Republic of the Philippines
Department of Health
NATIONAL NUTRITION COUNCIL

PROGRESS REPORT TO CONGRESS

ON REPUBLIC ACT 8172 "AN ACT PROMOTING SALT IODIZATION NATIONWIDE" OR **ASIN LAW IMPLEMENTATION** 2013-2016

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Report to Congress on ASIN Law Implementation, 2013-2016

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INTRODUCTION

I. Background and Objectives

Goiter, stillbirth and abortion among pregnant women and congenital anomalies, physical and mental retardation, squint and poor growth among children are some of the manifestations of iodine deficiency disorders (IDD). The disturbing goiter prevalence rates in 1993 of 6.7% prompted then President Fidel V. Ramos to launch the National Salt Iodization Program (NSIP) during the "Ending Hidden Hunger" Conference as an integral part of the efforts to combat micronutrient deficiencies in vitamin A, iron and iodine in the country.

On 20 December 1995, Republic Act 8172, otherwise known as "An Act Promoting Salt Iodization Nationwide and for Related Purposes" or ASIN Law was enacted. The law provides for the mandatory iodization of all food grade salt for human and animal consumption, whether locally produced or imported, including salt used in the production of processed foods. The passage of the law hopes to contribute to the elimination of iodine deficiency disorders among vulnerable populations, e.g. 6-12 years old school children, women of reproductive age, pregnant women, and lactating women.

The law also created the Salt Iodization Advisory Board (SIAB), the program advisory and policy-making body for the national salt iodization program (NSIP). It is composed of the NNC Governing Board and representatives from the private sector, with the addition of the DENR and representation from the salt industry and the medical profession. At the technical working level, a National Technical Working Group on NSIP organized by the NNC supports the overall coordination and management. The NSIP TWG meets every quarter to discuss updates and other matters about the ASIN law.

The National Salt Iodization Program (NSIP) promotes a program approach to eliminate IDD by achieving favorable levels of median urinary iodine among the vulnerable population. It translates the law into a national program with a corresponding strategic framework and objectives further operationalized through the formulation of a 5-year strategic plan. The strategic plan the sets specific strategies, activities and targets to ensure the realization of the objectives of the ASIN Law.

The NSIP Strategic Plan, 2011-2016 identified six (6) key components to eliminate IDD: *1)* technical assistance, *2)* promotion and advocacy, *3)* regulation and monitoring, *4)* support activities, *5)* support to local salt industry, and *6)* program management. A program implementation review (PIR) done in March 2015 assessed the accomplishments and further streamlined the activities under three (3) key components: *1)* regulation and monitoring, *2)* promotion and advocacy, and *3)* assistance to salt industry.

Outcomes for these components are expected to contribute to the objectives of the Law which is to achieve or maintain urinary iodine concentration (UIC) at $\geq$100 mcg/L among school children age 6-12 years old; maintain at <20% the proportion of school children with UIC level of <50 mcg/L; and achieve universal salt iodization where $\geq$90% of households are using adequately-iodized salt. The management of these outcomes for each component is coordinated by the Department of Health (DOH) specifically through the National Nutrition

Council (NNC). The NNC is likewise mandated to report to Congress on the progress of the implementation of the law.

This report documents the progress in the implementation of ASIN Law, particularly along the targets of the NSIP Strategic Plan for the period 2013-2016. The report hopes to inform the Congress and stakeholders and the Filipinos of the activities completed, ongoing initiatives, results achieved as well as challenges being encountered by the program.

This report integrates results of discussions during:

a) Interagency Technical Working Group on National Salt Iodization Program (TWG-NSIP) meetings
b) TWG-NSIP program implementation review
c) Regional Bantay ASIN Task Force meetings
d) Key informant interview with the Lady Mayors Association of the Philippines, Technical Working Group members, representatives of Regional Bantay ASIN Task Forces.

II. Iodine deficiency Status in the Philippines

Based on the 2013 National Nutrition Survey conducted by the DOST-Food and Nutrition Research Institute, the elderly, pregnant women and lactating mothers continue to experience poor iodine status as reflected through the indicator "median urinary iodine excretion". Pregnant women have UIC levels of 105 mcg/L which is way below the WHO recommended levels of 150-249 mcg/L. On the other hand, UIC levels among lactating women is 77 mcg/L of UIC which also falls short of the WHO recommendation of >100 mcg/L.

On one hand, significant improvement in the iodine nutriture of the "marker population" (6-12 years old school children) had been reported, as reflected by a median urinary iodine excretion of 168 mcg/L (WHO standards $\geq$100 mcg/L), and 16.4% (WHO standards <20%) of school children having less than 50 mcg/L of UIC **(Table 1)**

Hypothetically, an improved iodine nutriture of the marker population should also reflect an improved iodine status of pregnant and lactating women. Insufficient iodine stores among pregnant women result in stillbirth, miscarriage, low birth weight infants, or newborns with congenital anomalies such as deaf-mutism, squint, cretinism, and mental retardation.

