**Title and Subtitle**: Report on Follow-Up Visit to Ecuador Part I

**Performing Organization**: Interdepartmental Committee on Nutrition for National Defense
Washington, DC

**Abstract**: ICNND consultant visited Ecuador January 15 to 21, 1961, for the purpose of discussing recommendations of the Interdepartmental Committee on Nutrition for National Defense report of the nutrition survey conducted in Ecuador during the summer of 1959, with personnel of the Ecuadorian government, U.S. missions and the National Institute of Nutrition.
REPORT ON FOLLOW-UP VISIT TO ECUADOR

Part I Gerald F. Combs, Ph.D., ICNND Consultant
January 15-21, 1961

MISSION
This Consultant visited Ecuador January 15 to 21, 1961, for the purpose of discussing recommendations of the ICNND report of the nutrition survey conducted in Ecuador during the summer of 1959, with personnel of the Ecuadorian Government, U. S. Missions and the National Institute of Nutrition. I was accompanied by Dr. William N. Pearson, Department of Biochemistry, Vanderbilt University, during this mission. Dr. Pearson had preceded me by one week in his arrival in Ecuador, during which time he was engaged in advising the Institute of Nutrition concerning their over-all research program. (See Part II - Dr. Pearson's report.)

BACKGROUND
It must be appreciated that the present administration in Ecuador is completely different from the one which requested and aided in the execution of the nutrition survey in 1959. The Ecuadorians in governmental and military positions are entirely new. Similarly, there has been considerable change in the U. S. personnel, although some of these have recently returned for a second tour. Those individuals who were familiar with the survey and were present in Ecuador in 1959 include Mr. Harold Conger, Director, Health Servicio, USOM; Mr. Milton Lobell, Director, Agriculture Servicio; Mr. John Hummel, Head of USOM; Mrs. Leslie Smith, Home Economist, USOM; Dr. John J. Kevany, WHO Consultant to INNE; Dr. Fabian Recalde, Director of INNE; Colonel William Damon, Chief, Army Mission; and Capt. J. C. Williamson, Chief, Navy Mission. In addition, Dr. Jean le Brocquy has been appointed representative for UNICEF in Ecuador.

Although 50 copies of the ICNND report of the Ecuadorian survey were sent to the Embassy in Ecuador and distributed primarily to the U. S. Army, Navy, Air Force and Health Servicio personnel, several people in the USOM who were helpful in planning or in the conduct of the survey itself, had not seen a copy. Such people included Mrs. Smith and Mr. C. Edmund Shuart, Head of Animal Nutrition, Division of Agriculture, USOM. In addition, copies were sent to INNE and a distribution had been made to the various Ministers of the Government and to the Planning Board. The report has been translated into Spanish by Dr. Recalde of INNE but as yet has not been reproduced for distribution. Accordingly, Dr. Pearson, Dr. Kevany and Dr. Recalde prepared a translation in Spanish, stating the objectives, scope, findings, conclusions and recommendations of the nutrition survey.¹ This translation was distributed to the various Ministries on Monday, January 16, 1961, and was most helpful.

¹/In ICNND files.
in the conferences which began that day. Nevertheless, relatively few people had had a good opportunity to examine and study the findings of the report prior to our conferences and most of the Ecuadorian personnel were not even familiar with the fact that such a survey had been conducted.

ACCOMPLISHMENTS

The major conferences were with: 1) U. S. Ambassador; 2) Minister of Social Welfare and Labor and his Subsecretary for Health; 3) Minister of Defense and his staff; 4) Planning Board (Junta de Planificacion y Coordination); 5) Director, National Institute of Nutrition, and Dr. John J. Kevany, WHO Consultant to the National Institute of Nutrition; and 6) the newly formed National Committee on Nutrition. A summary of major conferences is shown in Enclosure 1.

In the discussions held with both American and Ecuadorian personnel at various levels, the following were stressed: 1) The need for primary concern about food and nutrition in meeting the economic, sociological and political problems of any developing country; 2) the need for appropriate administrative organization so that the various ministerial, servicio, and bilateral agency programs may be effectively coordinated; (During the visit such a group, designated the Central Nutrition Committee, was formulated.) 3) and a discussion of the survey, its findings and specific recommendations.

