

**APPLICATION OF UNICEF’S COMMUNICATION
MODEL FOR BEHAVIOUR CHANGE: MOTHERS’
RESPONSE TO POLIO ERADICATION CAMPAIGN
IN SELECTED NIGERIAN STATES**

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September, 2010

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**THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE
STUDIES, UNIVERSITY OF LAGOS, IN PARTIAL FULFILMENT
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COMMUNICATION**

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ABSTRACT

Numerous studies have investigated the general and specific effects of the media of communication on attitude and behaviour modification or change, using different theoretical approaches. Since polio cases assumed worse dimensions in Nigeria between 2003 and 2006, the UNICEF-developed ACADA communication planning framework for behaviour change has been consistently used to address the communication issues related to the problem. This study was conceived to provide data for policy makers, advocacy groups, development agencies and communication scholars on how the ACADA model for behaviour change has been applied and how mothers in study locations have responded to the polio eradication campaign in selected states in Nigeria. The social marketing theory, of which the ACADA model is a sub-set, formed the theoretical framework for the study. Triangulation research method consisting of survey, focus group discussion and interview were used to obtain data for the study. Multi-stage random sampling technique was used to select 800 mothers of child-bearing age from four states in the country. From two polio-free South-West states, 400 mothers were selected, made up of 100 each from Ikere and Ido-Osi LGAs in Ekiti State, Ayobo-Ipaja and Yaba Local Council Development Authorities in Lagos State. From two polio-endemic North-West, another 400 mothers chosen, comprising of 100 each from Kaduna North and Chikun LGAs in Kaduna State and Gwale and Rimin-Gado LGAs in Kano State. Focus group discussion was used to obtain additional data from mothers while interview method was used to obtain information from polio programme officers in the local governments. Data collection instrument was the structured questionnaire. Of the 800 questionnaire administered to respondents, 716 were returned, only 654 were correctly filled. Data were analysed at univariate, bivariate and multivariate levels using the Statistical Package for Social Sciences (SPSS). Eight research questions were raised and eight hypotheses formulated for the study. This shows there is relationship between the application of ACADA model for behaviour change and the positive response of mothers to the polio eradication campaign in the four selected states. It further reveals

that though most mothers were exposed to ACADA-related messages from the mass media, their decisions on polio immunisation were largely influenced by family members (43.9%), friends (11.9%), village or community leader (8.7%), religious leaders (6.2%), and traditional rulers (3.5%). The mass media altogether contribute only 12.3% of the influence of mothers. Data indicate that socio-psychological factors such as respondents' knowledge, beliefs, values, and practices as well as their demographic attributes influenced their responses to the campaign. The study recommends that government and development agencies should identify and work closely with major influencers in each community in every social change programme. It further recommends that thorough formative research be carried out before embarking on any intervention in the society. Finally, the study recommends that the ACADA model for behaviour change be included in the curricula for communication studies in Nigeria.

DECLARATION

I, Adewumi Olubunmi Ajibade, declare that this thesis was originally written by me, and that, to the best of my knowledge, this research has not been submitted to any other school or university for any other degree. I also declare that both published and unpublished materials used in this study are appropriately acknowledged.

Name: Adewumi Olubunmi Ajibade

Signature.....

Date:

CERTIFICATION

This Ph.D. thesis has been examined and found acceptable in meeting the requirements of the Postgraduate School of the University of Lagos, Akoka, Lagos State, Nigeria.

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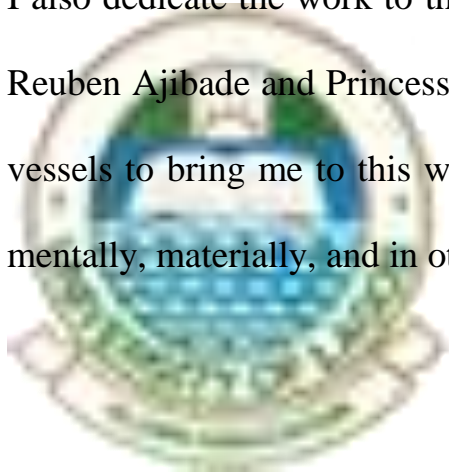
External Examiner

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DEDICATION

This work is dedicated first and foremost to the Almighty God, the only source of true knowledge, understanding and wisdom. He is truly my strength, my stronghold, my shield and my defender, my fortress and my refuge at all times. He kept me by His power and gave special ability and grace to start and to complete this work. Without Him I could not have carried out this research. To Him alone be all the glory, honour, power, dominion, adoration, praise, and splendor forever.

I also dedicate the work to the living memories of my late parents—Prince Reuben Ajibade and Princess Beatrice Ajibade—whom God used as worthy vessels to bring me to this world and to nurture me physically, spiritually, mentally, materially, and in other areas of life.



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Olubunmi Ajibade

September, 2010

TABLE OF CONTENTS

Content	Page
First title page	i
Second title page	ii
Abstract	
.....	iii
Declaration	
.....	iv

Certification	v
Dedication.....	vi
Acknowledgements	vii
Table of contents	ix
List of tables	x
List of Figures	xiii
List of Appendixes	xiv
List of Abbreviations.....	xv
Chapter One: INTRODUCTION...	
Chapter Two: LITERATURE REVIEW.....	22
Chapter Three: RESEARCH METHODOLOGY.....	49
Chapter Four: DATA PRESENTATION AND ANALYSIS.....	80
Chapter Five: FINDINGS AND DISCUSSION.....	130
Chapter Six: CONCLUSION,&RECOMMENDATIONS/CONTRIBUTIONS TO KNOWLEDGE.....	141
Bibliography	147
Appendices.....	155

LIST OF TABLES

Table No	Title	Page
1.	Wild Poliovirus Cases in Four Polio Endemic Countries	4
2.	Selected States and their Local Government Areas	66
3a.	Application of ACADA Model By selected LGAs	81
3b.	Application of ACADA-related Communication Strategies By Selected LGAs	81
4.	Information Officers' Rating of the Effectiveness of ACADA Model	84
5	Major Sources of Mass-Mediated Health Information to the Respondents	85
6.	Respondents Most Frequently Used Interpersonal Health Information Source	86
7.	Mothers' Exposure to ACADA-related Message and their Response	87
8.	Major sources of Polio Information by Respondents	89
9.	Respondents' Answer to the Question: Immunisation against polio is the right of every child	91
10.	Mothers' Attitude to Immunisation Appointments	92
11.	Mothers' Opinion about the safety of OPV	93
12.	Mothers' Opinion about Extra Doses of OPV during NIDs	94
13.	Mothers' Belief about the danger of poliovirus	95
14.	Persons, Institutions, things that Influenced Respondents most on Polio Decisions	97
15.	Respondents by Age	98
16.	Respondents by Education	99
17.	Respondents by annual income	100
18	Respondents by Religious affiliation	101
19.	Respondents by Ethnic Groups	101

20.	Respondents by Occupation	102
21.	Respondents by marital status	102
22	Respondents by number of children	103
23a	Application of ACADA Components by Selected LGAs	104
23b	Application of ACADA Communication Strategies by selected LGAs	105
24	Information Officers' Rating of the effectiveness of the ACADA model	106
25.	Respondents' Exposure to Information sources on Polio	108
26.	Cross tabulation of Respondents' Exposure to Information Sources On Polio Immunisation and Compliance with the Campaign	110
27.	Respondents' Most Frequently Used Mass Medium Source for Health Information	112
28	Respondents' Most Frequently Used Interpersonal Source for Information	113
29.	Respondents Most Frequently Used Information Source on Polio Immunisation	114
30.	Respondents' Answer to the Statement : "Immunisation against Polio is the right of every child"	115
31.	Respondents' Answer to the statement: "It is not important to keep all Immunisation Appointments"	116
32.	Respondents' answer to the statement: "Overdose of OPV is dangerous"	117
33.	Respondents' Belief about the danger of Polio	118
34.	Respondents' Belief about Extra Doses of OPV during NIDs	119
35.	Respondents' Opinion about whether Extra Doses of OPV during NIDs boost the child's Immunity against Polio	120
36.	Relationship between The States and the Person, thing or institution or place that influenced Mothers most on their Children's Immunisation	122
37.	Cross tabulation of Respondents' Age and their Response to the Polio campaign	124

38.	Cross tabulation of Respondents' Educational Qualification and their Response to Polio Campaign	125
39.	Cross tabulation of Respondents' Income and their Response to Polio Eradication Campaign	126
40.	Cross tabulation of Respondents' Religion and their Response to Polio Eradication campaign	127
41.	Cross tabulation of Respondents' Ethnic Groups and their Response to Polio Campaign	128
42.	Respondents' Occupation and their Response to Polio Campaign	129
43.	A matrix of Responses from Interviews with Mothers in Selected States	131



**UNIVERSITY
OF LAGOS**

LIST OF FIGURES

S/No	Title	Page
1.	Lassweell's Communication Effects Model	20
2.	UNICEF's ACADA Model for Communication Planning	29




UNIVERSITY OF LAGOS

LIST OF APPENDICES

S/No	Title	Page
I.	Questionnaire for Mothers in Selected States	158
II.	Map of Kaduna State showing Study sites	171
III.	Map of Ekiti State showing Study Sites	172

IV.	Map of Kano State showing Study Sites	
		173
V.	Map of Lagos State showing Study Sites	
		174
VI.	Interview Schedule for Mothers	
		175
VII.	Interview Schedule for LGA Health Officials	
		177
VIII.	Full text of Interview with Mothers at Gwale LGA	
		178
IX.	Full text of Interview with Lawan Japha (Health official at Gwale LGA)	
		182
X	Full text of Interview with Sambo Sabo Abba (Information Officer for Kaduna North LGA)	
		187
XI	Full text of Interview with Mothers at Chikun LGA	
		193
XII	Full text of Interview with Mothers at Rimin-Gado LGA	
		203
XIII	Full text of Interview with Mothers at Ayobo Ipaja LCDA	
		212
XIV.	Example of UNICEF's ACADA Communication worksheet used For Polio Intervention Programme	
		223
XV.	Sample Immunisation Messages	253

LIST OF ABBREVIATIONS



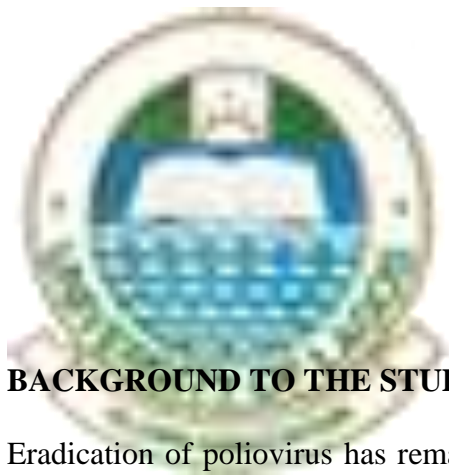
ACADA	Assessment, Communication Analysis, Design, Action
AFP	Acute Flaccid Paralysis
BASICS	Basic Support for Institutionalizing Child Survival
CDC	Centers for Disease Control and Prevention
CVDPV2	Circulating Vaccine-Derived Polio Virus2
EPI	Expanded Programme on Immunisation
GPEI	Global Polio Eradication Initiative
HIV/AIDS	Human Immuno-Deficiency Virus/Acquired Immune Deficiency Syndrome
IPDs	Immunisation Plus Days
LCDA	Local Council Development Authority
LGA	Local Government Authority
NIDs	National Immunisation Days
NPHCDA	National Primary Health Care Development Agency
OPV	Oral Polio Vaccine
SIAs	Supplementary Immunisation Activities
SNIDs	Sub-National Immunisation Days
UNICEF	United Nations Children's Fund

WPV

Wild Polio Virus

WHO

World Health Organization



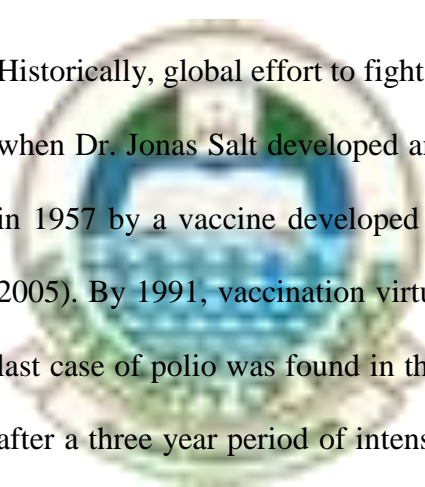
CHAPTER ONE

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BACKGROUND TO THE STUDY

Eradication of poliovirus has remained one of the most challenging international public health issues in the last 60 years. Until 2003, there was hope that poliomyelitis (polio for short), which had crippled or killed millions of children worldwide, would be wiped out from the surface of the earth by 2005. But as Cathcart (2005) has observed, the number of countries where children under five years are infected with poliovirus has instead soared, raising fears in the international health community that polio eradication which has so far cost more than USD 9 billion (WHO, 2010a: 38), might be prolonged a little longer.

Wild polio virus (WPV) is the agent that causes Acute Flaccid Paralysis (AFP), i.e. weakness of the limbs – hands and legs – in children who are less than five years old (WHO, 2001:8). It attacks and paralyses or kills children. It spreads from one person to another mainly through contaminated fingers, foods, drinks and faecal matter from an infected person. It has been reported that polio paralysed about 25 million children in the first half of the 20th century. The communicable disease, which has no cure, according to the World Health Organisation (WHO), can only be prevented through immunisation (WHO, 2010a).



Historically, global effort to fight polio received its first significant breakthrough in 1954, when Dr. Jonas Salk developed an effective vaccine against polio, and this was followed in 1957 by a vaccine developed by Dr. Albert Sabin that could be taken orally (Piller, 2005). By 1991, vaccination virtually eliminated polio in the Western Hemisphere. The last case of polio was found in that year and by 1994, the region was certified polio-free after a three year period of intensive surveillance. So far, Oral Polio Vaccine (OPV) has been administered to more than two billion children across 125 countries around the world as part of the polio eradication programme and as part of routine immunisation services in more than 200 countries (WHO, 2010b). Due to the effectiveness of the worldwide campaign against polio, regarded as one of the most successful in medical history, the infection rate has been reduced by 99% (WHO, 2008: 7)

In 1988, there were 350,000 cases of Polio infection reported annually (Cathcart, 2005). That same year, a coalition of the World Health Organisation (WHO), United Nations Children's Fund UNICEF), Rotary International and the United States Centres for Disease Control and Prevention (CDC) launched the Global Polio Eradication Initiative (GPEI), aimed at eradicating polio from the surface of the earth by the year 2000 and certifying the world polio free by the year 2003 (Branswell, 20005a). This deadline, as Branswell has noted, was missed and another deadline which targeted interruption of poliovirus circulation by 2005 and certification by 2008 was also missed due to the inability of the four polio endemic countries, including Nigeria, to stop the circulation of polio. The most recent deadline aims to interrupt the virus by 2012 and certify the world polio-free by 2013 (WHO, 2009). According to GPEI's new strategic plan for 2010-2012, polio will be eradicated as follow (WHO, 2010b.17):

Middle of 2010: Interruption of all new importations (i.e. virus imported from other countries)

End of 2010: Interruption of all re-established viruses

End of 2011: Interruption of virus circulation in two of the four endemic countries

End of 2012: Interruption of poliovirus in the other two endemic countries

End of 2013: Certification

Though Polio was almost extinct in 2003, the vision of a polio-free world is now being threatened by its re-emergence in parts of Africa and Asia (Richardson and Saginur, 2005). Immunisation against polio has been implemented in all parts of the world for

about 60 years, according to UNICEF *et al* (2000). However, many countries, as UNICEF *et al* note, had only low-key and often unstructured programmes.

