

## **6. Rapid assessment methodologies: Application to health and nutrition programmes in Africa**

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**The paper by Simi Afonja, a member of the first group of RAP investigators, reviews the application in Africa of the original guidelines to the evaluation of health-related programmes. She describes RAP as slowly penetrating the planning and implementation strategies of governmental and para-governmental agencies. According to Afonja, RAP methodologies are being used successfully in Nigeria, Ghana, Kenya, and Lesotho, to evaluate and improve family planning programmes of the World Bank, UNFPA, IPPF, and others. In Nigeria, Liberia, Kenya, Zaire, Malawi, and Somalia, RAP was used to evaluate immunization programmes; and in Kenya, Nigeria, and Niger for academic research. Afonja's review at the Conference expanded the generally held view of RAP use in Africa. She concluded with a summary of the positive contributions that RAP has made in Africa and a plea that it be formalized to a greater extent. - Eds.**

RAPID ASSESSMENT METHODOLOGIES (RAP) are a recent phenomenon in African social science, agricultural and health research. Their emergence has been encouraged by recent shifts from the dominant functionalist paradigms and the evolution of new approaches to development policy formulation and implementation in the region.

African social science started to experience significant paradigmatic shifts in the 1970s when alternatives to functionalism and the systems approach developed on the continent. The latter perspectives encouraged widespread empiricism and a positivist orientation to research; hence most research followed the rigours of the quantitative scientific endeavor and were pursued primarily to integrate scientific inquiry in the region into the universal body of scientific knowledge. A major limitation on this emphasis of the positivist orientation was that it excluded cultural and historical aspects from projections of African reality. Consequently research findings often misguided policy or were not very relevant to it. Since each stage in the cycle of scientific inquiry was dominated by the researcher and excluded the subjects studied, theory building and policy formulation were usurped by the elite, and the top-down approach was widespread.

The first major break with this tradition was in response to the challenges posed by structural and radical Marxism. Kemal and Bryceson [1] associated the development of participatory research and approach to development with this alternative theoretical orientation. They argued that radical and structuralist Marxists conceived of real development as the realization of the creative energies of the people and, to that extent, defined a people-oriented approach to development. Other theoretical approaches, namely symbolic interaction theory, phenomenology and ethnomethodology, though less popular, may have created greater impetus for methodological change than Marxism. Gran [2] noted that the failure of both capitalism and socialism to

transform the lives of the poor created the need for alternative paradigms for the understanding of society and for creating change. Participatory and action-oriented approaches were answers to this need.

Participatory development was described by Gran [2] as a process through which the currently marginalized poor become aware of the wide range of value choices open to them, and their social and political implications. He pointed out that participatory development strategies change the 'top down' service delivery model of interaction between bureaucrats and people to a 'bottom up' response demanding model. The planning, implementation and evaluation strategies require people participation, hence more qualitative than quantitative data are collected.

Action-research is also a people-oriented strategy for creating change. It is a flexible, problem-solving approach in which planning, implementation and evaluation belong to one single process during which emerging problems are solved and alternative strategies adopted in the process of creating change. It involves a collaborative arrangement between change agents, programmers and beneficiaries of the change process.

Participatory and action-oriented approaches require data on cultural and historical peculiarities of a people, data on problem identification by the people, their perceptions and evaluations of specific projects. These have necessitated the use of qualitative methodologies to complement the logico-deductive method or as the main instruments of social investigation.

Rapid assessment methodologies emerged on the African continent within the context described above, although they are more widely used by international development agencies than by academicians. Most donor agencies have now adopted the participatory or action approach to programme formulation and implementation and are therefore applying qualitative methodologies.

This paper discusses the applications of RAP to programmes of health and nutrition in the region. It describes the types of users, the types of methodologies commonly used, and the contribution of RAP to health research and programming. It also describes the use of RAP in the country programme assisted by UNICEF in Nigeria. Nigeria is presented to illustrate the usefulness of RAP in programme improvement.

