

IDD NEWSLETTER

EUROPE IS STILL IODINE DEFICIENT!



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Europe Is Still Iodine Deficient!

This article draws on information from the following ICCIDD sources: Drs. Paolo Vitti and Aldo Pinchera, from the Goteborg meeting; Dr. Francois Delange, from a forthcoming review on IDD in West and Central Europe, which includes data from Mr. Bernard Moirer, European Salt Producers Association

The first meeting of the ICCIDD national representatives for West and Central Europe took place in Goteborg, Sweden, on September 7, 2002, as a satellite to the European Thyroid Association annual meeting. Representatives from WHO, UNICEF, and the European Salt Producers Association were also present, allowing a valuable exchange of information towards updating estimates of iodine deficiency for the region.

The morning session was devoted to a scientific symposium on iodine deficiency in pregnancy and lactation, chaired by Dr. Aldo Pinchera, ICCIDD Regional Coordinator. Dr. Peter Laurberg (Denmark) discussed iodine deficiency in pregnancy; Dr. Francois Delange (Belgium) reviewed the effects of iodine deficiency on the fetus and the newborn; Dr. Peter Smyth (Ireland) dealt with the effects of iodine deficiency during lactation; and Dr. Michael Zimmermann (Switzerland) reviewed the role of iodine-containing nutritional supplements during pregnancy and lactation.

The afternoon session spotlighted iodine nutrition in the region. Dr. Delange opened with an overview on the current IDD status in West and Central Europe. Dr. Maria Andersson (WHO/Euro) discussed epidemiologic aspects of iodine deficiency. Each national representative offered a poster with iodine nutrition data for his/her country and gave a short presentation highlighting particular problems or successes. The rest of this article presents these updates, with occasional information from other sources.

Overview

Thirty-two countries were considered (Table 1). Based on whether a reported urinary iodine concentration was above 100 mcg/L, 14 are currently iodine sufficient, and 12 are deficient. In Yugoslavia, Serbia appears sufficient, but not Montenegro. Of the five countries with insufficient data, Luxembourg, Iceland, Norway, and Sweden are likely iodine sufficient, but Albania probably continues deficient, perhaps more severe than the rest. Overall, 64% of the nearly 600 million people in this region live in countries where iodine deficiency continues.

Table 2 presents general information on the countries, summarizing legislation, iodized salt, and national programs. For many entries the data are unavailable or conflicting and need refining.

Seven countries do not have legislation. Of the remainder, use of iodized salt is compulsory in about half and voluntary in the remainder. In most, the coverage with iodized salt is universal, but in Portugal it is reserved for the endemic areas.

Iodine compounds used in fortification include potassium iodide, sodium iodide, and potassium iodate. Some 14 countries use potassium iodide exclusively, 8 use potassium iodate exclusively, and the others permit both and/or sodium iodide.

Concentration levels vary from as low as 8 ppm (8 mg I/kg) in Denmark to 40–70 ppm in Turkey.

The Goteborg report, sent by Dr. Vitti, comments on several needs. Countries that are or have recently become iodine sufficient should elaborate a standardized time scale and survey methods for effective monitoring programs. Collaboration with ICCIDD, WHO, and UNICEF could highlight the parameters required for effective epidemiologic surveying. Combined efforts could promote sharing of information from surveys and provide useful models for other countries. Some iodine sufficient countries do not have monitoring programs and thus regional pockets of iodine deficiency may still exist. Mild deficiency could be fully resolved in several countries by USI and enforcement of legislation. Voluntary salt iodization already exists in these countries, but should be made compulsory. Even when iodized salt is universally available, its price is often significantly higher than the noniodized, and this situation, together with poor public awareness of the importance of iodine supplementation, leads to low usage of iodized salt by consumers.

