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**“Major risk factors of overweight/obesity  
of Samoan schoolchildren: anthropometric and dietary  
assessment including women’s appraisal”**

Diploma Thesis in Nutrition Science

presented by

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## 6 Conclusions

The overweight/obesity prevalence of Samoan schoolchildren found in this study is dramatic. The Samoan schoolchild living in an urban area in Samoa is on average overweight/obese. An overweight or obese schoolchild of 10-14 years of age reflects the normality and a child with normal weight reflects an exceptional condition. The inadequate eating habits paired with a consumption of energy-dense, micronutrient-poor foods can clearly be identified as the major risk factor for this alarming situation. A diet primarily consisting of food high in fat, salt and sugar resulted in an increase of mean BMIs of 1 unit for girls and of 2.6 units for boys over the past six years (from 2003 to 2009). This trend will certainly continue if not immediate action is undertaken.

The foods sold in the school canteen as well as the foods from the Kwik Mart, where children usually buy their lunch, are inadequate to foster children's ability to learn and grow healthy. In other words, these fatty, salty and sugary foods impair the health of the children and not only promote weight gain but also the development of chronic diseases like diabetes and hypertension. Furthermore, another risk factor can be highlighted, which is the physical inactivity of the schoolchildren. Needless to say, that these excessive energy intakes of over 5000kcal per day cannot be expended by increased physical activity. It is simply not possible to burn such a high amount of calories daily by doing sports or other types of physical activity.

However, physical activity can help to maintain and stabilize weight and would be a way to prevent that the children with normal weight become overweight and that those already overweight or obese gain even more weight. The overall physical activity of the children was absolutely inadequate. A sedentary lifestyle cannot only be attested for the parents of the schoolchildren, but also for their descendants. Nearly all of the children go and come to school by a public or private mean of transportation and only a minority did sports outside of school on a regular basis, played with friends or worked on a family plantation. Additionally, the modern way of living brings another risk factor of overweight/obesity with and this is watching TV. The majority of the children watched TV daily for less than one hour. This might not seem much, but it is likely that TV hours were underreported. Time spent in front of the TV is lost for physical activity and makes home an obesogenic environment. Often unhealthy snacks are consumed while watching TV.

Moreover, the school environment has to be pointed out as one of the risk factors itself for overweight/obesity in schoolchildren. Apia Primary School also has an obesogenic environment. The schoolchildren need a healthy school environment to stay healthy and become healthy adults. This includes an absence of low quality food at the school canteen, limited access to the Kwik Mart and no vendors coming in selling unsafe junk food like taro chips and ice pops. Furthermore, teachers should act as role models and should not sell ice pop to the children. In conclusion, many risk factors itself and their interaction against the background of a modernizing society have led to this dramatic prevalence of overweight/obesity among 10-14 year old Samoan schoolchildren.