

PROMOTIONAL MODEL: A NEW DIRECTION FOR NATIONAL PROGRAMME IN IMMUNIZATION (NPI) AND ORAL REHYDRATION THERAPY (ORT) IN NIGERIA

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ABSTRACT The National Programme on Immunization (NPI), formerly known as the Expanded Programme on Immunization (EPI) and Oral Rehydration Therapy (ORT), were relaunched in 1984 after the problems of vaccine supply have been corrected. The NPI aimed to protect children against six childhood killer diseases and ORT, to remedy dehydration. In order to achieve these objectives, Partner-in-Health strategy was set up to educate, convince and motivate mothers, pregnant women and community to accept the programme. To assess the effect of the promotional strategy, the government conduct National Immunization Coverage survey. The survey found lack of information and motivation as key components of immunization failure.

After an evaluation of promotional strategy set up by the Government, a pilot survey was conducted from which nine promotional elements were selected. These promotional elements were regarded of sources of information and motivation. Based on these, a promotional model was set up which stated that promotion depends of consumer information which in turn depends on the extent of interaction between consumer and promotional elements. The implication of the model is the need for formation of Public Health Organization from Public Health Committee at all levels of Government.

Key Words: Immunization; Therapy; Rehydration; Dehydration Public Health.

BACKGROUND OF THE STUDY

In 1984 Nigeria relaunched two programmes to protect our children from dangerous childhood diseases. One of the two programmes was Expanded Programme on Immunization (EPI), renamed National Programme on Immunization (NPI). The aim of the programme was to immunize at least 80% of all children aged 0-2 years before 1990, and 80% of pregnant women to be vaccinated against tetanus. The killer diseases are measles, poliomyelitis, tetanus, whooping cough, tuberculosis and diphtheria (Federal Government of Nigeria/UNICEF, 1984a).

The other programme was Oral Rehydration Therapy (ORT) which was designed to teach at least 50% of parents with children aged 0-5 years, how to prevent death from diarrhoea by using a simple, cheap, home-made salt-sugar solution to rehydrate children with diarrhoea.

In order to achieve these objectives, "Partners-in-Health", strategy was set up to educate, convince and motivate mothers, pregnant women and the community at large to utilize the service (Federal Government of Nigeria/UNICEF, 1984b).

According to the Ministry of Health the main task of Partner in Health is to educate and convince mothers of the value of NPI/ORT in preventing the six childhood killer diseases and in control of diarrhoea so that they:

1. Decide it is worthwhile to invest (time, money, and energy) in repeated trip to the vaccination centre to complete all the doses.
2. Can prepare salt-sugar-solution at home.
3. Can recognize the early signs of dehydration.
4. Have enough faith in efficacy of ORT, to prepare and use it when diarrhoea strikes.
5. Know when to seek additional medical aid in cases of severe diarrhoea. (Federal Government of Nigeria/UNICEF, 1984c).

THE NATIONAL IMMUNIZATION COVERAGE SURVEY REPORT OF 1991

To assess the effect of the promotional strategy, the Federal Government of Nigeria decided to conduct National Immunization Coverage survey. The objectives

Table 1. Immunization Coverage by Antigen of 12-13 Month Cohort on Crude Data Up to 2 Years of Age, by State, February 1991.

STATE	BCG	BCG SCAR	DPT1/ OPV1	DPT3/ OPV3	MEASLES	FULL VACC	CARD RETENTION
AKWA IBOM	97.6	90.0	974.0	89.0	93.8	88.5	93.8
ANAMBRA	99.5	93.2	99.8	94.7	93.7	89.8	99.0
BENUE	95.7	90.0	93.6	74.0	78.5	67.0	86.1
CROSS RIVER	99.0	96.2	97.6	85.2	86.1	80.4	93.3
IMO	90.1	79.7	88.1	78.2	76.2	69.8	76.7
RIVERS	96.7	91.4	94.5	83.5	86.1	79.4	90.0
ZONE A	95.9	90.1	94.8	84.4	85.6	79.1	89.8
BENDEL	79.0	68.8	73.7	52.7	53.7	46.8	56.6
LAGOS	96.7	77.5	95.0	86.1	77.5	73.2	84.2
OGUN	98.5	85.5	98.5	87.5	88.0	85.0	93.0
ONDO	99.5	85.1	98.6	90.9	92.3	87.5	89.4
OYO	99.0	93.8	98.5	89.2	89.7	84.8	96.2
ZONE B	95.2	82.1	93.7	82.5	81.9	76.9	83.9
ABUJA	100.0	97.7	100.0	100.0	100.0	100.0	99.6
KADUNA	100.0	97.5	100.0	94.1	94.1	91.6	97.5
KATSINA	89.6	83.4	88.4	65.4	75.8	61.6	74.4
KWARA	100.0	90.6	100.0	100.0	100.0	100.0	99.9
NIGER	99.0	85.6	97.4	83.0	92.3	82.7	86.7
SOKOTO	99.0	86.5	98.4	91.1	92.3	88.9	89.4
ZONE C	97.3	90.2	96.7	86.8	90.3	84.7	91.3
BAUCHI	99.0	93.2	97.6	32.5	89.8	80.1	89.8
BORNO	98.1	91.5	98.3	81.4	95.1	85.9	97.1
GONGOLA	97.1	91.3	96.2	81.7	87.5	80.3	86.5
KANO	89.9	79.7	89.4	58.0	73.9	51.7	79.7
PLATEAU	89.7	81.4	85.8	63.7	73.0	58.3	76.5
ZONE D	94.0	87.4	93.0	72.5	82.5	68.1	85.9
NIGERIA	95.5	87.5	94.4	81.1	84.7	76.6	87.7