Three types of sources provided data for this review on the use of RAP in West Africa: the national and international agencies that had sponsored studies using RAP in Nigeria; library sources; and scholars and administrators who had applied RAP. Data collection was done over four weeks in August/September 1990. The agencies visited were those based in Nigeria, but international journals in health and health-related fields were consulted. The agencies visited were the United Nations Children's Fund (UNICEF), The Nigerian Family Health Services Project (NFHSP), United Nations Population Fund (UNFPA), Health Communication for Child Survival Project (HEALTHCOM), and the Ford Foundation. The studies selected for review used one or more of the RAP methodologies and related to health and nutrition.

The majority of the reports are on health and nutrition programmes in Nigeria. However, there were also reports on Kenya, Liberia, Lesotho, Ghana, Zaire, Malawi, Somalia and the Sudan.

## **Main features of RAP**

RAP is described by Scrimshaw and Hurtado [3] as methodologies that provide health workers, social scientists in fields other than anthropology and anthropologists guidelines for conducting rapid assessments of health-seeking behaviour, that is, behaviour involved in maintaining health and overcoming illness, including the use of both traditional and modern health services. RAP is a holistic methodology designed to organize macro and micro level data into one. This involves synthesizing data on health structures, health beliefs and perceptions for the explanation of health-seeking behaviour.

Since the impact of a health programme can be best understood through inter-subjective data and individual cognitive representations, qualitative data on individual perceptions, beliefs, values and definitions of the situation are central to RAP and are obtained through the following procedures:

1. Formal interviews,
2. Informal interviews,
3. Conversations with well informed individuals or groups,
4. Observations,
5. Participant observations, and
6. Focus group discussions (FGD).

## **Users of RAP**

All the United Nations agencies involved in health development, and donor agencies such as the Ford Foundation and the International Development Research Council (IDRC) are committed to participatory and action-oriented strategies for development. RAP is applied by these agencies for programme development, collection of baseline data, and development of instruments for a larger monitoring or evaluation studies.

Through the collaborative agreements between them and governments, RAP is slowly penetrating the planning and implementation strategies of government ministries and parastatals. A small proportion of university-based researchers, usually those hired as consultants to the agencies, have been using RAP.

Since the logico-deductive method is still pervasive, there is resistance to the way international agencies set research priorities through their control of research and consultant projects. Such resistance affects methodological innovations adversely and encourages the more traditional theoretical and methodological orientations. Two important consequences of this are that RAP has not been formalized into the teaching curriculum in the universities and few journals publish articles based on this methodology. Thus, those who are most often exposed to RAP are the

consultants to donor agencies and middle level personnel who employ the methodologies to support implementation of health programmes.

The qualitative methodologies adopted by each agency are usually designed to suit its program priorities. However, it is apparent from the papers reviewed that RAP is used for the following:

1. Programme development
2. Collection of baseline data
3. Monitoring and evaluation
4. Information, education and communication (IEC)

When RAP is used for programme development it is described as a formative research tool for collecting information for developing a programme or product for the end users. Using RAP to develop the research instruments for a much larger study is part of formative research.

### **Applications of RAP to primary health care programmes**

Thirty-nine of the 41 reports reviewed for this paper were on primary health care (PHC). Fourteen were reports on the expanded programme of immunization (EPI) and PHC, nine on oral rehydration therapy (ORT) and 15 on family planning. There were three on nutrition, two on child care and child development and one each on health education, leprosy, and deaf children.

Most reports were project evaluations, although a significant proportion reported IEC and formative research strategies. RAP was applied to baseline studies in only three cases.

### **RAP as a tool for formative research**

Focus group discussions are used in the IEC activities of the NFHSP in the design, production and evaluation of educational materials in support of ORT, EPI, malaria control, breast-feeding and child spacing. A music evaluation FGD conducted for the organization by Research Bureau Nigeria Limited (RBNL) provided information on the type of music preferred by listeners, their perception of campaign artists and their reaction to various messages rendered by two local musicians on family planning. In order to strengthen the family planning programmes in Nigeria, focus group discussions were also carried out in three states on the knowledge of family planning, on perceptions of existing services, and methods. The studies also measured knowledge of PHC services, use, perceptions of services and methods and media habits. Strategies for future interventions were derived from the results of these FGDS.

