REGIONAL OFFICE FOR CENTRAL AND EASTERN EUROPE, COMMONWEALTH OF INDEPENDENT STATES AND BALTIC STATES

IDD Prevention, Control and Elimination in Latvia, Lithuania and Estonia: the Follow up of Policy Meeting on the Elimination of Iodine Deficiency in the Baltic States through Universal Salt Iodization

MISSION REPORT

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EXECUTIVE SUMMARY

A year after the Policy Meeting on the Elimination of Iodine Deficiency in the Baltic States through Universal Salt Iodization (Riga, April 27-28, 2000) only limited progress has been achieved in IDD elimination in the Baltic States. Situation could be changed since availability of donor funds through UNICEF can reduce effects of cost-related factors to development and implementation of strategies and Action Plans of IDD elimination in the Baltics.

1. More important, high level **political commitment** is needed to develop and implement effective measures to eliminate iodine deficiency in the Baltic countries. Activities should be focused primarily on **advocacy for necessary legislation** and regulation that supports USI.

- The main target of advocacy activities supported by UNICEF should be **Heads of States (Presidents) and Governments**. Special letters from UNICEF (and WHO) Regional Directors to Presidents of the Baltic States may highlight negative impact of iodine deficiency on intellectual potential of the growing generations and on the importance of IDD elimination in their countries through USI. Alternatively, these presidents may be visited and briefed by high ranked UNICEF representative with active support of National Committees for UNICEF. These Committees in the Baltic countries are "visible" and efficient, and their Chairpersons and/or Directors can open many doors to top political circles, including President and PM offices.
- It is extremely important to develop necessary framework and conduct national **Advocacy Events** aimed at promotion of IDD elimination in each Baltic country, sponsored by the Head of State or Government. A good platform for the Advocacy Event in Estonia could be Nutrition Forum that is planned for November 13, 2001. Similar Forums may be conducted in two other countries to achieve political commitment and raise awareness in negative consequences of iodine deficiency for populations. UNICEF may provide donor funds to support Advocacy Events.
- National Committees (Working Groups) on IDD in collaboration with UNICEF NatComs, representatives of National Parliaments, government ministries, academia, medical professional associations, civic and consumer organizations, and the media may conduct **special hearings** to discuss issues of relevant legislation on IDD elimination and its enforcement.

- UNICEF in collaboration with WHO Regional Office for Europe should advocate for the incorporation of IDD elimination, through USI, in the **Food and Nutrition Action Plans** for 2001-2005 currently developed in three Baltic States. These plans will be discussed on the Second consultations on Development of Food and Nutrition Action Plans in the Baltic Countries organized by WHO Regional Office for Europe in Sigulda, Latvia, 19-21 June 2001. We must use this momentum to put issues of IDD elimination on top of national priorities in the Baltic countries.

2. The policy of IDD elimination in the Baltic states should be based on active promotion of iodized salt use (instead of non-iodized salt) on household level and through **mandatory requirements** for use of *only* iodized salt in certain institutions (health care facilities, school catering system, government system, etc.) and in food industry (bakeries, meat procession plants, etc.). The overall strategy should be gradual implementation of USI over the next 5 years. Such approach has been used with success in several European countries (Germany, Netherlands). Regular meetings and seminars with salt importers and major food producer's associations (bakeries, meat procession industry, etc.) should be conducted in each country by national food authorities to promote the use of iodized salt in food industry. Regular Salt Situation Analyses (SSA) in each country are needed to track progress in iodized salt import, trade and consumption. UNICEF may use donor funds towards the support of these activities.

3. **National advocacy and communication plan** for each country must be developed with focus on issues relating to the solutions to prevent iodine deficiencies, through USI. Knowledge, Attitude and Practice (KAP) surveys should be conducted as a baseline for planning for future EIC activities. Communication adviser in the UNICEF Regional Office may provide necessary support to the development of EIC Plans in the Baltic countries.

EIC campaigns in Lithuania ("IDD Month") and Latvia ("IDD Week") were conducted in the year 2000 with UNICEF support. These campaigns increased knowledge of population in negative consequences of iodine deficiency and boosted requirements for iodized salt. National UNICEF Committee and health authorities in Lithuania got access to State TV company for broadcasting of IDD video spots free of charge. EIC activities should be continued in Latvia and Lithuania, and launched in Estonia. Donor funds, through UNICEF, may be used for creation of TV video spots and for printing of additional copies of leaflets and booklets about iodized salt for distribution through Health Centers to every school and health care unit.

4. UNICEF, with donor funds, may provide further support to the development of reliable **IDD monitoring system** in each country capable for tracking both process (quality of iodized salt) and impact (biological) indicators. This support may boost regional cooperation of the Baltic countries in creation of network of laboratories and other facilities for effective monitoring of IDD elimination programs, regular national assessments and pilot projects.

More and more countries of Central and Eastern Europe are reaching 1990 World Summit Goal for Children – virtual elimination of iodine deficiency. This global commitment will be reinforced on the United Nations General Assembly Special Session Follow-up to the World Summit for Children (September 2001). There is no doubt that the Baltic States have necessary capacity and potential to take all necessary measures in order to ensure the implementation of the Convention on the Rights of the Child, develop comprehensive national strategies and provide the necessary resources for elimination of iodine deficiency, now and forever.

1. INTRODUCTION

UNICEF Regional Office for CEE/CIS and the Baltics requested me to communicate with the country delegates to the Policy Meeting on the Elimination of Iodine Deficiency in the Baltic States through Universal Salt Iodization (USI) (Riga, April 28-29, 2000) and to update the status of IDD control and elimination programs, through USI, in Lithuania, Estonia and Latvia.

My Terms of Reference for this assignment included the following tasks:

1. Meet relevant stakeholders in the public and private sectors, particularly members of an National IDD Committee, to discuss the outcomes of Policy Meeting on the Elimination of Iodine Deficiency in the Baltic States through Universal Salt Iodization and to assess status of implementation the activities developed by country delegations on the meeting.
2. Collect available data on how iodized salt consumption, import and trade changed following the meeting and communication campaign in the media conducted in 2000.
3. Provide a brief overview of the current state of legislation, regulations and standards regarding USI.
4. Discuss ways and means how UNICEF, with donor funds, may further support ongoing IDD elimination programs, especially in the fields of advocacy, information, education and communication.
5. Prepare a report for UNICEF Regional Office covering the situation, results of discussion with key players, and the recommended course of action for each country in line with their national plans and objectives.

To accomplish this task I visited Lithuania (March 13-16, 2001) and Estonia (March 27-30, 2001). My trip to Latvia was postponed to mid June due to late receipt of entry visa. However, I had a chance to meet with Dr. G.Selga, local IDD focal point for Latvia, during my trip to Lithuania, and also received detailed information on status of the program from Dr. Stengrevics, Director of Latvian Food Center, and Ms. Ilze Doskina, Director of UNICEF National Committee.

2. BACKGROUND

Recent analyses of situation in countries of Central and Eastern Europe, the Commonwealth of Independent States and the Baltic States (CEE/CIS/BS) has confirmed that the region as a whole lags far behind the rest of the world in progress towards the elimination of Iodine Deficiency Disorders (IDD) through Universal Salt Iodization (USI). The area within this region which appeared to have the lowest availability of, iodized salt, in terms of the percentage of food grade salt which was iodized, was the Baltics. Investigations of the salt situation, current information on IDD prevalence, health policies and other aspects of national IDD elimination programs were conducted in all three Baltic State countries, with the support of UNICEF, during the period November 1999 to January 2000. Salt Situation Analysis (SSA) in Latvia and Lithuania showed that approximately 1% to 4% of imported food grade salt was iodized. In Estonia the situation was less clear, however, a 1997-nutrition survey indicated that only around 14% of adults were using some form of iodized salt.

The prevalence of iodine deficiency in these 3 countries appears to be mild to moderate, which is highly significant in terms of resulting reduced cognitive capacity and its effect on overall future national economic and social development. Only Lithuania has adopted a national program for the elimination of IDD. In 2000 none of the 3 countries had legislation to ensure or promote USI, although the Lithuanian government has included iodized salt on the list of products exempt from Value Added Tax (currently 18%).

The conclusion of these investigations, made in collaboration with national food and nutrition institutes, departments of public health and salt importers from these countries, was to conduct a joint Policy Meeting on Elimination of Iodine Deficiency. In December 1999 – January 2000 I visited all three Baltic States in the capacity of UNICEF consultant. The aim of this mission was to assess policies towards IDD control and elimination and to provide technical assistance for three-country meeting on IDD elimination. This meeting was held in Riga, Latvia, on April 27-28, 2000.

3. A POLICY MEETING ON THE ELIMINATION OF IODINE DEFICIENCY IN THE BALTIC STATES THROUGH UNIVERSAL SALT IODIZATION (Riga, Latvia, April 27-28, 2000

The purpose of the Policy Meeting on the Elimination of Iodine Deficiency in the Baltic States was to reach an agreement on the most appropriate national strategies and action plans required to achieve universal salt iodization (USI) and the elimination of iodine deficiency from these countries. This meeting brought together policy makers and professionals in health and nutrition with private salt importing companies and international experts in the field, to consider how to fully protect the intellectual potential of the region's population through universal access to, and consumption of, iodized salt.

