

Based on these studies, general prophylaxis with iodized salt was introduced in the state of Michigan in 1924. There were protests, and at first the Bureau of Chemistry of the Department of Agriculture demanded the iodized salt packages be marked with the skull and crossbones used to indicate a poison, but then backed down. In 1948, the U.S. Endemic Goiter Committee tried to introduce iodized salt to all the states by federal law, but the bill failed.

The modern era: 1930 to the present

In 1980, the first global estimate from WHO on the prevalence of goiter was reported: it estimated 20–60% of the world's population was iodine deficient and/or goitrous, with most of the burden

in developing countries. But although it was recognized many countries were affected by goiter, little attention was paid to iodine deficiency in public health programs. Goiter was considered a lump in the neck primarily of cosmetic concern; it generated little political attention or action and few resources were allocated for its control.

This changed during the period of 1970–90. Controlled studies in iodine-deficient regions showed that iodine supplementation not only eliminated the incidence of cretinism but also improved cognitive function in the remaining population. Iodine deficiency was thus shown to have social and economic consequences far greater than previously appreciated, that

could slow country development. This changing view allowed iodine deficiency and goiter to be repositioned in the development perspective. The term 'the iodine deficiency disorders (IDD)' was coined, and IDD was repositioned as a spectrum of related disorders affecting 1.5 billion individuals. Programs against IDD had obvious political appeal because its human, economic and social consequences could be averted by a low-cost intervention, universal salt iodization. Since 1990, elimination of IDD has been an integral part of many national nutrition strategies.

Progress towards elimination of IDD in Kosovo

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Kosovo is a small landlocked territory of 10,908 km² in the center of the Balkan Peninsula with a population of ≈2.1 million. Kosovo is divided into six regions and 30 municipalities. The capital city is Prishtina. Iodine deficiency has been historically

present, with especially high goitre rates in Western Kosovo (Deçan, Peja, Gjakova and Prizren), ranging from 30 to 60%. All salt is imported in Kosovo.

A representative Micronutrient Status Survey conducted in 2001 in Kosovo revealed that 84% of households were using iodized salt and thyroid was palpable in 3% of women of which 0.2% had visible goitre. Half (51%) of the women and school-age children studied had low values (below 100 µg/l) of urinary iodine concentration. Based on these results, Kosovo institutions decided to step up the strategic approaches to address IDD and more vigorously monitor the imports of salt for adequate iodine content.

The main means of coordination of the national IDD programme is the working group for IDD and other micronutrient deficiencies, a multi-sector group consisting

of health officials, public health experts, clinicians, sanitary inspectors, laboratory technicians, media, salt importers, flour millers, veterinary inspectors, WHO and UNICEF. The Ministry of Health has recently endorsed an Administrative Instruction for mandatory quality of salt, stipulating the requirement of 30 – 40 mg KIO₃ per kg salt at import.

All salt shipments that enter in Kosovo are checked at the border points prior to the release of the shipment. Testing of salt is performed periodically at wholesale and retail points. The National Institute of Public Health in Prishtina and the Institute of Agriculture in Peja have established laboratories for salt quality monitoring. The distribution of iodine content (routinely reported in mg KIO₃/kg salt) for the 210 salt shipments inspected during 2006, 2007 and January–April 2008 is shown in Figure 1.

Figure 1: Salt inspection results of 210 import shipments into Kosovo, 2006-2008

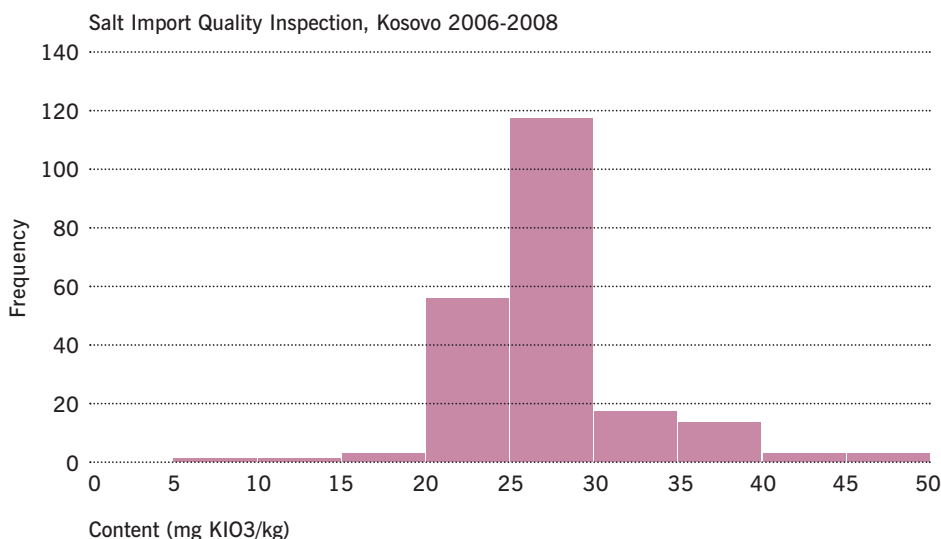


Figure 2: Histogram of salt iodine content in 500 household salt samples, Kosovo 2007

