

IDD control in Thailand: a new 5-year master plan



Thailand remains iodine deficient but the National IDD Control Board has ambitious plans to move forward

The Department of Health, Thailand, January 2008

On March 21, 2006, a meeting of the National IDD Control Board (NIDDCB) was held in Thailand. Her Royal Highness the Princess Maha Chakri Sirindhorn (see photo next page) graciously presided as the President, the Secretariat was the Minister of Public Health, and key persons in other Ministries and in the IDD network participated, including the Ministry of Interior, Ministry of Industry, Ministry of Commerce, Ministry of Education, the President of Iodized Salt Producers Association, the Thai Red-Cross, UNICEF, WHO, ICCIDD, the Dean of the Faculty of Medicine, Mahidol University, the Office of National Economic and Social Development Board, the Bureau of the Budget, and the Government Pharmaceutical Organization.

At the conclusion of the meeting, the NIDDCB confirmed the importance of IDD control for IQ development, approved the master plan of the IDD control program for the next five years (2006-2010), and agreed on the respective responsibilities of the government and other members of the Thai IDD Network.

The six main strategies in the master plan of the Thai IDD Control Program are:



Thai infants, particularly in rural areas, need more iodine

1. Quality iodized salt production and distribution. The key elements for this strategy are:

- Enhanced collaboration between rock salt and sea salt producers; quality control and certification model being developed in 4 regions of Thailand in the form of the salt producers association
- Set up iodized salt funds and strengthen the salt producers association to ensure salt producers are responsible for potassium iodate supplies
- Improve and develop effectiveness and sustainability of internal and external quality control of the iodized salt surveillance system

- Study tours to learn “best practices”
- Set up the iodized salt quality control system (protocol is being drafted)

2. Monitoring and surveillance.

Routine salt monitoring and assessment of iodine status

3. Empower local administrative organizations to participate in IDD control; include the IDD control program into the Quality of Life Development project.

4. Communication and social marketing. Strengthen messages linking iodine sufficiency to better I.Q. and mental development; develop advocacy tools for salt producers; and develop messages for food industry to encourage use of iodized salt.

5. Research. Explore feasibility of additional vehicles for iodine fortification, i.e. fish sauce; evidence-based report linking IQ and iodine nutrition; and the role of the administrative organization in implementing IDD program into local programs.

6. Supporting strategies. Fortified iodine in many kinds of food and support for iodine drinking water for remote areas.

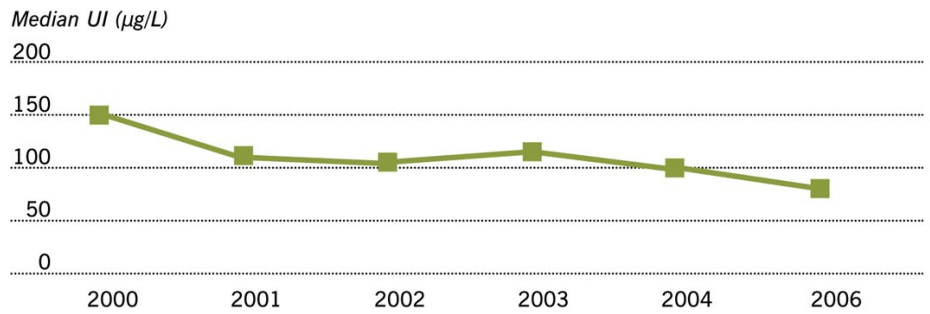
In April 2006, Department of Health, Ministry of Public Health (MOPH) and the iodized salt producers association signed a memorandum of understanding (MOU) for the promotion of cooperation to produce quality iodized salt, in order to improve the intelligent quotient and quality of life of Thai people in all age groups.

The contents of MOU were:

- Improve the monitoring and quality control system of iodized salt.
- Present the certification “Nutrition Seal” to iodized salt producers who produce qualified iodized salt.
- Promote public consumption of iodized salt by using marketing strategies.
- Facilitate the participation and cooperation of networking in the IDD control program.

Since the June 25 (National Iodine Day 2005), the Department of Health has awarded a nutrition seal (see photo) to adequately iodized products such as iodized salt, fish-sauce and instant noodles, in

Figure 1: Median urinary iodine concentrations in pregnant women in the national Thai surveillance program 2000-2006.



the National Public Health Foundation, UNICEF and WHO, as follows.

