

DOCUMENT RESUME

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[Joint Proposal for a Nutrition Surveillance System].
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Report to Secretary, Department of Health, Education, and Welfare; by Gregory J. Ahart, Director, Human Resources Div.

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The Departments of Agriculture and Health, Education, and Welfare (HEW) developed and submitted to the Congress a joint proposal for a comprehensive Nutritional Status Monitoring System (NSMS) which recognized that there was no adequate national nutrition surveillance system and proposed to institute one. An effective surveillance system should: promptly identify nutritional needs; pinpoint, within narrow geographic boundaries, specific target groups with nutritional needs; predict future areas of nutritional concern; and provide data which Federal agencies can use to monitor the effectiveness of programs for various population groups. A number of weaknesses exist which preclude current programs from functioning as an effective surveillance system: (1) the systems are not always specific enough to identify problems by narrow geographic areas or do not always include important population groups; (2) the systems do not produce information in a timely manner; and (3) the systems do not provide information adequate for evaluating the effectiveness of programs designed to improve nutritional health. The proposed NSMS consists of four interrelated elements to determine nutritional and dietary status, nutritional quality of foods, dietary practices and knowledge, and the impact of nutrition intervention programs. There are four major areas of concern with the NSMS: lack of specificity and agreement between the Department of Agriculture and HEW; lack of agreement on the collaborative, decennial survey; the role of the system in program evaluation; and the inadequacy of the coordination mechanism. The Congress should designate either Agriculture or HEW as the lead agency for nutrition intelligence gathering, and an outside party should be selected to conduct an independent peer review of the program. (RRS)

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

HUMAN RESOURCES
DIVISION

B-133192
B-164031(3)

June 29, 1978

The Honorable
The Secretary of Health,
Education and Welfare

Dear Mr. Secretary:

At the request of the Subcommittee on Domestic and International Scientific Planning, Analysis, and Cooperation of the House Committee on Science and Technology we have made a review to determine whether the United States has an adequate nutrition surveillance system. During the course of our review, both your Department and the Department of Agriculture (USDA) developed and submitted to the Congress a joint proposal for a comprehensive Nutritional Status Monitoring System (NSMS), which recognized that there was no adequate surveillance system and proposed to institute one. On May 19, we testified before the Agriculture Subcommittee of the Senate Appropriations Committee, briefly commented on this proposal, and made certain recommendations regarding it. In an earlier letter to Senator Lawton Chiles we also commented on the proposal.

The purpose of this letter is to give you our comments on the proposal because of current congressional interest and to recommend action to be taken by both Departments to assure that the proposal is successfully developed and implemented. A more detailed report will be issued later this summer.

WHAT A SURVEILLANCE SYSTEM SHOULD DO

To determine the adequacy of the present set of surveillance programs we established a set of criteria--with the advice of several experts--for an effective nutrition surveillance system. We believe that an effective system should

- promptly identify nutritional needs;
- pinpoint, within rather narrow geographic boundaries, specific target groups that have nutritional needs;

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- predict future areas of nutritional concern; and
- provide data which Federal agencies can use to monitor the effectiveness of programs to improve the nutrition, health, and food consumption of various population groups.

During the course of the review, we examined a number of surveillance programs conducted by both Departments but focused on three which were primarily associated with nutrition surveillance--the Health and Nutrition Examination Survey (HANES), the State and local nutrition screening programs initiated by the Center for Disease Control, and the Nationwide Food Consumption Survey (NFCS). The first two programs are within HEW and the latter is in USDA.

WEAKNESSES OF CURRENT NUTRITION SURVEILLANCE ACTIVITIES

We found that a considerable amount of data was being collected that to varying degrees satisfied the above criteria, but that a number of weaknesses exist which preclude the current programs from functioning as an effective nutrition surveillance system.

- The systems are not always sufficiently specific to identify problems by narrow geographic areas or they do not always include important population groups.
- The systems do not produce information in a timely manner.
- The systems do not provide information adequate for evaluating the effectiveness of programs designed to improve nutritional health.

