Current health policies for IDD prevention, control and elimination in Latvia, Lithuania and Estonia: recent progress and future perspectives

MISSION REPORT

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TERMS OF REFERENCE

(a) Work Assignment:

- 12 Working days (3 days in Latvia, 3 days in Lithuania, 3 days in Estonia and 3 days for research and report writing).
- To assess the current situation, provide technical assistance and make initial preparations for meetings on national legislation for iodized salt import

(b) Deliverables

31 January 2000 – Mission report

This Mission Report is based on information obtained during field visits to Latvia (December 5-8, 1999), Lithuania (January 24-26, 2000), and Estonia (January 26-28, 2000) as well as results of Salt Situation Analysis (SSA) performed in each Baltic States in November-December, 1999. The writer wish to acknowledge support provided to this mission by Dr. G.Selga (Latvian Food Center) and Ms. Ilze Doskina (UNICEF National Committee) in Latvia; Dr. A.Astrauskiene and Dr. K.Kadziauskiene (Lithuanian Food Center) and Mr. Jaunius Pusvaskis (UNICEF National Committee) in Lithuania, and Dr. Sirje Vaask (Ministry of Social Affairs) in Estonia.

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(attached to the hard copy of the report)
EXECUTIVE SUMMARY

Iodine Deficiency Disorders (IDD) are still not fully recognized as an important public health problem in Baltic States – Latvia, Lithuania and Estonia. After gaining independence in 1991, magnitude of the problem was assessed in 1995 when IDD survey has been performed in three Baltic States with financial and technical support of UNICEF. This survey showed existence of generally mild IDD in Lithuania and Estonia, and almost normal median urinary iodine level is Latvia.

On the Regional Meeting of Salt Producers of CEE/CIS/BS in Kiev, representatives of Latvia and Lithuania approached Regional UNICEF Office for support to National IDD control programs in Baltic States. As a follow up activity to this meeting, Salt Situation Analyses (SSA) was conducted in all Baltic States in order to investigate in more detail the needs of the salt importers, the current situation and the barriers faced by salt importers in universal salt iodization. Baltic States do not produce salt and import its entire amount from Ukraine, Belarus, Denmark, Germany and other countries. Results of SSA revealed that only insignificant amount of edible salt is imported in iodized form – less that 1% in Latvia and 4% in Lithuania. Information on iodized salt import to Estonia was not disclosed by local salt importers, but indirect data (from nutrition surveys) show that less than 10% of population consume iodized salt.

The aim of this mission was to assess the current situation and current health policies towards IDD in Baltic States, provide technical assistance for country’s meetings on national policy and legislation for iodized salt import and make initial preparations to three country meeting on IDD elimination in Baltic States (April, 2000).

Development of IDD control program in Latvia is constrained by results of most recent IDD survey (1995) which showed almost normal median urinary iodine level in urine. However, it seems highly unlikely that Latvia is an “IDD free oasis” in this area while all neighboring countries (Estonia, Lithuania, Russia, Belarus) have mild or even moderate iodine deficiency in their populations. Current IDD situation in Latvia can be clarified by small scale IDD survey performed as part of advocacy activity. In Lithuania mild iodine deficiency was confirmed by 1995 IDD survey and IDD are recognized as a public health problem. In part this is due the fact that Lithuania was affected by radioactive iodine fallout after Chernobyl Nuclear Accident in 1986. Health professionals, authorities as well as general public are much more aware of negative effect of iodine deficiency on thyroid function, especially in case of nuclear accidents. In Estonia, albeit mild iodine deficiency was confirmed by 1995 IDD survey, this problem is not fully recognized due to lack of active medical lobby group (endocrinologists, pediatricians) and conflicting messages coming from other medical groups to reduce salt intake due to high prevalence of cardio-vascular diseases.

Since IDD were considered as a serious problem in the former USSR, they were not addressed with relevant legislation and regulations. After dissolution of Soviet Union there is a legislative and regulatory "vacuum" towards IDD control and prevention in Baltic States. Currently Latvia, as well as Estonia and Lithuania have no legislation on IDD control and elimination. It seems, that without clear understanding of IDD as a nationwide public health problem, chances for development of any clear strategy of IDD control and elimination in Baltic States are rather slim.
Currently all three Baltic States are in the process of preparation to join European Union (EU) in the next decade. To reach this goal, government agencies are working on harmonization of national legislation with EU standards. This momentum should be used to promote comprehensive legislation and regulation on IDD control and elimination. Unfortunately, there is no common EU regulation on IDD control and USI. However, several European States (Germany, Switzerland, Austria, the Netherlands) have effective IDD control programs through iodized salt. Several East European countries which are also on the way to join EU, adopted national legislation on USI (Poland, Bulgaria). Best examples of working legislation which permits expanded production and use of iodized salt should be promoted to governments of Baltic States.