To stimulate re-organisation and strengthening of immunisation programmes – throughout the world, the WHO, in 1974, launched the Expanded Programme on Immunisation (EPI). And in 1988, the World Health Assembly – the governing body of the WHO – set the target of the year 2000 for the eradication of polio. The goal was to be achieved through three main strategies:

- Establishing high-level national commitment to the programme to ensure adequate personnel and financial resources are made available
- Increasing and sustaining routine immunisation coverage through the administration of at least three doses of Oral Polio Vaccine (OPV)
 - Conducting of supplemental immunisation campaigns, through National Immunisation Days (NIDs) and sub National Immunisation Days (SNIDs); and
 - Reaching process of transmission of the wild polio virus by conducting mop-up immunisation.
- Implementing action-oriented surveillance for all possible cases of poliomyelitis (UNICEF) *et al*, 2000:1-2)

The fear in the international health community is that if only one case of the highly infectious polio is left in any country in the world, it may lead to its resurgence even in countries, which have been certified polio-free. In fact, as Piller (2005) has noted, each case (of polio) typically represents up to 200 undetected infections, meaning that the virus is more widely distributed than the figures indicate. This is probably why many

resources are being deployed towards the elimination of the last case of polio in the world.

Today, polio is reported to be endemic in only four countries: Nigeria, India, Pakistan and Afghanistan (Branswell, 2005b). In fact, Nigeria, regarded as the largest reservoir of polio virus in Africa, is said to be the epicentre of the recent polio outbreak that has so far spread to 16 polio-free countries and re-established transmission in six others (Piller, 2005). For example, DNA fingerprinting of viruses allowed scientists to track the spread from Nigeria to a number of countries that had succeeded in wiping out polio, including Yemen and Indonesia (Branswell, 2005b). Table 1 gives a 10-year case count of polio in the four endemic countries.

Table 1: Wild Poliovirus Cases among Four Endemic Countries (2000-2009)

Year	Nigeria	India	Pakistan	Afghanistan	Total Annual Cases
2000	28	265	199	27	519
2001	56	268	119	11	454
2002	202	1600	90	10	1902
2003	355	225	103	8	691
2004	782	134	53	4	973
2005	830	66	28	9	933
2006	1122	676	40	31	1,869
2007	285	874	32	17	1,208

2008	798	559	117	31	1,505
2009	388	741	89	38	1,256
Total	4,846	5,408	870	159	11,283

Source: WHO, (2010) Geneva: <http://www.polioeradication.org/casecount.asp>

The problem began in Nigeria in 2003, when vaccination was suspended by 14 northern states of Kano, Sokoto, Katsina, Zamfara, Kaduna, Bauchi, Benue, Gombe, Jigawa, Kebbi, Nasarawa, Niger, Borno and Taraba. This followed rumours that the polio vaccines cause sterility, and Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS), and that immunisation against polio was a plot by the western world to control the population of Northern Nigeria (Nashir, 2005). Stopping the transmission of polio virus in Africa, particularly in Nigeria, according to Piller (2005), is said to be critical to protecting children on the continent and in polio-free countries around the world.

However, despite efforts being made by the United Nations Children's Fund (UNICEF), the World Health Organisation (WHO), as well as their global partners in the polio-eradication campaign, problems still remain in some countries, including Nigeria. Worst cases of wild polio virus have been narrowed to 13 northern states in Nigeria. According to a recent report by the National Primary Health Care Development Agency (NPHCDA, 2007:12-13) the states are Bauchi, Borno, Benue, Gombe, Jigawa, Kaduna, Kano, Katsina, Kebbi, Niger, Sokoto, Yobe and Zamfara. They have been classified by the agency as "Polio High Risk States". As at 2007, eight states: Bauchi, Borno, Jigawa,

Kebbi, Kano, Katsina, Sokoto, and Yobe accounted for 88% of all confirmed polio cases in Nigeria (NPHCDA, 2007: 4). According to NPHCDA, 64% of all 2007 confirmed polio cases occurred among children below three years old, and about 74% of all cases occurred among either incompletely vaccinated children (46%) or children never vaccinated before (28%).

Effective implementation of the campaign against polio had depended largely on one form of communication or the other. However, by 1997, UNICEF *et al* (2000:4) and its partners in the war against polio noticed apparent weakness in the communication activities, aimed at achieving the goals of EPI. A programme review meeting by the polio partners held in Kampala, Uganda Capital that year found that though social mobilisation, through communication, had made important contributions to the success of NIDs, it remained weak in supporting routine immunisation and disease surveillance. Besides, the meeting noted that while much time was spent on advocacy, public events and dissemination of information through the mass media, little time was devoted to other communication components, such as programme communication and the use of interpersonal communication.

A workshop of senior communication officers from ministries of health across Africa, WHO, UNICEF and Basic Support for Institutionalising Child Survival (BASICS), subsequently, in 2000, developed a Communications Handbook for the implementation of Polio eradication and routine EPI. The handbook incorporated the UNICEF- developed ACADA, an acronym for **A**ssessment, **C**ommunication **A**nalysis, **D**esign and **A**ction. The

ACADA communication model for behaviour change was developed based on the premise that influencing and modifying human behaviour is a complex process that needs to be planned carefully (UNICEF *et al*, 2000:8). The goal of the ACADA communication model is to achieve sustained behaviour change through the strategies of advocacy, social mobilisation and programme communication. As it relates to polio immunisation, it envisages that all mothers will always take all their children under five years for routine and supplemental polio immunisation.

The development and application of a new communication model, designed to persuade mothers to take their children for polio immunisation, against the backdrop of intensified international effort to remove the last case of polio from the earth, spurred the interest in this study. The researcher was particularly interested in the subject because Nigeria is reported to be responsible for the recent outbreak of polio, which is re-infecting countries that had earlier been declared polio-free.

STATEMENT OF THE PROBLEM

Nigeria is the only polio endemic country in Africa. It is the only country in the continent which continues to have circulation of indigenous Wild Polio Virus (WPV), and as of 2009, the only country in the world with ongoing transmission of all three poliovirus serotypes: WPV1, WPV3 and circulating Vaccine-derived Poliovirus 2 (cVDPV2) (WHO, 2010: 17). This has made Nigeria a major focus of global polio eradication effort.

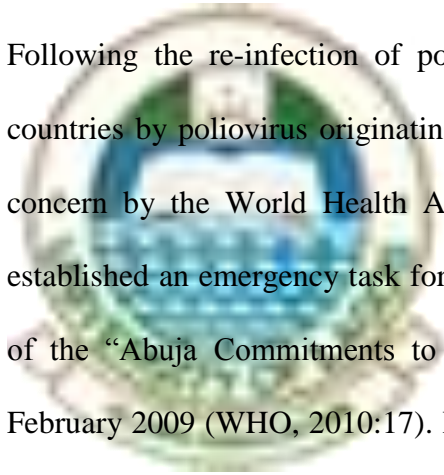
Poliomyelitis has killed more than 25 million children worldwide and the World Health Organisation (WHO) estimates that 10 to 20 million people live with permanent paralysis that accompanies polio attack (WHO, 2010). The highly infectious disease has no cure but is preventable through oral vaccination.

With consistent use of polio vaccine, poliomyelitis was almost extinct in the world in 2003. The year, with only 784 reported cases of polio infection, recorded the lowest figure since the initiative began (WHO, 2006). But the figure jumped to 1,263 in 2004, with increase driven primarily by Nigeria as a result of rumours that OPV could damage fertility and that it was been used to spread HIV/AIDS. This misinformation led to the suspension of the polio immunisation campaign in northern states of Nigeria. The boycott triggered the re-emergence of polio in Nigeria and its spread from there to 21 polio-free countries by the 2006 (Ogden *et al*, 2006).

Between 2001 and 2009, Nigeria had 4,846 reported cases of polio (WHO, 2010). The bulk of the cases (3,089 or 64%) were recorded between 2003 and 2006, the period that coincided with the polio immunisation boycott in northern Nigeria. Today, Nigeria is the only polio endemic country in Africa and one of four remaining polio-endemic countries globally, according to the National Primary Health Care Development Agency- the federal agency responsible for immunisation programmes in Nigeria- (NPHCDA, 2007:3). The other three are India, Pakistan and Afghanistan. Of the four polio endemic countries, three (India, Pakistan and Afghanistan) consistently have socio- political crises leading sometimes to military confrontations that make polio campaigns difficult. Nigeria

is the only country of the four that does not experience political crisis that make immunisation difficult.

While most of the southern states in Nigeria are polio-free, 12 states in northern Nigeria are designated as polio high risk states. The states are: Bauchi, Borno, Gombe, Jigawa, Kaduna, Kano, Katsina, Kebbi, Niger, Sokoto, Yobe and Zamfara (NPHCDA, 2007:12). In fact, five of the states- Borno, Jigawa, Kano, Katsina and Sokoto- have been further classified as “very high risk” in terms of polio infection (WHO, 2008: 21).



Following the re-infection of polio-free states of southern Nigeria and neighbouring countries by poliovirus originating from Nigeria and a strong statement of international concern by the World Health Assembly in May 2008, federal authorities in Nigeria established an emergency task force to address the situation. This resulted in the signing of the “Abuja Commitments to Polio Eradication” by all the 36 state governors in February 2009 (WHO, 2010:17). In 2009, polio cases dropped to 388, down from 798 in 2008 (WHO, 2010). The 51% drop in polio cases in one year is significant, and the success is attributable to the seriousness the government at all levels attached to the campaign. The period of this significant drop in polio cases in Nigeria coincided with the time of greater involvement of all the 36 state governors, frontline traditional rulers on northern part of Nigeria and local government chairmen.

UNICEF, which developed the ACADA model for behaviour change communication, is the lead Global Polio Eradication Initiative (GPEI) partner on social mobilisation and

communication. It is leading a strengthening of technical assistance for communication in the highest-risk states in Nigeria in order to enhance community awareness and engagement (WHO, 2006). The ACADA framework for communication planning has been applied, through the technical assistance of UNICEF, in the campaign for polio eradication in Nigeria, particularly during the intensified campaigns that have followed the re-emergence of polio in the country between 2003 and 2006.

The question, therefore, is: How has UNICEF's ACADA model for communication planning and behaviour change been applied in polio eradication campaign in Nigeria? What lessons have been learnt from the application of ACADA model in polio eradication communication in Nigeria? What are the sources of information on polio immunisation in the study locations? What communication channels are been used to disseminate polio immunisation messages to the target populations? What communication challenges face polio eradication campaign in the selected states? What are the attitudes of mothers towards polio immunisation?

The purpose of this study, therefore, was to examine the relationship between the application of UNICEF's ACADA communication model in polio campaign and the response of mothers to the eradication campaign in Lagos and Ekiti States, in South West Nigeria and Kaduna and Kano States in the North West.

OBJECTIVES OF STUDY

The objectives of the study were:

1. To find out how the ACADA model for communication planning has been applied in the selected states
2. To determine whether information officers in the study sites would differ in their rating of the effectiveness of ACADA-related communication strategies?
3. To identify the major sources of health information for mothers in the study locations
4. To investigate the relationship between mothers' exposure to ACADA-based messages on polio and their compliance with polio immunisation
5. To determine whether mothers in study locations would depend more on interpersonal channels than mass media channels for information polio immunisation
6. To find out whether socio-psychological factors such as knowledge, attitudes, practices, values and beliefs of mothers would have influence on their response to ACADA-based messages on polio eradication

7. To identify the major factors responsible for mothers' response to the polio eradication campaign
8. To examine the relationship between mothers' demographic attributes and their response to the polio eradication campaign

RESEARCH QUESTIONS

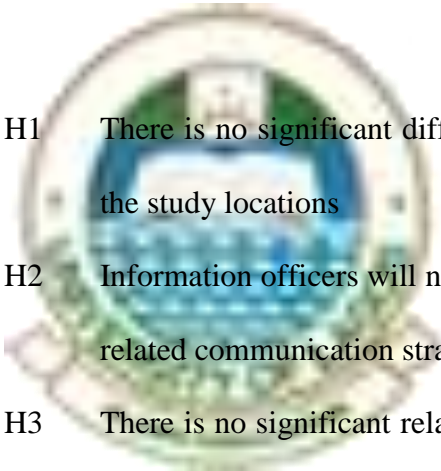
This study was guided by the following research questions:

1. How has the ACADA model for communication planning been applied in the study locations?
2. Do information officers in the study sites differ in their rating of the effectiveness of ACADA-related communication strategies for polio information?
3. What are the major sources of health information for mothers in the study locations?
4. Is there a relationship between mothers' exposure to ACADA-related messages on polio and their response to the polio eradication campaign?
5. Do mothers in the study locations depend more on interpersonal communication channels than mass media channels for information on polio eradication?
6. Do socio-psychological factors such as knowledge, attitudes, practices, values and beliefs influence mothers' response to the polio campaign?

7. What are the major factors responsible for mothers' response to the polio campaign?
8. What is the relationship between the demographic attributes of mothers in the study locations and their response to the polio immunisation campaign?

HYPOTHESES

The study tested the following hypotheses:

- 
- H1 There is no significant difference in the application of the ACADA model across the study locations
- H2 Information officers will not differ in their rating of the effectiveness of ACADA-related communication strategies for polio information
- H3 There is no significant relationship in major sources of health information among mothers in the selected states
- H4 There is no relationship between mothers' exposure to ACADA-based messages on polio and their response to the polio eradication campaign
- H5 Mothers in the study locations will not depend more on interpersonal communication channels than mass media channels for information on polio eradication
- H6 Socio-psychological factors such as knowledge, attitudes, practices, values and beliefs will not influence mothers' acceptance or rejection of polio immunisation

- H7 There is no significant difference in the major factors responsible for mothers' response to the polio campaign in the study sites
- H8 There is no relationship between mothers' demographic attributes and their response to the polio eradication campaign

PURPOSE OF STUDY

Implicit in the UNICEF'S ACADA communication model is the assumption that communication can be used as a tool for attitudinal and behaviour change as well as to promote development. The purpose of this study, therefore, was to ascertain how far the goal of sustained behaviour change through the application of UNICEF's ACADA communication model has been achieved in the polio eradication campaign.

SIGNIFICANCE OF STUDY

The findings of this study are important to groups, individuals and institutions in the society. First, an understanding of the impact of the ACADA model is important to UNICEF and other local as well as international agencies that are promoting one form of behaviour change or the other. Since the goal of ACADA model is sustained behaviour change through communication (at individual, family and community levels), other health communication interventions can benefit from its methodology if it is found to be effective.

Second, the study adds to the growing scholarly research and literature in the field of development communication. Since the end of the Second World War researchers have conducted hundreds of research on the effect of communication, particularly about the role communication plays in national development. So many resources- financial, material, manpower and time – have been committed to the polio eradication campaign by the Federal Government of Nigeria, state governments and donor agencies. A study on the effectiveness of the campaign is, therefore, important to scholars and development communication professionals.

Third, policymakers at local, regional and international levels will benefit from the findings of this study. Since knowledge, beliefs and attitudes underlie behaviour and practices, an understanding of the factors that influence mothers' response or non-response (behaviour) to the polio eradication campaign is important for policy makers. The findings of this study underscore the need to reinforce or re-adjust strategies for communicating polio eradication messages with mothers.