The meeting resulted in:

- Better understanding by all sectors of iodine deficiency; its effects, prevalence and ease of prevention;
- Better definition of the potential role of the private sector in the elimination of iodine deficiency, through the import of only iodized salt, and in the production of foods enriched with iodized salt;
- Exchange of experience and improved networking between health/nutrition authorities and private sector of the 3 Baltic countries.
- **Development of national strategies and action plans to eliminate iodine deficiency in The Baltic Countries, together with a commitment to implement these planned activities.**

4. MISSION TO LITHUANIA

On the Policy Meeting the Lithuanian Working Group listed 5 major components of the current and planned National IDD program:

1. Further assessment of iodine deficiency problem in different population groups (prevalence of goiter, measurement of urinary iodine).
2. Support for the development and adoption of legislation on IDD control and elimination.
    a. Elimination of IDD is a part of Lithuanian Health Program adopted by Lithuanian Seimas (Parliament) in 1997;
    b. By initiative of the Ministry of Health, supported by the Ministry of Finance, the Government included iodized salt to the list of products exempt from 18% Value Added Tax (VAT) from March of the year 2000. This measure is aimed to make iodized salt cheaper and more attractive to consumers.
    c. It is unlikely that the Lithuanian Government will adopt legislation on USI. The policy of the Ministry of Health is to promote **voluntary** use of iodized salt and increase demand for iodized salt through health education.
3. Monitoring of IDD Control Program.

The National Nutrition Center of the Ministry of Health implements projects supervising the quality of iodized salt. Systematic supervision will be conducted by hygiene inspection, quality inspection and public health centers. The Central Laboratory of the National Nutrition Center implements methods of iodine determination in salt, other foods, and urine.

4. Education, Information and Communication.

These elements will be the main focus of activities in the next 1-2 years to promote the use of iodized salt from the present insignificant level (<5%) to an acceptable level (at least 50% by the end of 2001). Further international support may be needed for this component of the national IDD control program.

CURRENT STATUS OF THE PROGRAM

Legislation.

Lithuania is the only country in the Baltics where IDD elimination has been included to the National Health Program that was adopted by the Parliament in 1997. Thus, the government

showed **clear commitment** to launch activities aimed at elimination of iodine deficiency in this country. However, the policy of the government is to promote mostly **voluntary** methods for iodized salt use through the increase of the demand for iodized salt, health education, information and communication.

By the initiative of Lithuanian Food Center with the support of the Ministries of Health and Finance, the Government included iodized salt to the list of products exempt from 18% Value Added Tax (VAT) from March 2000. This measure was aimed to make iodized salt cheaper and more attractive to consumers. However, it does not drastically increase the amount of iodized salt on the market.

It is quite clear that only voluntary methods of iodized salt promotion, without some measures aimed at mandatory use of iodized salt (in retail trade and/or food industry) will not seriously change the picture.

Education, Information and Communication (EIC) campaign "IDD Month"

The National Nutrition Center, with support from the National Committee for UNICEF and in collaboration with the Ministries of Health and Education and Regional Public Health Centers conducted an "IDD Month" in November 2000. To reach the goal of iodized salt promotion, the National Nutrition Center developed guidelines for public health educators and schoolteachers and also for salt producers/importers (sample copies in Lithuanian language are attached to the hard copy of this report). UNICEF provided with rapid test kits to check salt specimens brought by schoolchildren from households. The National Committee for UNICEF, with the support of UNICEF Regional Office and Kiwanis, funds published leaflets and posters (wall calendars), and produced TV spots with information on iodine deficiency and its elimination through iodized salt.

The TV spot were broadcasted 90 times on national TV channels free of charge by the initiative of National Committee for UNICEF.

Efficiency of ongoing activities to promote iodized salt

In general, EIC activities during "IDD Month" led to some increase of iodized salt trade. For example, sales of iodized salt by the private company "Concordia" increased from 20,184 kg in October 2000 to 37,656 kg in November (Figure). Another company, "Karota", reported that the trade of iodized salt increased from 3,481 kg in October to 10,367 kg in November and 11,270 kg in December 2000. However, as soon as the promotion of iodized salt through TV terminated, the sale of iodized salt by both companies decreased to usual average amounts.

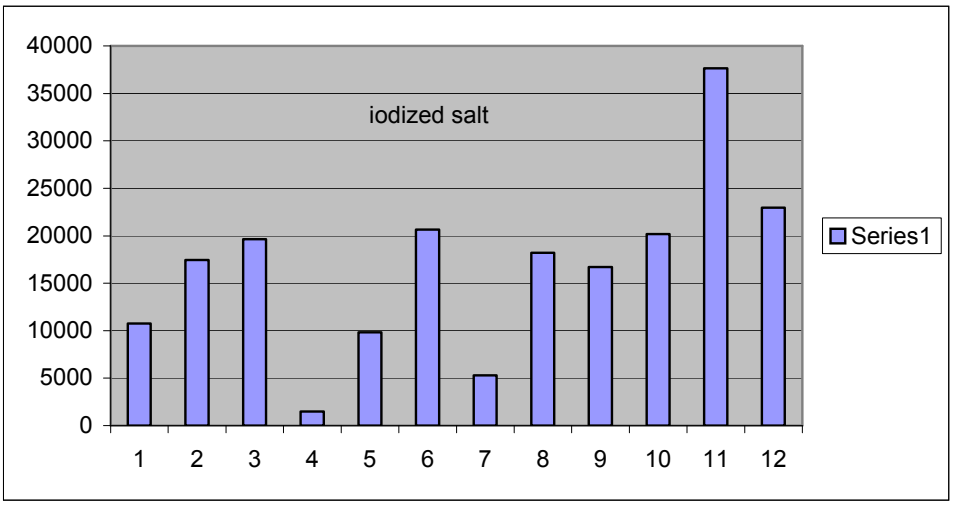

Figure. Amount of iodized salt (in kg) traded by the private company "Concordia" by months of the year 2000. Sharp increase of iodized salt trade in November (11) coincides with communication campaign "IDD Month".

It should be noted that according to preliminary calculation, the sale of iodized salt did not increase significantly in the year 2000. For example, one of the most the important salt traders in Lithuania ("Concordia") in 1999 sold 3,593 tones of edible salt. Out of this amount 104 tones (less than 3%) was iodized salt. In the year 2000 the trade of iodized salt increased to 203 tones. However, if the amount of salt import by this company remained at the level of 1999, the proportion of iodized salt remained very low - **only 6%** of total edible salt trade.

Thus, it would be quite difficult to reach the goal to increase amount of iodized salt on the market to 50% by the end 2001 as stated in the proposed National IDD Plan.

Visit to the Institute of Endocrinology, Kaunas Medical University

Medical professionals in Lithuania are actively supporting national IDD program. In the Institute of Endocrinology, Kaunas Medical University, I met with Director of this Institute Prof. L.Lasas and Head of Thyroid Clinic, Dr. Kazanavicaus.

It was agreed that the team from this Institute would conduct, with UNICEF funds, a pilot study in some area of Lithuania to assess efficiency of iodized salt use for IDD elimination. The preliminary outline of this small research project is as follows. The team will select 2 groups of schoolchildren in a region of Lithuania with mild/moderate iodine deficiency. The first group (children in the boarding school) will consume all foods prepared only with iodized salt. For that non-iodized salt will be fully substituted only with iodized salt in the school canteen. Local health center will take care of the control of iodized salt quality. The second group of

schoolchildren (control) will consume foods prepared at home. The percent of households that consume iodized salt will be assessed at the beginning and at the end of the pilot project. This project should demonstrate that substitution of common salt with iodized salt provides adequate amount of iodine to children. Iodine nutrition will be assessed by measuring level of urinary iodine before, in the course and at the end of the pilot project. Another indicator will be the size of thyroid gland in children assessed with ultrasonography technique.

It was also agree that Dr. Kazanavicaus will prepare detailed proposal for this pilot project that will be submitted to the Office of Public Health (Dr. A.Astrauskiene) and reviewed by myself.

Meeting in the Lithuanian Centre for Medical Genetics

During my visit I was invited to visit Prof. Vaidutis Kucinskas, Director of the Center for Medical Genetics, Medical Faculty of Vilnius University. Neonatal screening for congenital hypothyroidism (CH) in Lithuania has been implemented since 1993 by measuring TSH (Thyroid Stimulating Hormone) in dried blood spots collected on filter paper. Over 226,000 newborns were screened since that time and 52 infants with CH have avoided severe mental retardation caused by CH.

The system of neonatal CH screening in Lithuania is rather effectively organized and covers 98% of all newborns. Insurance companies meet the costs of this program. It should be noted that results of CH screening provide not only immediate benefits of detecting newborns with thyroid abnormalities, but also can be very useful for **monitoring of iodine deficiency**.