In Lithuania by initiative of Ministry of Health supported by Ministry of Finance, Government included iodized salt to the list of products exempted from Value Added Tax (VAT) which is currently 18%. This measure will make iodized salt cheaper and more attractive to consumers (both public and food industry). This initiative of Lithuanian government should be also promoted to other two Baltic States.

Private salt importers in Baltic States generally support and promote marketing of iodized salt. However, they face problems with distribution due to low awareness of consumers and lack of their knowledge in benefits of iodized salt. Salt importers in Baltic States are interested in further cooperation and are willing to take part in promotion of iodized salt along with government agencies and medical community.

Information, education and communication will be the main focus of activity in Baltic States for the next 1-2 years to increase consumption of iodized salt from present low level to at least 50% of households and make this achievement sustainable. Further international support may be needed for this component of national IDD control program.

Baltic Countries Meeting on IDD Elimination (planned for April, 2000) will be important step to facilitate development of national IDD control and elimination programs in these states and to advocate USI. This meeting will help to formulate national strategy of each Baltic States to eliminate iodine deficiency in the next 1-2 years, facilitate public-private collaboration on national and regional levels, support active role of private industry in import of only iodized salt, production of foods enriched with iodine. This meeting will give chance to share experience, exchange with ideas, learn “lessons of success” from European countries where iodine deficiency was eliminated in the last decade.
INTRODUCTION

IDD are still not fully recognized as an important public health problem in Baltic States – Latvia, Lithuania and Estonia. In 1950s-1970s, when these states were part of the Soviet Union, iodine deficiency was officially recognized only in Estonia. The Order of the USSR Ministry of Health (1956) defined Estonia as region with “endemic goiter”. Other Baltic Republics were considered to be free of endemic goiter.

First attempt to assess magnitude of IDD problem and to develop national control program was made in 1995 when IDD surveys have been performed in three Baltic States with financial and technical support of UNICEF (Dr. R.Gutekunst, Germany, was leading this assessment). These surveys showed existence of generally mild IDD in Lithuania and Estonia, and almost normal median urinary iodine level is Latvia.

On the Regional Meeting of Salt Producers of CEE/CIS/BS in Kiev, representatives of Latvia and Lithuania approached Regional UNICEF Office for support to National IDD control programs in these countries. As a follow up activity to this meeting, Salt Situation Analyses (SSA) were conducted in all Baltic States in order to investigate in more detail the needs of the salt importers, the current situation and the barriers faced by salt importers in universal salt iodization. The overall aim of these SSA was to clarify: a) the current situation regarding iodised salt import and consumption, b) barriers which may prevent the salt industry achieving full coverage and consistent quality of iodized salt and c) opportunities to improve the situation of salt iodization.

The aim of this mission was to assess the current situation and current health policies towards IDD in Baltic States, provide technical assistance for country’s meetings on national policy and legislation for iodized salt import and make initial preparations to three country meeting on IDD elimination in Baltic States (April, 2000).

LATVIA

Latvia has population of 2,700,000 and land area of 63,7 thousand sq km. Almost half of its population leave in capital city – Riga.

IDD Status in Latvia

IDD were not considered as a major public health problem in Latvia during Soviet period of history (1945-1991) and after gaining independence in 1991. A 1995 unpublished IDD survey of 30 schools found median urinary iodine of 98 mcg/L, which was perceived as “probably little or no iodine deficiency”. Data on goiter prevalence (even though collected) were absent.

