

Assessment of Urinary Iodine Levels among School Children in Myanmar (Urinary Iodine Excretion Survey), September 2004

Executive Summary

A UIE and Iodized salt consumption survey was conducted in all states and divisions of Myanmar, classifying states and divisions into 3 main strata, namely, poor IDDE process and achievement region (Region 1), Moderately good Iodine Deficiency Disease Elimination (IDDE) process and achievement region (Region 2) and good IDDE process and achievement region (Region 3) based on median urinary iodine level and consumption of effectively iodized salt from the 2003 and 2004 surveys.

Summary of Findings

It is encouraging to find that Kayin and Rakhine States in early 2006 had acceptable or optimal median Urinary Iodine Excretion (UIE) levels, whereas in the 2003 survey, median UIE levels in Kayin and Rakhine States were 98 µg/l and 94 µg/l respectively which were less than the minimum acceptable value of 100µg/l. Similarly UIE levels of Tanintharyi and Ayeyarwady Divisions were found to be sustained and a slight improvement of UIE level in Tanintharyi Division and a slight decrease in UIE in Ayeyarwady Division were observed. Rakhine State as a whole had an acceptable median UIE Value of 110µg/l.

Criteria for monitoring progress towards eliminating IDD as a significant public health problem using UIE as an indicator is to achieve the goal that less than 50% of the samples should be below 100µg/l and less than 20% of the samples should be below 50µg/l. Using this criteria, Rakhine and Kayin States and, Tanintharyi and Ayeyawady Divisions had achieved the goal of eliminating IDD as a significant public health problem in the early 2006 survey. However, at district level, two districts in Rakhine State, namely Sittway and Maungtaw Districts, had not achieved the goal as yet.

In the 2006 surveys, iodine content of salt samples were estimated both by a semi-quantitative field test kit and titration method. Consumption of both iodized salt and effectively iodized salt consumption also increased in Kayin State and Ayeyarwady Division. As shown in table 4, median UIE levels in all 3 regions in July 2006 declined appreciably compared to the previous surveys in 2003-04 and early 2006.

The median UIE level of Region 1 which is poor in IDDE process and achievement is only 100.2µg/l. With the decline in median UIE levels in all 3 regions in July 2006 compared to early 2006 and 2003-04 surveys, percent proportion of urinary iodine below 100µg/l increased in all.

Research Geographic Coverage by area

In early 2006, a UIE Survey was conducted in 14 districts of Kayin, Rakhine, Tanintharyi and Ayeyarwady Divisions. There are 2 districts in Kayin State, 4 districts in Rakhine State, 3 districts in Tanintharyi Division and 5 districts in Ayeyarwady Division.

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