Table 1. Median urinary iodine concentration and proportion of population with urinary iodine excretion of <50 mcg/L by age and physiologic groups, 2013 NNS vs IDD Targets

Physiologic group (age, yrs)	Sample size (n)	Median UIE, mcg/L	UIE <50 mcg/L, %	2016 IDD Target, PPAN 2011-2016
Children, (6-12) • Median UIC • Moderate and severe	22,588	 168 -	 - 14.6	At least 100 <20
Adolescent (13-19)	5,514	134	20.0	-
Adults (20-59)	14,820	116	22.4	-
Elderly (≥60)	3,676	80	33.6	-
Lactating women	1,460	77	34.3	At least 100
Pregnant	1,095	105		At least 150

Across the 17 regions, the 2013 NNS revealed that 6-12 years old school children from the Zamboanga Peninsula suffer from mild iodine deficiency while school children from Eastern Visayas, Northern Mindanao, and Davao Region had an improved iodine nutriture. **Table 2** shows the comparison of status of iodine nutriture among 6-12 years old school children using median urinary iodine concentration based on the 2008 and 2013 national nutrition surveys. Further, based on IDD-related targets of the Philippine Plan of Action for Nutrition, 2011-2016, only the targets for children have been achieved.

Table 2. Median urinary iodine concentration among 6-12 years old children by region: 2008 and 2013, 2013 NNS

Region	Median UIE mcg/L	
	2008	2013
Ilocos	159	173
Cagayan Valley	233	223
Central Luzon	191	203
CALABARZON	170	236
MIMAROPA	115	136
Bicol	135	150
Western Visayas	117	125
Central Visayas	119	166
Eastern Visayas	**83**	161
Zamboanga Peninsula	**84**	**68**
Northern Mindanao	**90**	121
Davao	**68**	122
SOCCSKSARGEN	109	137
NCR	202	220
CAR	158	123
ARMM	101	128
CARAGA	**85**	128

Based on WHO's epidemiological criteria for assessing severity of IDD based on median urinary iodine levels, all regions in 2013 data showed improved iodine status except for Zamboanga Peninsula, which continues to experience mild iodine deficiency, if not worsened.

Table 3. Epidemiological criteria for assessing severity of IDD based on median urinary iodine levels

Median Value, ug/L	Severity of IDD
<20	Severe
20-49	Moderate
50-99	Mild
≥ 100	No deficiency

Source: WHO

III. Status of the salt iodization program

1. Philippine salt largely imported

According to the 2015 estimates of the Global Alliance for Improved Nutrition (GAIN), the annual total volume of salt in the Philippines is 600,000 metric tons, 80% or 480,000 metric tons of which, is imported from China and Australia. Only 20% or 120,000 metric tons are locally produced by salt producing-provinces of Luzon namely: Ilocos provinces, Pangasinan, Bulacan, and Occidental Mindoro; Visayas: Guimaras and Negros Occidental; and Mindanao: Zamboanga del Sur, and Misamis Occidental. From the total volume, 55% or 330,000 metric tons is used for human and animal consumption, which are generally distributed to "salt-dependent" regions like Cagayan Valley, CALABARZON, Bicol, Central Visayas, Eastern Visayas, CARAGA, Autonomous Region of Muslim Mindanao (ARMM), Cordillera Administrative Region (CAR), and National Capital Region (NCR).

2. Only 32% of available salt is adequately iodized

Results of the 2013 National Nutrition Survey (NNS) conducted by the Food and Nutrition Research Institute of the Department of Science and Technology (DOST-FNRI) revealed that that 32% of the iodized salt in the country is adequately-iodized.

There are three methods being used to determine the presence of iodine in salt: 1) rapid test kit (RTK), 2) iodine checker machine, and 3) titration. The rapid test kit, a starch-based solution, is a semi-qualitative method of testing the presence of iodine in salt.

Staff of NNC Region 10 demonstrates to Taparak Barangay Nutrition Council (BNC) how a rapid test kit and WYD iodine checker machine works.

The RTK shows if iodine is present in salt, while the WYD iodine checker tells the amount of iodine in the sample.

Using the RTK, a drop of the solution is placed in the salt sample. The starch reacts to the iodine in salt by changing in color (violet or dark blue). If the salt does not change in color, iodine is absent. On the other hand, the iodine checker machine is a quantitative salt testing method. The salt sample is dissolved and mixed in a series of solution. The clear solution in the vial is inserted to the machine for reading. The WYD iodine checker is highly sensitive and results are close to the values when using the titration method. The titration method on the other hand is a complex salt testing method usually conducted in laboratories.

3. No local supplier of WYD iodine checker

Among the three methods, the WYD iodine checker machine is more advantageous in monitoring the adequacy of iodine in salt. The checker is portable and handy, it is easy to use and can be administered by trained personnel. It has been used in a series of monitoring visits conducted by members of the Regional Bantay ASIN Task Force around the country. However, there is no local distributor of the machine thus, limits the supply of the equipment locally.

4. Only 25.7% of households consume adequately iodized salt

The 2013 NNS also showed that the proportion of household using adequately iodized salt (>15 parts per million (ppm) of iodine) is only 25.7%, while the median iodine content of salt is only at 5.60 parts per million ppm. These numbers are below the target for the Universal Salt Iodization (USI) campaign program, and the standards of the World Health Organization and the Food and Drug Administration (FDA). According to the targets of USI, >90% of households should be consuming adequately iodized salt. Adequately iodized salt is defined by WHO as salt with >15 ppm of iodine at the household level, or 30-70 ppm at points of sale, e.g., public markets, grocery stores, supermarkets, among others, (FDA Memorandum Circular No. 013-007).

