

**PREVALENCE AND FACTORS ASSOCIATED WITH IODINE
DEFICIENCY AMONG GOITER PATIENTS IN RUBKONA, GUIT AND
KOCH COMMUNITIES IN SOUTH SUDAN**

BY

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ABSTRACT

Background: WHO 2004 global health report, estimated that 30% of the world's 6 billion people live in iodine-deficient areas. Over 80% of these cases were found to occur in low and middle income countries. With wide spread salt iodization programs which have been put in place since 1990, there has been a marked reduction in endemic goiter cases in areas where the interventions have been ongoing and uninterrupted by wars. In Uganda, goiter was shown initially to be decreasing with salt iodization efforts through USI and WHO: from 74% in 1991 to 60.2 % in 1999. In countries which have had along decade of wars, there has been much improvement in the consumption pattern of iodized salt like in Southern Sudan where there has been an increase in consumption of iodized salt by households in South Sudan from 40.0% to 72.9%. Despite this improvement, goiter cases have continued to increase in South Sudan especially in the Unity State. This indicates that iodine deficiency may still remains as one of major public health problem in South Sudan. There may be other factors associated with iodine deficiency among goiter patients in the country which justified the importance of this research. The study aims to assess the urinary iodine levels among patients with endemic goiter in the unity state

Methodology: A cross-sectional study was carried out in three counties of Rubkona, Guit and Koch of Unity State. (286) adult participants with goiter were systematically selected from three centers by stratified sampling proportionate to the size of the population of the three counties (208.103). They were clinically evaluated and completed interviewer administered questionnaires to determine their age, sex, diet, family history, drug history, and medical history. Urine samples were then taken for urinary iodine levels. The outcome was the iodine deficiency measured as urinary iodine less than 100 μ g per/ L. Multiple logistic regressions was used to establish the factors associated with iodine deficiency in South Sudan.

Results: The mean age of the respondents was 38.24 with Standard deviation of 9.32. 262(91.6%) were females, and 255(89.9%) were peasants. Only 24.8% had moderate to severe iodine deficiency

Conclusion: Goiter was predominantly affecting women and peasants in Unity State. 176(62.2%) from the respondents were consuming non iodized salts. There is need to develop comprehensive food iodine fortification program and enhance distribution of these fortified products to reach the rural poor especially the peasants.