



# Localvita

Improvement of maternal and child survival  
through promotion of vitamin A-rich foods  
in South Kalimantan and South Sulawesi



Indonesia has a long history of implementing successful strategies to combat vitamin A deficiency. Since 1974, high dose vitamin A capsules have been distributed to children younger than 5 years old. While a nationwide survey in 1977 had found a prevalence rate of xerophthalmia of 1.3%, indicating that vitamin A deficiency was a public health problem, the survey of 1992 found a prevalence rate of only 0.3%. Thus, nutritional blindness caused by vitamin A deficiency was no longer a public health problem. However, low vitamin A status, which increases mortality risk, was still highly prevalent. Approximately 50% of the children had serum retinol levels of  $< 0.70 \text{ mol/L}$ .

To further improve the vitamin A status of the population and to reduce the mortality related to poor vitamin A status, more groups of the population are currently being targeted with different strategies. This includes giving high dose vitamin A capsules to women within one month after delivery as well as the promotion of dietary diversification. Dietary diversification includes foods naturally rich in vitamin A as well as fortified foods.

For two areas in Indonesia with a relatively low vitamin A status, South Kalimantan and South Sulawesi, social marketing programs are being developed to increase the consumption of vitamin A rich foods. Both the identification of good food sources of vitamin A as well as the appropriate media for promoting them are done locally. The foods will be a selection of vegetable- as well as animal origin foods. The social marketing campaigns will start early 1997. The impact of the program on vitamin A intake, vitamin A status, morbidity and anthropometry will be assessed in the groups at highest risk for developing vitamin A deficiency, which include children younger than 5 years old and their mothers. The collection of baseline data will be done in the period November 1996–January 1997.

The evaluation of the programs in these two areas will quantify the effectiveness of social marketing campaigns focusing on specific foods in improving health and nutrition of the population, especially vitamin A status.

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# LOCALVITA

## Improvement of maternal and child survival through promotion of vitamin A-rich foods in South Kalimantan and South Sulawesi

### INTRODUCTION

Indonesia is an island nation with more than 13,000 islands and a population of 190 million people. It is rich in cultural, religious and ethnic variation. From its cultural diversity Indonesia gains its strength. Yet throughout the history of Indonesia there have been certain chronic nutritional problems associated with some of the traditional diets of the country's many regions.

Some of the problems that have bothered many of the different nutritional ecologies of Indonesia have been micronutrient deficiencies — for example, vitamin A deficiency, iron deficiency and iodine deficiency. Many factors form the root of these deficiencies, and from one region to the next the importance of the various factors in contributing to these deficiencies varies.

#### IODINE DEFICIENCY

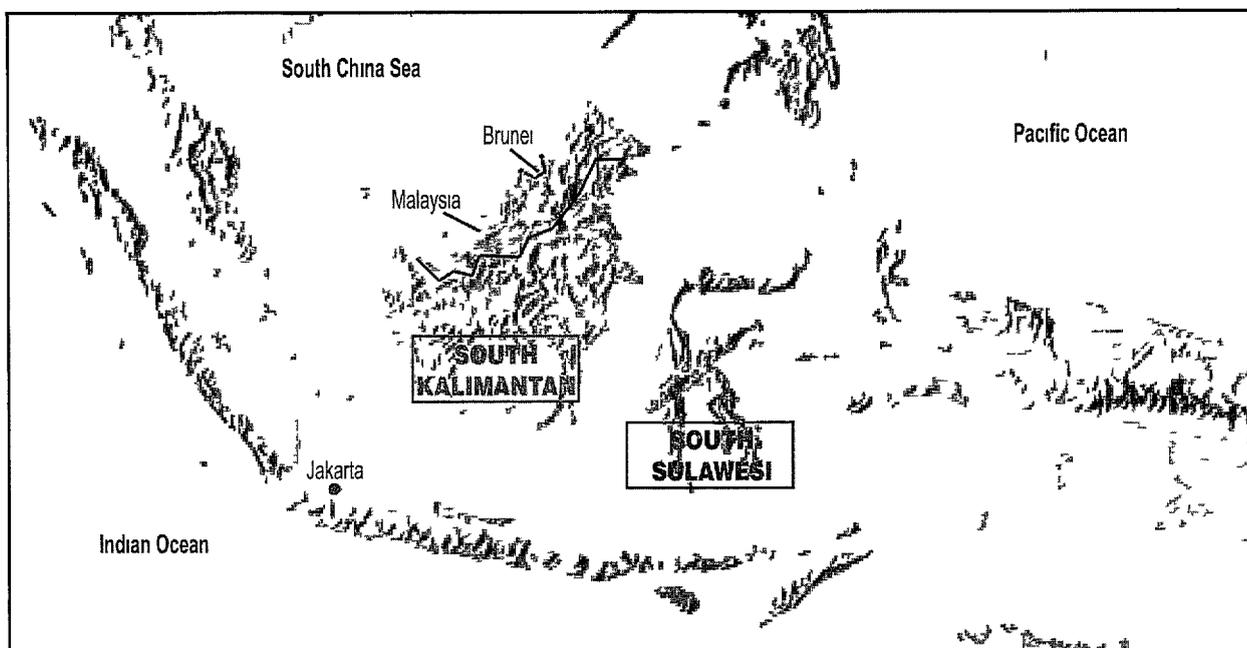
Endemic goiter and cretinism together remain one of the most serious public health problems in the country. In the past goiter was found on almost every

major Indonesian island, with a prevalence rate as high as 92% in certain endemic areas, and it was found that women suffer more from goiter than men. The evaluation studies of IDD control undertaken in 1987 and 1990 revealed that goiter prevalence among the population in the endemic areas had decreased from 37.2% to 27.2% during the past decade. Nevertheless, there were many inter-provincial variations.