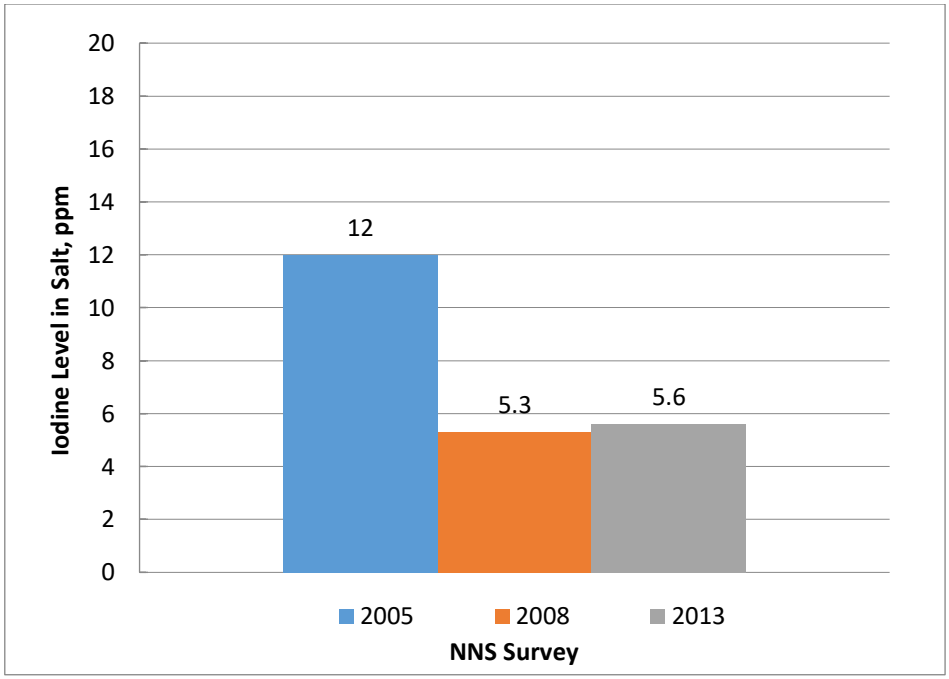

Figure 1. Iodine level in salt in the Philippines, NNS, 2013

Using the rapid test kit method, results of the 2013 NNS showed that 79.9% of households use iodized salt. Among the regions, CARAGA has the highest proportion of households using iodized salt with 94.2%. Central Luzon has the lowest proportion of household using iodized salt at 53.4%. (**Figure 2**)

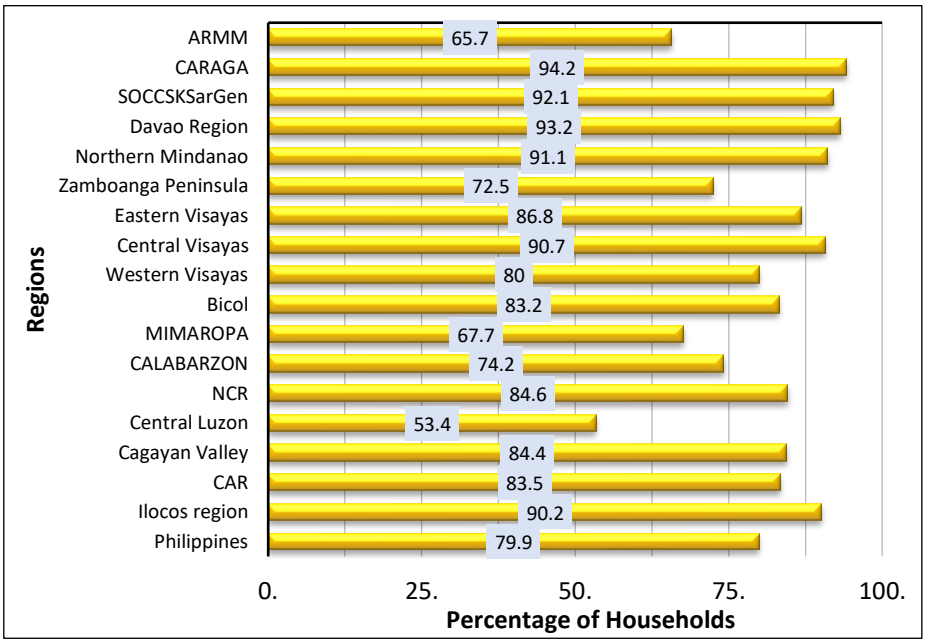

Figure 2. Proportion of households with salt positive with iodine using rapid test kit, NNS, 2013

Using the WYD iodine checker, it was noted that while there is a relatively high proportion of household salt being iodized, there is also a high proportion of household using inadequately iodized salt. About 47.5% of household salt in the Philippines fall under the 0 - <5 ppm range. Iodized salt being used in Zamboanga Peninsula, Central Luzon, Ilocos Region, ARMM, and MIMAROPA. Meanwhile, 25.7% of household salt coming from Eastern Visayas, CAR, NCR, and CALABARZON are adequately iodized. Among all the regions, Zamboanga Peninsula has the lowest proportion of households using adequately iodized salt at 4.7%. The figure below shows the proportion of households using adequately iodized salt.