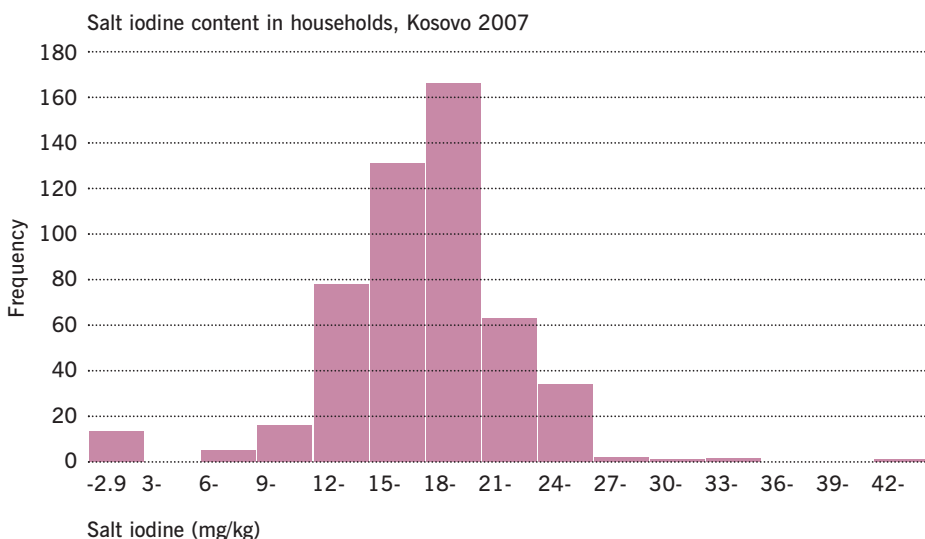
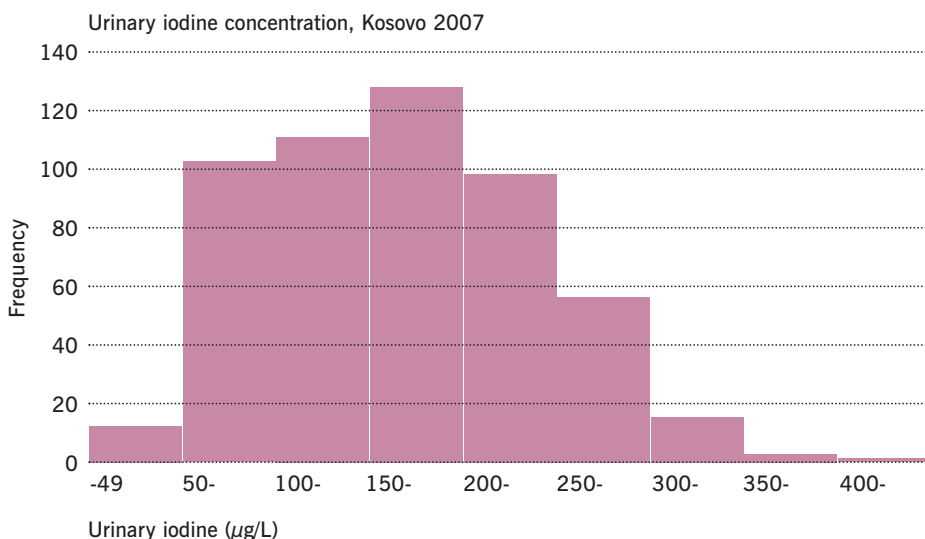


Figure 3: Histogram of urinary iodine concentration among 521 2nd grade school children, Kosovo 2007



During this 28-month period, 9 inspections showed too low or high iodine levels (4.3%) and the salt shipments were re-directed to purposes other than consumption. Figure 1 shows that at import, salt for human consumption purposes in Kosovo is iodized at 27 mg KIO₃ per kg salt (16.0 mg iodine/kg), with 95% of the salt ranging between 20.3 and 39.0 mg KIO₃ per kg salt (12.0 – 23.1 mg iodine/kg).



Iodized salt helps these Kosovar children learn well at school

The salt monitoring effort is supported by social mobilization activities using all communication channels. During 2007, UNICEF supported the National Institute of Public Health (NIPH) in conducting a national survey to assess biological iodine status (urinary iodine) of school children and the use of iodized salt in households. The survey covered 523 children of the 2nd grade in primary school in rural and urban areas of each region.

The salt iodine results showed 2% of households used non-iodized salt, and that 79% of the salt in households was adequately iodized (≥ 15 mg/kg). The iodine content was 8 – 26 mg/kg in 95% of all the household salt samples (Figure 2) and the median UI of the children was 161 µg/L. Of all children, 22% had UI < 100 µg/L and 95% of the UI values ranged between 51 and 315 µg/L (Figure 3).

Thus, the survey results indicate optimum iodine nutrition status in the population, and indicate acceptable current performance of the national strategies vis-à-vis the mandated salt iodization regulations in Kosovo. An external expert assessment of the progress toward the goal of IDD elimination suggests that Kosovo is meeting international standards. The Ministry of Health and partners are considering proceeding with an application for international recognition.