Both the HANES and NFCS surveys are geared toward collecting baseline national probability data with oversampling for broad categories of some nutritionally at-risk population groups. The Center for Disease Control (CDC) obtains more geographically specific nutrition information but only for 14 states and 3 metropolitan areas. By design, CDC primarily collects limited hematological and anthropometric data from children of low-income families. In visits to 6 States participating in the CDC system, we found quality control procedures so lax that in some areas we must question the accuracy of the reported results.

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Except for the CDC reports, the existing programs do not produce information in a timely manner. In the case of HANES, data collection takes over 3 years, plus a considerable amount of time to process the data before it is released. HANES I, which started in 1971, will not have its basic data analysis and publication complete until mid-1980. Some of this delay is due to a lack of resources. For example, data analysis of HANES I had to be virtually suspended during the planning process of HANES II because of insufficient staff. Likewise data from the NFCS, while gathered over a 1-year period, has typically taken an undue period of time to process. Data from the 1965-66 survey was not completely released until 1974. This lack of timeliness of both HANES and NFCS has meant that some of the data is obsolete before it is even released. While the information is still valuable for many uses, its lack of immediacy makes it less valuable for policy planning and program evaluation. Both Departments are taking actions intended to improve the timeliness of data availability.

The surveys do not provide enough information to thoroughly evaluate the effectiveness of nutrition intervention programs. Moreover, we believe that national probability samples, such as HANES and NFCS, are not the best method of performing a thorough examination. Such examinations are best done by separate evaluations of each program designed specifically for that purpose. We also believe that considerably more evaluative information could be gathered from the HANES and NFCS surveys with improved coordination during the planning phases between officials conducting the surveys and officials in charge of the intervention programs.

HEW/USDA JOINT PROPOSAL FOR A COMPREHENSIVE
NUTRITIONAL STATUS MONITORING SYSTEM

Your Department and USDA have recognized the shortcomings in the present set of programs and have taken a very positive step toward correcting them. A proposal was submitted to Congress in May 1978, as required by Public Law 95-113. The proposal recognizes the major problems in the present programs--unacceptable timing in the analysis and publication of results, inadequate coverage of certain target groups and geographic areas, and inadequate evaluation of nutrition intervention programs.

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The NSMS consists of four interrelated elements to determine (1) nutritional and dietary status, (2) nutritional quality of foods, (3) dietary practices and knowledge, and (4) the impact of nutrition intervention programs. The elements are to be accomplished through

- a decennial, collaborative survey with HANES and NFCS,
- an additional NFCS survey midway between the decennial surveys with the possible addition of some physiological examinations,
- special surveys on high risk groups,
- expansion of CDC screening activities to more States with broader coverage,
- gathering screening information from nutrition programs such as the early and periodic screening, diagnosis, and treatment program, and
- studies to evaluate nutrition intervention programs.

These activities will be augmented through research designed to improve methods of collecting dietary and physiological data and improvement of the nutrient data bank and other activities located within HEW and USDA. The NSMS will be operated through existing programs within each department. The Department coordinators will prepare interagency memoranda of agreement on areas of common interest between the Departments in order to implement the proposed system.

WEAKNESSES IN THE PROPOSED SYSTEM

As stated above, the proposal is a good first step in establishing a true nutritional surveillance system. However, certain weaknesses exist which, if not corrected, could weaken the effectiveness of the system. We have four areas of major concern with the proposal (1) lack of specificity and agreement between HEW and USDA, (2) lack of agreement on the collaborative, decennial survey, (3) role of the system in program evaluation, and (4) inadequacy of the coordination mechanism.

Lack of specificity and agreement
by the departments

A lack of specificity in the proposal prevented us from making a detailed evaluation of proposed solutions. We realize that it will take additional time to develop a more specific presentation. It should be noted, however, that once NSMS plans have been fully formulated, the tenor of the proposal could change. In some instances a solution to a particular problem is a promise to take care of the situation without telling how or why. For example, the proposal identifies a lack of assessment information on high risk groups as a problem. The proposed solution is to develop and implement surveillance activities aimed at high-risk population groups. This has long been recognized as a problem but very little has been done to correct it.

