



The Contribution of **CFNI** to Caribbean Development 2001- 2010



**Pan American
Health
Organization**
Regional Office of the
World Health Organization



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7. Product – Established core standards for dietetics services in institutions such as hospitals and schools.
8. Product - Developed Infant and Young Child Nutrition Policies for use in the region
9. Product - Developed Anemia Control Policy for use in the region.
10. Product - Developed a draft nutrition policy for schools in the region

2. TOP 10 ACHIEVEMENTS IN SURVEILLANCE & RESEARCH

1. Product - Developed national nutrition surveillance systems with core indicators and assisted adaptation by member countries
2. Service - Planned and conducted research, studies, surveys and assessments on various topics.

3. Product - Compiled profiles of childhood under-nutrition and obesity in the region.
4. Product - Compilation of the nutrient content of Caribbean foods.
5. Product - Developed the methodology for Nutrient Cost Analysis which is now used in poverty assessments in the region.
6. Service - Capacity building in research methods – qualitative and quantitative.
7. Product - Developed Population Nutrient Intake goals for the Caribbean.
8. Product – Developed food availability patterns for the region and for individual member countries.
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10. Service - Developed the methodology and assessed the impact of income changes on the demand for food items.

3. TOP 10 ACHIEVEMENTS IN HUMAN RESOURCES DEVELOPMENT

1. Service - Developed, conducted and evaluated a distance education course in nutrition at basic and advanced levels.
2. Service - Trained professionals in member counties to use the Nutrient Cost Analysis as a tool to monitor poverty, food security status and the vulnerability of families
3. Service - Every year, supported tertiary level institutions through curriculum review, modification and guest lectures.
4. Service - Every year, planned, developed materials, conducted and evaluated workshops, short courses, seminars, symposia on various topics.
5. Service - Every year, planned, conducted and evaluated training of trainers programs.
6. Service - Improved the capacity of Caribbean health professionals in the nutritional management of obesity, diabetes and hypertension.
7. Service - Improved the capacity of Caribbean health professionals, NGOs and persons living with the infection in the nutritional management of HIV/AIDS.
8. Product - Revised the Basic and Advanced Nutrition Textbooks used in schools in the region.
9. Service - Built the technical food and nutrition skills of nutritionists, community nurses and other health professionals for practical application.
10. Service – Applied model food-based dietary guidelines for implementation in member countries.



4. TOP 10 ACHIEVEMENTS IN PROMOTION & DISSEMINATION

1. Service - Every year, presented to ministers and senior decision-makers the emerging and persistent global and regional challenges and possible solutions to the effective implementation of national food and nutrition programs.
2. Product - Provided cutting-edge technical nutritional information for decision-making to Caribbean professionals, NGOs and the general public, through a journal, newsletter and other publications.
3. Product – Developed the methodology for the establishment and use of a Caribbean Food Exchange List.
4. Service - Introduction of region-wide celebrations of Caribbean Nutrition Day.
5. Service - Every year, through competitions, improved the knowledge of secondary school students across the region in Food and Nutrition & Physical Education.
6. Service - Built capacity in member countries to plan and implement various initiatives.
7. Product - Revamped the child health records into a model and supported the introduction of the new WHO child growth standards.
8. Product - Developed and promoted algorithms and toolkits for the Nutritional Management of Persons Living with HIV/AIDS in the Caribbean.
9. Service - Provision of specifically-packaged Caribbean-centered nutrition information to professionals across the region.
10. Product - Developed, promoted and disseminated lifestyle behaviour intervention materials on diet and physical activity for primary and secondary schools.

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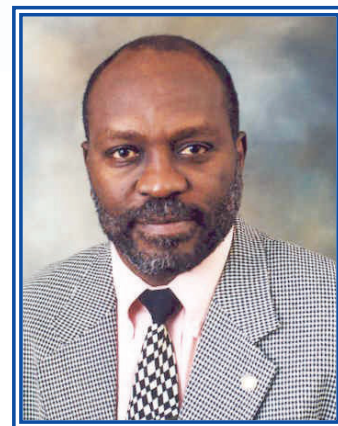
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INTRODUCTION

This document chronicles the 'regional' achievements of the Institute over the last decade and provides (1) broad accountability of our technical cooperation mandate (2) an evaluation of our efforts based on results, and importantly (c) critical insights into the complexity of implementing programs on Food and Nutrition in the region. These achievements are based on our mission *"to cooperate technically with member countries to strengthen their ability to analyze, manage and prevent the key nutritional problems and to enhance the quality of the life of the people through the promotion of good nutrition and healthy lifestyle behaviors"*.



Dr. Fitzroy J. Henry
Director, CFNI

This mission was poignantly displayed during the decade in view of the devastating effects of the global Food-Fuel-Financial crisis. The three threats converged to make it particularly damaging to vulnerable countries and groups within them. The Caribbean did not escape this worldwide phenomenon and commodity price changes have impacted with varying degrees on regional economies. Since 2000, the Consumer Price Index, has increased by 16-18 % (Antigua, Bahamas, Dominica), 22-30% (Belize, Grenada, St. Lucia, St. Vincent/Grenadines, St. Kitts/Nevis), 59-63 % (Trinidad/Tobago, Guyana) and 133-230 % (Jamaica, Dominican Republic, Suriname, and Haiti). Soaring food prices presented a crisis which had devastating consequences on nutrition, particularly in children. We detail below how the institute helped to minimize the effects of these crises.

Since 1995, and particularly during the last decade, CFNI has been strongly advocating three new closely related but different principles in combating regional food and nutrition problems.

1. The first principle is multi-sectoral, to replace the uni-sectoral approach and is concerned with averting outcomes in the individual, with a multi-sectoral approach focusing on the real determinants and inequalities. Coordinated sectoral actions were advocated towards the common objective of improved nutrition. Increased efforts were focused on social determinants of nutrition to address the various factors that affect accessibility and

consumption of safe food at the household level. CFNI insisted over the years that agriculture, food, nutrition, health, trade and commerce must work in unison towards the regional good of improved nutrition. In this connection, emphasis was placed on strengthening capacities within countries for inter-sectoral action and advocacy, programme planning and evaluation, and social communication.

2. The second principle is multi-level, which is concerned with analyzing the complex combination of factors operating at the global, national and community levels that influence individual nutritional status. While management of nutrition related diseases continued to receive much support, we insisted that the bulk of the efforts be on the difficult aspects of prevention of obesity and undernutrition through population-based strategies.
3. The third principle is selected regulation, designed to reduce the tension between the priorities of food trade and public health through examination of the economic, political, social issues embedded in the food system of individual countries. For example, dietary recommendations by themselves do not address social and economic inequalities. It is almost futile to encourage families to eat lean meats, fruits and vegetables when they have little purchasing power and the cost of healthy foods is out of their reach. The private sector must play a critical role in preventing nutrition-related diseases. Before recommending regulatory measures the initial strategy was to encourage corporate decision makers to support national nutrition and health programmes, recognizing that corporate policy on health promotion can be consistent with the pursuit of corporate profits.

On the purpose

For an institution that has been in existence for 43 years, it is imperative to examine its mandate in substantive periods of time to determine quantum progress and how it can be accelerated to achieve the regional good of better health for the Caribbean people.

On the context

The decade (2001-2010) presented many challenges and opportunities to advance the nutritional status and health of the Caribbean people. Below are some technical, administrative and political changes during the decade which established the context within which our technical cooperation programme was spawned. For Caribbean countries that are highly vulnerable to increasing food prices, global recession and other social and environmental shocks, this was a demanding undertaking. Major influences were:

- (a) Global and regional trade agreements that challenge food security, safety and nutrition.

- (b) CARICOM Heads of Government resolutions stressing that nutrition should be a critical factor in the fight against obesity and non-communicable diseases (NCDs).
- (c) Devastating impact of the Food-Fuel-Financial crisis on nutrition in vulnerable communities and erosion of gains towards the MDGs.
- (d) Compelling scientific evidence about cost-effective nutrition interventions.
- (e) CARICOM approval of the Caribbean Cooperation in Health (where food and nutrition is a priority area).
- (f) CARICOM decision to de-commission CFNI and absorb some functions into the Caribbean Public Health Agency (CARPHA).

On the content

During the decade CFNI did considerable work with individual countries and groups of countries but most importantly, for collective regional impact, with products and services. We have selected only those achievements with the latter regional focus as this is an expression of functional cooperation as mandated by our Heads of Government. We selected only 10 achievements for each of CFNI's functional approaches: (a) Policy Formulation (b) Surveillance & Research (c) Human Resources Development and (d) Promotion and Dissemination. Each achievement presented then followed a similar format starting with the (1) rationale (2) description (3) outcome and (4) next steps for that product or service.

On the staff

I have been blessed with an indefatigable and highly talented staff who executed the programmes described below in the most professional and creative manner despite the personnel and financial limitations that existed. (Their profiles are detailed in ANNEX 2 – The CFNI Team)

On the future

In a separate document entitled “Food and Nutrition Priorities in the Caribbean 2010-2015: Rationale and Strategic Approaches” the critical approaches, strategies and actions are laid out for the Caribbean to make substantial progress. It is anticipated that CFNI and eventually CARPHA will contribute substantially to those efforts.

We are indebted to the Governments of the Caribbean for their invaluable support and guidance particularly the staff in the Ministries of Health, Agriculture and Education.

Dr. Fitzroy J. Henry

Director, CFNI



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SITUATION ANALYSIS

Nutrition

The reduction of undernutrition in previous decades has wrongly led to complacency and to the dangerously false conclusion that there was no urgency to further improve the overall nutritional status of the countries in the region. A stark reminder of their vulnerability, particularly as Small Island Developing States (SIDS), was the Food-Fuel-Financial crisis, environmental factors also posed considerable threats. Thus, for SIDS, the issue of nutrition should have been higher on the policy agenda. Further, the region experiences regular natural disasters and just one such event could retard years of development and progress and with that, significant gains in health and nutrition. To cushion the effects of these crises the Caribbean nutrition agenda needed to include strong human, institutional and policy developments at regional and national levels.

Sufficient attention and action did not focus on addressing the underlying issues and eliminating barriers that affect food security and nutritional health in the region. Food security is defined broadly to include not only the physical availability of food supplies over time and space, but also the socio-economic and nutritional aspects of having adequate economic and physical access to safe and nutritious food supplies. So, although severe childhood malnutrition declined and was low in most Caribbean countries it remained a public health problem in some. Childhood malnutrition was affected not only by household and national factors but global factors as well. Changes in international trade agreements should have been an opportunity but it seemed, at least in the short term, to be more of a threat to food security in the Caribbean. Restriction and unfavourable terms of trade as well as subsidies to production and marketing in some countries provided constant threats to initiatives aimed at alleviating poverty and food insecurity. The problem was one of determining an appropriate mix of food price policies and instruments that could enhance food security at the household level.

Vulnerable Households

Few households in the Caribbean were totally self-sufficient in meeting their food requirements. Most households purchased some of their basic food needs, and many households purchased all of their food supplies. However, there were still poverty issues that were considered central to addressing problems of food security in the Caribbean, particularly for children whose families are at the economic margin of society. Examples are small farmers, families living in urban and peri-urban marginal areas, small fisherman, indigenous peoples, street vendors, the unemployed and underemployed, and displaced persons, who are more vulnerable to food insecurity.