#### IRON DEFICIENCY

Iron deficiency is the most common cause of nutritional anemia in Indonesia, affecting the majority of Indonesian women. The 1985–86 National Household Survey of 3,349 pregnant women showed that 73.7% of the respondents were anemic.

The recent survey however, found 55% of pregnant women to be anemic, a considerable improvement over the previous seven years. A study in the eastern islands in 1991 showed a prevalence of anemia among preschool children of about 50%.



## INDONESIA

*Capital city* Jakarta

*Localvta project intervention areas* South Kalimantan and South Sulawesi

### VITAMIN A DEFICIENCY

The 1992 national survey showed that the prevalence of xerophthalmia was 0.3%, a substantial decline from the 1.3% found in the 1977 national survey<sup>1</sup>. This indicates that nationally the elimination of blindness as a consequence of vitamin A deficiency has been achieved. However, despite this enormous achievement of the Indonesian government, there remain three provinces where nutritional blindness can be considered a public health problem: Maluku, South Sulawesi, and Southeast Sulawesi. Studies in West Java have shown that subclinical vitamin A deficiency is still endemic and that vitamin A intake is still not adequate among a large segment of the population<sup>2</sup>.

### MICRONUTRIENTS AND REPRODUCTIVE HEALTH

There is growing evidence that enhancing the intake of iron and vitamin A among populations deficient in these micronutrients can result in improved growth and development. Women with adequate iron levels are less likely to have low-birth-weight babies or undergo premature delivery, and they tend to be more economically productive. According to a recent study, Vitamin A deficiency has functional and possible health consequences for women in their reproductive years and may also affect the fetus and young infant<sup>3</sup>. There is also an array of evidence which points to an interaction between vitamin A and iron. It is, therefore, important that intervention programs should focus on combining both interventions.

## REPELITA VI THE GOVERNMENT'S RESPONSE

Indonesia's long and successful history of addressing nutrition problems is entering a new phase with the initiation of the second national Long-Term Development Program, implemented during 1994–2019. The first stage of this program is the sixth Five-Year Development Plan or REPELITA VI, implemented during 1994–99.

The plan emphasizes four overarching themes: development of human resources, alleviation of poverty, decentralization, and integration of women in development. The Indonesian government has also outlined several priorities regarding micronutrient deficiencies, including

Reduction of iron-deficiency anemia through

- distribution of iron supplements at health centers (*puskemas*) and village health posts (*posyandu*) to all pregnant women during the last trimester of their pregnancies,
- nutrition education geared toward increasing consumption of iron-rich foods,
- food fortification

Reduction of total goiter rates through

- distribution of iodized oil capsules (known as Yodiol) to high-risk populations in endemic areas,
- salt fortification

Elimination of vitamin A deficiency by the year 2000 through

- distribution of 200 000-IU vitamin A capsules to all children aged 6 months to 59 months and to mothers post-partum,
- food fortification as a midterm strategy,
- food diversification and nutrition education as long-term strategies

The comprehensive planning and budgeting system constructed by the

Government of Indonesia (GoI) during the last 25 years has played a critical role in achieving equity in development among the country's regions. As development continues, the planning system must also continue to evolve to meet new challenges. REPELITA VI, therefore, emphasizes increasing decentralization of authority and responsibility.

### CONSTRAINTS TO ACHIEVEMENT OF REPELITA VI GOALS

A midterm review of the government's child survival and development program addressed the following problems at the provincial level:

#### **Lack of common conceptualization of human resources development**

Local governments' capacity to plan and coordinate implementation, and to monitor and evaluate development efforts, is constrained by limited analytical skills in problem identification and solution formulation. This is particularly true within the social sector, where plans may tend to be developed without sufficient attention to local availability of accurate quantitative data and qualitative information and research, as well as a multiplicity of data sources. This lack of information undermines the effective solution of field-level problems. In turn, this has led to discrepancies between financial- and manpower-resource input and program output in terms of access to existing services and their coverage, quality and utilization by the most needy, including women and children from low-income families.

#### **Limited development of local-level indicators**

Lack of intersectoral planning, together with an absence of local targets, adversely affects local-level

monitoring and evaluation. Local monitoring is limited to the measurement of specific sectoral access and coverage targets, with insufficient integration and analysis of program data and information, including the lack of impact measurement of such intervention on the community, and particularly on women and children.

