



ILSI Japan CHP Newsletter

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Active Participation by Inhabitants Progressed



Since the Water Management Union was established in Tan Hiep commune one year ago, the operation of the Union has been improved in terms of stable supply of quality water and better education and communication on hygiene and nutrition among inhabitants. At the beginning of the Water Management Union, various issues were raised in the management. The role of the Union was clearly defined through dialogues. Workshops were held five times with inhabitants and newsletters were distributed. Those activities encouraged inhabitants to participate in activities of the Union. For example, information on leakage of water distribution line was quickly reported by inhabitants for repairs. The Information, Education and Communication (IEC) program was expanded to issuing posters and making announcement by loudspeakers in the commune to promote hygiene and nutrition. An interim evaluation of the IEC program is underway.



We started the program at the Model 2 (Daimo commune) in November 2006. A baseline survey was conducted in January 2007 and an improvement work for the water treatment facilities started in April. We have just started the program at the Model 3 (Quang Trung) in May.

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 emphasize 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 · Namdinh Quang Trung) in northern Vietnam where 2,500 households are supplied from local water treatment facilities.

Water Management Union was established in Tan 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.

Health Support Program in Worksites LiSM10!® Program Progressed to Practical Application

In April 2008, employers will be obliged to provide health promotion guidance to their employees aged 40 and over. “Health Guidance Program LiSM10!® Program” has been developed in line with the guidelines of Ministry of Health and Welfare.



We started the third phase intervention of LiSM10!® program in Nichirei Foods Inc. in November 2006. A new program management system is introduced in the intervention program to improve administration and protection of individual privacy. Manuals are under

development to train qualified **counselors**. The counselors' totals more than 10 experts but a larger pool of qualified counselors will be required. This program needs to be promptly refined for practical use.



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).

Health Promotion Program for the Elderly “Sumida TAKE10!®” and “Fuso TAKE10!®” under Implementation



“Sumida TAKE10!®” program which was introduced in October 2005 successfully completed the second phase. The program scientifically demonstrated that participants improved dietary behavior and physiological performance such as walking speed (The results were reported at 65th Japanese Society of Public Health Annual Meeting). As many of participants ask for continuation of the program, a follow-up program is under development. Meanwhile Sumida Ward requested ILSI Japan CHP to continue the program with new participants.



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Another implementation trial is under development with Fuso town in Aichi

prefecture. This trial, in which resources from municipalities and inhabitant voluntary groups play major roles with assistance of ILSI Japan CHP experts. A lecture session was provided by Prof. Kumagai and coaching sessions were held by ILSI Japan CHP to train leaders of municipalities. A “TAKE10! Volunteers” group was formed and is now leading the program in cooperation with the local health office. This Fuso model will be pursued in other municipalities. We look for the possibility of an affiliation with other business organizations for nationwide dissemination of this program.

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.



Achievements of TAKE10!® for the elderly 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.

Commercial Production of Iron-fortified Fish Sauce Started in Vietnam

Production of iron-fortified fish sauce started in Cat Hai, Vietnam in December 2006.

It is planned that the fortified fish sauce will subsequently be introduced in 10 large plants. The production will be followed by introduction of quality assurance system, social marketing program and monitoring/evaluation system.

Production of Fortified Fish Sauce Started in Cambodia

Cambodia government decided to introduce fortified fish sauce with NaFeEDTA into the market. ILSI is providing technical assistance in production, quality assurance and monitoring system. During January- March 2007, an anemia survey was conducted in Kampot and Ankor Chey, and a workshop was held on development of a quality assurance



system including chemical analysis for iron. A manual of Food Frequency Questionnaire was developed and introduced. Production of the iron-fortified fish sauce started in Kampot in March 2007. Production in Siem Riap and Phnom Penh will follow in 2007.

Literature Review on Complementary Feeding Completed

A literature review report "Towards improved infant and young child nutrition" was completed in October 2006, which is the base for further research and development by ILSI. The next steps will be discussed with representatives of the four countries to decide the direction and the strategy of the project.

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.