

Global Scorecard 2014: Number of iodine deficient countries more than halved in past decade

Before 1990, only a handful of countries were iodine sufficient. As a result of remarkable efforts in the past two and a half decades, the latest global estimate of iodine nutrition looks more optimistic than ever. Here is a summary of the most important changes since 2012.

Using median UIC in school-age children as proxy for iodine status in the general population, and the same study inclusion criteria as in February 2012 update (see IDD Newsletter 1/2012), the UIC data have been updated for 40 out of the 194 WHO member states. Of these, 36 countries reported new surveys. In four cases, the median UIC was updated to reflect a change in previously reported data, or a pooled median UIC was recalculated after removing out-of-date surveys (from 2002 or older).

Between February 2012 and December 2014, 19 countries have changed their iodine status. Eight countries previously classified as mildly or moderately deficient have now reached sufficient iodine nutri-

tion at the national level (these include Afghanistan, Australia, Ghana, Guatemala, Hungary, Mongolia, New Zealand, and Papua New Guinea). At the same time, Denmark slipped and is now mildly deficient (mUIC=83 mcg/L based on sub-national data from 2008–2010). This means that in 2015 only 25 countries remain iodine deficient, compared to 32 in 2011 (Figure 1). This remarkable progress reflects a growing global awareness of IDD and the tremendous success of iodization programs.

Overall, global iodine status continues to improve (Table 1). According to the available data, Haiti is the only country which changed status from mildly to moderately deficient. Remarkably, there have been no countries in the “severely deficient” category (i.e., with a median UIC <20 µg/L) for more than a decade, which is a testament to the countries’ commitment to sustaining their IDD achievements.

In 2014 the UIC data cover approximately 97.8% of the world’s population of school-age children, compared to 96% in

February 2012. Countries that previously had no data that have new UIC estimates include South Sudan (a new WHO state), Sierra Leone, North Korea, South Korea, and Thailand. The proportion of the global population covered by national-level surveys has also increased, now at 71% (compared to 60% in 2012). National-level data were previously not available for Australia, Austria, Brazil, Ghana, Guatemala, Papua New Guinea, Qatar, and Venezuela. Yet, data is still missing for 41 countries. And although these include only 2% of the world’s population of children, they also include countries with relatively large populations, such as Israel, Iraq, Syria and Congo.

The complete Global Scorecard for 2014 can now be downloaded from the IGN website, www.ign.org.

FIGURE 1 Number of iodine deficient countries in 2003, 2007, 2011, and 2014

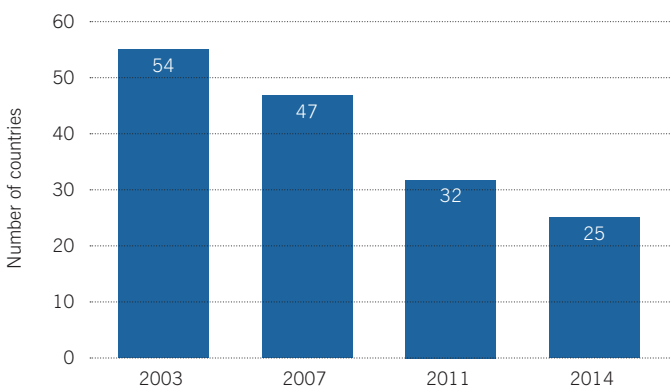


TABLE 1 WHO countries (number) by iodine status over the period 2003-2014.

| Iodine intake | WHO median/ range of UIC in SAC (µg/L) | 2003 | 2007 | 2011 | 2014 |
|-----------------------------------|--|------------|------------|------------|------------|
| Insufficient iodine intake | | | | | |
| Severe deficiency | <20 | 1 | 0 | 0 | 0 |
| Moderate deficiency | 20-49 | 13 | 10 | 9 | 7 |
| Mild deficiency | 50-99 | 40 | 37 | 23 | 18 |
| Sufficient ¹ | 100-299 | 67 | 76 | 105 | 116 |
| Excessive | ≥300 | 5 | 7 | 11 | 12 |
| Countries with data | | 126 | 130 | 148 | 153 |
| Total number of countries | | 192 | 193 | 193 | 194 |