**Limited intersectoral coordination in local maternal and child survival development and service delivery**

The limited nature of intersectoral coordination in local service delivery has led to inherent constraints, especially in the area of training and communication interventions — that is, in terms of synchronization and coherence of the messages in communication, information and education (CIE). The development of integrated CIE interventions as an essential part of local government capacity building would facilitate and strengthen common understanding among programs and ultimate beneficiary groups about the underlying determinants of maternal and child health problems, while informing the latter of available preventive services.

**Insufficient utilization of government services**

Government structures at province, district and lower levels are insufficiently aware of the need to develop appropriate approaches and mechanisms which can effect behavioral changes at the community level and create demand for — and access to — good quality services.

**Training and communications activities have limited relevance to local conditions**

Few training and communications activities in the past have been based on local needs, conditions, opportunities and constraints pertaining to goal

achievement. There is an urgent need to rationalize all training and communication activities around specific objectives, determined at the local rather than central level, and derived from a needs assessment which reviews all conditions related to local achievement of REPELITA VI goals.

The solutions proposed by the Localvita project encapsulate

- the lessons learned by Helen Keller International (HKI) in the design and management of community-based projects in health and child survival,
- an increased awareness of the value and effectiveness of social marketing and communications technology,
- insights culled from worldwide project experience in addressing factors that hamper the demand and market for health and nutrition services.

The project is based on a realistic approach to community participation that is increasing the visibility and influence of local governments and non-government organizations (NGOs) in addressing community nutrition and micronutrient needs. This bottom-up approach engages communities, particularly women, in the identification of problems and the design and implementation of programs to resolve those problems.

Through the project, local governments as well as community-based organizations are enhancing their capacity to develop and implement effective social marketing and communication strategies, link communities with existing services and ensure that activities are directly responsive and accountable to communities' needs.

THE  
LOCALVITA  
PROJECT

## THE VITAMIN A GENERATION CYCLE

By 1992 xerophthalmia was no longer considered a public health problem in most Indonesian provinces. However, many of the children surveyed still had low levels of retinol, or vitamin A, in samples of their blood. Furthermore, it is known that supplementation using vitamin A capsules to prevent xerophthalmia has a limited impact on increasing a child's vitamin A reserves after age 5. When the child grew older he or she was no longer eligible for the capsules, therefore, the child's vitamin A status did not improve. This could create a vitamin A deficiency cycle spanning many generations, as illustrated by the life of the fictional Evie on the page 7. This cycle is the reason that public-health programs should focus on a continuous improvement of the vitamin A status of children, from birth to adolescence, as well as the improvement of the vitamin A status of all women.<sup>45</sup>

*More public and private groups will provide nutrition and health information as well as a range of technologies to the rural communities.*

This heightens the communities sense of ownership and helps foster program sustainability. While the project does not create parallel structures, the CBO does provide complementary CIE services. These efforts are reinforcing national efforts and building toward a critical mass of micronutrient actions.

### ANTICIPATED OUTCOMES

The project is anticipated to have an impact on individuals, organizations and other projects funded by the Agency for International Development (AID). These effects include:

- Local-level NGOs, women's organizations and village health workers will have the capacity to identify community and household micronutrient problems, prioritize actions and mobilize resources to take action.
- Provincial-level organizations and individuals will have access to information on micronutrients, food consumption and reproductive health. They will both request and utilize the information.
- Key government decision-makers at the local, district and provincial levels will be sensitive to the relationship between the food practices, micronutrient malnutrition and health of the rural population in the target areas. The capacity of their units to provide information and services will be strengthened.
- A functioning coordination mechanism will be established between nutrition-program planners at the national and province levels and NGOs at the community level.
- A broader array of public and private groups will provide nutrition and health information as well as a range of relevant technologies to the rural communities.
- Information on nutrition, micronutrient deficiencies and reproductive health will be developed and disseminated by national NGO partners and community health workers in order to improve public awareness. This information will be utilized by the community.

