

# ARMENIA

## Prevention of Iodine Deficiencies Disorders

### 2005 Annual Progress Report



For every child  
Health, Education, Equality, Protection  
ADVANCE HUMANITY



## **I. Technical Data on Contribution**

<b>Assisted Country:</b>	<b>Armenia</b>
<b>Assisted Programme:</b>	<b>IDD prevention programme</b>
<b>Donor:</b>	<b>US Agency for International Development</b>
<b>Donor Reference:</b>	<b>G45602 1000 USAID/Washington</b>
<b>PBA Number:</b>	<b>SC/03/0631-01</b>
<b>Total Contribution Pledge Amount:</b>	<b>US\$ 95,000</b>
<b>Recovery Cost (5%)</b>	<b>US\$ 4,522</b>
<b>Programmable Amount:</b>	<b>US\$ 90,478</b>
<b>Funds Used to Date:</b>	<b>US\$ 69,751.57</b>
<b>Balance of Funds Available:</b>	<b>US\$ 20,726.43</b>
<b>Duration of Contribution:</b>	<b>27.10.2003 - 30.09.2007</b>
<b>Date Prepared:</b>	<b>December 2005</b>
<b>Period Covered:</b>	<b>01.01.2005 - 30.12.2005</b>

## BACKGROUND

Iodine deficiency disorders continued to be an area of major public health concern in Armenia. After the break-up of the Soviet Union, the country stopped receiving regular imports of iodised salt from Ukraine. As a result, the prevalence of iodine deficiency disorders increased and the situation in endemic areas for iodine deficiency disorders worsened, especially in the south of the country.

In 1995, the results of a joint study by the Ministry of Health and UNICEF indicated that 32 per cent of 15-45 years of age women and 50.4 per cent of pregnant women had goitre. An estimated 3,000 Armenian babies were born each year with intellectual impairment which may have been related to iodine deficiency in pregnancy. Considering the potentially dangerous consequences of IDD for fetal development, and the prevalence of iodine nutritional disorders among women, UNICEF Armenia initiated a series of activities aimed at reaching universal salt iodization in the country and eventually achieving IDD elimination.

UNICEF started the Iodine Deficiency Disorders / Universal Salt Iodisation (IDD/USI) project in 1995. Since 1997 and with UNICEF support, the Avan Salt Factory, the only salt producer in the country, exclusively produced iodized edible salt for public consumption. Despite the factory operating at one fourth of its capacity, it covered the needs of the whole population and potable iodized salt became easily accessible and available in all regions of the country.

Before 1997, the national standard required an additional 25 +/- 10 mg iodine per kg of salt. Following the advice of the Ministry of Health, the State Standard Department increased the level to 35 +/- 10 mg/kg. Later, based on the results of 1998 National Nutrition Survey (NNS), the standard for iodine level in salt was revised again and increased up to 50 +/- 10 mg/kg.

By 2000, there had already been progress. The findings of the Demographic and Health Survey<sup>1</sup> showed that 84 per cent of the Armenian households consumed adequately (according to revised standards: 50mg/kg) iodised salt, a 14 per cent increase compared with the consumption level indicated by the 1998 NNS. In February 2004, the Government of Armenia passed a Decree that required mandatory iodization of all salt for human consumption. Import of non-iodized salt was also banned. A 2005 UNICEF survey revealed universal availability of quality iodized salt that was found in 97 per cent of the surveyed households.

## ISSUE

Iodine deficiency is the most frequent cause of preventable brain damage in children that can be prevented by adequate iodine nutrition. USI is the most reliable, cheap and safe method of prevention and elimination of IDD if more than 90 per cent of households consume quality iodized salt.

While evidence since 1997 had been that UNICEF-supported interventions were paying off, a formal assessment was essential. Hence, the Government of Armenia requested in 2002 a formal review of progress towards optimum iodine nutrition in the country. The initial assessment conducted according to WHO/UNICEF/ICCIDD Criteria for Sustainable Elimination of IDD (2001) revealed substantial progress but noted that additional prerequisites needed to be met, namely a) the existence of adequate legislative framework supporting USI and b) availability of current information on nutritional status (in particular levels of urinary iodine) of the population and the level of household consumption of iodised salt.

In response,, the Government of Armenia in February 2004 passed a Decree that required mandatory iodization of all salt for human consumption and increased monitoring of salt sold in public markets.

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<sup>1</sup> *Demographic and Health Survey*, Ministry of Health, National Statistical Service, ORC Macro USA, Armenia, 2000.

Import of non-iodized salt was also banned. At the same time, the Government decided to conduct a survey of iodine nutrition in Armenia and requested technical support from UNICEF.

However, to ensure the sustainability of interventions and achievements it was also essential to continue further implementation of UNICEF-assisted interventions on IDD prevention and USI. The funds provided by USAID have been instrumental in translating all above-mentioned purposes and intentions into actions.

