IDD continues to threaten health and development in South Tajikistan

The independence of the Central Asian region from the Soviet Union in 1991 and the subsequent civil unrest in Tajikistan led to discontinuation of salt iodization programs in the country, resulting in an increase in IDD. The government of the Republic of Tajikistan designed legislation on salt iodization and launched the National Program for Elimination of IDD in 1997. The law “On salt iodization,” regulating the production, distribution and consumption of iodized salt, was adopted in 2002 (1). The National Program was implemented by specified institutions such as the Republican Clinical Endocrinology Centre, the State Sanitary Epidemiological Surveillance Service (SSESS), and the Healthy Lifestyle Centre, and supported by international partners, including UNICEF, ICCIDD, and the Aga Khan Foundation. At district level, school canteens are provided with iodized salt, schoolchildren are screened annually for goiter, and family doctors using rapid test kits monitor iodine content in cooking salt samples at selling points and households.

A Tajik-Swiss team, led by Barbara Matthys from the Swiss Tropical and Public Health Institute in Basel, Switzerland, studied ten primary schools in four districts in South Tajikistan (Figure 1). In schoolchildren aged 7 to 11 years, a spot urine sample was collected for measurement of urinary iodine, dried blood spots were collected for measurement of thyroglobulin, and goiter was assessed by palpation. Iodine content of salt samples and local selling points was determined by coloration using rapid test kits and titration method.

The results are of major concern: among the over 600 schoolchildren enrolled, the overall median urinary iodine concentration was 51.2 μg/L indicating mild-to-moderate iodine deficiency. Among all children, 46.6% were found to have goiter of which 16.0% was visible goiter. Median thyroglobulin concentration was modestly elevated in the overall sample, and strongly elevated in schools with the most severe iodine deficiency. One third of the salt samples were not iodized, one third insufficiently, and only one third adequately. These findings suggest little or no improvement of iodine status in this region over the past decade (2).

The study shows that IDD remains a serious health issue among schoolchildren in South Tajikistan, despite control interventions by the government of Tajikistan and international partners. Considering that IDD impairs intellectual function in children and salt iodization is an effective low-cost intervention, concerted advocacy to increase consumer and household demand for iodized salt are needed along with better monitoring of the quality of salt iodization.

References

A workshop on quality control of USI in Tajikistan

USAID’s Universal Salt Iodization (USI) project, implemented by GAIN with collaboration from UNICEF, convened a workshop on the Quality Assurance and Quality Control of USI on August 4–5, 2014. The workshop was facilitated by Dr. Azonov, Director of the Nutrition Institute under the Ministry of Industry and New Technologies, and Mr. Makhsum Saidov, Deputy Head of the State Unitary Enterprise Korporatsiya Khurikvori corporation. Representatives from 12 salt companies and other stakeholders including Tajikstandards and Kulob local government attended the two-day intensive workshop. The training was led by GAIN experts, and it included theory and practical demonstrations at the Khoja Mumin Salt Factory. Adequate iodine in the diet is particularly important in landlocked, mountainous countries, such as Tajikistan, with few other sources of iodine in the soil. Provided that all salt for animal and human consumption is consistently iodized at appropriate levels, salt iodization is a very effective strategy to eliminate iodine deficiency and protect the population against it. The quality assurance and control of salt iodization are, therefore, crucial components of any national salt iodization program.