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A proposal to implement a school-based
nutrition education project in Jamaica

by

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INTRODUCTION

This is a proposal for a school based Jamaican nutrition education action project. The project's immediate goal will be to demonstrate that student nutritional knowledge and understanding can be increased at the same time as reading ability is improved. The main means of reaching that goal will be through the development of reading materials that transmit information about local nutrition problems, and ways that students can help solve them, in an engaging manner. The project will address important issues related to the current state of the art in school health and nutrition education, i.e., can in-school learning be effectively used to promote changes in out-of-school behavior? can community-based approaches to nutrition message design and materials development be applied to a formal school setting? what is the most effective format for teaching/learning materials that transmit health/nutrition information to primary school students?

The project will be a collaborative effort involving Jamaica's Ministry of Education (the Lead Agency), the International Nutrition Communication Service (INCS), local technical resource specialists, the target community, the United Nations Development Program, UNESCO, and USAID/Jamaica. It will be carried out for 18 months on a pilot basis, at which point, if appropriate, plans will be made for expanding it to a national level. A representative sample of the nation's 120,000 grade 4 and 5 students, and their families, will be the primary target audience. Project results will be shared with educators and nutrition specialists throughout Jamaica, the Caribbean, and other Third World countries.

September 28, 1984

BACKGROUND

State of the Art

During the last decade great strides have been made in using education and communications methodologies to solve nutrition problems. A growing number of projects worldwide (e.g., the Indonesian Nutrition Behavior Improvement Project, the Morocco Supplementary Feeding Education Project, and the Honduras Mass Media and Health Practices Project) demonstrate that education is a powerful vehicle for changing nutrition knowledge, attitudes, practices, and behaviors.

All of these projects have relied on a community-based approach for the design of their educational messages and materials; all have focused on changing behaviors and practices as well as knowledge; all have focused on promoting practical solutions to locally specific nutrition and health problems, e.g., the use of locally grown foods to improve the growth rate of malnourished infants.

To date, however, the new nutrition communications technology has not been applied to formal school education. While much lip service is paid to the concepts of using school children as health and nutrition promoters, few models exist. This proposed project hopes to redress the situation. Its focal point will be the development of simple learning materials that deal in an engaging manner with local nutrition problems. Its immediate impact will be evaluated in terms of the ability of students to improve their reading skills while at the same time increase their nutritional understanding. However, the way in which the learning materials will be developed and implemented will be a gauge of a community-based behavior change approach to formal school nutrition education.

Jamaica Setting

Jamaica appears to be an excellent country in which to develop a new approach to school nutrition education. The following factors combine to create a favorable climate:

- o A Supportive Ministry of Education: The MOE in Jamaica is deeply concerned about student nutrition education. It has recently convened an inter-agency committee to advise the Ministry on issues related to nutrition education, curriculum development, and teacher training.

- o An Urgent Primary School Literacy Problem: Surveys in the past five years (carried out by UNESCO and the MOE itself) indicate that approximately 50 percent of primary school leavers are not reading up to minimum standards. The problem is complex, rooted in infrastructure and attendance issues. However, it has forced the Ministry to put renewed emphasis on primary school reading and the development of new approaches and materials for language arts.

- o A Shortage of Textbooks: Another major cause of the primary school literacy problem has been the shortage of textbooks. Until recently all textbooks either had to be bought or shared on a complex rotating basis. This year, however, due to the efforts of the Gleaner Newspaper, the MOE, the Jamaican private sector and the international donor community, a series of inexpensive (newsprint) student readers are being produced for take-home distribution to every primary school child. This is an important step in the direction of solving the textbook shortage problem. However, at this point there is no guarantee that the textbook production process will be institutionalized. Production (and development) of classroom reading materials is bound to be a major need for the next few years.

- o Identifiable School/Community Nutrition Problems: There is an absence of up-to-date information about Jamaican nutrition status and dietary practices. However, surveys carried out in the mid-seventies, as well as available health statistics, reflect the fact that Jamaica does not have as high a rate of malnutrition as many other Third World countries (though recent mini-surveys by the MOH's Nutrition Division have pinpointed pockets of malnutrition). Still,

many pressing, addressable problems remain. Problems that most greatly affect school-age children include lack of a nutritionally adequate breakfast and/or lunch; below average weight-for-age; improper snacking or junk food practices; inadequate utilization of locally available nutritious foods, such as fruits and vegetables.