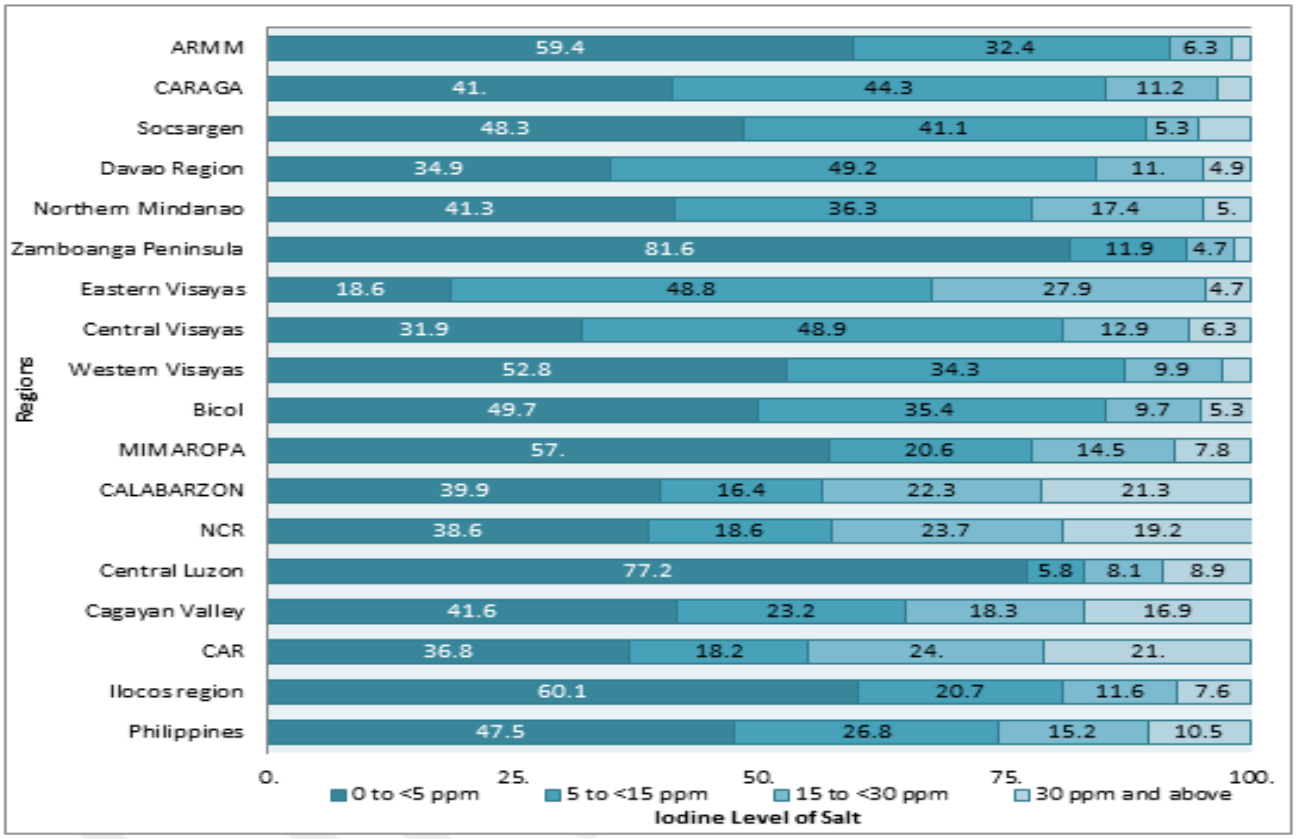

Figure 3. Distribution of household iodine level per region using iodine checker machine, 2013 NNS

5. Declining awareness on the importance of iodized salt among consumers

An increasing trend in the consumers' awareness on what iodized salt is and its benefits have been noted from 1998 to 2005 surveys. However, after 2005, a sudden decline was observed and continued until 2013. It has been noted that in 2005, the supply of rapid test kit to local government units also decreased. The decline may partly have been due the inadequate testing which affected the campaign on iodized salt during *Garantisadong Pambata* in the months of April and October. Barangay nutrition scholars and barangay health workers visit houses to test samples of household salt using the test kit.

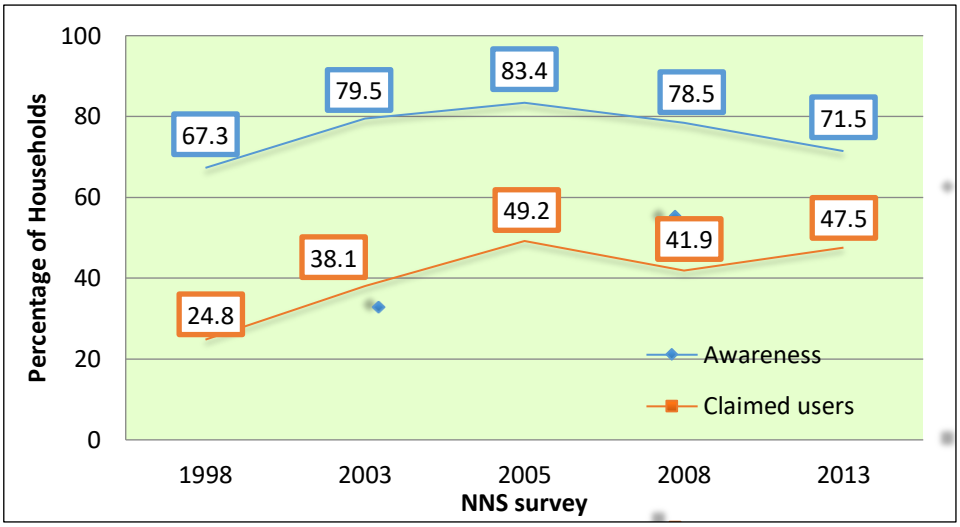

Figure 4. Awareness and claimed users of iodized salt

6. Perceptions of iodized salt importance is wanting

Related to consumer awareness, there are still misconceptions about iodized salt particularly on its physical characteristics, benefits, and uses. Four out of 10 (40.1%) of survey respondents believe that iodized salt are cleaned or refined salt. On the other hand, three (3) out of 10 (30.3%) believe that iodized salt prevents people from having goiter, while 20.2% and 18.9% believe that iodized salt is "good for the body", and "salt added with iodine", respectively. Only 10.9% of the respondents believe that iodized salt is good for pregnant mothers with only 8.7% believing that it is good for the brain. Addressing these perceptions about iodized salt should be the initial step toward achieving universal salt iodization. Consumer awareness and knowledge is important as it will contribute to a positive change in perception and behavior towards use of iodized salt. The demand of consumers for iodized salt largely depends on the extent of their knowledge on what iodized salt is.