The National Public Health Foundation support includes:

- “Smart Thai Children, Thailand Prospers”
- “National IDD Day on June 25”
- Iodized salt incorporated into antenatal care services throughout the country by distribution of 2 kgs of iodized salt (~7 gram/person/day) to every expecting mother during pregnancy.

tor-General of the Department of Health, and a representative of the salt producers association visited the iodized salt producers in Udonthani and Mahasarakham Provinces. The salt producers presented several obstacles to producing iodated salt. The two main obstacles were insufficient support for the costs of potassium iodate and the low awareness of Thai people about the benefits of consuming iodized salt. The Director-General of Department of Health advised local staff and producers

The Thai National IDD Control Board was presided over by Her Royal Highness the Princess Maha Chakri Sirindhorn



The Department of Health awards a nutrition seal to adequately iodized food products



order to strengthen good quality production of iodized salt products. As of May 2006, there were 38 iodized products that have received the nutritional seal. Five were fortified fish sauce (iodine & iron), two were fortified instant noodles (iodine, iron and vitamin A), and the rest were iodized salt.

IDD strategies were redefined with more focus on the relationship between iodine and IQ development instead of goiter. Full implementation of the government IDD control program was supported by

• Iodized salt testing kits integrated in school-based food safety programs UNICEF support:

- Project to support establishment of the salt producers association and also the project to improve quality of salt production.

WHO support

- \$12,000 fund for research “A study of production and distribution of iodized salt in Thailand”.

In May 2006, the IDD team from the Department of Health, led by the Direc-

tor-General of the Department of Health, and the coordination with local administrative organizations in dealing with the insufficiency of potassium iodate. The importance of strengthening the control system of iodized salt production was emphasized. The Department of Health will continue to support knowledge and technique in the production and control of adequate and sufficient iodized salt, and also communicate with people in order to increase their awareness of the benefits of consuming iodized salt.

In June 2006, the big campaign of National Iodine Day was held at the Hua Lampong railway station. The Chairperson was the Minister of Public Health and the participants were representatives from Department of Health, directors of all provincial health promotion centers, the deputy-director of Border Patrol Police division, the chief of the Thai restaurant association, the chairman of the salt producers association, student health volunteers and their teachers, and the fortified food producers. The aim of this campaign was to increase the Thai people's awareness of consuming iodized salt and the relationship of iodine and IQ development. The Minister of Public Health presided over the ceremony and provided a certificate for food producers who have produced adequately fortified food. Iodine test kits were provided to attendees. The model of the iodized salt package was provided to the chairman of the salt producers association. Additionally, a caravan of iodized salt was discharged from the Hua

taking responsibility for their own potassium iodate.

Several coordinating meetings were conducted between the Ministry of Public Health and its partners, including representatives from the Department of Health, National Health System Reform Office, the Department of Mental Health, and the Department of Medical Science, Ramathibodi Hospital, Mahidol University. At these meetings, the partners analyzed data on urinary iodine levels collected by the Department of Health, data on neonatal screening from Ramathibodi Hospital, and data on mental and IQ development from the Department of Health and Ramathibodi Hospital. Results of these analyses were integrated for national and provincial GIS mapping. The preliminary report indicated a strong relationship between iodized salt consumption and IQ, as well as the following data:

- The result of the urinary iodine surveillance system of Thailand in

appears to have fallen significantly over the period 2002–2006 (Figure 1)

- The result of the study of production and distribution of iodized salt in Thailand estimated the quantity of iodized salt produced was 193,308 tons per year which was lower than recorded in the salt producer records.
- Random checks of household coverage by adequately iodized salt in communities and community shops increased from 54.4% in 2005 to 63.8% in 2006. In 2007 the coverage was 81.5%

In the latest developments, the Thai Cabinet approved the revolving fund for fiscal year 2008 for procurement of potassium iodate, and in November 2007, the Department of Health, Ministry of Public Health and partners in the food processing companies and association of livestock feeding production signed an MOU on IDD control. The next steps will include workshops on IDD control for the members of sub-

Iodized fish sauce on the market



The Thai IDD program has ambitious plans to provide women with enough iodine for a healthy pregnancy



Lampong subway station to several center points of the city of Bangkok. The event was also announced on the mass media and covered by national television.

There were also several meetings among salt producers and Department of Health which aimed to strengthen the salt producers association and find ways to set up and deal with iodized salt funds. The main objective of setting up iodized salt funds is to assure salt producers are

2006 showed that the median urinary iodine level of whole country was 82.5 $\mu\text{g/L}$. The median values were 92.5, 61.1, 84.4 and 101 $\mu\text{g/L}$ in the North, the Northeast, the Central and the South regions, respectively. The proportion of moderate-to-severe IDD based on the UI distribution increased from 25.4% in 2004 to 33.9% in 2006. Similarly, the proportion of the total population affected by IDD increased from 49.3% in 2004 to 57.4% in 2006. The median UI in pregnant women

district administrations and the municipalities of all 76 provinces, analysis of data on the source of salt in the diets of Thai people, and continued implementation of the ambitious five year (2006 – 2010) IDD control project.