## **ACTION**

### **Statement of Objectives**

The “IDD Prevention” Project is an integral part of the ‘Prevention of Micronutrient Deficiencies’ programme and the Country Programme Action Plan, 2005-2009 as well as the 2005 Annual Workplan 2005 signed by UNICEF and the Government of Armenia.

The IDD Prevention project supported by USAID is aimed at supporting national efforts addressed towards achieving sustainable elimination of iodine deficiency disorders. This includes:

1. Evaluation of key nutrition indicators by the year 2005:
  - UIE levels in children of 6-12 years of age;
  - the level of household use of iodized salt
2. Ensuring more than 90 per cent household consumption rate of iodised salt by 2005
3. Ensuring achievement and sustainability of the status of Universal Salt iodisation in the country

To achieve the project objectives, UNICEF Armenia has established strong partnership with the Ministry of Health, Avan Salt Factory and National Statistical Services.

### **Project Activities**

This report provides an overview of Iodine Deficiency Disorders Prevention activities implemented during January -December 2005. During this period, project activities were focused on the following:

- Conduct of national representative survey of iodine nutrition and implementation of IDD prevention project in Armenia;
- Development of norms and standards on salt iodization;
- Organization of capacity building and social mobilization activities to increase awareness and understand of community leaders, teachers, parents and caregivers on IDD prevention and universal salt iodization.

#### **1. Survey on UIE and household consumption of iodised salt**

As noted earlier, the assessment of the progress reached by Armenia towards optimum iodine nutrition of its population, done according to WHO/UNICEF/ICCIDD Criteria for Sustainable Elimination of IDD (2001), revealed that to declare the sustainable elimination of iodine deficiency as public health problem one of the two important prerequisites required was the availability of current information on nutritional status (in particular levels of urinary iodine) of the population and the level of household consumption of iodised salt. Data provided by the 1998 National Nutrition Survey was outdated and the current surveillance does not include indicators for the monitoring of iodine deficiency disorders and the household use of iodised salt. The Government applied to UNICEF for technical assistance to conduct a comprehensive study to address these needs, generate the necessary information and meet the requirements of USI verification.

With UNICEF support and the technical assistance of an international consultant a national school-based cluster survey of 911 children aged 8-10 was carried out in Armenia in May-June 2005 covering all but one administrative districts of the country.

The survey was performed based on UNICEF, WHO, ICCIDD guidelines: "Assessment of iodine deficiency disorders and monitoring their elimination" (2001). The objective of this survey was to evaluate the progress in elimination of iodine deficiency in Armenia through universal salt iodization (USI). Results of this survey confirmed **elimination of iodine deficiency in the Armenian population** in the entire territory of the country. This was achieved by universal availability of quality iodized salt that was found in 97 per cent of the surveyed households. Median urinary iodine level (313 mcg/l) for the national sample was slightly above the optimal range (100-300 mcg/l) recommended by WHO, UNICEF and ICCIDD, and proportion of samples with iodine levels below 100 and 50 mcg/l were significantly below recommended thresholds. While existing level of iodine nutrition is adequate and safe for population, it was recommended to decrease the level of salt iodization from existing 50 mg/kg to 40 mg/kg.

**Table 1. Goals and indicators of elimination of iodine deficiency in Armenia**

Indicators	Goal	Armenia results
<b>Urinary iodine levels:</b> <ul style="list-style-type: none"> <li>• Median (mcg/l)</li> <li>• Proportion of samples below 100 mcg/l</li> <li>• Proportion of samples below 50 mcg/l</li> </ul>	<ul style="list-style-type: none"> <li>• 100-300</li> <li>• &lt; 50%</li> <li>• &lt; 20%</li> </ul>	<ul style="list-style-type: none"> <li>• 313</li> <li>• 6.3%</li> <li>• 2.3%</li> </ul>
<b>Salt iodization:</b> <ul style="list-style-type: none"> <li>• Proportion of households consuming quality iodized salt (iodine level &gt; 15 mg/kg)</li> </ul>	<ul style="list-style-type: none"> <li>• &gt; 90%</li> </ul>	<ul style="list-style-type: none"> <li>• 97%</li> </ul>

## 2. Development of norms and standards on salt iodization

Based on the survey results, the Ministry of Health concurred that recommended level of salt iodization in Armenia should be 40 mg/kg with sufficient margins to ensure production of quality iodized salt since by decreasing level of salt iodization optimum level of iodine nutrition will be ensured. The Ministry of Health initiated the revision of the Governmental Decree on USI reflecting the reduction of the level of salt iodization to 40+/-15 mg/kg. The revised decree will be approved in early 2006.