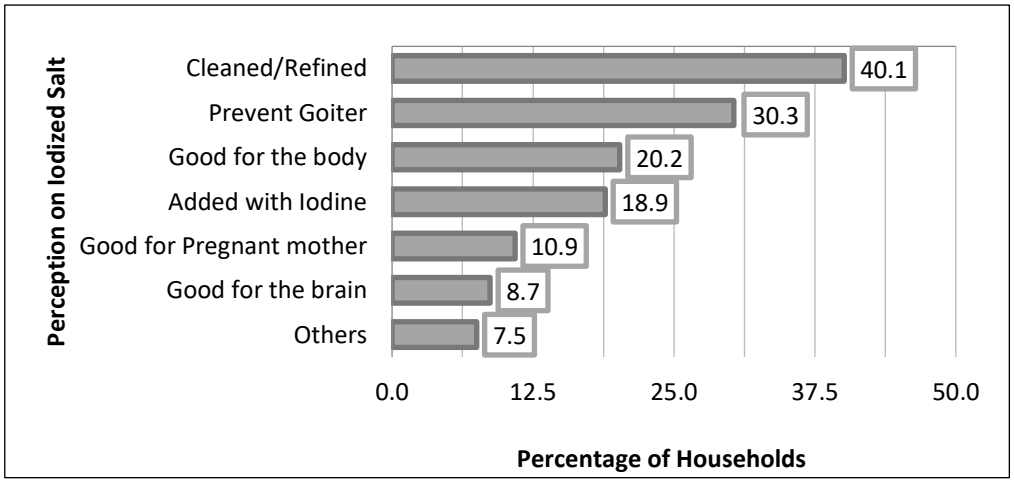

Figure 5. Household perception of iodized salt, NNS, 2013

An increasing trend in the proportion of those who claimed to be users of iodized salt was observed from the series of national nutrition surveys from 1998 to 2005. However, the trend declined in 2008 and 2013. In the latest survey, only 47.5% claim to use iodized salt. This result implies that consumer knowledge and awareness on iodized salt is not translated to changes in behavior of consumers to actually use iodized salt.

ACCOMPLISHMENTS FOR 2013-2016

The National Nutrition Council Secretariat which serves as the secretariat of the Technical Working Group on National Salt Iodization Program is responsible in tracking the progress of the implementation of the ASIN Law, its Revised Implementing Rules and Regulation (RIRR), and the NSIP Strategic Plan. Monitoring is done by NSIP components and by target activity and objectives of the NSIP Strategic Plan, 2011-2016.

Regulation and Monitoring

The regulation and monitoring component of the NSIP aims to ensure that only adequately-iodized salt is available at point of sales. Through the FDA, salt establishments are given Licenses to Operate (LTO) and Certificates of Product Registration (CPR) as marketing authorizations. Salt in the market are being monitored by FDA as part of its Annual Product Monitoring Plan (APMP) to ensure that salt in the market comply with the standard. Lead agency for this component is the Department of Health - Food and Drug Administration (FDA). For 2013-2016, accomplishments included:

1. **Organization and capacitation of Regional Bantay Asin Task Forces (RBATF)** in all 17 regions in the country; organization of Provincial Bantay Asin Task Forces (PBATFs) in Batangas and Mindoro Occidental. All provinces of Region 1 also organized their respective Provincial Bantay Asin Task Forces (PBATFs).

   The Bantay Asin Task Force is expected to: a) manage and coordinate the salt iodization program in the region; b) lead the advocacy efforts to implement the ASIN law; and c) monitor the implementation of ASIN Law and NSIP (including meetings, visits to warehouses, monitoring in ports, policy formulation on NSIP). The NNC allocates Php 50,000 per region to support RBATF activities.

2. **Mandatory declaration of iodized salt on the label** of processed foods in accordance with the labeling guidelines, and electronic licensing and registration of salt establishments and products, respectively.

3. **Inclusion of the list of registered iodized salt in the FDA Food Products Database** as a result of the meeting between FDA and salt producers and importers. The FDA also included a list of registered iodized salt in its central database which will be maintained and updated as the salt and products with salt are registered. The registry will be used to map all registered and licensed salt manufacturers.

4. **Development and support to the maintenance of local salt industry.** There was a strong call from the local salt manufacturers for assistance and support to the local salt industry to address salt requirements and avoid the lopsided supply of imported salt. This will also create jobs that could benefit some 269,870 families who could be involved in the upstream and downstream industries e.g., basket weaving, etc.

5. **Procurement and distribution of iodine checker and rapid test kits** to local government units whose chief executives are members of Lady Municipal Mayors Association of the Philippines and LGUs, respectively.

6. **Formulation and public consultation of the monitoring guidelines for iodized salt** at critical points/areas using rapid test kit and iodine checker machine. The guidelines, which have undergone public consultation in regions I, III, IVA, MIMAROPA, X and XII, was formulated and disseminated to all regions. The guidelines provide the scheme to monitor iodized salt in critical point of sales including monitoring in the household monitoring Garantisadong Pambata. It also provides an estimate of RTK units to be distributed per region.

