<table>
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<th>Title</th>
<th>Case study: public health education campaign for nutrition.</th>
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<tr>
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Case Study: Public Health Education Campaign For Nutrition

By

Virginia Oraes
INTRODUCTION

Health Education of the public is an integral part of all the health programs of the Department of Health designed to change negative attitudes and behavior of the rural population on health and nutrition. Through the years, varied approaches to health education such as individual, group and mass media had been utilized by the health personnel. More sophisticated medium such as radios and televisions were utilized for urban population and since 1983 the trimedia approach of print, radio and television were tried but of limited coverage. Inspite of all these efforts and big expenditures on H.E., the slow pace end progress in the acceptance and adoption of positive health and nutrition practices in the Philippines had given a lot of concern to the authorities of the health department.

Efforts were then exerted to explore effective strategies in order to gain faster progress and more impact in terms of bringing about positive health and nutrition practices among the target population. Certain changes in focus and the adoption of the PHC approach had opened more avenues for applying better and more effective H.E. approaches. Since 1979 the Department of Health had trained selected community members as Volunteer health workers or Barangay Health Workers (BHWs) to provide health education services and give first aid and simple treatment to common ailments. In 1983 more BHW were added to have one (1) BHW for every twenty (20) households in order to reach the thirty seven per cent (37%) underserved and unserved portion of the rural population. And since 1985, selected BHWs were trained to organize study groups from among the members of the twenty (20) household under their care and conduct and facilitate regular teaching to these study groups utilizing a prepared Household Teaching Manual.

BASIS OF THE CASE STUDY

This case study is based on the project funded by the Asian Mass Media Research and Information Centre (AMIC) conducted from February 1, 1985 to March 30, 1986. The proposal of the project was presented by Philippine participants during the Roundtable on "Health Education Needs the Media" conducted by AMIC in 1984 in the Republic of Singapore. The project was implemented jointly by the Department of Health and the defunct National Media Production Center (NMPC), since the proponents represented these two agencies.
The project was entitled "Strengthening the Interpersonal Activities of the Barangay Health Workers (BHWs) in the Promotion/Adoption of Some Health and Nutrition Practices with the Use of Radio and Print Media". It was premised on the idea that given the necessary support to improve the existing capabilities of the BHWs they have great potential of reaching the mass base of the population and hasten the process of educating them on health and nutrition. Since malnutrition still figures as one of the major health problems of the country, which is closely linked with other health problems such as diarrheal disease and rapid population growth, nutrition education should be given hand in hand with the health education of the other health programs.

The main approach of the project was focused on strengthening the interpersonal activities of the BHW, using in addition to the usual print materials, radio programs beamed thru the government radio station for twenty seven (27) weeks. The topics covered in this "school-on-the-air" type of program served as basis for the study or discussion of the groups coordinated and facilitated by the BHW. The midwives and other members of the rural health staff provided the technical and moral support to the BHWs.

SITUATIONAL ANALYSIS

This case study, culled from the aforementioned project involves the seven (7) barangays in the municipality of Bustos, province of Bulacan. The province of Bulacan has a total of 1,096,046 population at the time of the study and the municipality of Bustos has approximately 12,500 population.

The municipality of Bustos and the seven (7) barangays included in the study are made up of agricultural villages and the main pre-occupation of the people is planting rice augmented by corn, peanuts, and vegetables. Inspite of this, poor or malnutrition, particularly among the 0-6 year old children, still persists and are noticeable. Since the presence of malnutrition was one of the criteria in the selection of the study areas the table in the following page attest to this allegation:
In 1980, report shows that the literacy rate of the population is 89% and since the areas are all accessible to land transportation which comes on regular basis, means of communication is quite reliable and within the reach of the population. Newspapers, dailies, magazines and comics published in Metro Manila are available in the center of the town (Poblacion) and pre-survey revealed that 42.8% read the newspapers, 17.4% magazines and 65.2% comics. Comics with serialized love and horror stories were preferred and circulated in the neighborhood. None of the printed materials such as leaflets and pamphlets on health, nutrition and the like, published and distributed by the DOH and other agencies were found in the households of the communities involved in the study. Although posters on the three food groups, family planning, immunization and communicable diseases such as measles, polio, etc. were posted in all the walls of the Barangay Health Stations where the midwives are based, most cannot remember the messages being depicted and apparently very few took notice of these as verified in the pre-project assessment.