Criteria: Measles ≥ 36 weeks; DPT1/OPV1 ≥ 6 weeks; Intervals between repeat doses ≥ 21 days.

of the survey were:

- (a) To assess antigen by antigen coverage of BCG; and polio Oral Polio Vaccine, (OPV), Diphtheria Pertusis Tetanus (DPT), and measles vaccines administered to children up to 2 years.
- (b) To assess the tetanus toxoid coverage in mothers of children under one year of age.
- (c) To assess the dropout rates, missed opportunities, reasons for immunization default, immunization coverage of children before their first birthday, BCG, scar status, and card retention rate. (Federal Government of Nigeria/UNICEF, 1991)

The national task force was appointed by the Federal Government to organize and manage the planning and implementation of the survey. The WHO 30-cluster sampling technique was selected (Federal Government of Nigeria/UNICEF, 1991).

One cluster coverage survey was conducted in each state. A total of 600 interviews were made, supervised by 165 team leaders. A total of 660 clusters were completed and 5000 interviews were conducted per cohort, (Federal Government of

Table 2. Immunization Coverage by Antigen of 12-13 Month Cohort on Crude Data Up to 1 Year of Age, by State, February 1991.

STATE	DPT3	OPV3	MEASLES	FULLY IMMUNIZED
AKWA IBOM	69.9	69.9	82.8	66.0
ANAMBRA	88.4	88.4	87.4	78.2
BENUE	61.2	61.2	61.7	49.8
CROSS RIVER	67.0	67.0	74.2	61.7
IMO	*55.0	*55.0	61.9	48.5
RIVERS	53.6	53.6	68.9	46.4
ZONE A	65.9	65.9	72.8	58.4
BENDEL	32.7	32.7	32.7	25.9
LAGOS	63.6	763.6	56.9	47.9
OGUN	75.5	75.5	75.0	67.0
ONDO	72.1	72.1	74.5	62.5
OYO	78.6	78.6	81.9	70.0
ZONE B	64.5	64.5	64.2	54.7
ABUJA	95.0	95.0	87.8	84.1
KADUNA	74.4	74.4	61.9	61.6
KATSINA	47.9	47.9	55.6	40.8
KWARA	90.1	90.1	92.5	82.2
NIGER	57.5	57.5	67.6	46.8
SOKOTO	76.0	76.0	75.6	67.3
ZONE C	73.5	73.5	73.5	63.8
BAUCHI	58.7	58.7	66.5	48.5
BORNO	75.6	75.6	84.6	66.2
GONGOLA	59.1	59.1	64.9	50.5
KANO	43.5	43.5	55.6	34.8
PLATEAU	38.7	38.7	53.9	30.4
ZONE D	55.1	55.1	65.1	47.7
NIGERIA	65.2	65.2	70.0	56.2

Figures produced by COSA3 "Coverage with Exact CI"

Criteria: Measles ≥ 36 weeks; DPT1/OPV1 ≥ 6 weeks; Intervals between repeat doses ≥ 21 days.

Nigeria/UNICEF, 1991).

In accordance with the national policy and objectives stated earlier, the coverage survey conducted state by state with the participation of FMOH, WHO, UNICEF, USAID/CCCD, and Rotary International/Polio Plus showed the following national achievements for the 12-23 months cohort by card and history BCG 95.5%, BCG SCAR 87.5%, DPT3, 81.1%, OPV3 81.1%, measles 84.75%, fully immunized 76.6%, card retention 90.6% (Federal Government of Nigeria/UNICEF, 1991).

Table 1 carries the above results shown state by state and zone by zone. According to the Government policy operational in 1984-1990, the results show DPT3 achievement of coverage of 81.1%, which means that Nigeria achieved UCI 1990 Goal on crude data.

The coverage for children fully immunized before the first birthday is based on the Government NPI policy which came into effect in January, 1991. The percentage of pregnant women who received 2 doses of tetanus toxoid is 73.3%. Table 5 carries the results of tetanus toxoid doses given to pregnant women. The percentage of women with cards was 43.2%. The drop out rate Tetanus Toxoid (TT1)-TT2 is 9.6%. Table 3 and 4 show coverage up to 2 years and 1 year respectively after all the

Table 3. Immunization Coverage by Antigen of 12-23 Month Cohort by Card + History Up to 2 Years of Age, by State, February 1991.