¹ The WHO classifications for adequate and more than adequate have been combined into a single classification of “sufficient.”

| Country or territory | Total population 2014 (000) | Households consuming iodized salt (%) ¹ | Median UIC (µg/L) ²⁻⁴ | Country iodine status | Iodine deficiency unprotected infants (000) |
|--------------------------|-----------------------------|--|----------------------------------|-----------------------|---|
| Afghanistan | 31'281 | 20.4 | 171 | Adequate | 838 |
| Albania | 3'185 | 75.6 | 86 | Insufficient | 10 |
| Algeria | 39'929 | 60.7 | 27* | Insufficient | 372 |
| Andorra | 80 | – | – | N/A | – |
| Angola | 22'137 | 44.7 | 29 | Insufficient | 517 |
| Antigua and Barbuda | 91 | – | – | N/A | – |
| Argentina | 41'803 | – | 136 | Adequate | – |
| Armenia | 2'984 | 97 | 313 | Excessive | 1 |
| Australia | 23'630 | – | 177 | Adequate | – |
| Austria | 8'526 | – | 111 | Adequate | – |
| Azerbaijan | 9'515 | 53.6 | 204 | More than adequate | 78 |
| Bahamas | 383 | – | – | N/A | – |
| Bahrain | 1'344 | – | 247 | More than adequate | – |
| Bangladesh | 158'513 | 57.6 | 163 | Adequate | 1'336 |
| Barbados | 286 | 17.3 | – | N/A | 3 |
| Belarus | 9'308 | 85.4 | 169 | Adequate | 15 |
| Belgium | 11'144 | – | 113 | Adequate | – |
| Belize | 340 | – | 184* | Adequate | – |
| Benin | 10'600 | 86 | 318 | Excessive | 52 |
| Bhutan | 766 | – | 217* | More than adequate | – |
| Bolivia | 10'848 | – | 191 | Adequate | – |
| Bosnia and Herzegovina | 3'825 | 62 | 157 | Adequate | 13 |
| Botswana | 2'039 | 65.2 | 219* | More than adequate | 17 |
| Brazil | 202'034 | 95.7 | 304 | Excessive | 129 |
| Brunei Darussalam | 423 | – | – | N/A | – |
| Bulgaria | 7'168 | 91.9 | 182 | Adequate | 6 |
| Burkina Faso | 17'420 | 33.7 | 114* | Adequate | 453 |
| Burundi | 8'383 | – | 70 | Insufficient | – |
| Cambodia | 15'408 | – | 222 | More than adequate | – |
| Cameroon | 22'819 | 85.1 | 190 | Adequate | 122 |
| Canada | 35'525 | – | 174 | Adequate | – |
| Cape Verde | 504 | 74.8 | 115 | Adequate | 3 |
| Central African Republic | 4'709 | 64.5 | 21* | Insufficient | 56 |
| Chad | 13'211 | 53.8 | 213 | More than adequate | 268 |
| Chile | 17'773 | – | 252 | More than adequate | – |
| China | 1'393'784 | 96.8 | 239 | More than adequate | 591 |
| Colombia | 48'930 | – | 415 | Excessive | – |
| Comoros | 752 | 77.3 | – | N/A | 6 |
| Congo | 4'559 | 73.2 | – | N/A | 44 |
| Costa Rica | 4'938 | – | 314 | Excessive | – |
| Côte d'Ivoire | 20'805 | 30 | 203 | More than adequate | 512 |
| Croatia | 4'272 | – | 248 | More than adequate | – |
| Cuba | 11'259 | 88 | 176 | Adequate | 13 |
| Cyprus | 1'153 | – | 120* | Adequate | – |
| Czech Republic | 10'740 | – | 163 | Adequate | – |
| Denmark | 5'640 | – | 83 | Insufficient | – |
| Djibouti | 886 | 0.2 | – | N/A | 24 |
| Dominica | 72 | – | – | N/A | – |
| Dominican Republic | 10'529 | – | 223 | More than adequate | – |
| DPR Korea | 25'027 | 24.5 | 97 | Insufficient | 269 |