The need for attention to Food Safety also was paramount in view of the anticipated increased movement of foods across Caribbean borders. There was need for consistent attempts to forge the essential link between agriculture and health . This went beyond food safety to the critical issue of health benefits from repositioning the agriculture policy. The issue of nutritional and health inequality by gender, socio-economic status and minorities will continue to be targets for investigation and intervention.

Epidemiological/Nutrition Transitions

On average, malnutrition rates have fallen from 20% in the 1950s to less than 5% in most countries. This epidemiological transition describes the shift from a pattern of high prevalence of infectious disease and malnutrition, resulting from poor hygiene and poverty to a pattern of a high prevalence of chronic diseases strongly associated with lifestyle, which presented a new health risk to children as well as adults.

The nutrition transition focused on major shifts in diet, which are reflected in changes in body composition. What has emerged is that the Caribbean has now converged on a pattern of diet high in saturated fat, sugar and refined foods and low in fiber. Further, part of the reason for the overall decline in malnutrition in the region has been the strengthening of food security at the national level.

An examination of the data on food availability points to a sufficiency or an over-supply of energy and nutrients to meet the nutritional needs of the population in virtually all Caribbean countries. Most countries showed a trend towards an excess of calories (RDA=2250 cals) and protein (RDA=43.5g) at the national level.

Nutritional Deficiency

Anemia caused by iron deficiency declined but was still highly prevalent in the Caribbean. Some countries show rates of more than 50% in certain population groups. Three high risk groups were targeted - pregnant women, preschool and school age children - taking into account that there is a biological linkage between the health risks of mothers and the health risks of children. Anemia reduces the capacity to carry out productive work, to manage the household environment and care for children. In pregnant women it can lead to intrauterine growth retardation, low birth weight and increased perinatal mortality, while in infants it causes apathy, inactivity and significant loss of cognitive abilities. Action to reduce this dual effect remains urgent.

The prevalence of Low Birth Weight (LBW) reduced but remained between 6 and 9% in the Caribbean. The epidemiological transition and nutrition transitions have led to much discussion of the postulate of “fetal origins” of adult disease. The basic hypothesis is that insults during critical stages of fetal development or early childhood followed by relative affluence result in increased risk for chronic disease later in life. Such studies showing the association between low birth weight and adult disease makes urgent the concern of these high LBW prevalence rates in the Caribbean.

The falling rates of exclusive breast feeding and the earlier introduction of other foods present an area of work needing information on causes and corrective responses. Quality and food safety standards in the food sector are becoming increasingly important components in the demand for and consumption of food. Increased income and information on the importance of food safety are motivating consumers to be selective of food products. Quality is related both to the production process as well as the final product and can be defined as the satisfaction of consumers with all aspects of the product.

HIV/AIDS and Nutrition

Nutrition continued to be the most neglected aspect of HIV/AIDS management and care in the Caribbean region, despite the fact that nutrition is essential to maintain an immune system and to achieve optimal quality of life. Weight loss and wasting are the primary nutritional disorders of HIV infection. AIDS illnesses include inadequate food intake, altered metabolism and malabsorption, all of which have nutritional consequences. Health care professionals who provide nutrition intervention and support to individuals infected with

the HIV therefore have a challenging and difficult task, nevertheless, aggressive nutrition intervention is indicated at all stages of HIV infection.

Obesity

During the decade obesity prevalence in the Caribbean has increased to the point where it is now the most important underlying cause of death in the region. Currently, about 25% of adult West Indian women are obese (BMI > 30), which is almost twice as many as their male counterparts. The evidence of a direct overall relationship between body weight and mortality is compelling, but we should recognize that the body weight is often not the most important problem. It is the morbidity associated with metabolic complications that is of major concern.

Behavior modification was an important component of CFNI's work during the decade. The primary goal of behavior treatment is the improvement of eating habits. Effective interventions are now needed to focus attention on uncovering and treating underlying psychological or social disturbances that create powerful barriers to change; these important psychological factors may be obscured or exacerbated by focusing on weight loss alone.

Although the physiological regulatory mechanisms within the body operate to keep weight stable, there are powerful societal and environmental factors which influence energy intake and expenditure. Our approach to obesity management must continue to show a range of strategies from prevention through weight maintenance and management of obesity co-morbidities, to weight loss.

There is still need to alter our thinking that the prevention and the management of obesity are two distinct processes, with the former aimed at preventing weight gain (primarily through health promotion initiatives) and the latter focused on weight loss (perceived as the domain of the clinician). The good news is that the co-morbid conditions of obesity can improve rapidly even with a limited loss of weight. The best ways to do this in the Caribbean need urgent investigation.

ACHIEVEMENTS

The achievements are presented along the lines of the four (4) functional approaches of CFNI as illustrated in Fig 1 below:



Figure 1: The Functional Approaches of Technical Cooperation at CFNI



ACHIEVEMENTS IN POLICIES, STRATEGIES & STANDARDS

1. **Product** - Developed and implemented a model National Food and Nutrition Policy and assisted its adaptation by member countries.

Rationale

The Institute has developed and promoted a particular conceptualization and framework for the national food and nutrition policy formulation. Key elements of this framework include:

- A recognition that such policies must establish national food and nutritional goals, so that agriculture, trade, and the food systems can deliver adequate and nutritionally appropriate quantities of food, especially to low-income and vulnerable groups;
- The national food and nutrition policy of a country must address the country's critical food and nutrition problems and must also provide a framework of food security in line with the internationally accepted definition, viz, "Food security is achieved when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (World Summit Meeting, 1996). To make this definition operational, the four pillars or components of the definition are considered explicitly:

1. Food availability;
2. Food accessibility;
3. Consumption and Utilization; and
4. Stability of (i)-(iii) above.

The recognition that to effectively address the region's critical food and nutrition problems requires multi-sectoral collaboration including the public sector (government ministries/agencies), the private sector (importers, private sector organizations, farmers, agro-producers, etc) and civil society.





Product Description

CFNI partnered with key stakeholders in member countries to formulate their national food policies and national plans of action on nutrition (NPANs). In addition, the Institute assisted member countries to establish national coordinating mechanisms (e.g., Food Policy Commissions, Food and Nutrition Councils, etc), to facilitate the implementation of the food policies and NPANs. These food policies and the accompanying NPANs which strategize the operationalization of the policies are particularly important because they provide clear statements about the direction and intent of the respective governments on how they plan to address their key food and nutrition problems. Policies are also important because they remain in existence long after programme implementation, and they optimize on scarce resources especially in the present context of stringent fiscal pressures on public budgets. Moreover, the formulation of these policies and NPANs are rooted in a multi-sectoral approach which is essential since the solution to the key food and nutritional problems have to be the collaborative efforts of many sectors of the economy, viz., agriculture, health, trade, finance,