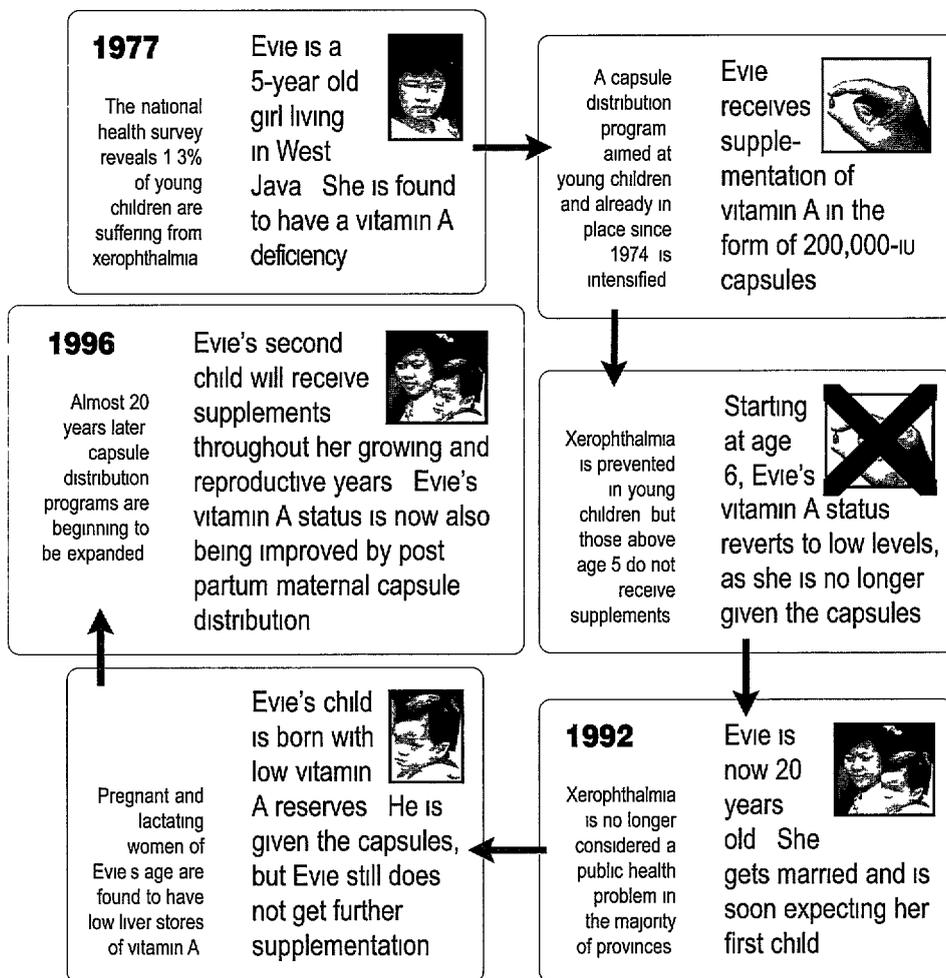
- Women in the project area will include appropriate micronutrient-rich foods in their daily diet and adapt appropriate child-feeding and weaning practices to increase their micronutrient consumption
- Project-generated community research, advocacy and information will have a direct influence on access, quality, relevance and use of services relating to nutrition and reproductive health. This research, advocacy and information will also increase the availability of resources through the public-sector service delivery system, NGOs and the commercial private sector
- Community-based organizations and NGOs will have attained some verifiable measure of sustainability

Strengthening provincial governments, NGOs and community-based organizations, as well as the capacity of women to organize and mobilize resources, are all elements on which the project can have a direct effect. However, while these elements are necessary, they are not sufficient conditions for improving nutrition and micronutrient deficiencies. There is at the same time a need for larger-scale resources that can be used to implement strategies, policies and projects that create an environment favorable for food-based approaches to micronutrient deficiency.

This project assumes that the Indonesian government and other donors will put into place the other types of necessary services, such as safe mother-care and child survival service-delivery programs

*There is a need for larger-scale resources that can be used toward implementing food-based approaches to micronutrient deficiency.*

### EVIE CAUGHT IN THE VITAMIN A GENERATION CYCLE



## PROJECT DESCRIPTION

### GOAL

To improve the survival and health of Indonesian women in their reproductive years and preschool children by reducing vitamin A deficiency

### PURPOSE

To strengthen the provincial management's and local NGOs' capacity to carry out qualitative, community-based situational analysis and to develop micronutrient social marketing, communication and counseling strategies to increase the use of micronutrient-rich foods

### SPECIFIC OBJECTIVES

- To increase by 25% the frequency of intake of vitamin A-rich foods among children aged 12 months to 59 months, through specific social marketing efforts on local needs analysis
- To increase by 25% the frequency of intake of vitamin A-rich foods among women of child-bearing age in order to improve maternal health
- To improve provincial governments and local NGOs' capacity to identify vitamin A nutrition problems and to develop and carry out a social marketing campaign

### PROJECT SITES

The project sites comprise one district each in the provinces South Sulawesi and South Kalimantan. South Sulawesi is one of the three provinces where xerophthalmia is still a public health problem. HKI currently has a project to improve vitamin A capsule coverage in these three provinces, through training of NGOs and provincial governments. The Localvita project enhances these efforts

South Kalimantan was chosen because it is one of the less developed provinces of Indonesia. Furthermore, it is a United States Agency for International Development (USAID) priority area, thus, the Localvita project may result in additional benefits to other USAID projects in the same province

### COMPONENTS

The three interdependent components of Localvita are

#### Provincial social marketing

The major focus of the project is to produce a model social marketing approach for the planning and implementation of a vitamin A intervention which can be readily replicated and expanded nationwide. The program aims to support the GOI in its process of decentralization by improving local governments' capacity to combat micronutrient deficiencies. The training of provincial government staff focuses on community dialogue and diagnosis to identify and prioritize problems, and to tailor solutions to women's and children's needs

#### Sub-grants

Seed money is allotted to the provincial governments and community-based organizations involved, to enable them to design and carry out a social marketing campaign

#### Social marketing campaign

The campaign is based on community diagnosis and formative research. It is inexpensive, to facilitate assumption into existing GOI and NGO budgets, but dramatic enough to stimulate changes in food behavior

These components are being implemented in linked phases by HKI. HKI is also providing management support, training, technical assistance and supplies to the provincial governments and NGOs involved, to aid them in conducting their activities

## FOOD FORTIFICATION WHAT'S IN A MEAL?

Eating habits may vary even within one country, but fast foods seem to transcend boundaries. Take the instant-noodle mix, the kind to which you simply add hot water to get a quick and tasty meal. How convenient — especially during the day, when there is often no time for a home-cooked lunch.

