Elimination of IDD in Vietnam

Data from ICCIDD and the Network for Sustained Elimination of Iodine Deficiency

Background
Historically, cretinism rates of up to 8% were reported in remote mountainous areas in Vietnam. Data from a 1985-86 national prevalence survey indicated that 29 of 53 provinces had a significant IDD problem with an overall TGR of 39.7%, with a higher prevalence in females and children. A 1993 survey found 84% of urine samples had low iodine levels. A 1995 southern delta cluster survey (n=300) found a mean urinary iodine (UI) concentration of 32 μg/L. A 1995 survey in the southern delta, among 30 clusters per province (3,000 children, aged 8-12 years old), showed goiter prevalences ranging from 8.7 to 27.8, with a mean of 18.2%. No differences were noted between the prevalence of IDD in the lowland areas as compared with highland regions. In 2000, a survey by the national IDD control program was carried out in households in 61 provinces; the subjects were mothers of children under five. The median UI was 123 μg/L, and 43% were <100 μg/L. The goiter prevalence among 8,712 schoolchildren was 10.2%.

Legislation on iodized salt
The Law of Health Protection in 1989 required Ministry of Health and authorities at all levels to take all necessary measures to control IDD in endemic goiter areas. This was followed by the Prime Minister's decision in 1994 for universal salt iodization. There was a declaration by the government in 1995 to eradicate goiter and all IDD by the year 2005, with the two main indicators being goiter prevalence among schoolchildren 8-12 years old < 5% and median UI >100 μg/L. In 1999, the government issued Decree No. 19 on the Production and Supply of Iodized Salt for Human Consumption. This decree stipulates that all salt for direct human consumption and salt used for food preparation must be mixed with iodine. The decree provides detailed criteria and conditions for edible salt production, quality control, examination, inspection and handling of violations and provisions for implementation. This decree was followed by an interministerial circular of 10 November 1999 with Guidelines on the Implementation of Government Decree 19/1999/ND-CP.

Program Monitoring and Evaluation
The IDD control program is managed by the National IDD Control Committee (NIDCC Committee) based in the Endocrinology Hospital in Hanoi and administered by the Ministry of Health. The NIDCC coordinates all activities of the program, including monitoring of salt iodization at all different levels of the salt distribution system. There are 75 registered producers of iodized salt in the country, with 26 under responsibility of the National Salt Corporation of the Ministry of Agriculture and Rural Development (MARID) and the rest being either private concerns or operate under coordination of Provincial Government authority, e.g., People's Committee. An elaborate monitoring system has been developed by the NIDCC using principles of Lot Quality Assurance Sampling (LQAS) in which salt producers are asked to analyze 16 salt samples for each batch of salt. Of these 16 samples, no more than 2 can have values either below 35 ppm or above 45 ppm, or else the batch is rejected and needs to be re-iodized. For external monitoring, provincial health inspectors visit each salt producer in their area, with a frequency that ranges from weekly to bi-weekly to monthly, and essentially replicate the internal QC, following similar procedures to assess the adequacy of salt.

There is a very well organized and efficient monitoring of the IDD elimination program. The Monitoring system consists of surveys undertaken by provincial IDD committees three times per year – in April, July and October. Provincial authorities visit salt iodization facilities twice a month (or more often) to take random samples of salt to assess iodization levels. The samples are tested in the provincial salt laboratory (every province has a salt laboratory). There are also reports of checking salt iodization levels at retail level by both provincial and commune authorities to ensure that...
iodized salt is adequately iodized. In addition, national surveys at household and school level are undertaken every three years. Household surveys have been undertaken in 1997, 1998, 2000 and 2003. School surveys have been undertaken in 1993, 1998 and 2000 and 2003. The surveys collect iodized salt household coverage and urinary iodine data, and the school based surveys also collect the total goiter rate. In the household coverage survey, the UI data is from women with children under 5 and in the school based survey it is from children in school. The central urinary iodine and salt iodine laboratories in the Hospital of Endocrinology in Hanoi supervises quality assurance of regional and provincial laboratories in addition to UI analyses.

against IDD. The latest data from the NIDDC indicate IDD has been eliminated from the country. This remarkable achievement is documented in the indicators described below.

**Iodine status indicators**
1. Goiter rate in 8-12 year old children =3.6%
   Target achieved: Yes
2. Median UI level in children and women =122 μg/L
   <50% below 100 μg/L = 38.8%
   <20% below 50 μg/L = 14.7%
   Target achieved: Yes

**Salt indicators**
1. Proportion of households using adequately iodized salt = 93.2%
   Target achieved: Yes

**Program indicators**
1. Effective functional and multidisciplinary national body for IDD elimination, responsible to the Government.
   a. Coordinating body is the National IDD Control Program of the Ministry of Health (MoH), with membership from different MoH departments and the Hospital of Endocrinology.
   b. The Program collaborates with other Ministries.
   c. The establishment of a multisectoral body is under discussion.
   Target achieved: Not yet met (in discussion)
2. Evidence of political commitment to USI and the elimination of IDD
   a. Government budget for the NIDDC Program
   b. Subsidies for iodized salt in poor areas
   c. National IDD Day (1 November) celebrated annually
   Target achieved: Yes
3. Appointment of a responsible executive officer for the IDD elimination program
   a. Prof. Le Ngoc Trong, Vice Minister of Health
   b. Dr. Luong Ngoc Khue, Chair, Central Steering Committee, NIDDC
   Target achieved: Yes
4. Legislation or regulation on universal salt iodization
   a. National Decree # 19 regulates the production and distribution of iodized salt, but does not cover all aspects related to USI.
   Target achieved: Not yet met
5. Commitment to assessment and reassessment of progress in the elimination of IDD with access to laboratories able to provide accurate data on iodized salt and urinary iodine
   a. A national monitoring system and laboratory network for iodized salt and urinary iodine are in place.
   Target achieved: Yes
6. A program of public education and social mobilization on the importance of IDD and the consumption of iodized salt
   a. Information, Education and Communication (IEC) activities are carried out but mostly as fragmented and local activities.
   b. A Behavior Change Communication Program and a communication strategy do not exist.
   Target achieved: Not yet met
7. Regular data on salt iodine at the factory, retail and household level
   a. Data are available through the national monitoring system and national surveys
   Target achieved: Yes
8. Regular laboratory data on urinary iodine in school-age children, with appropriate sampling for higher risk areas
   a. Data are available through the national monitoring system and national surveys
   Target achieved: Yes
9. Co-operation from salt industry in maintenance of quality control
   a. Laboratories functioning in all salt iodization plants and regular monitoring by laboratory network
   Target achieved: Yes
10. A database for recording of results or regular monitoring procedures, especially for salt iodine, urine iodine and if available, neonatal TSH, with mandatory public reporting
    a. Database at the MoH and data published annually during National IDD Day
    Target achieved: Yes