

Overview of Nutrition Monitoring in the U.S.

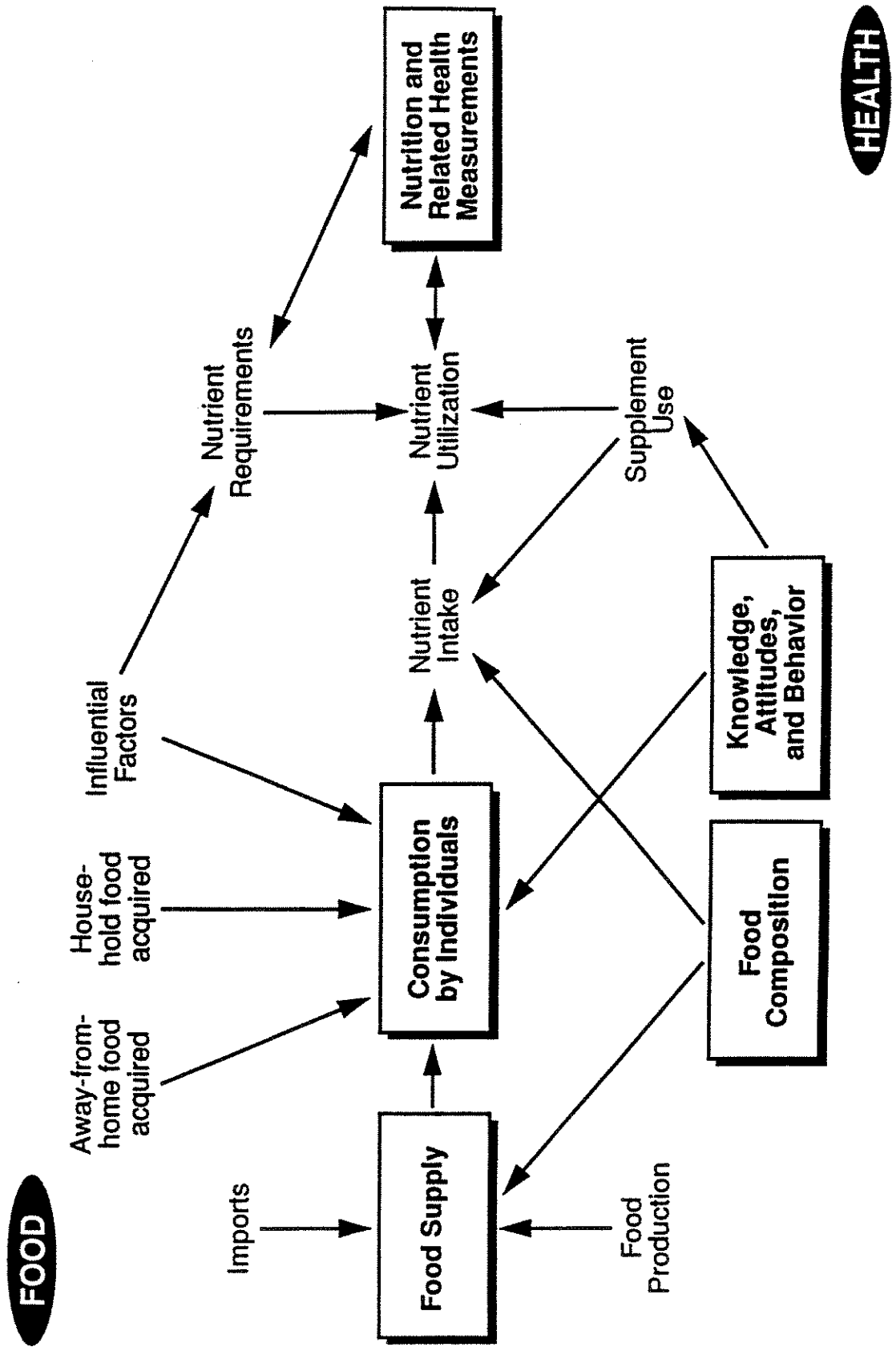
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The National Nutrition Monitoring and Related Research Program, formerly called the National Nutrition Monitoring System, was formalized with passage of the National Nutrition Monitoring and Related Research Act of 1990 (1). The name change from the "National Nutrition Monitoring System" to the "National Nutrition Monitoring and Related Research Program" signifies the importance of and increased attention to the role of research in monitoring the nutritional and health status of the U.S. population.