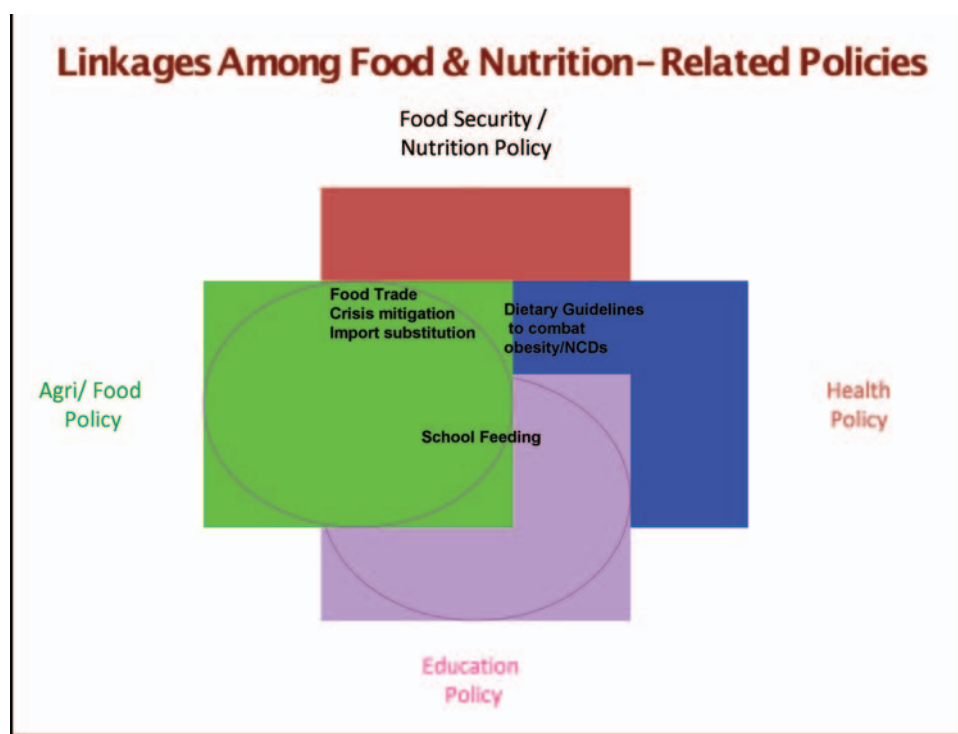


Figure 2: Linkages among various related policies



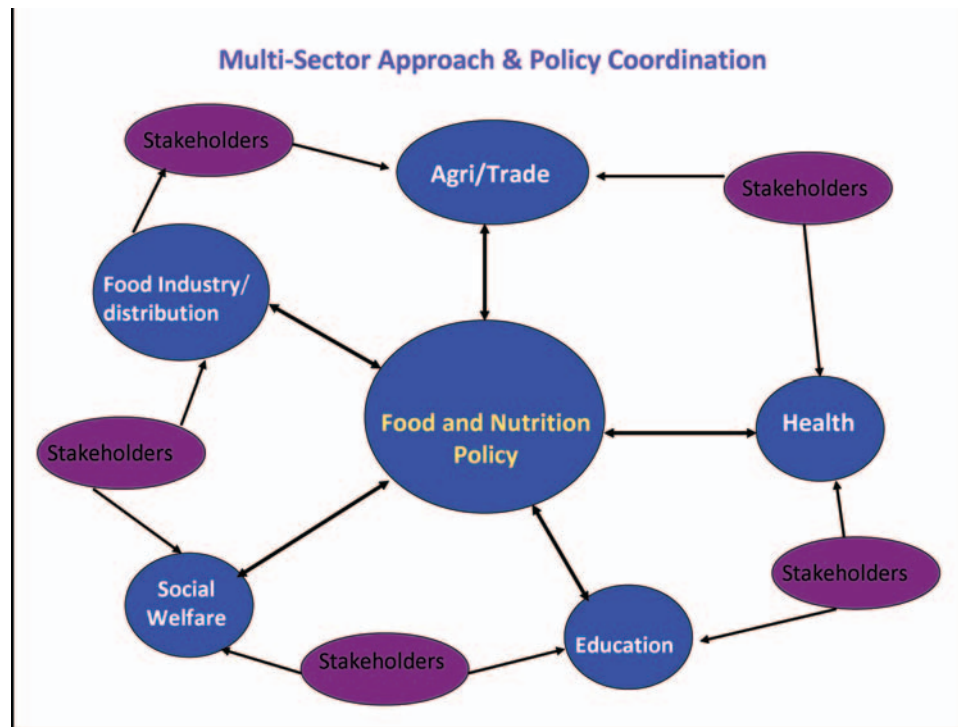


Figure 3: Multisectoral Approach to Food and Nutrition

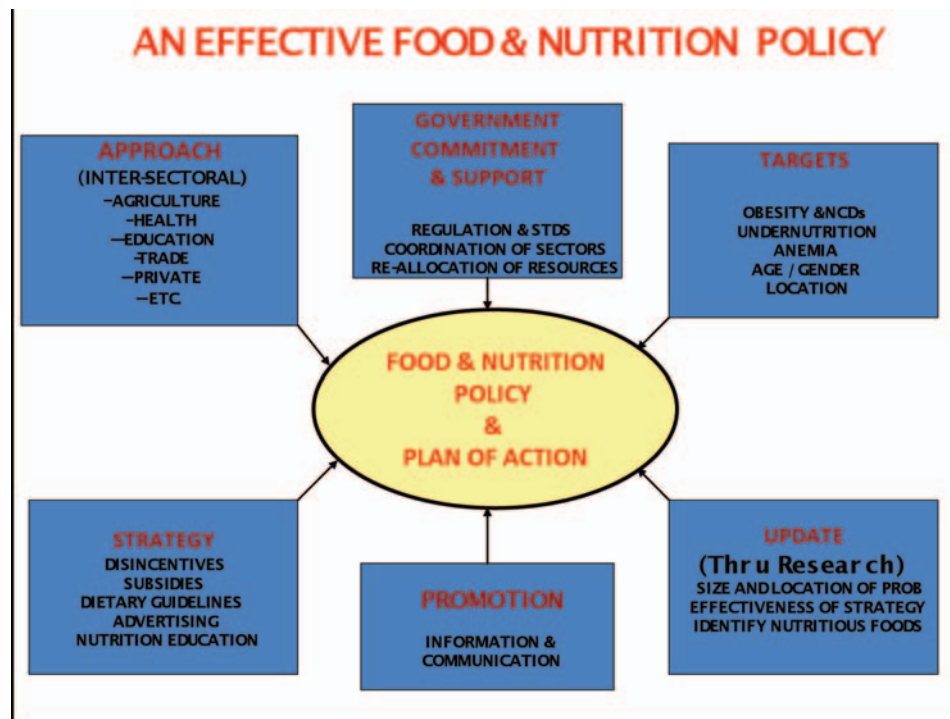


Figure 4: Integrating key elements for an effective food and nutrition policy.

education, etc. These ideas are reflected in the following Figures (2 – 4).

Outcomes: [See ANNEX 1: A1]

In addition to promoting this framework at the national level, the Institute provided leadership at the regional level in the formulation of the regional food and nutrition policies. In particular, the Institute holds memberships with several technical working groups (TWG) including those involved in :

- The formulation of the Regional Food and Nutrition Security Policy;
- The formulation of the CARICOM Community Agricultural Policy; and
- Developing an Action Plan for Promotion of a Regional Agribusiness Sector and Targeted Commodity Enterprises.

Next Steps: To encourage and assist the completion of NPANs in the remaining countries. (See ANNEX 1: A1]

2. **Service** - Aggressively advocated the inter-sectoral approach to establish the Agriculture-Food-Nutrition-Health link.

Rationale

Historically, the region has focused on making food available to consumers through domestic production and imports; accessibility was recognized only insofar as attempts were made to maintain safety nets and minimum wages, and address unemployment. The consumption/ utilization dimension of food security was rarely addressed. The assumption was that once the production/food availability problems were solved it would follow, ipso facto, that good health and nutrition will ensue. The empirical evidence has not supported this assumption. Indeed, there is no evidence that, in making decisions about what foods to produce or import, policy makers were guided by recommended food and nutrition goals so that the agriculture and the distribution system would be organized to meet those goals.

This policy failure can be indicted for the critical food and nutrition problems the region is currently facing:

- A deficit in consumption of fruits, vegetables, roots and tubers, and legumes;
- An excess consumption of fats and oils, and sweeteners;
- A regional food import bill in excess of US\$4 billion, annually; and
- A prevalence of nutrition-related diseases, viz., obesity and its co-morbidities (i.e., non-communicable chronic diseases—stroke, hypertension, diabetes, heart diseases, some forms of cancers, etc. These are the main public health problems in the region, accounting for about 57% of deaths, and are major burdens on individuals, household, and national budgets.

Service Description

Throughout the decade, CFNI has advocated an agri-food-nutrition-health link which takes expression in a discernable pathway that links food availability, accessibility, consumption/ utilization, and the stability of these three components to health and nutrition status. This link is integral to the classic role assigned to agriculture, with important implications for health and nutrition, viz., inter alia, providing food and nutrients to the population, a source of employment, income and livelihoods and as an important contributor to economic growth.

Up until to a decade ago the policy approach to food and nutrition security that focused on the supply side of food security was prevalent in the region. Prior to this period, but especially since then, the Caribbean Food and Nutrition Institute (CFNI), worked tirelessly both at the regional and national levels to impress policy makers that food and nutrition security in the Caribbean is integrally linked to chronic nutritional life-style diseases (NCDs) such as obesity, which are currently the main public health problems in the region and are projected to increase if nothing is done about them. These messages are conveyed by CFNI technical staff at various technical consultations, meetings, seminars and conferences by such means as:

- Presentations at CARICOM's COTED and COHSOD meetings;
- Guest lectures at the universities throughout the Region;
- The World Food Day celebrations, and

- The Caribbean Week of Agriculture.

Outcomes

These efforts have yielded significant results. The nutrition dimension of food security is now generally acknowledged at regional and national levels. Recently, for example, the CARICOM Secretariat has submitted to COTED a “Regional Food and Nutrition Security Policy”. Other successes have occurred at several high-level fora (e.g., the 1996 Declaration of Caribbean Ministers of Agriculture; the 2006 Caribbean Commission on Health and Development; the 2007 Heads of Government Declaration of Port of Spain; the 2007 St. Ann’s Declaration of Caribbean Ministers of Agriculture at Runaway Bay, Jamaica; the 2009 Heads of Government “Liliendaal Declaration”; etc). These Declarations all explicitly recognized the relationship between food and health, the region’s main food and nutrition problems (obesity, NCDs and micronutrient deficiencies), and mandated an integrated, multi-sector approach for the achievement of food and nutrition security, with a key role assigned to agriculture and agencies such as CFNI to support the operationalization of this mandate.

As one tangible example of the Institute’s initiative to advance the agriculture-health-nutrition agenda and the multi-sectoral approach to food and nutrition security in the region, CFNI organized a symposium in 2007 with Caribbean Ministers of Agriculture on the theme “Food and Agriculture Policies and Obesity: Prevention of Non-Communicable Diseases (NCDs) in the Caribbean”. Several technical and policy-oriented papers were presented on various topics, including agricultural policies and health; food policies and obesity; tourism and health; trade policies and health. Out of this symposium the institute published two documents (Figure 5), which have been widely disseminated among government ministers and policy makers in the region viz., “ Food and Agriculture Policies and Obesity: Prevention of Non-Communicable Diseases (NCDs) in the Caribbean” and Implementing Agriculture and Food Policies to Prevent Obesity and Non-Communicable Diseases (NCDs) in the Caribbean”. Another example is the document presented to the COHSOD meeting on “The Role of the Education Sector in Implementing Food and Nutrition Policies in the Region”.

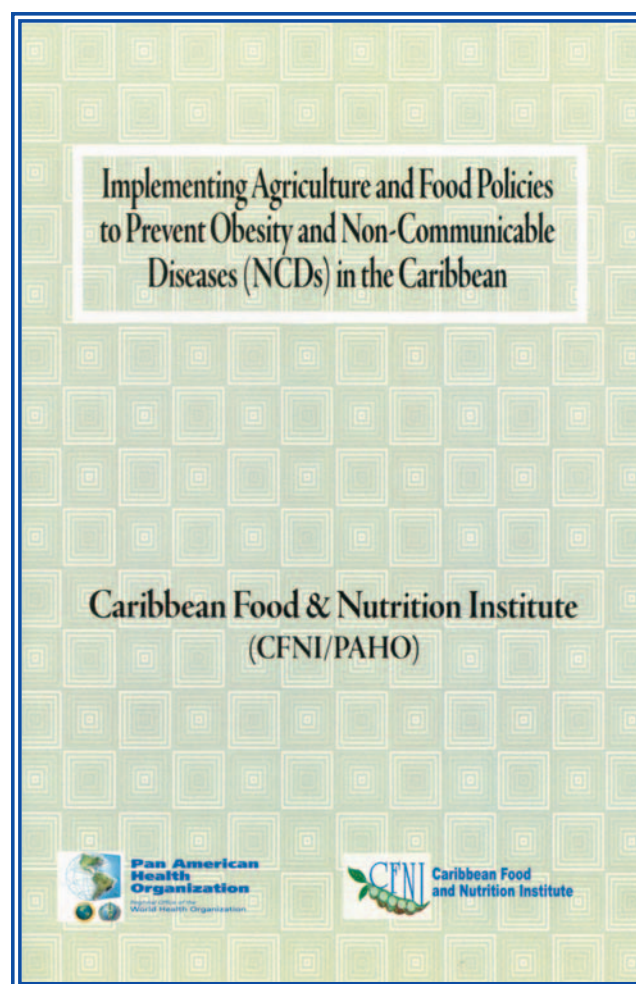
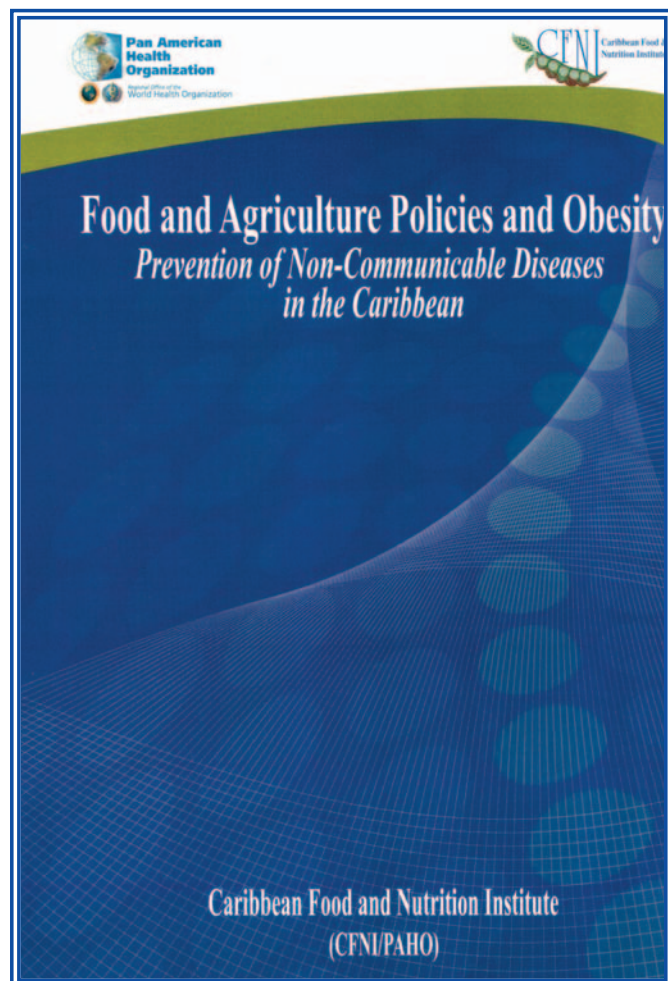


Figure 5: Food and Agriculture Policies and Obesity: Prevention of Non-Communicable Diseases (NCDs) in the Caribbean.