Prof. V. Kucinskas and his team assessed a percent of newborns with TSH level more than 5 mUI/L. In iodine sufficient places less than 3% of newborns have TSH level more than 5 mUI/L. Preliminary data shows that 20% of newborns in Lithuania have TSH level more than 5 mUI/L **indicating mild to moderate iodine deficiency**. This results are in good agreement with other indicators (urinary iodine levels, goiter prevalence) of IDD.

It should be noted that regular neonatal screening provides with opportunity to develop sustained system for IDD monitoring. Prof. V.Kucinskas made a proposal to develop a system for constant IDD monitoring based on neonatal TSH screening. This proposal should be granted.

Final Meeting at the State Public Health Service.

This meeting at the end of my mission to Lithuania was organized and chaired by **Dr. A. Astrauskiene,** Deputy Director of the State Public Health Service (prophylactic branch under the

Ministry of Health). I made a brief overview of my finding during the mission and summarized some suggestions.

- As a follow up on the Baltic States Policy Meeting (2000), to conduct Salt Situation Analysis (SSA) using the same questionnaire as in 1999 to assess changes in import and trade of iodized salt in the year 2000;
- To reinforce the work of the National Committee on IDD (NCIDD) in collaboration with State Public Health Service, Nutrition Center, health professional organizations (endocrinologists, pediatricians, etc.), salt producers, education authorities, legislators and the media and conduct meeting of NCIDD on regular basis;
- To conduct a parliamentary hearings on IDD elimination with representatives of Parliament Committees, Ministries of Health, Education and Agriculture, consumer organizations, the media and other relevant stakeholders to discuss issues of relevant legislation on IDD elimination;
- To develop necessary framework documents aimed at mandatory use of iodized salt for production of certain process foods and promote this initiate to the food producers through special seminar(s) with salt importers and major food producers associations (bakeries, meat procession industry) to promote the use of iodized salt in food industry;
- To conduct a KAP survey and based on obtained information develop plan for targeted communication campaign; to continue EIC campaign in the media; approach again the State TV company for broadcasting of IDD video spots free of charge;
- Make necessary changes/corrections to the promotion leaflets (targeting them primarily at the use of only iodized salt) and print additional copies for distribution through Health Centers to every school and health care unit in the country.
- Conduct a pilot study of the efficiency of iodized for control and elimination of iodine deficiency.

It was agreed that **Dr. A.Astrauskiene,** Deputy Director of the State Public Health Service, would be coordinating cooperation between UNICEF and Lithuanian government in elimination of IDD. Lithuanian Nutrition Center in collaboration with other institutions will be the main force to implement the project. All activities will be implemented in close cooperation with National Committee for UNICEF (**Mr. J.Pusvaskis**, Director of the National Committee). The proposal for the project supplied by State Public Health Service under the Ministry of Health is listed below.

STATE PUBLIC HEALTH SERVICE
MINISTRY OF HEALTH

TITLE DEVELOPMENT OF IODINE DEFICIENCY DISORDERS ELIMINATION STRATEGY

TOTAL BUDGET OF THE PROJECT 20 000 USD

CONTACT INFORMATION ORGANIZATIONS:

STATE PUBLIC HEALTH SERVICE
Kalvariju 153, Vilnius, Lithuania
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Director: Mr. Jaunius Pusvaškis
E-mail: unicef@undp.lt

Introduction

Iodine deficiency has been identified as a global public health problem and is the main cause of preventable mental retardation with over a billion people at risk worldwide (WHO/UNICEF/ ICCIDD 1994). The most important consequences of iodine deficiency are permanent brain damage in the fetus and infant and retarded psychomotor development in the child (Delange et al. 1994). Iodine deficiency causes goiter, increased incidence of stillbirths, abortions, and congenital abnormalities including endemic cretinism. Neonates born in iodine deficient areas are the most vulnerable (WHO/UNICEF/ICCIDD 1994, Maberly et al. 1994).

Universal salt iodization is the agreed-upon worldwide strategy for the elimination of iodine deficiency. Iodized salt is safe, economic and proven effective in preventing iodine deficiency disorders.

Iodine Deficiency Disorders (IDD) are still not fully recognized as a public health problem in Lithuania. Lithuania and other 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 (less than 7**%)** is imported in iodized form to Lithuania.

Elimination of IDD is a part of Lithuanian Health Programme, adopted by Lithuanian Seimas (Parliament), a part of National Public Health Strategy, a part of National Nutrition Action Plan, National Environmental and Health Programme. By initiative of the Ministry of Health, the Government included to the list of product exempt from Value Added Tax. National Nutrition Centre implements project supervising the quality of iodized salt. The Central laboratory of National Nutrition Centre implements methods of iodine determination in salt, urine, foods.

Main Goals of the Project:

- To support activities for IDD elimination through activities leading to USI.
- To develop necessary legislation and means of their enforcement in support of USI.
- To create necessary awareness on the importance of iodized salt in the elimination of IDD.

Participating organizations:

State Public Health Service
National Committee for UNICEF
National Nutrition Centre
Kaunas Medical University Endocrinology Institute

	OBJECTIVE	ACTIVITY	BUDGET (USD)
1	To conduct knowledge-attitude-behavior practice assessment of consumers attitude to problems of iodine and micronutrient deficiency	A quantitative research KAPB study • STUDENTS. Random selection of school (10 schools participate in project, 10 for control) • PARENTS. Random selection of school (10 schools participate in project, 10 for control)	3 000
2	To implement monitoring of iodine disorders and assessment of iodine deficiency level in children of risk region (Panevezys, Visaginas)	• Evaluation of children physical development • Thyroid size volumetrical assessment • Examination of iodine excretion in urine	6 000
3	To conduct Salt Situation Analysis using questionnaire	• To assess changes in import and trade of iodized salt	1 000
4	To conduct a pilot study of the efficiency of iodized salt for elimination of iodine deficiency	To assess the magnitude of IDD in the control boarding school (non using iodized salt) and searching boarding school (using iodized salt) • Thyroid size volumetrical assessment • Examination of iodine excretion in urine	3 000
5	Development and implementation of required legislation for USI	• To conduct meeting with salt importers and food producers associations • To prepare leaflets (targeting them primarily at the use of only iodized salt) and print additional copies for distribution through Health Centers to every school and health care unit in the country. • Continue IDD elimination campaign in the media	5 000
6	General operating expenses		2 000

5. MISSION TO ESTONIA

On the meeting in Riga, Estonian Working Group developed the following major components of the current and planned National IDD program:

1. Current policies to eliminate iodine deficiency in Estonia

- Estonian Health Policy Paper (1995) has no special indication on policies towards IDD control and elimination;
- There are neither existing IDD elimination programs nor a Committee for IDD;
- Estonian food-based dietary guidelines (1998) recommend salt with low sodium content or iodized salt.

2. National strategies and action plans

Major constraints:

- The problem is not well identified, for that there is the need for a new IDD survey and a survey of the iodine content in local foodstuffs.
- Results of those surveys (together with results from international surveys and experience) should be widely presented to the medical sector, decision makers, consumers etc.

IDD elimination strategy:

- consumer education; based on results of new surveys, health promotion projects will be developed for consumers, medical doctors, key-persons, food industry/caterers;
- regulations for the use of iodized salt in key-facilities etc.; should be based on results of new surveys or on EU directives;
- monitoring and control; this will be under the Health Protection Inspection and Consumers Rights Agency.

3. Action plan for IDD

- An action plan will be developed by the National Committee for Food, Nutrition and Physical Activity (whose responsibilities include the IDD problem);
- IDD elimination activities will be included in the National Action plan for Food and Nutrition;

- An awareness raising campaign aimed at decision-makers, medical doctors, consumers, food industry/caterers will be conducted;
- Regulations (for use of iodized salt in key-facilities, etc) will be developed;
- Monitoring and enforcement of regulations (education of health protection and consumer rights inspectors) will be established;
- Evaluation/monitoring (IDD surveys, market availability, consumer health behavior and awareness) will be conducted.

CURRENT STATUS OF THE PROGRAM

A meeting in the Ministry of Social Affairs

Ms. Sirje Vaask, staff member of the Department of Public Health, organized this meeting in the Ministry of Social Affairs on the first day of my trip to Estonia. Other participants were Tiina Paldra, Health Protection Department, Ministry of Social Affairs, Kai Raska, Health Protection Service of Tallinn and Harju county, Katrin Lohmus, Veterinary and Food Department, Ministry of Agriculture, and Sven Talts, Akzo Nobel Salt. Mr. Toomas Palu, Executive Director of UNICEF National Committee, was not able to present on the meeting since he was attending RMT meeting in Belgrade.

I briefed participants of the meeting on the purpose of my trip to Estonia. I also reminded that on the meeting in Riga UNICEF expressed commitment to provide financial support, with donor funds, to ensure that implementation of the national action plans in Baltic countries was not inhibited by cost-related factors to make certain that the momentum gained during the policy meeting would not be diminished or lost. In particular, UNICEF is willing to provide financial and technical support for new IDD survey in Estonia and to activities in the fields of advocacy, information, education and communication.