About 83% listens to the radio and 61% of households owns a radio, although some who do not own a radio set stated that they usually listen from their neighbor's radio. The radio programs preferred are the soap-box serialized dramas, followed by musicals hosted by their favorite superstars, and news in the vernacular. None mentioned programs or jingles on health and related informations.
PLANNING PROCESS

The project involved the staff at all levels in the planning for the actual implementation. Social preparation from the national down to the municipal levels were conducted. At the national level the then Minister of Health was appraised of the project and his approval was obtained thru the signing of a Ministry Order designating the project staff at the national level.

The regional and provincial staff of the selected areas were also oriented on the objectives and mechanics of the project for the final selection of the villages/barangays. Project coordinators at the regional and provincial levels were also designated.

Selection of Study Areas

Since the study utilized the experimental approach, selection of the experimental and control areas were jointly conducted by the project staff at the national level and key provincial staff. Several municipalities in Bulacan were visited and two comparable municipalities were finally selected, one designated as the experimental area (Bustos) and the other the control areas (Paombong).

Seven (7) barangays in each of these two municipalities were identified as the study areas.

Social Preparation

Social preparation started a couple of months before the launching of the project since funding was not available until the second month of 1985. While this activity was done even after the planning phase, dialogues and meeting with key officials of the Department of Health and local government were conducted to get their approval and full support.

Meetings and orientation of members of the barangay councils (BC) and organized Barangay Primary Health Care Committees (BPHCC) were also conducted in all the seven (7) barangays in the experimental areas prior to the actual implementation in order to establish active community involvement and participation in all aspects/ phases of the project.

Social preparation included also the posting of posters and streamers in strategic areas of the selected barangays, such as the
Completing the initial training. Efforts were exerted to develop their capability to organize, sustain, and facilitate study groups for radio listening and household teaching.

The course was conducted every afternoon which was agreed upon as the most convenient time to all and ran for five (5) consecutive days. The first afternoon was devoted in discussing the project and its mechanics. The need to clarify the role of the BHW, midwives and other members of the RHU unit evolved during the first day so that role clarification sessions were conducted among those involved in the project. Review on the content relevant to delivery of the basic health services followed and consumed about two afternoons. The last two afternoons were then devoted to practicing how to listen to prepared tapes simulating the radio programs to be aired and identify key messages from such programs. Taped radio programs on the topics were utilized for this purpose and at the same time pre-testing of these programs were also done on the participants.

Development of Radio Programs and Print Materials

The basis of the development of these materials were the results of the pre-project survey. These activities were mainly carried out by the project staff from the NMPC. Each of the twenty seven (27) radio programs which is for thirty minutes has three parts:

1. basic information on the topic given by an expert or authority on health and nutrition from the Department of Health or from a member of the community;

2. drama portion depicting an issue or problem related to the topic; and

3. answer-question portion, usually covers an answer to a query previously aired or presented.

Initially, fifteen (15) major topics on health and nutrition were developed into thirty minute radio programs, and the rest of the twenty seven (27) programs were based on other topics the BHW and community members had requested to supplement what were already aired. Out of the twenty seven (27) topics, about nine (9) were specifically on nutrition including food production and preparation.

Print materials, including a guide for the BHW and other project staff were also developed. The guide entitled "Gabay Sa Kalusugan" describes in detail the different topics covered by the radio programs.
Organization of Study Groups

Prior to the actual airing of the radio programs the sixty five (65) BHVs who completed the training organized the study groups from members of household within their catchment areas. Schedules and plans for radio listening and group discussions were drawn taking into consideration the convenience and availability of the community members and BHV.

IMPLEMENTATION PHASE

The airing of the first radio program was the start of this phase of the project. The radio programs were aired from a government radio station, DZRD 918 mhz. which has a nation-wide hook-up. The thirty (30) minute program entitled "Puera-Biro" or "No Joke" was scheduled every afternoon from 12:30 to 1:00.

Process and Approaches

The major activities included listening to the radio programs and convening the study groups to discuss the salient and key messages. The study groups were facilitated by the BHV in-charge of the group, with the members of the HHE staff providing the back-up and support to the BHV.

At the beginning three (3) schemes of radio listening and conduct of the group discussion were tried. These were:

1. Individual listening to radio programs followed immediately with the group discussion in the same afternoon the program was aired;
2. Individual listening to radio programs and group discussion scheduled the next day or at a later date when all members are available; and
3. Group listening followed immediately with the group discussion.