Next Steps:

Despite progress in persuading some policy makers about the linkages in relation to food, nutrition and health, there are still some policy makers (Permanent Secretaries, Chief Agriculture Officers, Chief Medical officers, senior planners in various Government Ministries, etc), and interest-groups (e.g., farmers' organizations, Chambers of Commerce, other private sector agencies, etc), who are not supportive. It is either that they remain unmoved by the severity of the region's food and nutrition problems or lack critical understanding of how their various organization and agencies can collaborate on advancing food and nutrition security in the region. CFNI will continue to advance the agri-food-nutrition-health link and the multi-sectoral approach to addressing the region's critical food and nutrition issues.

3. **Product** - Developed a model Food Safety Policy for adaptation by member countries.

Rationale

CFNI championed the development of a Food Safety Policy, piloting its formulation in Grenada with the Grenadian National Authorities, and in collaboration with the Caribbean Epidemiology Center (CAREC). The policy is potentially invaluable as a best practice to other CARICOM countries. It is formulated with a vision "to protect human, animal, and plant health through a shared, collaborative effort for meeting the highest level of food safety possible."

The goal has been to promote the establishment of a central national authority, mandated to ensure food safety for the protection of human, animal and plant health, while reviewing personnel performance in the food continuum, and making recommendations for upgrading skills, knowledge and training as required. The policy further assesses the related health issues of the national population and its visitors, allowing for the detection of health problems involving food, as well as providing solutions to emerging problems, facilitating trade, supporting sound evidence-based decisions, and making national interventions.

CFNI further used the Grenadian experience to prepare a bulletin, outlining critical policy objectives to which all other CARICOM countries may aspire as they develop policies

of their own. The fundamental principle is that among CARICOM countries, the policy objectives for food safety are similar. These objectives are to (a) ensure that imported and/or domestically grown and manufactured foods are produced, stored, handled, prepared, transported and sold in accordance with relevant legislative requirements and appropriate safe food principles and practices; (b) food providers have appropriate and adequate controls as well as management systems, commensurate with the existing type of food operation; (c) all premises receiving or delivering food are approved by the national competent food authorities; (d) all risks and hazards associated with the provision of food are reduced to a tolerable level; and (e) all food handlers have the necessary competence to undertake their duties in accordance with the general requirements of food safety.

The national food safety policy therefore aims to protect consumers' health, while ensuring fair trade practices, minimizing the duplication of effort, and maximizing the utilization of institutional structure through a transparent, integrative process, with science-based application of risk analysis principles.

Product Description

The Policy has been designed along nine basic principles. Firstly, the principle of shared responsibility is applied to establish a comprehensive integrated approach to food safety through team work, consultation and communication and technological exchanges. The concern is to ensure that food safety does not only reside in a single institution, and guided by end-product examination or routine inspections, but is dependent upon an improved coordination of all activities that impact on the national food safety programme, with different agencies/ministries and public-private sector entities involved.

Coordination, the second principle, is of critical importance to streamlining and promoting awareness and establishing buy-in for the multi-sectoral input of all partners from the farm to table food spectrum. Such coordination is most effective with a Cabinet-appointed National Agricultural Health and Food Safety Committee that is empowered to manage the food safety programme, led by a motivated, accountable leader with support from committed persons, fully participative in meeting the requirements for regulatory control, inspection services, imports/exports, laboratory diagnostics, clinical diagnostics, the design and execution of training programmes and other related areas of importance. Risk Analysis, covering all three components of risk assessment, risk management and risk communication, is the

third principle that must not be overlooked. The fourth and fifth principles revolve around the proper use of adequate human and financial resources to address critical problems in the food safety chain, with emphasis on the industry-driven HACCP methodology, and food hygiene practices as a main food safety instrument in accordance with the Codex Alimentarius.

Finally, the other four principles are concerned with laboratory support, transparency, traceability and recall are important characteristics for the Food Safety Policy. The diagnostic capacity for food-borne diseases must facilitate the reliable testing of food samples on the one hand. As a feature of transparency, on the other hand, open communication must make available, results of tests and controlled studies, as well as provide information on food safety activities to the public public, as far as possible, unless unduly constrained. The practice of traceability of feed, food and ingredients along the food chain, ensure that procedures are put in place to have such feed or food withdrawn from the market when they pose a risk to the health of consumers if offered for sale to the public. The principle of recall is aimed at ensuring that all foods or products that present food safety risks are detected and removed from the food chain, until corrective action has been taken to make them safe for the consumer's use.

Outcomes

The outcome of the policy would , among other things:

- Strengthen the food-borne disease surveillance system to better detect disease outbreaks, and facilitate disease outbreak investigation, both of which will improve the monitoring of food pathogens as well as food sampling and testing during production, processing and distribution/sale, and help in recognizing consumer complaints about food safety
- Manage national food control through improved organization, planning, monitoring, communication and evaluative measures in a clear and transparent way, with minimal overlap in duties and responsibilities of the various personnel.
- Better identify food hazards and have them evaluated and controlled by entrusting the food industry with the responsibility to provide safer foods using the HACCP principles, and allowing State Food Inspectors more time to monitor food operations through a more audit-oriented approach.

Next Steps

While there has been progress in the formulation of the policy, with direct benefits being clearly articulated, the ongoing success of this activity and action plans would depend on the continued momentum to ensure that:

- Relevant food laws and supporting regulations remain updated;
 - Careful reviews are made of the food control management, and food inspection systems and services;
 - Integrated food safety is maintained among the key partners;
 - The food safety programmes of work of the various partners remain aligned to ensure that an acceptable level of output is achievable;
 - Appropriate structures are in place, and programmes are realigned so that existing human resources could be more effectively utilized in the most efficient way;
- and
- The private sector (food industry) be encouraged or better yet, persuaded to adopt the HACCP methodology in their food operations and establishments.

4. **Service** - Improved the capacity of countries to review of food safety, food quality and other standards

Rationale

The achievement of food safety, food quality and food standards, requires the active participation and collaboration among public sector and private sector alike with critical support from the food industry and the food inspectorate. Oftentimes, the technical cooperation provided by regional and international organizations proves most valuable and the services are of great benefit to the country in question. The services provided by CFNI were therefore deemed essential to help the countries fulfill their goals, and to improve food hygiene throughout the food chain, facilitating the delivery of fresh, safe, clean and good quality food products in an efficient manner.

Service Description

The improvement of the capacity of countries to meet food safety, food quality and other standards has always been a major concern for CFNI. Consequently, the Institute has often taken a careful look at the past and present activities of PAHO, as well as those of other bodies/organizations, to make certain that the contribution offered by CFNI adds value to ongoing or past efforts and events. In this regard, CFNI, during the decade under review, continued to build on former achievements in the sub-region. Training courses were organized and national authorities were trained in a wide range of subjects linked to food safety, food quality and food standards. In some cases, training courses/workshops were conducted jointly by CFNI in collaboration with other partners, including the World Health Organization (WHO), the Pan American Center for Foot-and-Mouth Disease (PANAFTOSA), and the Caribbean Epidemiology Centre (CAREC). For example, in the case of training for the Global Salm-Surv, CFNI joined its efforts to conduct the activities related to surveillance of food-borne diseases and anti-microbial resistance in food-borne pathogens. The last such training was held in November 2009 in Barbados. At all times, participants were encouraged to seek opportunities for better networking in their respective countries and to build on the foundation laid at the workshops. In other cases, participants were reminded of previous promises to improve their national programs as a result of the training and skills acquired. Such was the case following the 2006 sub-regional intersectoral and inter-agency meeting where representatives from major regional and international agencies and organizations, including the private sector, engaged in in-depth discussion on how to better tackle the food safety problem at a foodborne disease surveillance and related activities meeting in Trinidad and Tobago. While leadership for that meeting came from CAREC, it was really a collaborative effort in which CFNI participated. Countries were encouraged to formulate national intersectoral committees to work together on common issues of food safety, etc. Some countries, however, still struggle to have functional committees to plan, respond to and prevent food safety problems utilizing integrative approaches.

Support has also been provided to countries, such as in the case of the OECS states, for which CFNI has been giving direct follow-up support to the 2003-2005 project on Modernization of the Legislative Framework for Food Safety, Animal Health and Quarantine, and Plant Health that was funded by USAID and executed by PAHO. Efforts are continuing to persuade countries to get the draft legislation enacted to modernize their regulatory programs. This insistence has come because, in the drafting of the laws under the USAID project, countries were assisted to develop country-specific laws that made provisions for

the respective, national, competent authorities to have clearer mandates for control of the national food safety system.

“Public and private sector personnel provided input into the development of this legal framework which in part focused on how best to establish mechanisms for ensuring a greater confidence in the production, marketing, and sale of safe foods for which appropriate controls could be developed to prevent, reduce, or minimize the risks associated with the production, preparation and consumption of such foods along the farm to table continuum.

Overall, in the revised Caribbean legislative framework, Ministries of Health and Agriculture, and by extension, Bureaus of Standards, the Ministry of Trade and Tourism in the beneficiary countries, were provided with tools and some key prerequisites to meet the demands of agricultural and health determinants that impact on human health and well being, socio-cultural concepts, food quality, food safety and food security. There were also provisions made to fill gaps in the old legislation and to streamline the new laws so that countries could better build their national capacity for human resource development to advance their food safety programs; assist trade liberalization and the institutionalization of trade-related matters; obtain data that would influence practices related to safe food processing, distribution, and use; and facilitate farmer and consumer education, as well as contribute to making improvements in the safe handling, storage and preparation of foods at different establishments. For instance, countries could better promote their public health education by using information that could be derived from risk evaluations to design communication packages to educate the public and private sectors in matters regarding risks associated with preparing and eating certain foods, whether raw or undercooked, or contaminated or improperly stored”.

In the case of other countries such as Guyana and Suriname, reviews had also been done with support from PANAFTOSA and PAHO offices in those countries, and discussions were held with other international partners and with members of the CARICOM Secretariat to evaluate the national programs. The findings showed that there were clearly (1) lack of human resource capacity within the Ministry of Agriculture and the Ministry of Health for the delivery of the technical cooperation program; (2) the need to build capacity for livestock production and management, while essentially seeking to identify thematic group(s) to serve as contact point(s) in the various related ministries, and to assist in the coordination of activities proposed and/or conducted by PAHO/WHO and its respective centers, as well

as by IICA and FAO. Specifically, with respect to Guyana, from a food security standpoint, it was recognized that with the previous support of the PAHO group of partners, especially PANAFTOSA, Guyana is recorded as the first Caribbean state to be awarded the Foot and Mouth Disease(FMD)-Free Status. Despite this FMD-Free status, the country was still unable to export beef for several reasons, including the inadequacy of a proper legislative framework, the scarce human resources available to execute the national veterinary programs, the lack of a modern abattoir, the inadequacy of food safety standards, and most critically, the absence of a well-equipped Veterinary Diagnostic Laboratory.