Ms. S.Vaask in her overview of current situation mentioned that Estonian Health Policy Paper (1995) had no special indication on policies towards IDD control and elimination. Still there are neither national IDD elimination program, nor a Committee for IDD control. The main nutrition policy is aimed at reduction of salt and fat consumption; Estonian food-based dietary guidelines (1998) recommend salt with low sodium content or iodized salt. Ms. Vaask mentioned that there is an opportunity to include IDD elimination in revised Health Policy Paper that is now drafted by the Ministry, as well as to stress importance of iodized salt use in the new National Nutrition Recommendations. Department of Public Health is also developing recommendations on the expanded use of iodized salt in school catering facilities. Ms. Vaask and other participants

to the meeting specifically stressed that the problem of iodine deficiency in Estonia is not well identified and that there is obvious need for a new IDD survey that should be conducted in this year. Results of this survey could be presented to the medical and nutrition community, decision-makers and consumers to further facilitate IDD elimination campaign in Estonia.

In the discussion, participants to the meeting expressed their views that currently it is **unlikely** to have regulation on USI in Estonia that could prohibit the use of non-iodized salt. Most likely, the policy will be aimed primarily at consumer education and health promotion to increase demand for iodized salt. In response, I mentioned that history of all effective IDD elimination projects worldwide, and in Eastern Europe particularly, shows that iodine deficiency could be eliminated only by combination of consumer education and mandatory use (trade) of iodized salt. I proposed to investigate possibilities of mandatory use of iodized salt in food industry, i.e. meat procession and in baking. It was agreed that a graduate student in food technology might prepare an overview of current practices of the use of micronutrient fortification in food industry and in agriculture. Ms Vaask also supported the idea of my meeting with Dr. T. Podar and Dr. A. Ambos, University of Tartu Hospital of Endocrinology, regarding new IDD survey in Estonia.

Visit to Tartu University Endocrinology Hospital

Estonia was the only Baltic country where iodine deficiency (endemic goiter) was officially recognized as a health problem during the USSR. Subsequently, Antigoiter Dispensary was organized in the second largest city of Estonia (Tartu) in the southwest region of the republic where endemic goiter was more prevalent. However, with eradication of visible forms of endemic goiter this disease was considered “eliminated”. Antigoiter Dispensary was reorganized into Endocrinology Center that was dealing primarily with diabetes and other endocrine diseases. Supply of iodized salt and distribution of iodine tablets were terminated and IDD reappeared. In the process of health reforms in independent Estonia the Dispensary was merged with hospitals and clinics of Tartu University and became a Hospital of Endocrinology.

In 1995, with support of UNICEF, the staff members of Endocrinology Hospital performed IDD survey: 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. *(Veinpalu M, Ambos A, Velbri S, Vaher Y, Podar T. Urinary iodine excretion in Estonian children. European Journal of Endocrinology. 135:248, 1996)*

More recent study found out that 17.7% of all newborns screened in Estonia for neonatal hypothyroidism have TSH levels above 5 μU/l, suggestive of the existence of mild iodine deficiency. *(Mikelsaar RV, Zordania R, Viikmaa M, Kudrjavtseva G. Neonatal screening for congenital hypothyroidism in Estonia. Journal of Medical Screening 5:20-1, 1998)*

During my trip I visited University Endocrine Hospital and had a talk with Dr. Toomas Podar, Director of the Hospital, and Dr. Anu Ambros (participant to the Policy Meeting in Riga). Both specialists agreed that results of previous survey were not fully used for development of IDD elimination policy in Estonia and that new survey is needed to assess current status of iodine nutrition in this country and create baseline data for further monitoring. The survey should encompass all counties of Estonia and schoolchildren will be selected as the indicative group. Since school year will be over at the end of May, efforts should be made to conduct this survey as soon as possible. It was agreed that Dr. Podar and Dr. Ambros would develop a proposal on this survey and send it to me for review **(Attachment #1)**.

This proposal was submitted and after careful review I may recommend UNICEF Regional Office to fund it. The Principal Investigator of this survey will be Dr. Toomas Podar. He has medical background and currently works a Head of Endocrinology Department in the Tartu University Clinics. Dr. Podar also holds Master of Public Health (MPH) Degree from University of Pittsburgh (USA) in epidemiology and has unique capacity for conducting IDD survey in Estonia.

Iodized salt in Estonia

During this trip I made small survey of food shops in two major cities, Tallinn and Tartu, in terms of availability and pricing of iodized salt. This survey is neither scientific, nor representative but gives some picture of iodized salt place on the market. In Tallinn in all 4 shops visited iodized salt was on sale. In Tartu iodized salt was on sale only in the big supermarket, but not on city market and in smaller shops. Only one type of iodized salt produced by Dansk Salt (Denmark) was on sale in all visited shops. This salt was more expensive (7 EEK) than common non-iodized salt (3-4 EEK). One US dollar is equivalent to 17 Estonian Kroons (EEK).

I asked a saleswoman on Tartu market why iodized salt is not on sale in her kiosk. She answered that a kiosk is not her property and she makes no decision on what to sale. The saleswoman also mentioned that customers of this market tend to buy cheapest products available, but for her family she is buying iodized salt in supermarket. She knew that iodized salt is good for health but could not specify (may be, due to insufficient knowledge of Russian language).

On the meeting in the Ministry of Social Affairs I had a chance to talk with Mr. Sven Talts, from Estonian salt company that imports iodized salt from Denmark. From his prospective, the sale of iodized salt did not significantly change during last year. Since salt is a cheap product, this company does not have enough funds for iodized salt advertising. However, they are willing to cooperate with UNICEF and national authorities in communication campaign aimed at increase of demand for iodized salt.

Another major supplier of salt to the Estonian market is "Taproban" company. This company imports salt from Belarus (fine vacuum salt) and Ukraine (mainly, crude rock salt) in bulk for repackaging in Estonia. It should be noted that crude non-iodized Ukrainian salt is two times cheaper that iodized salt from Denmark. I did not see in the surveyed shops Ukrainian or Belarus iodized salt repackaged by "Taproban". Director of this company, Mr Ivan Tochilin, was out of Tallinn at the time of my visit and I interviewed him later by telephone from Moscow. He said that his company is importing and repackaging iodized salt from Belarus and Ukraine (about 10% of total volume). Mr. I.Tochilin also mentioned that demand for iodized salt in not high and his company is importing salt according to request from shop owners. He also pointed out that population, especially rural, thinks that iodized salt is not good for pickling and salting fish or meat.

UNICEF in Estonia

I should specifically note that UNICEF fundraising activity is extremely visible in Estonian capital Tallinn. I found UNICEF donation boxes (and small flyers with information about UNICEF) in the hotel "Centraal" where I lived and in the nearby bank office where I changed money. In the gift section of the big department store "Tallinn Kaubamaja" I also found a stand with different UNICEF souvenirs. This was very pleasant surprise for me and I would like to congratulate Estonian National UNICEF Committee and Mr. Toomas Palu for such high level of performance.

Mr. Toomas Palu, Director of UNICEF National Committee, was on the meeting in Belgrade during my visit to Tallinn. After my return to Moscow I briefed Mr. Palu by phone on results of my trip to Estonia. Estonian NatCom seems to be interested in supporting advocacy and communication parts of IDD elimination campaign. Mr. Palu also supported the idea of new IDD survey. We agreed that UNICEF NatCom in collaboration with the Ministry of Social Affairs would develop an Action Plan based on the funding provided by UNICEF with USAID funds.

Recommendations made to national counterparts.

A year after Policy Meeting there is no significant progress in development of IDD elimination strategy and action plan in Estonia. In part this is due to lack of active lobby in the health community and civic sector pushing for effective program of IDD elimination. Results of previous (1995) IDD survey were not communicated to decision takers and no action was taken to overcome the problem. Moreover, these results were questioned by other groups that in fact are rejecting existence of insufficient iodine nutrition in Estonia (see my earlier mission report "Current policies for IDD control, prevention and elimination in Latvia, Lithuania and Estonia: recent progress and future perspectives" February 2000).

1. I would strongly advocate for the new IDD survey in Estonia:

a) To put an end to the discussion on whether iodine deficiency is present in Estonia,
b) To create reliable baseline data for future monitoring of iodine deficiency,
c) To demonstrate nationwide distribution of iodine deficiency as a basis for universal approach to tackle the problem,
d) To strengthen IDD monitoring system and for capacity building.

It is also important to collect and analyze historic data on iodine deficiency (endemic goiter) in Estonia. This will be important for advocacy reasons to show that iodine deficiency is not a "new" problem for this country and existed here historically.

It would be highly desirable if a graduate student, or perhaps a resident in Tartu Endocrinology Hospital, will make an overview of existing literature on iodine deficiency (endemic goiter) in Estonia, meet with retired doctors of the former Antogoiter Dispensary who leaded the effort of endemic goiter prophylaxis in Estonia and 1950s-70s. This information may be later communicated to the decision takers and general public through the media to support efforts aimed at IDD elimination is Estonia.

2. Political commitment is needed for development and implementation of effective measures to eliminate iodine deficiency in Estonia. A national Advocacy Event should be conducted in Estonia this year. This Event could be associated with UNGA Special Session on Children .A good platform for such Advocacy Event could be **Nutrition Forum** that is planned for November 13, 2001. It is important to create (before the event) and officially inaugurate (on the Advocacy Event) National Committee on IDD or Iodized Salt Watch with representatives from different sectors that should be responsible (and has necessary) resources for activities aimed at elimination of iodine deficiency in Estonia in the next 2-3 years.

