

## FACTORS CONTRIBUTING TO IODIDE DEFICIENCY IN COAST PROVINCE OF KENYA

Kahindi Kazungu<sup>1, \*</sup>, Charles Mbakaya<sup>2</sup>, Anzelimo Makokha<sup>1</sup>

1 Institute of Tropical Medicine and Infectious Diseases, Jomo Kenyatta University of agriculture and Technology, Nairobi, KENYA

2 Kenya Medical Research Institute, Nairobi, KENYA

### ABSTRACT

**Background:** Iodide deficiency has serious effects on body growth and mental development. Iodide deficiency disorders are major public health problem in several areas of the world. At least 350 million Africans are at risk of iodide deficiency and are at risk of its complication. In Kenya, iodide deficiency was estimated at 36.8% and 50.7% in the Coast region. This study assessed factors contributing to iodide deficiency in coast region.

**Methods:** A cross-sectional study was carried out among 292 households in coast region using pretested and structured questionnaires. Multistage sampling technique was used; in the first stage clusters were selected using simple random sampling, and then households were selected using systematic random sampling technique. Data were entered, cleaned and analyzed using SPSS version 21 software. Bivariate analysis was performed to check on association at  $p < 0.05$ .

**Results:** About 26.2% of the respondents utilized adequately iodized salt, 80.1% of salt containers had a cover, and 82.2% stored in dry places. Around 22.6% of the respondents add salt at the end of cooking and 78.4% in the early beginning and end in the middle of cooking. Iodide deficiency was associated with lack of education (OR=3.22, 95%CI: 0.03-0.27,  $p=0.0436$ ), salt container without cover (OR=2.19, 95%CI:  $p=0.0103$ ) and moist/wet storage place (OR=0.22, 95%CI: 0.12-0.41,  $p=0.000001$ ).

**Conclusion:** Availability of adequate iodized salt at household level was very low when compared to the WHO recommended levels to prevent iodide deficiency

**Keywords:** Iodide levels, iodized salt, households.