

FOOD CONSUMPTION DATA AS BASIC INDICATOR  
IN DEVELOPMENT\*

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It is indeed a real privilege to be invited by the Philippine Statistical Association at its 1978 Annual Conference and to participate as a resource speaker on the theme "Dialogue Between Producers and Users of Development Indicators". My participation here stemmed out from the fact that our agency is a producer of field and technical data and if I readily accepted your kind invitation it is because I am very much interested to hear the views of some of the users of our findings. Although we have always been and still are striving to impart the utmost accuracy and reliability to our data under the prevailing conditions by involving statisticians and economists as well as systems analyst in both the planning and evaluation stages of our food consumption survey (FCS), I am sure that there can still be room for further improvement specifically in timeliness of the data. Nothing could please us more than to increase the usefulness and the practical application of the information generated by our studies and surveys. Allow me therefore to brief you on the household food consumption surveys.

**OBJECTIVE**

The Food & Nutrition Research Institute (FNRI), NSDB has been conducting regional food consumption surveys for the last two decades. Its main objective is to assess the food situation and nutritional status of population groups for the formulation of appropriate nutrition programs as well as for development planning and public information.

The assessment of the nutritional status of the population constitutes one of the most invaluable and relevant indicators

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## FOOD CONSUMPTION DATA AS BASIC DEV. INDICATOR 57

of the quality of life of the people especially in a developing country like the Philippines. Nutrition data serve usefully as basic elements for policy decisions and program planning by various fields and sectors, most important among which are health, economics, food production, marketing and distribution, education, food industries and general social and family welfare. To cite an example, in the Five-Year Philippine Development Plan, 1978-1982, an increase in energy and protein intake among households with existing deficiencies is an expected result over the Plan period.

The vigorous development projects being generated and implemented by all sectors have served to heighten the demand for and to expand the potential of the nutrition survey system. The collection of additional social and economic correlations has further widened the applicability of the nutrition survey findings. Thus from these nutrition survey results, long term plans include studies and establishment of a planning and projection system of the country's food and nutrition situation over and at different periods of time. Such information is now eagerly awaited here in the Philippines and by international agencies concerned with nutrition.

### DATA COLLECTION AND SAMPLE COVERAGE

The food intake data are collected by means of one day food weighing technique in the kitchen of sample households. All foods to be consumed for the whole day are weighed by trained dietary researchers. These include the following: 1) raw foods which have to be cooked and/or those eaten raw, 2) cooked and/or processed foods ready to be served, 3) all snacks and such items as coffee, sugar, cooking oil and the like. Any leftover, plate waste and other wastage are later deducted.

In the 1960 decade FNRI conducted yearly nutrition surveys on a regional level. It took more than ten years, from 1958-1969, to cover nine out of ten regions of the Philippines. Because of this time lag, the combined results cannot be taken, strictly speaking, as a national estimate on the country's food and nutrition situation. In answer to local (provincial) needs, current FNRI food consumption surveys are undertaken at the rate of three regions a year during the past three years.

Since 1974, a series of food consumption surveys have been conducted annually by FNRI as follows:

<i>Year of Survey</i>	<i>Area</i>	<i>Sample Households</i>	<i>Scope</i>
1974	Luzon	680	urban-rural
1975	Eastern, Central and Western Visayas	1,503	
1976	GMA/Metro Manila, Bicol and Central Luzon	1,299	) regional, provincial urban-rural
1977	Ilocos, Cagayan Valley and Southern Tagalog	1,311	
1978	Philippines	2,800	) national

The sample design utilized in the household surveys varies very slightly from year to year depending on the scope of food consumption estimates. Generally, the multi-stage (up to three stages) stratified design was the basis of selection of sampling units. Stratification was done by region, province, and urban-rural clustering of areas. Sampling units were cities/municipalities, barangays and the households. The number of sample covered in 1975 to 1976 was about 300 to 500 households per region while that for 1978 involved 2,800 households for the whole country.