However, a glance at the ingredient list of the flavoring packet in a typical cup of instant noodles raises some concerns. Topping the list are salt, sugar and monosodium glutamate (MSG). A quick, filling lunch? Yes, but not at all packed with the nutrients children — as well as adults — need.

To solve this problem, the Indonesian government is in the process of helping the food industry fortify its products with vital nutrients. Several Ministry of Health projects, conducted in the 1980s with non governmental organizations, have already explored the effectiveness of vitamin A-fortified MSG toward combating nutritional blindness and improving vitamin A status.<sup>6</sup> Rice and salt, which are also staples of the Indonesian diet, are being fortified in current projects, as are instant noodles.<sup>7,8,9,10</sup> One project, implemented by the Bogor Center for Nutrition Research and Development in 1995, involves the fortification of instant noodles with vitamin A as well as iron, to help fight against low vitamin A status and anemia.<sup>11</sup>



*Instant foods like this one are popular with children as a snack or even a full meal.*

**Y**ear 1 of the Localvita project was implemented in late 1995. Described below are its principles of operation and objectives, the roles and responsibilities of those involved, information needs and decision points, and activities already accomplished.

### PROVINCIAL SOCIAL MARKETING

The operational objective of Localvita is to help provincial governments and local NGOs to develop the tools needed to carry out community diagnosis of nutritional needs, and to conduct formative research to understand people's perceptions and beliefs concerning dietary intake of vitamin A-rich foods. This information is necessary for the development of an effective social marketing campaign.

The process of identifying local needs is key to successful implementation of Localvita. With technical assistance and management support from HKI, provincial governments and local NGOs conducted qualitative research on experiences, attitudes and practices concerning how local women view nutrition within their lives. Emphasis was placed on the women's reasons for non-use, as well as use, of certain foods during pregnancy and lactation.

Qualitative research techniques — such as picture analysis, free listing, pile sorting, reciprocal interviews, illness narratives and hypothetical scenarios — were among those used to help women analyze their nutritional needs.

The process allowed the community and program planners to learn about

## YEAR 1 OF LOCALVITA

how women and young children perceive their nutritional needs and how they respond to them. In addition to raising women's awareness of the role of vitamin A-rich foods, a major goal of the process was to foster women's confidence in their ability to gather information from their neighbors about topics concerning the community and to learn to prioritize the identified problems. This rests on the conviction that women who have increased awareness will have greater motivation to act upon nutritional problems at the community level.

were in a position to contribute most effectively to the project, then provided technical assistance directly to the selected NGOs. This assistance came in the form of a training module directed toward provincial government as well as NGO staff. Participants were trained in all aspects of conducting a social marketing campaign, and they then utilized their newly learned skills in the field during pretesting and actual research. HKI focused on the training of trainers at the provincial level and on incorporating this training into routine, ongoing Ministry of Health and NGO activities in order to facilitate sustainability and minimize costs.

*Women who have increased awareness will have greater motivation to act upon nutritional problems at the community level.*

## PARTICIPANTS AND THEIR ROLES

At the provincial level, HKI is working with the following government offices and NGOs:

- The Provincial Regional Office of the Ministry of Health (*Kanwil Kesehatan*)
- The Provincial Health Office (*Dinas Kesehatan*)
- The Provincial Regional Office of the Ministry of Religion (*Kanwil Depag*)
- The local provincial governments
- Islamic women's organizations

HKI is also working with the Indonesian Ministry of Health and OMNI at the central level. HKI has had extensive collaboration with various NGOs in Indonesia, including Project Concern International (PCI), the Indonesian Planned Parenthood Association, Muslimat NU and Fatayat NU (Islamic women's associations), the Women's Welfare Movement (PKK), Save the Children, and CARE. For the past year, HKI has worked very closely with the acting director of Fatayat NU, providing a space within its office to facilitate this cooperation.

HKI assisted Localvita's target provinces in identifying the local NGOs which

## STAGES OF THE TRAINING MODULE

### Development of training manual (December 1995–May 1996)

At this stage, the central team planned the development of all materials needed for the project, including a manual for the provincial teams. The team included HKI staff, officials from the Ministry of Health (mainly from the Directorate of Community Nutrition and the Center for Health Education) and experts from universities.

Plans were made to develop a simple and practical manual, containing many examples, to be used by the social marketing teams in conducting the various activities in the project. The manual included separate guidelines for interviewing, focus-group discussion and observation. The writing work was divided among the team members and, following additional meetings, the manual was finalized in six months.

