



CHAPTER 10

Local to National

Thailand's Integrated Nutrition Program

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THAILAND REDUCED CHILD under-nutrition by more than half within one decade—an achievement recognized by the nutrition community as one of the best examples of a successful national nutrition program.¹ Underweight rates among children under five decreased from more than 50 percent to less than 20 percent from 1982 to 1991, and severe and moderate underweight rates were nearly eliminated.² The underweight rate was further reduced to 10 percent by 1996³ and to 9 percent⁴ by 2012. Maternal care interventions were also successful. Thailand improved the reach of antenatal care—coverage increased from 35 percent in 1981 to near 95 percent in 2006.⁵ And iron-deficiency anemia prevalence among pregnant women was reduced from nearly 60 percent in the 1960s to 10 percent in 2005.⁶

Thailand's gains in nutrition were driven in large part by strong political will, clear goals, effective strategic and program planning, and sustained integrated action and systematic monitoring. Most notably, this success was fueled by widespread mobilization of volunteers and by community

ownership. Nutrition was recognized as a fundamental element of development at all levels of society and across sectors ranging from health and agriculture to education and rural development. Communities were supported by government officials and professional experts in assessing their basic needs and creating development plans based on their priorities. Ongoing monitoring increased community awareness about the importance of nutrition and fed back to policies and programs at district and national levels.

This chapter explores the evolution of Thailand's approach to nutrition programming in the 1970s and 1980s, examining the factors that made it a success and lessons learned from the country's experience.

Tackling Undernutrition as a Symptom of Poverty

Nutrition was first integrated into Thailand's five-year national development plans in the 1970s and gained increasing importance in the country's



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Thailand adopted an integrated approach to nutrition policy that included a range of sectors, including agriculture.

efforts to address poverty in subsequent plans. In the 1960s and early 1970s, Thailand's National Development Plans focused primarily on expanding agricultural area to increase production, not on nutritional challenges.⁷ Yet a Department of Health survey from 1960 revealed a 57 percent rate of anemia in pregnant women, national deficiencies in vitamin B1 (23 percent) and vitamin B2 (47 percent), and 29 percent of school children experiencing goiter.⁸ At the time, nutrition was considered the purview of the health sector. While an Applied Nutrition Program with a focus on production and consumption of protein-rich foods was piloted in the poorest region of the country,

nutrition was not viewed as a major development issue in terms of national planning.⁹

By the late 1970s, understanding of the role of nutrition had increased, and experts recognized the need to combat and prevent undernutrition through a multisectoral approach. The fourth National Development Plan in 1977 included the country's first Food and Nutrition Plan, which sought to provide health services and address key nutrition issues, including protein-energy malnutrition, iron deficiency anemia, iodine deficiency, bladder stones, and vitamin A, B1, and B2 deficiencies.¹⁰ Interventions were targeted to pregnant women and young children, especially those under five, as well as economically disadvantaged groups.¹¹

As undernutrition persisted, Thailand's approach evolved to meet the challenge. With the fifth national plan in 1982, undernutrition was not only recognized as a development issue but also as a symptom of poverty. A Poverty Alleviation Program (PAP) was introduced to improve nutrition and promote development. The PAP targeted 288 districts and sub-districts in 38 of the poorest provinces, covering about half of the country.¹² A National Nutrition Committee was established, with members from health, agriculture, education, rural administration, planning, and academic sectors, to support the PAP with input on nutrition indicators and actions. The multisectoral political commitment to nutrition at the national level was complemented by planning and implementation at province, district, and local community levels. Village health volunteers, 80 percent of whom were women, were trained to provide primary healthcare, especially to mothers and children, and communicate important nutrition messages.¹³ With one volunteer for every 10–20 households at the program's outset, and eventually one for every 10 households, the most vulnerable members of the community could be reached. By 1989, more than 500,000 volunteers had been trained, covering most of the

country's rural areas.¹⁴ The PAP also incorporated the Food and Nutrition Plan, which emphasized local production of supplementary foods for pregnant women and complementary foods for infants and young children.¹⁵

Thailand also introduced the basic minimum needs (BMN) approach as part of the PAP. Communities conducted BMN surveys to identify priority areas for development, such as adequate food and nutrition, safety and security, basic health and education, efficient food production, and participation in community development. Each community then identified a set of actions to address the local issues. The central government ensured convergence of supportive multisectoral programs for job creation, agricultural production, and provision of services and basic sanitation at the community level. Nutrition indicators were included in the BMN indicators used to monitor progress and set goals. Under this system, growth monitoring and promotion coverage increased from approximately 1 million to 2.6 million children. The BMN approach promoted multisector development activities, as well as community ownership of assessment and monitoring processes. The major successes of the approach were the generation of local-level data that fed into district-, province-, and ministry-level monitoring and the prominence given to nutrition that led policy makers and communities to recognize its key role in development.¹⁶

Factors Contributing to Success

Thailand's nutrition program provides a clear example of how prioritized, effective, and explicit nutrition-relevant action on the part of governments can transform the nutritional status of a nation within a decade. Four key factors contributed to the rapid decline in undernutrition in Thailand: planning, integration, social mobilization, and local action-oriented surveillance.