DELIMITATIONS AND LIMITATIONS

In terms of scope, this study was concerned itself with obtaining information on the response or non-response of mothers, through questionnaire and as well as interviewing health and information officers in Ekiti, Lagos, Kaduna and Kano States, which have been systematically chosen for this study. The study was limited to only mothers with any child less than five years old. This was because wild polio virus attacks only children less than five years old. This group of children is the target of the immunisation campaign. Because this study was limited only to the south-western and north-western

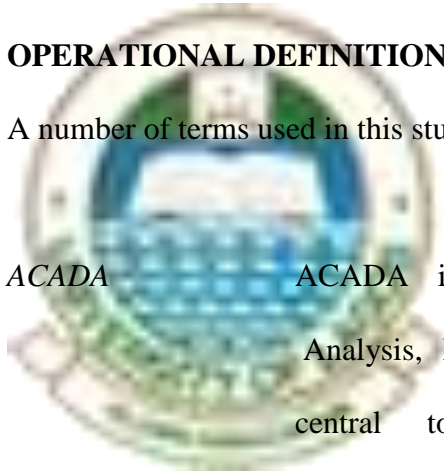
parts of Nigeria, a major weakness is that it will not be generalisable to all parts of Nigeria.

Since cultural values, beliefs and practice vary in different parts of the country (Akinfeleye et al, 1995), it was expected that response to the immunisation campaign would differ in different parts of Nigeria.

These differences in cultural values, beliefs and practices among different ethnic groups in Nigeria, therefore, decrease the generalisability of the findings of this study.

OPERATIONAL DEFINITIONS OF TERMS

A number of terms used in this study are hereby operationally defined as follows.



ACADA ACADA is the acronym for Assessment, Communication Analysis, Design and Action. Monitoring and evaluation are central to all the stages. It is the model of development communication planning that utilises three main strategies of advocacy, social mobilisation and programme communication. It was developed by UNICEF, which is the lead partner in its application under the Global Polio Eradication Initiative (GPEI).

Attitude: This refers to the belief and feelings that predispose mothers to respond in a particular way to the polio immunisation campaign. It has cognitive (knowledge), emotional (feelings) and behavioural

components. Most attitudes are the result of direct experience or observational learning from the environment. Attitudes are positive, negative or neutral views of an attitude object—polio immunisation, in the case of this study.

Attitude Change: This is modification of an earlier attitude. Attitude change is basically a response to communication. It is influenced by three major factors: target characteristics, source characteristics and message characteristics. Attitude can be changed through persuasion, which is essentially a communication process.

Belief: This is a thing, information or an idea that mothers accept to be true or real concerning polio and immunisation. It deals largely with their opinions and convictions about polio and immunisation against it.

Behaviour: This is mothers' acceptance or rejection of immunisation for their children who are under five years of age.

Behaviour Change: This is modification of old behaviour in the light of information, new belief and a change in attitude. Within the context of this study, this means a decision by mothers to take their children for immunisation after initial refusal.

Advocacy: This is a continuous and adaptive process of gathering, organising and formulating information into arguments to be communicated through various interpersonal and media channels, with a view to raising resources or gaining political and social leadership acceptance and commitment for a development programme, thereby preparing a society for acceptance of the programme

Communication: This refers to exchange of information and ideas on polio between those promoting mass immunisation and mothers with children below five years. It could be through interpersonal or mass media channels.

Communication for Development: This is a research and planned process, crucial for social transformation, operating through three main strategies of advocacy, social mobilisation and programme communication.

Campaign: This is a series of planned communication activities directed at stakeholders with the specific aim of persuading them to get involved in eradication of polio through routine, supplemental and mop-up immunisation.

Immunisation: This is the process of administering few drops of oral polio vaccine to children's bodies in order to boost their immunity against poliovirus.

Poliomyelitis: This is a disease caused by the wild polio virus. It attacks and paralyses children. It enters the victim's body through the mouth.

It spreads from one person to another mainly through contaminated fingers, foods, drinks and faecal matter from an infected person.

Knowledge: This refers to mothers' awareness of a fact or situation about polio and immunisation. It also means the facts, information, understanding and skills that mothers have acquired through experience or education about polio and immunisation against polio.

Mother: Mothers, as used in the context of this study, means a woman of child-bearing age with any child less than five years old.

Opinion: This is mothers' evaluation or judgement about polio immunisation and polio immunisation teams. Opinion is not necessarily based on fact or knowledge. For instance, rumours which slowed down immunisation in northern Nigeria between 2003 and 2004 were, in most cases, not based on facts about polio vaccines and their chemical properties.

Programme

Communication: This is research-based communication process of addressing knowledge, attitudes and practices through identifying, analysing and segmenting audiences and participants in programmes and by providing them with relevant information and motivation through well-designed strategies, using appropriate mix of interpersonal, group, and mass media channels.

Persuasion: This is the process of convincing or leading mothers to take their children for every immunisation through reasoning or argument.

Practice: This is what mothers commonly do regularly about the immunisation of their children. It is usually determined by cultural beliefs, norms and values.

National Immunisation

Days (NIDs): These are special days when all children below five years in the country are given a dose (two drops) of Oral Polio Vaccine (OPV) in each round, irrespective of their previous immunisation status.

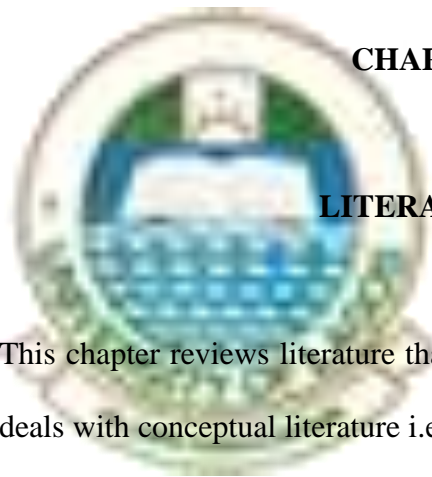
This dose helps prevent the polio virus from circulating among children.

Routine Immunisation: This is immunisation given to children at health centres from birth and at various ages till they are nine months old, to prevent them from serious disability or possible death from the six childhood diseases – tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus and measles.

Social Change: This refers to a transformation within a society from an old practice to a new that improves living condition or quality of life

Social Mobilisation: This is a process of bringing together all feasible intersectional social partners and allies to identify needs and raise awareness of and demand for, immunisation against polio. It involves enlisting the participation of such actors in identifying, raising and

managing human and material resources, thereby increasing and strengthening self-reliance and sustainability of achievement made.



CHAPTER TWO

LITERATURE REVIEW

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This chapter reviews literature that is pertinent to this study in three parts. The first part deals with conceptual literature i.e. a review of concepts that have direct bearing with this study. The second part deals with theoretical review and the third part details a review of empirical studies.

Much has been written by scholars in different fields on the role of communication in social change or development, especially since the end of World War II. Melkote and Steeves (2001:47-48) remark that this period coincides with the birth of the United Nations and its multilateral agencies as well as numerous bilateral aid agencies established by the Western industrialised countries, following the belief then that aid to

the less developed countries was important in the prevention of future wars. Invariably, most communication scholarship and practice are consistent with modernisation theory because, as Melkote and Steeves (2001:130) further note, early communication scholars and development communication professionals viewed communication as a product and reinforcer of economic growth and development.

CONCEPTUAL REVIEW

The following concepts are reviewed in this section: development, social change, information and communication, and development communication. .

DEVELOPMENT

Early development Communication scholars saw the concept of development within the concept of economic growth. Their view of development and the role that communication should play in it was largely influenced by the development strategy of post-World War II era. The United States of America, Moemeka(2000a:1-2) has noted, had developed a plan to rebuild war devastated Europe. The plan, known as “Marshall Plan”, was a huge success. It was characterised by the infusion into the economy of large sums of money and modern technology, which made establishment and growth of industries possible. This, in turn, led to large profits for investors and industries as well as economic incentives for workers.

About this same period, Everett Rogers, one of the renowned early scholars in development communication, published, in 1962, his influential book *The Diffusion of Innovation*. The book, as Moemeka (2000a:2-3) has observed, presented and discussed in

great detail how new and development – oriented ideas could be spread through a social system. Moemeka further notes that Rogers’ work seemed to have been specifically geared towards economic improvements, especially of the very poor, through the use of the diffusion process.

Wilbur Schramm, another well-known development communication scholar, in 1964 published his book *Mass Media and National Development: The Role of information in Developing Countries*. Schramm’s idea was concerned with the role the mass media of communication could play in national development. Moemeka (2000a:3) observed that the book was so influential that for many years after its publication it served as the guide book on how to use information in development projects.

Mowlana (2000:20) notes that the concept of development was not used extensively in the literature until after the end of World War II. The term, he said, became synonymous in the 1940s, 1950s and 1960s, with (economic) growth, modernisation, industrialisation, productivity, change, democracy, etc.

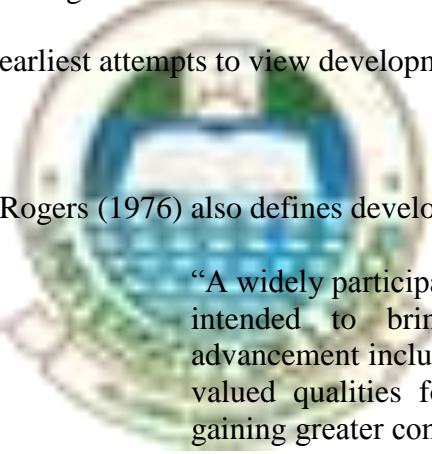
Mowlana (2000:24) identifies four main elements of this model of development:

1. Economic growth through industrialisation and accompanying urbanisation;
2. Capital-intensive technology mainly imported from the more developed countries;
3. Centralised planning, mainly by economists and financial experts to guide and speed up the process of development; and

4. Assertion that the causes of under-development are mainly within developing countries themselves.

However, this “economic growth-only” view of development, referred to as the dominant paradigm, has been rejected by many scholars (Inayatullah, 1975; Rogers, 1976; Moemeka, 1989; Mowlana, 2000). Inayatullah (1975), for instance, defines development as “Changes towards patterns of society that allows better realization of human values; that allows a society greater control over its environment, and over its own political destiny; and that enables its individuals to gain increased control over themselves.” Though this definition is not as specific as one would expect, it represents one of the earliest attempts to view development from angles other than the economic growth only.

Rogers (1976) also defines development as –



“A widely participated process of social change in a society intended to bring about both social and material advancement including greater equality, freedom, and other valued qualities for the majority of the people through gaining greater control over their environment.”

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One of the most useful contributions of Roger’s definition to the understanding of the concept of development is the idea of wide “participation”, meaning that beneficiaries of development programmes must be involved at every stage of the process.

Moemeka (1989) defines development as “a positive change (for the better) from conditions (social, economic, political, cultural and human) that are no longer considered good enough for the goals and aspirations of a society to those that are most likely to meet those goals and aspirations.”

A major contribution of Moemeka's definition of development is the link between development and society's goals and aspirations, which are determined by the people themselves.

Dissayanake (2000:39) in his own definition, describes development as "The process of social change which has as its goal the improvement in the quality of life of all or the majority of the people in a given society without doing violence to the natural and cultural environment in which they exist and which seeks to involve the generality of the people (participation) as closely as possible in this enterprise, making them the masters of their destiny."

The key ideas in this definition are improved quality of life, sustainable development, participation and self-reliance.

From current literature, it is obvious that development in society is no longer viewed from economic angle alone. It also covers social, cultural, political, environmental and technological issues as well as issues bothering on health (personal, community or public), freedom, equality, women empowerment, poverty reduction, literacy, sanitation, social justice, child survival, democracy, and so on.

SOCIAL CHANGE

Rogers (1983:6) posits that social change is “the process by which alteration occurs in the structure and function of a social system.” Implicit in this definition is both positive and negative change, i.e. change can be from bad to good or from good to bad. But Moemeka (2000b:69) defines social change as “action taken to reduce or eliminate the non-conducive or negative side-effects of social or physical development.”

Moemeka (2000a:10) argues that while development “is directed mainly at replacing identified retrogressive attitudes, behaviours and outmoded methods, structures and systems, social change is aimed at restructuring, that is, removing the undesirable effects and consequences of otherwise good and desirable attitudes, behaviours, structures and systems.”

He concludes by saying that both concepts are ultimately geared towards the same goal – the improvement of the social, economic, political, cultural and environmental conditions under which human beings...live.”

INFORMATION AND COMMUNICATION

Related to the concepts of development and social change are the twin concepts of information and communication. The later concepts have played critical roles in development or social change programmes from the onset.

But Moemeka (2000a:3) makes a distinction between information and communication. Information, he posits, is the provision (dissemination) of facts and figures on

development issues. According to him, information deals with “talking to” the people-beneficiary of development programmes. It is essentially top-down, one-way strategy for transferring information.

Communication, on the other hand, deals with exchange of information, ideas, feelings, opinions etc. It is two-way, and it is horizontal in structure. It is “talking with” the people (Moemeka, 2000a:3). There is element of interaction in communication, as the process is all about sharing of meaning.

DEVELOPMENT COMMUNICATION/ COMMUNICATION FOR DEVELOPMENT

Moemeka (2000a:12) defines development Communication as “the application of the principles and practices or exchange of ideas towards the achievement of development objectives.” Moemeka (1989c:50) explains the nature and purpose of development communication:

“Development communication is not persuasion-oriented in that it is not geared towards persuading people to change. It is interaction-oriented in that it tries to create opportunities for dialogue that would lead to understanding the issue involved in a particular change situation, and to freely accepting or rejecting the demand, depending on the ratio of the reward / punishment mechanism associated with the projected change.”

UNICEF et al (2000:6) define communication for development as “a researched and planned process crucial for social transformation and operating through three main strategies: advocacy to raise resources and political and social leadership commitment for

development goals; social mobilisation for wider participation and ownership; and programme communication for bringing about changes in knowledge, attitudes and practices among specific participants in programmes.”

The definition of UNICEF et al makes communication crucial at every step in the process of change.



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THEORETICAL REVIEW

This section reviews theories that are relevant to this study

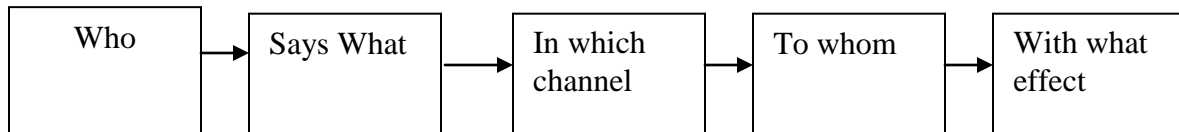
Melkote and Steeves (2001:104) classify the various communication approaches used for development since the end of World War II into four interrelated theoretical and operations areas, that is: communication effects approach, mass media and modernization approach, the diffusion of innovation approach and the social marketing approach. According to the two communication scholars, the scholarship of communication effects helped lay the groundwork for the use of mass media in support of development projects. The diffusion of innovations research, on the other hand, provided a model for communication interventions in local-level projects. But as these models increasingly proved inadequate, development agents turned to social marketing approach to guide communication projects.

COMMUNICATION EFFECTS APPROACH

The successful use of propaganda to mobilise people in the Western World to fight and to maintain their morale during adverse conditions provided the impetus for mass communication theory and research.

Lasswell (1948) came up with his famous mass media effects model during this period. His model suggests the following question: Who says WHAT in which CHANNEL to WHOM and with what EFFECT? Melkote and Steeves (2001:105) outline a graphic presentation of Lasswell's formula in the following figure:

Figure 1: Lasswell's Communication Effects Model



Source: Melkote, S.R. and Steeves, H.L. (2001). *Communication for Development in the Third World: Theory and Practice for Empowerment (2nd ed.)* New Delhi: Sage Publications India Pvt Ltd.

