Assessment of Urinary Iodine Levels among School Children in 11 State/Divisions of Myanmar, 2004 (Urinary Iodine Excretion Survey, 2004), October 2004

Executive Summary

The assessment of Urinary Iodine Level among School Children is to see whether acceptable Urinary Iodine Excretion (UIE) levels, observed in 2001 survey, were sustained in the 11 States and Divisions. The relationship between Urinary Iodine Levels and Iodized Salt Consumption of school children in the 11 States and Divisions.

Summary of Findings, Conclusion and Recommendations

Findings

The findings revealed an improvement in urinary iodine levels compared to the 2001 survey in all 11 states/divisions and the median values are well within optimal range. Thus the finding indicates a positive impact of Universal Salt Iodisation (USI) on urinary iodine levels implying adequate intakes of iodine from iodized salt.

In the present survey using both 50 ug/l and 100 ug/l cut-off points, all 11 states/divisions had achieved the goal of Iodine Deficiency Disease (IDD) elimination, indicating marked improvement in urinary iodine values.

The national median value of urinary iodine (2003-04) was found to be 205 ug/l compared to 136 ug/l for 2001.

The relationship between the medium urinary iodine level and iodized salt consumption in the 2003-04 survey shows clear positive correlations (r =0.73) and (r =0.78) for percent consumption of iodized salt and for percent consumption of effectively iodized salt respectively.

At the national level, an increase in both the percent of iodized salt consumption as well as percent of effectively iodized salt is observed.

Conclusion

It is encouraging to find that there is a marked improvement in urinary iodine levels in all 11 states/divisions surveyed in 2004 compared to the 2001 survey and the median values are well within optimal range. Combined with the 2003 survey in 5 states/divisions, it can be seen that out of 16 states/divisions only Rakhine and Kayin states suffer from mild IDD but median urinary iodine values were 94 and 98 ug/l, which were very close to the minimum acceptable value of 100 ug/l. Thus IDD elimination in all states and divisions is expected to be achieved by 2005.

Recommendations

- Iodized salt production should be accelerated in Rakhine and Tanintharyi where consumption of iodized salt is low.
- Monitoring and quality control of iodized salt should also be further strengthened since the quality of iodized salt is poor in Rakhine and Tanintharyi.

- Urinary Iodine and iodized salt consumption survey should be conducted in Rakhine, Kayin and Tanintharyi in early 2005 before IDD elimination could be declared in 2005.

Research Geographic Coverage by Area

Based on the finding of the Urinary Iodine Excretion (UIE) survey conducted during 2003 in 5 State and Division, Kachin State, Northern Shan State, Kayin State, Rakhine State and Tanitharyi Division, the UIE and goitre survey was conducted in 11 States and Divisions, Kayah State, Chin State, Southern Shan State, Mon State, Eastern Shan State, Yangon Division, Sagaing Division, Mandalay Division, Bago Division, Ayeyarwady Division and Magway Division.

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