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DETERMINANTS OF CHILDHOOD OBESITY AND ASSOCIATED POPULATION ATTRIBUTABILITY AMONG SCHOOL CHILDREN IN MASHONALAND WEST PROVINCE, ZIMBABWE

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Background: Childhood obesity is increasing at an alarming rate and is a global public health concern. Estimates from Sub-Saharan Africa suggest that the region is following a similar pattern. The identification of determinants of obesity and their population attributability impact is critical for informing the formulation of contextually relevant prevention efforts. The aim of the study was to first identify prominent determinants associated with childhood obesity in a province of Zimbabwe. Secondly, we calculated population attributable risk proportions for identified determinants to identify potential “best buys” for future prevention strategies.

Methods: We conducted a school based anthropometric cross-sectional study of 974 primary school children, aged 6–12 years in Mashonaland West Province. A multistage random cluster (30) sampling approach was employed with 30 students recruited in each cluster i.e. total sample size of 900. We employed a multilevel logistic regression and population attributable fraction estimation to identify high impact determinants (individual, social, lifestyle/behavioural and environmental) associated with childhood obesity.

Results: Consumption of unhealthy foods, chocolates and sweet biscuits (aRR=1.55, 95% CI: 1.06–2.27, p=0.024) and sedentary activities of using bus/vehicle as means of transport to school (aRR=2.46, 95% CI: 1.72–3.52, p<0.001) were prominent determinants of obesity among school children. Urban school children and children from

Makonde, Zvimba, Sanyati and Mhondoro-Ngezi districts were significantly associated with increased obesity risk. The identified determinants accounted for 18% (95% CI: 3–51%) of overweight/obese and 19% (95% CI: 4–53%) of overfat/obese, respectively. Consumption of junk food accounted for 2% of overfat/obese and 3% of overweight/obese, respectively. Physical activity risk factors reduced overfat/obese by 3% (95% CI: 1–9%) and overweight/obese by 2% (95% CI: 0–6%), respectively.

Conclusion: This study has identified contextually relevant determinants for obesity among school aged child population, which can more effectively inform current intervention programmes and strategies. There is need for a more multifaceted strategy to tackle this growing epidemic in Zimbabwean schools.

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