The manual was titled *Buku Pedoman Pemasaran Sosial Sumber Vitamin A Alami (SUNTIAL)*, which translates as "Manual for Social Marketing of Natural Sources of Vitamin A."

## KEYS TO SUCCESS SUGGESTIONS FROM DR SUTTILAK SMITASIRI

In September, Dr Suttalak Smitasiri of the Institute of Nutrition at Mahidol University in Thailand met with Localvita's project administrators and HKI social marketing supervisors to offer input on various aspects of the project. Dr Smitasiri's assistance was part of the "South to-South technical cooperation" program, an HKI-initiated drive designed to link together nutrition expertise in the southern hemisphere.

Dr Smitasiri described the technical training of provincial teams and the provision of seed funds to ensure continued activity "cutting-edge." She also provided several suggestions for future actions in the project.

Her first suggestion was to identify leaders in each provincial team. According to Dr Smitasiri, many behavior-change interventions have been unsuccessful because the program implementors were not singled out. She listed several characteristics that would help identify leaders, including strategic thinking, knowledge of the target community, talent and creativity, technology orientation, and the ability to listen to all involved.

"Social marketing is only a conceptual system for thinking through the problems of bringing about change in the ideas or practices of the target population," Dr Smitasiri wrote in her recommendation notes to HKI. "While social marketing techniques are important, persons who use the techniques, I believe, are even more significant to the work."

Another concern was that the provincial teams had to adjust their working environment to fit the requirements of social marketing work. Dr Smitasiri warned against expecting educators and communicators to promote already predetermined objectives, products and ideas.

"Despite how well they apply the marketing concept, it is likely to be unsuccessful," she wrote. Project administrators should look into this issue as early as possible in order to build up and sustain good provincial management for a dietary-change intervention.

Dr Smitasiri's observation that HKI has brought together many local experts to work on the project gave rise to her suggestion of conducting a post-training workshop. In this forum the experts, the teams and the project administrators could discuss the vision and the aim of the project and action plans in each province.

"The workshop can serve as a session to assess the readiness of the provincial teams and to identify the types of further support needed in each context," she wrote.

*'While social marketing techniques are important, persons who use the techniques, I believe, are even more significant to the work.'*

— Dr. Suttalak Smitasiri

*Instead of conducting the analysis at research headquarters, the teams conducted the analysis and draft report writing at the provincial level.*

### **Formative research training**

*(May/June 1996)*

This stage saw the formation of the social marketing team for each project site. Each team consists of staff members from the provincial government offices and NGOs involved. In South Kalimantan, one researcher from the local Agricultural Research Institute was included. Several staff members from district-level institutions, representing each particular district, were also included.

The actual implementation of this stage began with the training of the teams, which began in May in South Sulawesi and in June in South Kalimantan. The teams were trained in the concepts and techniques of social marketing and formative research.

At first, the levels of understanding regarding social marketing in particular and health in general varied among the team members, therefore, it was initially difficult to develop a common platform of understanding regarding the need for and methods of social marketing of vitamin A-rich foods. For example, in South Sulawesi, health and agriculture staff members generally had a high level of education and experience, and could understand the concepts involved, on the other hand, members of the local organizations found it more difficult to absorb the training curriculum. In addition, all the participants were dividing their time between the training and their jobs in their respective offices. Limited time also influenced this stage of the training module.

### **Pretesting**

*(May/June 1996)*

After the orientation in techniques, the participants pretested the guidelines

developed by the central team. They had to make several decisions about information collection, including the following:

- Which individuals should be included in sample groups for the field investigation
- Where the field investigation should be conducted
- How many people should be interviewed
- How sample groups should be selected

Pretesting the guidelines after determining the best wording of questions, pros or follow-up questions was a necessary step toward understanding how to conduct qualitative research.

### **Conducting of formative research**

*(May/June 1996)*

The guidelines were then fine-tuned and used for the actual information collection. The participants completed the research in approximately one month, using the finalized instruments, and then performed the data collection and analysis. Instead of conducting the analysis at research headquarters, the analysis and draft report writing were conducted at the provincial level together with the provincial teams.

In South Sulawesi it was found that potential food items eligible for further research in terms of social marketing were fish and eggs, among animal products and water cabbage and spinach, among vegetables. In South Kalimantan, eggs, chicken liver, spinach, cassava leaves and the local *Mabuli* bananas were potentially feasible for further research.

The teams also found that the radio was an important source of information among people in both provinces. Printed materials such as posters were

## MONITORING VITAMIN A INTAKE

The social marketing program will be evaluated for its impact on both vitamin A status and vitamin A intake. In the past, there was no methodology for assessing vitamin A intake that could be used on a large scale and correlated with vitamin A status. Recently, however, HKI Indonesia developed a methodology for assessment of vitamin A intake which is also being used in Bangladesh and Vietnam.<sup>12,13</sup>

The methodology was developed for HKI's Central Java project, where it was found to be very easy to use in the field. It also appeared to be able to distinguish between subjects having serum retinol levels above the median of the population and those who had levels below the median. The methodology developed for the Localvita project is a refinement of the one used in Central Java.