With respect to implementation of any program designed to solve nutritional problems, it is hoped that the National Committee of Nutrition will provide a vehicle through which those groups involved in launching nutritional programs in Ecuador may find a means of coordinating action. The future role of the INNE should and must be important if any real progress is to be made. The Central Nutrition Committee should provide a focus of responsibility for nutritional affairs and actions in effecting constructive cooperation and coordination of the various agencies.

CONFERENCE WITH MINISTER OF SOCIAL WELFARE AND LABOR

In this meeting, which was considered highly satisfactory, the Minister and his Subsecretary for Health were reminded that poor nutrition is seldom properly diagnosed. Usually death is attributed to diarrhea, intestinal or bronchial diseases, when actually a contributory cause may have been poor nutrition. They were reminded that the infant mortality rate for Ecuador is approximately ten times as high as that in the United States during the first year of life, and that children should not commonly die of measles or whooping cough if they are properly nourished. The low life span, the high infant mortality rate, the reduced resistance to disease and other stresses, retarded growth and development of young children, and reduced productivity and longer recovery time from disease, were discussed to emphasize the acute need of primary concern toward improving nutritional status of the people of Ecuador. The Minister and the Subsecretary both agreed that there is a need for considerable effort in this regard, and the Minister pledged his support particularly with regard to the Institute of Nutrition in helping to meet these problems. The Subsecretary further developed the point that considerable mortality, particularly in children, does occur largely because of improper nutrition.
The scope and nature of the ICNND survey were briefly described for the Minister, as well as the findings and some of the recommendations. The problem of goiter and the need for iodized salt were stressed. The problem of anemia in fifty percent of the military population and a large portion of the civilian population in the coastal area also was discussed, with a suggestion that higher levels of iron might overcome this condition even though the anemias were secondary to parasitic infestation. The low riboflavin levels in military and civilians throughout the country, and low thiamine levels for military and civilians in the coastal areas, also were mentioned. The need for greater calcium intakes for the entire population, and need for improvement in protein nutrition of children, were discussed. The possibility of the Institute of Nutrition's working with the military through the Minister of Defense was suggested, particularly in connection with a temporary solution of the riboflavin, calcium, thiamine and iron problems of the Coast. The long-term solutions of these problems can be achieved through the application of nutrition education at various levels, including homemakers, medical profession, and in formal schooling. Much can be done to improve the type of education now being given by making relatively few specific recommendations based on the actual nutritional problems and foods presently available for use.

The need for fluorine addition in the water supply of Guayaquil and Quito, and the problem of excess fluorides in some of the other areas such as Latacunga, were discussed. Mr. Conger indicated that in recent studies where water softeners had been added in Latacunga the amount of fluorine in the water was reduced from two to one part per million, though this was not done because of fluorosis in teeth.

The need for strong support of the National Institute of Nutrition in its budget and programs also was stressed, since this group will serve as the leader and source of technical information for most of the nutrition programs of Ecuador. In the past the Institute has had increasing difficulty with its budget, and it is hoped that this conference may have been helpful in pointing out the need of meeting their budget in order to permit further expansion of their program through cooperative efforts with other governmental agencies. The Minister assured us that he was giving the Institute of Nutrition the "green light" for participation, and also concurred with the need for a central committee to coordinate the efforts being made by various groups to improve the nutritional status of the people. Later that week he appeared and personally implemented the formal initiation of the National Committee on Nutrition.

CONFERENCE WITH MINISTER OF DEFENSE

Many of the same points were discussed with the Minister of Defense as described above for the conference with the Minister of Health, Social Welfare and Labor. In addition, however, the specific problems of the military were examined, including the need for developing a rationing system which would assure adequate amounts of foodstuffs for a balanced nutrient intake. Instead of designating a set amount of money per ration, it was suggested that the cost of the specified amounts of various foods at different locations throughout the country serve as a means of fixing the ration allowance. It was also suggested that a nutrition service be implemented within the Armed
Forces which would consist of a full time well-trained nutritionist, with at least one dietitian. This group would be responsible for menu preparation and for continued improvement in messing and mess sanitation. It was also suggested that certain semi-perishables be issued in kind through central procurement in those areas where such is feasible. The balance of the food would be purchased by the local unit commander, based on the suggested menus for his area. A list of appropriate substitutions also should be made available so that unit commanders would be able to make satisfactory nutritional substitutions when items included on the menu were unavailable. These recommendations are covered in detail in the report and involve little cost for their implementation.