It was observed later that several groups tended to try all the above schemes and settled for one that is suitable and convenient of all the members. For those who did not have any radio at home, the third scheme was preferred and it was found to be helpful because they had opportunity to immediately validate the understanding of what was heard.
The RHU staff who were provided with radio cassette each taped all the programs and lent out to members who want to listen again or who failed to listen for certain valid reason. Taped programs were also re-run when doubts exists or when the topic(s) is/are interesting and the group wants to listen to them again.

As mentioned earlier, social preparation thru community assembly and dialogues were continuously conducted to get other members to take interest in the radio programs and participate in the study group discussions.

Problems Encountered/Resolved

The project encountered several problems which were manageable and resolved during the implementation phase. These are:

1. At the time the project was launched, it was planting season in the area and so most of the older family members were out in the farms. Adjustment of schedules of study group sessions had to be made like scheduling it in the evening so that both the BHWs and family members can attend. In some instances, teen-age girls were allowed to attend in place of their mothers who were busy planting rice. Radio listening in the farms was also done since the radio programs were aired at noontime when the farmers or "planters" were taking their lunch and resting.

2. Some mothers who do not have radios at home missed to listen because the program coincided at the time they were busy preparing lunch or attending to the needs of their school age children and husband. This was resolved by listening to the taped programs prior to the group discussion.

3. Some BHWs were shy and/or has difficulty in facilitating the group discussions. Individual tutoring of BHW were done by the RHU staff and central project staff. After the 3rd or 4th airing some BHWs requested that they team-up with another and join their group. This was allowed and the team teaching approach helped develop self-confidence in facilitating. Some household members who joined the study group discussions were retired teachers and civic workers who also co-facilitated with the BHW in topics they were well versed with.
4. During the twenty seven (27) weeks of radio airing and household teaching there were five (5) drop-outs from among the BHWs due to illness and transfer in residence. Since there was no more time to train BHW to replace the drop-outs, their study group were joined with the group of an active BHW nearest their residence.

5. There were occasions when the project staff from the central office were unable to monitor and supervise the study group discussions because of heavy rain that roads leading to the different barangays were flooded and unpassable.

6. There were several Saturdays when the air time for the program was sequestered by the government for the snap elections. This delayed the completion of the project and the conduction of the final evaluation.

7. The attendance of some household members was not consistent and there were new comers even up to the time of the last few airings. A cut-off number of attendance was set in order to give credit and acknowledge those who had been consistently attending.

STRENGTHS AND WEAKNESSES

The strengths of the project had offset the weakness identified. The strengths are as follows:

1. Positive attitude of management and staff at all levels to pursue and try an innovative approach on health education;

2. Willingness and cooperation extended by the local officials, leaders, and health personnel inspite of the problems encountered;

3. Flexibility and permissiveness of the funding agency to support and allow introduction of other strategies/changes deemed necessary to sustain and maintain the gains already acquired i.e. incentives for BHWs and EHU staff, increase budget for evaluation;

4. Diligence of the project staff at all levels in monitoring/supervising the activities in all phases of the project;
5. Air time was free and program beamed thru a government radio station with wide coverage thus others not included in the study areas had also benefited;

6. Sufficiency of the funds and other logistics for the major components of the project and flexibility to utilize other available resources to maximize existing funds from outside source i.e. part of printing cost and materials taken from local funding;

7. Openness of the staff, BHW and others involved in all phases of the project to discuss and resolve major problems as they occur; and

8. The project was phased in such a way that other activities of the staff were not hampered.

Health education of the public and the strategies to promote such activity is developmental in nature and requires more time and efforts in sustaining and maintaining the gains already achieved. Therefore the weakness of this project is the lack of provision for the dissemination of the results of the study for replicability in a wider scale and institutionalize the use of radio in household teaching by BHW in areas where it is applicable/suitable.

ANALYSIS OF DATA

There are evidences that increment in knowledge and development of positive attitude on health and nutrition accrued from this project among the people in the study areas.

In terms of understanding health as a state of physical and mental fitness the change from 33.5% in the pre-survey to 83.5% in the post-survey in the experimental areas indicate positive results, compared to 38.5% in the pre-survey and 61% in the post-survey. The perception that health is maintained by proper and good health habits including nutrition was 44.5% in the pre and 65% in the post survey in the experimental areas.

Improvement in knowledge and behavior is demonstrative in the change in preference of foods for breakfast, lunch, and supper. There was a shift towards the more nutritious food and balance diet. An important observation was made in relation to the snacks served during the group session. The project provided funds for snacks of
the BHWs and household members. At the beginning soft drinks with cookies and some junk foods were served in all the groups. After the session in Nutrition all had avoided serving soft drinks and junk food and had resorted in preparing low cost but nutritious food, like fresh calamansi juice, guyabano juice with boiled or roasted peanuts, boiled yellow/orange camotes or boiled yellow corn, chicken arroz caldo and guinatan.