- o The Existence of Supportive Local Health/Nutrition Institutions: The Nutrition Division in the Ministry of Health is committed to developing programs to help solve the country's nutrition problems. They have expressed a willingness to cooperate on the forthcoming Jamaican School Nutrition Promoter Project. Another excellent resource is the Caribbean Food and Nutrition Institute (CFNI). CFNI, along with a Nutrition Division Representative, participates in the MOE's inter-agency nutrition education advisory group. The project design team met with a CFNI staff member who expressed interest in becoming involved with the School Nutrition Promoter Project.

- o The Existence of Active Local Parent-Teacher Associations: Jamaica is blessed with a network of local PTAs that take a keen interest and involvement in local school activities. In the forthcoming School Nutrition Promoter Project, the PTAs will be the main mechanism for coordinating in-school learning with efforts to change family nutrition practices.

GOALS

- I. To demonstrate that the reading abilities and nutritional understanding of students in grades 4 and 5 can be improved at the same time through the use of classroom reading materials that carry nutrition messages.

- II. To demonstrate that a participatory process (involving parents, teachers, local resource people, and the MOE) can be used to develop locally relevant, effective nutrition education teaching and learning materials.

- III. To demonstrate that simple, effective primary school nutrition education teaching and learning materials can be rapidly developed and introduced into the educational system.

- IV. To test the relative effectiveness of alternative formats for in-school nutrition education materials.
- V. To demonstrate that classroom learning can be a vehicle for changing nutrition-related student behavior.
- VI. To explore the feasibility of using in-school learning as a means of changing home and community nutrition-related practices.
- VII. To help institutionalize within the Ministry of Education the capacity to develop effective nutrition education teaching and learning materials.

APPROACH

Seven steps are involved in the approach to the Jamaican School Nutrition Promoter Project: the design, collection, and analysis of baseline data; qualitative research into family food and nutrition attitudes and practices; community-based materials development; the establishment of a school/community infrastructure; in-school activities; out-of-school activities; project assessment; and dissemination and expansion.

- o Baseline Data: The project will begin by designing a simple survey instrument to collect baseline data on children's reading ability and nutritional understanding. The survey will be administered in the spring of the year preceding the project to students in grades 3 and 4 in the target territory. These same students in the following year (when they are in grades 4 and 5) will receive the project's learning materials. It is envisioned that the project will focus on a single educational territory, consisting of approximately 20-21 schools. Within each school the target population will consist of all children in grades 4 and 5 (approximately 4,000 total). The two grades have been selected to insure a sampling of children with varying reading ability. By the time students reach grades 4 and 5, they are expected to have mastered the rudiments of independent reading (yet not be preoccupied with preparation for the grade 6 primary school leaver exam).

An INCS evaluation specialist will assist the MOE project officer in the design and analysis of this survey. It will be used for internal purposes only.

- o Qualitative Research: In addition to the quantitative research that the project will conduct to collect baseline information regarding reading ability and students' nutritional knowledge, the project will also carry out qualitative research into the dietary attitudes and practices of students and their families. An INCS qualitative researcher, in collaboration with a local nutrition education specialist, will interview students and families to ascertain information about family health nutrition problems, food procurement preparation and intra-family distribution patterns, attitudes about the relationship between food and health, etc. The project qualitative research team will also engage parents and students in a dialogue related to the development of appropriate student nutrition-related tasks and about improved dietary behaviors for family members that will be promoted through the project.

- o Community-Based Materials Development: The schools in the project's territory will participate in workshops to develop the teaching and learning materials that the project will use. Participants in the workshops will include teachers, parents, MOE curriculum developers, bookwriters and artists, the project officer, the territorial officer, local public health/nutrition resource people, and three outside technical specialists (the qualitative researcher, the nutrition education specialist, and a children's book developer).

The goal of the workshops will be to develop a set of teaching and learning materials for both grades 4 and 5. Different formats (e.g., story books and comic books) will be designed to test the relative effectiveness for other transmission of nutrition information.

A series of tasks that students can carry out to help change their own, or their family's nutrition behavior will be defined. The tasks will be included in all student material regardless of format. A set of simple teacher instructions (that will be a part of each student's material) also will be developed.

Finally, the workshops will develop a simple home support material that will be distributed to families of children in the project as a means of reinforcing learning and behavior change objectives.

Representatives from local teachers colleges in Jamaica will be invited to attend the workshops. Materials will be developed based on a dialogue between parents, teachers, and resource specialist. Once input from the community has been gathered, MOE curriculum developers, writers, artists, and the children's book development specialist will spend an additional two-week period working together to develop prototype materials. All materials will be pre-tested with a sub-sample of teachers, parents, and students before being put into use.