3. Create a national advocacy and communication plan to focus on issues relating to the solutions to prevent iodine deficiencies, through USI. As I mentioned before, activities of National Committee for UNICEF is extremely "visible" and efficient and, for sure, Chairperson and Director of this Committee can open many doors to high political circles, including President's and PM's offices.

As far as I understood from the talk with Mr. T. Palu, UNICEF NatCom is willing to take a lead in advocacy and communication side of IDD elimination activities. As initial step to development of comprehensive information and communication plan, I recommended to conduct Knowledge, Attitude and Practice (KAP) survey as a baseline for planning for future activities. As a part of information and communication campaign, I would also recommend to conduct "IDD Months" in Estonia in the next few months (before Advocacy Event in November). Experience of conducting such communication campaign could be shared between Lithuania and Estonia.

4. I have requested the partners in Estonia to develop and submit proposals for UNICEF funding. By this time I have received the proposal from Estonian Endocrine Society to conduct a baseline survey on IDD **(Attachment #1)** and Plan of Action from the Ministry of Welfare (Ms. S.Vaask).

PLAN OF ACTION
USI/IDD Elimination in Estonia

Objective:

- To assist the country and support activities for USI and the elimination of IDD.
- To develop necessary legislation and means of their enforcement in support of USI.
- To create necessary awareness on the importance of iodized salt in the elimination of IDD.

Activity	Objective	Output	Time frame	Partners	Budget (US $)
Follow up on the Baltic states meeting conducted last year on IDD elimination.	To work with the partners in developing a comprehensive strategy and plan of action for the country to facilitate the achievement of USI.	Plan of action will be developed identifying national partners and their roles.	Apr- Sept	Estonian Nutrition Society, Ministry of Social Affairs, Ministry of Agriculture, Health Protection Inspection, Salt Importers, Food Processing Institute of Tallinn Technical University, Tartu University Hospital, Clinic of Endocrinology, Estonian Association of Pediatricians	**1000**
Assist with the development and implementation of required legislation for USI.	To work with partners in the development of the necessary legislation that will ensure that all imported and marketed salt is iodized: to make an analysis of situation, survey on use of iodized salt in facilities, legislation, incl. economical benefit of USI for Estonia.	Legislation and measures for their enforcement will be in place.	Aug-Dec	Estonian Nutrition Society, Food Processing Institute of Tallinn Technical University, Public Health Department of University of Tartu, Ministry of Social Affairs, Ministry of Agriculture, Health Protection Inspection	**2000**
Plan and conduct a base line survey on IDD.	To conduct a national base line survey on IDD status and disseminate it s results.	Clarification of whether IDD is a significant problem.	Apr-Dec	Estonian Union of Endocrinology	**6000**
Develop a communication strategy.	To develop and disseminate necessary IEC material on the importance of USI to all sectors of society: Leaflet for	Awareness is raised.	Aug-Mar	Estonian Nutrition Society, Estonian Health Promotion and Education Centre, Ministry of Social Affairs, Ministry of	**11000**

	family doctors to increase awareness on the importance of iodized salt in the elimination of IDD (results of IDD survey and the recommendations for counseling of patients). 2000 Leaflet for consumers (benefits of iodized salt for domestic food preparation, incl. Canning). 10000 Poster for schools and kindergartens (children and health: mental capability and iodized salt). 2000. Project coordinators in every county will implement project in county level and disseminate materials to schools, family doctors, kindergartens, hospitals etc.			Agriculture, Ministry of Education, Health Protection Inspection, Food Processing Institute of Tallinn Technical University, Tartu University Hospital, Clinic of Endocrinology, Estonian Association of Pediatricians, Estonian Association of Family Doctors, county health promotion specialists, media	
Plan and implement one-day seminars for policy makers, medical professionals and Nutritionists on IDD and USI.	To conduct seminars that will address specific target groups and sensitize them for USI: Estonian Nutrition forum14th November, 3 one-day seminars in three Estonian region (Tallinn, Tartu, Pärnu) for family doctors etc. to disseminate results of IDD survey and analysis of legislation etc.	Mobilization of major partners to accept USI as a major strategy for IDD elimination	Sept-Mar	Estonian Nutrition Society, Ministry of Social Affairs, Ministry of Agriculture, Health Protection Inspection, Salt Importers, Food Processing Institute of Tallinn Technical University, Tartu University Hospital, Clinic of Endocrinology, Estonian Association of Pediatricians, Estonian Association of Family Doctors, county health promotion specialists media	**6000**
				TOTAL	**26000**

CURRENT STATUS OF THE PROGRAM IN LATVIA

The Latvian Working Group on the meeting in Riga recommended the following activities to be conducted in the framework of national program for IDD elimination:

1. An Intersectional National IDD Committee will be organized under the Ministry of Welfare to develop national goals, strategies, and annual programs.
2. The National IDD Program will be incorporated in the **"**Public Health Strategy and Action Plan" and The Nutrition Action Plan (WHO); both of which will be finalized and adopted by Cabinet of Ministers of Latvia by the end of 2000.
3. Legislation and regulations/standards for iodized salt will be developed by the Food Center, including the chemical form and amount of iodine permitted in salt; requirements for stability, shelf life and labeling of iodized salt.
4. Monitoring and enforcement of regulations will be based on available directives from the Cabinet of Ministers of Latvia. This will include tracking the availability of iodized salt on the markets and evaluation of the iodine nutrition status of population through relevant surveys.
5. Awareness raising campaign to increase consumption of iodized salt will be launched through the media and Health Promotion Centers.

OVERALL REVIEW

One year after the Policy meeting in Riga no significant progress has been achieved in IDD elimination in Latvia. The problem does not reached necessary priority in part due to absence of necessary interagency links and cooperation. Only recently Ministry of Welfare decided to organize IDD working group with the aim to develop plan of action and necessary regulatory framework for salt iodization. More detailed information is provided in the response to my questionnaire on status of recommendations developed by Latvian WG on meeting in Riga **(Attachment # 3).** Cabinet of Ministers of Latvia accepted public health strategy on March 6, 2001. However, it is not quite clear from the questionnaire whether IDD elimination is part of said strategy. "Food and Nutrition Action Plan for Latvia 2001-2005" are in the process of preparation. This plan will be discussed on Second consultation on Development of Food and Nutrition Action Plans in the Baltic Countries organized by WHO Regional Office for Europe

will be held in Sigulda, Latvia, 19-21 June, 2001. We must use this momentum to put issues of IDD elimination on top of national priorities in Latvia, and other Baltic countries.

One of the main objectives of organized IDD working group is development, in collaboration with Food Center, new regulation for the chemical form and amount of iodine permitted in salt, requirements for stability and shelf life. The good news is that Latvian Food Center, in close cooperation with the Ministry of Welfare, UNICEF NatCom, Health Promotion Centre, and salt importers is ready to continue work for development of necessary legislation to support of USI and create necessary awareness on the importance of iodized salt for the elimination of IDD. These activities should be funded with support of USAID grant.

Communication campaign "IDD Week" in Latvia

Information campaign "IDD week" in Latvia was held from October 30 till November 5, 2000. This campaign was organized by Latvian National committee for UNICEF in collaboration with Ministry of Welfare, Latvian Food Centre, Health Promotion Centre, Latvian Paediatric Endocrinology Association, Latvian Salt Trading Company, Medical Information Centre and Health promotion schools. Full report in presented in **Attachment # 4.**

Presentation of information on iodine deficiency in Latvia on press conference resulted in publication of 22 articles in national and regional newspapers, 4 TV programs and 2 programs on the radio. Booklets with information on IDD prevention were distributed among children and adults. Health care institutions received both booklets and posters via association of endocrinologists. "Hot" phone line provided by Latvian Food Centre to answer on questions related to IDD. Informational banner was placed on the main national newspaper's homepage and provided information about "hot phone line" and activities during "IDD week".

According to information from Latvian salt trading company sales of iodised salt has increased after informational week for 40 % and now sale of iodised salt is dominating.

Knowledge, attitude and practice (KAP) survey of IDD and iodized salt in Latvia.

For the development of targeted communication strategy on promotion of IDD elimination through iodized salt, the Latvian Food Center and Latvian University recommended to conduct KAP survey. The goal of the research is to provide updated information necessary for the development of policy and the comprehensive program at national level, and the strategic communication and social marketing plan to significantly increase the use of iodized salt and evaluation of the success of IDD elimination program in Latvia.

Full text of Project Proposal is listed in **Attachment # 2**. This proposal has been reviewed and updated several times and in present form may be recommended for funding.

ATTACHMENT # 1.