It was emphasized that to meet some of the immediate problems of the military (i.e., riboflavin, thiamine and calcium intakes, and the need for additional iron due to parasitic infestations on the Coast), this might best be handled through collaborative controlled studies with the Institute of Nutrition, designed to test the effect of enriching flour or bread with these nutrients for approximately 1,000 soldiers. The Minister of Defense also was assured by Dr. Kevany that the Institute of Nutrition would be ready and willing at any time to cooperate in any way possible, within the limit of existing personnel, to help in implementation of the military nutritional program.

The Minister inquired about the possible need for a follow-up survey in a couple of years in the military. It was indicated that if such were needed, the ICNND would be pleased to have a request for one or two people to help in such a survey, provided of course, that efforts were made in the meantime to implement recommendations of the first survey, and provided that any subsequent studies be staffed primarily by the trained personnel at the National Institute of Nutrition.

The need for initiating a program designed for the development of emergency rations for the military also was discussed. The importance of such a move in the military, in the study of food processing and improved methods of distribution and central storage, on the ultimate development of these improvements for civilian application was pointed out. The Minister was assured that here was an opportunity for the military to not only improve their own status of health in military readiness through better nutrition but at the same time make a decided contribution to the nutritional health of the civilians as well. The Minister of Defense was very receptive to these suggestions and showed a great deal of interest throughout the one-hour conference. Colonel Damon was impressed by the fact that no one had suggested during the meeting where funds might be obtained to support such a program. He felt that the program as suggested was quite simple and could be easily implemented with little difficulty. Colonel Damon pledged his most hearty support.

Dr. Jose Portilla did not attend the conference with the Minister of Defense although he is the Military Nutrition Consultant. Having been previously
Head of the National Institute of Nutrition, there are some problems in the relationship between Dr. Portilla and Dr. Recalde, present Director of the National Institute of Nutrition. It is hoped that these differences will not be so great that they will completely prevent liaison between the Institute of Nutrition and the military. The military are totally understaffed at present for the implementation of such a program, as Dr. Portilla spends only part time in his consultant capacity. It is believed that the Minister of Defense is anxious for full cooperation between the military and the National Institute of Nutrition in solving these problems in the future.

CONFERENCE WITH THE PLANNING BOARD

The National Planning Board functions in direct advisory capacity to the President of Ecuador and in this way effects the coordination of programs of various Ministries. For this reason it seemed desirable and necessary to discuss the nutritional problems of Ecuador with the Planning Board. Mr. Germanico Salgado, together with Mr. Acosta and Mr. Molina, were most receptive to us. Mr. Acosta had accompanied the survey team during its study and obtained information on the economic status of the people surveyed. The Planning Board seemed to be entirely versed in the nature and extent of the survey and its findings and already were concerned with various aspects of implementation of the recommendations.

Approximately one hour was spent with this group, which is believed to have been most helpful, particularly since the Planning Board will have the authority to spearhead these programs which involve nutritional improvement through coordinated efforts of various Ministries. The Planning Board is also represented on the newly formed National Committee on Nutrition, whose purpose will be to approach the implementation of various programs designed primarily to improve the nutritional status of the people of Ecuador.

In connection with the problem of iodizing salt, Mr. Salgado indicated that it was absolutely ridiculous and totally inexcusable that some action had not been taken as yet to iodize salt. He said that many problems exist (and indeed they do) but he felt that something could and would soon be done concerning this problem. As a part of the iodization problem, the total problem of salt production for industry and the possibility of introducing a completely new method of producing salt, is being considered. We stressed the urgent need for iodizing salt and making iodized salt available without delay in order to prevent goiter and cretins.