HEALTHCOM operates along similar lines. The main goal of this USAID funded project is to develop and demonstrate innovative and effective methods of public health communication, to assist in the design, production and evaluation of educational materials in support of the major foci of the Nigerian Child Survival Programme. RAP is being used in different ways to achieve these objectives. For example, FGDs and in-depth interviews are the methods of research utilized in determining health priorities in two local government areas of Niger State, Nigeria.

The use of ethnomethodological research in the development of health programmes by HealthCom was described by S. P. Yoder (personal comments, 1989) with examples from Nigeria and Zaire. This methodology was called for by the need to learn, from the culturally diverse groups in the areas studied, the differences in knowledge of disease, illness, and how different cultural groups diagnose and treat childhood illnesses. The study carried out in Niger State, Nigeria and in Zaire relied on group interviews with three to five men and women in identifying local concepts, cultural definitions of disease and illness. This qualitative methodology was enlisted for designing the measuring instruments for a quantitative survey.

The formative research process is also being applied to the Child Survival for the Computer Age Project, a study jointly sponsored by UNICEF, Lagos, and Tufts University, United States of America and carried out by consultants at Lagos University, Nigeria. The main objective of the study was to extract and utilize factors in the household that are positively correlated with a child's ability to grow well, nutritionally and cognitively, under conditions of economic hardship. Phase I of the project was an empirical investigation into the relationship between cognitive development and nutrition and between cognitive development, nutrition, mother-child interactions and stimulation provided by the environment. The six different instruments for data collection included a nutrition interview schedule on diet history, food frequencies and attitudes relating food to the moral training of the child.

The results of this study were considered useful for curriculum design, teacher training, parent education and the development of educational materials. Phase II of the project will, in a formative process, translate these into messages and educational materials. The existing data will be supplemented with Focus Group Discussion data on cultural beliefs, food taboos and child rearing practices. Phase II is expected to rely on concept testing and material pretesting for the development of two teaching texts, one for training health and social service professionals and the other for students in primary six. RAP methodologies are currently being used by the World Bank, UNFPA and International Planned Parenthood in a new initiative to improve population programme implementation in sub-saharan Africa.

Pilot surveys have just been completed in Nigeria, Ghana and Kenya. The action-oriented studies applied in-depth interviews, participant observation and FGDs as the main instruments for eliciting information from policy makers, opinion leaders, implementers and beneficiaries about the level of political commitment to population programmes and activities. The studies also measured the major constraints to the programmes, the ways in which communities could contribute to their own development, and identified potential change agents. The results will be used to design policy programmes that will be acceptable to the people and that will effectively reduce population growth [4].

The World Bank sponsored study of health and family planning services in Lesotho also falls into the group of formative research. The study was motivated by the "...need to provide policy makers with guidelines and knowledge on attitudes and practices of the Basotho regarding health" [5]. A study based on qualitative data on individual and household behaviour was designed to complement the nationwide quantitative data on health and nutrition. The instruments for data collection were participant observation and open-ended interviews. There were supplementary interviews as patients left the clinics and provider-patient interactions were

also observed. As in the case of the agenda for population programme implementation, the Lesotho study was to assist in refining future health and family planning programmes.

Another World Bank-sponsored study that falls into this category is the Nigerian study on the underutilization of public health sector facilities in Imo State. A World Bank mission to Imo had noted this as one of the severe health problems facing the state. Ten FGDS were set up, seven with rural groups and three with urban groups of consumers and practitioners. These were supplemented with in-depth interviews of four different practitioners. The interview guides featured the following:

1. Knowledge, attitudes and practices regarding child bearing and its impact on the health of mothers and children;
2. Basic health values;
3. Prenatal, postnatal and preventive care;
4. Perception of infant and childhood morbidity and mortality and of their impact on fertility;
5. Steps taken when illnesses occurred;
6. Cost of health care - by type of practitioner;
7. Access to health facilities and perception of general utilization;
8. Problems encountered with government health facilities and recommendations for government action.

Responses to these and to the guides for providers were used to draw up strategies for improving the utilization of government health facilities.