Planning

Planning at micro and macro levels was facilitated through the BMN approach, whereby communities identified development priorities based on a survey measuring 32 indicators in eight areas; adequate food and nutrition was the first category on the list of indicators that communities considered in the prioritization process. Nutrition-relevant indicators included outcome indicators such as child malnutrition, low birth-weight, and micronutrient deficiencies, as well as process indicators such as immunization coverage, antenatal care coverage, availability of potable water, and sanitary services. At the micro level, teams of community leaders, nutrition and health experts, midlevel government officials, nongovernmental organization (NGO) representatives, and district and sub-district sector chiefs undertook community planning to assess community needs. They agreed upon a set of BMN indicators which would translate into goals reflecting local priorities and would then be monitored for progress. Working together, service providers and community leaders established plans for a set of nutrition-relevant actions targeted to vulnerable and disadvantaged groups in order to address the problems revealed by the indicators. At the macro level, a core group of representatives from the nutrition and health professions, government, and international agencies supported these community processes by promoting collaboration among the health, agriculture, education, and rural development sectors. Training and workshops on community-based nutrition programming were organized for district chiefs and reinforced through field visits to communities. Training workshops and seed money were also provided by international agencies.

Integration

Nutrition was understood to be a multifaceted issue, requiring change not only in the health sector but also in agriculture and education. The PAP

cut across multiple sectors, facilitating coordination and integration of minimum basic services at all levels—national, regional, local, and community. Health components focused primarily on antenatal care for pregnant women, growth monitoring and promotion for infants and young children, and promotion and support of breastfeeding and appropriate complementary feeding. Program activities also covered other basic health services such as immunization, oral rehydration therapy, deworming, treatment of local endemic diseases, and the provision of potable water and sanitary latrines. In addition, individuals, families, and communities were involved in agricultural and education activities designed to build self-reliance through improved food security, income generation, and behavior change for long-term gains in nutrition.

Projects in the education sector, such as school meal programs and micronutrient supplementation, sought to improve child nutrition. Curricula were updated with nutrition and health education materials, and nutritious food production and consumption were promoted through investments in school gardens and kitchens. Outside of formal education activities, efforts were made to better coordinate health and agriculture extension services, develop information systems to monitor the nutritional status of vulnerable groups, and educate consumers to select, prepare, and store food in healthy and safe ways. Under the Poverty Alleviation Program, investments in agriculture included horticultural and animal husbandry programs to strengthen subsistence food production as well as support for home gardening to produce locally sourced supplementary foods for pregnant women and adolescent girls and complementary foods for young children. Community agricultural research through collaboration with universities and research entities, such as Chiang Mai University's Center for Community-Based Research, helped identify and address local agricultural challenges.¹⁷

Social Mobilization

Service delivery was supported by a cadre of community health and nutrition volunteers or “mobilizers” who were selected by their communities. These mobilizers were trained to work with service providers or “facilitators”—usually paid healthcare workers, NGO employees, or university or research staff—to implement nutrition programming. A ratio of one mobilizer to 10–20 households was sought for optimal program reach and effectiveness (see discussion of “intensity” in Chapter 2). These positions were unpaid, but mobilizers received free medical services for themselves and their families and public recognition of their work with awards and certificates.

Training and support formed a critical part of the program. Mobilizers participated in an initial two-week training focused on the theory and practical application of basic nutrition and health facts, especially antenatal and postnatal care, maternal and childcare practices, birth spacing, breastfeeding, immunization, complementary feeding, and growth monitoring and promotion. The training also emphasized communication skills to effectively provide information on nutrition and care of women and children, and to build interest in self-help activities, particularly among women's groups. Supervision at all levels was also key to the success of the mobilizer program. Facilitators visited mobilizers every one to two months to provide support—rather than policing—through on-the-spot training and problem-solving along with technical and managerial information-sharing. This form of regular supervision was most effective, but was supplemented with monthly or bimonthly review meetings and communication through social events and printed media. Key elements of the mobilizers' work were tracking and evaluating impact indicators and using growth charts to discuss and support child growth within communities.

