

Significant Achievements in SWAN Programs



Evaluation of SWAN programs was made after one year since the programs started in Tam Hiep Commune, Hanoi. Significant achievements have been confirmed in clean water supply and hygiene/sanitation practices.

- Diarrhea among children has been significantly reduced.
- Practice was established to separate raw materials and cooked foods in cooking.
- The water treatment facility (WTF) keeps supply of clear water of which quality was improved.
- WTF can supply clean water to more householders than before.
- Leak of clean water in the distribution pipeline has gradually decreased.
- More inhabitants are satisfied with performance of Water Management Union (WMU).



WMU is now studying the next step to improve and sustain the programs in Tam Hiep.

In the second model, Dai Mo Commune, modification work of the WTF was completed in April 2007. Water quality was improved and water supply from WTF was increased. Training on water treatment was provided to operators of WMU in the commune, and

stable operation of WTF has been maintained with proper record keeping. It was found that effective communication could be achieved in this commune through poster communication. Training on IEC was provided to key persons in charge of communication. They have developed their own and unique poster communication and improved hygiene and sanitation practice among inhabitants.

The third model, Quang Trung Commune, Nam Dinh started the programs in May 2007. Modification work for WTF is underway through participatory approach of inhabitants.

Project SWAN

Safe Water and Nutrition

WHO reported that 1.1 billion people do not have access to safe drinking water. In many developing countries intake of unsafe water and unhygienic environment have caused diarrhea and infectious diseases among children. The situation has prevented intake of necessary nutrients resulting in malnutrition. Even if water treatment facilities are equipped, it is often observed that facilities are not properly designed and that proper treatment operation has not been conducted including chemical dosage to remove contaminants, resulting in failing in meeting WHO biological and chemical standards. Project SWAN aims to establish sustainable water supply and management models in rural areas through participatory approach with inhabitants by 1) enhancing knowledge of drinking water, nutrition and hygiene and sanitation at household level, 2) optimizing operation of water treatment facility and 3) establishing effective management systems which enable to sustain participatory approach on community basis.

Achievements of Project SWAN to Date

With emphasis on rural areas in developing countries in Asia, where there are no plan for public water works, since 2001 ILSI Japan CHP has been investigating quality of drinking water in the north of Vietnam. Consequently contaminants were identified and adequate measures were defined to improve the quality. Focus Group Discussion confirmed that the inhabitants have strong willingness to participate in activities for improving and sustaining the water quality and for improving knowledge and practice of hygiene and sanitation.

Based on the preliminary investigations, a proposal entitled "Participatory approach for improving safe water supply, nutrition and health environment" was proposed to JICA (Japanese International Cooperation Agency) as a grassroots technical assistance project. The proposal was accepted and the fund for 3 years was approved by JICA. In November 2005, the project started in three communes (Hanoi Tam Hiep · Hanoi Dai Mo · Nam Dinh Quang Trung) in northern Vietnam where 2,500 households are supplied from local water treatment facilities.

Water Management Union was established in Tam Hiep commune, which consists of Technical Group in charge of operation of water treatment facilities and water quality maintenance, and IEC Group in charge of education and communication. After improving the water treatment facilities, it is confirmed that water quality was improved and has been maintained.

LiSM10!® Program to Be in Operation Soon

“ Health Guidance Program LiSM10!® ” has been refined to meet the guidelines of the Ministry of Health Labor and Welfare. From April 2008, corporate health insurance society will be obliged to provide health promotion programs to their insured workers considered at-risk for metabolic syndrome aged 40 and over in line with the guidelines.

The third phase intervention study was conducted in Nichirei Foods from November 2006. Analysis of the study after 6-month intervention has been completed. The analysis indicates significant improvements in risk factors such as body weight and metabolic parameters. The results will be reported at the annual meeting of Japan Society of Metabolism and Clinical Nutrition.



Various preparations are underway, which includes LiSM10!® brochures, and LiSM10!® manuals for counselors to meet expanded requirements of this program.

Project PAN Physical Activity and Nutrition

To promote healthier aging, Project PAN seeks to prevent **lifestyle-related diseases** including **obesity** among middle-aged people and **keep the elderly out of being bedridden**. Project PAN develops science-evidenced programs to promote physical exercise and to improve nutritional status of people through changing their lifestyles.

