iodine deficiency in the Republic of Srpska

boys and girls as well as between urban and rural areas.

The median values of urinary iodine excretion in children from various schools ranged from 115.7 to 245μg/l. Thus, all median values of urinary iodine excretion in children from various schools were higher than 100μg/l, while the median values in 3 schools were higher than 200μg/l.

Results of iodine content in salt samples

Household salt samples were collected from 1,186 children out of the 1,200 planned.

Tables 6 and 7 show the iodine content in salt samples.

<table>
<thead>
<tr>
<th>&lt;20 μg/L (severe iodine deficiency)</th>
<th>20-49 μg/L (moderate iodine deficiency)</th>
<th>50-99 μg/L (mild iodine deficiency)</th>
<th>100-199 μg/L (optimal iodine nutrition)</th>
<th>200-299 μg/L (more than adequate iodine intake)***</th>
<th>&gt;300 μg/L (excessive iodine intake)****</th>
</tr>
</thead>
<tbody>
<tr>
<td>N*</td>
<td>%**</td>
<td>N*</td>
<td>%**</td>
<td>N*</td>
<td>%**</td>
</tr>
<tr>
<td>8</td>
<td>0.7</td>
<td>54</td>
<td>4.5</td>
<td>180</td>
<td>15.1</td>
</tr>
</tbody>
</table>

* Number of examinees, ** Percentage of examinees, *** Risk of iodine-induced hyperthyroidism within 5–10 years following introduction of iodized salt in susceptible groups, **** Risk of adverse health consequences (iodine induced hyperthyroidism, autoimmune thyroid diseases)

Only 35.7% of the salt samples were adequately iodinated, 51.2% were hypo-iodinated and 13.1% hyper-iodinated. A large number of salt samples (40.9%) were iodinated using potassium iodide (KJ), despite the fact that it is not allowed by the RS's regulation as salt for human consumption. The remaining were iodinated using KJO₃. The range of iodine content in the salt samples was very wide (0.52-76.2 mg/kg).

There was no significant difference between median values and range of iodine content in salt samples collected in urban and rural areas.

DISCUSSION

Iodine deficiency is a major public health problem worldwide. Numerous endocrine and metabolic disorders are caused by insufficient iodine intake, this resulting in multiple health, social and economic problems. Based on these facts, WHO, UNICEF ICCIDD and PAMM have introduced various recommendations for the reduction or elimination of iodine deficiency.

Various studies that assessed iodine status in former Yugoslavia have shown that the territory of the RS is an area of endemic goiter. The first survey in the RS, conducted in 1999 in accordance with WHO/UNICEF/ICCIDD recommendations, resulted in the adoption of a Plan of Action for the elimination of IDD.

The first task was to form a national body responsible to the government for IDD elimination, and this was achieved in August 2006. The adoption by the government of the Action Plan for the children of the RS in the year 2002 is evidence of political commit-