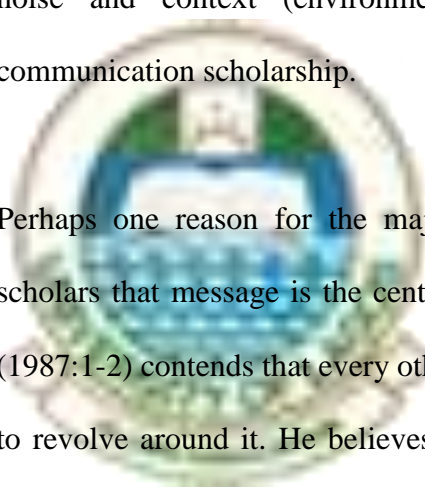
Lasswell's conceptualisation later provided the framework for the emergence of the Bullet Theory of mass communication effects. This phenomenon has been given various names. Berlo (1960) refers to it as the Hypodermic Needle Theory. Schramm (1971) calls it *Bullet Theory* while Defleur and Ball-Rokeach (1975) label it *Stimulus-Response Theory*.

These earliest theoretical models on mass media effects conceptualised the influence of mass media in individuals as direct, powerful and uniform. The models assumed an all – powerful source and passive receiver. Katz (1963:80), in a critical review of the earliest model of communication effects, notes that “the model in the minds of the early researchers seems to have consisted of (i) The all-powerful media, able to impress ideas on defenceless minds, and (ii) atomized mass media but not connected to each other.”

Melkote and Steeves (2001:107) also remark that between the two World Wars, “the mass media were viewed as powerful instruments that could be successfully used to

manipulate people's opinions and attitudes, and thereby their behaviours in a relatively short period of time"

It is clear, therefore, that the earliest models of mass communication effects conceptualised communication as a linear and one way process always flowing from the source of communication to a passive receiver (Melkote and Steeves, 2001:108). A major defect of these earliest models was their over-emphasis on the effects of message, of the several elements of the communication process. Other elements like the source, channel, noise and context (environment) of communication were largely neglected in communication scholarship.



Perhaps one reason for the major concern with message effects is the view among scholars that message is the central element in mass communication. For instance, Uyo (1987:1-2) contends that every other element of the process of mass communication tends to revolve around it. He believes it is through messages that mass media organisations fulfil their functions to society or mankind. However, this tendency to concentrate on message effects, without due considerations to the other elements of the communication process, may delay a full understanding of the individuals and society.

Defleur and Ball-Rokeach (1989:27-29) write about the controversies that continue to surround studies on the impact of the mass media on their audiences. On one hand, the different media, the authors say, have been charged with responsibility for lowering the public's cultural tastes, increasing rates of delinquency, contributing to general moral

deterioration, lulling the masses into political superficiality and suppressing creativity. On the other hand, the media have been credited with: exposing sin and corruption, acting as guardians of precious free speech, bringing at least some culture to millions, providing harmless daily entertainment for the tired masses of the labour force, informing people of the world's events and making more bountiful people's standard of living by their unrelenting insistence that they purchase and consume products to stimulate the economic institutions.

Perspectives on Minimal Effect of the Mass Media


In the post World War II era, the theory of dominant mass media effects began to give way to that of limited effects. Many inter-disciplinary studies (Lazarsfeld et al 1948; Katz and Lazarsfeld, 1955; Hovland et al 1949; 1953; Klapper, 1960; Allport and Postman, 1947; Jones and Kohler, 1958; Levine and Murphy, 1958; Severin and Tankard, 1987; and Lowery and DeFleur, 1988) suggest a relative warmth for the mass media in directly influencing individual personal decision. For instance, Lazarsfeld et al (1948) discovered that individuals were more influenced in their political decisions by members of their primary and peer groups than the combined mass media. Katz and Lazarsfeld (1955) also found that one segment of studied population was more exposed to the mass media than the other. They called the more exposed individuals influentials or opinion leaders. They discovered that the opinion leaders influenced other people in their community. According to Melkote and Steeves (2001:109), their notion was described in the Two-step Flow Theory and suggested that the first step of influence is from the mass

media to opinion leaders, while the second step is from their leaders to others in the community.

Hovland et al (1949) who carried out a baseline study in the area of communication and persuasion found that people defended themselves against persuasive messages in three ways: selective exposure, selective perception and selective retention. The researchers' work on war propaganda films examined how and why individuals responded to persuasive messages, showing that the mass media were ineffective in improving the attitudes of soldiers towards their allies and increasing their motivation to fight. Rather, they discovered that the social categories (e.g. level of education) to which people belonged and individual differences were more predictive of certain effects than mass media exposure.

Klapper (1960) suggests that exposure to media messages and the individual's perception of those messages are influenced by their beliefs, ideas, values, attitudes, wants, needs, and other factors. Klapper argues further that the mass media were more agents of reinforcement than causal agents of behaviour change in individuals. The demographic categories to which people belong, their individual characteristics and their social relationships, Lowery and DeFleur (1988) conclude, have a far greater influence than the combined mass media. The major lesson learnt from the selective processes is that the individual is not a defenceless target for persuasive communication. He or she is very active in receiving, processing and interpreting information (Melkote and Steeves, 2001:110).

The theory of minimal mass media effects, Melkote and Steeves (2001:111) remark, has contributed to the refinement of theories and methods in communication studies. They explain that the survey sampling of Paul Lazarsfeld and colleagues at Columbia University, the experimental designs of Carl Hovland and colleagues at Yale, the functionalistic and middle-range theories of Merton , Klapper and others have made significant contributions to researchers' conceptualisations of communication effects. Researchers are now able to discover and explain more adequately the role of interpersonal influences and other social-psychological variables on media diffusion and impact.



Despite the findings of minimal effects research, the mass media have been continuously used for information delivery, persuasion and social change programmes, particularly in the less development countries of the world (Melkote and Steeves, 2001:112). Administrators and policy makers in those countries apparently still perceive the mass media as potent vehicles or tools for achieving rapid development or effecting behaviour change. One conclusion that is apparent from this practice is that preoccupation with effects suggests that the mechanistic stimulus – response model has not vanished entirely. It still appears to underlie much thinking about the nature and role of mass communication in development.

MASS MEDIA AND MODERNISATION APPROACH

Under this approach, the mass media were thought to have powerful and direct effects on individuals and society. In fact, as Melkote and Steeves (2001:118) have pointed out, the

media of mass communication were considered to be magic multipliers of development benefits to the developing nations of the world. This approach was popular in the 1950s up to the first half of the 1970s. The scholarship and practice of development communication during this period focused on the use of the mass media, in a one-way, top-down flow, to disseminate information on development or social change.

Much thinking about the role of communication in development was heavily influenced by the works of sociologists, political scientists, economists and social psychologists, who were interested in studying the role of communication in modernisation. Generally, they identified the functions of the mass media and measured their influence in the modernisation of developing countries. Such influential works include those of Lerner (1958), Neutrath (1962), Rao ((1963), Rogers (1965, 1969), Frey (1966), Inkeles and Smoth (1974), and (Fjes 1976)

Lerner identifies the major ideas of the early mass media and modernisation approach in his book, *The Passing of the Traditional Society*. His generalisation was based on data collected from The Middle East. Lerner's model of social development includes a view of an all-powerful mass media system that reinforced and accelerated social and individual change by disseminating the new knowledge and attitudes conducive to modernisation.

A major element in Lerner's model is that development of a psychological pattern, termed *empathy*, by the individual. Empathy, he insists, is both required and reinforced by modern society (Melkote and Steeves, (2001:115). Empathy was viewed as capacity to

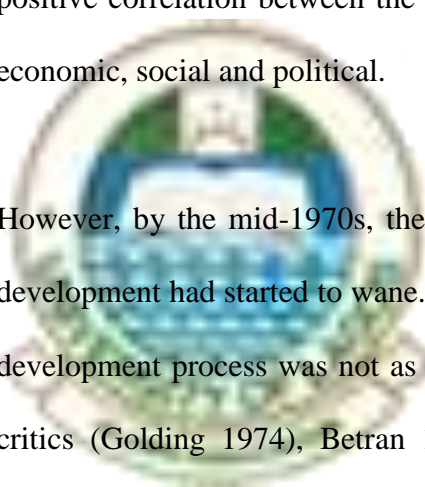
see oneself in the other fellow's situation. According to Lerner, empathy performs two important functions. First, it allows the individual to operate efficiently in a constantly changing modern society. Second, it helps him/her to desire movement out of his/her traditional settings. Fjes (1976) explains that empathy "allows the individual to internalise the process of modernisation by not only being able to cope with change, but (by) expecting and demanding it..., It is the psychic nexus of all the attitudes and behaviours necessary in a modern society."

The second element in Lerner's model was the mass media. According to him, the media expose individuals to new people (especially people in the developed nations of the Western World), ideas and attitudes, thus accelerating the process of modernisation. Generally, he ascribed to the mass media the inherent capacity to blow the winds of modernisation into isolated traditional communities and to replace the structure of life, values and behaviour in those communities with ones seen in the modern Western society.

Lerner's idea was further reinforced by the work of Rao (1963). Rao suggests that communication was the major catalyst in the development process. The conclusion came from a study of two Indian villages – Kothooru and Pathooru. The former was on the verge of modernisation, and the latter was still enmeshed in traditional beliefs and customs. Rao observed that the construction of new road to Kothooru from a nearby city began the process of modernisation. The road, he suggests, brought new people, idea and the mass media, and allowed the villagers to visit the urban centres. All this new

information, he reasons, opened the people's minds, concluding that it was the quality of information that triggered the change in Kothooru.

It is, therefore, very clear that the role of the mass media, under this approach, was accorded a central position. The mass media were seen as agents and indices of modernisation. The period was characterised by a number of research activities to demonstrate the correlation between exposure to mass media and modernisation. Studies by Neutrath (1962), Rogers (1965), Frey (1966), Inkeles and Smith (1974) showed a positive correlation between the availability of mass media and national development – economic, social and political.



However, by the mid-1970s, the optimism about the crucial role of the mass media in development had started to wane. Researchers and administrators began to realise that the development process was not as straight forward as it was earlier conceptualised. Many critics (Golding 1974), Betran 1976, Fjes 1976, Diaz-Bordenave, 1977; Samarajiwa, 1987) have identified the serious problems with the conceptual underpinning and underlying assumption of the mass media and modernisation approach. For instance, they argue that the approach or model was a recreation of the bullet theory of communication, which assumed a direct and powerful effect on defenceless receivers. But research evidence in the United States in the 1940s and 1950s had led to the overwhelming rejection of the same model, which is now being recycled in the analysis of effect of mass media in developing countries.

DIFFUSION OF INNOVATIONS APPROACH

The diffusion of innovations was the model of development communication in use before the advent of the social marketing model. Everett Rogers was credited with the development of this model, with release of his book *The Diffusion of Innovation* in 1962. The approach rests on the implicit assumptions of exogenous change theory. According to Golding (1974:43), the approach “suggests that static societies are brought to life by outside influences, technical aid, knowledge, resources and financial assistance and (in a slightly different form) by the diffusion of ideas”. The conceptualisation of diffusion of innovations followed closely the earliest definitions of development at both individual and societal levels. Rogers (1969:18) defines development as “a type of social change in which new ideas are introduced into a social system in order to produce higher per capita income and levels of living through more modern production methods and improved social organisation”. At individual level, Rogers (1969) sees development as “the process by which individuals change from a traditional way of life to a more complex, development technologically advanced, and rapidly changing style of life”. The route to this change from traditional to a modern person was identified as communication and acceptance of new ideas from sources external to the social system.

According to Melkote and Steeve (2001:122), Everett Rogers, whose work has been central in the diffusion model, identified the key elements in any analysis of diffusion of an idea or information. These include (a) the innovation, which is any idea considered new by the recipient, (b) its communication through certain channels (c) among members of a social system and (d) over time. Katz (1963:71) had earlier offered good definition of

diffusion as “the process of spread of a given new idea or practice, over time, via specifiable channels, through a social structure such as neighbourhood, a factory, or a tribe”.

It is important to point out that the predominant model that guided local-level development communication planning from the 1950s into the early 1970s was the diffusion of innovations model (Melkote and Steeves, 2001:222).

However, many scholars have picked holes in the diffusion theory, pointing out many of its conceptual, theoretical or methodological shortcomings. For instance, Golding (1974), Steeves and Arbogst (1993), Shings and Mody (1976) have argued that the communication effects orientation of the diffusion model gave undue importance to the question of exposure to mass media. No attempt was made to discover the types of media messages the audience were exposed to. Little or no attempt was given to content and quality of information, or knowledge and skills emanating from the messages (Melkote and Steeves (2001: 223). Besides, the element of participation by the intended beneficiaries of development programmes was absent from the diffusion model.

SOCIAL MARKETING APPROACH

The failure of the diffusion theory to sufficiently account for audience behaviour in communication planning for development gave rise to science-based commercial marketing strategies for the dissemination of ideas to promote social change, called social marketing. The concept of social marketing, first introduced in 1971, was defined by Kotler and Zalman (1971:5) as “the design, implementation, and control of programmes

calculated to influence the acceptability of social idea and involving consideration of product, planning, pricing, communication, distribution, and marketing research.”

However, Andreason (1995:7) has refined the definition of social marketing, describing it as “the application of commercial market technologies to the analysis, planning, execution and evaluation of programmes designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of their society”.

The social marketing theory has introduced such concepts as *audience segmentation* (targeting), *market research*, *product development*, *incentives and facilitation*. According to Melkote and Steeves (2001:128), *market research* is defined as the detailed investigation of the market for the specific products, idea or service; the segment within the broad audience group; behavioural and knowledge characteristic of the audience segments; and the cost-benefit analysis of reaching and influencing the different groups through communication campaigns. They see *product development* as the development of not just one product, but a host of other products that will appeal to the different market segments in terms of their varied needs. *Incentives*, according to the two authors, offer the target audience monetary or psychological incentives to increase the level of motivation in the adoption and use of the product or service while *facilitation* makes it relatively easier for the target group to adopt the innovation by reducing the effort or time required on the part of the user.

