

ILSI Japan CHP Newsletter

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Project IDEA Market Trial for Fortified Rice Started

The Iron-fortified rice that was developed by ILSI Japan CHP and FNRI (Food and Nutrition Research Institute) was approved by the Philippine government and introduced in Orion Municipality, Pataan Province. A launch ceremony was held in the municipality on April 8. Social marketing programs were initiated. Improvement of iron deficiency anemia will be monitored and consumer acceptance will be evaluated for one year to develop a national launch plan. Taiyo Kagaku is donating the unique fortificant, micronized ferric pyrophosphate.



Market Trial Underway in Cambodia

A survey started in Siem Reap City was expanded to Kampot City to assess food intake and anemia prevalence will be used as baseline data. ILSI Japan CHP in cooperation with RACHA in Cambodia is conducting a quality monitoring and surveillance program to assess iron deficiency anemia. Laboratories will be set up in Kampot and Siem Reap to analyze iron in fortified fish sauce and soy sauce being marketed there and to provide training for the analysis.

What's Project IDEA (Iron Deficiency Elimination Action) ?

The difficulty in maintaining a variety of food sources results in malnutrition and micronutrient deficiencies 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) reported that 3.5 billion people suffer from iron deficiency anemia, and that it has been more difficult to overcome this than 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 unique to each country.

Achievements of Project IDEA to Date

In the Philippines, ILSI CHP has worked with FNRI on the stability and acceptability of several alternatives for the fortification of rice with iron. The overall evaluation indicated that extruded rice with ferrous sulfate and micronized ferric pyrophosphate are the most stable and have the most acceptable taste and color. An efficacy study was conducted for 6 months in 2004 by means of an intervention program using primary school pupils 6-8 years old in Metro Manila. The intervention program demonstrated that both of fortification alternatives significantly improved anemia prevalence.

In Cambodia, fish sauce fortified with NaFeEDTA was introduced in Kampot in March 2007 and Siem Reap in August. ILSI Japan CHP is working with RACHA to promote social marketing programs, to establish quality monitoring of the market and to establish a surveillance system for monitoring IDA. A baseline survey was conducted in Kampot and Siem Reap. Akzo Nobel is supporting the project by donating NaFeEDTA.

A literature search on complementary feeding resulted in the report "Towards improved infant and young child nutrition in Asia through appropriate complementary feeding" which can be used as a basis for the research and development of complementary feeding.

In Vietnam, in collaboration with National Institute of Nutrition (NIN), ILSI CHP has pursued iron fortification (NaFeEDTA) of fish sauce. A series of studies verified that regular consumption of iron-fortified fish sauce significantly reduced the prevalence of anemia. Iron-fortified fish sauce was launched in 2006 based on the scientific outcomes of the research and development. The current plans call for 10 large production plants to produce fortified fish sauce by 2009. With financial support from GAIN, the national launch is scheduled in 5 years, which will include programs for production/distribution, quality assurance, communication of nutrition and health and monitoring/surveillance. ILSI Japan CHP will continue to provide professional support to ensure a successful national launch.

Project PAN

“TAKE10! Easy Cooking for the Elderly” has been completed



TAKE10!® Up To Now

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 effectively be introduced to local communities and can improve regular physical exercise practices and dieting habits, maintain muscle strength and improve physiological functions.

The result of the study was 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 inquiries from local government offices and organizations, and more than 20,000 copies of the booklets have been sold. Many lecture sessions by ILSI Japan CHP have been conducted.

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

As the sub-text of TAKE10!®, we have prepared the cooking booklets “TAKE10!® Easy Cooking for the Elderly”, which are complete cooking guides for elderly people which are designed to be easy to read and to encourage them to cook. (We appreciate the research grant from J-Milk and the technical support of the professors and the cooking laboratory of the Tokyo Dietitian Academy.) In many cookbooks commercially available, only pictures beautifully prepared meals are shown, but to understand the step-by step process of cooking, and one needs to read the fine print. Such cookbooks are not very attractive to elderly people and do not encourage them to try cooking new cuisine. Therefore as part of the TAKE10! Program, we prepared our cookbook by focusing on the following points: 1) printing in a larger font, 2) including many photographs to visually display a recipe, and 3) making every effort to encourage people to try cooking new dishes.

According to the results of a questionnaire for the elderly people attending the “Sumida TAKE10! Program”, the cookbook was easy to use and easy to read. We have plans to use this cookbook in cooking classes in local communities in the future.

“Sumida TAKE10! Program” is in its fourth year, and we started follow-up classes in June. At the same time, “Senior Work Program” in Tsuwano, Shimane Prefecture is in its second year and they are preparing for the “Tsuwano TAKE10! Program” to start soon. In addition, we have accepted a commission from the City of Masuda, Shimane Prefecture to train human resources for the “Masuda Silver Human Resource Center” as well as leaders to manage the “Minimizing Care Needs Class” in local communities. We have also received inquiries from other local municipalities about starting the “TAKE10! Program” to help them support active elderly people in local communities.

“LiSM10! Program” The results are becoming clear

An analysis of the 3rd phase of the LiSM10! Intervention program ongoing at Nichirei Corporation, which started in November 2006, has been conducted. The LiSM10! intervening group showed significant improvements in 7 outcome measures including BMI, Blood glucose compared with a control group. For the subjects of metabolic syndrome or at high risk, the LiSM10! intervening group also showed significant improvement in 8 outcome measures. These results are very important and clearly show how effective and important this program can be. Because a risk reduction counseling for metabolic syndrome according to the result of annual physical examination was legislated in April 2008, needs of an effective program have risen, and this program is likely to receive even more attention.