STATE	BCG	DPT1/OPV1	DPT3/OPV3	MEASLES	FULLY IMMUNIZED
AKWA IBOM	97.6	87.4	74.4	87.3	74.6
ANAMBRA	99.5	94.6	88.3	88.3	79.5
BENUE	95.7	89.2	71.8	71.8	59.0
CROSS RIVER	99.0	90.5	81.9	81.9	69.1
IMO	90.1	84.5	74.0	74.0	64.2
RIVERS	96.7	79.5	76.1	76.1	54.3
ZONE A	95.9	88.0	80.1	80.1	68.0
BENDEL	79.0	71.5	51.2	49.2	40.9
LAGOS	96.7	92.8	79.9	66.8	60.9
OGUN	985.0	95.8	82.2	81.0	73.5
ONDO	99.5	91.9	81.4	85.2	72.9
OYO	99.0	95.5	83.6	85.1	75.0
ZONE B	95.2	90.2	76.8	75.6	66.3
ABUJA	100.0	96.4	95.0	88.2	84.5
KADUNA	100.0	90.1	78.4	80.3	66.6
KATSINA	89.6	83.1	59.6	67.3	52.5
KWARA	100.0	92.0	90.8	93.4	82.9
NIGER	99.0	88.6	66.5	79.2	57.5
SOKOTO	99.0	92.4	84.0	82.8	74.6
ZONE C	97.3	89.7	77.6	80.5	68.5
BAUCHI	99.0	86.5	66.9	76.4	57.2
BORNO	98.1	93.8	77.5	84.8	68.9
GONGOLA	97.1	90.8	75.2	80.4	68.5
KANO	89.9	86.7	52.0	63.4	43.8
PLATEAU	89.7	74.7	48.9	66.4	42.8
ZONE D	94.0	87.1	62.6	72.6	54.6
NIGERIA	95.5	88.7	72.2	77.0	63.9

Criteria: Measles ≥ 36 weeks; DPT1/OPV1 ≥ 6 weeks; Intervals between repeat doses ≥ 21 days.

invalid doses have been eliminated. Table 1 and 2 provided data for Table 3 and 4. The national dropout rate was 14.7% (DPT1-DPT3). Missed opportunities at the national level was 10% (DPT3).

According to Table 1, 16 states achieved UCI on crude data. The strategy which was adopted in most of these 16 states which achieved UCI was house-to-house and night immunization (Federal Government of Nigeria/UNICEF, 1991).

Finally the survey reported that 32% of the reasons for immunization failure was due to lack of information. Of these, 11% had unawareness, 22% had wrong ideas, 22% feared of side effect: Unawareness included that of time and place for immunization. In addition to lack of information was lack of motivation, which accounted for 9% of the reasons for immunization failure.

It therefore become necessary to design a promotional model which will enable the Nigerian to achieve UCI level and sustain it so as to achieve health for all by the year 2000.

According to Zaltman and Vertinsky (1971), most immunization services depend on health behaviour. Even when no cost is involved and physical distance is minor, it is still difficult, except under epidemic condition to mobilize people in less devel-

Table 4. Immunization Coverage by Antigen of 12-23 Month Cohort by Card + History Up to 1 Year of Age, by State, February 1991.

STATE	DPT3	OPV3	MEASLES	FULLY IMMINIZED
AKWA IBOM	62.8	63.8	68.6	58.4
ANAMBRA	79.5	80.4	71.1	60.7
BENUE	47.0	47.8	40.6	30.1
CROSS RIVER	58.3	56.1	56.0	41.8
IMO	56.4	56.3	52.7	44.6
RIVERS	45.2	44.4	52.3	35.2
ZONE A	60.4	60.6	58.0	47.2
BENDEL	42.8	42.8	27.9	23.2
LAGOS	75.0	75.2	53.4	51.2
OGUN	69.7	68.7	61.5	54.8
ONDO	72.4	73.0	63.7	56.1
OYO	75.9	75.8	72.5	64.1
ZONE B	68.6	68.6	58.9	52.4
ABUJA	91.8	92.7	85.0	80.0
KADUNA	53.8	54.1	54.2	40.0
KATSINA	19.5	19.4	28.9	13.4
KWARA	91.5	89.7	91.9	81.0
NIGER	47.6	47.6	48.1	37.4
SOKOTO	56.0	54.7	55.9	44.2
ZONE C	52.8	51.9	54.9	42.3
BAUCHI	46.0	44.4	42.4	28.6
BORNO	65.9	63.0	63.0	50.5
GONGOLA	68.5	69.0	66.7	60.7
KANO	30.5	29.9	28.1	18.5
PLATEAU	34.1	34.1	35.0	24.1
ZONE D	46.3	45.4	44.1	33.8
NIGERIA	56.9	56.6	53.7	43.7

Criteria: Measles ≥ 36 weeks; DPT1/OPV1 ≥ 6 weeks; Intervals between repeat doses ≥ 21 days.

oped countries to take advantage of immunization services on voluntary basis.