Some countries have yet to confront their iodine deficiency; they require both legislation for iodized salt and the organizational tools to enforce it. ICCIDD can help by providing models of successful legislation already implemented in other countries (such as Austria), provide advice on forming national coordinating committees to address the iodine nutrition in the country, and

Table 1. Iodine nutrition, based on urinary iodine concentration

Sufficient	Likely Sufficient	Deficient	Likely Deficient
Austria	Iceland	Belgium	Albania
Bosnia	Luxembourg	Denmark	
Bulgaria	Norway	France	
Croatia	Sweden	Germany	
Cyprus		Greece	
Czech Republic		Hungary	
Finland		Ireland	
Macedonia		Italy	
Netherlands		Romania	
Poland		Slovenia	
Portugal		Spain	
Slovak Republic		Turkey	
Switzerland		Yugoslavia (Montenegro)	
United Kingdom			
Yugoslavia (Serbia)			

Most European countries have weak or nonexistent governmental programs for iodine nutrition, so much of the responsibility must be shouldered by others, especially the private medical sector and the salt industry.

offer guidelines for a Europe-wide standardized monitoring program of both the population and the quality of iodized salt. Many of these issues should be addressed through the European Union and in cooperation with groups such as the European Thyroid Association, national endocrine societies, and the salt industry.

Countries lacking a national committee for iodine nutrition should be encouraged to form one that includes representatives from the national health authority, nutritionists, endocrinologists, pediatricians, epidemiologists, and salt producers. Organizations such as ICCIDD, WHO, UNICEF, ESPA, Kiwanis, and other supporting foundations should also be involved. Countries currently having no coordinating committee include Albania, Belgium, Greece, Ireland, Netherlands, North Cyprus, Portugal, Spain, and the United Kingdom.

Information on Individual Countries

Table 2 provides an overview of country status. Country data are being entered in ICCIDD's CIDD database, available at www.iccidd.org, which also includes data from other recent *IDD Newsletters* and miscellaneous sources.

Albania – No updated information.

Austria – Currently iodine sufficient. It has had a longstanding program of legislation for salt iodized with potassium iodide, currently at 20 mcg I/kg, updated in 1990. Monitoring is performed regularly throughout the country by the Austrian Society of Nuclear Medicine.

Belgium – Mild iodine deficiency continues, with an average urinary iodine concentration of 80 mcg/L. KI, NaI, and KIO₃ are authorized for home and food use, at 60–45 ppm. Iodized salt, locally produced since 1990, is generally available but more expensive, and household coverage is estimated at only 10%. Legislation for salt iodization has existed since 1990, but has never been implemented.

Bosnia Herzegovina – Now iodine sufficient, with urinary iodine of 102 mcg/L. A 1999 survey of school-age children reported a total goiter rate of 12.9–51.2%, reflecting fairly recent iodine deficiency. Iodized salt is prescribed for use by humans, animals, and the food industry, and is produced locally. Updated legislation in 2001 established the present KI concentration in salt and made its use compulsory and universal. A national coordination committee for IDD control, including the Ministry of Health, thyroidologists, representatives from public health, legislation, the health inspectorate, nutritionists, and salt producers, oversees monitoring of salt and nutrition. Dr. Tahirovic, the ICCIDD National Representative, will perform a new survey next year to monitor the effect of the increased KI concentration in salt.

Bulgaria – Iodine sufficient, with a urinary iodine of 111 mcg/L in a 1996 survey. Salt iodized at 19–32 mg I/kg KIO₃ is used both at home and in the food industry. Production is both local and imported. Producers bear the cost of iodization. The legislation, updated in 1994, requires universal salt iodization. A national coordinating committee for IDD control, initiated also in 1994, consists of the Ministry of Health, thyroidologists, nutritionists, the Ministry of Industry, Ministry of Trade, and salt producers. Household consumption of iodized salt is 100%, of which 90% is adequately iodized. The country's success is attributed to implementation and enforcement of legislation, monitoring of iodine content at salt production and market levels, biological monitoring with urinary iodine excretion, thyroid size, and TSH neonatal screening, and finally, education and promotion activities.