The nutrition monitoring program encompasses a large set of activities based on the conceptual model of food to health shown in Figure I. The food supply, food composition, and food consumption are linked to measures of nutrition and related health through a common area. Knowledge and attitudes about diet and health affect both food consumption and health behavior. Other factors including nutrient requirements and utilization, smoking, physical activity, and age also impact upon relationships between these areas. This concept of the interrelationships among food, nutritional status, and health is the basis of nutrition monitoring. Without food composition information it is difficult to make the link between diet (or food) and health.

Figure 1. Relationship of Food to Health.*



*Boxes indicate 5 measurement component areas of the NNMRRP. Extracted from reference no. 2

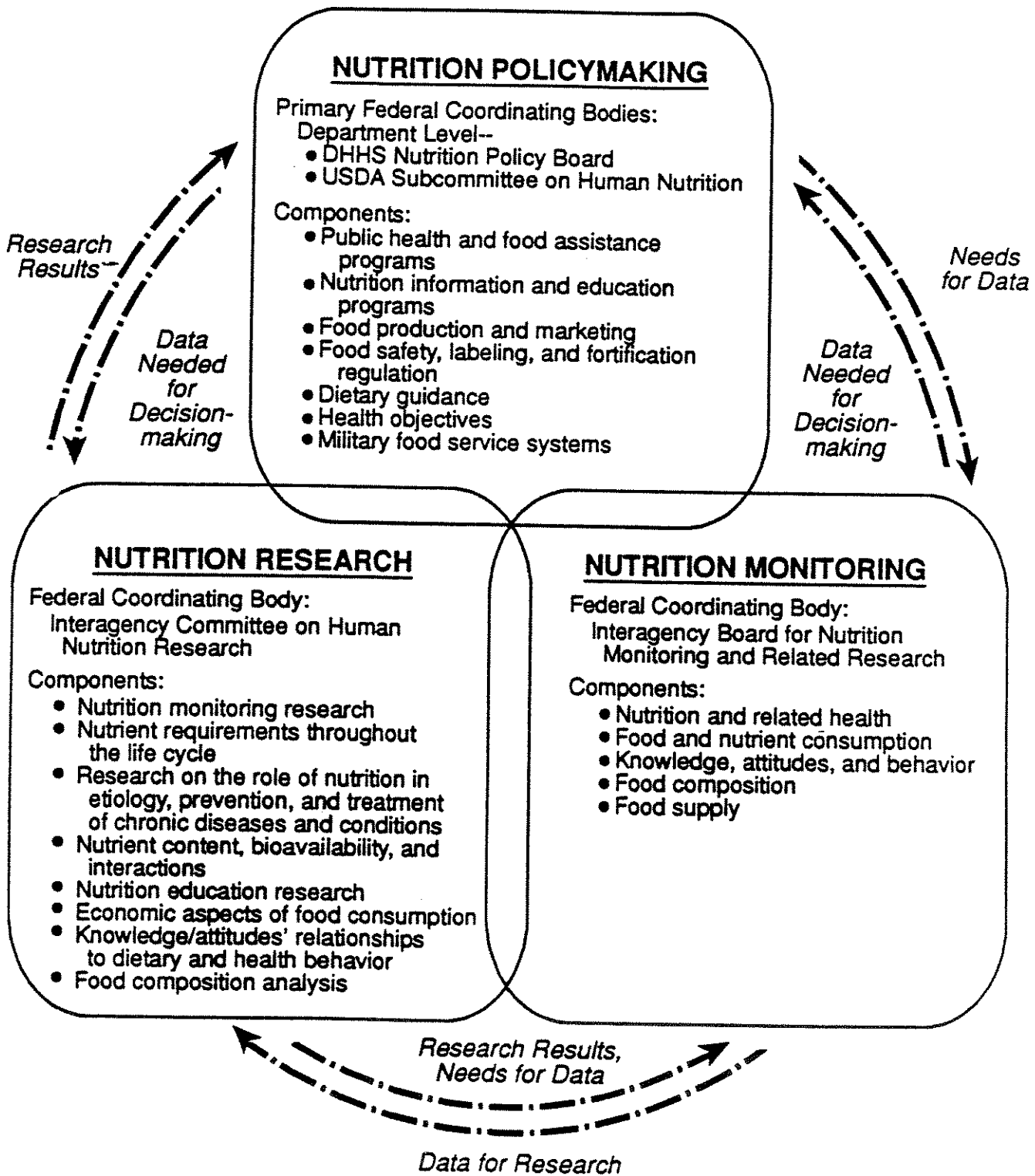
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Nutrition monitoring is vital to policymaking and research (2). The monitoring program provides information and a data base for public policy decisions related to nutrition and public health as well as a data base to establish research priorities (Figure II).