Kotler (1975) contended that effective communication is only a part of the total requirement to successful market of an idea. The adoption of an idea like the adoption of any product requires deep understanding of the needs perception, preference, and the behaviour pattern of reference groups the target market, and the tailoring of message, media cost and facilities to maximize their ease of adopting these tasks. According to Coulson and Colis (1984), communication can be informative and/or persuasive. With persuasive communication the aim is to have some effect upon the behaviour of the target audience.

Promotion is a special form of communication which is designed to guide consumer along the path from a state of unawareness to the acceptance and possible action.

According to Walters (1974: 37):

There exists in the whole world not one single thing that can be fully and completely

Table 5. Tetanus Toxoid (TT) Immunization Coverage of Mothers of Children 0-11 Months of Age by State, PHC Zones and National Levels, February 1991.

STATE	TT1 ON CRUDE DATA	TT1 ON CARD + HIST.	TT2 ON CRUDE DATA	TT2 ON CARD + HIST.	TT1 & TT2 DROPOUT
AKWA IBOM	85.8	85.8	77.3	57.4	28.4
ANAMBRA	96.7	96.7	96.7	84.7	12.0
BENUE	84.2	84.2	69.9	44.1	40.1
CROSS RIVER	92.9	92.9	85.3	63.8	29.1
IMO	91.4	91.4	85.2	54.0	37.4
RIVERS	89.6	89.6	82.0	62.4	27.2
ZONE A	90.4	90.4	83.8	62.0	28.4
BENDEL	73.5	73.5	56.6	45.7	27.8
LAGOS	86.7	86.7	76.2	62.7	24.0
OGUN	91.3	91.3	88.0	75.7	15.6
ONDO	94.7	94.7	87.9	75.9	18.8
OYO	94.8	94.8	87.7	72.3	22.5
ZONE B	89.4	89.4	80.6	67.3	22.1
ABUJA	99.9	99.9	99.5	92.4	7.6
KADUNA	71.9	71.9	68.8	45.0	26.9
KATSINA	53.1	53.1	46.9	24.4	28.7
KWARA	99.9	99.9	99.0	91.0	8.9
NIGER	79.2	79.2	67.1	44.8	34.4
SOKOTO	71.1	71.1	68.2	61.7	9.4
ZONE C	72.8	72.8	68.6	54.5	18.3
BAUCHI	84.3	84.3	80.5	58.0	26.3
BORNO	73.7	73.7	66.8	59.2	14.5
GONGOLA	91.9	91.9	86.1	76.6	15.3
KANO	52.6	52.6	42.3	35.9	16.7
PLATEAU	59.1	59.1	46.2	30.8	28.3
ZONE D	68.8	68.8	60.5	49.8	19.0
NIGERIA	80.5	80.5	73.3	58.3	22.2

Nigeria February 1991

TT1 - TT2 Dropout Rate Based on Valid Doses by Card + History.

comprehended by the combined senses of man. Even the period at the end of the previous sentence has dimensions that cannot be fully understood, because it has to be filtered through the subjective mind. Therefore man has to employ devices to stand for the things brought to the attention of his senses. These devices are what we refer to as models.

Some scholars define a model as simply a representation of some or all the properties of larger system (Montgomery & Urban, 1969). According to stricter definition by Nicosia (1966), a model is a mathematical version of a scheme or flow chart, and it consists of one equation or a system of equations. Based on the above two definitions, a promotional model is therefore anything that represents all or a part of promotional components or elements on channel of marketing communication between the producer and the consumer.

In designing a promotional model for the NPI/ORT it is necessary to identify all or most of the promotional elements selected for the study, and have to explain fundamental relationships between the elements, demonstrate steps or flows in the decision or operational relationships among the elements, and finally, specify exact cause and effect between elements and relationship.

Promotion is an act of communication in order to inform, remind and persuade consumers to accept a product or an idea. The role of promotion can also be viewed in terms of the desired impact on buyers. The buyer must first become aware of and knowledgeable about the product (Busch & Houston, 1985). In other words, promotion must inform consumers of positive benefits that will be realized by the consumption of the product, and persuade them to try the product. In so doing, promotion attempts to develop a positive sets of beliefs about the product's important attributes, which eventually creates needs and motives. The creation of needs and motives stimulate consumer action. It is only when consumers realize their needs that they can be motivated to take action.

Promotion is a special form of communication where consumers can be informed and persuaded to realize and satisfy their needs and through the realization of their needs that consumers are motivated to take action. In other words, it is through promotion that mothers can be informed of the consequences of failing to immunise their children and the danger of dehydration, and also the benefits of immunisation and rehydration.