However, it seems highly unlikely that Latvia is an “IDD-free oasis” in this area while all neighboring states (Estonia, Lithuania, Russia, Belarus) have mild or moderate iodine deficiency in their populations. Local pediatric endocrinologist informed me that she is observing rather frequent cases of nontoxic goiter in children. This conflicting information should be addressed by new small scale survey to define current status of iodine nutrition (see below).
Salt Situation Analysis (SSA)

Dr. Andris Bremanis, President of Latvian Association of Clinical Nutritionists, conducted SSA in Latvia and presented report [ANNEX 1]. Estimated requirement for edible salt (3.5 kg/person/year x 2.5 million population of Latvia) is roughly 8,750 tones. According to results of SSA, two main salt importers (LSTC and Dangas) during 10 months of 1999 imported 7,000 tones of edible salt (supply of salt by other companies is insignificant and limited to particular brand of relatively expensive iodized salt from Western producers). Total amount of iodized salt imported for this period to Latvia was only 60 tones - less than 1% of all edible salt.

Meeting with Latvian salt importers.

I had a chance to meet CEO's and owners of 2 main Latvian salt importing companies - Mr. Ilmar Krivads and Mr. Vaclavs Galanskis, as well as Mr. Ole Cleeman, Market Manager for Baltics/Russia, Dansk Salt A/S (Akzo-Nobel). These companies are marketing of iodized salt. However, they face problems with distribution due to low awareness of consumers and lack of their knowledge in benefits of iodized salt. All salt importers are interested in further cooperation and are willing to take part in promotion of iodized salt along with government agencies and medical community.

Medical community.

Medical community in Latvia is not well convinced that IDD are real public health problem for this country. This attitude was quite clearly aired by Prof. Alvids Helds, senior endocrinologist in Latvia and vice-president of Latvian Association of Endocrinologists, and Mr. Andris Grospins, Head of Division for Surveillance of Environment Risk Factors, Department of Public Health, Ministry of Welfare of Latvia. From their prospective, Latvia is located near to the Baltic Sea and has no environment deficiency of iodine. Their position in fact is supported by results of most recent IDD survey performed in 1995 which showed almost normal median urinary iodine level.

Quite reasonably, representatives of medical community pointed out the need for another small scale IDD survey. This survey may not only give answer to the question whether iodine deficiency is present in Latvia, but may also give baseline data of iodine nutrition in this country for further monitoring. In addition to measurement of urinary iodine, goiter rate should be assessed in schoolchildren.

Current legislation on IDD

Endemic goiter was considered as a serious problem in the former USSR in 1950s-70s. However, later this disease was considered "eradicated" and lost its priority. After dissolution of the Soviet Union there is a legislative and regulatory "vacuum" towards IDD control and prevention in Baltic States. Currently Latvia has no legislation and regulation on IDD control and prevention.

Director of Latvian Food Center, Dr. Olafs Stengrevics, and Dr. Guntars Selga, Head of Division for Food Policy, informed me that this Center is appointed by the Government to
develop and implement food legislation and regulation. Latvia is in the process of preparation to join European Union in the next decade, and Latvian Food Center is working on harmonization of national food legislation with EU standards. This momentum should be used to promote comprehensive legislation and regulation on IDD control and elimination.

Conclusion and recommendations for further action

My impression is that IDD are still present in this Baltic state (all surrounding countries have IDD and it is unlikely that Latvia is free on an environmental iodine deficiency). Iodine deficiency is probably mild and thus almost "invisible" to medical doctors ("hidden hunger"). There are conflicting opinions on existence of IDD in Latvia. Small scale IDD survey as part of advocacy activity may not only clear magnitude of iodine deficiency, but also may provide baseline data on iodine nutrition for further monitoring.

National Plan of Action should be developed based on following recommendations:

ADVOCACY ACTIVITY

a. A Working Group (Commission) on IDD should be organized under the umbrella of Latvian Food Center, Ministry of Welfare of Latvia, with representatives of medical community (endocrinologists, pediatricians, nutritionists, etc), salt importers, Ministry of Education, Parliament, media, etc.

b. Small scale IDD survey is needed to assess magnitude of iodine deficiency in Latvia. This survey can be easily performed in 1-2 months using existing guidelines prepared by PAMM for UNICEF (copy available in Latvian Food Center). Dr. Selga from Food Center volunteered to develop proposal and budget for this assessment. (I estimate the cost of this study around 5,000 US$). Since necessary laboratory facilities are absent in Latvia, urinary iodine determinations can be performed in Lithuania. It would be extremely important, if UNICEF/RO picks up major costs of this survey.

c. National IDD Control Program and Action Plan should be developed by the Working Group and subsequently adopted on government and/or parliament level(s). However, without clear understanding of IDD as nationwide public health problem, chances for development of clear strategy for IDD control and elimination are rather slim.