Local Monitoring

Regular weighing and health checks of all pre-school children every three months served as a screening, educational, remedial, and integrative tool for both mobilizers and mothers. This growth monitoring and promotion was designed to shift responsibility from health workers to the community by enabling mothers to visualize their children's growth and take responsibility for their nutrition improvement. An evaluation by the Ministry of Public Health (MOPH) and key informant interviews with senior MOPH staff involved in the program suggest that the program did a better job of weighing and charting than of analysis of the causes of undernutrition and subsequent counseling. The MOPH made an effort to improve growth monitoring and promotion in the late 1980s. Subsequent evaluation results revealed a reduction in child refusals to be weighed (from 31 percent to 8 percent) and an increase in the proportion of accurate weighings (from 79 percent to 92 percent), but analysis of the causes of undernutrition still remained low at 46 percent of cases and nutrition education was only provided to 64 percent of caretakers.¹⁸ Communities also used the other BMN indicators to monitor progress and guide development activities. By the mid-1990s, these indicators were used in over 95 percent of villages. In areas with rapid improvement, modifications were made to add new indicators or raise the criteria for success to a higher level.¹⁹

Lessons Learned

Thailand's national nutrition development was accomplished through a process with nine key components: (1) recognizing nutrition problems, (2) assessing nutrition status, (3) using experience from successful nutrition programs to build critical mass around key influencers, (4) cultivating political and social commitment, (5) increasing collaboration



Thomas Fuller/ The New York Times/Redux

Widespread mobilization of community health volunteers like these helped Thailand make gains in nutrition.

and planning between sectors, (6) building awareness and initiating action, (7) integrating nutrition into social and health development, (8) improving quality of life through community participation, and (9) targeting services and resources to the areas and individuals with greatest need. The country's success in reducing undernutrition nationwide in such a short time span offers a number of lessons.

First, recognition of the importance of nutrition at the highest levels of the political system and by all sectors ensured the central role of nutrition programming in the nation's development efforts. Nearly 20 percent of total government expenditure was invested in health, alongside similar investments in education.²⁰ Undernutrition was

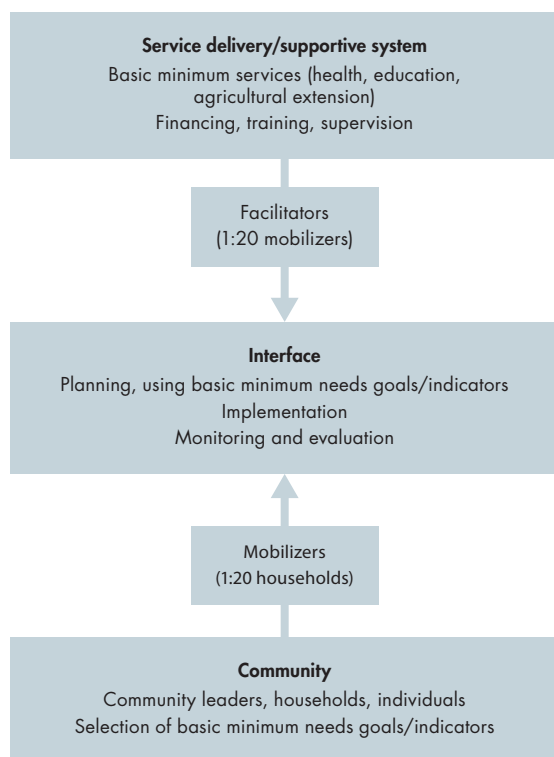
understood not only as a health issue but also as a multisectoral problem to be addressed by agriculture, education, and income-generation schemes. Moreover, the country recognized the need for action at the level of the national planning committee as well as at district, sub-district, and local levels. Awareness at the community level increased in large part as a result of the growth monitoring and promotion and BMN programs and educational campaigns.²¹

Second, the nutrition program was the result of strategic planning and coordination at all levels, combined with government support for community priorities. The use of simple indicators for

village-based social planning served to set locally valid program objectives and provide a framework for evaluation as well as empowering community members to participate in development activities with support and guidance from the government. The BMN approach offered a standard set of indicators, with backing from policy makers and experts at the national and district levels, which could be tailored to the needs of communities. Once priority areas were identified, communities were able to select from a menu of nutrition-relevant actions to develop a plan based on their needs. This menu of actions was supported and coordinated at national and district levels to ensure that standard approaches were used throughout the country while still allowing for flexibility based on local needs. Through this process, the role of local officers shifted from that of active agents to facilitators and advisers. Community-government partnership was strengthened as top-down and bottom-up approaches were integrated (Figure 10.1). With a wide range of sectors and issues represented by the indicators, this approach promoted the integration of multisectoral services at the community level and the targeting of resources to areas of greatest need.