It was the intention of the Federal Government of Nigeria that every Nigerian parent should understand the value of immunization and vaccination of children before they fall ill from any of the six childhood killer diseases. It was also the intention of the Government that each family member should know how to prepare and use the salt-sugar solution to rehydrate a child with diarrhoea. Despite heavy investment on the promotion of the programme, the result has shown lack of information and lack of motivation. Therefore, the promotional strategies recommended by the Government were thoroughly evaluated. In addition, a pilot survey was conducted from which nine promotional elements were selected. These promotional elements are a source of information and motivation. Based on these, the following promotional model emerged, where promotion depends on consumer information and persuasion which depends on the extent of interaction between consumers and the promotional elements.

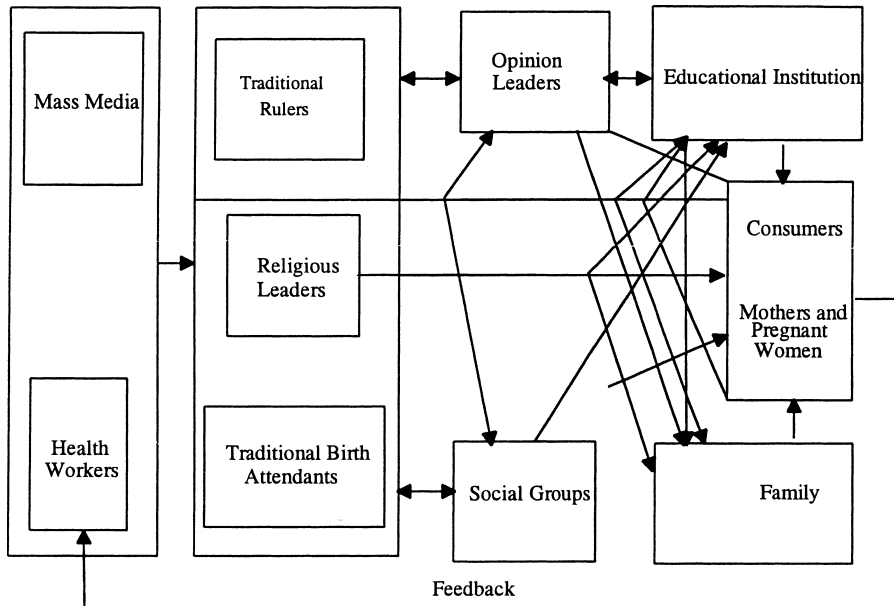


Fig. 1. Promotional Model for EPI/ORT Programme.
Source: A Conceptual Model by P.P. Ekerete (1992)

$P = F [CIP (H, M, R, TR, TB, OP, S, E, F, O)]$

P = Promotion

CIP = Consumer Information and Persuasion

H = Health Workers

M = Mass Media

R = Religious leaders

TR = Traditional rulers (Leaders)

TB = Traditional attendants

S = Social groups

OP = Opinion leaders

E = Educational institutions

F = Family

O = Other interactional variable (Fig. 1)

THE IMPLICATION OF THE MODEL

Health workers play greater roles in the promotion of the NPI/ORT programme. Hence Government should spend more to involve them in the programme. The involvement of health workers should be arranged from time to time in order to update all health workers on modern techniques, approaches, and new government policy changes in the programme.

At the Local Government level, the officer in-charge of health should be responsible for all the NPI/ORT activities in the Local Government Area (LGA), including

mobilization of the community by the Government and non-government organization (NGO).

The mobilization activities should take place during the office hours to provide preventive nurses with the means of transportation to execute a much neglected but critical mobilisation function of "home visiting."

INVOLVEMENT OF HEALTH WORKERS WITH VOLUNTEERS

The health workers according to the study are very useful in the promotion of the NPI/ORT programme. Unfortunately, it is not possible for Government to employ enough trained health workers to handle the programme, and a group of volunteers are recommended to be recruited and trained from each community to assist. The group should help to form an organization to be called "Public Health Organization." Each social group within a community, including churches, mosques, social clubs, market women associations, educational institutions, scouts and guides each should have a "Public Health Committee." The formation of the Public Health Organization replaces "Partner-in-Health." The Partner-in-Health was originally recommended to ensure full community participation in the promotion of the NPI/ORT programme.

The difference between Partner-in-Health and Public Health Organization is that, while Partner-in-Health is limited to the state and LGA, the Public Health organization reaches out to the village level where the Public Health Committee is formed. The Partner-in-Health at each level was autonomous, that is, there was no link or effective co-ordination between the state Partner-in-Health and LGA Partner-in-Health, the Public Health Organization is not autonomous but linked on each level with an effective co-ordinating unit. Each level is supervised by the next higher level or (group). Poor performance can be easily detected from their monthly reports. The Public Health Organization can be looked upon as a hierarchical system of health teams linked for the promotion of NPI/ORT programme.

THE PURPOSE OF PUBLIC HEALTH ORGANIZATION

The main purpose of the Public Health Organization is to help in educating and convincing mothers of the value of the NPI/ORT, in preventing the six childhood killer diseases and in control of diarrhoea. Hence the Public Health Organization in each area is responsible for ensuring that all babies and pregnant women in their area are immunized, and practice the ORT. The purpose of the Partner-in-Health and the Public Health Organization is the same.