ILSI Japan CHP is pursuing two programs named “TAKE10!®” and “LiSM10!®”

LiSM10!®

ILSI Japan CHP developed “LiSM10!®” (Lifestyle Modification) that supports improvements of risk factors of lifestyle-related diseases of employees in **worksites**. This program focuses on health promotion for physical activity and dieting after medical check-ups in worksites.

“LiSM10!®” is consists of 1) Individual objective setting and recording implementation. 2) Individual and periodical counseling by professionals to support individual program for 6 months, and 3) Support programs from worksites and families of individuals.

Achievements of “LiSM10!®” to Date

An intervention program was conducted in 5 plants of two companies for workers aged +40 years old from November 2001. Evaluation after 6-month intervention prevailed that “LiSM10!®” significantly improved physical exercise behavior, dietary behavior, and risk factors of lifestyle-related diseases in body weight, blood pressure, LDL-cholesterol and others. To observe if the improvements could be sustained, additional survey was conducted one year after the intervention was completed. The survey indicated that positive changes of behaviors in physical exercise and dietary intake were maintained and body weight, blood pressure, blood glucose and LDL-cholesterol were improved and maintained, but some parameters as total-energy consumptions, total-cholesterol and triglyceride were rebounded. It was concluded that a periodical follow-up counseling is important to maintain improved parameters. The advanced version of “LiSM10!®” incorporated the requirement.

From November 2004, the advanced version “LiSM10!®” was conducted in Nichirei, which aims to promote “LiSM10!®” to industries. “LiSM10!®” was refined in training of counselors and in development of a comprehensive manual.

Evaluation of 6 months after the intervention indicates significant improvements in risk parameters such as BMI and HDL cholesterol.

A simulation study was conducted to estimate economical benefit of “LiSM10!®” program. This study showed that if “LiSM10!®” is employed for high risk groups of 1000 people for 5 years, 180 million JPY(1.7 million USD) could be saved in medical cost as compared with conventional programs, which is a saving of JPY ¥36,000 / person / year (\$330 USD).

“Tsuwano TAKE10!®” to Be in Operation From 2008



Project PAN Physical Activity and Nutrition

TAKE10!® for the elderly

Aiming to support “Healthier longevity” among the elderly and to **reduce costs of the national health care program**, ILSI Japan CHP developed TAKE10!® for the elderly. The program is featured by effective and unique combination of **appropriate physical activity** and **proper dieting habits**, which is different from conventional programs for preventing lifestyle-related diseases of adults.



based on “TAKE10!®” from early 2008.

As the Ministry of Health, Labor and Welfare promotes a care service volunteer system, this case in Tsuwano is expected to be one of models for promoting TAKE10!® program.

“Sumida TAKE10!®” introduced the 3rd year program. More than 350 people participate in the “Sumida TAKE10!®” in total. A new follow-up programs is introduced for the participants who have already finished the basic class, which include oral health care practices and cooking class with assistance of member companies of ILSI Japan.

“Fuso TAKE10!®” that was initiated last June introduced a new trial utilizing music and a volunteer system of the elderly.



Achievements of TAKE10!® to Date

An intervention study was conducted for 1400 elderly population in Nangai village, Akita Prefecture from July 2002 for one year. The study proved that TAKE10!® for the elderly can efficiently be introduced to local communities and can effectively improve regular physical exercise practices and dieting habits, maintain muscle strength and improve physiological functions.

The results of the study were reported at the Annual meeting of Japanese Society of Public Health in November 2004. Three national newspapers and eight local newspapers covered the study. More than 8,000 inquiries have been received, including local government offices and organizations, and more than 20,000 copies of booklets were sold. Many lecture sessions by ILSI Japan CHP were conducted.

Since October 2005, “Sumida TAKE10!®” program started by Sumida Ward of Tokyo. The program was conducted in six sites, including lecture sessions on the program and physical exercise practices.

To facilitate implementation of TAKE10!® in municipalities, a manual package composing of a manual for trainers, DVD for physical exercise, forms, posters and hand-out booklets were completed.