LEGISLATION AND REGULATIONS

Director of Latvian Food Center, Dr. Olafs Stengrevics and Dr. Guntars Selga, Head of Division for Food Policy quite clearly pointed out that if European Union (which Latvia wants to join) has a policy and regulation on IDD control and elimination, Latvian Government would have a clear incentive to adopt such policy on the national level. Unfortunately, there is no EU regulation on IDD control and universal salt iodization. However, several European States (Germany, Switzerland, Austria, the Netherlands) have effective IDD control programs through iodized salt. Best examples of working regulation which permits expanded production and use of iodized salt should be promoted to Latvia, including:
- normative values for iodine in salt, shelf-life of iodized salt, labeling, etc.
- recommendations and regulation on use of iodized salt in food industry, especially bakeries and meat procession plants (nitrite+iodized salt)
- mandatory use of iodized salt in public institutions such as schools, kindergartens, hospitals, etc.
- quality control and monitoring system

EDUCATION, INFORMATION, COMMUNICATION

These elements will be the main focus of activities in the next 1-2 years to promote the use of iodized salt from present insignificant level (<1%) to acceptable level (at least 50% by the end of 2001). Further international support may be needed for this component of national IDD control program.

LITHUANIA

Lithuania is the largest of three Baltic States (land area – 65,2 thousand sq km) with biggest population – 3,700,000.

IDD Status in Lithuania

As in Latvia, IDD were not considered as a major public health problem in Lithuania during Soviet period (1945-1991) and until 1995. IDD survey was performed in 1995 (2087 children from 28 schools) showed existence of mild iodine deficiency – median urinary iodine level was 75 mcg/L Frequency distribution analysis revealed that more than 60% of schoolchildren had low urinary iodine levels (below 100 mcg/L) (Figure 1).

Compared to Latvia and Estonia, in Lithuania IDD are much more recognized as a public health problem. In part this is due to the fact that Lithuania was affected by radioactive iodine fallout after Chernobyl Nuclear Accident in 1986. Moreover, Lithuania has a working Ignalina Nuclear Power Station on its territory. Thus, health professionals, authorities as well as general population are much more aware of negative effect of iodine deficiency on thyroid function, especially in case of nuclear accidents.

Salt Situation Analysis (SSA)

SSA in Lithuania revealed 8 companies which are importing salt from Ukraine (Artemsol, Solotvino), Belarus (Mozyrsol, Soligorsk), France and Denmark. Four companies have major stake in salt import: in 1998 “Keluva” company imported more than 10,000 tones of salt (28% of this amount - edible salt), three other companies – about 4,000 tones each. Estimated total amount of salt imported to Lithuania in 1998 was 24,582 tones; total amount of edible salt – 15,104 tones. Total amount of iodized salt edible salt imported in 1998 was only 372 tones, or 2.5% of all edible salt. In 1999 amount of iodized salt import to Lithuania slightly increased to 4% [ANNEX 2].

Results of 1997 WHO sponsored project “National Nutrition Survey” showed that consumption of sea foods (rich in iodine) is traditionally low (about 6 kg/capita/year) and do not provide sufficient amount of iodine. Average amount of kitchen salt consumption was estimated as 6 g/capita/day. On average, only 4.7% of respondents used salt fortified with iodine and other minerals (Health Behaviour and Nutrition Status of Lithuanian Population, 1997-1998, A Report, Vilnius, 1999).
Meeting at the Ministry of Health

While my visit to Lithuania, Vice-Minister of Health, Dr. Vytautas Kriaunza organized a meeting in the Ministry of Health with representatives of Ministry of Finance, Ministry of Agriculture (Veterinary Service), Centre for Radiological Safety, and several research Centres (Institute of Hygiene, Lithuanian Nutrition Center, Center for Genetics, Institute of Physics).

Vice-Minister of Health informed that IDD elimination is considered as priority by the Government. By initiative of Ministry of Health supported by Ministry of Finance, the Government included iodized salt to the list of products exempted from Value Added Tax (VAT) which is currently 18%. This measure will make iodized salt cheaper and more attractive to consumers (both public and food industry). Ministry of Health has also drafted a regulation requiring mandatory use of iodized salt in schools and kindergartens. However this regulation was not supported by Ministry of Education. Elimination of IDD is included to the National Program “Health” adopted by the Parliament. However, Vice-Minister pointed out that the Ministry would unlikely support any regulation on USI and prohibition of uniodized salt. The emphasis will be stressed to communication campaign to increase voluntary consumption and industry use of iodized salt.