Croatia – Iodine sufficient, urinary iodine 140 mcg/L. Salt is iodized with KI at 20–30 mg/kg and is used for humans, animals, and the food industry. Production of iodized salt is local, and household consumption is 100%. Legislation has existed since 1953, when the country was part of Yugoslavia, initially with 10 mg KI/kg of salt, increased in 1996 to 25 ppm. A national coordinating committee for IDD control has existed since 1992, consisting of representatives of the Ministry of Health, thyroidologists, the National Institute of Public Health, salt producers, and veterinary medicine.

Cyprus – Iodine sufficient in the Northern areas, on the basis of median urinary iodine excretion of 120 mcg/L. There is no national program, no campaign for the use of iodized salt, no monitoring, and no national program. A nationwide survey of children is planned soon.

Czech Republic – Iodine sufficient (UI 126 mcg/L). Salt is iodized with KIO₃ at 20–34 ppm, and used for humans, animals, and the food industry. Production is local. Legislation for voluntary iodization of salt dates from 1950. Iodine is also used to fortify infant food and nutrition, and some other foods and drinks. Household consumption of iodized salt is 100%. A national coordinating committee, in existence since 1944, includes the Ministry of Health, thyroidologists, nutritionists, salt producers, veterinarians, and hygienists.

Denmark – The country had mild to moderate iodine deficiency. A distribution of urinary iodine excretions (in mcg per 24 hours) in 1997 was as follows: 54%, 40–80 mcg/d; 42%, 80–120 mcg/d; and 4%, 120–170 mcg/d. Iodized salt was available on a voluntary basis since 1998, and became compulsory in 2000, using KI at 8–13 mg I/kg. Coverage applies to household use and industrial baking. The Danish Center for Prevention of Thyroid Disease consisting of the Danish Veterinary and Food Administration, Aalborg Hospital in Jutland, Bispebjerg Hospital in Copenhagen, and Glostrup Hospital in Copenhagen, is active in monitoring, provides detailed information on public health, and reports trends.

Finland – Appears iodine sufficient, urinary iodine 164 mcg/day in 1998. Salt, imported from Germany and the Netherlands is iodized at 21–26 mg iodine/kg and used on a voluntary basis. No government program exists, but the National Health Institute regularly surveys iodine nutrition by measuring urinary iodine.

France – Probably continues to have mild deficiency: the most recent urinary data were 120 mcg/L in schoolchildren, but 83 mcg/L in adult. Salt is iodized with NaI at 10–15 mg/kg on a voluntary basis. It is used both in the home and for animals and is reported to have 55% of the market share. Legislation permitting iodized salt has existed since 1952, and use is voluntary. A nation-