Some of the recommendations which dealt with development of food industry, processing of foods and central warehousing of semiperishable commodities were discussed in detail. In addition, most of the points made with the two Ministers visited were also brought to their attention. It is believed that this meeting was most fruitful.

Mr. Salgado asked if ICNND would be able to supply a critical appraisal of their present method for estimating the change in demand for various food...
commodities based on a method of predicting change in demand based on the degree of elasticity with price. He indicated that the method, together with their assumption, would be written up and submitted to ICNND to obtain a critical opinion of this approach. I assured him that ICNND would obtain such comments for him and suggested that this be sent through Mr. Conger or Dr. Kevany to Dr. Schaefer. If formal requests are required for this, then this could be resubmitted to Dr. Schaefer.

FORMATION OF NATIONAL COMMITTEE ON NUTRITION

Following the suggestions of this Consultant, Dr. Recalde organized a meeting where specific people were invited from various Ministerial groups and other organizations as shown in Enclosure 2. Accompanying the requests for attendance of these people in the Ministries was a letter to the respective Minister indicating that this would be the formation of a Central Committee on Nutrition, and the Minister was asked to send a person he would like to have represent him in subsequent actions for the purpose of implementing and coordinating the national nutrition program.

At this meeting Dr. Recalde opened the program by indicating the fact that a survey had been conducted and that the findings would be presented. Dr. Kevany presented the clinical findings, Dr. Pearson presented the biochemical findings, and this Consultant presented the nutritional findings. Dr. Recalde presented the recommendations.

During the meeting the Minister of Social Welfare and Labor formally proposed the formation of the Central Committee. Then the Subsecretary of Health, Dr. de la Torre, discussed the membership for various groups on the Council itself, as well as representation by other agencies, including the USOM and bilateral agencies. Following this, four or five Ecuadorian representatives made comments and expressed full support of this Committee. The first work session was to be the following week.

It is believed that the establishment of the National Nutrition Committee provides an excellent facility through which the nutritional problems can be effectively approached with good voluntary coordination of various agencies. Whether or not this occurs will depend largely on the degree to which the authoritative elements of the government have been motivated as to its need. This Consultant believes that most of the problems will arise for reasons other than lack of organization and interest on the part of this Committee. Furthermore, the wife of the President is interested in child feeding and it was suggested to Dr. Recalde that she be invited to attend these meetings.

CONFERENCE WITH USOM PERSONNEL

At this meeting various aspects of implementation of recommendations were discussed, many of which have been indicated above in describing the events of the other conferences. It would seem that several of the people
are deeply interested at this time in trying to improve the nutritional health through various activities. Many of these are presently under way and others are being planned. Some of these are briefly discussed:

1) The Agricultural Servicio has accomplished much in improving the production of animal products through their programs. This includes a very marked improvement in the production of broilers and eggs, and considerable effort is being made to improve the amount of beef and milk production. In this connection a report recently completed by Dr. David McIntosh of Kansas State University for ICA, in surveying the problems of meat production, points out the need for better refrigeration and processing facilities.

2) Special educational approaches are under way through the 4-F projects involving the activities of Mrs. Leslie Smith and others. Broiler chicks and feed have been given to individuals with very successful projects and upgrading of interests. The home demonstration efforts also have been productive in improving the nutritional appreciation of important foods at the family level where the need is greatest.

3) Mr. Lobell, Director of the Agricultural Servicio, is interested in developing a salt-fish product or a fish meal which can be produced cheaply and transported from the Coast to the Sierra as a low cost protein supplement for the Sierra families of low income. Considerable interest was expressed in this program, and if some funds could be made available there is good chance that this program would be implemented to a small degree in order to see whether or not the Indians in the Sierra would buy and use a good quality fish meal for human consumption. It was estimated that this might be produced at two or three sucres a pound.

4) The matter of salt production has been investigated thoroughly from an industrial standpoint and a report in Spanish is available. This was done by some industrial salt specialists from Salt Lake City.