Melkote and Steeves (2001:128-138) state that it is the social marketing techniques that have been used for behaviour change in such health-related issues such as family

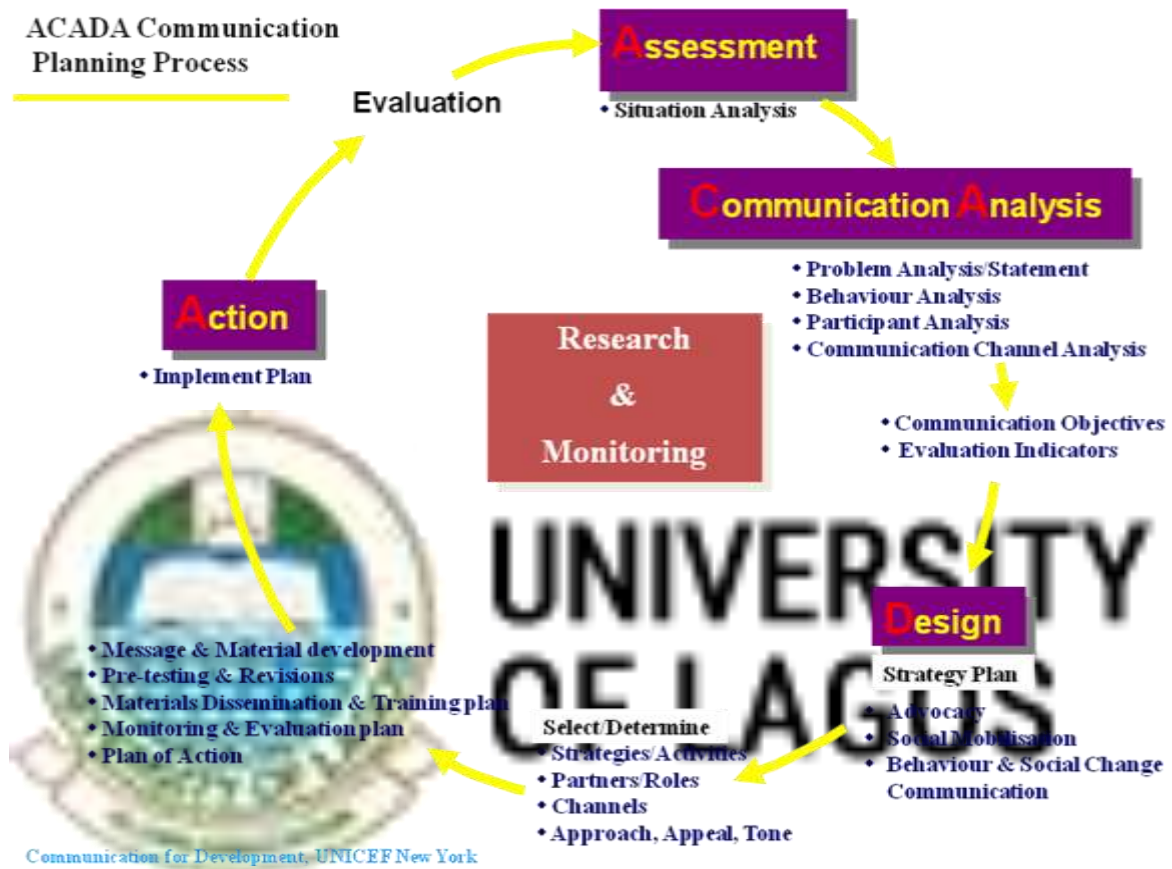
planning and Human Immuno-Deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) campaigns. Clearly, the UNICEF's ACADA communication model for behaviour change, which is the concern of this study, utilises the social marketing techniques. In the social marketing model, a great deal of formative research is used to identify and define problems from the perspective of those affected by the problems to properly segment the target audience, to determine appropriate messages for the various target groups, to assess communication channels, as well as to assess audience uses of the channels and develop campaign strategies. Much emphasis is placed on evaluation and feedback throughout the process of planning, execution and monitoring of campaigns.

But the social marketing model or approach has its own flaws. For instance, the approach focuses on the individual as the unit of analysis. Besides, the model has adopted top-down communication approach with receivers treated as targets for persuasion and change.

ACADA INTEGRATED COMMUNICATION PLANNING MODEL

The UNICEF-developed ACADA communication planning model is a four-stage process that includes: Assessment, Communication Analysis, Design and Action. It is research-based, people-oriented and participatory. Below is the pictorial representation of the ACADA model:

Figure 2: UNICEF's ACADA Model for Communication Planning



Source: *Communication for Development*. New York: UNICEF (2008)

ASSESSMENT

This is the first stage in the ACADA communication, planning model. The main activity is to identify what information is missing or needed and to design and carry out research to fill the information gaps. It is concerned with research to understand the situation, its nature, characteristics, history and current status, those involved and the socio-cultural environment (Oso, 2005 :2).

In essence, the assessment stage in ACADA communication planning model is the same as research - driven situation analysis. It is intended to identify all real issues that need to be addressed in an intervention programme. In the case of the polio eradication programme, effort is made at this stage to document the status of the existing communication programme as a whole in a community by identifying its successes, weaknesses, lessons learnt, issues, problems, participants (i.e. people involved), behaviours, credible communication channels, and so on.

Usually, formative research is conducted at this stage. This is because research is critical in all forms of planning, including communication planning. Research, for instance, provides very useful information, which facilitates the development of relevant focused plans. Besides, research enables managers of intervention or social change programmes to assess and revise their strategies, if initial strategies do not work as planned. Research, as conceived under the ACADA Model, is a participatory process, which involves community members in data collection and analysis, giving them an opportunity to interact firsthand with critical issues concerning a particular intervention programme.

At the assessment stage, research findings are to be summarised and their implications for polio eradication campaign stressed. A critical activity at this state is the determination of the problem(s) to be addressed. Some of the problems of immunisation identified by UNICEF (2000:18) include: low immunisation coverage, decrease in turnout of target audience during NIDs, decreasing political support for NIDs, lack of conviction about the value of immunisation by caretakers, and so on. Assessment, under the ACADA Communication Model, is not limited to communication aspects alone. It looks at all aspects of the intervention programme.

COMMUNICATION ANALYSIS

UNICEF and WHO (2000:5) have identified five pertinent questions that are frequently asked by parents and guardians. They are:

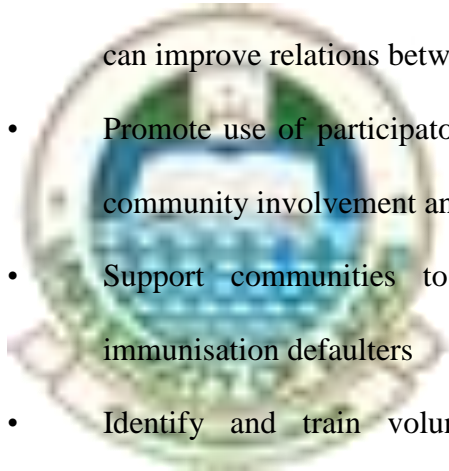
- Why should children be again immunised when they have had all immunisations in the routine immunisation programme?
- Does this mean that immunisations given during the routine immunisation are not effective?
- Will additional immunisations hurt children?
- Are additional immunisations given with ulterior motive?
- Are the immunisations safe?

According to the two international agencies, which have been in the forefront of the sustained campaign for polio eradication worldwide, when the above questions are

inadequately answered or left unanswered, both routine and supplementary immunisation activities lose out. Integrated communication approaches, they argue, are, therefore, designed to address these questions.

Writing on the role communication can play in the global initiative to wipe polio virus, UNICEF and WHO (2000:6) identify 10 specific contributions effective communication can make towards the achievement and maintenance of high immunisation coverage. They believe communication can:

- Stimulate the development of structures (such as health facility committees) that can improve relations between health facilities and communities.
- Promote use of participatory learning and decision-making methods to improve community involvement and ownership of health programmes.
- Support communities to develop strategies for identifying and tracking immunisation defaulters
- Identify and train volunteer motivators to disseminate health messages, facilitating discussion and supporting action in the community.
- Improve the interpersonal communication skills of health workers to disseminate appropriate information, hold discussions and provide counseling services for caretakers.
- Strengthen interpersonal skills of trainers and supervisors in order to improve their training and supportive supervision skills at all levels.
- Develop appropriate communication materials to support message dissemination to key target audiences.



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- Publicise immunisation achievements to give encouragement to partner agencies, volunteers and other stakeholders.
- Help to strengthen partners and community participation in EPI programmes, and
- Support communities to identify and report cases of acute flaccid paralysis (AFP).

Oso (2008:2) summarises the series of activities normally undertaken during communication analysis. These include problem identification and analysis, behaviour analysis i.e. determination of behaviours associated with the problem, barriers to desired behaviour, factors encouraging desired behaviour, identification of beliefs, knowledge and current practices of the participant or target groups related to the problem (participants or stakeholders analysis)

Specifically, communication analysis, under the ACADA model, involves eight activities (UNICEF and WHO, 2000:19-33):

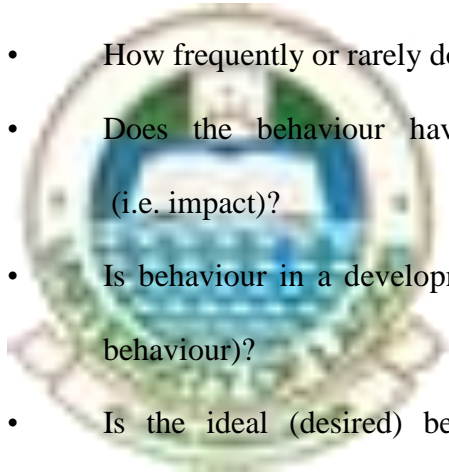
- Analysis and formulation of problem
- Determination of problem behaviours to address
- Behaviour analysis
- Participant analysis
- Channels/media analysis
- Statement of communication objectives
- Identification of communication strategies and activities
- Development of monitoring and evaluation indicators

Communication analysis seeks to find answers to the following questions:

- What is happening (are people doing/not doing) that is problem
- Where and when does it usually take place?
- Whom does it affect?
- What are the primary effects of the problem?
- What are the possible causes?

Problem Behaviours to Address

- How strong is the relationship between the (i.e. relevance) behaviour and the health problems?
- How frequently or rarely does the behaviour occur (i.e. occurrence)?
- Does the behaviour have a demonstrable effect on the health problem (i.e. impact)?
- Is behaviour in a developmental stage or is it already established (i.e. stage of behaviour)?
- Is the ideal (desired) behaviour that should replace the current behaviour compatible with acceptable socio-cultural norms and practices (i.e. cultural acceptability)?
- What successes/failures have been realised in efforts to change this behaviour in other programmes in the past (i.e. past successes/failures)?
- At what cost (in time, energy, social status, money and materials) will the ideal behaviour come about? Is the cost acceptable or too high (i.e. costs)?
- Will the new behaviour yield positive or negative consequences for the person performing it (i.e. consequences)?



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- Does the new behaviour require compliance over an acceptable or an unrealistically long period of time (i.e. persistence)?
- Is the behaviour too complex or can it easily be divided into a small number of elements or steps to facilitate adoption (i.e. complexity)?

Behaviour Analysis

After determining problem behaviours to focus on, the next stage is to analyse the identified or chosen problem behaviours in order to understand them better and determine the behaviours to promote in their place. Hence, the following questions are important in behaviour analysis: Who does not take children for immunisation (i.e. primary target audiences/participants who must take action for children to get immunised)?

- Who is in a position to influence those who do not take children for immunisation (i.e. secondary target audiences in the immediate environment of primary target audiences e.g. family and friends)?
- Who will inform, support, and persuade primary target audiences to take children for immunisation (i.e. the motivators)?

Participant Analysis

This deals with the identification of other individuals and institutions that may be enlisted to support behaviour change and behaviour development in the community. These partners may be required to play advocacy, social mobilisation or programme communication role. Critical questions to be answered under this segment of communication analysis include:

- Who holds the key to programme acceptance in the community?
- Which agency or individuals are interested in or working for immunisation?

- What facilities do they have (networks in the community, personnel, experience training, facilities, funds, transport, etc)?
- What is their reputation in the community?
- What influence do they have with the authorities as well as with the primary and target groups?
- Who can motivate target audiences to adopt the behaviour being promoted?

Channel/media Analysis

Questions to which answers must be provided under this segment include:

- What channels of communication are available for reaching the identified target audiences?
- What are the strength and weaknesses of each channel?
- How effective are the channel in reaching the target audiences we wish to reach with the messages planned to be delivered?
- Where do people seek information on health or immunisation? Why do they go to this particular place or individual? How can the place or individual be integrated in promotion of immunisation messages?

Statement of Communication Objectives

An objective is a statement of the desired end result, usually expressed in terms of change from problem behaviour to desired behaviour. According to UNICEF and WHO (2000:282) communication objectives in intervention programmes must be SMART, an

acronym for the requirements of good objectives. It means that objectives must be specific, measurable, appropriate, realistic and time-bound.

Strategy Selection and Detailing of Activities

The next thing after stating objectives that are SMART is to identify the best communication strategies and identify the activities that need to be undertaken. While an objective is a statement of what we want to achieve or the destination where we are going, a strategy is a clear statement on how the objective will be achieved or a road map that guides to the clearly identified destination.

The WHO (2001: 14-16) defines communication strategy as "a researched and planned process, crucial for social transformation, operating through three main strategies.

- *advocacy* to raise resources, political and social leadership commitment for development goals
- *social mobilisation* for wider participation and ownership by targeted institutional partners
- *programme communication* for changes in knowledge, attitudes and practices of targeted participation"

Monitoring and Evaluation Indicators

The last activity under communication analysis is the development of monitoring and evaluation indicators. The indicators enable programme managers to track the performance and impact of their programmes.

These indicators may measure short-term, medium-term or long-term impact process indicators, impact indicators and outcome indicators respectively

DESIGN

The third step in the ACADA Model of Communication planning for behavioural change is design. At this stage, messages and materials meant for the different target groups are designed and developed based on the information obtained from the assessment and analysis stages. Design involves five levels of activities (UNICEF *et al*, 2000:33-38):

- Message development
- Materials development
- Message dissemination plan
- Training plan
- Development of Integrated communication planning matrix

Message Development

This activity is threefold.

- Determination of basic message concepts that will bring about the desired behaviour change.
- Selection of the communication approach. For instance, will the message aim at informing, entertaining, persuading, educating, empowering the target audiences?
- Selection of the message appeal and tone. Planners choose from the following message appeals and tones: positive or negative, rational or emotional, mass or individual, humour or serious, one-or two-sided, direct or indirect, and definite or open-ended.



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Material Development

Materials to be developed to enhance communication include: posters, handbills, T-shirt, Fez caps, calendars, booklets, manuals, audio-visual aids, etc. But these materials, UNICEF et al (2000:35) suggest, must be appropriate to the topic and target audience. Besides, they must be appropriate to the context or setting in which they will be used.

Message Dissemination Plan

This involves providing answers to the following questions:

- How will the message reach the intended audiences?
- How will the educational materials be distributed?
- How will the educational materials be used?
- Are there activities in all three communication settings (i.e. advocacy, social mobilisation and programme communication)?
- Are the activities mutually supportive?
- Are the proposed educational materials the right road to support activities in their different settings?

Development of Training Plan

The ACADA Model makes provision for the training of volunteers in order to:

- acquaint themselves with the objective strategies and activities of the programme
- know the roles they are expected to play
- acquire information and skills needed to perform assigned roles.

Development of Integrated Communication Strategy Planning Matrix

This involves the integration of all the different segments of the communication plan under the three strategies of advocacy, social mobilisation and programme communication. The integrated communication strategy planning matrix consists of clear and concise statements on the following 13 items: problem behaviour, behaviours to promote, target audience, communication objective, communication strategies, activities, monitoring and evaluation indicators, message areas, communication approach, message appeal, message tone, channels of communication; and communication materials.

In the matrix, the three communication strategies of advocacy, social mobilization and programme communication occupy three rows while the 13 items listed above occupy 13 columns in front of the strategies.

ACTION

This is the last stage in the ACADA Model in which all activities to be undertaken are clearly identified and stated. In other words, this stage provides information on the implementation schedule for all activities. The information contains, specifically, the type of activity to be undertaken, the implementation time frame for the activity, the name of officer or organisation responsible for the action and the source(s) of funds for the activity.

This study focuses mainly on the communication analysis component of the ACADA model. On the whole, the ACADA has several strengths, which make a better model than

the previous ones such as the Diffusion and the P-Process models. For example, the ACADA model is evidence-based, i.e. its planning is based on research evidence. Secondly, it emphasises the involvement (participation) of relevant stakeholders in intervention programmes. Thirdly, its planning and implementation are localised to give room for the peculiarities and particularities of the communities. Besides, the model is highly structured and its approach to implementation is systematic.

From conceptual and theoretical literature on approaches for development communication, it is clear that the basic principles of the dominant paradigm of development are yet to disappear. For instance, there is still over- emphasis on getting informative and persuasive messages on development programmes across to the people. The active involvement (participation) of the primary beneficiaries of development programmes is still missing.