Described briefly, the methodology is semi-quantitative and consists of a 24-hour recall of food consumption with a classification of foods into 10 categories. The categories include foods with high, medium and low content of vitamin A per 100 grams for retinol sources, vegetables and fruits, and fortified foods. For each food category there are seven sub-categories for the vitamin A content of the portion of food consumed. This methodology will enable an evaluation of the relative changes in amount as well as sources of vitamin A intake.

also familiar to them. In addition, in both provinces, gatherings in women's religious organizations were mentioned as events during which health information could be disseminated among people. The teams reported these findings at a seminar organized specifically for that purpose.

### **Media development** *(July–August 1996)*

Following the seminar, training sessions in the development of communication strategies were held. This phase was supervised by two officials from the Center of Health Education. The teams also developed the actual materials which put the strategies into

action. The appropriate media as well as format of the messages were carefully selected, as the target audience's tastes and preferences govern the choice of format and the creative treatment of the messages. The messages build on the attitudes, perceptions, beliefs, preferences and resistance points of the target audience, which were disclosed in the field investigation.

At the end of this stage, the teams chose eggs and vegetables to be marketed as vitamin A-rich foods. They also developed a script which was pre-tested before being used in the various communication forms, including a public service announcement, a song,

*Gatherings in women's religious organizations were mentioned as events where information could be disseminated among people.*

## FOOD ITEMS FOR PROMOTION

One of the primary goals of the Localvita program is the sustainable improvement of vitamin A status by means of dietary changes. When focusing on dietary changes, it is important to realize two things:

1. The diet is a source of many nutrients, and its composition is subject to changes depending on availability, preference, affordability, etc.
2. Messages transmitted about foods will have a long life, therefore, spreading contradictory messages should be avoided.

Below is a summary of the current knowledge about the role of various foods in the prevention of vitamin A deficiency.

*Vegetables contain vitamin A and also provide other nutrients, such as vitamin C and fiber, and may prevent degenerative diseases such as cancer and cardiovascular disease.*

**Animal foods** Animal foods contain 70% to 90% vitamin A in the form of retinol, which is relatively easy for the body to absorb. Animal foods rich in vitamin A include eggs, liver, milk, butter and fish with the liver intact.

**Vegetables** Dark-green, leafy vegetables and red- and orange-colored vegetables contain vitamin A in the form of provitamin A carotenoids. Evidence accumulates that the bioavailability of carotenoids from dark green, leafy vegetables and carrots is lower than has been assumed.<sup>14,15</sup> Recent research in Indonesia found that the effectiveness of dark-green leafy vegetables in improving vitamin A status is approximately 25% of what had then been assumed.<sup>16</sup> While this implies that the role of vegetables in improving vitamin A status is smaller than previously thought, it does not dispute the role of vegetables in the diet. Vegetables also provide other nutrients, such as vitamin C and fiber, and may prevent degenerative diseases such as cancer and cardiovascular disease. These diseases become increasingly important in societies adapting to a Western lifestyle.

**Fruits** Orange and yellow fruits also contain vitamin A in the form of provitamin A carotenoids. The research in Indonesia found that their effectiveness in improving vitamin A status was 55% of what has been assumed, doubly better than the effectiveness of dark green, leafy vegetables.<sup>17</sup> The effectiveness of pumpkin and yellow and red sweet potato is comparable to fruits. Examples of vitamin A-rich fruits are papaya and mango. Increased affordability of fruits will create potential for promoting its consumption.

**Fortified foods** Since the 1940s Western populations have relied on fortified margarine for approximately 50% of their vitamin A intake. The potential role of food fortification increases in societies with an increased consumption of processed foods. Central American countries now fortify most of their sugar with vitamin A. In Indonesia, noodle producers have started to fortify their products with minerals and vitamins, including vitamin A.

the Localvita logo and leaflets. The script contains messages advising parents to make sure their children eat eggs and vegetables regularly.

**Pretesting of media**  
(September–October 1996)

The public service piece and the song were broadcast through sound systems on public transportation instead of the radio. Evaluations were made of the effectiveness of the communication strategies and the materials were then revised, finalized and launched as part of the social marketing campaign.

**BASELINE STUDY**

The baseline survey was conducted in South Sulawesi and South Kalimantan in November 1996.

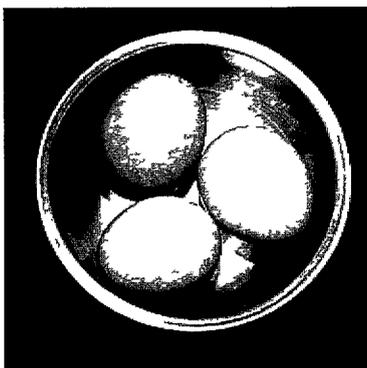
**SEED MONEY**

The small-grants component of the project is designed to provide resources and incentives for local governments and NGOs to put the communication plan in motion.