## **RAP for baseline data collection**

Situational analysis is an important dimension of programme development and it requires baseline data prior to intervention. Observations from the reports reviewed here indicate that RAP methodologies are not popularly used for baseline data collection. They are at best supplementary to quantitative data as in the studies by Egboja (I. A. Egboya, personal communication, 1989) and Adeniyi and Olaseha (personal communication, 1990). Egboja applied in-depth interviews, informal discussions with health staff, and observations of health facilities to assess staff performance, training needs and constraints to the ORT programme in Benue State, Nigeria.

The study by Adeniyi and Olaseha (1990) was a baseline study of two Local Government Areas (LGAs), of Niger State, Nigeria. Its main objective was to identify health problems of the LGAs as perceived by the people. FGDs, key informant interviews, and observation methods were the main instruments for data collection. The qualitative data in both studies were used to design the questionnaires for later sample surveys.

There were two other baseline surveys commissioned by UNICEF, Lagos on pre-school age children in Oyo and Ondo states. Both surveys collected information on the health and nutritional status of the children, socialization practices, and the quality of the environment and stimulation by the home in pre-school years. Data were also collected on mothers' perception of

their children's development and attitudes regarding the available child care options. The investigators relied on structured instruments, but complemented these with in-depth interviews and observational data on child rearing practices and foods administered (E. B. Wilson-Oyelaran and P. A. Ladipo, personal communications, 1988, 1989).

## **RAP for IEC**

Most health planning agencies now appreciate the importance of informing, educating and communicating with the people for the success of their programmes, and realize that the tasks of social mobilization and advocacy at all levels require strategic planning. RAP has been used to develop these strategies and the content of the messages. To a large extent, this function of RAP overlaps with its use as a formative research tool. HealthCom and NFHSP are using focus group discussions for IEC purposes and these are prominent features in community-based distribution programmes (CBD) on family planning and other PHC interventions in Africa.

CBD programmes emerged to promote contraceptive and health service availability through community participation. Its primary objective, as described by Ebo [6] is to make health-related and family planning information and services available and accessible to the masses in rural and urban areas. Its operational strategies described by Wawer and Gorosh [7] include focus group discussions, observations and interviews with local health and community leaders. The reports on Nigeria by Delano [8], on Kenya by Mworio [9], the experiences in Zaire, Tanzania, Ghana, Zimbabwe and Sudan reported by Kingoni and Mangmi [10], Rukuongwe [11], Akwetteh [12] and Nzuma [13], respectively, describe how the CBD operates with community participation strategies in these countries.

HealthCom, in collaboration with the Federal Radio Corporation of Nigeria (FRCN), Nigerian Television Authority (NTA), and Regional and State Broadcasting Authorities, produces prototype educational radio programmes on child survival for dissemination at the national, regional and state levels (S. P. Yoder, personal communication). Focus group discussions were set up in ten different communities in Niger State for studying beliefs about illnesses, attitudes towards EPI and ORT, and the people's media habits. The latter focused on identifying the most convincing person/news source locally; papers and magazines, posters, or pamphlets, other media, songs, stories, the effectiveness of the EPI logo.

Nigerian artists are being encouraged by FHS and UNICEF to write songs with appropriate family planning messages. FHS has used FGDs to identify the artistes preferred by the audience and their understanding of the songs written.

## **RAP for monitoring and evaluation**

RAP has been widely accepted as a tool for programme monitoring and evaluation. As indicated earlier, participatory and action-oriented research demands quick appraisals of the effect of ongoing PHC interventions. RAP has therefore become a popular means of assessing EPI and ORT programmes.

Eight such evaluations were made of EPI programmes in Nigeria, Liberia, Kenya, Zaire, Malawi and Somalia. In-depth interviews, FGDs, and observational methods were applied by the author in an evaluation of the EPI in Owo LGA, Nigeria two years after the model project was set up there. The assessment of the EPI in Nigeria (Blum and Philips, personal communication) relied on in-depth and exit interviews. The study of immunization drop outs in Liberia by Bender and Macauley [14] applied FGDs to mothers, frontline health workers and administrators. This was described by the authors as "...a community-based methodology for identifying reasons for vaccination non-return and recommendations for alternative delivery system."

The EPI programme in Ogun State, Nigeria was also evaluated by a UNICEF team using RAP. Twenty-one FGDs were held in five LGAs with mothers, fathers and community leaders. The major issues focused upon were children's diseases, symptoms, preventive strategies, and knowledge of immunizations.

