

Planning a Food and Nutrition Surveillance System: The Example of Honduras

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Abstract: A description of the preliminary steps in establishing a food and nutrition surveillance system in a country of Central America is presented in outline. The system will provide the basis for policy formulation, program planning, and evaluation. It is organized

on the basis of the participation and resources of seven national agencies and will operate at the local, regional, and central level. (Am J. Public Health 68:749-750, 1978.)

Comprehensive strategies to detect, control, and prevent problems of human nutrition require accurate, reliable, and up-to-date information on a wide range of causal and contributing factors defined by baseline assessment.¹ This article describes a nutrition surveillance system in Honduras, Central America, that will provide the basis for effective policy formulation, program planning, and evaluation.

In common with many other countries of Latin America, the Republic of Honduras has a complex and widespread problem of malnutrition arising from anomalies in the production, consumption, and utilization of its food supply. While there have been two comprehensive assessments of nutritional conditions, conducted in 1966 and 1975,^{2, 3} the Government lacks the necessary information systems and decision-making mechanisms for policy formulation and program planning that would permit the progressive resolution of the problem.

It was evident from prior reports and surveys that a wide range of factors were involved in the causation of the

problem: the physico-chemical, biological, and sociocultural environment had a major influence on the quantity, quality, distribution, and price of the available food supply; dietary patterns provided inadequate intake of energy and nutrients for large sectors of the population due to a number of factors affecting access to supplies, purchasing power, and educational standards; host factors included increased requirements due to frequent infectious processes, in turn resulting from a high infectious load and a lack of basic hygiene facilities and practices.

With this background it was possible to identify the kind of information that would be required for a surveillance system and the types of data upon which it would be based. In turn, this permitted the definition of sectors from which data and information would be derived and the identification of agencies and institutions that might be expected to provide such material. Most of these agencies had their own statistical units and information collection systems staffed by full-time personnel.

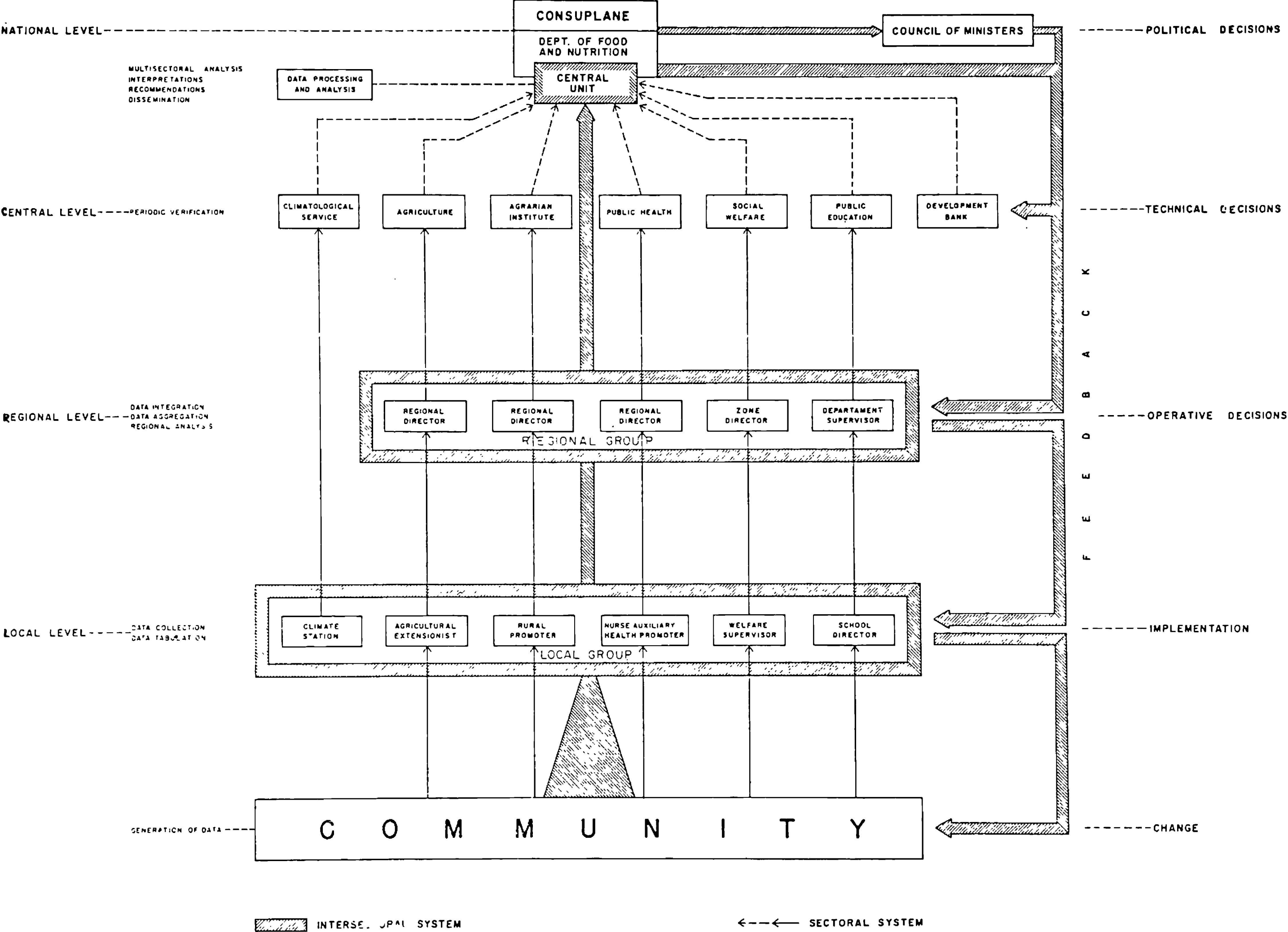
A specialized intersectoral system was then designed which would permit selective use of existing data, integrated analysis and interpretation of information, and the generation of recommendations for sectoral action.

