

ILSI Japan CHP Newsletter

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Project IDEA

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

“The 3rd Consortium Meeting on Multiple Nutrients Fortification of Rice

The 3rd Consortium Meeting on “Multiple Nutrients Fortification of Rice” was held in New Delhi on 15-16 December, 2016. This meeting was coordinated by ILSI Japan CHP in collaboration with ILSI-India.

The Consortium has been set up in 2014 by ILSI Japan CHP, and 20 participants from academia, public institutes and the private sectors in India, Vietnam, Philippines and Japan got together for this meeting.

The following topics were presented by participants: 1) the work and progress of the consortium since it was formed in 2014, 2) observations on micronutrient deficiencies in India and government initiatives, 3) introduction of iron fortified rice in the Philippines, 4) consumer acceptability of iron and zinc fortified rice in Vietnam, 5) overview of the significance of lysine fortification, 6) estimation of lysine intake in the Philippines, 7) lysine intake survey and opportunities for improving lysine intake in India, 8) feasibility study on rice fortification technologies in Africa, 9) Japanese initiative on joint private and public platform for improving nutrition

The next meeting of the consortium will be held in 2017.



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 function, and learning abilities 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 Japan 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 is the most stable and has 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 metropolitan Manila. The intervention program demonstrated that both of the fortification alternatives significantly reduced anemia prevalence. A market trial started in April 2008 and confirmed the effectiveness in the 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 future research on and development of complementary feeding.

In Vietnam, in collaboration with National Institute of Nutrition (NIN), ILSI Japan 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 outcome of this research. The plan calls for 10 large production plants to produce fortified fish sauce by 2009. With financial support from GAIN, a 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, an iron fortified soy sauce program has been in place since it was launched in 2004 and forms the basis of a national policy to prevent anemia overseen by ILSI Focal Point in China and CDC China.

“TAKE 10! Kiyora Project” Start! TAKE10! connects areas on the Japan Sea coast and the Seto Inland Sea coast

Four organizations including human resource centers for elderly and the social welfare councils in Shimane and Yamaguchi prefectures collaborated on starting a project for elderly care prevention. The first project meeting was held on October 2016. The project name was decided to "TAKE10! Kiyora Project". In this area from Masuda City on the Japan Sea coast to Iwakuni City on the Seto Inland Sea coast, both the Takatsu and Nishiki rivers are famous for their clear water. “Kiyora” means “clear stream”, and this project took that name. We look forward to the progress in these areas connected by clear streams and TAKE10!.

The meeting was covered in the local newspaper with the heading "Elderly long-term care prevention project spanning prefectural borders"



Commemorative lecture and meeting commemorating the 10th anniversary of the Tsuwano Human Resource Center for elderly TAKE10! project

Tsuwano human resources center for the elderly held a two day general public lecture and meeting to commemorate the 10th anniversary of the project in October 2016, and a ILSI staff member gave a presentation. Tsuwano



town is a pioneer in carrying out TAKE10!. The "Tsuwano TAKE10!" project started in 2007. Currently, 4 neighboring communities are starting similar TAKE10! projects. The title of the lecture was "What can you do for a healthy long life, "Why don't you try TAKE10! ?". The contents of the lecture were as follows; The importance of long-term care prevention, what is necessary for health in older age, and the use of TAKE10!. Participants listened to the lecture intently.

“Yoshika TAKE10!” is ready!

In August 2016, we held a "TAKE10! leader training course aiming at elderly long-term care prevention" with outsourcing from the Yoshika social welfare council. Yoshika town is located sandwiched between Tsuwano town and Nishiki town, and is an area with high health consciousness. According to the latest survey by the Ministry of Health, Labor and Welfare, women's average life expectancy in Yoshika is the second highest in Japan. Since both Tsuwano town and Nishiki town have previously implemented TAKE10! programs, this time we traveled to Yoshika town to hold a training course. After 6 days, 20 people including the staff of the social welfare council completed training to become TAKE10! leaders, and they have already started working on TAKE10! activities for 2017.