| Country or territory | Total population 2014 (000) | Households consuming iodized salt (%) ¹ | Median UIC (µg/L) ²⁻⁴ | Country iodine status | Iodine deficiency unprotected infants (000) |
|----------------------|-----------------------------|--|----------------------------------|-----------------------|---|
| DR Congo | 69'360 | 58.6 | 249 | More than adequate | 1'176 |
| Ecuador | 15'983 | – | 234 | More than adequate | – |
| Egypt | 83'387 | 77.7 | 187 | Adequate | 423 |
| El Salvador | 6'384 | 62 | 206 | More than adequate | 48 |
| Equatorial Guinea | 778 | – | – | N/A | – |
| Eritrea | 6'536 | 68 | 175* | Adequate | 73 |
| Estonia | 1'284 | – | 65* | Insufficient | – |
| Ethiopia | 96'506 | 19.9 | 25 | Insufficient | 2'470 |
| Fiji | 887 | – | 237 | More than adequate | – |
| Finland | 5'443 | – | 83 | Insufficient | – |
| France | 64'641 | – | 136 | Adequate | – |
| Gabon | 1'711 | – | 190* | Adequate | – |
| Gambia | 1'909 | 22 | 42* | Insufficient | 60 |
| Georgia | 4'323 | 99.9 | 321 | Excessive | 0 |
| Germany | 82'652 | – | 122 | Adequate | – |
| Ghana | 26'442 | 34.5 | 130 | Adequate | 520 |
| Greece | 11'128 | – | 202* | More than adequate | – |
| Grenada | 106 | – | – | N/A | – |
| Guatemala | 15'860 | – | 144 | Adequate | – |
| Guinea | 12'044 | – | 139 | Adequate | – |
| Guinea-Bissau | 1'746 | 11.7 | – | N/A | 56 |
| Guyana | 804 | 10.3 | 169* | Adequate | 15 |
| Haiti | 10'461 | 3 | 39 | Insufficient | 257 |
| Honduras | 8'261 | – | 356 | Excessive | – |
| Hungary | 9'933 | – | 228 | More than adequate | – |
| Iceland | 333 | – | 200 | More than adequate | – |
| India | 1'267'402 | 71.1 | 153 | Adequate | 7'411 |
| Indonesia | 252'812 | 57.6 | 215 | More than adequate | 2'008 |
| Iran | 78'470 | – | 141 | Adequate | – |
| Iraq | 34'769 | 29 | – | N/A | 736 |
| Ireland | 4'677 | – | 82* | Insufficient | – |
| Israel | 7'822 | – | – | N/A | – |
| Italy | 61'070 | – | 91 | Insufficient | – |
| Jamaica | 2'799 | – | – | N/A | – |
| Japan | 127'000 | – | 287 | More than adequate | – |
| Jordan | 7'505 | – | 203 | More than adequate | – |
| Kazakhstan | 16'607 | 85.4 | 250 | More than adequate | 50 |
| Kenya | 45'546 | 93.4 | 118 | Adequate | 101 |
| Kiribati | 104 | – | – | N/A | – |
| Kuwait | 3'479 | – | 115 | Adequate | – |
| Kyrgyzstan | 5'625 | 76.1 | 114 | Adequate | 35 |
| Lao | 6'894 | – | 103 | Adequate | – |
| Latvia | 2'041 | – | 110 | Adequate | – |
| Lebanon | 4'966 | 74.8 | 66 | Insufficient | 16 |
| Lesotho | 2'098 | 79.4 | 215 | More than adequate | 12 |
| Liberia | 4'397 | – | 244 | More than adequate | – |
| Libya | 6'253 | – | – | N/A | – |
| Liechtenstein | 37 | – | 96 | Insufficient | – |
| Lithuania | 3'008 | – | 75* | Insufficient | – |
| Luxembourg | 537 | – | 148 | Adequate | – |