- o Establishment of a School/Community Infrastructure: The project's effectiveness, to a large extent, will depend on the active support of teachers and parents of children in the target schools.

The Project Officer and the Territorial Officer will also conduct special orientation meetings for each associated PTA prior to the introduction of materials into the classroom. Throughout the year project staff and resource people will meet with teachers and PTA members to help monitor project activities.

A special effort will be made at the outset of the project to gain the support of teachers in the target area. Project staff will conduct special orientation sessions for participating teachers to convince them that the project should be a high teaching priority during the coming year. Their involvement in project design, implementation, and evaluation activities will be explained. A sponsor's Teacher Certificate, awarded at the end of the project activities, will be used as an incentive.

- o In-School Activities: During the first third of the school year the teachers will begin to integrate the teaching/learning materials into their regular language arts curriculum. Students will use the materials

in exercises in reading, comprehension, composition, spelling, and writing. The materials also will be used as a basis for discussions about community nutrition problems.

Beginning in the school year's second trimester, teachers will begin to orient students to the nutrition-related tasks outlined in the reading materials. They will then supervise the students in carrying out these tasks. (See Appendix for List of Possible Tasks.)

- o Out-of-School Activities: Many of the student nutrition tasks will be carried out in the home and community. PTA members will communicate information about the roles that families can play in the project. Adult support materials, containing information related to the improvement of dietary behavior, will be distributed to families of participating students. From time to time project staff will monitor the effect, if any, that the project is having on the nutrition behavior of members of the community.

- o Project Monitoring and Assessment: Before the project begins, the Project Officer will meet with participating teachers and technical support personnel to develop a standardized project monitoring instrument that teachers will administer throughout the year to measure student progress. Results of these periodic monitoring exercises will become part of the final project assessment.

At the end of the school year the evaluation specialist will assist project staff and participating teachers in designing and administering a survey to assess the extent to which students' reading abilities and nutritional understanding have increased. The project's baseline data will be used as a mark to measure progress. At the same time, the qualitative researcher and nutrition education specialist will conduct an observational survey to assess project impact on student and family nutrition-related behavior.

- o Dissemination and Expansion: A national conference will be held at the end of the project to discuss lessons learned and present plans for island-wide expansion. The conference will involve project staff, technical specialists and principals, teachers, parents and students from participating schools, as well as educators and nutrition education specialists from throughout Jamaica. Participants from other countries will be invited to attend as observers.

IMPLEMENTATION SCHEDULE

OCTOBER/ NOVEMBER 1984	Agreements from participating organizations
JANUARY/ FEBRUARY 1985	Design baseline survey for reading ability and nutritional knowledge (20 schools; grades 4 and 5)
MARCH/ MAY 1985	Carry out baseline survey
APRIL/ MAY 1985	Qualitative research into community dietary attitudes and practices
MAY/ JUNE 1985	Baseline survey analysis and codification of results of qualitative research
JUNE 1985	Planning and organization of two 3-day learning materials development workshops
JULY 1985	Conduct workshops
JULY/ AUGUST/ SEPTEMBER 1985	Development, preparation and field-testing of materials
SEPTEMBER/ OCTOBER 1985	Production and distribution of materials
OCTOBER 1985	Promotional PTA meetings in all schools; teacher orientation; introduction of materials into classrooms; development of project monitoring instrument

OCTOBER/ DECEMBER 1985	Use of materials for reading, comprehension, and understanding of nutrition
DECEMBER 1985	PTA meetings introducing parents to student tasks schedule-- first round of project monitoring
JANUARY 1986	Student-family tasks carried out and monitored
FEBRUARY 1986	Project monitoring
APRIL 1986	Project monitoring
JUNE 1986	Student/family assessment
JULY 1986	Project assessment, national meeting and planning for expansion, if appropriate

ORGANIZATIONAL FRAMEWORK

The International Nutrition Communication Service (INCS):

The International Nutrition Communication Service is a collaborative organization that provides support services to nutrition education projects in developing countries. INCS is made up of participating agencies with expertise in nutrition, public health, curriculum development and teacher training, nonformal education, mass media and social marketing. Participating INCS agencies include Education Development Center, Inc., a twenty-five year old nonprofit agency that specializes in health education project design and materials development; Manoff International, a pioneering firm in the use of mass media to promote public health, and schools of public health at the University of California at Los Angeles, and Columbia University.

At present INCS has both a contract and a cooperative agreement with the United States Agency for International Development's Office of Nutrition. INCS also has received additional support from UNICEF and the World Health Organization.