ESTONIAN ENDOCRINE SOCIETY

PROJECT PROPOSAL

"EVALUATION OF IODINE NUTRITION IN ESTONIA"

Submitted to the UNICEF Regional Office for Central and Eastern Europe, Commonwealth of Independent States and the Baltics

BACKGROUND

Estonia is the smallest of the three Baltic States with a population of 1.4 million and territory of 45,200 square kilometers. Iodine deficiency was recognized as a public health problem in Estonia in the 1950s by the Ministry of Health of the former USSR. Antigoiter dispensary was organized in the second largest city of Estonia — Tartu, and several campaigns were carried out to assess thyroid pathology among the population. Potassium iodide tablets were distributed free of charge among the risk groups for iodine deficiency: schoolchildren and pregnant women. Unfortunately, no reliable epidemiological data on prevalence of goiter or on the results of iodine prophylaxis exist from that period of time.

As Estonia regained its independence in 1990, the health care system was reorganized and priorities changed. Some areas of public health received unduly little attention. In 1995 the first iodine nutrition survey was carried out in Estonia with the financial and organization assistance from UNICEF. Iodine nutrition was evaluated in 1840 schoolchildren aged 8-10 years from 28 randomly selected schools throughout Estonia by measuring of urinary iodine levels. The nationwide median urinary iodine level was 65μg/l that corresponded to mild iodine deficiency according to the WHO-UNICEF-ICCIDD criteria. Seventeen percent of all investigated children had iodine excretion less than 20 μg/l (severe iodine deficiency) and the urinary iodine excretion was below normal in 67% of all investigated children (1).

Although the results of this survey were published internationally (1) and presented at the local meetings of Estonian endocrinologists, pediatricians and family doctors, the problem was not duly recognized by general public and by government officials. Recent (1998) publication shows that iodine deficiency is still persisting in Estonia (2). In the course of neonatal screening for neonatal hypothyroidism, it was found that 17.7% of all newborns in Estonia have TSH (thyroid-stimulating hormone) levels above 5 μU/l, suggestive of the existence of mild iodine deficiency. (In iodine replete populations less that 3% of newborns have TSH above 5 μU/l).

Estonia so far has no legislation on salt iodization. Import of iodized salt is voluntary and limited to requests from customers. According to the nutrition survey in Estonia in 1997 only about 14% of adults used some form of iodized salt. As a result, the majority of 12 thousand children born each year in Estonia are unprotected from consequences of iodine deficiency.

Since problem of iodine deficiency is not fully recognized, additional survey is needed to assess current status of iodine nutrition in Estonia and create baseline data for further monitoring. Based on results of this survey (that should confirm that problem of iodine deficiency is a reality for Estonia), an action plan for elimination of iodine deficiency in Estonia should be developed. Updated information on iodine nutrition in Estonia will be communicated to the professional group, decision takers and the public to raise awareness in the problem and for development of relevant policy.

DESIGN OF THE SURVEY

The study will include 900 schoolchildren aged 10-12 years. To assure representative character of the survey, the whole territory (all 15 counties) of Estonia will be included in the study. The former survey carried out in 1995 (1) used simple random sampling of all schools in Estonia giving more influence to the more populated and wealthier (Harju) county.

>From the sampling point of view the design will use stratified random sampling. This method is more preferred in the setting of the Republic of Estonia compared to the probability proportionate to size cluster method as the living standard differs largely between 15 counties. The mean salary of the Harju county where one third of the population is located, is 6363 crowns per month, almost twice higher than in the poorest Võru county (3696 crowns). This would mean also large differences in the everyday eating habits between the counties. Using this design we will avoid the bias of having more well-off families being over-represented. The sampling design selected by us would not only yield information on Estonia as a whole, but would also point to the hot spots (counties) where the preventive measures have to be applied first. From the legal point of view it is sometimes easier to start a IDD prevention program on a county (regional) level than on a republic (national) level.

The counties will form the strata covering all the fifteen counties of Estonia. The list of schools in a county will be obtained from the Ministry of Education. Two schools will be picked randomly from each county. The classes will be picked from these schools by random sampling of the existing number of classes until the total number of students in these classes exceeds the quota of 30. The age of students in these classes must be mostly in the range of 10–12 years. All samples will be numbered from 1 to 30 in the order they are submitted, the rest will be discarded. The total sample size would thus be 15*2*30=900.

Informed consent will be obtained from the parents of schoolchildren. The morning samples of urine will be collected, from which two milliliters will be poured into plastic containers and tightly sealed. All containers will be distributed beforehand to the children who will bring them to school. The physicians, members of the Estonian Endocrine Society located in the county, will perform the school visiting. One visit will be necessary to distribute the plastic containers and instruct children in the classes and the school nurse and/or doctor how to collect the urine. The second visit is necessary to collect the samples. Once collected the samples will be shipped by cargo service to the central laboratory of the Tartu University Clinics where the analyses will be performed. The results of urinary iodine determinations will be standardized by collaboration with Kathleen L. Caldwell, Ph.D. from CDC EQUIP Program.

FUNDING PROCEDURES

This survey will be carried out by the non-government organization - “The Estonian Endocrine Society”. This Society is the member of the European Federation of Endocrine Societies since 1994 and have official status and bank account in Estonia. The Estonian Endocrine Society has

more than 40 members located in all counties of Estonia. They manage patients with iodine deficient goiters in their every-day practice. They are well respected that would enhance the collection of urine samples and their transportation to the laboratory.

The Associated Laboratories of Tartu University Clinics are well equipped with necessary devices to perform urinary iodine determinations. The measurement of the urine iodine content in 1000 samples will pose no difficulties to the laboratory.

It is assumed that UNICEF Regional Office for Central and Eastern Europe, CIS and the Baltic countries will conclude a formal agreement with Estonian Endocrine Society to conduct the survey. The preliminary budget of the survey is listed below; 50% of the funds should be transferred to the Endocrine Society bank account as an initial payment, and 50% upon completion of survey and submitting a report. The Estonian Endocrine Society's bank requisites are:

Eesti Endokrinoloogia Selts at
Account number: 221012156543
The bank: Hansapank
Liivalaia 8, 15040 Tallinn
ESTONIA

THE BUDGET

1. Preliminary activities (development of epidemiological design, selection of schools and classes, acquisition of informed consents from parents, purchase of containers for urine collection) – USD 600.00

2. Conduction of Survey (transport and travel expenses to deliver and collect container with urinary samples from selected schools, compensation of time of medical staff involved in the project) – USD 1,500.00

3. Laboratory determination of iodine in urine in the laboratory of Tartu University using cerium-arsenite method (3) (900 samples x 1.7 USD for a sample) – USD 1,500.00

4. Compensation of Principal investigator's time (statistical analysis, report writing, publication of results in a peer –reviewed journal, incl. publication costs) – USD 1,500.00

Subtotal – USD 5,100.00

Administrative overhead for Estonian Endocrine Society (15%) – USD 765.00

TOTAL – USD 5,865.00

REFERENCES

1. Veinpalu M, Ambos A, Velbri S, Vaher Y, Podar T. Urinary iodine excretion in Estonian children. European Journal of Endocrinology. 135:248, 1996
2. Mikelsaar RV, Zordania R, Viikmaa M, Kudrjavtseva G. Neonatal screening for congenital hypothyroidism in Estonia. Journal of Medical Screening 5:20-1, 1998
3. Dunn JT. Crutchfield HE. Gutekunst R. Dunn AD. Two simple methods for measuring iodine in urine. Thyroid. 3:119-23, 1993

ATTACHMENT #2

Project proposal

Evaluation of knowledge, attitude, behaviour and practice (KABP) among students, general population and medical staff toward iodine deficiency in Latvia

Applying:
Latvian Food Center
Latvian Ministry of Welfare
Director Dr.Chem. O.Stengrevics
K.Valdemara Str 38
Riga LV – 1010
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Fax: (371) 7021755
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Collaboration partner:
University of Latvia
Institute of Postgraduate Medical Education
Senior researcher:
M. Sauka M.D, Ph.D.

Skolas street 1A
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Phone: (371) 7240368
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INTRODUCTION.

Iodine Deficiency Disorders (IDD) are still not fully recognised as a public health problem in Latvia. On the Regional Meeting of Salt Producers of CEE/CIS/BS in Kiev 1999, representatives of Latvia approached Regional UNICEF Office for support to National IDD control programs in their country. As a follow up activity Salt Situation Analyses (SSA) was conducted in Latvia 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.

Latvia, as other Baltic States, does not produce salt and imports its entire amount from Ukraine, Belarus, Denmark, Germany and other countries. Results of SSA revealed that in Latvia only insignificant amount of edible salt is imported in iodized form – less than **1%**. In part, this low amount of iodized salt could be explained that iodine deficiency has never been recognized as an important public health problem in this county. In 1950s-1970s in the Soviet Union, among Baltic States iodine deficiency was officially recognized only in Estonia. Latvia was considered 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. For some technical reasons this survey failed to discover real situation with iodine deficiency in Latvia.

However it seemed highly unlikely that Latvia is an “IDD-free oasis” in Baltic area while all neighboring states (Estonia, Lithuania, Russia, Belarus) have mild or moderate iodine deficiency in their populations. At the same time information from local pediatric endocrinologist pointed out rather frequent cases of nontoxic goiter in children. Because of this conflicting information, it was advised to conduct a new small-scale IDD survey to define current status of iodine nutrition in Latvia.

