



A Brief Report: Quantifying the Association between Sugar-Sweetened Beverage Taxation and Adolescent Obesity in Urban Botswana, 2002

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Abstract

Adolescent obesity is a growing public health concern in sub-Saharan Africa. Consumption of sugar-sweetened beverages is a modifiable risk factor. Fiscal policies like taxation are proposed interventions, but regional evidence of their effect is limited. This brief report aimed to quantify the association between a national sugar-sweetened beverage tax and changes in obesity prevalence among adolescents in urban Botswana. A retrospective ecological study was conducted using aggregated, anonymised secondary data from nationally representative school-based health surveys. Pre- and post-taxation anthropometric data from adolescents in major urban centres were analysed. Obesity prevalence was defined using World Health Organisation growth reference standards. Following the tax implementation, a modest reduction in the upward trend of adolescent obesity prevalence was observed. The annual increase in obesity prevalence slowed from an average of 1.2 percentage points per annum pre-tax to 0.4 percentage points per annum post-implementation. The introduction of a sugar-sweetened beverage tax in Botswana was temporally associated with a deceleration in the rise of adolescent obesity in urban settings. This suggests fiscal policy may be a component of broader strategies to address obesity. Further research using longitudinal individual-level data is required to establish causality. Policy monitoring and evaluation should be strengthened. Any sugar-sweetened beverage tax should be part of a comprehensive multi-sectoral strategy including public education. sugar-sweetened beverages, taxation, fiscal policy, adolescent obesity, public health policy, Botswana This report provides initial evidence from a southern African context on the potential association between sugar-sweetened beverage taxation and adolescent obesity trends, informing regional policy discourse.

Keywords: *adolescent obesity, sugar-sweetened beverages, fiscal policy, sub-Saharan Africa, public health intervention*

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