The primary goal of INCS is to develop projects with nutrition and/or education institutions in developing countries that demonstrate ways in which education and communications methodologies can be used to improve the nutritional status and behaviors of low income target groups. In most cases management of INCS-supported projects rests with a host-country institution, on the premise that lessons learned from the project need to be internally institutionalized. INCS's role is to collaborate with specialists from the host country on project design, provide technical support for project implementation and evaluation, and give limited funding support for the development of prototype materials.

Organizational Framework for the Jamaica School Nutrition Promoter Project^{*}:

The Jamaica School Nutrition Promoter Project will be a collaborative effort involving the Jamaica Ministry of Education, the International Nutrition Communication Service, local technical resource specialists, the target community, UNESCO/UNDP, and USAID/Jamaica. The institutions involved will have the following responsibilities:

- o Ministry of Education: overall responsibility for coordinating project activities; organizing major events; project budgeting and scheduling; monitoring of progress. Provision of project officer (50% time), territorial supervisor (20%), and clerical support.
- o INCS: provision of technical support specialists, specifically an education and training specialist, an evaluation expert, a qualitative researcher, a children's book development specialist, and a local artist; support for project dissemination conference.
- o Local Technical Resource Specialist: provision of the part-time services of a local nutritionist familiar with the target community and a local nutrition educator. Based on preliminary discussions, it is anticipated that the local nutritionist will be available through

^{*}A project organization chart appears on page ___ of this proposal.

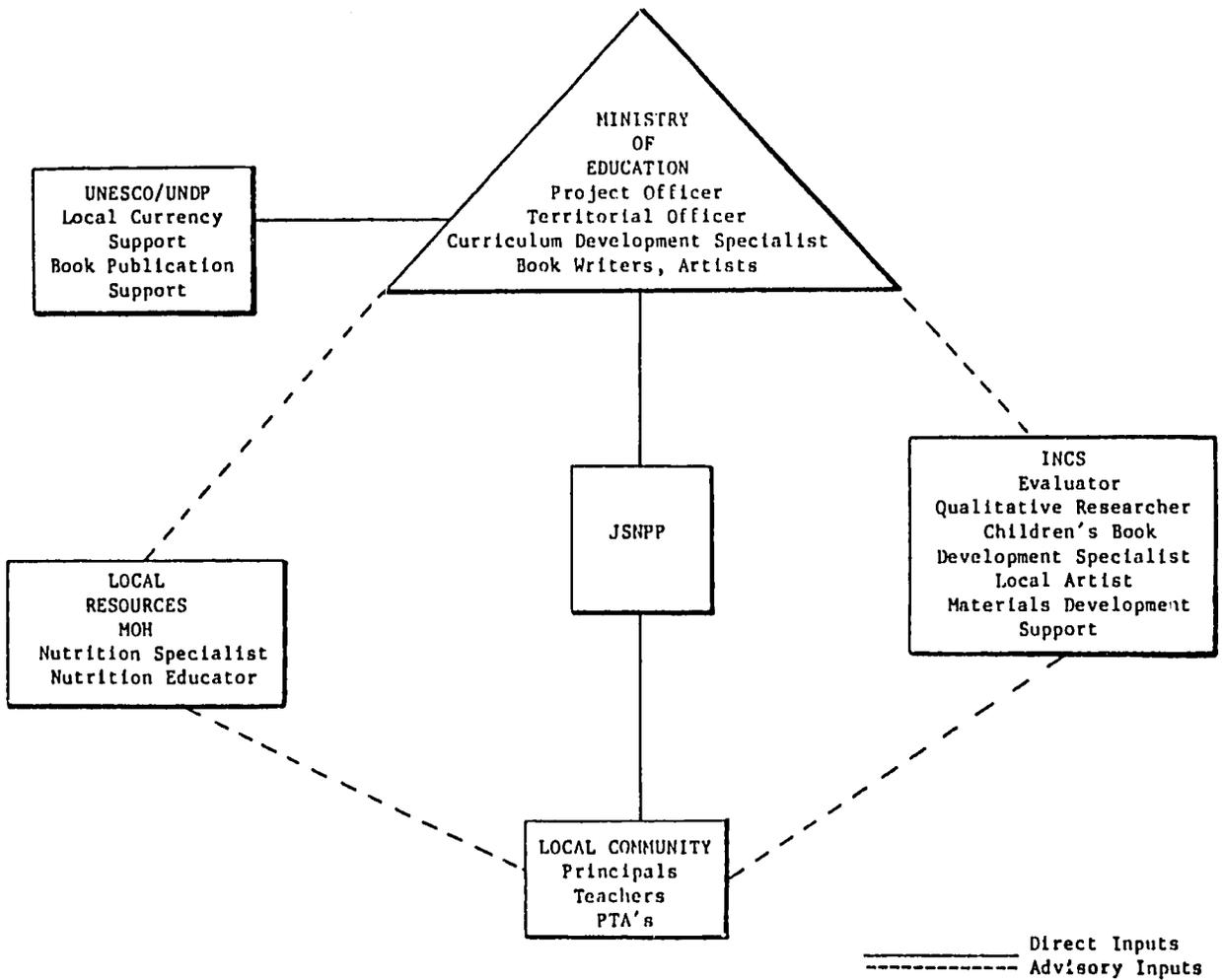
the Ministry of Health's Nutrition Division, and the nutrition educator through the Caribbean Food and Nutrition Institute.

