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# Overweight and Obesity in Sub-Saharan Africa: An exisiting threat partly covered by HIV/AIDS

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**Abstract**

Research in health economics often focuses solely on the threat of obesity in developed societies, mostly neglecting the existence of the phenomenon in the developing world. For example, obesity is a growing problem in Sub-Saharan Africa. While malnutrition is clearly still a major concern, one can also observe decreases in malnutrition and increases in the number of overweight people re-spectively. At the same time, many countries in the region continue to suffer from high prevalence of HIV/AIDS whereby the highest rates occur consistently among females and wealthier individuals respectively. One well-known phenomenon related to HIV/AIDS is wasting, a syndrome leading to involuntary loss of more than 10% of ones body weight (implying a reduction of BMI).

This research investigates three main issues using pooled DHS data for the economies of Zimbabwe, Lesotho, and Malawi. First, the BMI distribution for females in several SSA countries is analysed per se. It is shown that each economy consistently shows a significant proportion of overweight and obesity with over 20% of the sub-populations having BMIs greater than 25. Second, we use descriptive statistics to identify the key determinants of excess weight gain and obesity. As expected, wealth and education turn out to be key variables related to individual´s BMI. In other words, females facing a higher probability of becoming HIV/AIDS positive are also more likely to suffer from obesity as both are positively correlated to wealth. The third part aims to sketch the BMI distribution in a hypothetical HIV/AIDS free environment, ceteris paribus, by using semi-parametric matching methods. In such a scenario, the BMI distribution would undergo a significant rightward shift, therefore HIV/AIDS is de facto confining obesity. Furthermore, using unconditional quantile treatment regression we quantify the average weight loss related to HIV/AIDS disaggregated by wealth levels. We prove that not only the aggregated mean BMI should be larger in the absence of HIV/AIDS, but one should also expect the ratio of overweight to underweight individuals to increase drastically (as the former are disproportionally affected by HIV).

Our analysis predicts that a better control of the HIV/AIDS epidemic would lead to an increase in pressure on health systems in SSA due to a more pronounced distribution of the non-communicable disease of obesity. Therefore, policy makers should increase public awareness of the hazards related to obesity and adjust health systems in order to deal with upcoming problems arising from obesity.