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 **enhance the QOL of the elderly**. Project PAN develops scientific evidence based programs to promote physical exercise and to improve the nutritional status of people by improving their lifestyles.

ILSI Japan CHP is pursuing two programs named "TAKE10!®" and "LiSM10!®".

TAKE10!® for the elderly

Aiming to support "Healthier longevity" among the elderly and care prevention and reducing costs of the national health care program, ILSI Japan CHP developed TAKE10!® for the elderly. Because the program is features effective and unique combination of **appropriate physical activity, proper dieting habits, and oral health care**, Because it is a combined program of exercise, nutrition and oral health care, it is suitable for implementation as a population approach in communities.

LiSM10!®

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

"LiSM10!®" consists of 1) individual objective setting and recording implementation, 2) individual and periodical counseling by professionals for individual support for 6 months, and 3) support programs for workplaces and the families of participants.

Two projects in Sumida Ward, Tokyo were initiated in September 2016

"Sumida TAKE10!" is in its 12th year of providing community support for general elderly care in Sumida Ward, Tokyo. The capacity of the class exceeded the limit at two venues this year, proving how popular "Sumida TAKE10!" has become. Starting last year, the program consists of 8 lessons. We continuously support the volunteer group activities in this area. In addition, we are also initiated the "IKI IKI (=vivacious) lunch class" for pre-frail elderly people. In this small-group class, the participants listen to lectures that include the content of the TAKE10! program as they eat lunch together. We plan to hold this class every week from October 2016 to March 2017, for a total of 20 classes. Since the participants eat lunch together during the class, we are easily able to provide details of the dietary guidance which is part of TAKE10!. Also, because it is a weekly class, participants can freely interact with each other. This appears to be a new model for implementing TAKE10!.



A scientific paper on Sumida TAKE10! was published in a Japanese academic journal

The paper that analyzed the data of "Sumida TAKE10!" participants from 2008 to 2013 was published as an original article in Japanese Journal of Public Health.

In the paper, compared to baseline, all outcomes (dietary habits, physical activity, life function, self-rated health, and social activity) showed significant improvements. Almost identical positive results were obtained from the pre-frail elderly group, while improvement was also seen in the dietary habits of the subjects who do not cook.

Therefore, it can be said that TAKE10! corresponds to the policy of the Ministry of Health, Labor and Welfare which has supported comprehensive health programs for long term care prevention from 2014, and this paper will serve as a useful reference for other municipal long-term care prevention, population-based projects in the future.. In addition, comprehensive programs like TAKE10! may increase the health consciousness of community-dwelling older adults.

This paper can also be viewed on the Japanese Society of Public Health website.

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

Mika Kimura et al., Japanese Journal of Public Health, Vol. 63, No. 11, 682-693

http://www.jsph.jp/member/docs/magazine/2016/11/63-11_682.pdf

For more information contact
ILSI Japan CHP
5th floor, Nishikawa Building, 3-5-19, Kojimachi,
Chiyoda-ku, Tokyo 102-0083
Japan
Phone 81-3-5215-3535
E-mail togami@ilsijapan.org

TAKE10!® Progress to Date

The first intervention study was conducted with 1,418 elderly in Nangai village, Akita Prefecture from July 2002 for a one year period. This study showed 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 2004. Three national newspapers and eight local newspapers covered the study. More than 9,000 inquiries have been received, including inquiries from local government offices and organizations, and more than 25,000 copies of the booklets have been sold. DVDs and cooking booklets (both in Japanese only) also are available from the TAKE10!® website, <http://take10.jp/chapter5.html#item01>.

The "Sumida TAKE10!" program for elderly long-term care prevention was started by Sumida Ward Government of Tokyo in October 2004, and more than 1,200 elderly people have taken part in the program over twelve years. The program was conducted at four to six sites and included lecture sessions on the program and physical exercise practices. This is designed to be an intervention study and the results have consistently been reported at the annual meeting of Japanese Society of Public Health. Particularly, the results of the 2005 Sumida TAKE10! intervention study was published in the international journal "BMC Geriatrics". <http://www.biomedcentral.com/1471-2318/13/8>. Having received mandates from local governments all over Japan, social welfare councils, Silver Human Resources Centers, and some volunteer groups, we have trained TAKE10!® peer leaders and supporters. TAKE10!® programs are continuously being implemented in many regions across Japan.