Table 2. Iodine status in West and Central Europe

	Population (millions)	UI mcg/L	Iodized Salt					National Program			
			Law? Y/N/P	Compulsory/ Voluntary	I Compound (ppm)	Implemented? Y/N/P	Household use %	Monitoring			
								Exists? Y/N/P	Salt? Y/N/P	I Nutrition? Y/N/P	Education? Y/N/P
Albania	3.54	<50	N		25, KI	N		U	U	U	U
Austria	8.17	98–120	Y	V	20, KI	Y	95	P	Y	Y	N
Belgium	10.27	80	N		KI, NaI, KIO ₃		10	N	N	N	N
Bosnia/Herz	3.96	102	Y	C	20–30 KI	Y	100	Y	Y	Y	P
Bulgaria	7.62	111	Y	C	19–32, KI	Y	90	Y	Y	Y	Y
Croatia	4.39	140	Y	C	20–30, KI	Y	90	Y	Y	Y	U
Cyprus	.77	120	N		KI			N	N	N	N
Czech Rep.	10.26	126	Y	V	20–34, KIO ₃	Y	90	Y	Y	Y	U
Denmark	5.37	~60	Y	C	8–13, KI	Y	100	Y	Y	Y	U
Finland	5.18	164	N	V	21–26, KI		>90	Y	Y	Y	U
France	59.77	83–120	Y	V	10–15, NaI		55	Y	N	N	U
Germany	83.25	88	N	V	20, KIO ₃		84	Y	Y	Y	U
Greece	10.65	84–160	N	V	40–60, KI		18	N	N	N	N
Hungary	10.07	<100	N	V	15, KIO ₃		U	Y	N	N	N
Iceland	.28	U	N		U	N	U	N	N	N	N
Ireland	3.88	80	N		25, KI		U	N	N	N	N
Italy	57.72	55–142	N		30, KI		3	P	P	P	P
Luxembourg	.45	U	N		U	U	U	N	N	N	N
Macedonia	2.05	164	Y	C	20–30, KIO ₃	Y	100	Y	Y	Y	P
Netherlands	16.07	155	Y	V	50, KI		65	N	N	N	N
Norway	4.52	~200	N	V	U, KI	N	U	N	N	N	N
Poland	38.63	187	Y	C	20–40, KI	Y	90	Y	Y	Y	P
Portugal	10.08	110	Y	C, P	20, KI	U	U	N	N	N	N
Romania	22.32	60–100	Y	C	15–25, KIO ₃	U	25	Y	P	P	U
Slovak Rep.	5.42	136–144	Y	C, U	19, KIO ₃	Y	85	Y	Y	Y	U
Slovenia	1.93	83	Y	V	20–30, KI	U	U	Y	Y	Y	U
Spain	40.01	<100	N		51–69, KI, KIO ₃	N	16	N	N	N	N
Sweden	8.88	90–150	N	V	50, KI	P	U	N	N	N	N
Switzerland	7.30	115	Y	V	20, KI	Y	94	Y	Y	Y	N
Turkey	67.31	89	Y	V	25–70, KI, KIO ₃	P	64	Y	Y	Y	P
UK	59.78	141	N	V	10–22, KI	N	2	N	N	N	N
Yugoslavia											
Serbia	10.66	158	Y	C	20, KI	Y	73	Y	Y	Y	Y
Montenegro		90									

Y = Yes, present
 N = No, absent
 P = Partial
 U = Uncertain
 C = Compulsory
 V = Voluntary

More than half of the people in Western and Central Europe live in iodine-deficient countries.

al coordinating committee for IDD control consists of investigators from academic centers of endocrinology and nutrition. There is no ongoing regular monitoring or education program.

Germany – Iodine deficiency continues in some areas, with median urinary iodine excretion of 88 mcg/L. However, a 2000 national survey of 3,065 school-age children in 128 sites reported a national median of 148 mcg/L, i.e., iodine sufficiency. Salt iodized with KIO_3 at 20 mg/kg is used on a voluntary basis in humans, animals, and the food industry. Production is local, and population coverage is estimated to be 75%. Industrial salt iodization was first allowed in 1991. In 1993 the government declared that iodized salt is not required for bakeries, meat, sausages, or industrial foods. A national coordinating committee has existed since 1984, consisting of thyroidologists, the German Society of Nutrition, salt producers, and pharmacologists. The ICCIDD Focal Point, Dr. R. Gartner and colleagues, have recommended that universal salt iodization be mandatory.

Greece – Mild iodine deficiency appears to continue in some areas. Available surveys show the following urinary iodine excretions for children: northwest Greece, 84 mcg/L; Athens, approximately 160 mcg/L; Heraklion Crete, approximately 120 mcg/L. Salt iodized with KI at 40–60 mg iodine/kg is available on a voluntary use. One survey estimated only 18% household use, but silent prophylaxis is thought to be active. Currently, there is no national program, no national coalition, and no active monitoring of salt or nutrition.

Hungary – Iodine deficiency exists in some sites, as shown by a median urinary iodine of 40–130 mcg/L in a 1997 survey. Salt iodized with KIO_3 at 15 mg iodine/kg is available on a voluntary basis for home use and for animal foods. Salt is produced locally as well as imported. Approximately 25–30% of the population is covered with iodized salt. There is no legislation and use is voluntary, except in the areas surrounding the nuclear power station (Paks) where the supply of iodized salt is compulsory. A national coordinating committee for IDD control has existed since 1995, consisting of thyroidologists, nutritionists, salt producers and public health officers. Monitoring by palpation and neonatal TSH screening programs is currently under discussion. The National ICCIDD Representative, Dr. F. Peter, and the Board of the Hungarian Thyroid Section have advocated for improved control of iodine deficiency, and in early November 2002, a conference held jointly by the Health Ministry and UNICEF marked the launch of a strategy to combat IDD in the country. Dr. Paolo Vitti, ICCIDD Deputy Regional Coordinator for West and Central Europe attended as a consultant (see "In Brief," in this issue of the Newsletter).

