International Life Sciences Institute Japan Center for Health Promotion

ILSI Japan CHP Newsletter

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Project PAN

University Students Got into their Action

The Ishinomaki TAKE10 program was initially run primarily by ILSI Japan Staff in direct contact with elderly participants at locations such as Temporary Housing Complex common rooms or community meeting places. From the summer of 2013, we started training sessions for student-volunteers from Ishinomaki Senshu University with the cooperation with Professor Yamazaki to make them TAKE10 peer leaders, so that they could manage voluntary coaching services for the elderly at the Minami Sakai Temporary Housing Complex starting the next winter. The students have been working in a group called "TAKE10 *Hirome-tai*" (which means "We want to spread TAKE10!" in Japanese) at six locations. Their activities were noticed and picked up by a local newspaper. Not only in disaster-affected areas, but in every community that suffers from inadequate manpower for preventative care in the aging communities, this new model could play an important role in achieving regional partnerships with local universities and communities, and give us an implementation scheme for further dissemination of TAKE10.

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.

TAKE10 in the media

Local FM radio station, Radio F has broadcast “Recipes for use with TAKE10” hosted by a registered dietician, Ms. Momoe Muramatsu, who lives in Fuji City, every Friday for the past three months. She also introduces her original recipes in several-minute segments on cooking in a program called *“Tokimeki Kurabu”*.

The monthly magazine “FOOD STYLE 21” published an interview with Ms. Mika Kimura on our TAKE10 activities with a member of our staff, in a featured article titled “The TAKE10 program, nutrition, physical activity and Healthy Aging”. This magazine is published for food industry professionals, but can also be found in local libraries.

The web magazine for health guidance experts, “Q-STATION” posted an interview with Ms. Kimura on our TAKE10 activities. Only registered members can enter the site, but the only article is also available on our TAKE10 Website (WWW.take10.jp/ PDF file).

Supermarket chain uses TAKE10!® in a sales campaign

The supermarket chain Aeon Company and Ajinomoto Company began running a joint sales campaign using the “TAKE10!®” program this Spring. They distributed several leaflets which introduce healthy meal recipes using Ajinomoto products and the “TAKE10!®’s Dietary Variety Score”. You can find these leaflets as inserts in newspapers or as point-of sale advertising in supermarkets such as Ito-Yokado, Fuji Citio or Maruetsu.

Start of “Sumida TAKE10 2014” Activities

“Sumida TAKE10 for Elderly Follow-up Class 2014” started in May with 205 participants at 6 venues, and was so popular that it was oversubscribed. Sumida Ward accepted applications for “Sumida TAKE10! for Beginners” in July, and on August 29th, Professor Hiroshi Shibata, a leading authority on gerontology, will give a lecture titled “Let’s prevent low nutrition among the Japanese: What and how much to eat”. Following this lecture, the program for beginners starts in September.

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.

Project IDEA

Pilot Study in India suggests increased muscle strength by consumption of rice fortified with iron and lysine

(Picture: Girls eating fortified rice in school)

A pilot study conducted by St. Jones Research Institute, India for 3 months in cooperation with ILSI Japan CHP and ILSI India suggests increased forearm muscle strength by consumption of rice fortified with lysine.

Primary school girls (8-10 years old) were recruited and provided with school lunches containing rice fortified with iron and lysine (6 days/week for 3 months). Significant increases in non-dominant forearm muscle strength were observed. It also appears that the girls who took the fortified rice increased in height.

We are planning to conduct an efficacy study on lysine fortification, by recruiting protein deficient school children in India.

Preparations underway to conduct the 1st Consortium on Multiple Nutrients Fortification of Rice to promote the development and introduction of fortified rice

Malnutrition of micronutrients and protein among children causes poor body growth and cognitive performance in developing countries. In order to reduce malnutrition, rice fortification with important nutrients has been studied in several countries. We have reported and published scientific articles that support the efficacy of rice fortification with iron to reduce iron deficiency anemia. This work was conducted in cooperation with the Food and Nutrition Research Institute in the Philippines and the National Institute of Nutrition in Vietnam.

For the purpose of effectively introducing iron fortified rice for sale in the Philippines, Vietnam and India, a consortium including multiple-countries has been proposed. Scientists, administrators and industry will be invited to join, share information and discuss the best way of make fortified rice available. The 1st Consortium Meeting was held in Hanoi during early July.

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.

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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. A market trial started in April 2008 and confirmed the effectiveness in Orion Municipality.

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. The effectiveness of the fortification was confirmed. 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 plan calls 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.

In China, the Iron Fortified Soy Sauce Program has been launched since 2004 as the national policy to prevent anemia by ILSI Focal Point in China and CDC China.

Project SWAN

Vietnam SWAN3 is expanded to two new provinces

The SWAN3 program, which began in 2013, has started the "Advocacy program on preparation of complementary food in rural areas in Vietnam" with the support of AIN (Ajinomoto International Cooperation Network for Nutrition and Health). The 3 year program will expand the target communities to include Bac Giang and Nguyen Provinces. The program will provide effective advocacy and education services so that mothers can prepare nutritious and clean complementary food for their babies.

Feasibility study of Project SWAN in Indonesia started

A preliminary study was started in May to identify the feasibility of Project SWAN in Indonesia in cooperation with the South East Asian Ministers of Education Organization Regional Center for Food and Nutrition (SEAMEO REFCON). The study will investigate the baseline regarding hygiene practice, food preparation, nutrition, water treatment and quality. The study is scheduled to be completed in September.

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, we conducted the safe water and nutrition project for 6 years (phase1: 2005-2008 and phase2: 2010-2013) with a financial support from JICA (Japanese International Cooperation Agency). In the project, the Water Management Union composed of a technical group and an IEC group has been working to generate a synergistic effect to improve the water supply and health communication system. SWAN1 was implemented in 3 communes in Hanoi and Nam Dinh Province and obtained a community level achievements in terms of the improvements of water supply, food hygiene practice and the reduction of childhood diarrhea. SWAN2 enabled to enhance cross-sector collaboration between water and heath sectors and to improve a community-support system.

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

WHO has reported that 780 million people do not have access to safe 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.