REVIEW OF EMPERICAL STUDIES

Waisbord (2004), in a major review of polio communications around the world, examined the design and implementation of programmes for advocacy, social mobilisation and programme communication activities for polio eradication and found that:

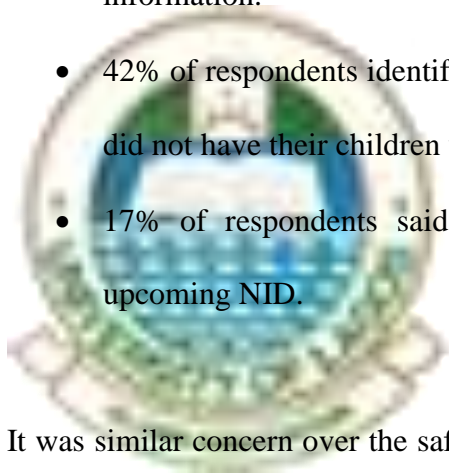
- Through global advocacy, GPEI partners garnered broad support from heads of state, international organisations, the private sector, and celebrities.
- Social mobilisation has been central to NIDs by putting into action a variety of community organisations.

- Decisions for communication programming had generally not been based on studies of populations' knowledge and attitudes about immunisation.
- Developing evidence-based communication plans was directly related to limitations in organisational, technical and personnel capacity in communication programme. It was found that lack of communication staff with broad perspective of communication at all levels, among others, hindered the effective implementation of the polio campaign.
- Communication programmes in support of polio eradication have made a number of contributions in terms of building capacity, developing micro-plans, organising social mobilisation, carrying out advocacy among local leaders, dealing with rumours and resistance, and identifying hard-to-reach populations.

Cheng (2005) has also reported interesting findings about the initial outbreak response campaign when Indonesia in April 2005 experienced a re-introduction of poliovirus after 10 years of absence. The media had reported on parents' claim that three children died from receiving the polio vaccine. But autopsies proved that the deaths were from other causes. However, by then, public trust in polio immunisation had been eroded. A rapid survey of health workers and communities conducted by WHO in August 2005 in selected high-risk areas affected immediately after the negative press found that:

- 50% of respondents reported a need for further information on OPV safety.
- Vaccination refusals took place in both poorly educated communities (37%) and middle-upper communities (26%).

- 55% of respondents said that negative media coverage directly affected the campaigns.
- 91% of respondents said that the media were primarily responsible for raising concerns about polio vaccination.
- 64% of respondents reported that they understood polio to be a dangerous infectious disease.
- 49% of respondents learned about the polio campaign through the media.
- 36% of respondents named the media as a major source of public health information.
- 42% of respondents identified negative media coverage as one of the reasons they did not have their children vaccinated against polio.
- 17% of respondents said they would not have their children vaccinated in upcoming NID.



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It was similar concern over the safety of polio vaccine that led to the suspension of polio immunisation campaigns in northern Nigeria in 2003. In fact, Ogden *et al* (2006; 14) argue that the difficulties that the Polio Eradication Initiative has faced since 2004 have been defined as “communication obstacles or communication failures”. Communication failures in Nigeria, they pin-point, are widely cited as a major cause for the spread of mis-information, and the increased refusal to vaccinate children against polio (Ogden, 2006: 11).

Rasmuson (1990) has also found that there is credible evidence of 12 to 20 per cent or more in the absolute level of polio immunisation coverage and 33 to 100 per cent increases in relative coverage compared to baselines when communication is included as a key component of immunisation.

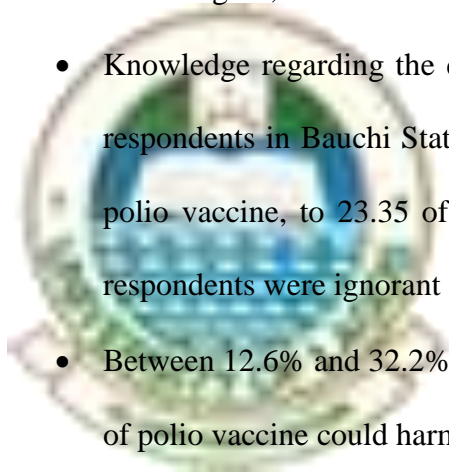
Akinfeleye *et al* (1995:50), in a study of socio-cultural factors affecting attitude and behaviour regarding population and family life issues among six major ethnic groups in Nigeria, have found that the roles of individuals in a society are defined by their cultural beliefs and practices. It is almost impossible, they argue, for an individual to disengage himself or herself completely from cultural beliefs and practices.

In fact, they insist that certain values, beliefs, attitudes and practices, imbibed by individuals through the process of socialisation, do influence their behaviour and expectations. In many cases, these values help to resist practices that do not conform to the expectations of the society, they conclude.

Kabir (2006) studied the knowledge, attitude and perceptions regarding polio vaccination in 11 Northern Nigerian states—Kano, Kaduna, Katsina, Zamfara, Sokoto, Kebbi, Jigawa, Bauchi, Yobe, Borno and Adamawa. The researcher used triangulation method, consisting of survey, focus group discussion (FGD) and key informant interview (KII). Eighteen FGDs and 18 KIIs were conducted in each state while 20,576 respondents completed the questionnaire.

The researcher found the following, among other things:

- Poor attitude towards polio immunisation among respondents who believed the polio vaccine contained HIV or anti-fertility agents;
- Decision-making on immunisation of a child against polio lies predominantly on the father;
- Polio vaccination rejection was based (a) rumours regarding its safety, (b) frequency of the rounds of immunisation, (c) unusual priority accorded polio eradication above more severe diseases, (d) using the vaccine was contrary to their religion;
- Knowledge regarding the dosage of polio vaccine varied, ranging from 1.6% of respondents in Bauchi State, who believed that children needed only one dose of polio vaccine, to 23.35 of their counterparts in Kano State. In Yobe, 52.9% of respondents were ignorant of the dosage of polio vaccine required by a child; and
- Between 12.6% and 32.2% of respondents believed that administering more doses of polio vaccine could harm a child.



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CHAPTER THREE

RESEARCH METHODOLOGY

The study was concerned with the collection of data for describing the relationship between the application of UNICEF's ACADA model of behaviour change communication and the response of mothers in the selected states to the polio eradication, campaign. Specifically, it attempted to ascertain whether demographic attributes of respondents, their socio-cultural values and beliefs as well as their exposure patterns to the various forms of communication did influence the rejection or acceptance of polio immunisation for their children. It was not concerned with cause and effect relationship between these two variables.

RESEARCH DESIGN

The study, therefore, adopted a descriptive research design. According to Berger (2000: 188), the purpose of this type of study is "to obtain information about demographic factors such as age, gender, marital status, occupation, race or ethnicity, income, and religion and to relate this information to opinions, beliefs, values, and behaviours of some group of people".

The survey research method was used to collect data for this study. Since it was not possible, given the limited time and resources, to study all the mothers in the selected states, a number of them were selected. Survey method is the most appropriate for

collecting the data required for analysis in this study. Berger (2000: 187) defines survey as the "research method that we use to get information about certain groups of people who are representative of some larger group of people of interest to us." Wiseman and Aron (1970:37), giving an excellent definition of survey describe it as:

A method for collecting and analyzing social data via highly structured and often very detailed interviews or questionnaires in order to obtain information from large numbers of respondents presumed to be representative of a specific 'population.

Berger (2000: 188) draws attention to four key points

about survey research method:

- It is used to collect and analyse social, economic, psychological, technical, cultural and other types of data.
- It is based on interviewing people (i.e. respondents) and asking them for information.
- It is done with representative samples of a population being studied, and
- It is assumed that information obtained from the sample is valid for the general population.

Hocking *et al* (2003:239) have also offered a simple definition of the survey methodology. They posit:

When we speak about surveying people, we are talking about questioning individuals about their attitudes, emotions, beliefs, and behaviours. We are interested in how they perceive or evaluate some issue, event or message.

Kerlinger (1973:410-411), in his classical work on behavioural research, defines survey research as one that studies large and small populations by selecting and studying samples chosen from the population to discover the relative incidence, distribution, and interrelations of sociological and psychological variables. The sociological attributes are made up of age, sex, income, political or religious affiliation, socio-economic status, education, occupation, race, living expenses, and so on. The psychological variables, according to Kerlinger, include opinions and attitudes of people on one hand and their behaviour on the other.

The survey researcher, he further remarks, is not interested primarily in sociological variables as such, but is interested in what they think and what they do. The sociological variables, he concludes, are then related in some manner to the psychological variables.

Sobowale (1983:25) also contributes significantly to the understanding of the survey research method. He describes it as the most commonly used research method by behavioural scientists. According to him:

This approach (survey research) involves drawing up a set of questions on various subjects or on various aspects of a subject to which selected members (sample) of a population are requested to react.

Osuala (1991:181) adds to the explanation of the survey research, saying it focuses on population or the universe by collecting data from the population for intensive study and analysis. According to him, the use of survey research is justified because the researcher finds that he cannot possibly study all the subjects or items in the population, hence the survey researcher selects a sample from a subset of the population.

Babbie (1986:205) also states that the survey research is an excellent vehicle for measuring attitudes and orientations in a large population. It is chiefly used, he further argues, in studies that have individual people as the units of analysis.

The survey research method was chosen for this study for two major reasons. First, since it is obviously impossible to observe the behaviour of respondents (i.e. all mothers in the selected states), data about the respondents' behaviour (that is, their response to the polio eradication campaign) must come from the respondents themselves. Second, because of limited financial resources and time, it would be impossible to gather data from all mothers in the selected states. Therefore, a manageable size of the population was selected as sample

The advantages of survey over other research methods that could have been used for this study are many. Wimmer and Dominick (2006:179-180) identify five cogent advantages of survey research method:

- It can be used to investigate problems in realistic settings.
- The cost of survey is reasonable when one considers the amount of information gathered.
- A large amount of data can be collected with relative ease from a variety of people.
- Surveys are not constrained by geographical boundaries; they can be conducted almost anywhere, and
- Data helpful to survey research already exist.

POPULATION OF STUDY

The target population for this study consisted of mothers with at least a child between the ages one day and five years in Ekiti, Kaduna, Kano and Lagos States. The four states were selected from the south-west and north-west geo- political zones of the country through a simple random sampling. The study was confined to the two zones due to limited financial resources and time that would not permit a survey with national spread.

SAMPLE AND SAMPLING TECHNIQUES

The sample for this study consisted of 800 mothers in all, i.e. 200 each from the four States. The sample for each state was selected from two Local Government Areas (LGAs), meaning that 100 respondents were selected from each LGA. In each LGA, 25 respondents were selected from each of the four wards which were selected through simple random sampling.

The multistage cluster sampling technique was used to pick the sample for this study. According Babbie (1973:96), this sampling technique involves the initial sampling of groups of elements – clusters—followed by the selection of of elements within each of the selected clusters. The sampling technique was adopted for this study because it was impossible or impracticable to compile an exhaustive list of all mothers of child-bearing age who constituted the target population of the study in the selected states.

Wimmer and Dominick (2006: 97) argue that the usual sampling procedure is to select one unit or subject at a time, which would require the researcher to have a complete list of the population. According to them, there is no way to obtain such a list in some cases,

and one way to avoid this problem is to select the sample in groups or categories under a procedure known as cluster sampling. They conclude by saying that researchers use a form of cluster sampling called multistage in many national studies.

The use of this technique for the selection of respondents for this study involved five stages. At the first stage, two geo-political zones were selected from the six into which the country is divided. The six zones are: North Central, North East, North West, South east, South West, and South- South. The researcher selected one zone from the northern part of the country, where polio is endemic and one zone from the southern part, which is almost polio-free. The decision was informed by the need to see if there would be significant differences in mothers' response to the polio eradication campaign and the factors responsible for such differences between the north and the south. The North West and the South West zones were, therefore, selected through simple random sampling.

At the second stage, two states were selected, through simple random sampling, from each of the zones. The North West comprises of seven states: Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara. Kaduna and Kano States were selected through simple random sampling. The South West consists of six states: Ekiti, Lagos, Ogun, Ondo, Osun and Oyo States. From this zone, two states—Ekiti and Lagos—were randomly selected.

At the third stage, two Local Government Areas (LGAs) were selected, through simple random sampling, from each state. The 1999 Constitution of the Federal Republic of

Nigeria was used as sampling frame for picking two local governments each from the four selected states. The First Schedule (part 1) to Section 3 of the Constitution that gives composition of the federation lists the 36 States of the federation and their respective Local Government Areas in alphabetical order. From the schedule, the following LGAs for Ekiti, Kaduna, Kano and Lagos States were abstracted.



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Table 2: Selected States and their Local Government Areas

Ekiti State 16 (LGAs)	Kaduna State (23 LGAs)	Kano State (44 LGAs)	Lagos State (20LGAs)
1. Ado-Ekiti	1. Birnin-Gwari	1. Ajingi	1. Agege
2. Aiyekire (Gbonyin)	2. Chikun	2. Albasu	2. Ajeromi-Ifelodun
3. Efon	3. Giwa	3. Bagwai	3. Alimosho
4. Ekiti East	4. Igabi	4. Bebeji	4. Amuwo-Odofin
5. Ekiti South-West	5. Ikara	5. Bichi	5. Apapa
6. Ekiti West	6. Jaba	6. Bunkure	6. Badagry
7. Emure	7. Jema'a	7. Dala	7. Epe
8. Ido-Osi	8. Kachia	8. Dambatta	8. Eti-Osa
9. Ijero	9. Kaduna North	9. Dawakin Kudu	9. Ibeju/Lekki
10. Ikere	10. Kaduna South	10. Dawakin Tofa	10. Ifako-Ijaiye
11. Ikole	11. Kagarro	11. Doguwa	11. Ikeja
12. Ilajemo	12. Kajuru	12. Fagga	12. Ilorodu
13. IrepodunlIfelodun	13. Kaura	13. Gabasawa	13. Kosofe
14. Ise/Orun	14. Kubau	14. Garko	14. Lagos Island
15. Moba	15. Kudan	15. Garum Mallam	15. Lagos Mainland
16. Oye	16. Lere	16. Gaya	16. Mushin
	17. Maikarfi	17. Gezawa	17. Ojo
	18. Sabon-Gari	18. Gwale	18. Osho-Isolo
	19. Sanga	19. Gwarzo	19. Shomolu
	20. Soba	20. Kabo	20. Surulere
	21. Zangon-Kataf	21. Kano Municipal	

	22.Kauru	22. Karaye 23. Kibiya 24. Kiru 25. Kumbotso 26. Kunchi 27. Kura 28. Madobi 29. Makoda 30. Minjibir 31. Nasarawa 32. Rano 33. Rimin Gado 34. Rogo 35. Shamono 36. Sumaila 37. Takai 38. Tarauni 39. Tofa 40. Tsanyawa 41. Tundun Wada 42. Ungogo 43. Warawa 44. Wudil	
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In each state, one urban LGA and one rural LGA were selected for the study through simple random sampling. This was done by the research to find out whether there would be differences in the responses of mothers in urban settlements and those in rural areas.

The following LGAs were picked through a stratified random sampling, from each of the states.