These results were presented at the 11th Meeting of the Japan Medical Nutrition Society (Kyoto, Jan 2007) and the 51st Meeting of the Japan Diabetes Society (Tokyo, May 2007). This program is continuing on a follow up basis.

High priority is being placed on the preparation of LiSM10! Tools and LiSM10! Counseling Manuals and the work is progressing quickly.

LiSM10! Up To Now

Intervention Study:

<Phase 1> from Dec. 2001, with the support 2 companies and the participation of male employees 40 years or older for a six month period to undergo LiSM10! Intervention aimed at improving the measures for risk factors related to lifestyle related disease such as overweight and high cholesterol. The lasting effects of this intervention were assessed by follow-up measurements on the participants for a one year period. The results were that improvements in physical activity, dietary habits, overweight, and LDL levels were maintained, but overall cholesterol and neutral fat levels returned to pre-intervention levels. It became clear that a follow-up program would be necessary.

<Phase 2> with the aim of expanding the program, counselor training and the preparation of tools and manuals began. In Dec. 2004, Nichirei Corporation agreed to participate in the LiSM10! Program. Analysis of the results following the initial 6 month intervention showed that overweight, HDL cholesterol levels, etc. had significantly improved.

Reduction of Medical Expenses: A simulation of the economic effect of the accompanying reduction in medical expenses per 1,000 people will be conducted at the 5 year point of this study.



What's 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.

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

Project SWAN With the Participation of Local Residents

Project SWAN has been effectively implemented in **Dai Mo commune**, Hanoi and the renovation of a water treatment facility (WTF), including the installation of a chlorine feeding facility, has been completed. The only difficulties so far has been the unpleasant chlorine smell and how to cover the additional cost of the chlorine solution along with the cost over the long term. How can we get the agreement of the residents? The current water cost is very minimal, but the additional cost of chlorine solution would increase the price of water and this added cost would have to be paid by the residents themselves. Although the village Water Management Union (WMU) already understands the importance of disinfecting the water, the residents themselves did not fully understand. Therefore the water price raise seen as a great difficulty. Then the project team conducted train sessions with WMU members **to enhance their communication skills**. Since then, the WMU has started providing information through various methods such as using flip charts and visiting individual households, etc.

This has led to the promotion of a better understanding by the residents of [chlorine-disinfected](#) water and has also led to a successful increase in the water price to cover chlorine with the approval of the commune people's committee, furthermore, [the knowledge and understanding of residents has been greatly improved.](#)

In **Quang Trung Commune**, Nam Dinh Province, [the renovation of the WTF](#) was accomplished with the participation and understanding of the local residents and was completed in November 2007. Testing was conducted to [confirm the water quality improvement.](#) With the support of PMC (Provincial Preventive Medical Center) and PCERWASS (Provincial Center for Rural Water Supply and Sanitation), the project team trained local key-persons to learn how to communicate with residents using flip charts, and practiced the techniques in small groups. They examined the microbiological and chemical properties of household drinking water using field test-kit, and informed the residents of the results. This worked well [to increase the awareness of drinking water management in average households.](#) We plan to continue to support this local participatory action in the community.



What's Project SWAN (Safe Water and Nutrition)?

WHO has reported that 1.1 billion people do not have access to safe drinking water, in many developing countries the intake of unsafe water and unhygienic environments cause diarrhea and infectious diseases among children. This interferes with the intake of necessary nutrients, resulting in malnutrition. Even if water treatment facilities exist, it is often found that these facilities are not properly designed and that proper treatment is not conducted, including the use of chemicals to remove contaminants, resulting in the failure to meet WHO microbiological and chemical standards.

Project SWAN aims to establish sustainable water supply and health management models in rural and suburban areas through a participatory approach with inhabitants by enhancing knowledge of drinking water, nutrition, food hygiene and sanitation at the household level, optimizing the operation of water treatment facilities to meet Vietnamese standards, establishing effective management systems to sustain safe water supplies and promoting health communication by community-based participatory approaches.

It is expected that these models will be applicable to and can be expanded to other rural and suburban areas in Vietnam.

Achievements of Project SWAN to Date

With an emphasis on rural areas in developing countries in Asia, where public water works are lacking, ILSI Japan CHP has since 2001 been investigating the quality of drinking water and the needs of local residents toward safe water supplies, food safety and hygienic environment. Through experiments we have confirmed that the water quality can be improved to meet the Vietnamese standards for drinking water by optimizing the operation of existing water treatment facilities.

Based on the preliminary investigations, a proposal titled "Participatory approach for improving safe water supply, nutrition and health environment" was proposed and approved by JICA (Japanese International Cooperation Agency) as a 3-year grassroots technical assistance project. In November 2005, the project was started in three communities (Hanoi-Tam Hiep · Hanoi-Dai Mo · Nam Dinh-Quang Trung) in northern Vietnam where 2,500 households are supplied from local water treatment facilities. The Water Management Union composed of a technical group and a IEC group has been working to generate a synergistic effect to improve the water supply and health management system. We have confirmed that the water quality has been improvement in the three communities following the WTF renovation.

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