The poor techniques of supervision and lack of co-ordination by Partner-in-Health rendered its influence ineffective. The communication flow was extremely weak and ineffective. The root reason for this is that, most of the members have little or nothing to do with grassroots consumers.

The Public Health Organization uses automatic supervisory techniques without the physical presence of a supervisor. One such method is a compulsory monthly

report from each level of Public Health Organization which helps to update the immunization register and enable defaulters tracking. Furthermore, members of the higher level of the Public Health Organization are selected representatives from the lower level of an immediate Public Health Organization. For instance, members of the state public health are selected representatives from LGA Public-Health Organization, and that of LGA public health organization are selected representatives from village or area Public Health Organization. As a result, communication is extremely fast and more effective.

FORMATION OF PUBLIC HEALTH ORGANIZATION

It is the duty of the NPI/ORT officials in charge of LGAs to set up the Public Health Organization in their area. The officer should first of all meet with the prospective Chairman or President of each organization to discuss the plan of setting up the Public Health Organization. The officer should emphasize that their support and input are very important to the success of the programme. He should explain the function of the Club/Organization Health Committee in promoting the programme. The officer thereafter arranges to start the committee. Health workers (nurse) should be assigned to each committee to direct their activities.

In each village or area, all organized groups, including educational institutions, churches, and mosques must have a Public Health Committee (PHC).

STATE PUBLIC HEALTH ORGANIZATION (SPHO) MEMBERSHIP

1. Representatives from Local Government Area Public Health Organization.
2. Co-opted members:
 - Eminent personalities
3. Exofficio members:
 - Federal Government Representatives
 - State Government Representatives
 - Ministry of Health Representatives
 - UNICEF Representatives

FUNCTIONS OF THE STATE PUBLIC HEALTH ORGANIZATION (SPHO)

1. Supervises the activities of the Local Government Public Health Organization.
2. Receives monthly report from Local Government Area Public Health Organization.
3. Compiles monthly statistics on NPI/ORT performance report.
4. Embarks upon fund raising campaign to support the programme.
5. Performs other activities that will accelerate the accomplishment of NPI/ORT target.
6. Help policy-makers give due priority to immunization and better child-care delivery.

LGAPUBLIC HEALTH ORGANIZATION (LGAPHO) MEMBERSHIP

1. Representatives from village or areas Public Health Organization.
2. Co-opted members:
Eminent personalities and opinion leaders from the village or area committee.
3. Representatives of the paramount ruler of the Local Government Area (LGA).
4. LGA Exofficio members:
 - a. LGA Chairman representative
 - b. Representative from Ministry of Information, Social Development, Youth and Culture.
 - c. Education
 - d. Agriculture
 - e. Water Resources

FUNCTION OF THE LGA PUBLIC HEALTH ORGANIZATION (LGAPHO)

1. Overseas the activities of the village or area public health organization.
2. Receive monthly report from village or area public health organization.
3. Helps to arrange for seminars and films shows for Village or Area Public Health Organization (VAPHO).
4. Helps village or area Public Health Organization to check NPI/ORT defaulters.
5. Devises ways and means of reducing increase in the number of NPI defaulters.

VILLAGE OR AREA PUBLIC HEALTH ORGANIZATION (VAPHO) MEMBERSHIP

1. Representatives from various social organization, including educational institutions, churches and mosques.
2. Automatic members:
All traditional birth attendants from those villages or areas.
3. Co-opted members:
Eminent personalities and opinion leaders.
4. Village or area head representatives
5. Exofficio members:
 - a. Local Government representatives.
 - b. NPI Officers

FUNCTIONS OF THE VILLAGE OR AREA PUBLIC HEALTH ORGANIZATION (VAPHO)

1. Receives report from Public Health Committee or various social groups, including educational institutions, churches and mosques.

2. Updates Public Health Register from Public Health Committee's report.
3. Helps distribute health materials-publications to various committees.
4. Helps various groups to combat NPI defaulters.
5. Liaises with the clinic officials to compile a list of defaulters and send this list to various groups of public health committee or areas to which they belong.
6. Liaises with village heads to arrange for seminars and rallies.
7. Sends monthly reports to LGA Public Health Organization.
8. Sends representatives to LGA Public Health Organization.

PUBLIC HEALTH COMMITTEE MEMBERSHIP

1. All social groups/organizations, including church and mosques members and school pupils/students are automatic members of the Public Health Committee.
2. Exofficio member:
NPI Officer-in-charge.

THE FUNCTIONS OF THE PUBLIC HEALTH COMMITTEE

1. Maintains register of newborn babies.
2. Informs parents of place, date and time of immunization.
3. Appoints Public Health Team for Home Visit to trace mothers who fails to complete their babies vaccinations.
4. Sends public health team to search for babies whose mothers failed to present them for immunization.
5. Sends representatives to the village or area Public Health Organization.
6. Sends monthly report of their committee to the village or area Public Health Organization.