- o The Target Community: Active involvement of members of the target community in all phases of the project's operation. Principals, parents and teachers will be involved in the processes of developing materials, project promotion, monitoring, and evaluation.

- o UNESCO: Contribution of funds by UNESCO to support the costs of publishing the project's teaching and learning materials.

- o UNDP: UNDP will make available local cost-sharing matching funds available through a special agreement between UNDP and the Government of Jamaica to cover project technical assistance, i.e., per diem cost, workshop expenses, local transportation.

- o USAID/Jamaica: Act as a liaison between the MOE, the International Nutrition Communication Service, and other collaborating agencies.



JAMAICA SCHOOL NUTRITION PROMOTER PROJECT (JSNPP)

PROJECT STAFF

PROJECT OFFICER	Coordinate overall project; monitor activities; organize major events; supervise other staff and technical support personnel; provide liaison with all collaborating agencies; supervise budget; develop strategies for project expansion.
TERRITORIAL OFFICER	Organize inputs of school principals, teachers, students and parents; supervise and monitor school activities; assist in data collection and organization of materials development workshop and promotional PTA meetings; carry out necessary teacher orientation; distribute materials to schools.

TECHNICAL SUPPORT PERSONNEL

EVALUATOR	Design baseline and analyze results; design and analyze project assessment.
QUALITATIVE RESEARCHER	Work with nutrition education specialist to design, administer, and assess qualitative research into community dietary practices; act as a resource person at the materials development workshop.
NUTRITION EDUCATION SPECIALIST	Work with the qualitative researcher in the design, administration, and assessment of qualitative research; act as a resource person at the materials development workshop; assist in project monitoring and assessment.
CHILDREN'S BOOK DEVELOPMENT ADVISOR	Participate in materials development workshop; provide technical advice to local children's book writers and collaborate with local artist.
LOCAL ARTIST	Participate in materials development workshop; collaborate with Children's Book Development Advisor on illustrations for reading materials.

LOCAL RESOURCE PEOPLE

SCHOOL PRINCIPALS	Advise on development of baseline survey; supervise use of materials in classroom; facilitate student/family interactions; participate in project assessment.
CLASSROOM TEACHERS	Advise on the development of baseline survey; assist in development of learning materials; introduce and use materials in classroom; help students achieve learning objectives; guide students in carrying out tasks; participate in designing project monitoring and assessment system.
PTA	Selected parents in PTA assist in the development of learning materials; PTA acts as link between school and community in task implementation; participate in project assignment.

CURRICULUM
DEVELOPERS,
LOCAL
CHILDREN
BOOK
WRITERS

Assist in the development of learning materials at the workshop.

LOCAL
NUTRITION
HEALTH
SPECIALIST

Advise on specific nutritional problems in communities.

APPENDIX

I. Possible Student Nutrition Tasks

- o conduct food habits survey of home and community
- o make greater use (i.e., consume more) locally grown nutritious foods
- o plan family meals for a week
- o identify/help care for malnourished siblings or community members
- o measure their intake of salt and sugar in a day
- o improve home breakfast behavior
- o improve school lunch and/or snack food behavior
- o learn how to read food labels
- o become aware of the relationship of dietary intake to school performance

II. Possible Supportive Adult Behaviors

- o provide more nutritious breakfast for children
- o modify intra-family food distribution pattern
- o register for food stamps and use them to purchase nutritious commodities
- o lobby school vendors to sell more nutritious snack foods
- o discourage children from using lunch money to purchase junk food
- o serve more nutritious locally grown foodstuffs at meals
- o Teach children how to make a food budget and how to grow, procure, and prepare meals

LIST OF PEOPLE CONTACTED

MINISTRY OF EDUCATION

Mr. Cecil Turner	Permanent Secretary
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