It should not be overlooked that CFNI noted with keen interest the links between food safety, food security, food quality and the new emerging concepts related to emerging diseases such as Avian Influenza and the recent development of the International Health Regulations (2005), all of which impact or have been impacted by common issues related to food safety and food control systems. Consequently, during the period under review, CFNI sought every opportunity to collaborate in those matters for which food safety, food quality and food security were important. In this regard, CFNI supported, within its manageable interest, the review of the situation analysis of countries in order to establish what actions have been, or need to be taken; and in order to help assess the national preparedness status and develop documented National Animal Disease and Emergency Preparedness Plans that would incorporate preparedness and responsiveness to the occurrence or prevention and control of Avian Influenza and prevent indirect food losses.

Outcomes

While there were, and still remain some constraints arising from national challenges, caused by limited national human and financial resources as well as infrastructure, the achievements of CFNI in the services provided, could not go unaccounted as they undoubtedly helped to strengthen the national food control systems in the respective Caribbean states, allowing them to have a more effective, and perhaps more cost benefit system in which their scarce resources could be greatly prioritized.

Next Steps

CFNI will continue to give support to the countries, given its skills and competencies and in keeping with the spirit of partnership during the period of transition to the Caribbean Public Health Agency (CARPHA) as required.

- 5. Service** - Developed and built national capacity to conduct food and nutrition security and vulnerability profiling

Rationale

The rationale for this training derives from the urgent need for technical personnel in the region to have sound knowledge of the root causes of poverty and food insecurity. They also need the skills and technical competencies to analyze the food and nutrition security situation accurately and be able to design and implement appropriate policies and programmes that will improve food security over time. Persons who work in these areas are usually trained in one or two related disciplines and have some practical experience, but are often confronted with the need to know more about several aspects of the subject. Moreover, these persons seldom have the opportunity to develop their competencies in all of the different levels and dimensions of food and nutrition security, which are needed to achieve the expected results.

Service Description

The Caribbean Food and Nutrition Institute (CFNI) has developed and conducted two sets of dedicated training workshops to enhance the capacity of mid-level government officials in the field of food and nutrition security and vulnerability profiling. Both the Food and Agriculture Organization (FAO) and Agricultural Ministries in countries collaborated in these initiatives. The first training (training of trainers) was a Regional level workshop held in Trinidad and Tobago over four days. The second set of training, the national level training, was held in Guyana, Suriname, St. Lucia, Jamaica and Belize.

To meet the specific objectives of the training, CFNI developed a curriculum and relevant training materials for the training course on food security and related topics. The training course was divided into three modules and each consisted of several training sessions:

- Module 1: Food Security and Vulnerability Analysis - Methods and Applications

This module comprised six training sessions and exposed participants to the concepts of food and nutrition security and vulnerability as well as utilization of existing data to identify the level of food security in a country. Participants were trained in the sustainable livelihood approach to vulnerability analysis (Figure 6) as well as the key steps in conducting food

and nutrition security assessments and vulnerability profiling (Figure 7). This module also examined some of the types of data collected in the various information systems in areas of trade, agriculture, health and nutrition, and education as well as surveys conducted in the national system such as household budgetary surveys, national censuses, health, nutrition, etc.

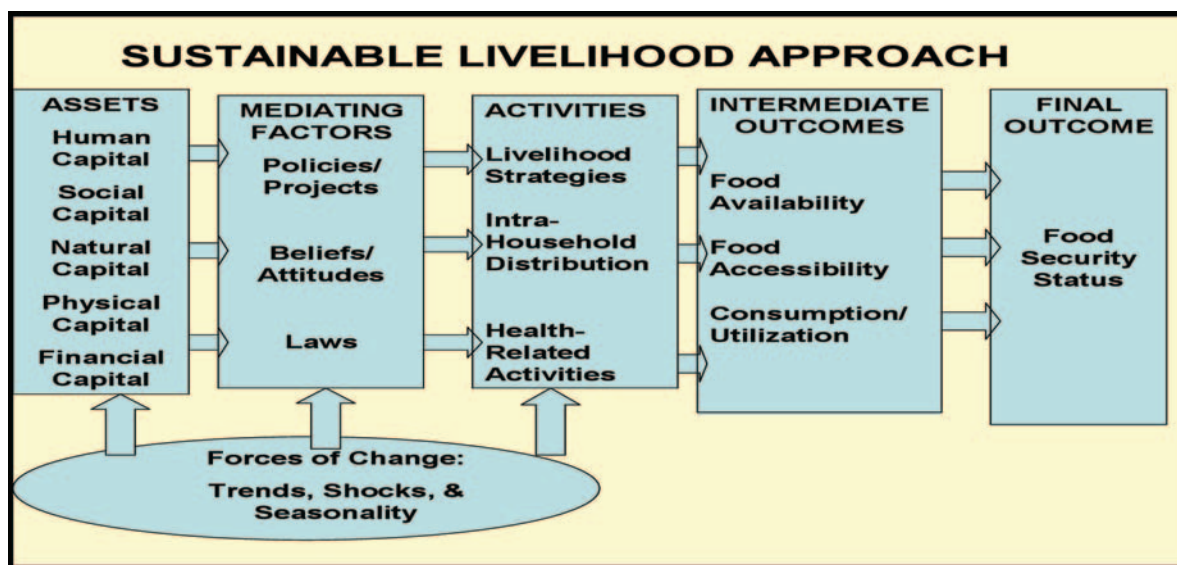


Figure 6: The Sustainable Livelihood Approach

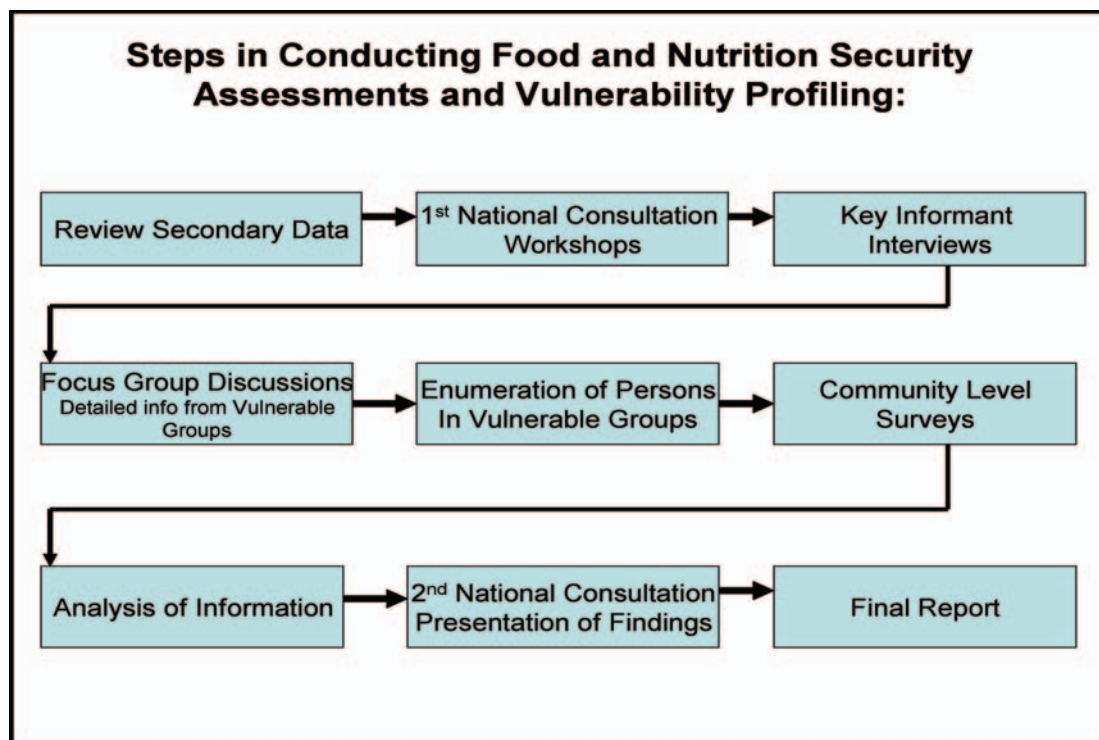


Figure 7: Steps in Food and Nutrition Assessments

- Module 2: Policy Formulation and Mechanisms for Inter-Sectoral Collaboration

This module, comprising three training sessions, provided participants with an understanding of the various elements of policy which operate for a positive food security environment. Session 1 provided a concise treatment of how policies can be used to influence food and nutrition security outcomes and focused on both macro policies (exchange rate, monetary and fiscal), and selected sectoral policies (agriculture, marketing, trade, etc). Session 2 introduced participants to the Logical Framework Approach (LFA), and to Problem Tree and Objective Tree analyses. The final session explained the concept of, and made the case for, inter-sectoral collaboration and coordinating mechanisms and presented country experiences on these.

- Module 3: Information and Communication Tools for Food and Nutrition Security

This module, comprising four training sessions, provided participants with an appreciation of information and communication technologies and tools for food and nutrition security. The first session discussed the importance of effective communication and provided guidance on how this could be achieved. Session 2 provided information on the key information and communication tools that are currently available, including traditional tools as well as the current digital media. The third session identified the various information and communication needs of different stakeholders in the development process, and the final session discussed the importance of producing effective communication products and provided guidance on how this could be achieved.

Outcomes

Regional Training

The four-day regional training workshop was convened over the period September 11-14, 2006, in Port-of-Spain, Trinidad and Tobago. Over four days, 24 participants from 11 countries were exposed to the training sessions described above. The training workshop was aimed at enhancing the capacity of mid-level government officials in the field of food and nutrition security analysis and producing a cadre of trained persons in the area of food and nutrition security analysis from the CARIFORUM countries. It was expected that persons trained at the regional workshop would serve both as trainers at the national level as well as focal points for identifying sectoral linkages and opportunities for collaboration at the national level in addressing food and nutrition security issues.

A draft set of core food security indicators for the region, and a listing of key food and nutrition security issues by country were among the tangible outputs from this training activity. Another major output was a draft bulletin on the food security situation in some of the member countries represented at the training. This exercise served to provide participants with practical experience in interpreting food security indicators and data, and also showed them some reliable sources of food security information on the World Wide Web.

National Level Training [See ANNEX 1: A3]

As a follow up to the regional training, National Training Workshops were held in Suriname (November 28-30, 2006), Jamaica (December 12-15, 2006), St. Lucia (February 12 - March 1, 2007), Guyana (March 21-23, 2007), and Belize (April 10-12, 2007). Some 85 persons participated in the training in the five countries. Participants trained at the Workshops were expected to be focal points in establishing and strengthening inter-sectoral mechanisms aimed at improving food and nutrition security in their countries. Ten technical presentations were made covering a wide range of topics in the area of food and nutrition security. The presentations ensured that participants were grounded in the key concepts, indicators, measurement tools and approaches and information sources critical to food and nutrition security analyses. Participants were also introduced to policy development issues.

The training was reinforced by practical sessions, group exercises and open discussions. In each country participants engaged in two practical sessions. The first was a “hands-on” experience with sourcing and generating food and nutrition security information and data from the internet. In the second practical session, participants were organized in three groups and were instructed to prepare specific sections of a food security bulletin. Using an already prepared format, they were assisted by the facilitators to access the data/information for the relevant sections including locating sources on the internet. .