The Surveillance System

The surveillance system was organized on the basis of participation and resources of seven agencies or services and will operate at three distinct levels: local, regional, and central. This system is demonstrated in graphic form in Figure 1.

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FIGURE 1—Food and Nutrition Surveillance System



The solid lines represent the channels of the existing sectoral information systems while the dotted and shaded lines represent those of the planned surveillance system. The system has two directions of flow: from the periphery to the center and from the center to the periphery.

The peripheral unit of the system is the community itself, usually a village and surrounding area involving up to 5,000 inhabitants. At this level the system will be operated by an intersectoral group which will be responsible for collecting data related to climate, agricultural production, health, welfare assistance, and primary education. The group will also undertake a number of simple procedures, including verification, tabulation, and summarization of data; at specified intervals the accumulated data will be assembled and transmitted to the corresponding regional group. The local group will receive from the regional level a summary of the data collected in the region (including its own contribution) together with specific recommendations for action in its area of influence.

At the regional level, a similar intersectoral group will be established to assess regional conditions, supervise and support local activities, and recommend action and commit resources on their own initiative. Data from this level will be transmitted to the central level only in summarized form and at specified intervals. The primary responsibility for this work will rest with the agency which has personnel most suitably trained for the task.

At the central level, a unit has been established in the nutrition section of the National Economic Planning Council (Consejo Superior de Planificación Económica-CONSUPLANE) to direct and coordinate the overall development of the surveillance system. The administrative functions of this central unit will be to plan, supervise, support, and evaluate the routine operation of the system at the central and regional levels. Its technical functions will be to receive, process, and analyze summarized data and information from regional surveillance groups. The central statistical units of participating sectors will be actively involved in this process. The interpretation of indicators will be undertaken by a multidisciplinary group of experts consisting of the nutrition section staff with additional expertise available on a consultant basis, where indicated. On the basis of their interpretation, specific recommendations for sectoral action will be formulated.

These recommendations will, in turn, be transmitted by CONSUPLANE to the Council of Ministers where the appropriate political decisions will be taken.

Indicators

In view of the limited resources available for establishing a surveillance system in Honduras, it was considered unrealistic to use data other than those currently available. This approach was fundamental in obtaining the cooperation of the agencies, whose resources were limited and who had a major interest in improving existing services. From the range of data available, a series of simple indicators have been formulated to reflect change in causal and contributory factors in the following areas:

- **Food Supply:** Rainfall, crop predictions, crops harvested, land tenure;

- **Food Consumption:** Retail price of basic cereals and pulses, dietary patterns, school absence, food rations distributed;

- **Biological Utilization:** Mortality data, morbidity data, birth weight, growth data, immunizations.

In the area of food supply, the selected indicators are largely self-explanatory. In the area of food consumption, routine surveillance and retail pricing is carried out by the National Development Bank. Intake of selected dietary staples by pre-school children will be established in simplified manner on pre-coded questionnaires utilized by village health workers. Sickness absence rates will be used as an indirect indicator of health during school age and also to indicate loss of nutritional benefits derived from the national school lunch program. Food rations refer to meals distributed for malnourished or destitute children by the Social Welfare Service. At the level of biological utilization, a number of indicators have been developed based on mortality and morbidity data. Growth and development data, including birth weight and growth patterns in childhood, provide a range of indicators that have been widely recommended for surveillance purposes.⁴

For each indicator, the type and source of data has been defined as well as the personnel responsible for their routine collection. The basis for interpretation of each indicator has been described, and critical levels or criteria for action have been established on a tentative basis. Experience will indicate the need for change in action criteria in accordance with the behavior of the indicator in practice, and in relation to the resources available for appropriate responses.

The instruments will be used principally by community-level personnel including village health workers, agricultural extension agents, welfare supervisors, and others. At the local level, surveillance procedures will be incorporated in the basic training of field workers of the participating sectors and in their continuing education program.

This surveillance system is now functioning in a pilot area of Honduras in January, 1978; it will continue for a one-year period. On the basis of this experience, the design of the system will be modified as appropriate, prior to extending it progressively to other areas of the country. It is expected that the system will be fully operational on a national basis by 1980.

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