Sleep and Night-Time Use of Electronic Entertainment and Communication Devices in the Bedroom as Risk Factors for Obesity among Canadian Children.

Objective:
We assessed the association between sleep and night-time access to and use of electronic entertainment and communication devices (EECD) (i.e. television, video game consoles, computers and smart phones) with the weight status of Canadian children. As a secondary objective, we examined the effect of night-time access to and use of EECD on diet quality and physical activity.

Methods:
We surveyed approximately 3,400 grade 5 students from 148 schools across Alberta. Students completed the Harvard Youth/Adolescent Food Frequency questionnaire, a validated questionnaire on physical activity, and had their heights and weights measured. Multilevel linear and logistic regression methods were used to assess the associations between night-time access to and use of EECD with diet quality, physical activity and body weights. Analyses were weighted to represent provincial estimates.

Results:
Overall, 64% of parents reported that their child had access to one or more EECD in their bedroom, and 57% of children reportedly use these devices when their parents expected them to sleep. Frequent night-time use of EECD revealed statistically significant associations with excess body weight, poorer diet quality and lower physical activity levels. Shorter sleep duration and higher access to EECD was associated with increased odds of being overweight/obese.

Conclusions:
Limiting the availability of EECD in children's bedrooms and discouraging their night-time use can be considered as public health strategies to promote healthy body weights among children.