To improve and maintain the quality of iodised salt at the production/import level and retail/consumer levels the Ministry of Health has also developed a comprehensive package of hygiene and sanitary norms and standards on iodised salt packaging, storing, and transportation. The developed package with enforcement mechanisms for quality control is submitted to the Ministry of Justice for its final revision and approval.

The country has a well developed and functioning system for monitoring of the quality of iodized salt, conducted through internal and external monitoring systems. There are two main laboratory facilities in the country for checking the iodine level in salt through titration method: at factory/production level and at central/referral level. Moreover, there are 40 laboratories throughout the country within the Hygienic and Epidemiological Surveillance Services of the Ministry of Health that also conduct titration tests to identify iodine levels in salt at regional level. Considering that all the laboratories are not equipped with modern

techniques, the MOH has updated the methodological recommendations and procedures for laboratory technicians on checking the iodine level in salt through titration method to improve the quality and ensure reliability of iodised salt testing results.

### 3. Capacity building and social mobilization activities

Activities on capacity building and social mobilization were directed to improve awareness and knowledge of health providers, families and communities on importance of using iodized salt and ways to prevent iodine deficiency disorders.

A series of meetings were organised for Ministry officials and leading specialists from all regions of the country to discuss the results of the survey, general aspects of the IDD prevention project, enforcement mechanisms of the Governmental Decree on USI as well as future priority actions to ensure sustainability of achievements.

Special workshops to increase public awareness were designed and conducted in communities in 12 regions of the country with involvement of community authorities and leaders, teachers, health providers and representatives of local food markets. During the workshops particular emphasis was placed on health and social aspects of Iodine Deficiency Disorders and the use of iodised salt as the most effective and accessible method of IDD prevention applicable in Armenia.

In collaboration with the Ministry of Health three types of information and education materials were produced: a poster to be provided to health facilities and schools with a key message on using iodised salt for IDD prevention, a poster to be posted in food markets promoting using only iodised salt and a leaflet for general population containing main information on IDD, its prevention and recommendations on storing and using of iodised salt. The nationwide dissemination of posters and leaflets will be carried out in the beginning of 2006.

Combined with these activities, a video spot on IDD prevention and salt iodization was produced and broadcast through three national television channels.

### 4. Plan of priority actions for 2006

- a. Support the country in the process of partnership review of progress towards elimination of iodine deficiency in the country;
- b. Support to approval of amendments in the Government Decree on USI, its enforcement and implementation of National Plan of Action;
- c. Continue implementation of capacity building and social mobilization activities for communities nationwide.

USAID's support is essential to accelerate the country's efforts in reaching and sustaining the progress in optimum iodine nutrition in the country and achieve the ultimate goal of Universal Salt Iodization.

### Utilization of Donor Funds for PBA SC/2003/0631-01

January-December, 2005 – SC/2003/0631-01

Requisition #	Description	Value ( US\$)
<b>A. Survey related expenses</b>		

SSA/ARMA/05/0104 TA/ARMA/05/0102 TA/ARMA/05/0344	Technical assistance of international consultant for conducting the survey on identification of UIE among schoolchildren and household consumption of iodized salt	9,375.0 1285.3 1019.3
SSA/ARMA/05/0181;173; 174; 175; 176; 177	Technical assistance of national consultants for conducting the survey on identification of UIE among schoolchildren and household consumption of iodized salt	4,480.0
SSA/ARMA/05/00184;185; 186;188; 189; 190; 191;192;193; 194;195  CRQ/ARMA/05/0147	Organization of field work activities within the framework of the survey on identification of UIE among schoolchildren and household consumption of iodized salt	7,955.0  288.9
TA/ARMA/05/0011;112;113 ;114;115;116;196;197;198; 199;200;201;202;203;204;2 16;217;217;219	Monitoring of UIE Survey field work activities	5,250.0
CRQ/ARMA/05/0226 CRQ/ARMA/0331	Transportation to and testing of urine samples in Nutrition Laboratory in Bulgaria	3,174.65 543.3
CRQ/ARMA/05/0608	Translation of the National UIE Survey report	80.0
PGM/ARMA/05/000012	Procurement of iodine test kits	307.83
<b>B. Social Mobilization activities</b>		
CRQ/ARMA/05/0745	Conducting of social mobilization lectures in 12 regions	1,241.0
PGM/ARMA/05/078	Design and printing of IDD posters for health care facilities and schools (2,000 copies)	1,435.0
PGM/ARMA/05/097	Design and printing of IDD posters for food markets (7,000 copies)	1,496.0
PGM/ARMA/05/0102	Design and printing of IDD leaflets (30,000 copies)	735.10
<b>C. Project Support</b>		
CRQ/ARMA/05/0010 TA/ARMA/05/00757	Project Support	9,970.0 123.0
<b>TOTAL</b>		<b>48,759.38</b>
<b>Remaining balance as of December, 2005</b>		<b>20,726.43</b>