Next Steps:

The Institute will continue to provide training along the lines described above to members of the multi-sectoral coordinating mechanisms (food commissions, food and nutrition councils, etc.) in member countries.

- 6. Product** - Established sustainable poverty alleviation and food security projects with small grants

Rationale

An integral part of CFNI's mandate is to enhance the quality of life of the people in the Caribbean through the promotion of good nutrition and healthy lifestyle behaviours. As part of the efforts to fulfill this mandate, CFNI implemented a Small Grants programme in member countries, as an important mechanism to reduce poverty and food insecurity.

Product Description

The programme targeted organized community-based groups with innovative small projects that:

- (i) Engaged in production activities for self-employment, home-consumption and income generation;
- (ii) Strengthened existing productive initiatives and improved productivity and competitiveness, and
- (iii) Implemented technologies appropriate for the production and processing of food.

In 2005-06, a total of \$120,000 in grants was allocated to 23 community-based groups in 10 countries at an average of \$5,000 per project. In 2009, a total of \$75,000 in grants was awarded to six groups: four in St. Kitts, mainly to displaced sugar workers, and two in Nevis. The Small Grants Programme (SGP) aimed at promoting innovative small projects to enhance food and nutrition security and alleviate poverty in Caribbean countries. The Programme benefited farmers, women's groups, youth groups, fisher-folks, indigenous peoples, agro-processors, students, and others. Project activities included: poultry/egg production; duck-rearing; aquaculture and agro-processing linked to tourism; bee-keeping; deep-sea fishing; environmentally-friendly lobster harvesting; vegetable and fruit production; seasoning and value-added condiments as well as green-house and organic farming, and poultry production.

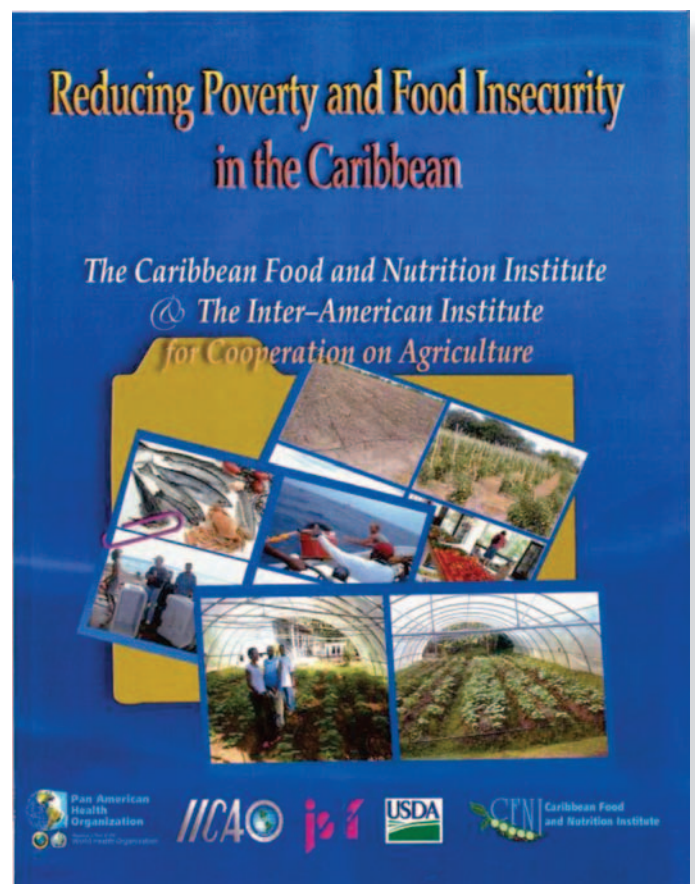
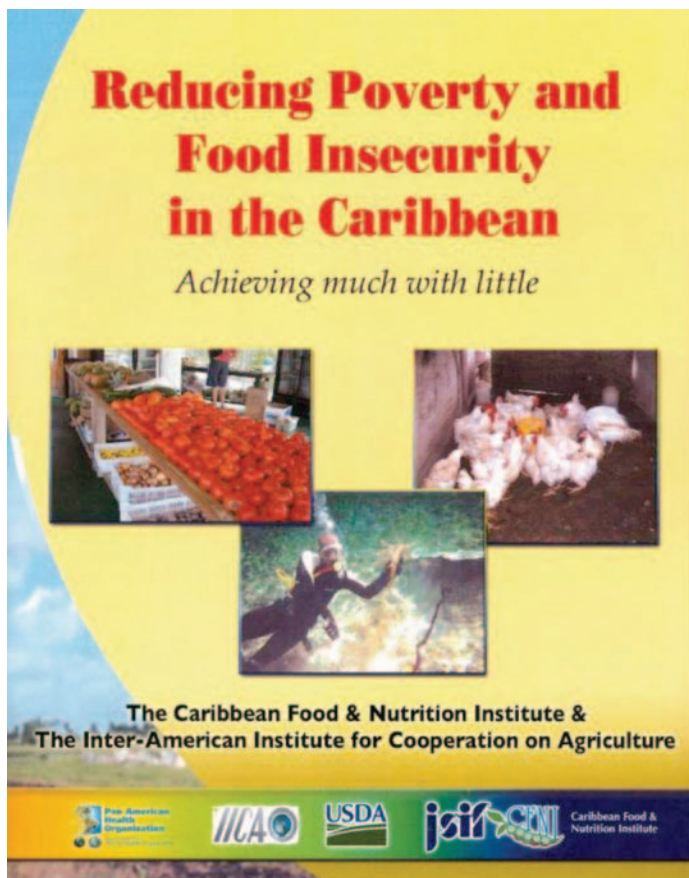


Figure 8: Books documenting the collaboration on Poverty & Food Insecurity

This CFNI SGP portrayed a high level of collaboration among several stakeholders – (Figure 8). Motivated by a need for additional resources to effectively implement the Programme, CFNI solicited support from the Inter American Institute for Cooperation on Agriculture (IICA). IICA, with continuing country presence and proven technical expertise, was requested to support several aspects of programme implementation, viz., disseminating the call for proposals, handing over of cheques to grantees, monitoring of the projects, providing technical support and acting as liaison between CFNI and the grantees. This collaboration between CFNI and IICA is underlined by a shared goal to strengthen the capacity of poor people and their organizations and provide them with access to the assets they need to overcome poverty and food insecurity.

Achievements

CFNI recorded several achievements of the Small Grants Programme, including the following:

- (i) Advancing beyond dialogue and discussion on poverty and food security to actual implementation of a concrete programme to achieve food security and reduce poverty;
- (ii) The Programme is now a basis from which CFNI would aggressively leverage funds to scale up existing project activities and implement new, larger projects; and
- (iii) The Programme facilitated the strengthening of collaboration and established new partnerships with other developmental agencies.

Outcomes

End of project evaluations revealed that the groups have benefited from income, employment and own-consumption from the projects. Moreover, all projects have established strong foundations for sustainability. Several lessons have been learned for this Small Grants initiative:

- Need to establish partnerships, especially at the institutional level;

- Importance of regular site visits to projects, both as a monitoring exercise but especially to provide guidance on project implementation;
- Necessity to develop a business plan to guide project implementation and to build sustainability into the projects;
- Need for regular extension services support;
- Need to establish an investment fund based on a subsidized user cost for facilities owned by the project/group, and
- Importance of training project participants in entrepreneurship.

Next Steps:

The Institute will continue to leverage resources to advance the poverty alleviation and food security agenda through small grants.

- 7. *Product*** - Established core standards for dietetic services in institutions such as hospitals and schools.

Rationale

The importance of nutrition to health, productivity, achievement and development is generally well documented in scientific literature and is well accepted. The challenge faced by many Caribbean states is their capacity to develop and consistently implement scientifically sound approaches to positively impact the nutritional status of their population. The emergence and persistence of many nutrition related deficiency disorders and chronic disease have accentuated the need for and importance of effective strategies to preserve or improve the nutritional situation of many vulnerable groups in these populations. Managing these nutrition related disorders have emerged as an area of national and regional importance as countries seek to tackle the issues of affecting their economic growth and development. Contingent on the advancement of Caribbean society is the ability of its citizenry to be productive, minimize the limited resources used in managing preventable health conditions

and reduce productive time loss. Access to quality service along the continuum of health care, from primordial to tertiary/rehabilitative, in the various settings where people live, learn, play and or work is beginning to receive widespread attention. Countries have been seeking to see how they can improve their rudimentary systems with their often limited and dwindling resources to provide cost-effective care.

In keeping with its mission 'to work with Caribbean Governments to enhance their ability to describe, manage or prevent the key nutritional problems and to increase their capacity in providing effective nutritional services, CFNI has supported countries over the past decade to look at institutions as key settings in which to provide cost-effective nutrition interventions. Two key institutions targeted are hospitals and schools, however, some countries have also sought and received some assistance in addressing their geriatric facilities and prisons. Targeting of populations in institutions, where captive audiences exist, provides a cost-effective approach to promote good nutritional habits at all stages of the life cycle continuum and manage various health conditions. Appropriate interventions at the institutional level have the potential of contributing to the control of morbidity, mortality and thereby directly manage health care cost while improving national productivity.

Product Description

A resource base has been generated by CFNI to support the development and improvement of systematic and scientific institutional dietetic services mainly in schools and hospitals in member states. A structured process which involves varying aspects of this improvement project is underway in thirteen countries. The main aspects of the establishment of core standards for dietetic services in institutions such as hospitals and schools are described below.

1. Discourse on a conceptual framework for effective institutional dietetic services and the core components. There are six main components that constitute a structured dietetics system. The main inputs into dietetic systems are obtained when services are first accessed (admissions). Data collected at this entry point identify the clinical situation of the target group and are used to generate nutrient standards which guide therapeutic nutrition education and counseling initiatives. In institutions where meals are provided, these nutrient standards are converted to appropriate meals standards and structured menus which serve as the nucleus for the delivery of administrative dietetic services. Access to appropriate monitoring and

referral services, are crucial to both defining the needs and delivering clinical and administrative dietetics services. Understanding and fostering linkages between the institution and the community are crucial to the success of the institution and the clientele. Countries need to understand that these services transcend primary, secondary and tertiary prevention strategies and need to be appropriately situated within the context of an overall public health nutrition program.