Iron-Fortified Fish Sauce in Market in Cambodia

ILSI Japan CHP supports the Cambodia policy to alleviate IDA through promotion of iron-fortified fish sauce and soy sauce. Fish sauce fortified with NaFeEDTA was introduced in Kampot in March 2007 and Siem Reap in August. ILSI Japan CHP is working with RACHA (NGO in Cambodia, Reproductive and Child Health Alliance) to promote social marketing programs, to establish a quality monitoring in market and to establish a surveillance system for monitoring IDA. A baseline survey will be conducted in Siem Reap soon. Akzo Nobel supports the project, donating NaFeEDTA.



Market Trial for Fortified Rice under Preparation

ILSI Japan CHP and FNRI agreed to conduct a market trial for iron-fortified rice. A premix that is produced by an extrusion method from rice flour and micronized ferric pyrophosphate is blended with regular rice. The fortified rice will be marketed in Orion City near Manila (52,000 population and 11,000 householders) from next spring. During the trial a national launch plan will be developed by conducting social marketing programs and monitoring/surveillance system for evaluating IDA improvement.

Iron-Fortified Fish Sauce in Commercial Operation in Vietnam

Production of fish sauce fortified by NaFeEDTA started in CatHai Company in December 2006. Two additional plants followed in 2007. In coming two years, 10 big plants will introduce the fortified products. ILSI Japan CHP keeps support for the introduction in quality assurance, surveillance of IDA, etc.

Project IDEA

Iron Deficiency Elimination Action

The difficulty in maintaining a variety of food sources results in malnutrition and micronutrients deficiency in the developing countries. Iron deficiency anemia, one of the most prevalent threats to public health, impairs brain development, immune system functioning, and learning ability in infants and children. It can also be a major cause of death among pregnant women, and dramatically reduces productivity among working adults, which in turn hinders the struggle against poverty. The UN ACC/SCN (the United Nations Administrative Committee on Coordination/ Sub-Committee on Nutrition) reports that 3.5 billion people are suffering from iron deficiency anemia, and they have been less successful in fighting it than in overcoming other micronutrient deficiencies.

Project IDEA works to reduce iron deficiency anemia (IDA) in developing countries by **adding iron to commonly-eaten and commercially-produced foods** such as condiments and staples, based on the dietary patterns of each country.

Achievements of Project IDEA to Date

In the Philippines, ILSI CHP has worked with FNRI (Food and Nutrition Research Institute) on stability and acceptability of several alternatives on iron fortification of rice. Overall evaluation indicated that extruded rice with ferrous sulfate and micronized ferric pyrophosphate are most stable and acceptable in taste and color. An efficacy study was conducted for 6 months in 2004 through an intervention program using primary school pupils of 6-8 years old in Metro Manila. The intervention program demonstrated that both of fortification alternatives significantly improved anemia prevalence. Based on scientific outcomes of the series of study, we proposed market trials to FNRI.

A research program on complementary feeding was initiated to aim to develop acceptable and affordable complementary foods in Asia which will be scientifically evidenced. ILSI CHP and ILSI Southeast Asia Region held a workshop on needs of complementary foods with attendance of 4 countries representatives (China, Vietnam, Philippines and Indonesia) in Manila in November 2004. ILSI CHP is conducting literature review to define the course of the project

In Vietnam, in collaboration with National Institute of Nutrition (NIN), ILSI CHP has pursued iron fortification (NaFeEDTA) of fish sauce, which is consumed by 70% of population. A series of studies on stability and acceptability of fortified fish sauce confirmed feasibility of the fortification program. Then, efficacy and effectiveness studies were conducted. Those studies verified that regular consumption of iron-fortified fish sauce significantly improved anemia prevalence. It was decided that the iron-fortified fish sauce will be launched from 2006 based on scientific outcomes of research and development. With financial support from GAIN (Global Alliance for Improved Nutrition), national launch is scheduled in 5 years, pursuing programs for production/distribution, quality assurance, communication on nutrition and health and monitoring/surveillance. ILSI Japan CHP will keep providing professional support to ensure successful national launch. Once the national program is completed, it is expected that 42 million people will benefit from this program in several years.

In Cambodia, joint research by ILSI CHP, GTZ and RACHA confirmed that iron-fortified fish sauce was efficacious in improving Iron Deficiency Anemia. National Sub-Committee of IDA in Cambodia decided to promote the iron fortification program of fish sauce and soy sauce.