If the above suggestions are strictly followed the following three types of baby-tracking will be successful.

(a) Home visit:

By nurses who use the contact addresses in their clinic registers, attempt to visit and trace mothers who fail to complete their babies' vaccination.

(b) In home:

Clubs, churches, mosques and other social organizations keep register of all newborn (members' children), and ensures that all such babies are fully immunized. A member should be assigned the responsibility of registering all the newborn babies. Members should be reminded from time to time of date and time of vaccination as well as the immunization centres nearby. Parents should be reminded from time to time to receive all the doses. This can be done through letters or messages to absent members. The club or organization registerer must insist on seeing baby immunization cards. The organization newslet-

ter, journal or magazine should always contain immunization information.

(c) Volunteers:

Clubs, mosques, churches, educational institutions and other social organizations will volunteer to help health workers track defaulting babies from their villages or areas.

With the help of the volunteers, immunization coverage are sure to improve. Above are the main areas targeted for the promotional elements selected for the study. A brief summary of other areas they may still be useful.

I. Using Mass Media

According to Busch and Houston (1985), an advertising programme is not better than the mass media used to deliver it. A message no matter how well conceived, will have no impact if it fails to reach its intended audience. Therefore, media selection is a crucial decision in the field of advertising as well as for the NPI/OR to succeed. The advertiser must be able to develop an optimum media mix among television, radio, newspapers, magazine, out-door signs, transportation advertising, and direct mail among others.

Busch and Houston (1985) contended that the determination of the media mix involves strategic decision at two levels. First, the event to which each general type of media will be used, if at all, must be determined. (To what extent will the organization use television, radio, magazine, or direct mail?). Second, the specific vehicles within which each media category must be determined. In selecting the media for the NPI/ORT programme, must take into account the ease of accessibility to a specified target varies among media. Direct mail is considered the most selective target via the post office. Magazines are also fairly selective since there are large numbers of specialised publications catering to a variety of interests.

In formulating the media mix, the desired level of exposure provided by the media mix must be considered. The media objectives can be stated in terms of a desired level of exposure within a target audience. To maximize the exposure level generated by a medium, certain reach, frequency and impression must be achieved, and it is therefore necessary to match the media to the unique media exposure patterns of the target market.

USING RELIGIOUS LEADERS

Religious leaders have been recognised as one of the important outreach in promoting child survival and development revolution. As spiritual leaders, religious leaders occupy prominent position of honour and respect. They are obeyed without a question because they act as mediators between humans and their creators. It is on this strength that they are expected to appoint health teams to handle the following functions:

1. Teaching mothers the value of immunization and the importance of completing all the doses. The mother should also be taught good health habits and what to

do to avoid the incidence of diarrhoea.

2. Help trace NPI defaulting mothers, with the list of new-born babies.
3. Visiting each home in their area to locate all eligible babies for immunization.
4. Organizing publicity campaign for NPI/ORT. The NPI baby competition and other services, or activities that can help to publicise the various health programmes, organizing public rallies in support of NPI/ORT may be very useful.
5. Fundraising campaigns can be organized to sustain the programme.
6. Putting up of notice board for NPI/ORT information.

Preaching about the virtues of the NPI/ORT in the sermons of Fridays and Sundays should receive great attention.

USING TRADITIONAL LEADERS

Traditional leaders occupy a respectful position in the society. In some communities they are worshipped as lords and the givers of life. In some areas in the past their voices or commands were second to God. As leaders of the society, they are given special respect and honour by their subjects and Government. Their roles in economic, cultural and social development cannot be overemphasized.

Apart from those functions for the village Public Health Organization listed above in which their representatives will take part, traditional leaders can also appoint town criers to make announcements for immunization place, days and time. They can organize seminars and invite health officials, for example, Chief Health Officer to give health talk to mothers. The traditional leaders can also invite men to take part in the seminar or have a special workshop and seminar for them only to broaden their knowledge of the NPI/ORT programme.

USING THE TRADITIONAL BIRTH ATTENDANTS

Traditional birth attendants dominated the field of midwifery before the advent of orthodox medicine. Even today, their roles and contributions in the areas of child delivery cannot be overemphasized. In the rural areas, they still occupy a dominant position as many pregnant women still go to them for advice and help. Government has given them recognition although they have not been absorbed into the mainstream of child delivery in Government hospital or maternities. Traditional birth attendants have not been properly encouraged to participate in the promotion of the NPI/ORT programme. They should be taught how to open a register for all the babies they delivered. In so doing, they will not be afraid that their work will be taken away from them. As automatic members of village or area Public Health Organization, their contribution is enormous. They can see to it that all the pregnant women under their care are encouraged to immunize.

USING OPINION LEADERS

Opinion leaders influence the behaviour of other people or their followers to accept their ideas. They are individuals that are regarded by their followers as having a full knowledge of their subjects. Although they vary from subject to subject, opinion leaders help to disseminate information rapidly and can motivate people to change their behaviour.