There is no agreement between the Departments on several items of real importance--the nature of the decennial survey (as discussed below), the extent to which the 5-year NFCS will collect physiological data, and the extent and the organizational setting of the coordinated research effort on dietary and physiological assessment of nutrition status.

Before substantial work is done to implement the proposal, we believe that the two Departments should better formulate the questions to be addressed by the NSMS, the types of analyses that can be done with the data collected, and the use that can and will be made of the analyses.

Lack of USDA/HEW agreement
on the decennial survey

The cornerstone of the NSMS is the decennial survey. This is to be a collaborative effort, but there is no agreement between the Departments on how it will be carried out. We were advised that HEW believes that both the HANES and NFCS surveys should be conducted separately but within the same time frame and having certain comparable components and survey methodologies as outlined last year in an interagency task force report. USDA prefers consideration of a single sample with USDA gathering all dietary data and HEW taking a subsample to gather the specific data needed for HANES.

In 1970 we wrote letters to each Secretary concerning the feasibility of consolidating the two surveys. We stated that such a consolidation could reduce costs and overlap by the use of one population sample rather than two.

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HEW's reply to this letter stressed that the different informational objectives of the two surveys, the different time frame, and the increased respondent burden were all contributory reasons as to why consolidation would prove impractical. Most of the objections centered on the different data needs of the two agencies. HEW believed it needed to monitor nutritional status continually over time and required certain medical observations and tests while USDA had a need for intermittent data on household and individual food consumption only. While the need for food consumption data was common to both surveys, the different end uses of the data called for different sampling designs.

USDA's reply was somewhat more encouraging--stressing the difference in time periods as the primary problem in consolidation but expressing a willingness to undertake a feasibility study of consolidation or closer cooperation with HEW. We still believe that this is a feasible proposition and should be considered as an alternative to the separate surveys presently conducted. Information gathered from each survey is important or could be important to many nutrition/health programs. Gathering the information from one sample could greatly ease the problem of correlating the two sets of data. The problems of time frame would be corrected by the proposed collaborative survey. The problems of respondent burden and differing data needs are real, but ones which we believe can be worked out.

Inadequate consideration given to nutrition intervention programs

The most significant Government activities to prevent and alleviate the problems of hunger and malnutrition are the various food assistance programs. Some \$9 billion is spent each year on these programs but little is known about their nutritional benefits on a national scale. Neither HANES nor the NFCS have yet provided useful information in evaluating these programs although the current surveys will provide some data on certain aspects of the feeding programs.

Historically, however, program evaluation has not been a primary objective of either HANES or NFCS. The proposed system expands emphasis on evaluation of nutrition intervention programs as one of its four major elements. It is the least specific of the four elements of the proposal; possibly because much has yet to be learned about how to evaluate food assistance programs. The Office of Management and Budget

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(OMB) has previously rejected attempts by the Food and Nutrition Service (FNS) to evaluate the food stamp program because the response rate would be too low to give meaningful results. Unless FNS develops a new approach or gains OMB's approval, food stamp program evaluation efforts could be limited to the information gathered from the ongoing NFCS and to a lesser degree from HANES. Except for the food stamp program and the school lunch program, the NFCS will not be able to provide significantly useful information to evaluate the food assistance programs. Even the food stamp and school lunch data is restricted in that full evaluation of the nutritional impact of these programs on participants can not be made.

The intervention element of the proposed system will require substantial effort before it develops into an effective means to evaluate food programs. Those responsible for implementing the proposal must give high priority to fully developing the criteria and measures needed to evaluate intervention programs. Clear definition of the information needs of the intervention programs is required to adequately incorporate those needs into the monitoring mechanisms.

Coordination mechanism not adequate

The coordination mechanism put forth by the proposal is tenuous. We believe that nutrition coordinators within each Department (and within agencies) are desirable and long overdue. Coordination between agencies is commendable but may not be the most effective means of controlling the proposed NSMS.