Ekiti State

1. Ikere Local Government Area (Urban)
2. Ido-Osi Local Government Area (Rural)

Kaduna State

1. Kaduna North Local Government Area (Urban)
2. Chikun Local Government Area (Rural)

Kano State

1. Gwale Local Government Area (Urban)
2. Rimin Gado Government Area (Rural)

Lagos State

1. Lagos Mainland Local Government Area (Urban)
2. Alimosho Local Government Area (Rural)

At the fourth stage, four wards were selected, through simple random sampling, from each of the selected LGAs. Wards in the selected LGAs are listed below:

Ikere LGA (Ekiti State)

There are eleven wards in the LGA:

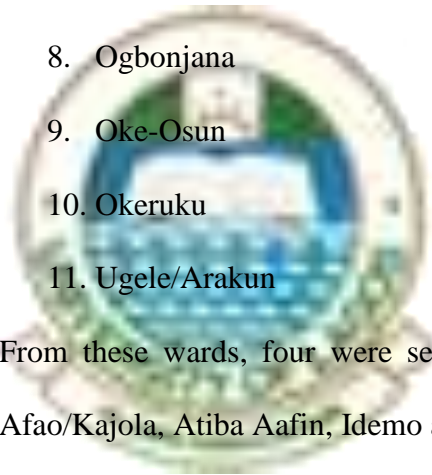
1. Afao/KAjola
2. Agbado-Oyo
3. Are Araromi/Ayetoro
4. Atiba Aafin
5. Idemo
6. Ilapeju/Ijao
7. Odose
8. Ogbonjana
9. Oke-Osun
10. Okeruku
11. Ugele/Arakun

From these wards, four were selected through a simple random sampling. These are Afao/Kajola, Atiba Aafin, Idemo and Ogbonjana.

Ido-Osi LGA (Ekiti State)

There are eleven wards in Ido-Osi LGA:

1. Aaye/Ifisin
2. Ayetoro I
3. Ayetoro II
4. Ido I
5. Ido II
6. Ifaki I



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7. Ifaki II
8. Ilogbo
9. Orin/Ora
10. Osi/Igbole
11. Usi

The following wards were selected from the LGA, using simple random sampling
Aaye/Ifisin, Ido I, Ilogbo and Osi/Igbole

Kaduna North LGA (Kaduna State)

There are twelve wards in the Kaduna North LGA



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1. Badarawa/Malali
2. Gabasawa
3. Kurin Jibiri
4. Kawo
5. Unguwan Sarki
6. Shaba
7. Unguwan Shanu/Abakpa
8. Unguwan Dosa
9. Vabala
10. Dadi
11. Mai Buruji
12. Hayin-Banki

Four wards Badarawa/Malali, Kawo, Unguwan Sarki and Unguwan Dosa-were Selected through a simple random sampling.

Chikun LGA (Kaduna State)

Chikun LGA, with its headguarters in Kujama, is a rural LGA, which has 12 wards.

These are:

1. Chikun
2. Kakau
3. Kujama
4. Kumai
5. Kuriga
6. Gwagwada
7. Narayi
8. Nasarawa
9. Sabon Station
10. Sabon Gari
11. Rido
12. Yelwa/Romi



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From the 12 wards, four (Kujama, Narayi, Sabon-Gari and Gwagwada) were selected through simple random sampling.

Gwale LGA (Kano State)

This urban local government has 10 wards as listed below:

1. Dandago
2. Dorayi
3. Diso
4. Galadanchi
5. Goron Dutse
6. Gwale
7. Gyaranya
8. Kabuga
9. Mandawari
10. Sani mai-Nagge

From the 10 wards, four (Dorayi, Kabuga, Diso Sani Mai-Nagge) were selected through a simple random sampling.

Rimin Gado LGA (Kano State):

This rural LGA has a total of 12 wards listed below

1. Butu-butu
2. Dawakin-Gulu
3. Doka-dawa
4. Dugurawa
5. Gulu
6. Jili
7. Karofin-Yashi

8. Rimin-Gado
9. Sakaratsa
10. Tamawa
11. Yalwa
12. Zango

Four wards (Rimin-Gado, Sakaratsa, Dugurawa and Zango), were selected through simple random sampling.

Alimosho LGA (Lagos State)

Of the seven Local Council Development Areas in the old Alimosho LGA, Ayobo-Ipaja LCDA was randomly selected. The LCDA has five wards as follows:

1. Ward A: Consisting of 11 contiguous communities: Bada, Alaja, Olorunshola, Olayemi, Ashipa, Megida, Lala/ Koloba, Ijah, Balogun, New London and Onikanga.
2. Ward B: Consisting of Ayobo/Ishefun, Oloyede, Kaka, Amule, Egbirin and Orisunbare
3. Ward C: Consisting of Ipaja, Ogunjobi, Fagbemi, Opeki Majiyagbe, Fafunwa, Opea and Fatolu.
4. Ward D: Consisting of Atan, Akunyele, Owode, Market, Ogunbiyi, Ilo, Aina Obembe, Oluwaga and Mercyland
5. Ward E: Consisting of Baruwa, Fatade, Oke-Okoko, Orisun, Candos, Two Storey, Ajelanwa, Ajibogun, Abegunrin and Boys Town/Abule-Egun

From the five wards, four (A C D and E) were selected through a simple random sampling.

Lagos Mainland LGA (Lagos State)

There are nine wards in the Lagos Mainland Local Government Area, as listed below:

1. Abule Oja
2. Adekunle/Aiyetoro
3. Adenipoko Ijebu Quarters
4. Abule Ijesha
5. Alagomeji
6. Harvey
7. Makoko
8. Onike/Oyadiran
9. Salami/Bayewunmi

From the nine wards, four were selected through simple random sampling. They are: Abule oja, Alagomeji, Onike/Oyadiran and Adekunle/Aiyetoro.

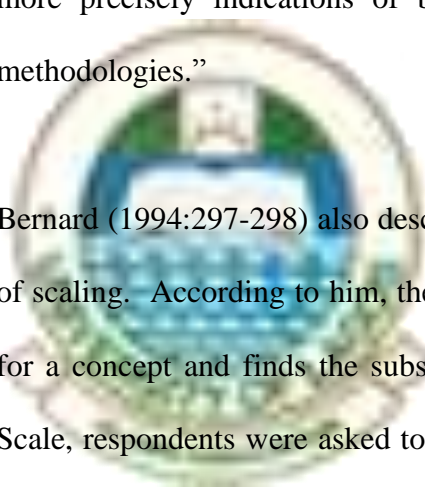
At the fifth stage, 25 respondents were chosen through systematic random sampling.

DATA COLLECTION INSTRUMENTS

Three methods were used to collect data for this study – survey interview, and focus group discussion. For the survey method the research instrument used was a 45 item questionnaire. It consists of four segments. The first segment contains questions on demographic attributes of the respondents such as age, sex, level of education, religion, etc. The second segment contains questions on the exposure of respondents to the mass

media and other sources of information on polio eradication. The third segment asks questions about respondents' responses to the polio eradication campaign. The last segment contains 18-item Likert Scale questions on the knowledge, attitudes, practices and behavioural pattern of respondents to polio issues.

The Likert Scale method was adopted because of its advantage in measuring opinions, attitudes or beliefs. Berger (2000:196) explains the advantage of the Likert Scale questions: "...a Likert Scale enables you to quantify opinions and beliefs and thus obtain more precisely indications of beliefs and opinions than you can with many other methodologies."



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Bernard (1994:297-298) also describes the Likert Scale as the most commonly used form of scaling. According to him, the Likert Scale takes a long list of possible scaling items for a concept and finds the subset that measures the various dimensions. In the Likert Scale, respondents were asked to choose from five options ranging from Strongly Agree to Strongly Disagree.

The interview schedule was used to obtain data from health officials and information officers directly responsible for the polio eradication campaign in each local government area. It consists of 10-item questions on the communication approaches used by them to disseminate information on polio immunisation. It also contains questions on the specific barriers faced by them in the polio campaign. Information officers and community health officers were the target of the interview.

The third instrument used to collect data was the interview schedule for Focus Group discussion. In each LGA a group of women representing the various sub-sets of the population in the LGA was selected and brought together for in-depth participatory discussions on polio eradication issues. The major aim was to obtain information on the socio-cultural values, beliefs and practices that might promote or hinder response to immunisation against polio. Participants were asked questions about their sources of information on polio immunisation. They were also asked questions on their beliefs, traditional practices, values, etc. The decision to use Focused Group Discussion was informed by the need to capture relevant information which the questionnaire might have overlooked.



VALIDITY AND RELIABILITY OF THE INSTRUMENTS

This was ensured by giving the instruments to experts in the field of development communication as well as statisticians. Their assessment, comment and criticisms helped to ensure that relevant questions were asked. Each item was vigorously checked to reduce repetition of variables.

The researcher's supervisors also subjected the instruments to rigorous scrutiny and made necessary adjustment before they approved the instruments. These processes, leading to necessary modifications, ensured face, content and construct validity of the instruments.

PROCEDURE FOR DATA COLLECTION

The fieldwork was conducted between March 2008 and February 2009. Due to the extensive nature of the study, two research assistants were employed and specially trained for each of the eight selected local government areas. A total of 16 research assistants were so employed, trained and paid very reasonable allowances to ensure they did a thorough job.

All the research assistants for Kaduna and Kano States were Hausa females. This was so because of the fact that male visitors are restricted from most homes in Northern Nigeria due to socio-cultural and religious practices there. Female visitors who could dress in the traditional Hausa way and speak the language of the people are more readily accepted in the homes. To ensure a smooth operation in the two states, religious and community leaders in each selected area were first briefed about the purpose of the research in order to elicit their cooperation. This was done because they are highly respected and held in high esteem by the people. The study could have faced serious set-back if the cooperation of this influential group of individuals had not been sought.

Most of the women in selected LGAs in Kaduna and Kano States were not literate in English, as findings in the study later revealed. So it was necessary to use only research assistants highly literate in Hausa and English Languages to administer the questionnaire. The research assistants were sourced mainly from Kaduna Polytechnic and Bayero University, Kano respectively. Colleagues in the Department of Mass Communication in both institutions assisted the researcher in identifying the best female students for the

assignment. The students were trained to interpret the questions and their response categories to respondents not literate in English Language and to record their responses.

In Ekiti State, research assistants (both male and female) were sourced from College of Education, Ikere-Ekiti, and University of Ado-Ekiti. They were also trained to administer the questionnaires and to interpret questions to respondents not literate in English Language. In Lagos State, research assistants were sourced from the University of Lagos

Each research assistant was given 100 questionnaires to administer in two wards (i.e. 50 questionnaires in each ward) in the same LGA selected for the study.

The researcher personally conducted interviews with LGA officials (i.e. information officers and community health officers) who are directly responsible for mobilisation of people for polio immunisation campaigns. The researcher, in conjunction with the research assistants also conducted focus group discussions with women in each LGA in order to obtain information on socio-cultural values, beliefs, and practices as well as the communication behaviour of the respondents.

PILOT STUDY

A pilot study of the research work was carried out in Ekiti and Kaduna States before the main study. This was done to enable the researcher and the research assistants get familiar with the research procedures, the appropriate use of the research instruments and their effectiveness, as well as data collection method.

Eighty questionnaires were administered in the two States, i.e. 20 questionnaire for each of the two LGAs selected for the main study in the two states.

Respondents for the pilot study had the same characteristics as main study.

Lessons learnt from the pilot study were used to revise, modify, expand and fine-tune the research instruments and the research procedures.

METHOD OF DATA ANALYSIS

Both descriptive and inferential statistics were used for the analysis of data in this study.

Descriptive data were analysed with the use of frequency and percentage distribution.

Eight hypotheses were tested with the use of chi-square, with the significance level set at 0.05.



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CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

Eight research questions were raised and eight hypotheses formulated for this study. Eight hundred questionnaires were administered in the four selected states (i.e. 200 questionnaires per state). In all, 716 questionnaires, representing 89.5% of total were returned. But after proper scrutiny, 62 of them were found not to be useful because they were not correctly filled by respondents. For instance, many of the questions bothering on the key variable for measurement were not filled, rendering the questionnaires unusable. This left the researcher with 654 questionnaires or 81.8% of total for analysis. The results are presented below:

RESEARCH QUESTION 1

How has the ACADA model for communication planning been applied in the study locations?

The answer to this question was obtained from interview with the information officers in the selected states. They were asked to indicate which of the ACADA components (i.e. assessment, communication analysis, design and action) they used in their communication planning for polio eradication campaign. All the eight information officers reported that they applied all the components of the ACADA model. They also said all the three ACADA-related communication strategies comprising of Advocacy, Social mobilisation and Programme communication were being applied in their Local Government Areas, with technical assistance from UNICEF. According to them,

UNICEF's assistance covered situation analysis, analysis of problem behaviour, setting of communication objectives, design and testing of messages, implementation, monitoring and evaluation as well as review. Their responses are presented in tables 3a and 3b below:

Table 3a: APPLICATION OF ACADA MODEL BY SELECTED LGAs

Components of ACADA	Yes %	No %
Assessment	100	0
Communication Analysis	100	0
Design	100	0
Action	100	0

Table 3b: APPLICATION OF ACADA MODEL BY SELECTED LGAs

ACADA Related Communication Strategies	Yes %	No %
Advocacy	100	0
Social Mobilisation	100	0
Programme Communication	100	0

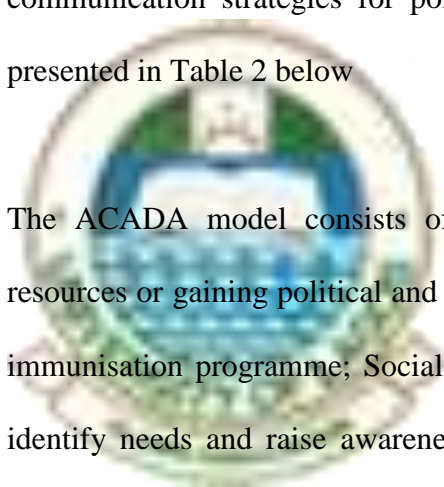
In polio-endemic northern states, traditional and religious leaders as well as district, village and ward heads were co-opted into the polio campaign. According to WHO report (2010c: 17), the strong support of Nigeria's traditional leadership was institutionalised by the middle of 2009, when the Sultan of Sokoto, Muhammad Sa'adu Abubakar, established the National Task Team of Northern Traditional Leaders, which met regularly to coordinate and plan their support and engagement for Supplemental Immunisation Activities (SIAs). In each immunisation activity, the Sultan or at least one Emir launched SIAs in his state. This helped to attract media attention. Several other Emirs also conducted radio announcements before each SIA. This was also brought to the local levels, where district, village and ward heads actively committed themselves to ensure maximum number of children in their areas of responsibility are immunised during the campaign. The constitution of the Northern Traditional Leaders Committee on Primary Health Care Delivery (NTLC) was a major boost to polio eradication campaign in northern Nigeria. The committee was charged with three main responsibilities:

- To improve immunisation coverage and ensure interruption of Wild Polio Virus transmission within six months in northern Nigeria
- To support the strengthening of routine immunisation in northern Nigeria
- To contribute to the development of an effective primary health care system in northern Nigeria.

RESEARCH QUESTION 2

Do information officers in the study sites differ in their rating of the effectiveness of ACADA-related communication strategies for polio information?

When the information officers in the states were asked to rate the effectiveness of application of ACADA-related model, out of eight information officers across the states, five of them strongly agreed that ACADA-related communication strategies for polio immunisation were effective and the other simply agreed that ACADA-related communication strategies for polio immunisation were effective. Their responses are presented in Table 2 below



The ACADA model consists of three main strategies: Advocacy involving raising resources or gaining political and social leadership acceptance and commitment for polio immunisation programme; Social Mobilisation for bringing together all stakeholders to identify needs and raise awareness of and demand for immunisation; and Programme Communication aimed at addressing the knowledge, attitudes and practices of mothers about polio issues through integrated communication approach.