There were four different evaluations of ORT programmes involving the use of RAP. Part I of Egboja's (I. A. Egboja, personal communication, 1989) studies of the control of diarrhoeal diseases in Benue State relied on in-depth interviews, informal discussions with health staff, and observations of the health facilities visited. The objective of the study was to assess staff performance, training needs, and constraints to the programme. Debis's [15] investigation into the improper treatment practices for diarrhoea in Conakri, Guinea applied in-depth interviews of mothers and health staff in 30 out of 76 neighbourhoods in the city. Questions were asked about each diarrhoea episode, the use of health facilities and about treatment in the home. Casalino's [16] study of infections associated with diarrhoeal diseases in urban Somalia relied on exit interviews, physical measurements, and observations. The study was designed to identify the first reference point for the treatment of children's severe diarrhoea.

A providers' survey was commissioned by the United Nations University, Tokyo as part of evaluations of the PHC and nutrition programmes in Nigeria. The study examined the adequacy of human and materials inputs as perceived by users and providers. The import of such data as observed by the author was to find out if health inputs were adequate and accessible and if the processes of health care delivery were constraints on the PHC programme. Data were collected on the following:

1. Physical characteristics of health resources, clinic schedules, personnel, health infrastructure, services rendered, and costs to patients.
2. Socio-economic characteristics of health staff, their professional training, work attitudes and behaviour.
3. The process of health care delivery, including waiting room interactions between patients, between patients and staff, and the actual consultation with the provider.
4. Providers' perceptions of the PHC and of the health status and health needs of the communities. This study relied on in-depth interviews and focus group discussions.

Another evaluation that needs to be noted is that of the ICHD in Oyun LGA, Kwara State, Nigeria carried out by the author. After two years of intervention, the study sought to find out how much awareness had been created by the social mobilization programme, and it also measured knowledge, attitudes and practices in respect of EPI, ORT, household food security, nutrition and early child care, the essential drugs programme and the extent of community participation in the programme. The study did not apply RAP methodologies directly, but developed the instruments for survey analysis with concepts that emerged from the Owo study.

RAP methodologies have been applied predominantly to health programmes in the region; hence this review features only four applications of RAP to nutrition programmes. The study on the place of cassava in household food security and nutrition in Owo LGA, Ondo State, Nigeria was a rapid case study that relied solely on in-depth interviews. The main objectives of the study were to ascertain the extent of cassava cultivation, consumption, amount of trade, amount of feeding cassava meals to weaning children, varieties of cassava grown, processing and storage methods, and the overall place of cassava in household food security and nutrition in the LGA (L. K. Opeke et al., personal communication, mimeo, 1986). A similar study was commissioned in Oyo State. These studies were sponsored by UNICEF, Nigeria under its household food security programme. A much larger monitoring and evaluation report was compiled (A. Ikpi, personal communication, mimeo, 1988) for Oyo, Kwara and Ondo states under the same programme after implementing the household food security programme in collaboration with the International Institute for Tropical Agriculture, IITA, Ibadan, Nigeria. Although the study relied predominantly on a structured questionnaire, it was supplemented with observational data and the collection and weighing of cooked foods before, during and after consumption by individual family members.

Peter Ay's (personal communication, mimeo, 1990) study on the spread and impact of IITA cassava varieties is another evaluation of the UNICEF-IITA Household Food Production and Nutrition programme. The data collected on the proportion of farmers growing IITA cassava varieties, the proportion of land planted, characteristics and varieties of cassava planted, mechanisms of spread, preservation and multiplication relate directly to agricultural production. But the impact on household nutrition and economic empowerment of the spread of improved varieties is of direct relevance to UNICEF's nutrition programme. In-depth interviews of individual farmers, group interviews, and identification of cassava variety through observations are RAP methodologies that yielded significant results in that study.

## **RAP in academic research**

Ethnographic methods in African social science research are quite dated, but RAP has not been prominent in studies originated by researchers. The few studies discussed are published in medical journals. Social science journals publish few articles based on RAP, presumably because consultants do not publish results of commissioned studies. The implication is that RAP is not proliferating fast enough. Theoretical and methodological developments on the continent are therefore out of step with each other.

