International Life Sciences Institute Japan　Center for Health Promotion

ILSI Japan CHP Newsletter

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Project IDEA

ILSI Project IDEA was summarized at the IUNS 20th ICN in Granada, Spain

ILSI Japan CHP, ILSI SEAR, ILSI FP China and GAIN (Global Alliance for Improved Nutrition) co-sponsored the science symposium "Micronutrient Fortification – Science and Strategy for Public Health Improvement in Asia" at the IUNS 20th International Congress of Nutrition held in Granada, Spain September 15-20, 2013. The session was chaired by Mr. T. Togami, Director of ILSI Japan CHP and Mr. Geoff Smith, Chairman of ILSI SEAR. First Dr. Regina Moench-Pfanner of GAIN introduced "The global strategy and programs of GAIN on food fortification to improve public health - Asia highlights". Then representatives of four countries who have worked on food fortification under Project IDEA made presentations on each of the fortification programs. Dr. Huo J Sun, CDC China and ILSI FP China, discussed "Iron fortified soy sauce in China – An assessment of 10 years of policy and business development". Dr. Le Thi Hop, Director of National Institute of Nutrition in Vietnam discussed "Iron fortified fish sauce - Evaluating and adopting a successful model in Vietnam". Ms. Theary Chan, Executive Director of Reproductive and Child Health Alliance, discussed "Iron-fortified fish sauce – Progress and development in Cambodia", and Dr. Mario Capanzana, Director of Food and Nutrition Research Institute, discussed "Iron fortified rice - Lessons learned, opportunities and challenges in the Philippines.

Project IDEA has worked on establishing scientific evidence related to food fortification and has proposed implementation of fortification programs for more than 10 years to both the public and private sectors. The symposium could show a milestone in demonstrating a successful partnership between academia and both the public and private sectors for food fortification.

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.

Pilot study on fortified rice with iron and lysine completed in India

A pilot study conducted in Bangalore was completed in early December through the cooperation of St John's Research Institute in India and ILSI India. This study evaluated the efficacy of the fortified rice in improving anemia and muscle strength. The outcomes will be summarized in January, and will be used to design the next step – an efficacy study.

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 PAN

1st Workshop for TAKE10 Supporters Was Held

We held the first Workshop for TAKE10 Supporters at the end of August last year.

This was a basic lecture session and workshop for those who would like to learn how to use the TAKE10 Program with family, friends, and neighbors. We provide a two-day intensive course when more than 5 people participate. This fits the needs of small groups of people who do not need to train for teaching or coaching others but simply want to enjoy TAKE10 activities in a group. A study group from Edogawa Citizen’s Collage participated in the workshop and said that they would put the knowledge to practical use during local volunteer activities.

“SumidaTAKE10” Research Results Presented at Conferences

We presented a poster titled “Evaluation of the comprehensive health program, *Sumida TAKE10,* for community-dwelling older adults which aims to prevent or delay the need for long-term nursing care” at the 72th Annual Meeting of Japanese Society of Public Health held at the Mie Center for the Arts, Tsu City, Mie Prefecture, October 23-25th. The results from analyzing numerous data from Sumida TAKE10 participants over 5 years from 2007 to 2011 showed that participation to this program had a positive effect on improving dietary habits, life functions, and self-rated health, and on increasing the frequency of exercise, sports, going out of the house and social activities. The same effects were also seen with the frail elderly, who were screened as high-risk by municipal research. And finally, Sumida TAKE10 was shown to be effective for preventing or delaying the need for long-term nursing care for community-dwelling older adults.

We also presented our research results (oral presentation) at the 8th Annual Meeting of the Society for Applied Gerontology Japan. The abstract is available on their web site (sorry, only in Japanese).

We Won a New Grant from SUMISEI

In a previous newsletter we mentioned that we won a competitive grant (1 in 9 success rate) from SUMITOMO Life Health Foundation for the "Ishinomaki TAKE10!" project last year. Thankfully they gave us their support for this project again with a special recovery aid grant for the East Japan Earthquake Disaster, to support part of the "2013 *SUMISEI* community sports promotion support program". Two of our staff attended the presentation ceremony at the Hotel New Otani, Tokyo on September 28th (photo below).

2013年度　スミセイ コミュニティスポーツ推進助成プログラム助成金贈呈式
2013年9月28日　於 ホテルニューオータニ

The "Ishinomaki TAKE10!" project aims to help people, who were evacuated from their homes and have been forced to stay in provisional housing enduring the hardship, to create a new community in the City of Ishinomaki. A staff member from ILSI Japan makes a monthly visit to several sites to assist activities for healthy aging of local residents, working in concert with local people, the Social Welfare Council and a local university.

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.

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.

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Project SWAN

Article published in International Journal

In August, 2013, an article developed based on data from SWAN1 was published in the international online journal "PLOS ONE". The article focused on the improvement of the caregivers' food hygiene and food safety behaviors. Improper food hygiene and food safety behavior is one of the major causes of diarrhea among children under five. In the article, the authors demonstrated that the caregivers' food hygiene and food safety behaviors improved as a result of community-based information, education and communication (IEC) activities. Moreover, they identified that flip chart communication by community groups were sustainable IEC activities even when external support was terminated. Among NGO's public health projects, it is not common for the activities to be subjected to scientific evaluation and for the results to be published in scientific journals. This publication was only possible because of the way ILSI pursues science-based activities with the support of experts.

The article is downloadable from the following URL.

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0070654

Takanashi K, Quyen DT, Le Hoa NT, Khan NC, Yasuoka J, et al. (2013) ***Long-Term Impact of Community-Based Information, Education and Communication Activities on Food Hygiene and Food Safety Behaviors in Vietnam: A Longitudinal Study***. PLoS ONE 8(8): e70654. doi:10.1371/journal.pone.0070654

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.

Province-led SWAN3

Since April 2013, we started the 3rd phase of the Project SWAN. SWAN3 is the phase of the project where Vietnamese provincial authorities adopt SWAN's programs for their water and health related programs. SWAN's programs have been established as a result of six years of implementation of SWAN1 and 2. Currently, Nam Dinh Province, which was the project site of SWAN1 and 2, is reprinting forty sets of flip charts which contain the four topics and is conducting training of village health workers at 10 newly selected communes in 2 districts. We expect that these village health workers to start providing water and public health related messages to community members in order to improve their knowledge and water and health related behaviors.

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.