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**“Dietary pattern of pregnant and breastfeeding women  
in Samoa: urban and rural comparison”**

Diploma thesis in Nutrition Science

presented by

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## 6 Conclusion

Dietary patterns of Samoan pregnant and breastfeeding women revealed a clear tendency to non-native foods and were inadequate for the childbearing period.

An excessive caloric intake among pregnant and breastfeeding women was found which is a high risk factor for weight gain and associated adverse effects for childbearing women. The problem seems to be that modern foods are not replacing traditional foods but rather being added to the local diet. This was clearly observed for urban pregnant and breastfeeding women and the same tendency was shown for rural women as well. The addition of modern foods (energy dense, high in fat, sugar and salt) should be clearly restricted if these women want to experience a healthy childbearing period. Even though a general knowledge of healthy foods existed during the time of the study, it did not seem as if the women applied this knowledge in everyday life. The consumption of micronutrient rich foods such as fruits and vegetables were low. Surprisingly more urban women than rural women consumed fruits although rural women had better access to vegetable gardens.

None of the pregnant or breastfeeding women were moderately underweight according to MUAC cut-off point < 23cm. However, the majority of women had a MUAC over 30 cm and the upper range was 40-45 cm. Even though there are no internationally agreed cut-off points for MUAC to classify overweight/obesity, these results are alarming.

Another factor that could be impairing the health of some pregnant women was the fact that only half of them were receiving iron supplements during the pregnancy period and most women with high fertility rates did not receive any, even though a high anemia rate among pregnant women in Samoa has been reported (Mackerras D. 1999). The relatively low dietary intake of iron among pregnant women could account partly for this high prevalence of anemia. These results show that a national iron supplementation program would be required to ensure that all pregnant women have an adequate iron status in addition to effective nutrition education intervention.

A relatively high duration and prevalence of breastfeeding was observed, implying that breastfeeding is culturally accepted as the main type of infant feeding. However, exclusive breastfeeding (ExBF) for 6 months according to current international recommendations was not adequate. Considering all of the short and long term benefits of ExBF for the infant, it can only be stressed that ExBF should be further encouraged by all health workers. Additionally, it was shown that quite a few pregnant mothers were planning to give formula milk. However, in reality less breastfeeding mothers offered infant formula which was positive. The main reason for bottle feeding reported by both groups of woman was workload. This could be due to a modernizing society, where mothers are increasingly dependent on their job, and therefore are forced to find an alternative to breastfeeding if their work environment does not allow interruptions for breastfeeding. Furthermore, an early introduction of complementary foods was observed more often in rural than urban women. This could be due to a lack of knowledge about appropriate onset of complementary feeding.

The women mostly rely on doctors and nurses as information sources, concerning their own diet during the childbearing period and infant feeding practices. There were major fluctuations regarding recommendations given by health workers concerning recommended duration of breastfeeding and appropriate time for introduction of complementary foods. Therefore, to optimize adequate nutrition of infants and mothers during the childbearing period, health care workers' correct input and knowledge is important.

In addition, another crucial determinant of an infant's health and development is his/her mother's nutritional status and ability to lead a healthy lifestyle before, during and after the pregnancy, and very importantly, during the breastfeeding period.