| Country or territory | Total population 2014 (000) | Households consuming iodized salt (%) ¹ | Median UIC (µg/L) ²⁻⁴ | Country iodine status | Iodine deficiency unprotected infants (000) |
|--------------------------------|-----------------------------|--|----------------------------------|-----------------------|---|
| Madagascar | 23'572 | 50.3 | – | N/A | 388 |
| Malawi | 16'829 | 62.1 | 175 | Adequate | 242 |
| Malaysia | 30'188 | – | 109 | Adequate | – |
| Maldives | 352 | 44 | 115 | Adequate | 4 |
| Mali | 15'768 | 74.4 | 69 | Insufficient | 180 |
| Malta | 430 | – | – | N/A | – |
| Marshall Islands | 53 | – | – | N/A | – |
| Mauritania | 3'984 | 7.3 | 179 | Adequate | 121 |
| Mauritius | 1'249 | – | 160* | Adequate | – |
| Mexico | 123'799 | 91 | 235* | More than adequate | 204 |
| Micronesia | 104 | – | – | N/A | – |
| Moldova | 3'461 | 44.3 | 165 | Adequate | 24 |
| Monaco | 38 | – | – | N/A | – |
| Mongolia | 2'881 | 69.9 | 171 | Adequate | 19 |
| Montenegro | 622 | 70.7 | 174 | Adequate | 2 |
| Morocco | 33'493 | 21.2 | 69* | Insufficient | 582 |
| Mozambique | 26'473 | 25.1 | 97 | Insufficient | 745 |
| Myanmar | 53'719 | 68.8 | 124 | Adequate | 288 |
| Namibia | 2'348 | 57.4 | 216* | More than adequate | 25 |
| Nauru | 10 | – | – | N/A | – |
| Nepal | 28'121 | 80 | 193 | Adequate | 119 |
| Netherlands | 16'802 | – | 154* | Adequate | – |
| New Zealand | 4'551 | – | 113 | Adequate | – |
| Nicaragua | 6'169 | 96.8 | 196 | Adequate | 4 |
| Niger | 18'535 | 18.6 | 270* | More than adequate | 699 |
| Nigeria | 178'517 | 79.8 | 130 | Adequate | 1'420 |
| Norway | 5'092 | – | 104* | Adequate | – |
| Oman | 3'926 | 68.5 | 194 | Adequate | 23 |
| Pakistan | 185'133 | 69.1 | 124 | Adequate | 1'423 |
| Palau | 21 | – | – | N/A | – |
| Palestinian State | 4'436 | 76.6 | 193 | Adequate | 30 |
| Panama | 3'926 | – | 254 | More than adequate | – |
| Papua New Guinea | 7'476 | 91.9 | 170 | Adequate | 17 |
| Paraguay | 6'918 | 93.4 | 352 | Excessive | 11 |
| Peru | 30'769 | 88.3 | 262 | More than adequate | 70 |
| Philippines | 100'096 | 44.5 | 168 | Adequate | 1'322 |
| Poland | 38'221 | – | 112 | Adequate | – |
| Portugal | 10'610 | – | 106 | Adequate | – |
| Qatar | 2'268 | – | 341 | Excessive | – |
| Republic of Korea | 49'512 | – | 268 | More than adequate | – |
| Romania | 21'640 | 74 | 102 | Adequate | 58 |
| Russian Federation | 142'468 | – | 78* | Insufficient | – |
| Rwanda | 12'100 | 87.4 | 298* | More than adequate | 52 |
| Saint Kitts and Nevis | 55 | – | – | N/A | – |
| Saint Lucia | 184 | 45.5 | – | N/A | 2 |
| Saint Vincent & the Grenadines | 109 | – | – | N/A | – |
| Samoa | 192 | – | – | N/A | – |
| San Marino | 32 | – | – | N/A | – |
| Sao Tome and Principe | 198 | 64.8 | – | N/A | 2 |