IDD survey was conducted in Latvia in April 2000 with financial and technical support from UNICEF, Kiwanis International and ICCIDD**.** The total 600 samples of urine were collected for laboratory analysis. Median urinary iodine (UI) level for the whole surveyed group of 600 schoolchildren was - 59 µg/l. At this level, iodine deficiency may affect mental and physical development of children. Therefore, urgent measures are needed to increase import and consumption of iodised salt. The Resolution of Salt Producers and Suppliers Meeting of Central and Eastern Europe, Commonwealth of Independent States, and The Baltic States held in Kiev, Ukraine, (29 09. – 1.10.99.) stated that appropriate diet with sufficient iodine is the right of all children and their families, and a critical precondition for full brain development, mental achievement and quality of life of all humans.

Currently, import and trade of iodised salt in Latvia is voluntary. Population may have insignificant knowledge on benefits of iodised salt and does not demand it in shops. Communication campaign in media is needed to address these issues. However, the communication research on issues of iodine deficiency has never been performed in Latvia. Knowledge, attitude, behaviour and practice (KABP) survey in Latvia will benefit the program of IDD elimination in this country by developing communication strategy for IDD campaign and for evaluation of its effectiveness.

THE GOAL OF THE RESEARCH

The goal of the research is to provide updated information necessary for the development of policy and the comprehensive program at national level, and the strategic communication and social marketing plan to significantly increase the use of iodized salt and evaluation of the success of IDD elimination program in Latvia.

In order to develop this plan UNICEF will commission through National Committee resources to conduct research into the knowledge, attitudes and practices (parents, schoolchildren, and medical professionals) in regards to iodized salt consumption for IDD prevention.

OBJECTIVES OF THE RESEARCH

1. To assess the knowledge, attitudes, behaviour, and practice (KABP survey) towards iodine deficiency and use of iodised salt of consumer groups (among schoolchildren and their parents and medical professionals) in order to provide initial information for the development of comprehensive program and strategy at national level aimed at increased use of iodised salt.
2. To study the perception, awareness and concern among salt consumers on IDD and it's consequences, the use of iodized salt as a preventative measure against IDD in order to develop recommendations for increase the use of salt among general population.
3. To identify the best media and communication channels for informing the population about the dangers of IDD and its prevention, particularly through Universal Salt Iodization (USI) for developing the communications strategy and social marketing plan.
4. Based on the findings of this research, to develop a draft communications strategy focused on targeted groups:
    a. For a public campaign on the risks and causes of IDD and the promotion of iodized salt use,
    b. For developing and pre-tested communication materials (i.e. messages, slogans, etc.) to encourage consumers to use iodized salt for IDD prevention,
    c. For developing of effective information messages appropriate for target groups (schoolchildren, general population) and for health professionals (general practitioners and school nurses).
    d. For developing necessary information package for health professionals on promotion of iodized salt and increasing the counseling skills.
5. To create a baseline data for the evaluation of the elimination of iodine deficiency national program in Latvia.

DESCRIPTION OF ACTIVITIES

Responsible organization - University of Latvia Institute of Postgraduate Medical Education,

Analysis: statistical data analysis using SPSS program.

1. A quantitative research KABP among school age students -

Method: self reporting questionnaires.

Sampling: Random selection of school (clusters) on geographical basis with total amount of 2000 students (50 schools).

Main study questions:

1. To assess the level of knowledge about the role micronutrients and iodised salt,
2. To assess the way where and how they get information on nutrition and iodised salt,
3. To assess in which subject they are tough about it, the way of teaching,
4. To assess how they discuss health issues with parents and teachers,
5. To identify motivation factors for using iodised salt.

2. **A quantitative research KABP among parents**

Method: self reporting questionnaires.

Sampling: Random selection of school (clusters) on geographical basis with total amount of 2000 parents (in the same schools).

Main study questions:

1. To assess the level of knowledge about the role of micronutrients and iodised salt,
2. To identify their attitude on using iodised salt,
3. To assess how the decisions was made as salt consumers,
4. To assess of their perception on personal risk of the iodine deficiency.
5. To identify the ways of communications in order to increase the use of iodised salt.

3. **A quantitative research KABP among primary health care professionals**

Method: self reporting questionnaires through mail

Sampling: Random selection with total sample of 1000 persons, supposing that answer rate will be 50 % (500 persons).

Main study questions for general practitioners:

To assess the level of knowledge about the role micronutrients and iodised salt,

To assess their perception on incidence of IDD,

To identify their attitude towards using iodised salt,

To identify their willingness and motivation for consulting their patients on IDD and willingness to advice patients on issue of using iodised salt.

To assess counselling skills and identify necessary support to increase counselling skills.

Expected results of the research

The results of the research (KABP survey) will be distributed to mass media and governmental officials as well as to physicians. Report will be available in Latvian and English. The report will gain deeper understanding among policy makers, physicians and

health professionals on ways how to develop appropriate communication strategy targeted to youth, adults (general population) and health professionals. Results of KABP survey will allow to develop the IDD prevention program at national level in Latvia, and to create information materials for consumers (general public and schoolchildren) for and health professionals.

TIME FRAMEWORK KABP SURVEY

	1st month				2nd month				3rd month			
Activity												
Development of questionnaire	x											
Development of Russian version of questionnaires	x	x										
Preliminary testing of questionnaires among students (50 persons), parents (50 persons) and medical staff (20 persons).			x									
Development of the final version of questionnaires				x								
Administrative work for preparation of the study				x								
Field work					x	x	x	X				
Data collection through mail (physicians and schools nurses)					x	x	x					
Seminar for teachers					x							
Data collection at schools						x	x					
Preparing matrix for data entering						x						
Data entering							x	X				
Verification of the entered data								X				
Preliminary analysis of data								X	x			
Preliminary descriptive analysis of data										x		
Preliminary report of descriptive analysis of data and preparing of the report										x	x	
Press conference											x	
Seminar for governmental official and medical staff												x
Writing an article for an international journal (will be finished in March)												x

IMPLEMENTING PARTNERS

1. Administrative work – Latvian Food Centre (from the budget of administration part) - (input - equipment for administrative work). Responsible person G. Selga

2. Research - University of Latvia, Institute of Postgraduate Medical Education (input - equipment for research and statistical programs). Responsible person M. Sauka

3. Dissemination of the results. Responsible person G. Selga
   - Ministry of Welfare, Latvian Food Centre,
   - University of Latvia, Institute of Postgraduate Medical Education,
   - Health Promotion Centre,

- UNICEF of Latvia.

BUDGET OF QUANTITATIVE STUDY (KABP)

ITEMS		QUANTITY	TOTAL ACTIVITY COST (Ls)	TOTAL ACTIVITY COST ($)
1 STATIONERY	**Total**		**1694,55**	**2824,25**
	2.1. Reams of papers	1 box each	6,39	10,65
	2.2. Reams of writing paper	3 packs	7,00	11,67
	2.3. Pens, pencils, erase	6 boxes	6,00	10
	2.4. Papers – data copy	6 packs (500 sheets) x 2.06 Ls	12,36	20,6
	2.5. Floppy diskettes	4 boxes x 3.20 Ls	12,80	21,33
	2.6. Coping (6 different questionnaires)	25 000 pages x 0.03Ls	750,00	1250,00
	2.7. Mailing expenses (general practitioners)	1000 questionnaires x 0.90 Ls (paid back mail)	900,00	1500,00
2. Organizational expenses (study for pupils and parents)	Seminar for teachers before the study for distribution the questionnaires and preparing for study	50 persons form 50 schools	**273,00**	**455,00**
	Transport expenses	40 schools situated outside Riga x 4.2 Ls per person	**168,00**	280,00
	Refreshments	1,5 Ls x 50 persons	**75,00**	125,00
	Rent of room	1 room	**30,00**	50,00
3. COMPENSATION	**Total**		**1767,45**	**2945,75**
	3. 1. For principal investigator	compensation with taxes	750,00	1250,00
	December ½ staff	196,7 + 53,30	250,00	416,67
	January ½ staff	196,7 + 53,30	250,00	416,67
	February ½ staff	196,7 + 53,30	250,00	416,67
	3.2.For assistant for data entering (2 persons x one month)	Compensation with taxes (132,72+ 37,28) x 2 persons	204,00	340,00
	3.3.For administrative assistant (3 month)	(79,63+ 22,37) x 3 months	306,00	510,00
	3.4. For translation of questionnaires in Russian	5,1 Ls x 12 pages (3,98 + 1,12)	61,20	102,00
	3.5. For translation of report in English	9,35 x 15 pages (7,30+2,05)	140,25	233,75
	3.5. Project administrator (3 months)	(79,63+ 22,37) x 3 months	306,00	510,00

4. DISSEMINA-TION OF THE RESULTS			**1005,00**	**1675,00**
	4.1. Press conference.	For persons from mass media	350,00	583,33
	4.1.1. Rent of room and equipment	- Ls 75.00		
	4.1.2. Coping expenses	- Ls 35.00 Ls		
	4.2.3. Refreshments	- 25 persons x Ls 5.00 = Ls 125		
	4.2.4. Stationery (pencils, maps etc for journalists)	= Ls 75.00		
	4.2.5. For decorative purpose	= Ls 20.00		
	4.2.6. Using of communication channels	= Ls 20.00		
	4.2. Conference for governmental officials and medical staff		405,00	675,00
	4.1.1. Rent of room and equipment	= Ls 75.00		
	4.1.2. Coping expenses and representing materials for lecture	= Ls 40.00		
	4.2.3. Refreshments	= 100 persons x Ls 2.00 = Ls 200.00		
	4.2.4. Stationery (pencils, maps etc for journalists)	= 100 persons x Ls 0.75 = Ls 75.00		
	4.2.5. For administrative use	= Ls 15.00		
	Development and printing of the report in Latvian for distribution		187,50	312,50
	Preparing the report in English for distribution		62,50	104,17
		TOTAL AMOUNT FOR THE RESEARCH	**4740,00**	**7900,00**

Project administrator **Dr.Med. G. Selga**

ATTACHMENT # 3

RESPONSES TO THE QUESTIONNAIRE FROM THE FOOD CENTER, LATVIAN MINISTRY OF WELFARE

Dear Prof. Gerasimov,

Latvian Food Center prepared answers to your questions regarding the process of elimination of IDD in Latvia.