Representative of the Ministry of Agriculture mentioned that iodized salt is not widely used for feeding livestock. During Soviet period collective farms used mineral premixes with iodine to fortify fodder of cattle and sheep. Currently, these premixes are still produced but representative of Agriculture Ministry had no information on current use of premixes and their content. He estimates that about 50% of farms voluntary use mineral premixes.

New evidence that IDD in Lithuania were presented by representative of the Center for Genetics which runs neonatal thyroid screening. According to their data, in 20% of blood samples obtained from new-borns, TSH levels were above 5 mu/L (in iodine sufficient populations no more than 3% of samples may have TSH level below 5 mu/L). These results are in good agreement with previously obtained data and confirm existence of mild iodine deficiency in Lithuania.

Visit to the Institute of Endocrinology, Kaunas Medical University

Medical professional are aware of IDD problem in Lithuania and are supporting national IDD control programs. This conclusion is an outcome of my visit to the Institute of Endocrinology, Kaunas Medical University and meetings with Director of this Institute Prof. L.Lashas and Head of Thyroid Clinic, Dr. Kazanavicaus. After 1995 IDD survey, this Institute made additional research and confirmed high prevalence of endemic goiter in many areas of Lithuania (results of research were published in national journal Lietuvos Endokrinologija with summaries in English).

Institute of Endocrinology is running regular courses on endocrinology for general practitioners (GPs) and other health professionals. IDD are in curriculum of these courses. Twice every year this Institute is organising conferences on endocrinology with different agenda which are attended by 400-500 physicians from all Lithuania. Next conference is planning for June 2, 2000 and Director of Institute proposed to include prevention of IDD into agenda of this one day meeting.
The overall conclusion from this visit is that Institute of Endocrinology can be a reliable partner in promotion of USI and IDD elimination and this organisation in collaboration with Food Center is able to provide biological monitoring to IDD control program.

**Meeting at the Food Center, Vilnius**

This technical meeting was organised by Director of Lithuanian Food Center Dr. K. Kadziauskiene with Chairpersons of Technical Committees on Meat and Diary Products, Bread and Cereals Products, Vegetable and Fruit Products, Food Inspection, main salt importers, executive director of UNICEF National Committee.

Representatives of food industry informed the meeting that currently due to relatively high price of iodized salt, its addition make product slightly more expensive. Even this minimal price margin prevents use of iodized salt for food procession. Director of “Keluva” company which is importing iodized salt replied that currently quality iodized salt from Belarus is already extremely cheap and has almost no difference in price with uniodized salt. However, demand for iodized salt is still very low. From the prospective of salt importer, government should either change legislation and make use of iodized salt mandatory, or increase efforts in promotion of iodized salt by relevant communication campaign.

According to Dr. K. Kadziauskiene, Food Bill is under consideration of the Parliament. This Law will enable Ministry of Health to pass compulsory regulations on food. Recently, joint regulation on compulsory use of iodized salt in schools and kindergartens was not supported and signed by Ministry of Education. Dr. K. Kadziauskiene also supported idea of broad communication campaign to promote use of iodized salt on household level through schoolchildren.

**Conclusion and recommendations.**

My impression is that IDD are regarded as a significant public health problem in Lithuania. High government commitment to control IDD is reflected by unprecedented decision to waive 18% VAT to imported iodized salt. Ministry of Health, Food Center, Institute of Endocrinology and medical community in general are supporting IDD control program with iodized salt. The magnitude and significance of iodine deficiency are well recognised by all key players (government, medical community, salt importers). It should be noted that salt importers are already taking voluntary measures to increase supply of iodized salt to the country. However, from their prospective legislation and regulation on compulsory use of iodized salt are needed to foster consumption of iodized salt, as well as more active communication campaign in the media. However, some government sectors (Ministry of Education, Ministry of Agriculture) are still reluctant to compulsory use of iodized salt.

The following actions were recommended to significantly improve IDD status in Lithuania by increase availability and consumption of iodized salt:

**LEGISLATION AND REGULATION**

Lithuanian Food Center in collaboration with the Ministry of Health and other government bodies will develop guidelines on implementation of Government decision to waive VAT for
iodized salt. It is anticipated that importers of iodized salt will register their products with Food Center after quality control. Food Center will also promote use of iodized salt in food industry.