5) This group has outlined plans for a new solar energy salt production plant which would require approximately five years to put into effect. Mr. Walker, Chief of the Industrial Branch, USOM, thought this should be undertaken since a better grade of salt is critical to industry expansion. The importance of iodizing salt at the present time was pointed out, even if it meant adding potassium iodate to the present contaminated salt which is high in moisture, high in sand, and high in other impurities. Probably machinery would wear out relatively soon,

1/ In ICNND files.
but this still is desirable, considering the low cost, as recommended in the report of the nutrition survey. If laws are established to require that all salt be iodized, and iodized salt becomes available, then it is believed that more pressure would be exerted by the people to maintain this, even if the equipment would wear out in six months. Since the cost of a plant for iodizing the salt would not exceed $3,000, it was recommended that this approach be used until a better method of salt production becomes available. The Ambassador himself was in agreement with this approach. This report on salt production will soon be available in English and can be obtained from Mr. Conger.

6) In connection with the need for increased nutrition education, it was pointed out by Mr. Milligan, Chief of Education, USOM, that lower cost transistor radios were now available and the distribution of these to Indians (Andean Mission) in the Sierra area will be stepped up. This could provide a means of reaching Indian families where no one is able to read or in school.

7) The need for central warehousing of semiperishable and nonperishable products such as wheat, corn, rice, potatoes, etc., was considered to be extremely important by Mr. Walker. This would prevent losses from rodents, insects and spoilage to a large degree, and would also prevent the tremendous seasonable fluctuation of price that now exists. It would result in a greater return to the farmer, which of course would be desirable from the standpoint of stimulating food production and improving the economic status of the entire population.

PUBLICITY

According to Mr. Robert Moore of the Embassy, this visit to Ecuador resulted in as much publicity as has accompanied the visit of almost any other group which he can remember. He had obtained a number of clippings from different newspapers forwarded additional ones to the ICNND office.

After each conference with the Minister, and after the formation of the National Committee on Nutrition, extensive releases appeared which gave detailed information concerning the survey, the findings and the recommendations. Essentially all of the material which was provided to the Ministers in Spanish translation form appeared in the newspapers. Several articles appeared on the need for iodizing salt and the need for a better salt supply. All of this is good, and it is hoped that the people will require that some of these steps be taken to improve their nutritional health.
SUMMARY

Discussions were held with the Minister of Social Welfare and Labor, Minister of Defense, and members of the National Planning Board of Ecuador, concerning the nutritional survey conducted by ICNND in the summer of 1959. Discussions also were held with the U. S. Ambassador, members of USOM, and the U. S. Army Mission. Other bilateral agencies were contacted and the findings and recommendations of the 1959 ICNND nutrition survey were reviewed.

Most significant, as a result of this visit a National Committee on Nutrition has been formed to include representation from the various Ministries of the government, as well as representatives from various U. S. and other bilateral agencies similarly concerned with the improvement of the nutritional status of the people of Ecuador. Specific concern was given to the need for improving the nutritional status of the Armed Forces, and detailed recommendations were discussed as a means of implementing an improved nutritional service in the military.

The visit was highly successful and stimulated concern and support of programs designed to improve nutritional health. It is hoped that the initiation of the National Nutrition Committee will provide the necessary administrative vehicle to effect better cooperation and coordination of effort of the various agencies involved.

Enclosures
Enclosure 1

January 15, 1961, 12 noon. Arrived in Quito, was met at airport by Mr. David Banowetz, U.S. Embassy; Mr. Harold G. Conger, Director, Health Servicio; Dr. Fabian Recalde, Director, National Institute of Nutrition; and Dr. William N. Pearson, ICNNND Consultant.

January 15, 1961, 2:00 p.m. Discussions with Dr. John J. Kevany, WHO Consultant to the National Institute of Nutrition.

January 16, 1961, 8:30 a.m. Conference with Mr. Conger.

January 16, 1961, 10:00 a.m. Conference with Mr. Robert Fuller, Head of Economic Section, U.S. Embassy, to arrange the various meetings. (Accompanied by Mr. Conger and Dr. Pearson)

January 16, 1961, 2:00 p.m. Conference with Dr. Recalde and Dr. Kevany.