2. There are tools for the evaluation/assessment of dietetic services/programmes in institutions including rapid assessment methodology and detailed scientific evaluation. Structured evaluation instruments and implementation manuals are available to assess resources, implementation and outcome of all aspects of the dietetic services. Either of the two methodologies can be implemented based on the needs of the institution and expertise available.
3. Core dietetic standards have emerged over the past decade to define minimal criteria of scientifically structured dietetic services. The key elements are diet and meal census data; nutrient and meal standards; regular and therapeutic menus; standard analyzed recipes; production sheets, schedules and records; sanitation and safety checklists; monitoring and quality assurance checklists and reports; layout and flow of workstations, goods and services; inventory of equipment and supplies; and continuing education and training plans and sessions appropriate to service delivery standards.
4. Standard operational systems and procedures have been compiled for implementing the core clinical and administrative dietetic services. The roles and responsibility of the various members of the health care team essential to the delivery of dietetics services have been outlined. Ensuring the inclusion of nutrition in the management of institutionalized (mainly hospitalized) persons have been addressed with emphasis on diet prescription, ordering and interpretation as the trigger for initiation of administrative dietetic services. Several foodservice subsystems have been defined, focusing on the provision of nutritious and wholesome meals at minimal cost in an informed and conducive environment.
5. Training plans and guides for selected persons involved in dietetics services have also been developed, including several that are clinical- and administrative-related.. Most of these documents deal with a specific topic or focus for a specific target

group. Noteworthy is the development of a full course guide consisting of three modules for the training of all levels of non-technical foodservice workers from entry level to foodservice supervisors. Module 1, General Nutrition for Institutions was designed to enable participants to plan nutritionally adequate meals and develop appropriate menus for residents/clientele of selected institutions. The second module, Foodservice Subsystems, focused on identification of the needs, standards, principles and development of plans for each foodservice subsystem towards implementation of the planned menu. At the end of module 3, Management of Foodservice Operations, participants should be able to critically review and determine the resources necessary to supervise foodservice operations to meet established quality standards. There are supporting tutor's guides and students' manuals for each module.

6. There are dietetic data management and quality assurance systems addressing core indicators of dietetic services, data collection and monitoring tools/checklists, and reporting structure. Variables to ascertain the core data have been identified along with data collection and monitoring instruments. The process from collection, collation, analysis and reporting is being defined and the utility of this information at the department, institutional and national levels is being promoted.

Other technical documents have been developed and are being used by countries to support the delivery of clinical and administrative dietetic services. In 1977, CFNI supported the development of and published the first Meal Planning for Diabetes for the Caribbean using the Food Exchange Meal Planning System. Since then this system has been revised many times for diabetes and applied to other disease states, renal disorders, cardiovascular disorders, and gastric disorders. This has resulted in a range of meal planning guides, often with conflicting nutritional information, both internationally and locally. In 2010, using the most up to date food composition data for Caribbean foods, a combined food exchange planning system was prepared for use in general meal planning, regardless of the disorder. This is the only known venture to make available a single Food Exchange Meal Planning System which combines nutrients related to multiple disorders, to dietitians and nutritionists in the Caribbean.

Outcomes

1. Increased awareness at senior governmental and managerial levels in many countries of the science behind the delivery of meals in institutions and the opportunity it provides to promote good nutrition and health to the general population.
2. Objectively verifiable data on the status of nutritional care and services in several main/referral hospitals and school feeding programmes in many member states.
3. Greater interest in the standardized operations and procedures required for systematic and controlled dietetic services.
4. Increased capacity to implement various improved aspects of clinical and administrative dietetic services among education personnel (principals, teachers and education officers) and health personnel (medical, nursing and administrative) as well as dietetics technical and non technical personnel.
5. Access to material resources and tools for day to day operation of structured dietetic services.
6. Established nutrient standards appropriate for specific target group in the institution.
7. Needs and service oriented data and information for evidence-based decision making regarding dietetic services at institutional and national levels.

Next Steps

1. Wider dissemination of information to promote greater understanding among non-nutrition and dietetic personnel in regional and institutional organizations that advise member states.

2. Institutionalization of the structured dietetic systems and standards at regional level.
3. Fostering linkage with regional training institutions to make their programme more inclusive of and responsive to needs of the region.
4. Adjusting institution and country specific information and make it more applicable to a wider regional audience.
5. Production and dissemination of resource materials.

8. **Product** - Developed Infant and Young Child Nutrition Policies for the Region

Rationale

Appropriate infant and young child feeding not only strongly promote healthy physical growth and mental development in childhood, but epidemiological evidence indicates that their effects may extend into adulthood. The consequences of inappropriate feeding practices in early childhood are major obstacles to government efforts towards the achievement of the Millennium Development Goals and attainment of sustainable socioeconomic development.

During the last two to three decades in the English-speaking Caribbean, there has been significant improvement in young child nutrition with the majority of countries currently recording low rates of undernutrition. However, clinic data reveal rising rates of overweight and obesity exposing affected children to an increased risk of a lifetime of negative health consequences.

Countries are thus confronted with a pattern of child nutrition that may comprise localized pockets of undernutrition, the emergence of childhood obesity and the persistence of relatively high rates of iron deficiency anemia. This challenging profile as well as contributory factors such as the barriers that hinder the adoption of optimal infant and young child feeding practices, provides the rationale for continuing efforts to improve young child nutrition. The threats posed by poverty and the HIV/AIDS epidemic present additional challenges.

The Global Strategy for Infant and Young Child Feeding endorsed by WHO member-states in 2002 is aimed at revitalizing global commitment to appropriate infant and young child nutrition. The Strategy states that governments carry the primary obligation to develop, implement, monitor and evaluate a comprehensive national policy and action plan for infant and young child feeding to ensure a better use of resources and coordination of efforts. It defines, as an international public health recommendation, optimal feeding as exclusive breastfeeding for the first six months of life; and, the introduction of nutritionally adequate and safe complementary feeding from the age of 6 months, with continued breastfeeding for up to two years or beyond.

The Global Strategy emphasizes intersectoral action for creating a supportive environment that will enable mothers to make and adopt informed choices about optimal infant and young child feeding practices. New emphasis is placed on women and children in special circumstances including undernourished children who need immediate access to better food and care, low birth weight infants, young children who are victims of emergencies and HIV-infected women who need adequate counselling and support for implementing an informed decision about infant feeding.

Some of the interventions in the Global Strategy are already included in existing national nutrition and/or child health strategies, policies and programmes in the sub-region. However, there was need to review and update these policies and plans based on the principles, targets and recommended priority actions set out in the Global Strategy and in light of the changing epidemiological profile of child health in the Caribbean.

Product Description

CFNI assisted the Ministry of Health in six countries with the organization of national consultations for the development of national Infant and Young Child Feeding (IYCF) Policies in accordance with the principles of the Global Strategy. Participants included representatives from government, non-government and private sector agencies, among them, technical officers from the Ministries of Health, Education, Gender Affairs and Finance, health professional bodies, employers, community-based organization and the mass media. The involvement of this spread of participants in the development of the policy was aimed at ensuring a sense of ownership and increased level of commitment.

The objectives of the consultation were (a) to increase awareness of the aims and objectives of the Global Strategy; and (b) to obtain consensus on issues to be addressed in improving infant and young child feeding practices and proposed intervention strategies. In group sessions, participants reviewed scientific evidence for current infant and young child feeding recommendations, and discussed trends in local infant and young child feeding practices and the main determinants underlying these trends. They also assessed progress in implementation of existing policies and programmes in relation to the promotion of young child nutrition. In the review process, particular attention was given to the status of implementation of internationally recognized policy instruments for the promotion and support of optimal infant and young child feeding practices such as the Convention on the Rights of the Child, the International Code of Marketing of Breast-milk Substitutes and the ILO maternity protection conventions. The critical role of the health services was also examined, including an evaluation of efforts for attaining the standards of the Baby-friendly Hospital Initiative. Based on this analysis, participants defined objectives for the national IYCF Policy, made recommendations on priority policy actions and strategies, identified monitoring and evaluation indicators and specified the roles of relevant stakeholders in the various sectors in policy implementation.

Outcomes: [See ANNEX 1:A2]

- Increased awareness among stakeholders of the principles of the Global Strategy for Infant and Young Child Feeding and the current status of young child nutrition in their respective countries including major factors influencing feeding and care practices.
- Increased awareness among stakeholders of feasible and practical actions for the adaptation of recommended interventions in the Global Strategy in local settings.
- Draft infant and young child feeding policy documents.

Next Steps

- Advocacy and technical support for the formal adoption of national policies and full implementation of recommended policies and strategies.

9. Product - Developed a regional Anemia Control Policy for use by member countries

Rationale

The public health problem of iron deficiency anemia persists in the region despite the various strategies which have been applied in efforts to correct the situation in individual countries. Data from surveys conducted in the region indicate that there is a moderate to severe problem affecting several population groups – children, adolescents, pregnant women and post-partum women. In some countries the problem extends to the general population.

As a consequence of its effects on health, anemia can lead to a reduction in work capacity and endurance. Children who are anemic can become inattentive, irritable and fatigued. They have shorter attention spans and have poorer school achievement. The ability of affected adults to care for their families, carry out daily tasks and earn incomes can be affected. There are also economic consequences on a national scale, resulting from lowered energy and productivity of the workforce.

With the health risks, physical and mental impairment and economic consequences of anemia, it is important that the appropriate strategies be applied for its prevention and control. This includes the proper screening, prevention and treatment of the condition when detected and the management of any complications which may arise.

Over the past forty years the countries of the region have made efforts to assess the situation and to implement public health programmes. Supplementation, fortification, dietary diversification and other relevant public health measures such as control of helminthes, have been applied to varying extent in the countries. However, these programmes have been plagued by operational problems related to supply and distribution management, programme coverage, human resource management, communication, community involvement and poor collaboration among stakeholders or participating organizations. Additionally, children are generally not targeted directly by most of the strategies, which focus mainly on pregnant women.

There was therefore a need for the creation and application of relevant procedural documents to guide the implementation of effective screening and management procedures for the prevention and control of iron deficiency anaemia. Additionally, national anaemia

prevention and control policies are seen as the ideal way to apply cohesive strategies that improve programme planning and coordination.

Product Description

To guide the implementation of strategies which impact on both the direct and contributing causes of anaemia, CFNI has developed a Regional Protocol for the Detection, Prevention and Treatment of Anemia in Maternal and Child Health Clinics in the Caribbean. This protocol takes into account the high prevalence of anemia in some countries of the region, current programmes and recent research and international recommendations as they apply to pregnant women and young children in the maternal and child health clinic setting. Basic information on anemia, its prevalence and consequences, are outlined. Emphasis is placed on screening, supplementation and use of iron-rich and fortified foods as well as public health measures such as control of malarial and other parasites. The information in this protocol includes procedures for anemia diagnosis and assessment, and the detection, prevention and management of anemia at various life stages where there may be vulnerability to deficiency diseases: pregnancy, post-partum, infancy and early childhood.

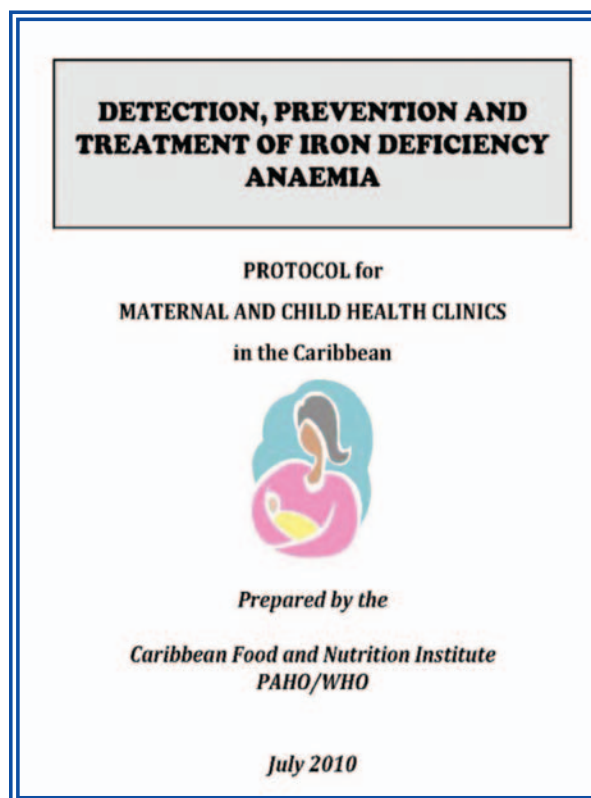


Figure 9: Anaemia Control Protocol

Several requests from several countries for assistance in the development and review of protocols and guidelines or the incorporation of actions to assess, prevent and control anemia in national food and nutrition policies have been accommodated. A country specific protocol was developed for Guyana, and has been implemented in clinics throughout the country, following training of primary health care workers by means of the training of trainers modality. A training package with accompanying trainer's guide, activities booklet and PowerPoint slides, has been made available to the country.