Nutrition programs such as food assistance, dietary guidance, and safety (e.g., exposure and risk assessment) and labeling of the food supply, rely on nutrition monitoring data for program evaluation and planning purposes. Monitoring also provides information for nutrition-related health initiatives such as the Year 2000 Health Objectives for the Nation (3) and studying diet-health relationships. For example, studies of diet and health relationships such as vitamin C status in smokers, fiber intake and cancer risk, and fatty acid intake and cardiovascular risk, rely heavily on food composition data.

Research areas critical to nutrition monitoring include normal requirements for nutrients; the role of nutrition in health promotion and the prevention of diet-related disorders; nutrient content, bioavailability, and interactions; and food composition analysis.

Figure II. Relationships among Nutrition Policymaking, Research, and Monitoring



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Activities within the national nutrition monitoring program are grouped by five measurement areas:

1. NUTRITION AND RELATED HEALTH measures include surveys such as the National Health and Nutrition Examination Surveys (NHANES) and the National Health Interview Survey, conducted by the National Center for Health Statistics.
2. USDA's Nationwide Food Consumption Survey (NFCS) and its Continuing Survey of Food Intakes by Individuals (CSFII), along with NHANES, collect FOOD AND NUTRIENT CONSUMPTION.
3. The area of KNOWLEDGE, ATTITUDES, AND BEHAVIOR ASSESSMENTS is a relatively recent component to the program and an area of increasing importance for understanding the relationship of food to health.
4. Maintenance and further development of FOOD COMPOSITION AND NUTRIENT DATA BASES, and
5. FOOD SUPPLY DETERMINATIONS complete the monitoring program.

Taken together, these five areas provide information used to monitor the nutritional status of the U.S. population. Food consumption surveys such as NHANES, NFCS, and CSFII rely on the nutrient and food composition data bases maintained by USDA for analyzing survey food consumption data. A comprehensive, high quality data base is critical to interpreting food and nutrient intakes from the national surveys to meet monitoring, regulatory, and policy needs. Assessment of the population's intake relies on food composition data, including nutrients and other food constituents.

The data bases that supply information on food composition for the nutrition monitoring program include the National Nutrient Data Bank, which is the major source of information maintained by USDA. In addition, the Food Label and Package Survey and the Total Diet Study conducted by the Food and Drug Administration supply information on the content of foods.

In summary, there are three major emphases of the Nutrition Monitoring Program. The five measurement areas (nutrition and related health measures; food and nutrient consumption; knowledge, attitudes, and behavior; food composition and nutrient data bases; and food supply) include more than 45 surveys and surveillance activities conducted by the Federal Government (2). The related research area will continue to be a necessary part of the Program to improve and strengthen monitoring efforts. The third area, information dissemination and exchange, has always been a part of the Nutrition Monitoring Program but will have increased attention over the

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next decade. The Program needs to get data out in a more timely manner and also foster exchange of information with data users. Presentations at meetings such as the National Nutrient Databank Conference are just one way that ongoing work and plans in the nutrition monitoring area can be shared with data users and researchers.

References

1. U.S. Congress. P.L. 101-445. National Nutrition Monitoring and Related Research Act of 1990. Washington, D.C. 101st Congress. October 22, 1990.
2. U.S. Department of Health and Human Services and Department of Agriculture. Ten-year comprehensive plan for the National Nutrition Monitoring and Related Research Program. Notice. Federal Register 56(209):55716-55767. October 29, 1991.
3. U.S. Department of Health and Human Services. Healthy People 2000. National Health Promotion and Disease Prevention Objectives. DHHS Publ. no. (PHS) 91-50212. Washington, D.C., U.S. Government Printing Office. 1991.