COMMUNICATION

1. It was agreed that Food Center, National Committee for UNICEF in collaboration with Ministries of Health and Education, Regional Public Health Centers (Divisions of Health Education) in each of 44 counties will conduct “IDD Month” in May 2000. To reach this goal, Food Center will develop guidelines for public health educators in counties and school teachers. UNICEF may provide rapid test kits to check salt specimens brought by schoolchildren from households. Moreover, “Keluva” company volunteered to donate free small package of iodized salt to every schoolchild during this campaign. Children will serve as “messengers” to their parents.

2. Food Center, National Committee for UNICEF with support of the Ministry of Health will approach private TV companies with initiative of free broadcast of video spot on IDD. Production of 30 second video spot may cost up to US$ 2,000.

3. Support to publications aimed at different groups – health care providers (guidelines on IDD prevention with iodized salt), teachers (information brochure stressing importance of IDD prevention for cognitive function and school performance), general public (flyers, posters).

4. This communication campaign will start with “IDD Months” and than continued for 6 months; at the end of the year (November, 2000) effect of this campaign will be evaluated (amount of salt imported, percent of households consuming iodized salt).

It is anticipated that Food Center, Ministry of Health, private salt producers will support this campaign, including financial contribution. However, for the fiscal year 2000, most of funds were already distributed and any financial support to new initiative will be limited. In this situation, it would be advisable for UNICEF Regional Office to provide seed financial support through Lithuanian National Committee for UNICEF to communication campaign in Lithuania.

Tentative Budget to Support Communication Campaign to Increase Iodine Salt Consumption in Lithuania.

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<th>ACTIVITIES</th>
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<td>1. Communication effort “IDD Month”</td>
<td>US$ 5,000</td>
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<td>2. Production of 30 second video spot on IDD for TV broadcast</td>
<td>US$ 2,000</td>
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<td>3. Publications on IDD (guidelines, brochures, posters)</td>
<td>US$ 3,000</td>
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<td>4. Evaluation of activities</td>
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<td><strong>TOTAL:</strong> US$ 12,000</td>
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ESTONIA

Estonia is the smallest Baltic State: its population is 1,600,000, land area – 45,2 thousand sq km. Capital city Tallinn has population of about 500,000.

IDD Status in Estonia

Compared to two other Baltic States, iodine deficiency was recognised as a public health problem in Estonia by USSR Ministry of Health since 1956. Subsequently, Antigoiter Dispensary was organized in the second largest city of Estonia (Tartu) on the south-west of republic where endemic goiter thought to be more prevalent. However, with eradication of visible forms of endemic goiter this disease was considered “eliminated”. Antigoiter Dispensary was reorganized into Endocrinology Center which was dealing primarily with diabetes and other endocrine diseases. Supply of iodized salt and distribution of iodine tablets were terminated and IDD reappeared.

In 1995, IDD survey was performed: 1840 schoolchildren aged 8-10 year from 28 schools throughout Estonia were assessed. Median urinary iodine level was 65 mcg/L. Goiter prevalence (by palpation) was estimated: grade 0 - 31%, grade Ia - 55% (possibly overestimated), grade Ib - 11%, grade II - 2%. Result of survey confirms generally mild (moderate in some areas) iodine deficiency in Estonia. (Gutekunst and Veinpalu “IDD survey among Estonian children”, European Journal of Endocrinology 1996; 135, 248)

Salt Situation Analysis

According to household budget surveys of Estonian Statistical Office, consumption of salt in 1998 was estimated as 6.5 g/capita/day (2,268 kg/capita/year).

SSA revealed two major companies “Hekate” and “Taproban” which supply salt to the country. Unfortunately, management of these companies refused to provide data on amount of salt import claiming this information as confidential [ANNEX 3].

Indirect data show that consumption of iodized salt in Estonia is small. According to the nutrition survey in Estonia (1997) about 14% of adults used some form of iodized salt. Respondents with high education and higher income used iodized salt more often. According to data from Estonian Statistical Office, average money spent for salt is 3.68 EEK/kg1; this price value means that most of salt bought by consumers was not iodized. Iodized salt is not commonly used in households for preservation of foods (vegetables, fish, meat).