Ireland – Mild deficiency (urinary iodine 80 mcg/L). Salt is available on a voluntary basis, iodized with KI at 25 ppm. There is no national program, no legal framework, and no monitoring.

Italy – Mildly iodine deficiency, urinary iodine concentration 55–142 mcg/L. Salt iodized at 30 mg/kg with either KI or KIO_3 is available for voluntary use at home. Legislation, awaiting final approval from Parliament, limits sales to iodized salt alone, with non-iodized salt available only when specifically requested. An institutional committee has existed since 1985, comprised most-

ly of thyroidologists, and its members have been actively advocating the use of iodized salt and legislation for it. Monitoring has taken place as parts of academic studies, but systematic monitoring of salt and nutrition is now being planned.

Macedonia – Currently iodine sufficient, median urinary iodine excretion 164 mcg/L (2001) (see *IDD Newsletter* 17(4):53, 2001). Salt is iodized with KIO_3 , 20–30 ppm for human and food industry use. Household consumption is 100%. Legislation in effect since 1999 mandates iodized salt use. A national coordinating committee for IDD control has existed since 1997, containing representatives of the Ministry of Health, Education, Agriculture, thyroidologists, nutritionists, salt producers, journalists, and representatives of local WHO and UNICEF offices. Salt and urine are monitored. The country has requested an external assessment, planned for early 2003.

Netherlands – Iodine sufficient, urinary iodine excretion 155 mcg/L in children. Salt is iodized with KI at 50 mg/kg, for home use and covers 65–70% of the population. The current legislation dates from 1968, and allows voluntary iodization of bread salt and table salt. There is no national program, no monitoring of salt or nutrition, and no communication activity.

Poland – Iodine sufficient, median urinary iodine excretion 188 mcg/L. Locally produced salt is iodized with KI at 20–40 mg/kg, covering over 90% of the population. Legislation effective in 1997 makes iodized salt compulsory and universal. Monitoring is controlled at both production and consumer stages by the Institute of Food and Nutrition. A national committee for IDD control exists, and will soon perform a new survey to assess the effects of an increasing KI concentration in salt, such as the incidence of iodine-induced hyperthyroidism and thyroid cancer. The Polish Council for IDD has also prepared a program for animal salt iodization.

Portugal – Iodine sufficient, median urinary iodine excretion 110 mcg/L. Locally produced iodized salt is available at 20 mg/kg as KI. Legislation in effect since 1969 permits voluntary and universal iodized salt consumption, but makes it compulsory in recognized iodine deficient areas. There is no national coordination committee, and no monitoring or education efforts.

Romania – Iodine deficient, with median urinary iodine 60–100 mcg/L. Salt is iodized with KIO_3 , 15–25 mg iodine/kg, and is available for human, animal, and food industry use. Production is local. Legislation from 1956 requires universal iodized salt use. A national coordination committee for IDD control consists of the Ministry of Health and Family, the Ministry of Agriculture, Food and Forest, and the National Authority for Consumer Protection. Efforts are underway to activate a national coalition against IDD. New legislation has been introduced to regulate universal iodization of salt for human and animal consumption and its use in industry. Iodized salt still only has about 25% of the market share. Iodization in the country's seven salt factories is progressing (*IDD Newsletter* 18:47, 2002).

Slovak Republic – Iodine sufficient, urinary iodine excretion 136–144 mcg/L. Salt is iodized with KIO_3 , 19 mg iodine/kg, for human and food industry use. Coverage with iodized salt is high. Legislation in place since 1966 mandates universal salt iodization. A national coordinating committee for IDD control consists of six representatives of the Ministry of Health, six endocrinologists/pediatricians, public health representatives, a legislator, and one salt producer. This coalition is responsible for monitoring salt and nutrition.