RAP has been used in medical research on malaria, iron deficiency in pregnant women, in research on leprosy and in studies of deaf children. One of the two studies on malaria relied on participant observation and in-depth interviews, for the understanding of Yoruba beliefs about malaria and febrile convulsions. Studying beliefs was necessitated by the need to fill the communication gap between medical practitioners and community members [17]. The second malaria study was an investigation into the chloroquine treatment of falciparum malaria in Kenya, and the primary instruments of research were in-depth interviews, exit interviews, physical and clinical measurements of children aged one to 10 years, who were attacked by this strain of malaria [18].

The study of iron deficiency, pregnancy and breast-feeding was conducted in the Republic of Niger by Brunengo et al. [19]. The investigation took place in April and May 1987 among a non-randomized population of 173 pregnant or breast-feeding women. An in-depth interview schedule in the vernacular extracted information on age, parity, pregnancy stages, adherence to, and tolerance of, side effects of treatment. In-depth interviews also featured among the instruments used by Ponnighaus et al. [20] in a study of clinical leprosy in a total population of the Karonja district of Malawi. In addition, physical examinations were carried out by paramedical control assistants. The study of the care of deaf children by Oyemade [21] also relied on in-depth interviews and case notes on deaf children in a Nigerian city.

RAE' was originally conceptualized as an anthropological approach that could be executed within a period of six to eight weeks. The different applications discussed above have rescued it from the narrow confines of anthropology and programme evaluation and established it as a methodology for development initiatives.

## **The future of RAP methodologies**

The future of RAP depends on its widespread use, but, more importantly, on the extent to which it can continue to provide the right answers to important issues of development and the understanding of society.

The limited use of RAP methodologies arises mainly from its confinement to studies commissioned by development agencies. To overcome this, it would be necessary to formalize RAP as other major methodological approaches have been treated and incorporate it into methodology courses. RAP must develop simultaneously with its corresponding theoretical perspectives to expose it to a larger body of users and thus develop confidence in it.

Another obstacle that needs to be overcome concerns the doubts about RAP's scientific status. Adherents of quantitative analysis cannot actually visualize its scientific status; neither do traditional anthropologists have confidence in it, hence the resistance to the method and the lack of adherence to stipulated procedures.

There are also problems of application that need to be overcome. Usually the interview guides are administered in the same manner as structured questionnaires, thus losing the insights the interviews are expected to bring out. One solution to the problem of the scientific status of RAP

is to perceive qualitative and quantitative methodologies as complementary, each presenting the most reliable data when used for large samples and with equal reliability when qualitative methods are applied to small groups and samples.

It is important to compare RAP methodologies according to the type of data that derives from each method. The work of Becker [22] is particularly useful for this comparative analysis. In a discussion of these various types of qualitative methodologies, he located the differences and similarities at two different levels. He contrasted those involving data volunteered with those in which data are requested by the researcher, and those that require data that are publicly presented by the subjects against those presented to the researcher in private. Morgan [23] placed these two differentiations along a continuum and classified focus groups on researcher-directed publicly-stated end, and individual interviews on the interviewer-directed privately stated end of the continuum. Morgan [23] like Scrimshaw and Hurtado [23] believed that using more than one method was better for data reliability and validity but he judged focus groups, if properly set up and moderated, to be better than interviews and participant observation techniques. This perhaps explains the widespread application of FGDs in the studies reviewed above.

There is no doubt that RAP has brought new insights into health planning and health research, and it will continue to do so as commitment to participatory and action-oriented approaches increases. RAP gives more than a one-time perspective of a programme or of the health status of a people. It sheds light on people's priorities, the means for attaining them, how to break through contextual barriers and achieve the set goals. RAP definitely has a future, but is in dire need of being formalized.