January 16, 1961, 3:00 p.m. Conference with Colonel William F. Damon, Chief, U.S. Army Mission, concerning appointment with Minister of Defense. (Accompanied by Dr. Pearson)

January 16, 1961, 4:00 p.m. Conference with U.S. Ambassador, Mr. Maurice M. Bernbaum. (Accompanied by Mr. Conger, Mr. Moore and Dr. Pearson)

January 16, 1961, 5:00 p.m. Conference with Minister of Health and Labor, Mr. Jose A. Baquero de la Calle, and his Subsecretary for Health, Dr. Jose de la Torre. (Accompanied by Dr. Recalde, Dr. Kevany, Dr. Pearson and Mr. Conger)

January 17, 1961, 10:00 a.m. Conference with Minister of Defense, Mr. Patricio Lasso and staff, including Chief of the Military Hospital, Lt. Colonel (Dr.) Oswaldo Rodriguez. (Accompanied by Colonel Damon, Dr. Pearson and Dr. Kevany)

January 17, 1961, 3:00 p.m. Conference with Mr. C. Edmund Shuart, Head of Animal Nutrition, Division of Agriculture, USOM, concerning general development in animal production and need for collaborative efforts between the Agricultural Servicio and National Institute of Nutrition.

January 18, 1961, 3:30 p.m. Conference with USOM representatives including Mr. John Hummel, Director of USOM; Mr. Milton J. Lobel, Director of Agricultural Servicio; Mrs. Leslie Smith, Home Economics Specialist; Mr. Keith Angel, Programs Officer; Mr. Ezra Cross, Assistant Programs Officer; Mr. Walker, Industrial Division, USOM; Mr. Conger; Mr. Milligan, Education, USOM; Dr. Kevany; and Dr. Pearson.

January 18, 1961, 6:30 - 8:30 p.m. Attended party given by Embassy (Mr. Robert Moore) for Dr. Pearson and myself. Mr. Lasso and many other Ecuadorians attended. Dr. Jose Portilla, nutritional adviser to the military, and Dr. Recalde also attended.
January 19, 1961, 10:00 a.m. - 12:30 p.m. Conference with National Committee on Nutrition held at National Institute of Nutrition. This was attended by the Minister of Social Welfare and Labor, who actually moved the formation of the National Committee on Nutrition. Other members present who are officially part of this newly formed Committee on Nutrition are listed in Enclosure 2.

January 19, 1961, 4:30 - 5:30 p.m. Conference with Mr. Gemanico Salgado of the National Planning Board. Others attending were Mr. Andrade, Ecuadorian Programs Officer for the Servicio, Mr. Conger, Dr. Pearson, Dr. Kevany, and Messrs. Molina and Acosta of the Planning Board Staff.

January 20, 1961, 2:30 p.m. De-briefing conference with Mr. Robert Moore and Mr. David Banowetz, U.S. Embassy, concerning our activities.
Enclosure 2

NATIONAL NUTRITION COMMITTEE

President:
Dr. Fabián Recalde
Director, Instituto Nacional de Nutrición

Dr. Carlos Toledo
Director-General of Public Health, or his representative,
Dr. Alfonso Loza, Technical Health Inspector, Central Zone

Dr. Germánico Salgado, Technical Director of the Junta Nacional de Planificación y Coordinación Económica

Dr. Luis Alberto Palacios, Dean of the Faculty of Medicine of the Universidad Central, or his delegate

Dr. Carlos Andrade Martín
President of the Federación Médica Nacional

Lcdo. Héctor Lara, Director-General of Education
Representative of the Society of Pediatrics

Ing. Bolivar Cevallos, Director-General of Agriculture

Dr. Victor Hugo Moscoso, Director-General of Stock-Raising and Veterinary Medicine

Dr. John Kevany, WHO representative

Dr. Ian Kelton, FAO representative

Dr. Jean le Brocquy, UNICEF representative

Dr. Simon Romero Lozano, UNESCO representative

Mr. John Milligan, Director of the Servicio Cooperativo Interamericano de Educación

Dr. Harold G. Conger, Director of the Servicio Cooperativo Interamericano de Salud Pública

Mr. Milton Lobell, Director of the Servicio Cooperativo Interamericano de Agricultura

Mr. David Luscombe, Chief of the Misión Andina