Therefore, apart from being a member of this organization, opinion leaders should be given special orientation in the NPI/ORT programme.

USING SOCIAL GROUPS

Social group is a group of individual having common purpose and characteristics. As all the members interact with one another, interactions often influence one's behaviour or force one to act in conformity with social norm.

There are many social groups in Nigeria, including the Rotary Club, Lions, Lioness, Scout, Guide, Market Women Association, Zonta, and the Red Cross. In each rural community, there are similar groups for both men and women. As already stated, all the social groups must have a Public Health Committee. They should embark upon in-house baby-tracking and searching, and volunteer baby tracking which include a newborn register and record of immunization by individual. They are also responsible for sending their representatives to, the village or area Public Health Organization. In order to carry out these functions, a subcommittee should be appointed to plan the organization's contributions. The committee should map out a plan outlining steps to be taken to achieve the objectives of the organization. Those appointed to this committee must be willing and have the ability to perform any assignment that will be given to them. Any assignment must have a timeframe for completion.

USING EDUCATIONAL INSTITUTIONS

Educational institutions are regarded as a major source of knowledge. Information from schools and colleges are regarded as accurate. Teachers are looked upon as change agents whose views are respected in the community. Schools should take part in the promotion of the programme because schools are in every nook and cranny in the country and pupils or students are found in almost every home.

Educational institutions have been found to be useful in promoting the NPI/ORT but have not been properly used. Schools should form Public Health Committees, Baby Tracking which schools can undertake to a great extent. The school curriculum should include the teaching of NPI/ORT and carry out some NPI/ORT activities. Pupils should be able to explain to their parents and others the value of the NPI/ORT. They should remind mothers of all vaccination dates until their siblings have completed all required doses. They should be able to teach others how to prepare and use salt-sugar solution. The headmaster/principal should display NPI/ORT

posters on the school notice boards. The pupils should report any newborn a every-day to the secretary of the school Public Health Committee, who will appoint a Health Team to visit the baby. The team in this case should not be more than three members who are living close to the baby. Schools stand a better chance of checking NPI defaulters than any other source because schools and pupils are ubiquitous.

USING THE FAMILY

The family is a social entity and the most credible source of information and motivation. Information from a member of one's family has a great influence on ones behaviour. Family is the principle reference group for most individual. It is characterised by emotional involvement, face-to-face interaction and interpersonal influence. The attitude and motive of every member are affected by those of the other members.

The family has not been properly used to encourage the acceptance of the NPI/ORT programme. The family can contribute more if the information on the NPI/ORT is given to them by the right person. Therefore, health workers should try to visit mothers and to talk to not only to the immediate beneficials, but to all members of the family. If all members of the family understand the programme, the mothers, will be convinced to follow it.

Health workers alone cannot always effectively persuade consumers to take action. Therefore, mass media conjunction with health workers can directly influence consumers and indirectly influence by influencing the traditional leaders, religious leaders, traditional birth attendants, opinion leaders, social, groups, educational institutional institutions and the family. As the same time, these elements can influence and be influenced by each other.

REFERENCES

- Brink, E. & G.A. Steiner 1964. *Management of Promotion*. Prentice-Hall Inc., Englewood Cliff, N.J.
- Busch, P.S. & M.J. Houston 1985. *Marketing*. Richard D. Irwin Inc., Homewood, Illinois.
- Coulson, T. & J. Colis 1984. *Marketing*. Communication Institute of Marketing, London.
- Federal Government of Nigeria/UNICEF 1984a. *Establishing ORT Unit in Nigeria Hospital and Clinic*. Federal Ministry of Health (FMOH), Lagos.
- Federal Government of Nigeria/UNICEF 1984b. *Promoting Child Survival Revolution EPI/ORT through the School*. FMOH, Lagos.
- Federal Government of Nigeria/UNICEF 1984c. *Community/Education and Mobilization: How to Set Up Partner in Health*. FMOH, Lagos
- Federal Government of Nigeria/UNICEF 1991. *National Immunization Coverage Survey Report*. FMOH, Lagos.
- Kotler, P. 1975. *Marketing for Non-profit Organizations*. Prentice-Hall Inc. Englewood, Cliff, New Jersey.
- Marcus, B.H. 1975. *Modern Marketing*. F. Random House, Inc., New York.
- Montgomery, D.B. & G.L. Urban 1969. *Management Science in Marketing* Prentice-Hall

- Inc., Englewood Cliffs, New Jersey.
- Nicosia, F. 1966. *Consumer Decision Processes*. Prentice-Hall Inc., Englewood Cliffs, N.J.
- Walters, C.G. 1974. *Consumer Behaviour Theory and Practice*. Richard D. Irwin Inc. Homewood, Illinois.
- Zaltman, G. & I. Vertinsley 1971. Health Services Marketing: A Suggested Modell. *Journal of Marketing*, July 19-27.

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