Perception of the nutritional needs of pregnant and lactating mothers also changed from 7% in the pre- and 97% in the post-survey. That mothers needs more vitamins and minerals change in knowledge dramatically shifted from 7.1% in the pre to 80.2% in the post-survey. And usefulness of proper/good nutrition during pregnancy changed from 65.3% to 100%. These changes in knowledge and perception is also true in the promotion for breastfeeding wherein 78.6% indicated in the pre-survey that mothers should breastfed their N.B. to 95.8% in the post survey. This is also true in change in perception on advantages of breast milk over milk formula.

On whether children should be weighed 53.5% indicated a positive response and that this should be done monthly (12% in pre and 59.8% in post-survey).

In relation to management of malnourished children, 36% during the pre-survey indicated giving of nutritious food will remedy the condition and this increased to 75% in the post. Even the preference of foods to be given to normal and malnourished children presented positive change.

Positive response was also given on knowledge and familiarity of the three food groups, only 35% during the pre-survey and increase to 100% in the post survey. This increase in knowledge also accounts in the previous finding that food preference for the three meals and snacks showed dramatic change.

Knowledge of the causes and prevention of anemia, goiter and night blindness also changed greatly. In anemia 77.5% during the pre-survey said they already have knowledge on this problem and increased to 98% during the post. Relationship of lack of foods rich in iodine to goiter was also learned (9% in the pre and 81.5% in the post).

The role of good nutrition to the prevention of colds, pneumonia, and tooth decay all yielded also positive change.
The increase in rendership and listening to health messages aired in the radio also increased indicating that the people are now sensitive and open to opportunities that shall provide informations to improve their lot.

**Conclusion**

The great difference between the results of the pre and post surveys in study areas and that of the experimental and control groups proved that the positive change in attitude and behaviors among the people in the study areas is attibuted to the strategy used to enhance/strengthen the NHWS interpersonal relations and can be generalized in comparable areas/culture.

It can also be concluded that with the positive change in behavior and attitude towards health in general and nutrition in particular, and given the appropriate support thru food commodity, malnutrition among children 0-6 years in Rostos can be minimized, if not completely eliminated.

In conclusion the following are the lessons gained from this project:

1. The importance of gaining management support and cooperation of all staff at all levels for the smooth accomplishment of the activities.

2. Involving actively all those concerned in the project from the preparatory to the implementation had facilitated in the prompt solutions of problems identified.

3. Use of varied medium and approaches in health education can be maximize the acceptance/adoption of positive health and nutrition practices.

4. That people in the rural areas are eager to learn and are willing to sacrifice time, efforts, and confort in order to improve their lot.

5. Continuous social preparation activities even during the implementation phase are necessary to increase coverage and get more people to join the study groups discussions.

6. People will listen to radio programs and read print materials on health and nutrition if the format, presentation, and
schools, chapels, sari-sari stores, and at the junctions and/or
cross roads leading to the areas.

Pre-Survey

Questionnaires were developed by the project staff and pre-
tested in the barangays in Bustos not included in the study. The
results of this pre-survey were used as basis for the development
of the topics for the radio programs, and the print materials in-
corporated in the guide manual (entitled "Gabay Sa Kalusugan"). It
also served to establish baseline data, including the level of know-
ledge and practice of certain health and nutrition concepts of the
people, as well as their reading and listening habits.

Two hundred (200) household heads selected by random sampling
from the seven (7) barangays designated as the experimental areas,
and the same number from the seven (7) barangays of the control
areas.

Training of Health Personnel

Live-in training of the fourteen (14) rural health unit staff
was conducted. The training involved strengthening the capabilities
of the RHU staff to train and provide support to the BHWs during the
study group discussion. Sessions on supervision and monitoring the
project activities were also included and the major outputs of this
training were the syllabus for the training of the BHWs, schedule of
training, tools for supervision and monitoring the project.

While the central project staff conducted and facilitated this
training, the participants actively gave their inputs in terms of
developing the supervisory and monitory schemes.

Training of the BHW

This was the most important aspect of the project since the
effective and efficient implementation hinges on the quality of trai-
ing of the BHW. Most of the sixty eight (68) BHWs had already com-
pleted two courses and were already prepared to give simple health/
nutrition informations and provide simple first aid measures and
treatment of simple/common ailments.