A third lesson from the Thai experience is the need for adequate ratios of community workers or volunteers to the population for effective implementation of the national nutrition program. The involvement of community volunteers at such a large scale helped cut costs, empower local people, and build self-reliance.²² Since mobilizers in Thailand were only responsible for 10–20 households, they were able to regularly monitor the nutrition and health needs of community members. This also enabled mobilizers to easily identify the most vulnerable individuals and target resources more effectively. Further, since the mobilizers were volunteers, this ratio prevented overburdening these community leaders.

FIGURE 10.1 Nexus of community-government partnership for nutrition in Thailand



Source: K. Tontisirin and S. Gillespie, "Linking Community-based Programs and Service Delivery for Improving Maternal and Child Nutrition," *Asian Development Review* 17, no. 1–2 (1999): 50. Courtesy of MIT Press Journals.

Thailand's experience provides one of the best examples of national policies and strategies designed to be integrated with local decision making and responsive to the experience of community-based nutrition programs and projects.²³ Strong political will, multisector coordination, integration of macro- and micro-level planning, and the widespread mobilization and support of community volunteers were essential to the country's successful nutrition program.

Nutrition in Thailand: Present and Future

In the years since Thailand's success in driving down rates of undernutrition, new challenges have emerged. Some segments of the population continue to grapple with undernutrition, while the prevalence of overweight, obesity, and risk factors for noncommunicable diseases (NCDs) are cause for concern.

According to the *2015 Global Nutrition Report*, Thailand continues to face a number of malnutrition challenges and the country is off course for all World Health Assembly nutrition targets.²⁴ The report found that stunting still affects 16 percent of children under five (some 604,000 children), reflecting little improvement since 2006. Seven percent of children under five are affected by wasting, and 2 percent suffer from severe wasting. The rate of exclusive breastfeeding of infants under six months old is 12 percent, and 24 percent of women of reproductive age are anemic. At the same time, overweight, obesity, and NCDs are growing problems. Eleven percent of children under five are overweight; nearly a third of adults are overweight and 9 percent are obese. Adult females experience higher rates of both overweight and obesity than adult males. Risk factors for diet-related NCDs also present potential challenges.

A number of factors may be at work behind these numbers. The persistence of undernutrition

among the poorest members of the population, as well as certain subpopulations such as the hill tribes, suggests that undernutrition is linked to broader issues of extreme poverty and social dislocation not addressed by the country's nutrition program.²⁵ The growing incidence of overweight, obesity, and NCDs may have diverted policy-maker attention from undernutrition issues.²⁶ Community health workers continue to be recruited, but mobilization is now focused on preventing and controlling obesity and NCDs. Rising incomes and lifestyle changes have contributed to reduced physical activity and increased access to processed foods among much of the population. And increased accessibility of supermarkets as well as fast food restaurants, particularly in urban areas, has changed where people buy food and how often they cook at home. These lifestyle changes have also decreased consumption of traditional Thai food that contains a number of nutritious ingredients.²⁷

The Government of Thailand has committed to addressing its present nutrition challenges with plans that draw on the lessons learned two decades ago. In 2008, the government enacted the National Food Committee Act with the aim of developing food policies and strategies across sectors and at all levels throughout the country. The act integrates activities from more than 10 agencies and over 30 other acts. The prime minister (or designated deputy) chairs the committee; committee members include experts as well as representatives from 11 ministries.²⁸ In 2010, the Cabinet approved a Strategic Framework for Food Management for 2012–2016 comprising four themes that cover the food chain from the household to the national level: food security; food quality and safety; food education; and food management.²⁹ Thematic committees were appointed to facilitate and coordinate the framework at the national level, while implementation takes place at the local and workplace levels.

Similar to the Poverty Alleviation Program, the Strategic Framework identifies community actions to address the double burden of malnutrition and NCDs, including the provision of basic health, education, agriculture, and other social services, through the mobilization of volunteers.³⁰ Nutrition indicators now go beyond undernutrition to measure overweight, obesity, and other factors contributing to NCDs. The framework integrates a number of fragmented programs, including efforts to promote production and marketing of nutritious food; reduce sugar consumption, salt consumption, and obesity; improve labeling and food safety; and promote physical activity, exercise, and nutrition education. For

example, programs to control overweight and obesity among students through monitoring, nutritious food promotion, and physical exercise are being tested in 27 schools in Bangkok and 600 schools throughout the country.

As recent studies indicate that Thailand's success in reducing child undernutrition has stagnated and that new challenges in terms of overweight and NCDs are on the rise, the country is committed to learning from past experiences. The set of nutrition challenges may be different today, but Thailand is striving to build on the lessons learned about the power of community-government partnerships that are aligned with well-monitored, multisectoral efforts to yield notable results.