.