Iodine deficiency (ID) in Spain, well documented since the 1960s, has persisted with different grades of intensity for more than four decades. In 2004, the World Health Organization (WHO) included Spain among the countries with optimum iodine nutrition based on studies conducted during the previous five years on schoolchildren and adults from various regions.

It is very difficult to summarize the most relevant facts leading to this substantial progress in ID correction in Spain, and one runs the risk of inadvertently omitting some of them. In addition to the prolonged and continuous activity of the working group on disorders related to iodine deficiency (IDDs) of the Spanish Society of Endocrinology and Nutrition, various clinical and epidemiological research findings reported in the international literature during the past decade have confirmed the significance of ID, thus promoting the search for measures to correct it. Thus, the demonstration of deficient psychoneurological development in children born to mothers with low thyroxine levels during pregnancy secondary to maternal hypothyroidism or ID during pregnancy supported the results of basic studies and led virtually the entire Spanish medical community to assume the significance of optimum nutritional status and thyroid function in pregnant women. The gradual increase in understanding and acceptance by a large number of physicians of the benefits of iodine prophylaxis and adequate transmission of this information to the population through educational health campaigns has significantly contributed to ID correction in Spain. Finally, the availability on the National Health Service of potassium iodide supplements to correct ID in the pregnant population since 2005 has not only made it possible to improve the nutritional iodine status of pregnant women, but has very probably induced in a great part of this population group an increased awareness of the need for taking measures aimed at achieving an adequate nutritional iodine status for the whole family.

At the annual meeting of the IDD work group held in Barcelona in December 2011, two studies concerning the current nutritional iodine status of the Spanish population were presented. Both of them were led by group members. Dr. Vila reported that the Tirokid study, conducted on almost 2000 children from all over Spain aged between 6 and 7 years, had found median urinary iodine levels of 173 g/L. Dr. Soriguer, in turn, reported that the Di@betes study, conducted on an adult population recruited from 16 of the 17 Spanish autonomous communities, had found median urinary iodine levels of 117 g/L. The Arena and Emparanza study, which reported median urinary iodine values of 127 g/L in a group of healthy children aged 6 months to 3 years, was published at the beginning of the year. Thus, the results of
and dairy products, has the disadvantage of the lack of through other dietary sources of iodine, such as milk adequate iodine provision in the diet. The correction of ID recommends universal iodination, i.e. iodination of any salt consumption of iodine-rich milk and dairy products. Spain, with increased iodine intake being achieved through other hand, the significant iodine content found in cow's urinary iodine levels found in school populations. On the reappearance of ID which do in fact have IDDs. These include countries secondary to changes in stock practices have resulted in the reappearance of ID in previously iodine-sufficient countries such as Australia. In the United Kingdom, where iodine provision in milk had allowed for the recommended daily requirements of iodine being achieved despite the lack of salt iodination programs, ID has very recently reappeared, and this country is currently among the countries with the highest numbers of schoolchildren with inadequate iodine intake. The evolution of nutritional iodine status in these countries would appear to confirm the lack of sustainability and the risks associated with this "silent" or uncontrolled iodine prophylaxis, which has repeatedly been denounced in Spain.

Although we can congratulate ourselves on the adequate nutritional iodine status achieved by Spanish schoolchildren and adults, other population groups such as pregnant women are very likely to still have ID. The increased availability and consumption of iodine-rich foods, mainly milk and dairy products, has made an uncontrolled contribution to the improvement in nutritional iodine status. However, universal iodination and the use of iodinate salt in more than 90% of households, measures that guarantee adequate iodine provision in the diet and that have been shown to be of value for controlled and sustained ID eradication in some countries, have continuously been dismissed by Spanish healthcare administrations. Regular monitoring of the actual iodine content in table salt in accordance with the regulations and control of the stable iodine content in milk are potential actions by health administrations that would undoubtedly improve the nutritional iodine status of the Spanish population.

At the start of this century, the WHO and other international organizations defined the characteristics or circumstances of areas erroneously reported as not having ID which do in fact have IDDs. These include countries where ID is supposed to have been eradicated by prophylactic programs or general dietary changes. Unfortunately, the possibility that Spain, having no decided and unequivocal political will to eradicate ID, could be included in this category or be added to the list of countries in which the reappearance of ID has recently been shown appears to be high.

Appendix 1. Work group on disorders related to iodine deficiency and thyroid dysfunction

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References