Feasibility Study is underway in Indonesia



ILSI Japan CHP is conducting a feasibility study which is to form the basis of Project SWAN in Indonesia. A part of the study conducted between August 2016 and March 2017 has received funding support from the Japanese Ministry of Foreign Affairs (NGO Project Subsidies). On the 1st of September 2016, ILSI Japan CHP and Planning Office of Karawang District organized the first Round Table Discussion in Karawang District by inviting a total of 23 people. Through the discussion, we attempted to build a partnership with relevant offices in Karawang and to develop a short list of target villages based on local conditions. Then, ILSI staff again visited Karawang District in November to follow up the September discussions and consider potential project villages. During this visit, we finally selected Telagajaya Village (coastal area) and Medalsari Village (mountainous area) as the most appropriate villages for the project because these are located in rural areas where development tends to be delayed, and had water supply problems. Furthermore, we concluded that their water supply problems could most likely be solved using the knowledge and technology accumulated by ILSI Japan CHP. Consequently, we are planning to conduct a survey related to nutrition and food hygiene. Based on this survey and discussions with local people, we hope to obtain a better grasp of the situation in the two villages and utilize this information to develop a plan of Project SWAN in Indonesia.



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

WHO has reported that 780 million people do not have access to safe water. 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 promoting knowledge of drinking water, nutrition, food hygiene and sanitation at the household level, improving 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.

Project SWAN3 in Vietnam

The mid-term review of the Vietnamese national nutrition strategy 2011-2020 emphasized the importance of cooperation in the areas of water supply, hand-washing and food hygiene which are considered to be indirectly related to nutritional improvement. As a response to this, SWAN's implementation manuals have been developed for the people in charge at the provincial level in order to expand Project SWAN, and are available on the National Institute of Nutrition, Vietnam, website, a project partner. We expect that it will provide an opportunity for provinces to engage Project SWAN.

In Thai Nguyen Province and Bac Giang Province where "Project to support educational activities for mothers to improve the quality of complementary food in rural Vietnam" is underway, we initiated an evaluation survey in September 2016 in order to assess the impact of information, education and communication activities which is to continue for 11 months, and we are analyzing it now.

Achievements of Project SWAN to Date

Vietnam: With an emphasis on rural areas in developing countries in Asia, where public water works are lacking, ILSI Japan CHP has been working on Project SWAN in collaboration with the National Institute of Nutrition since 2001. Project SWAN features a unique concept, combining a water technological program and an IEC (Information, Education and Communication) program into one project, taking a cross-sector approach.

Based on the preliminary investigations, the projects "Participatory approach for improving safe water supply, nutrition and health environment: SWAN1 (2005-2008)" and the SWAN2 (2010-2013) in Hanoi and Nam Dinh Province were supported by JICA (Japanese International Cooperation Agency) as grassroots technical assistance projects. SWAN1 was completed in 3 villages with many successes at the community level such as development of safe water supplies by water management unions, and improvements in nutrition and basic health conditions. Phase 2 aimed to enhance cross-sectional cooperation and improve community-support by creating a working team at the national government level and a Support team at the provincial/district level. Almost 120,000 people across 16 villages benefited from SWAN2. Since 2013, SWAN3 has been conducted in Hanoi and Nam Dinh Province, where we plan for Vietnamese provincial authorities to adopt SWAN methodology for their water and health related programs. Since 2014, with a focus on improved nutrition, we have been conducting a 3 year project "Project to support educational activities for mothers to improve the quality of complementary food in rural Vietnam" in Thai Nguyen and Bac Giang Provinces. This project has been supported by AIN (Ajinomoto International Cooperation Network for Nutrition and Health). **Indonesia:** Since 2013, in collaboration with ILSI SEAR (Southeast Asia Region), we have been developing project elements in Indonesia.