One of the reasons for low consumption of iodized salt is relatively high price for iodized salt in retail shops and markets. SSA revealed that iodized salt was available in 60% of all shops/markets visited. Iodized salt was available in relatively big shops in urban and rural area, but missing in small shops and markets in rural area. Iodized salt was usually packed in 1000 g plastic or carton bags. Price of iodized salt was 30-50% higher that uniodized one. Nutrition survey in Estonia showed that on average 40% of adults (70% in low-income group) are choosing foods according to price. Health was the main reason for choosing foods

1 1 US$ = 15.5 EEK (January, 2000)
only for 9% of adults. (Vaask, S. “The Adults Nutrition Survey in Estonia”, Tallinn Technical University, Food Processing Institute, Tallinn 1998)

Legislation and regulation

Estonian Health Policy Paper was adopted by the Government in 1995, but it has no special indication on IDD. Estonia does not have legislation on IDD control and prevention. Import of iodized salt is voluntary and limited to requests from customers (salt wholesalers/retailers and food industry). Estonia does not have IDD elimination program or Committee for IDD. Estonia is a member of World Trade Organization and according to rules of this organization it is difficult to forbid import of non-iodized salt.

Estonian nutrition guidelines developed by Estonian Nutrition Society in 1998 recommend to use iodized salt with low sodium content.

Meeting at the Ministry of Health

While my visit to Estonia, Dr. P.Laur, Head of Public Health Department, Ministry of Social Affairs, organised a meeting with representatives of Estonian Food Association, Ministry of Agriculture, Associations of Pediatricians and Endocrinologists, Health Protection Centers. Prof. R.Vokk, Department of Food Processing, Tallinn Technical University, Dr. S.Vaask, Public Health Department, Mr. Toomas Palu, Executive Director, UNICEF Estonian National Committee, and Mr. Sven Talts, salt importer, were most active on this meeting.

Dr. S.Vaask briefed participants on results of SSA in Estonia. I made presentation on IDD significance and how they can be eliminated through USI. Starting discussion, Mr. T.Palu questioned existence of iodine deficiency in Estonia. From his prospective iodized salt may not be the best vehicle for iodine to Estonian population due to its high cost and negative effect on smell and taste of food. He concluded that additional research is needed to assess current status of iodine nutrition in Estonia. Dr. Lohmus, representative of Endocrine Association replied that health professionals rely on data of 1995 IDD survey. These data were discussed on joint meeting of Endocrine and Pediatric Associations in 1996 and distribution of iodized salt was approved as a main method to improve situation. Dr. Lohmus also pointed out that costs of IDD treatment are much higher than prevention with iodized salt.

Prof. R.Vokk estimated that (including so called “hidden” salt) salt consumption in Estonia is 12-14 g/capita/day. It is already very high and promotion of iodized salt may (from his point of view) further increase consumption of salt thus causing negative health effects. Moreover, Prof. R.Vokk estimated that consumption of iodine with food in Estonian population is already 2-4 times higher than recommended by WHO. He argued that iodized salt is not needed for Estonian population which already consume enough iodine with food. Further discussion revealed that Prof. Vokk’s data on iodine nutrition were based not on direct measurement of iodine in Estonian foods but on calculations; for them he used information on iodine content in different foods which were published in Western nutrition manuals. It is true that in several European countries (Scandinavia, Great Britain) iodine supply to population is almost normal due to relatively high content of iodine in milk, dairy products and meat. This is achieved by extensive use of iodine containing premixes in livestock’s fodder. However such situation may not be the case for Estonia. (At least, representative of
Agriculture Ministry did not have any information on use of mineral premixes for livestock). Moreover, data of 1995 survey clearly showed decreased urinary iodine levels in schoolchildren. Since urinary iodine level reflects integral consumption of iodine with food, it is highly unlikely that foods in Estonia are rich of iodine. Finally it was agreed that additional research on iodine content in different foods produced in Estonia is needed.

Concluding discussion, Dr. P.Laur mentioned that iodine deficiency is considered as a serious problem in Estonia. However, Estonian population has high prevalence of cardio-vascular diseases and promotion of iodized salt may further increase consumption of salt (which is already high). Ministry of Social Affairs is preparing a recommendation for compulsory use of iodized salt in schools (school lunch program) and kindergartens. For other public institutions, food industry and general public the Ministry will support consumer education and promote increase of availability of iodized salt in retail shops, and its use in food industry. This activity will be harmonised with WHO Action Plan on Nutrition, where IDD prevention is an important part.