7. **Participation in the Asia Regional Meeting on Regulatory Monitoring of salt** and flour fortification programs. The Meeting on Regulatory Monitoring of Salt and Flour Fortification Programmes in Asia was held on 27 – 29 September 2011 in Manila, Philippines. The meeting aimed to provide guidance and global experiences on regulatory monitoring of salt iodization and flour fortification to strengthen existing regulatory monitoring systems in participating countries. Inputs from the meeting hopes to increase cost effectiveness and sustainability of salt and flour fortification programs. The meeting also addressed common regulatory concerns of fortifying salt and flour. Representatives from salt and wheat flour industries, as well as representatives from ministries of health, food and drugs, industry, trade and customs, and academia from Bangladesh, China, Indonesia, Malaysia, Mongolia, Nepal, Philippines, Sri Lanka, and Viet Nam.

   A major observation from the meeting was that improving and strengthening the fortification process and establishing 'process checks' at mills and the regulatory authorities were the most important part of monitoring – even more important than testing the final product.

8. **Issuance of FDA memorandum circulars to strengthen iodized salt monitoring and improve quality of iodized salt**. These issuances aimed to improve regulatory compliance thus, cover every single rule. These can contribute to the increased number of salt establishments (not only manufacturers) and improved coverage. For better understanding, the objectives of these issuances are as follows:

   8.1 FDA Order No. 2012-001. "Rules and Procedures for FDA Accreditation of Private Testing Laboratories". Increased the number of testing laboratories that can test, calibrate, conduct assay and examination of samples of health products. The issuance increased the number of laboratories doing analysis from 7 accredited private laboratories in 2014 to 11.

   8.2 FDA Circular No. 2013-007. "Amendment of Bureau Circular No. 2007-009 on the Standard Iodine Level of Salt for Strict Compliance of Iodized Salt Manufacturers or Processors". Increased the recommended level of iodization of salt at the point of manufacture or processing to consider processing losses. The standard Iodine level in salt amended from 20-70 ppm to 30-70 ppm.

8.3 FDA Memorandum Circular No. 2013-042. “Guidelines for Salt Manufacturers, Importers, Wholesalers, Repackers and Distributors to Ensure Adequate Iodization of Iodized Salt and For Other Purposes”. Provided guidelines on salt iodization for salt manufacturers, importers, wholesalers, repackers and distributors to ensure that all supplies of salt in the country that are offered for sale or for use by consumers are iodized. It simplified requirements on good manufacturing practices (GMP) without compromising safety and facilitated ease of compliance on the part of the salt industry.

8.4 Issuance of FDA Circular No. 2014-029. “Procedure of Use of Electronic Registration (E-Registration) System for Raw Materials or Ingredients and Low Risk Pre-Packaged Processed Food Products”. Streamlined the application and evaluation process without compromising public health and consumer safety. Processing time significantly reduced from 114 calendar days for the initial application of pre-packaged food products to 80 calendar days.

8.5 Issuance of FDA Circular No. 2015-005. “Guidelines on the Use of *Saktong Iodine sa Asin”* Quality Seal and FDA Circular No. 2015-005-A for its amendment. Strengthened and revitalized the existing Diamond Sangkap Pinoy Seal used in the labels of iodized salt. It aimed to increase awareness and use of adequately-iodized salt in households and point of sale. It provided better guide for consumers in looking for salt containing adequate level of iodine.

8.6 Issuance of DOH Administrative Order 2016-0003. “Guidelines on the Unified Licensing Requirements and Procedures of the Food and Drug Administration”. Hastened the approval process and strengthened post-marketing surveillance activities. It harmonized requirements of all FDA Centers and reduced timeline as processing of application for LTO in FDA is done through electronic system.

Technical Assistance

The component on technical assistance aims to strengthen the capacity of salt industry players to produce adequately-iodized salt through capacity building activities, organization and establishment of model salt cooperatives, and improved access to incentives. Lead agency is the DOST-ITDI. Accomplishments include:

1. **Implementation of a system for sustainable salt iodization technology transfer**. ITDI developed the manual of the Quality Assurance, Quality Control (QAQC) system. A quality assurance system which includes assessment of the plant, modification and calibration of equipment, training of factory workers, and monitoring and coaching of salt workers. The QAQC manual was reproduced and distributed among importation sites and solar producers.

   The same QAQC system was adopted by the three major salt players i.e. Salinas, Artemis and Arvin International, with the conduct of training among its technical employees with

assistance from ITDI. DOST Regional Offices also provided technical assistance on QAQC training to other interested salt producers in their respective regions.

To date, the QAQC system is continuously disseminated to requesting salt manufacturers and interested local government units.

2. **Roll-out training on the proper use of iodine checker machine was conducted among salt manufacturers and Regional Bantay Asin Task Forces** with the procurement and provision of these machines.

3. **Preparation of a roadmap for the operationalization of local incentive dispensation** and submission to DTI-BOI for consideration in their annual Investment Priority Plan. Continuous lobbying for the incentive system on salt iodization program and the inclusion of salt production in the IPP is still a priority of the NSIP. The roadmap was submitted to the BOI by the Philippine Chamber of Salt Producers (PCSP) on 25 February 2015. The producers of iodized salt may apply for registration at the BOI under the "All Qualified Manufacturing Activities including Agro-Processing" of the 2017 IPP subject to criteria:

   "All projects for the manufacture of industrial goods and processing of agricultural and fishery products must utilize up-to-date and market-appropriate technology and must comply with the Philippine National Standards (PNS), as applicable.

