Global Scorecard: 30 years of iodine status monitoring

It has been almost three decades since the seminal 1990 World Summit for Children, where the largest group of world leaders ever convened signed a declaration to safeguard the survival and healthy development of all children. The elimination of iodine deficiency disorders (IDD) was adopted as one of the key targets of a new global strategy. Throughout the 1990s, national governments around the world committed to implementing universal salt iodization policies and programs in an effort to improve iodine intakes and prevent iodine deficiency-related cognitive impairment.

Tracking progress through regular, nationally-representative iodine status surveys has become a cornerstone of the global effort against IDD. New data in school-age children (and other population groups in the absence of the former) have been essential for estimating the current magnitude of iodine deficiency, tracking effectiveness of national salt iodization programs, and identifying regions or sub-groups which may be more vulnerable to iodine deficiency or excess. With support from IGN, the World Health Organization has kept abreast of the countries’ progress and has reported on it to the World Health Assembly every three years, most recently this year (see page 4).

In the past three decades only 22 out of 194 WHO countries have not published data on the iodine status of their populations (see Figure 2 and Table 1). The largest among them are Syria (with a population of 18.3 million), Libya (6.5 million), Singapore (5.8 million), and Congo (5.4 million), and some of the smallest are island nations (including Niue, Tuvalu, Cook Islands, and Palau). Implementation of iodine status surveys may be challenging for a number of reasons including ongoing conflict, competing public health priorities, or a lack of awareness that iodine intakes may be low. At the same time, it is worth noting that the countries without any data account for only about 0.5% of the global population today, which speaks to the tremendous global commitment and the success of efforts to achieve optimal iodine intakes.

Global iodine status in 2019

Periodic global updates are designed as a snapshot of the most recent global progress towards the elimination of iodine deficiency; therefore, they include only recent monitoring data (past 15 years, i.e., 2004 – present for the current update). In 2019, recent data cover 80% of WHO countries and 98% of the world’s population; three-quarters of these data are nationally-representative. Countries which have not reported new estimates of iodine status after 2003 are mostly in Africa (Botswana, Central African Republic, Chad, DR Congo, Guinea, Lesotho, Mauritius, Namibia, Rwanda, and Swaziland) and in Europe, where optimal iodine intakes thanks to iodized salt are often taken for granted (Cyprus, Estonia, Lithuania, Luxembourg, Slovakia, and Ukraine). According to the recently concluded EUthyroid project, not all population groups in Europe are iodine sufficient (1), with pregnant women most at risk of inadequate intakes (2).

Of the 155 WHO countries with recent data, only two countries are classified as moderately iodine deficient (Morocco and Angola), and 18 as mildly iodine deficient (Table 1). This is similar to the number in 2015-2017 (Figure 1), which reflects that many countries continue to sustain their achievement of optimal iodine nutrition through ongoing commitment to universal salt iodization. In 2019, less than 8.5% of the global population covered by recent data live in countries classified as iodine deficient.
A number of new surveys came to light in the past year, and it is optimistic to see a marked increase in the number of iodine-sufficient countries (Figure 1). New national surveys in the Gambia, Jamaica, and nine other Caribbean Island nations show that these countries are iodine sufficient. Additionally, sub-national surveys (which may not reflect the national situation accurately) were identified, which suggest that iodine intakes may also be adequate in regions of Algeria, Equatorial Guinea, Greece, and Guinea-Bissau.

The countries that still remain iodine deficient are likely to be facing unique and complex challenges to achieving and sustaining optimal iodine nutrition. IGN continues to work with partners and national stakeholders in a number of the iodine deficient countries, including Angola, Burundi, Madagascar, Mozambique, Russia, Sudan, and Vietnam and we are encouraged by their gradual progress and recent efforts. National surveys have recently been completed or are ongoing in Colombia, Morocco, Haiti, Jordan, and Uzbekistan, and these will be included in the next global update.

References

MAP Global status of iodine nutrition in 2019, mapping latest available population median urinary iodine concentration (MUIC) data for each country.

In three decades of iodine status monitoring, only 22 WHO countries have not assessed or reported the MUIC in their populations (countries in white). Darker shades indicate higher quality (nationally representative or recent) data. The number of countries in each category is indicated below.