| Country or territory | Total population 2014 (000) | Households consuming iodized salt (%) ¹ | Median UIC (µg/L) ²⁻⁴ | Country iodine status | Iodine deficiency unprotected infants (000) |
|----------------------|-----------------------------|--|----------------------------------|-----------------------|---|
| Saudi Arabia | 29'369 | – | 133 | Adequate | – |
| Senegal | 14'548 | 43.1 | 104 | Adequate | 298 |
| Serbia | 9'468 | 32.2 | 195 | Adequate | 64 |
| Seychelles | 93 | – | – | N/A | – |
| Sierra Leone | 6'205 | 62.6 | 158 | Adequate | 83 |
| Singapore | 5'517 | – | – | N/A | – |
| Slovakia | 5'454 | – | 183 | Adequate | – |
| Slovenia | 2'076 | – | 140 | Adequate | – |
| Solomon Islands | 573 | – | – | N/A | – |
| Somalia | 10'806 | 3.9 | 417 | Excessive | 435 |
| South Africa | 53'140 | – | 215 | More than adequate | – |
| South Sudan | 11'739 | 45.3 | 94 | Insufficient | 216 |
| Spain | 47'066 | – | 117 | Adequate | – |
| Sri Lanka | 21'446 | 92.4 | 153 | Adequate | 29 |
| Sudan | 38'764 | 9.5 | 66 | Insufficient | 1'143 |
| Suriname | 544 | – | – | N/A | – |
| Swaziland | 1'268 | 51.6 | 120* | Adequate | 18 |
| Sweden | 9'631 | – | 125 | Adequate | – |
| Switzerland | 8'158 | – | 120 | Adequate | – |
| Syria | 21'987 | 79.3 | – | N/A | 110 |
| Tajikistan | 8'409 | 38.6 | 108 | Adequate | 163 |
| Tanzania | 50'757 | 55.7 | 204 | More than adequate | 841 |
| TFYR Macedonia | 2'108 | 94 | 241 | More than adequate | 1 |
| Thailand | 67'223 | 70.9 | 262 | More than adequate | 204 |
| Timor-Leste | 1'152 | 59.9 | – | N/A | 16 |
| Togo | 6'993 | 31.5 | 171 | Adequate | 168 |
| Tonga | 106 | – | – | N/A | – |
| Trinidad and Tobago | 1'344 | 27.9 | – | N/A | 14 |
| Tunisia | 11'117 | 96.7 | 220 | More than adequate | 6 |
| Turkey | 75'837 | 68.9 | 107 | Adequate | 394 |
| Turkmenistan | 5'307 | 75.3 | 170 | Adequate | 28 |
| Tuvalu | 10 | – | – | N/A | – |
| Uganda | 38'845 | 86.8 | 464 | Excessive | 210 |
| Ukraine | 44'941 | 20.7 | 90 | Insufficient | 392 |
| United Arab Emirates | 9'446 | – | 162 | Adequate | – |
| United Kingdom | 63'489 | – | 80 | Insufficient | – |
| United States | 322'583 | – | 215 | More than adequate | – |
| Uruguay | 3'419 | – | 310 | Excessive | – |
| Uzbekistan | 29'325 | 53.1 | 141 | Adequate | 292 |
| Vanuatu | 258 | 22.9 | 49 | Insufficient | 5 |
| Venezuela | 30'851 | – | 175 | Adequate | – |
| Vietnam | 92'548 | 45.1 | 139 | Adequate | 790 |
| Yemen | 24'969 | 29.5 | 173* | Adequate | 530 |
| Zambia | 15'021 | 63.9 | 245 | More than adequate | 220 |
| Zimbabwe | 14'599 | – | 245* | More than adequate | – |

Data sources:

¹ UNICEF. UNICEF Data: Monitoring the situation of children and women. <http://data.unicef.org/nutrition/iodine> [Accessed on 12 December 2014]. New York, United Nations Children's Fund

² Andersson M, Karumbunathan V, Zimmermann MB. Global iodine status in 2011 and trends over the past decade. *J Nutr.* 2012;142(4):744-50

³ Zimmermann MB, Andersson M. Update on iodine status worldwide. *Curr Opin Endocrinol Diabetes Obes.* 2012;19(5):382-7

⁴ Table updated on 31 January 2015

* Survey conducted before 2002