The coordinator within HEW has no real authority beyond his personal influence to insure the proposal will be adequately developed. This activity will be located within the Public Health Service but will be responsible for coordinating all NSMS activities functions for which HEW will be responsible. An HEW official told us that the coordinator has no formal authority but that his recommendations would receive attention from the highest levels of HEW. It seems that the coordinator's role is too dependent upon a series of personal relationships which can vary as positions and personnel shift within the Department. USDA has not yet named a departmental coordinator but we have been told the position will likely be within the Secretary's office.

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The interagency memoranda of understanding will provide the communications link between the two Departments but will not provide a basis to require cooperation. It will likely establish a joint HEW/USDA committee cochaired by the two coordinators to work out details of the proposal. There is no clearly defined procedure as to how disagreements over the proposal would be settled. One official told us that the best thinking would prevail. In view of the split of opinion on nutrition matters between the two Departments--as was evident in the recent HEW and USDA nutrition memoranda to OMB--it would seem that each agency feels that it has the "best thinking."

Recommendations

As stated in our May 19, 1978, testimony, we recommended that appropriate congressional committees review the status of the proposed system after some designated period of time. If at that time serious efforts have not been undertaken to make this an effective system, the Congress should designate either the Department of Agriculture or HEW as a lead agency having primary responsibility in nutrition intelligence gathering. We consider the following elements essential as a first step in enacting the proposal:

- A detailed implementation plan showing when and how the proposal will be implemented and how much it will cost.
- An elaborated discussion on all elements of the proposal, especially those sections dealing with the decennial survey and program evaluation.
- Procedures for dealing with areas of disagreement on how the proposal is to be implemented.
- Regular, institutionalized communication between and within the Departments.

The purpose of this recommendation was to insure that both Departments develop a specific plan of action to implement the proposal and to develop a means of coordination and cooperation.

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To develop a unified approach to the decennial survey we recommend that you and the Secretary of USDA participate in a pilot study during the next NFCS to determine the feasibility of combining both the NFCS and HANES surveys into one joint survey.

We further recommend that you and the Secretary of USDA fund an independent peer review of the proposal by an outside party, such as the National Academy of Sciences. We believe that this same party should periodically review the activities to be carried out under the proposal--such as survey plans and methodology, analysis plans, and publications--and make its reports available to the Congress.

NEED TO VALIDATE THE NFCS

Our conclusion in a 1977 congressional report was that the survey methodology for the 1977-78 NFCS had not been validated ("Nationwide Food Consumption Survey: Need For Improvement and Expansion," CED-77-56, Mar. 25, 1977). By lack of validation, we mean that there is no assurance the data obtained from the survey interviews will actually measure the amount of food consumed. Consequently, the results of this survey are open to criticism. We recommended that the survey methods be fully validated before the next NFCS.

The Department has subsequently initiated a study to respond to this recommendation. Most study tasks are designed to improve the 1977-78 NFCS survey methods through debriefings with supervisors, respondents, and interviewers; through testing of 1977-78 NFCS questionnaires; and through rotation of household food schedules. The task most related to validation of food consumption is one in which the contractor primarily interviews panels of consumers to solicit their opinions about a list of possible validation procedures. These procedures include nutrient analysis of duplicate meals, photographs of ingredients and meals, nutrient analysis of household garbage, and tracking of food use through tagging. But there is no evidence in the study contract of provisions for comprehensive testing of these procedures.

We do not believe that this study will fully validate the NFCS methods. The use of a consumer panel is only a preliminary step toward validation. There is a need to develop and test procedures to assure, to the extent possible, that the NFCS survey results actually measure the food consumed.

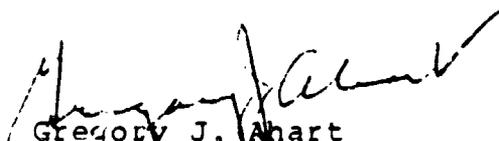
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Recommendation

We recommend that the Secretary of Agriculture review this contract and either amend it or undertake a new study to better validate a food consumption methodology. We believe that such action is essential to accurately determine the food consumption patterns of U.S. households and individuals.

Copies of this report are being sent to the Assistant Secretary of Health, the Office of the Inspector General, and appropriate program officials. A similar letter is being sent to the Secretary of Agriculture. As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

Sincerely yours,



Gregory J. Ahart
Director