Guidelines for Detection, Prevention and Treatment of Iron Deficiency Anemia in Children have been drafted for Anguilla – (Figure 9). These guidelines, which are being finalized, are intended to help health care workers to implement effective screening and management procedures for the prevention and control of iron deficiency anemia in children from birth to 12 years old, through use in health centres and schools.

CFNI has also assisted Guyana in the preparation of a National Policy for the Prevention and Control of Anemia. The policy incorporates multisectoral involvement in the coordination of efforts by various entities to improve the detection of anaemia and the implementation of recognised strategies for prevention and control of iron deficiency anaemia. The policy also includes guidelines and recommendations for the control of anaemia caused by other dietary factors, intestinal parasites and malaria. The policy provides a foundation for the implementation, monitoring and evaluation of dietary diversification, food fortification and iron supplementation as well as public health and disease control measures to improve nutritional well-being through the prevention and management of iron deficiency anemia (IDA).

Outcomes: [See ANNEX 1:A4]

- Regional anemia prevention and control protocol developed.
- National anemia prevention and control protocols and guidelines developed.
- Countries assisted in the revision and review of anemia prevention and control guidelines.
- Anemia prevention and control included in national food and nutrition policies.

Next Steps

More widespread distribution of the regional anaemia prevention and control protocol is planned, with countries being encouraged to adapt the protocol to their specific situations. Other countries will also be encouraged to formalize measures for tackling the problem of anemia in national policies.

10. **Product** - Developed draft nutrition policy for schools in the region

Rationale

Studies have shown that school-based programmes when properly planned and implemented can play an important role in promoting healthy eating behavior throughout the life cycle.

Schools are ideal settings for nutrition education and promotion for several reasons:

- Schools can reach almost all children and adolescents.
- Schools provide opportunities to practice healthy eating.
- Skilled personnel are available; after appropriate training, teachers can use their instructional skills and food service personnel can contribute their expertise to nutrition education programmes.
- Evaluations in the United States and other countries suggest that school-based nutrition education can improve the eating behaviors of young persons.

In the school environment, classroom lessons alone might not be enough to effect lasting changes in students' eating behaviours. Students also need access to healthy food and the support of persons around them. The influence of school goes beyond the classroom and includes supportive messages from peers and adults regarding foods and eating patterns. Students are more likely to receive a strong, consistent message when healthy eating is promoted through a comprehensive school health programme.

Most countries in the Caribbean have some form of a school feeding program in place in their school system and physical education is a subject on the school curriculum at all schools. For any school nutrition and health policy to be successful, we must look closely at these two areas and ensure that standards exist, there is regular monitoring and evaluation and revision is done until positive results are noted.

These programmes cover a variety of models but many were supported in the past by donations from international agencies such as the World Food Program (WFP), NGOs (both local and international), and the government. Over the last 5 years, the WFP has changed its focus in the region and support for these programmes has been considerably reduced. Governments therefore have been required to put more resources into the feeding programs and as a result there has been increased interest in evaluating and re-structuring programmes where necessary.

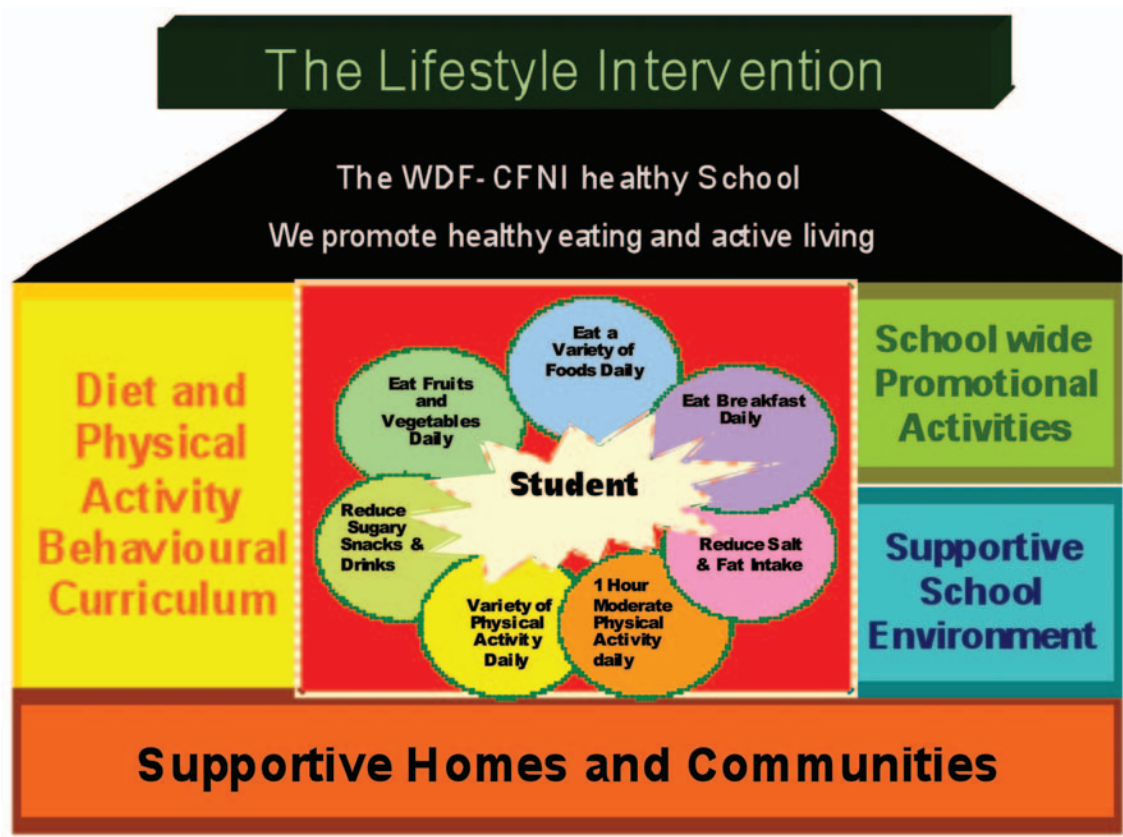


Figure 10: Components of a Nutrition Policy for Schools

Achievements

- At the request of the relevant member countries, CFNI was asked to carry out evaluations of the school feeding programmes in Jamaica, St Vincent and the Grenadines and Trinidad and Tobago.

- As part of these evaluations and subsequent follow-up interventions CFNI produced instruments, training manuals that were used in the evaluations.
- Based on the evaluations done in Jamaica, CFNI planned and conducted pilot school feeding programs in selected areas. This involved the development and publication of food service manuals and guidelines and the development, testing and evaluation of cycle menus in the pilot schools.
- The manuals were also used in the training of food service personnel in Jamaica and elsewhere in the region.
- See ANNEX 1: A6 & B5.

Some of the consistent findings of these evaluations point to the need for comprehensive school nutrition and health policies in the region (Figure 10) that would address issues such as:

1. Lack of integration of the programmes with other sectors such as agriculture and health or with areas in the education system such as curriculum development;
2. Absence of linkages with home and community;
3. Lack of appropriate monitoring and evaluation systems; those for the monitoring of the quality of meals, nutritional status of children and acceptability were inadequate;
4. The need for training and sensitization of personnel at all levels;
5. Shortage of appropriate equipment and technical resources;
6. Lack of standardized menus and recipes, and
7. Shortcomings in the areas of food safety and hygiene.

Next Steps

- Based on lessons learnt from the evaluations, CFNI is in the process of developing a framework for the development of comprehensive school health and nutrition policies in the region. This will be published and disseminated to member countries and used as an advocacy tool.
- CFNI will also work with countries to develop food based dietary guidelines for schools as part of an overall school nutrition and health policy. The first such initiative is planned for Trinidad and Tobago in 2011.
- CFNI will continue to provide technical support to countries in the planning and implementation of evaluations of their school feeding programmes. One such evaluation is scheduled to begin in Grenada in 2011.



ACHIEVEMENTS IN SURVEILLANCE & RESEARCH

1. **Product** - Developed national nutrition surveillance systems with core indicators and assisted adaptation by member countries

Rationale

Food and nutrition information is needed for immediate and medium to long term decision-making relating to the region's health, nutritional needs, hunger, agricultural policies and programmes. In the Caribbean, nutrition and health data are collected on a routine basis within the general health system, but rarely become health or nutrition information. To transform raw data to information requires a systematic approach with a planned strategy for action. Food and Nutrition surveillance systems in the region have focused mainly on nutrition status (anthropometric indicators to be exact) operating out of a unit/department within the Ministry of Health.

The main objectives of these systems are to:

- i. Provide useful country background data for use in project and research;
- ii. Provide useful information on nutrition status of the population to be used for planning, policy development and evaluation;
- iii. Identify target groups at risk and plan for intervention;
- iv. Monitor interventions and services;
- v. Provide information on the production and utilization of foods, and
- vi. Assist in making correct and timely decisions in health and related sectors.

The main constraints to the development and expansion of effective food and nutrition surveillance systems in the Caribbean are outlined below.

- i. Many of the Caribbean countries often lack the human technical capacity to process, analyze and interpret information. In addition, the government services often cannot retain trained staff because of low remuneration.
- ii. Decision-makers are either not convinced or unaware of the usefulness of the information produced and how it will impact on planning and decision making. This may be associated with the poor presentation of reports and the lack of power of the nutrition personnel.
- iii. Countries often utilize only data generated by the health sector, despite the fact that it is critical to interpret data after looking holistically at data from a number of relevant sectors. The development of food and nutrition coordinating bodies, another CFNI programme area, is critical to the functioning of the food and nutrition information systems.
- iv. Information is often not presented in a timely manner nor in formats that can be easily interpreted and understood by a range of audiences.
- v. There are inadequate linkages between the different components/areas of the surveillance system, for example, between the data collection personnel and those responsible for analysis, reporting and use.

Achievements

In an attempt to address some of these constraining issues, CFNI has undertaken a number of initiatives as part of its overall Technical Cooperation program in the regions. These are:

- **Needs Assessment**

CFNI developed a format for the evaluation of food and nutrition surveillance systems in the region and conducted detailed evaluations in Guyana, Jamaica, St. Vincent and the Grenadines. The process included:

1. Evaluation of the systems from data collection to information usage;
2. Presentation of a model including management structure;
3. Identification of appropriate indicators and data sources;
4. Development of analysis and reporting formats;
5. Determination and identification of resources for operating the system, and
6. Preparation of an implementation plan.