

# SUGAR-SWEETENED BEVERAGE INTAKE AND ITS' ASSOCIATION WITH CHILDHOOD OVERWEIGHT AND OBESITY IN MONGOLIA

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## Background

Consumption of SSB has been increasing, due to urbanization and heavy marketing in low- and middle-income countries. The World Health Organization (WHO) has recommended to reduce intake of free sugars throughout one's life course and to reduce intake of free sugars to less than 10% of total energy intake. In the case of Mongolia, currently there is no study that has investigated total intake of water and beverages, daily beverage intake composition, and the association between weight status and consumption of SSB. The aim of this study was to examine how consumption of SSB affects the body weight of children and adolescents in Mongolia

## Methodology

A cross sectional survey was conducted between 2015 and 2016. A group of 353 relatively healthy children and adolescents aged 6-16 were selected from ger districts of Ulaanbaatar, Mongolia. Descriptive statistics were used to summarize the data. Chi-squared analysis was conducted to evaluate the association of categorical variables with body mass index (BMI) z-score subgroups. T-test or two-way ANOVA was performed to compare means. Beverage consumption was presented as means with standard deviation (SD) among sex and age groups.

Beverage group	Mean volume (95% confidence interval) (mL)			p-value
	Underweight z<-1	Normal weight -1>z<1	Overweight and obese z>1	
Water	304.3 (198.0-410.6)	383.9 (335.5-432.3)	396.6 (293.0-500.1)	0.382
Tea	848.9 (707.1-990.8)	759.9 (696.5-823.3)	791.9 (671.1-912.7)	0.510
Milk	24.5 (0.0-57.3)	23.8 (11.9-35.6)	34.5 (0.0-69.1)	0.775
Fruit juice, soft drinks	116.0 (46.8-185.2)	120.3 (90.5-150.0)	59.5 (22.3-96.7)	0.172
Coffee	15.0 (0.0-37.8)	18.4 (6.9-29.8)	14.9 (0.0-37.8)	0.631
Total beverage intake	1308.5 (1166.2-1450.8)	1307.2 (1238.2-376.3)	1287.6 (1157.0-1418.2)	0.967
Total SSB <sup>a</sup>	94.7 (46.9-142.4)	149.3 (116.7-181.9)	222.5 (127.4-317.7)	0.047

<sup>a</sup>Total SSB consists of all kinds of sugar added drinks and fruit drinks

## Results

Findings: The data from 347 children and adolescents were analyzed. Boys represented 50.1% (n =174) and the mean age ± SD was 10.0 ± 2.9 years. Tea was the main beverage type in all age and sex groups compared to other types of beverages. Girls aged between 10 and 13 years old had the highest consumption of sugar-sweetened beverages (SSB). And there was a markedly high consumption of SSB among overweight and obese children. Conclusion & Significance: Significantly higher consumption of SSB was seen among overweight and obese children. Detailed household and school-based observational and interventional studies should be performed using these findings to help policy makers to make evidence-based decisions about SSB.

## Conclusion

Significantly higher consumption of SSB was seen among overweight and obese children. Detailed household and school-based observational and interventional studies should be performed using these findings to help policy makers to make evidence-based decisions about SSB.

## Reference

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