   In addition, they must comply with any of the following criteria to be qualified for the registration:
   a. Will manufacture/process products, the importation which grew by an annual average of at least 10% from 2012-2016, or the share of imports to total apparent demand is at least 60% or

   b. The projects value creation is at least 50%, except for consumer durables and industrial products or their intermediate goods that should be at least 25%; or

   c. Will manufacture/process products that will utilize new technology and/or world-class design; or

   d. The project has a core capital equipment cost to direct labor ratio of not higher that USD28,000:1 worker as full capacity;

   e. Will adhere to Halal or Kosher standards for food manufacturing, as accredited by the PAB. Processing centers for the Halal industry to be located in the ARMM shall be registered with the RBOI-ARMM."

4. **Identification of small-scale salt producers in the Philippines**, e.g. Misamis Occidental

5. **Complete testing of collected salt samples nationwide** for the formulation of the Philippine National Standards for Raw Salt

6. **Documentation of the salt production processes nationwide**

7. **Assistance to producers of processed food on the proper use of iodized salt**, e.g. bagoong, pickles, to remove perception that iodized salt affects quality of processed foods.

Promotion and advocacy

Promotion and advocacy efforts focus on the implementation of a health promotion and communication plan to increase consumer awareness that would create demand for adequately-iodized salt. Accomplishments for this component include:

1. **Development and dissemination of promotional materials for adequately-iodized salt**, e.g. TV advertisement, radio plug, fan flyer, advocacy t-shirts through local Bantay Asin Task Forces

2. **Integration of messages on iodized salt in elementary school's curriculum** for Health, Science and *Edukasyong Pantahanan at Pangkabuhayan* (EPP) subjects. Lesson plans with integrated messages on iodized salt were developed and utilized in five (5) pilot regions: Biliran City in Region 8, Zamboanga City in Region 9, Valencia City in Region 10, and Davao City in Region 11, Bayugan and Agusan del Sur in CARAGA. The messages on iodized salt were integrated in Health (Gr. 1 and 4), Science (Gr. 3, 4, 5, and 6), and *Edukasyong Pantahanan* and *Pangkabuhayan (*Gr. 4, 5, and 6) subjects.

3. **Conduct of poster and slogan-making contest on adequately-iodized salt** in regions 8, 9, 10, 11, and CARAGA.

4. **Conduct of fora and discussions on adequately-iodized salt among select stakeholders**, e.g. association of supermarket and grocery store owners, Lady Municipal Mayors Association of the Philippines (LMMAP), producers of processed foods/bagoong makers, medical practitioners

5. **Dissemination fora on the results of the study on the use of iodized salt in fish paste, and other processed foods** in Vigan City, Tacloban City, Davao City, Zambales, Batanes, and Cagayan de Oro City

6. **Soft launch of the adequately-iodized salt quality seal.** The soft launch of the adequately-iodized salt quality seal was held on 20 June 2014 at Sarossa Hotel, Cebu City. During the event, Certificates of recognition were awarded to salt manufacturers who are producing adequately-iodized salt in the country as reported by FDA. These were Arvin International Marketing, Inc., Artemis Salt Corporation and Salinas Foods, Incorporated. The event was attended by officials from FDA, DOH, NNC, UNICEF and DOH-CHD VII. Present also were members of TWG-NSIP, RBATF 7 members, health officers, barangay health workers, barangay nutrition scholars, hospital administrators, staff of DOH RO 7, medical specialists, salt repackers, salt manufacturers, LGU administrators and members of the press

7. **Celebration of special events** such as Goiter Awareness Week every January, World Thyroid Day in May and the 20th year of the ASIN Law were also conducted.

Program management (Enabling mechanism)

This component of the NSIP aims to provide the mechanism for the coordinated implementation, management, monitoring and evaluation. For 2013-2016, accomplishments include:

1. **Review and amendment of the ASIN Law revised implementing rules and regulations.** The revised implementing rules and regulations (RIRR) of RA 8172 or ASIN Law went through series of consultations with members of the technical working group of the National Salt Iodization Program (TWG-NSIP) - government, NGOs, RBATFs, industry. The Exports Development Council – Networking Committee on Legislative Action and Monitoring (EDC-NCLAM) reviewed the RIRR in February 2016. The TWG-NSIP approved the amendments in the RIRR in its meeting on 8 September 2016. The NNC Technical Committee reviewed, revised and approved proposed amendments in its meeting on 4 October 2016. The amended RIRR of ASIN Law was presented for approval of the Salt Iodization Advisory Board and NNC Governing Board on 18 October 2016.

   The final draft of the amended revised implementing rules and regulations of RA 8172 was submitted to DOH-HPDPB last 13 June 2017 through a memorandum for final review. The draft amended RIRR was reviewed by HPDPB and was returned to NNC last 14 July 2017 through a memorandum. According to DOH-HPDPB, a copy of the approved amended RIRR shall be filed to the Office of the National Administrative Register (ONAR). DOH-HPDPB also advised that there is no need for the amended RIRR to be reviewed by a legal officer or a lawyer since it was already reviewed by the legal offices of the Departments and other agencies involved.

2. **Visits of external high level mission for the assessment of salt iodization program implementation.** On 24-27 February 2015, a High Level Mission (composed of Global and Regional experts) on Universal Salt Iodization (USI) discussed with NNC the progress and issues confronting the implementation of the ASIN (Act Promoting Salt Iodization Nationwide) law for achieving USI targets in the Philippines. The High Level Mission, led by Ms. Karen Codling of UNICEF-East Asia Pacific Regional Office highlighted the need to mainstream universal salt iodization across the program initiatives of the agency, through allocation of resources for salt monitoring activities, and continued involvement in NSIP's Technical Working Group.