The design of the social marketing campaign flows from the process of setting priorities. Many issues regarding problems to address, approaches that might work, and management and financial costs were touched on in the priority-setting process. HKI is working with the local governments and local NGOs to develop specific operational plans for funding. It is particularly important for HKI, in conjunction with the USAID project staff, to take advantage of linkage and coordination with other USAID- and donor-funded projects. The proposals, including budgets, were reviewed by a technical committee comprising HKI officers and USAID staff members.

**SOCIAL MARKETING CAMPAIGN**

On approval of the proposals, HKI issued a grant to the local governments and NGOs involved. Initial proposals and grants are expected to cover a duration of one and a half years.



*Localvita's social marketing program promotes eggs, as well as vegetables, as vitamin A-rich foods which should be given to children regularly.*

**SOCIAL MARKETING COMPONENTS**

The output of the social marketing component is the implementation of a communication plan for the general public which will be used on the target groups in the project areas. This communication plan documents the effectiveness of various social marketing strategies for behavior change.

Mothers who have children aged 12 months to 59 months are being exposed to the specific messages. As a result, at least 80% of these mothers will be able to correctly name the two vitamin A-rich foods which should be given twice a week to their children.

A 25% increase in frequency of intake of the specific vitamin A-rich foods among children aged 12 months to 59 months is expected.

**PROJECT OUTPUT**

GOI and NGO staff were trained in social marketing techniques, including the conducting of pretesting and formative research in the project areas. This process was crucial to the development of the provincial social marketing team. A training module in techniques for social marketing, pretesting and formative research was the result of this process. This module can be replicated for future training in social marketing with specific focus on vitamin A-rich foods.

A province-specific media set of campaigns on vitamin A-rich foods will be produced and implemented by the beginning of Year 2 of the project. The media mix will be derived from the detailed communication plan developed this first year. A field guide

on micronutrients will be used for person-to-person communications. With the assistance of the Indonesian government, private organizations and other donors, the campaigns will continue for the length of the project, with messages and channels phased to reflect changing knowledge and attitudes.

## **POLICY SUPPORT**

The project has developed a steering committee at the national as well as provincial level in the project areas. The committee meets on a regular basis to review the progress of the project. Through this committee, the project is generating political commitment from the central and provincial level.

## **THE TAG MEETING**

On November 26 and 27, the TAG meeting was held in Jakarta to discuss the progress of the four components of the OMNI program in Indonesia. Representatives from HKI and PATH, which are each responsible for two of the program's four components, presented their results.

During the morning session, HKI presented Localvita. Dr. Martin Bloem, HKI Indonesia director, presented the current scientific significant issues relating to conducting a social marketing campaign. The role of vegetables as a source of vitamin A was discussed in the context of the recent studies carried out in Indonesia. Dr. Bloem also showed the results of the social marketing campaign in Central Java. This campaign was designed by the national social marketing team, which was also responsible for the development of the social marketing manual used in

Localvita. So far, there has been no scientific evidence that social marketing campaigns promoting vitamin A-rich foods are able to improve the vitamin A status of a population.

However, the results of the Central Java surveillance system were very encouraging, showing impact on an increased intake of eggs by both women and children and a significant association between egg intake and the vitamin A status of both children and women, controlled for confounding factors. Dr. Bloem concluded that the ultimate goal of vitamin A programs is to reduce the morbidity and mortality associated with vitamin A status. Every vitamin A program should, therefore, be based on a sound biomedical conceptual framework so that the intervention planned will eventually lead to a reduction in vitamin A-associated morbidity and mortality.

The next speaker was Dra Asmira Sukaton, who presented the development of the Indonesian social marketing manual by the national social marketing team. As decentralization was a main theme of REPELITA VI, there was a need to train local provincial personnel as well as local NGOs in the art of social marketing. Dra Sukaton quoted Dr Suttitak Smitasiri from Thailand in saying that this approach was unique and there were no lessons to be learned from other projects in the past. She stressed, therefore, that the manual was not an end product but a tool that should be changed according to needs. The manual was not only based on the input of the Indonesian experts in this field but also on the long experience of many USAID-funded projects. Manoff International as well as AED had contributed much technical assistance as part of those projects. Dra Sukaton concluded that the manual was not only a tool for the promotion of vitamin A-rich foods but also could be used for any other type of campaign.

The last speaker was Drs Alwi, who presented the process of the training and the impact on the development of the manual. He presented the lessons

learned and said that, although ongoing training and technical assistance was essential to make this approach sustainable and effective, budget constraints made this impossible. He concluded that investment in human resources is expensive but the interest is high.

Following Drs Alwi's presentation, Dr Muhilal stressed the importance of the findings by Dr Bloem and advised that this information should be made available at the central level of WHO and UNICEF. There were questions from the audience regarding available information on the impact by segmentation in Central Java. Dr Bloem responded that despite the fact that the higher socioeconomic groups had absolutely more access to the messages, the behavior change was highest among the poorest segments of the society.

During the closing presentation by Drs Kodyat and Dr Kumara Rai, it was mentioned that there was a need for additional coordination meetings on a regular basis, and more supervision and involvement by the central government in the process of these four components of the OMNI program.

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