Slovenia – Mild deficiency, urinary iodine 83 mcg/L. Salt is iodized with KI, 20–30 mg/kg, for human and food industry

use. Production is local. Legislation since 1953 makes use of iodized salt voluntary and universal. A national coordinating committee for IDD control, consisting of representatives of the Ministry of Health, thyroidologists, pediatricians, and nutritionists, is responsible for monitoring salt and nutrition.

Spain – Mild deficiency, with median urinary iodine below 100 mcg/L. Salt iodized with KI or KIO₃, at 51–69 mg iodine/kg, is available for household use, but population coverage is only 15%, and use is not compulsory. There is no legislation, no government program, and no systematic monitoring of salt or nutrition. The ICCIDD National Representative, Dr. Gabriella Morreale de Escobar, recommends revamping of legislation to permit universal salt iodization at the national level, systematic monitoring by an independent Spanish iodine nutrition committee, and putting pressure on the government to recognize that the problem is serious. Special attention should be given to the health risks of insufficient iodine nutrition in pregnant women and small children.

Switzerland – Iodine sufficient, median urinary iodine excretion 115 mcg/L in schoolchildren. Salt is iodized with KI, currently 20 mg iodine/kg, for use both at home and in the food industry. Population coverage is estimated at 94%. Legislation permitting iodized salt has been present since 1922; it is voluntary and universal. A national coordination committee for IDD control consists of one representative of the federal office of public health, two thyroidologists, one cantonal physician, and three dentists. This committee organizes monitoring of salt and nutrition at five-year intervals.

Turkey – Mild iodine deficiency, urinary iodine excretion 89 mcg/L (see *IDD Newsletter* 17(1):13, 2001). Some areas are more severe. Salt is iodized either with KI at 40–70 ppm, or KIO₃ at 20–40 ppm, for human use. Production is local and population coverage is about 64%, but described as 20–30% of market share in another summary. Legislation from 1999 requires compulsory and universal use of iodized salt. A national coordination committee for IDD control, in existence since 1994, consists of the Ministry of Health, Agriculture, national education, industry, internal affairs, UNICEF, thyroidologists, nutritionists, and trade unions or guilds. This committee is responsible for monitoring of salt and nutrition. A monitoring program will be carried out soon.

United Kingdom – Iodine sufficient, median urinary iodine 141 mcg/L. Iodized salt is available but not produced locally and there is little information on its consumption. The iodine intake from all sources is estimated to be about 200 mcg/day. There is no government program, no monitoring, and no educational program. The current sufficiency is attributed to “silent prophylaxis.”

Yugoslavia – Iodine sufficient in Serbia (UI 158 mcg/L) but not in Montenegro (89.7 mcg/L). Salt is iodized either with KI or KIO₃, at 12–18 mg/kg, and used for humans, animals, and the food industry. Production is local. Legislation since 1951 makes iodized salt use compulsory and universal. A national coordination committee, in existence since 2000, includes the Ministry of Health, Agriculture and Trade, thyroidologists, nutritionists, salt producers, veterinarians, journalists, and inspectors. This committee is responsible for monitoring of salt and nutrition. Currently, the concentration of KI in the salt is being increased through legislation, and a new survey will assess its effects. The market share for iodized salt in Serbia is estimated at 73%.

General Comments

The iodine nutrition of Western and Central Europe differs in several ways from that in other parts of the world. Most European countries have iodized salt available, but in about half its use is only voluntary. In one of these, availability strongly favors iodized salt use. Many countries use KI instead of KIO₃, as do other temperate zone countries such as the United States and Canada. KIO₃ is less soluble than KI and, therefore, more stable, but in temperate climates with good quality salt, losses from KI are not large. A few European countries require iodized salt in food processing, most do not. As in the United States and Canada, most dietary salt comes from processed food, so the amount added at table and cooking in the home is a relatively minor component of salt intake, and therefore, a less important source of iodine nutrition than in developing countries.