Need assessment of the BHW done during the training of the RHU
staff serve as a means of identifying their weaknesses in terms of
the KAS necessary to perform the tasks expected of them after com-
content are attuned to their taste and needs.

7. Support mechanism to sustain and maintain the gains achieved should be part of any project proposal which could be in the form of social recognition, awards, and other incentives.

8. That promoting positive health and nutrition practices thru health education is a long, continuous process requiring diligence and sincerity in purpose/effort among the health personnel. That this is not possible without the full cooperation and involvement of the clientele.
# Malnutrition Status of Under-6 Children

(in the seven (7) Barangays)

<table>
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<tr>
<th>BARANGAYS</th>
<th>1984</th>
<th>1985</th>
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<tr>
<td></td>
<td>1st°</td>
<td>2nd°</td>
<td>3rd°</td>
</tr>
<tr>
<td>1. Liciada</td>
<td>147</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>2. Buisan</td>
<td>119</td>
<td>41</td>
<td>4</td>
</tr>
<tr>
<td>3. Malamig</td>
<td>129</td>
<td>41</td>
<td>4</td>
</tr>
<tr>
<td>4. Malawak</td>
<td>75</td>
<td>60</td>
<td>3</td>
</tr>
<tr>
<td>5. Catacte</td>
<td>75</td>
<td>56</td>
<td>5</td>
</tr>
<tr>
<td>6. Poblacion</td>
<td>159</td>
<td>113</td>
<td>6</td>
</tr>
<tr>
<td>7. Camachilhan</td>
<td>109</td>
<td>36</td>
<td>5</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>813</td>
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### SUMMARY OF RESULTS ON NUTRITION

#### PRE/POST SURVEY

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<th>CONTROL GROUP</th>
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<td>PRE-SURVEY</td>
<td>POST-SURVEY</td>
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<tr>
<td>1. Understanding of Health as physical and mental fitness</td>
<td>33.5</td>
<td>83.5</td>
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<tr>
<td>2. Perception that health is maintained by proper/good health habits and nutrition</td>
<td>44.5</td>
<td>85</td>
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<tr>
<td>3. Foods rich in vitamins/minerals needed during pregnancy</td>
<td>7.1</td>
<td>80.2</td>
</tr>
<tr>
<td></td>
<td>Usefulness of foods eaten during pregnancy</td>
<td>65.3</td>
</tr>
<tr>
<td>5. Yes, mothers should breastfed</td>
<td>78.8</td>
<td>95.8</td>
</tr>
<tr>
<td>6. Mothers milk advantageous than artificial</td>
<td>60</td>
<td>79.5</td>
</tr>
<tr>
<td>7. Nursing mothers need nutritious food</td>
<td>79</td>
<td>97</td>
</tr>
<tr>
<td>8. Yes, to need for weighing children</td>
<td>53.5</td>
<td>82</td>
</tr>
<tr>
<td>9. That children should be weighed monthly</td>
<td>12</td>
<td>59.8</td>
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<tr>
<td>10. Knowledge on proper nutrition (yes)</td>
<td>75.5</td>
<td>99.5</td>
</tr>
<tr>
<td>11. Proper nutrition means balance and nutritious diet</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>12. That proper nutrition promotes good health</td>
<td>42.5</td>
<td>67.5</td>
</tr>
<tr>
<td>13. Familiarity with the three food groups</td>
<td>35</td>
<td>95</td>
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<tr>
<td>14. Knowledge of the relation of anemia to poor nutrition</td>
<td>77.5</td>
<td>9.8</td>
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<tr>
<td>15. Knowledge of foods/nutrient that will prevent anemia (green leafy veg. liver, etc)</td>
<td>52.4</td>
<td>81</td>
</tr>
<tr>
<td>16. Knowledge about goiter</td>
<td>56.5</td>
<td>93.5</td>
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<tr>
<td>17. That goiter is due to poor nutrition</td>
<td>0.1</td>
<td>68.7</td>
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<tr>
<td>18. Knowledge about night blindness</td>
<td>63.5</td>
<td>88.5</td>
</tr>
<tr>
<td>19. That night blindness is due to lack of Vit. A</td>
<td>9</td>
<td>81.5</td>
</tr>
<tr>
<td>20. That diarrhea is fatal and lead to dehydration and malnutrition</td>
<td>71</td>
<td>93</td>
</tr>
<tr>
<td>21. Relationship of tooth decay to nutrition</td>
<td>67</td>
<td>85</td>
</tr>
</tbody>
</table>