

## **Goiter cases in Sabah and its potential causes**

### **Abstract**

Goiter, the most visible manifestation of iodine deficiency remains a problem of public health in areas without apparent deficiency or even with an excess of iodine. The causes of goiter often associated with the interaction of factors such as iodine deficiency and certain food components. In fact, other environmental factors may also cause goiter. Among the causes of iodine deficiency in Sabah include low iodine content in soil and water, inadequate iodine content in local foods and low consumption of seafood. Daily consumption of goitrogenic foods is also said to be one of the factor. There was lack of reports regarding factors or evidence that causes goiter in Sabah. As per available evidence, the issues related to goiter may be classified into some factors. These including consumption of dietary goitrogen, effect from Iodine Deficiency Disorder (IDD) and also lack of effectiveness in administration of iodized salt. Due to the lack of scientific data on iodine intake recommendations in Malaysia, iodine intake recommendations have been proposed to follow the approach used by FAO/WHO (2002). A bit of iodine intake can cause goiter, characterized by enlargement of the thyroid gland. Besides affecting the size of the thyroid, iodine intake can affect thyroid hormone concentrations in the blood and thyroglobulin (Rasmussen et al., 2002). Due to the lack information on the amount consumed and the duration of consumption of goitrogenic food, it is difficult to establish at what does goiter may occur. According to Srilakshmi (2006), goitrogen are substances that interfere with iodine metabolism. It can interfere at different levels of thyroid hormone homeostasis. As a result from Laporan Kajian Penilaian Risiko (2007), goitrogenic foods such as cassava and bamboo shoots contain high goitrogen which can cause chronic toxicity to humans. Toxicity effects in relation to long term intake of goitrogenic foods with poor nutritional or when food is used as a staple food in malnourished populations.