An Intersectional National IDD Committee will be organized under the Ministry of Welfare to develop national goals, strategies, and annual programs.

IDD working group is in the process of organizing in the Ministry of Welfare.

The National IDD Program will be incorporated in the "Public Health Strategy and Action Plan" and The Nutrition Action Plan (WHO), both of which will be finalized and adopted by Cabinet of Ministers of Latvia by the end of 2000.

Public health strategy was accepted by Cabinet of Ministers of Latvia March 6, 2001.

ii. Latvian situation and targets for improvement

New research indicates a prevalence of the deficiency of some micro nutrients in Latvia, which may cause health problems. Taken together, these findings demonstrate the need for strategies which aim to:

Prevention of micro element deficiencies.

Target 11 Healthier Living

By 2010, people across Latvian society should have adopted healthier patterns of living.

In particular:

11.1 healthier behavior with respect to nutrition, physical activity and sexuality should be substantially increased;

11.2 there should be a substantial increase in the availability, affordability and accessibility of safe and healthy food.

Achieving Target 11 will require action as follows:

As a matter of urgency, the formulation of strategies for healthy nutrition, food safety, and assured sufficiency of high quality food for the population, emphasizing local food for local consumption. These strategies should comprise a Food and Nutrition Action Plan for Latvia, modeled on the current Europe wide initiative led by WHO. The plan must clearly identify and fully commit the ways and means of implementing the food and nutrition strategies.

"Food and Nutrition Action Plan for Latvia 2001-2005" are in the process of preparation.

Second consultation on Development of Food and Nutrition Action Plans in the Baltic Countries organized by WHO Regional Office for Europe will be held in Sigulda, Latvia, 19-21 June, 2001.

The two major nutrient deficiencies in Latvia need to be studied and eliminated - iodine deficiency disorders (IDD) and iron deficiency anemia (IDA). Strategy for elimination of IDD. Other deficiencies, such as those of vitamin A, other antioxidant vitamins and compounds in fruit and vegetables, are linked to increased risks of cancer and cardiovascular disease will be investigated.

3. *Legislation and regulations/standards for iodized salt will be developed by the Food Center, including the chemical form and amount of iodine permitted in salt; requirements for stability, shelf life and labeling of iodized salt.*

Regulations of the Cabinet of Ministers No.46 On Labeling of Foodstuffs (79/112/EEC with amendments, including 97/4/EC; 90/496/EEC; 94/55/EC, 96/21/EC; 89/396/EEC with amendments) Accepted on February 8, 2000 (in force since February 12, 2000). These directives are priority Nr.1 as a part of *ACQUIS* of DGIII and completely implemented in our legislation.

There is no new legislation for the chemical form and amount of iodine permitted in salt, requirements for stability, shelf life .

4. Monitoring and enforcement of regulations will be based on available directives from the Cabinet of Ministers of Latvia. This will include tracking the availability of iodized salt on the markets and evaluation of the iodine nutrition status of population through relevant surveys.

Infant formulae and follow-on formulae 91/321/EEC; 96/4/EC; 1999/50/EC, 99/52/EC; Accepted on 18.03.2001. Nr.119.

Processed cereal based foods and baby foods 96/5/EC, 99/39/EC, 98/36/EC; Accepted on 18.03.2001. Nr.118

Food intended for use in energy - restricted diets 96/8/EC; Accepted on 27.03.2001. Nr.144

Dietary foods for special medical purposes 99/2 1/EC) Accepted on 03.04.2001. Nr.155.

5. Awareness raising campaign to increase consumption of iodized salt will be launched through the media and Health Promotion Centers.

Please see the results of IDD WEEK in Mrs.Ilze Doshkina report you received before. Work in the develop comprehensive Plan of Action for elimination of iodine deficiency in Latvia is started and willingness of UNICEF to cooperate with Latvia and provide with necessary funding for activities is of great value in this moment.

Latvian Food Center in close cooperation with IDD working group in the Ministry of Welfare, UNICEF NatCom, Health Promotion centre, Salt Importers is ready to continue work

for development of necessary legislation's to support of USI and create necessary awareness on the importance of Iodized salt in the elimination of IDD. This is very complex and hard work in the real situation in Latvia. Lot of work need to be done for change and improve the opinion of key players in our country. It is necessary to organize national study of Iodine deficiency for obtaining scientific data on iodine deficiency in different regions of Latvia.

Previous study with 600 participants gave only answer "yes" or "no" with small scientific value. Detailed plan for activities and calculations are in the process of preparation and we will send them to UNICEF in the nearest future.

Latvian Food Center has previous experience with cooperation with FAO and making different projects and therefore in Latvian Food Center is special transfer account for targeted money. This should be more convenient way for supporting activities of elimination of IDD.

Latvian Food Center would like to thank you for your help and great input in the process of starting of elimination of IDD in Latvia.

We hope for fruitful cooperation in future.

Sincerely yours,
Dr.Med. Guntars Selga
Head of the Dept. Nutrition Policy
Latvian Food Center

ATTACHMENT # 4

Report on IDD elimination activities in Latvia in the year 2000

[By Ilze Doskina, Director of Latvian National Committee for UNICEF]

Information campaign on IDD issues in Latvia was held during time period from 30.October till 5.November 2000.

Several organisations took part in development of this campaign - Latvian National committee for UNICEF, Ministry of Welfare Latvian Food Centre, Health Promotion centre, Latvian child endocrinology association, Latvian Salt trading company, Medical Information Centre and Health promotion schools.

List of activities realised during informational week and reached results:

Presentation of research of iodine deficiency in Latvia on press conference

- Publications in state and regional press (12 publications on state newspapers, 3 - in special issues on health, 7 - in regional newspapers. Total 22 articles)
- Participation at TV programs on health issues (4 different programs on two TV channels)
- Participation in radio interviews (2 radio interviews and information at news)

Informational poster and booklets for children age group 10 – 13 years and booklets for adults. Booklets were spread out in

- Schools – booklets for children with covering letter and field test kit for health educators in schools via WHO Health promotion school's net (Both-teachers and kids required more detailed information, mentioning that this issue has been never raised up before, mentioned the positive booklet format and way how it was designed with a special hero – Jodins (something like a small superman)
- Health institutions received both booklets and posters via association of children and adults endocrinologists (Good response, giving also alternative ways of iodine containing products for those who are against the idea that iome extra chemical reagents are needed)
- Drugstores received booklets for adults and posters by support of Medical information centre. (response – just good to have an information, given in the professional manner with high quality posters and booklets. The decision is up to the client – accept it or not)

Informational phone line provided by Latvian Food Centre

The interest was on information how to eliminate iodine deficiency, which methods and products could be used. (Problem – the line was available just few hours per day)

Presentation of iodised salt and bread with iodised salt in markets

- as showed data received from Latvian salt trading company sales of iodised salt has increased after informational week for 40 % and now sale of iodised salt is dominating
- producers of bread with iodised salt receive more attention and interest about the product, but showings of productions doesn't increase greatly

Informational banner

- banner was adapted on main state newspaper's homepage and gives information about information phone line and activities during informational week As this is a homepage of the main daily newspaper, we know only the number of those who clicked the banner – 64 in total/per week, but the logo and the activity was on the top of the page for all who opened it.

Professional collaboration with our partners – mentioned above – help as to carry out such an informational campaign that could be assessed as successful. Because of broad interest and support of teachers and regional health promotion centres that is very important informing local society in rural areas. We also take into consideration that all society now pays more and more attention at healthy life style and that of course includes also knowledge of needed microelements and iodine – approval for that are indirect mentioning of iodised salt using in TV programs about food, eating traditions that shows growth of iodised salt popularity. So we could say that aim of the campaign was reached and Latvia's society got information that we have deficient of iodine, what after-effects it could cause and information how to eliminate it. No we are expecting next steps of our government to facilitate the universal salt iodination fix in the legislation of Latvia.

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 the Baltic States.