**Conclusion and recommendations**

IDD are still a public health problem in Estonia. Limited measures were made by Estonian government (Ministry of Social Affairs) to address this problem since 1995 when first reliable scientific data on existence of iodine deficiency in Estonia were obtained. The main reasons for this situation are:

- Medical community (especially endocrinologists and pediatricians) even though aware of the problem, did not form a strong lobby group for advocacy of IDD control program on public and government levels. At the same time, another part of medical community (mainly cardiologists) are very actively advocating low salt consumption and promoting special “low sodium salt”. Thus, government and public are receiving conflicting messages and no action is made to promote iodized salt.

- Agriculture and food industry are traditionally well developed in Estonia. However, use of iodized salt for food procession is limited. Information on use of iodine containing premixes for livestock is also scarce. Extensive use of iodized salt in food industry (for example, special iodized nitrite salt can be used for meat procession) and bakeries may significantly increase iodine nutrition of population without increasing consumption of salt. This approach was used in Germany, and in the last decade iodine nutrition almost normalised. *(W.Meng and A.Schindler, Iodine Supply in Germany, IDD Newsletter, v.14, N2, p.27-29).*

- Compared to two other Baltic states, salt importers (delegation from Estonia was not present on RSPM in Kiev) are still not involved in public-private collaboration to increase import, trade and use of iodized salt in wholesale/retail trade and food industry.

At this time, it is unlikely that Estonian government will adopt legislation on USI. The policy of the Ministry of Social Affairs is to promote voluntary use of iodized salt mainly in risk groups and increase availability of iodized salt through health education. Additional advocacy is needed to facilitate this process. As in many other countries, formation of IDD working group (committee) may facilitate process of adoption of relevant regulation on IDD control and use of iodized salt.
BALTIC STATES MEETING ON IDD ELIMINATION

One of most important to steps to facilitate development of national IDD control and elimination programs in Baltic States and to advocate USI, would be Three Country Meeting on IDD Elimination. The idea of this meeting was prompted by delegations of Latvia and Estonia on RSPM in Kiev, September, 1999. During my mission to Baltic States, the goals, tentative agenda and circle of participants to this meeting were also actively discussed.

Goals of the Meeting:

- Formulate national strategy of each Baltic State to eliminate iodine deficiency in the next 1-2 years;
- Facilitate public-private collaboration on national and international levels, support active role of private industry in import of only iodized salt, production of foods enriched with iodine;
- Share experience, exchange with ideas, learn “lessons of success” from European countries where iodine deficiency was eliminated in the last decade.

Participants of the Meeting:

Each country will send to the meeting a delegation of 5 to 7 participants headed by high ranked government official (most likely Deputy Minister of Health or Social Affairs responsible for public health). Other participants will represent Food Centers or Public Health sectors in relevant Ministries, medical profession (pediatric and endocrinology institutions and associations), main salt importers (in each Baltic State usually 2 companies control most of salt market), Food Industry Association(s). Executive directors of National Committees for UNICEF should also attend this meeting.

Place and organisation of the meeting

It was proposed to hold a two day meeting in Riga. Latvian government will host the meeting, UNICEF may provide technical and financial support, including invitation of international experts in the field.

Preliminary date: April 4-5, 2000

Preliminary Agenda

The agenda of the meeting should provide possibility for each Baltic State to formulate, deliver and discuss national strategy of elimination of iodine deficiency in the next 1-2 years. Important issues of IDD control should be addressed by invited international experts in the field (the list of topics for lectures was made by advice of specialists met during the mission).
**DAY 1**

Opening event
Government of Latvia
UNICEF (Majid Tibouti)
WHO (?)
ICCIDD (?)

Session 1.
National strategies of IDD elimination
  - Latvia
  - Lithuania
  - Estonia
Discussion

Session 2.
Public-private collaboration (Frits van der Haar)
Responses from delegations (salt importers)
Discussion

Session 3
European legislation on salt iodization (Hans Burgi?)
Responses from delegations
Discussion

**DAY 2**

Session 4.
Use of iodized salt in food processing (R.Merx?)
Responses from delegations
Discussion

Session 5
Lesson of success (Poland?)
Medical consequences of increased iodine intake: fears and reality (Gerasimov)
Discussion

Session 6
General discussion
Adoption of resolution