## References

1. Kemal M, Bryceson D. The concept of development in the social sciences. In: Kassam Y, Mustafa K, eds. Participatory research: an emerging alternative methodology in social science research. New Delhi. Society for Participatory Research, 1982: 13-28.
2. Gran G. Development by people: citizen construction of a just world. New York: Praeger, 1983.
3. Scrimshaw SCM, Hurtado E. Rapid assessment procedures for nutrition and primary health care: anthropological approaches to improving programme effectiveness. Los Angeles: UCLA Latin American Center, 1987.
4. World Bank. Proposal for the development of an agenda for action to improve the implementation of population in sub-sahara Africa in the 1990s. Washington, DC: The World Bank, 1989.
5. Hall D, Malahleha G. Health and family planning services in Lesotho: the people's perspective. Lesotho: Morija Museum and Archives, 1989.

6. Ebo A. Ongoing community-based/alternative health/family planning delivery programs in sub-saharan Africa: an overview. In American Public Health Association eds. Bringing family planning to the people: Proceedings of a Conference on community-based distribution and alternative delivery systems in Africa. Washington, DC: APHA, 1986: 22-28.
7. Wawer M, Gorosh M. Components of CBD program management. *Ibid* 5, 43-49.
8. Delano E. Organizing for community participation in a rural health centre/family planning project. *Ibid* 5: 55-58.
9. Mworio K. Family planning association of Kenya community-based distribution of contraceptives pilot project. *Ibid* 5: 66-12.
10. Kinzoni M, Mangani N. The CBD program of family planning services of Zaire. *Ibid* 5: 102-104.
11. Rukuongwe A. Community-based distribution pilot project in Tanzania. *Ibid* 5: 105.
12. Akwetteh LSN. The Ghana social marketing programme. *Ibid* 5: 113.
13. Nzuma T. Community-based distribution/alternative delivery systems programme in Zimbabwe. *Ibid* 5: 116.
14. Bender D, Macauley RJ. Immunization drop-outs and maternal behavior: evaluation of reasons given and strategies for maintaining gains made in the national vaccination campaign in Liberia. *Int Quart Community Health Education* 1988-89, 9: 83-98.
15. Debis F. Improper practices for diarrhoea treatment in Africa. *Trans Royal Society of Tropical Medicine and Hygiene* 1988; 82: 935-36.
16. Casalino M. A two-year study of enteric infections associated with diarrhoeal diseases in urban Somalia. *Trans Royal Society of Tropical Medicine and Hygiene* 1988; 82: 637-41.
17. Ramarkrishna J, Brieger WR, Adeniyi JD. Treatment of malaria and febrile convulsions: an educational diagnosis of Yoruba beliefs. *Int Quart Community Health Education* 1988-89; 9: 305-319.
18. Brandling-Bennett D. Chloroquine treatment of falciparum malaria in an area of Kenya intermediate chloroquine resistance. *Trans Royal Society of Tropical medicine and Hygiene* 1988; 82: 833-837.
19. Brunengo JF. Iron deficiency, pregnancy and breast-feeding in the Republic of Niger. *Trans Royal Society of Tropical medicine and Hygiene* 1988; 82: 649-50.
20. Ponnijhaus JM, Fine PEM. Sensitivity and specificity of the diagnosis and the search for risk factors for leprosy. *Trans Royal Society of Tropical Medicine and Hygiene* 1988; 82: 803-9.

21. Oyemade A. The care of deaf school children and other handicapped in Nigeria. Royal Society of Health 1975; 6: 282-83.
22. Becker HS. Problems of inference and proof in participant observation. Am Sociological Review 1958; 23: 652-60.
23. Morgan D. Focus groups as qualitative research. Beverley Hills: Sage, 1988.

### List of acronyms

RAP	Rapid Assessment Procedures
UNICEF	United Nations Children's Fund
NFHSP	Nigerian Family Health Services Project
UNFPA	United Nations Fund for Population Activities
HealthCom	Health Communication for Child Survival Project
EPI	Expanded Program of Immunization
ORT	Oral Rehydration Therapy
IEC	Information, Education, Communication
FGD	Focus Group Discussion
IDRC	International Development Research Centre
PHC	Primary Health Care
UNU	United Nations University
RBNL	Research Bureau Nigeria Ltd
CBD	Community Based Distribution
FRCN	Federal Radio Corporation of Nigeria
NTA	Nigerian Television Authority
ICHD	Integrated Community Health Development
IITA	International Institute for Tropical Agriculture
LGAS	Local Government Areas