3. **Conduct of program implementation and external review on salt iodization program.** An NSIP Program Implementation Review for 2014 was held on 3-4 March 2015 in Tagaytay City. The preliminary process of the program implementation review included desk review of various NSIP documents (i.e. ASIN Law and RIRR, NSIP Strategic Plan 2011-2016, TWG highlights of meetings, etc.) and interview with individual TWG members (i.e. DOST-ITDI, DOST-FNRI, DOH-FHO, DOH-NCHP, FDA, DepEd-HNC and the

salt industry). The PIR identified actual accomplishments, reason/s for deviation/future challenges and recommendations under each activity specified for each of the program components (i.e. technical assistance, promotion and advocacy, regulation and monitoring, program management, and support services).

4. **Inclusion of salt iodization and iodine deficiency disorders** status in the 2013 National Nutrition Survey. The status of salt iodization and IDD in the Philippines were included in the 2013 National Nutrition Survey (NNS) of DOST-FNRI, and the results were as follows:
   a. There is significant decrease for both awareness and usage from 2005 to 2013 except for usage from 2008 to 2013 where an increase trend was observed.
   b. Majority of household buys iodized salt in packs with label from supermarket/grocery and market/*talipapa* and stored in transparent container without cover.
   c. Median iodine level of household salts observed to decrease from 12.0 ppm in 2005 to 5.3 ppm in 2008 and with slight insignificant increase to 5.6 ppm in 2013.
   d. 47.5% HH salt in the Philippines fall under the 0 to <5ppm range coming from Zamboanga Peninsula, Central Luzon, Ilocos Region and ARMM.
   e. 25.7% HH salt are above 15 ppm coming from CAR, NCR, CALABARZON, Cagayan Valley and Eastern Visayas.

5. **Attendance to the Universal Salt Iodization workshop** in Bangkok, Thailand. The East Asia Pacific Regional Office conducted a 3-day workshop on the achievement of Universal Salt Iodization last 12-14 October 2015 in Bangkok, Thailand. The Philippine delegation was composed of TWG members from NNC, DOST-ITDI, IGN, and UNICEF. The delegation presented the status of USI and IDD in the country focusing on improvement in IDD status, iodine content in salt, volume of salt iodized, proportion of salt used for food processing, among others. The data on salt iodization submitted by the delegation contained information on the following:

   a. Current legislation and iodization standards;
   b. Proportion of household using of iodized salt and adequately iodized salt from 1998 to 2013 (assessed by quantitative method only);
   c. Median urinary iodine level of school age children, reproductive age women and pregnant women (1998-2013);
   d. Proportion of total food grade/edible salt produced in large, medium, or small facilities or imported and proportion of that salt which is estimated to be iodized;
   e. National coordination mechanisms (achievements and weaknesses)
   f. Innovative strategies to improve implementation of the Law such as partnership with major supermarket chain, quality salt seal campaign, activation of *Bantay Asin* Task Forces, integration of IDD and iodized salt in grade school and secondary curriculum, partnership with the Lady Municipal Mayors of the Philippines (LMMAP) to facilitate implementation of national initiatives to the LGU level, and technology improvement – retrofit existing iodizing machine and replacement of compressor by dosing pumps coupled with capacity building among salt industry through intensive “hand-holding”

CHALLENGES AND FORWARD STEPS

Challenges in implementing the ASIN Law

1. Other vulnerable groups such as elderly, lactating women and pregnant women continue to have mild iodine deficiency, despite improved iodine intake among school children, adolescents and adults.
2. There is declining level of awareness on the importance of iodized salt in health and nutrition and still low usage of iodized salt among households
3. There is sub-optimal level of iodine in salt in the country
4. The high turn-over of technical employees trained on QAQC in salt farms/salt plants affect implementation of proper salt iodization at the production level.
5. The inadequate funding support among national agencies and local governments to implement ASIN Law agency-designated mandates and monitoring activities remains to be a big challenge.
6. There is inadequate human resource and logistics to ensure monitoring and strict enforcement of quality standards for salt production among regulatory agencies/units and local government functionaries.
7. Challenges in internal and external monitoring particularly in monitoring food processors.

Recommendations to Congress

1. Require mandated agencies to comply with ASIN Law provisions pertinent to their agencies by earmarking their compliance in their budget proposals.
2. Formulate the Philippine National Standard for local salt to address poor quality salt.
3. Issue enabling legislation providing for better incentives to government partners in public health and nutrition and providing less stringent requirements for salt manufacturers and related industries in the Investments Priority Plan to promote improved local salt industry compliance including small scale players.
4. Authorize/endorse agency resource allocation to continuously support activities of RBATF/PBATF particularly for coordination, monitoring and evaluation of ASIN Law implementation and enabling activities at the national level, e.g. research and policy development, technical assistance in relation to the development of an ASIN Law-compliant local salt industry.

Other programmatic recommendations

5. Reactivate and strengthen Regional and Provincial Bantay Asin Task Forces as subnational monitors to promote improved compliance to ASIN Law. Consider addition of LGU representatives or LGU sectoral representative for better grasp on LGU requirements and dynamics.

6. Pursue the advocacy campaign on iodized salt and the *Saktong Iodine Sa Asin* or SISA to promote consumption of only adequately iodized salt among the general public.

7. Step up information activities targeting market administrators, retailers and consumer groups especially patronizing *takal* salt from public markets who are more at-risk ~~to~~ of purchasing non-iodized or inadequately iodized salt.

8. Imported salt to undergo salt iodization process must be included in the government's Investment Priorities Plan. Provisions of the ASIN Law clearly states that salt for human or animal consumption, whether imported or local, must be adequately iodized.

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