The 1978 nationwide survey being conducted throughout the country is the first attempt of FNRI to implement this type of field data collection of such a magnitude. In addition to the one-day intake gathered by means of the food weighing technique, the previous day's intake was likewise taken through the food recall method, so that a total of two days' consumption is taken for the household. Further, FNRI has expanded the survey to include collection of one day dietary intake of 0-4 year-old children. Relevant information on the characteristics of the households and their individual members including certain environmental/ecological conditions are also gathered to give refinements to consumption data. All the seven days of the week are equally distributed among the survey areas. Besides food consumption data, other nutrition information collected are anthropometry and hemoglobin values of household members.

## PRACTICAL APPLICATION

There are varied present and potential uses and users of food and nutrition survey data and analyses. Dr. Marguerite C. Burk, FAO consultant to FNRI summarizes these as follows:

## FOOD CONSUMPTION DATA AS BASIC DEV. INDICATOR 59

1. The variations in diets and dietary adequacy among major population groups, currently reported by region, urbanization and separately by household size, income, food cost, occupation are primarily used for public information and education by FNRI and other agencies.
2. Findings from analyses of relationships of variations in food patterns and nutritional adequacy of diets of households and individuals to demographic and socio-economic characteristics, are needed for targeting nutrition action and educational programs; for national planning; for economic development; agricultural production and marketing; for public decision-making on policies and programs affecting incomes, food distribution, food quality, etc.; and for use by consumers in general.
3. The regional surveys by FNRI can supply a wide variety of data much needed for food demand analysis and market research.
4. Diets at lowest cost which are nutritionally adequate and culturally acceptable can be developed from survey data results for such purposes as nutrition education, nutrition program planning and evaluation and setting up of a minimum wage.
5. Household food survey data are directly useful in measuring variations in the allocation of food resources (both money and non-money in the form of home-produced food) by households of different sizes and sex-age composition. Such data can be used in consumer education to demonstrate adjustments in food expenditures required by larger families, families with varying sex-age composition, by rural to urban migration, by greater emphasis on home garden, by increasing food prices, etc.
6. If information on participation in various types of supplementary food, educational and/or government income or employment programs is obtained along with food and family characteristics data, the FNRI survey data can be used for analysis of the outreach and impact of actual government programs and for cost-benefit analyses by economists.
7. Household dietary survey data have been used for nu-

merous scientific objectives over the years in line with scientific research.

Specific objectives of analyses that can be performed using food survey data are:

- i. to provide information about population groups with particular types of food and nutrition problems
- ii. to provide information relevant to nutritional surveillance.
- iii. to obtain information for nutrition and consumer information.
- iv. to project changes in the nutrition situation of the country under specified assumptions regarding changes in income and income distribution, degree of urbanization, family size and composition and retail prices.
- v. to analyze the impact of the Philippine Nutrition Program.
- vi. to determine the relationship between participation in agricultural development programs and family diets.

#### LIMITATIONS OF FOOD CONSUMPTION SURVEYS

1. Prior to 1978, only three regions of the country at the most, can be surveyed in a year. Therefore, we do not have an annual data on food consumption for the whole country. The survey undertaken this year is the first with a national coverage at one reference year period.
2. The field data collection is done only during the summer months (March to June). Any seasonal variation in food intake is therefore not reflected in food consumption surveys.
3. The survey does not cover hotels, restaurants and non-household establishments which may result in under estimation of consumption figures relative to food supply.

#### FOOD BALANCE SHEET

The National Accounts Staff of the NEDA annually updates the estimates of the food supply of the country. Briefly "the

## FOOD CONSUMPTION DATA AS BASIC DEV. INDICATOR 61

food balance sheet of the country presents the estimates on the food supply available for domestic consumption in a given year. These estimates consist of the total foodstuff produced in the country plus the total foodstuff imported. From these estimates deductions were made for the quantities exported, fed to animals, used for seeds, manufactured as nonfood products, and losses due to wastage of all kinds, except wastage in the preparation and cooking and also plate wastes."

The amount of food available for consumption (FBS) and the amount of food actually consumed (FCS) are both computed for their corresponding calorie, protein and fat values by using local Food Composition Tables. Nutrient values from these two sources of data are likely not to agree closely. FBS does not deduct household food losses from plate wastes, pot waste foods fed to pets and any losses due to food spoilage. Food losses can range from 2% to 5% at the household level.

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