Palestinian children are solidly iodine sufficient but iodized salt coverage needs to be improved

Situated at the eastern end of the Mediterranean, Palestine is a small state with a population of around 4.5 million (1). Palestine’s scarce natural resources combined with political unrest have adversely affected the socio-economic and nutritional status of vulnerable populations (2). In common with other transitional economies, Palestine is experiencing a rise in the prevalence of overweight and obesity, as it continues its efforts to tackle micronutrient deficiencies (3).

In 2005, the FAO reported that, although the median urinary iodine (UIC) in Palestinian school-age children was adequate (106 µg/L), almost 45% of the population had urinary iodine levels below 100 µg/L, and 15% had goiter (3). Despite important efforts made, the 2010 Palestinian Family Survey (PFS/MICS) reported that 76.6% of households were consuming adequately iodized salt (at ≥15 ppm), and 7.1% consumed salt without any iodine. In December 2012, the MOH issued a public health policy paper seeking to make the rights and health of Palestinian children a fundamental pillar of national plans for a healthy society (2). A National Nutrition Policy and Action Plan for 2011–2013 was formulated, which defined the elimination of micronutrient deficiencies as one of its key priorities and pledged to expand the salt iodization program until the household coverage reaches 95% of the population (5). To tackle the double burden of malnutrition, priority was also given to prevention and treatment of dietary-related non-communicable diseases.

In 2013, the Ministry of Health conducted a national Micronutrient Survey to assess the current nutritional status of Palestinian pre-school children (aged 6–59 months), primary school-children (7–12 years), adolescents (15–18 years), pregnant women (18–43 years) and lactating mothers (18–48 years). The survey received financial backing from UNICEF, the European Community Humanitarian Office (ECHO) and several national governments, and technical support from UNICEF and WHO. The organizers drew on the experiences of other countries in the region (Jordan Micronutrient Survey 2010, Iraq Micronutrient Survey 2007), and on the Palestinian MICS in 2010. As part of the survey, samples of household salt were tested for iodine content, and spot urine samples from school-age children (SAC) were collected to estimate their dietary intakes of iodine and sodium.

To make sure that children in Gaza remain iodine sufficient, all households should have access to adequately iodized salt.

School-age children are iodine sufficient

Preliminary results of the survey show that still only around 72% of households have access to adequately iodized salt iodized (68.9% in the West Bank and 75.1% in Gaza). In addition, only 5.9% of salt is iodized at a level required by national law (35–55 mg/kg, added as KIO3). However, the median urinary iodine in SAC (UIC=193 µg/L) confirms that optimal iodine status has been sustained, and the proportion of children with UICs below 100 µg/L has decreased considerably (to 25.4%; 33.6% in the West Bank, and 17.3% in Gaza). Spot urine analysis also showed that 11.3% of school-age children had elevated (≥100 mmol/L) urine sodium excretion (8.4% in the West Bank and 14.1% in Gaza), and the consumption of table salt was estimated at 7 g/day.

Despite some remaining gaps in household coverage of iodized salt, these initial findings are optimistic, showing that children across Palestine are iodine sufficient. But this should not be interpreted as a reason to let up on the efforts to improve iodized salt coverage, particularly if there is a parallel push to maintain or reduce the current consumption of dietary salt. To prevent the recurrence of IDD and delay the onset of diet-related non-communicable diseases, future strategies will have to combine efforts that limit excessive consumption of salt and sustain optimal iodine status.

References
2. MOH, State of Palestine. Public health policy for Palestinian Children: Palestinian child health priorities based on the child’s right to health; 2012.