National responsibility for iodine nutrition and its prophylaxis is much weaker in most European countries than elsewhere in the world. Many of the laws permit use of iodized salt, but do not require it. Also, most countries do not have strong units within the Ministry of Health or other government organizations that specifically oversee iodine nutrition and the use of iodized salt. Instead, oversight often rests with national committees, in which the government is usually, but not always, a participant. In many countries, the concern about iodine deficiency and the impetus for its correction comes chiefly from medical professionals, especially thyroidologists. Efforts to educate the government and citizens are limited.

The laws and practices relating to iodized salt vary widely among the countries of Western and Central Europe. The ranges of choice for iodine compounds and levels of fortification are great. Even a brief review of existing data reveals the uncertain state of knowledge about iodized salt use, including wide gaps in data on the amounts and compounds actually used, and on the penetration of iodized salt in the market.

In considering iodine nutrition in Europe, a first step is to improve existing information. ICCIDD is trying to do this through its national representatives and contacts with the salt industry. An effort to develop consensus and understanding on uniform levels of iodine in salt fortification is another priority. This objective becomes particularly urgent as trade barriers are lowered and salt moves more freely among the countries in Europe; this is a logical issue for European Union involvement. As in all regions, regular monitoring of people is essential for sustainable optimal iodine nutrition, and if governments are not doing it, others (such as national committees) should.

Summary

More than half of the people in Western and Central Europe live in iodine-deficient countries. While iodized salt is generally available, wide variations in its level of fortification and distribution persist. In contrast to developing countries, most European countries have weak or nonexistent governmental programs to deal with iodine nutrition. Consequently, much of the responsibility for optimal iodine nutrition in Europe must be shouldered by others, especially thyroidologists, academic institutions, and the salt industry. Because of these factors, national coalitions for optimal iodine nutrition can and should play a major role in achieving and sustaining optimal iodine nutrition in Europe. ■



INTERNATIONAL COUNCIL FOR CONTROL OF IODINE DEFICIENCY DISORDERS

The International Council for the Control of Iodine Deficiency Disorders (ICCIDD) is a nonprofit, nongovernmental organization dedicated to sustainable optimal iodine nutrition and the elimination of iodine deficiency throughout the world. The membership includes many disciplines related to iodine deficiency and its correction - endocrinologists, public health workers, salt producers, management specialists, communicators, laboratory analysts, researchers, and others. An international Board of Directors promotes ICCIDD's goals, working in close coordination with countries and international organizations. Support for activities has come from international aid programs of Canada, Australia, the Netherlands, USA, also from the World Bank, UNICEF, and others.

The *IDD Newsletter* is published quarterly by ICCIDD and distributed free of charge in bulk by international agencies and also by individual mailing. The Newsletter also appears on ICCIDD's website in both text files and PDF. The Newsletter welcomes comments, new information, and relevant manuscripts on all aspects of iodine nutrition, including human interest stories on IDD elimination in countries.

For further details about ICCIDD or the IDD Newsletter, please consult the website (www.iccidd.org) or contact Dr. John Dunn, Executive Director of ICCIDD and Editor of the Newsletter, at University of Virginia Health System, P. O. Box 801416, Charlottesville, VA 22908, USA, e-mail iccidd@virginia.edu.

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ICCIDD contacts for the West/Central Europe Region:

Dr. Aldo Pinchera, Regional Coordinator, Pisa
(iccidd@endoc.med.unipi.it)

Dr. Francois Delange, Former Regional Coordinator, Brussels
(fdelange@ulb.ac.be)

Dr. Paolo Vitti, Deputy Regional Coordinator, Pisa
(iccidd@endoc.med.unipi.it)

Dr. Michael Zimmermann, Deputy Regional Coordinator, Zurich
(michael.zimmermann@ilw.agrl.ethz.ch)

Mr. Bernard Moinier, Secretary European Salt Producers Association, Paris
(bmoinier@eu-salt.com)