Iodine sufficiency in children in the Seychelles

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Background
The Republic of Seychelles is a group of 115 islands located east of the African coast in the Indian Ocean. The capital city is Victoria on Mahé, the largest island. The Republic has a population of 94,000, and the total territory is 1,374 km². There is no national legislation for salt iodization and there has been no previous survey of iodine status in the Seychelles.

Methods
Local investigators, in cooperation with The University of Ulster in Northern Ireland, collected 600 spot urine samples from school-aged children on the island of Mahé, where 90% of the population reside. The median (IQR) age of the children was 7.4 (7.1-7.9) years.

The samples were shipped to the ETH Zurich, Switzerland. Measurements of the urinary iodine concentration (UIC) were done using the Pino-modification of the Sandell-Kolthoff method, and measurement of urinary creatinine concentration was done using the Jaffé method.

Results
The median urinary iodine concentration of the children was 147 µg/L and the median urinary creatinine concentration was 0.7 g/L. The median (IQR) ΔCr ratio was 185 (105, 355) µg/g (Table 1). Only 8% of the children had a spot UIC >300 µg/L.

Conclusions
Overall, school-aged children in Victoria, the capital city of the Seychelles are iodine sufficient. The median UIC is 147 µg/L, which is in the recommended range of 100-300 µg/L from the WHO.

Future studies should investigate the iodine status of children living on other islands of the Seychelles, as well as the iodine status of pregnant women, another vulnerable group.

Schoolgirls in Mahé have sufficient dietary iodine

### TABLE 1
Median and IQR of urinary iodine concentration and the urinary iodine to creatinine concentration in children in the Seychelles (n=600).

<table>
<thead>
<tr>
<th></th>
<th>UIC [µg/L]</th>
<th>UI:UCr [µg/g]</th>
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<tbody>
<tr>
<td>Median</td>
<td>147</td>
<td>185</td>
</tr>
<tr>
<td>IQR</td>
<td>(89, 200)</td>
<td>(105, 355)</td>
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