Table 4: INFORMATION OFFICERS' RATING OF THE EFFECTIVENESS OF ACADA-MODEL

Application of ACADA-Model Improved Mothers' Response	Ikere LGA	Ido-Osi LGA	Kaduna North LGA	Chikun LGA	Gwale LGA	Rimi-Gado LGA	Ayobo-Ipaja LCDA	Lagos Mainland LGA	Total
Strongly Agreed	12.5%			12.5%	12.5%		12.5%	12.5%	62.5%
Agree		12.5%	12.5%			12.5%			37.5%
Can't Say									
Disagree									
Strongly Disagree									
Total									100%

RESEARCH QUESTIONS 3

What are the major sources of health information for mothers in the study locations?

Table 5: Respondents' Most Frequently Used Mass Medium Source for Health Information

Crosstab

		Of the following mass media, which one do you use most frequently as your source of health information ?				Total
		Radio	Television	New spaper	Magazine	
State	Lagos State	55 36.2%	89 58.6%	6 3.9%	2 1.3%	152 100.0%
	Kaduna State	91 49.2%	86 46.5%	6 3.2%	2 1.1%	185 100.0%
	Kano State	145 92.4%	7 4.5%	5 3.2%		157 100.0%
	Ekiti State	98 64.9%	47 31.1%	4 2.6%	2 1.3%	151 100.0%
Total		389 60.3%	229 35.5%	21 3.3%	6 .9%	645 100.0%

$$X^2 = 120.59, df = 9, P < 0.05$$

Table 5 shows that radio, with 60.3%, was the most frequently used mass medium for health information by respondents in the selected states. This was followed by television with a distant 35.5%. Newspapers (3.3%) and magazines (0.9%) accounted for the rest. However, the pattern of use was not the same in the study sites. For example, there was heavy use of radio by mothers in Kano State (92.4%), followed by Ekiti State (64.9%) and Kaduna State (49.2%). Radio use was least in Lagos State (36.2%). Television for health information by mothers was highest in Lagos State (58.6%), followed by Kaduna State (46.5%), Ekiti State (31.1%) and Kano State (4.5%).

Table 6: Respondent's Most Frequently Used Interpersonal Source for Health Information

Crosstab

		Of the following persons, institutions or places, which one do you use most as your source of health information ?											Total
		Family member (Husband, parent, in-laws, etc)	Friends	Village/Community leader	Traditional ruler	Religious leader	Neighbour	Teachers	Local/Community	Town/Village association or union	Market or Workplace	Political leaders	
State	Lagos State	61 42.1%	31 21.4%	6 4.1%	3 2.1%	6 4.1%	7 4.8%	8 5.5%	8 5.5%	3 2.1%	7 4.8%	5 3.4%	145 100.0%
	Kaduna State	96 51.6%	34 18.3%	4 2.2%	10 5.4%	18 9.7%	11 5.9%	5 2.7%	3 1.6%	4 2.2%		1 .5%	186 100.0%
	Kano State	107 67.3%	4 2.5%	33 20.8%		2 1.3%	4 2.5%		3 1.9%	2 1.3%	3 1.9%	1 .6%	159 100.0%
	Ekiti State	59 40.1%	27 18.4%	16 10.9%	3 2.0%	10 6.8%	4 2.7%	4 2.7%	12 8.2%	5 3.4%	2 1.4%	5 3.4%	147 100.0%
Total		323 50.7%	96 15.1%	59 9.3%	16 2.5%	36 5.7%	26 4.1%	17 2.7%	26 4.1%	14 2.2%	12 1.9%	12 1.9%	637 100.0%

$$X^2 = 205.091, df = 45, P < 0.00$$

The table 6 shows that the calculated chi-square of 183.39 was greater than critical chi-square of 43.77. This was significant at 95% confidence interval ($P < 0.05$). This implies that significant difference exists among the states and personalities most frequently used as source of health information by respondents across the four states. Generally, family members (consisting of husbands, parents, in-laws) were used most (50.7%) by mothers. This was followed by friends (15.1%), village/community leaders (9.3%), religious leaders (5.7%), neighbours (4%) teachers (2.7%), traditional rulers (2.5%) and town/village association (2.2%). Political leaders were the least used (1.9%).

RESEARCH QUESTION 4

Is there a relationship between mothers' exposure to ACADA-related messages on polio and their response to the polio eradication campaign?

Table 7: Mothers' Exposure to ACADA-related Messages and their Response

Reason for Responding to Polio Campaign	Exposure to ACADA- related message	
	No %	Yes %
Information from radio, television, newspaper or magazine	0	17.6
Advice from my family (husband and close relatives)	40.9	51.3
Advice of hospital staff	9.1	6.1
Information from town announcer	13.6	1.8
The benefits of immunisation	9.1	6.0
Advice of traditional/religious/community leader	22.7	10.9
Advice of friends	0	2.4
Other	4.5	4.0
Total	100%	100%
N	25	629

Table 7 shows that 96.2% of sampled mothers, reported exposure to ACADA-related messages through the various media of communication. The major test here is the strongest factor responsible for the decision of mothers who were exposed to ACADA-related messages on polio eradication campaign. The data reveal that even though majority of mothers sampled were exposed to ACADA-based messages on polio (as shown under the total), 51.3% of mothers identified personal influences of family members as the strongest reason for responding to the campaign. While only 17.6% of those who had no exposure named the mass media as the strongest reason for their response, 10.9% others identified the influence of traditional/religious/ community leaders as the strongest factor in their decision.



RESEARCH QUESTION 5

Did mothers in the selected states rely more on interpersonal communication channels than the mass media for information on immunisation against polio?

To answer this question, mothers were asked to name their most frequently used source of information for polio eradication campaign. A list of mass media and interpersonal channels were provided. The results are presented in Table 7 below

Table 8: Major Source of Polio Information of Respondents

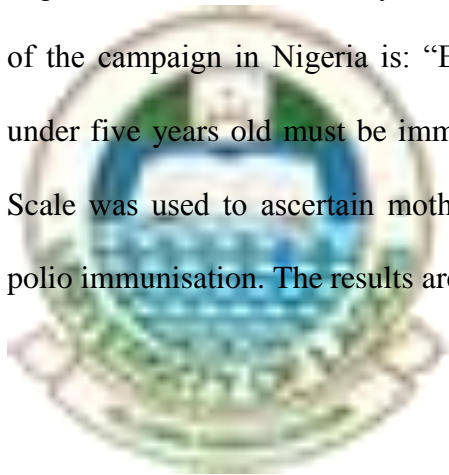
Source of polio information	Percentage
Radio	52.9
Television	23.1
Newspaper	1.7
Magazine	0.3
Billboard	1.1
Hospital	10.8
Handbill/ poster	3.4
Friends/family member	5.1
Other	1.5
Total	100%
N	54

Table 8 shows that mothers relied more on the mass media (78%) than interpersonal channels for information on polio. The electronic media comprising of radio (52.9%) and television (23.1%) were used more by the respondents. There was evidence of less reliance by mothers in the selected states on the interpersonal channels for information on polio immunisation. The implication of this for polio partners is that the mass media, particularly radio and television, should be used more than other media to disseminate polio information.

RESEARCH QUESTION 6

Do socio-psychological factors such as knowledge, attitudes, practices, values and beliefs influence mothers' response to the polio campaign?

To answer this question, the researcher investigated the number of mothers who took all their children under five years old for both routine and supplemental immunisation against the backdrop of their knowledge, attitudes, practices, values and beliefs. . It is important to note that the goal of the immunisation programme is to ensure that all Nigerian children under five years receive immunisation against polio. The current slogan of the campaign in Nigeria is: "Every child, every time". This means that every child under five years old must be immunised during each immunisation activity. The Likert Scale was used to ascertain mothers' knowledge, attitudes, beliefs and practices about polio immunisation. The results are presented in the tables below:



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Table 9: Respondents' answers to the question:

Immunisation against polio is the right of every child.

Respondents ' State	Mothers' belief about immunisation as children's rights					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	84.6(n=126)	12.8(n=19)	-	2.0(n=3)	0.7(n=1)	100(n=149)
Kaduna State	62.0(n=114)	23.4(n=43)	10.9(n=20)	3.3(n=6)	0.5(n=1)	100(n=184)
Kano State	45.5(n=70)	42.9(n=66)	5.8(n=9)	4.5(n=7)	1.3(n=2)	100(n=154)
Ekiti State	59.1(n=88)	36.2(n=54)	3.4(n=5)	0.7(n=1)	0.7(n=1)	100(n=149)
Total	62.6(n=398)	28.6(n=132)	5.3(n=34)	2.7(n=1)	0.8(n=5)	100(n=636)
$\chi^2 = 72.926$; $df = 12$; $P = 0.000$; $N = 636$						

One of the major issues promoted through ACADA-related messages in polio immunisation is that immunisation is the right of every child.

Table 9 shows that majority of respondents either strongly agreed (62.6%) or agreed (28.6%) that immunisation against polio is the right of every Nigerian Child. Only 2.7% of respondents disagreed and 0.8% strongly disagreed, with 5.3% undecided. In all, 91.2% of respondents agreed it was the right of all children to be immunised. However, there are variations in the levels of agreement among mothers across the study locations. For instance, mothers in the southern states of Lagos and Ekiti, which are polio-free, agreed more that immunisation against polio was the right of every child. Mothers in the northern states of Kaduna and Kano, where polio is endemic, agreed less.

Table 10: Mothers' Attitude to Immunisation Appointments

Respondents' State	It is not important to keep all immunisation appointments					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	7.3(n=11)	2.0(n=3)	0.7(n=1)	38(n=57)	62(n=78)	100(n=150)
Kaduna State	10.4(n=19)	17.5(n=32)	11.5(n=21)	36.1(n=66)	24.6(n=45)	100(n=183)
Kano State	2.6(n=4)	39(n=60)	8.4(n=13)	42.9(n=66)	7.1(n=11)	100(n=154)
Ekiti State	2.0(n=3)	11.6(n=17)	6.1(n=9)	54.4(n=80)	25.9(n=38)	100(n=147)
Total	5.8(n=37)	17.7(n=112)	6.9(n=44)	42.4(n=269)	27.1(n=172)	100(n=634)
$X^2 = 156.326$; $df = 12$; $P = 0.000$; $N = 634$						

Table 10 indicates that majority of respondents either disagreed (42.4%) or strongly disagreed (27.1%) that it is not important to keep all immunisation appointments. Only 23.5% of respondents either strongly agreed (5.8%) or agreed (17.7%). Others 6.9% were undecided. This indicates that majority of respondents (69.5%) believed it was important to keep all immunisation appointments. Though 91.2% agreed that children had the right to be immunised, 30.4% still said it was not important to keep all immunisation appointments. To achieve polio eradication, all children under-five years old must be immunised not only through routine immunisation but also through additional doses of OPV administered during NIDs. Again, differences exist among mothers in the states as regards polio appointment. For example, in polio-free Lagos State, only 9.3% of mothers either strongly agreed or agreed that it was not important to keep all immunisation appointments. Also in polio-free Ekiti State, only 13.6% of mothers either strongly agreed or simply agreed that it was not important to keep all immunisation appointments. The situation was different in polio endemic Kaduna and

Kano States. In Kaduna State as many as 27.9% of mothers either strongly agreed or agreed that it was not important to keep all immunisation appointments. In Kano State, where polio incidents are the worst of all the four states, 41.6% of mothers either strongly agreed or agreed that it was not important to keep all immunisation appointments.

The belief of respondents about the safety of additional Oral Polio Vaccine (OPV) was also tested. The results are presented in the table below.

Table 11: Mothers' opinion about the safety of additional OPV

Respondents' State	Overdose of OPV is dangerous					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	8.8(n=13)	20.3(n=30)	14.9(n=22)	18.2(n=27)	37.8(n=56)	100(n=148)
Kaduna State	12.1(n=22)	19.8(n=36)	35.3(n=66)	23.1(n=41)	8.8(n=16)	100(n=182)
Kano State	4.5(n=7)	17.5(n=27)	18.8(n=29)	51.3(n=29)	7.8(n=12)	100(n=154)
Ekiti State	11.8(n=17)	19.4(n=28)	12.5(n=18)	25(n=36)	31.3(n=45)	100(n=144)
Total	9.4(n=59)	19.3(n=121)	21.5(n=135)	29.3(n=184)	20.5(n=129)	100(n=628)
$X^2 = 158.958$; df = 12; P = 0 .000; N = 628						

Table 11 shows that almost half of respondents (49.8%) disagreed that extra doses of OPV were dangerous, with 29.3% disagreeing and 20.5% strongly disagreeing. In all, about 28.9% of respondents agreed that extra dose of OPV was dangerous, with 9.4% strongly agreeing and 19.3% of them disagreeing. Others (21.5%) were undecided. It was not unlikely that those who believed overdose was dangerous might have skipped

extra doses during NIDs. There were no significant differences in the opinions of mothers across the states about the rumoured danger of extra doses of polio vaccines.

Table 12: Mothers' Opinion about Extra Doses of OPV during NIDs

Respondents' State	Once my children have completed four doses of OPV at clinic, extra doses at NIDs are not necessary					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	15.3(n=22)	16.7(n=24)	20.1(n=29)	30.6(n=41)	17.4(n=25)	100(n=144)
Kaduna State	8.9(n=16)	15.6(n=28)	31.7(n=57)	35(n=63)	8.9(n=16)	100(n=180)
Kano State	11.2(n=17)	25(n=38)	15.8(n=24)	47.4(n=72)	0.7(n=1)	100(n=152)
Ekiti State	7(n=10)	17.6(n=25)	16.2(n=23)	43.0(n=61)	16.2(n=23)	100(n=142)
Total	10.5(n=65)	18.6(n=111)	21.5(n=33)	38.8(n=240)	10.5(n=65)	100(n=618)
$\chi^2 = 54.751$; $df = 12$; $P = 0.000$; $N = 618$						

Table 12 indicates that only 48.3% of mothers (made up of 38.8% disagree and 10.5% strongly disagree) believed it was necessary for their children to take extra doses of OPV during NIDs. A total of 29.1% (made up of 10.5% strongly agree and 18.6% agree) of mothers believed extra doses of OPV were unnecessary. Again, it was not unlikely that mothers who felt extra doses of OPV were unnecessary actually avoided NIDs. More mothers in Kano State (36.2%) either strongly agreed or agreed that extra doses of OPV during NIDs were unnecessary. Mothers in other states: Ekiti (29.1%), Kaduna (24.5%) and Lagos (22%) shared similar view. This belief negates the goal of world-wide campaign for polio eradication, which aims to reach every last child with OPV. The slogan in Nigeria, where polio is endemic, is: "every child, every time".

Table 13: Mothers' Belief about the Danger of Poliovirus

Respondents' State	Polio is a dangerous disease that kills or cripples children for life					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	65.5%(n=97)	15.5(n=23)	5.4(n=8)	6.8(n=10)	6.8(n=10)	100(n=148)
Kaduna State	35.7(n=65)	29.7(n=54)	15.4(n=28)	10.4(n=19)	8.8(n=16)	100(n=182)
Kano State	29.3(n=44)	40(n=60)	17.3(n=26)	11.3(n=17)	2(n=3)	100(n=150)
Ekiti State	44(n=62)	22(n=31)	9.2(n=13)	19.1(n=27)	5.7(n=8)	100(n=141)
Total	43.2(n=268)	27.1(n=168)	12.1(n=75)	11.8(n=73)	6.0(n=37)	100(n=621)
$X^2 = 72.580$; $df = 12$; $P = 0.000$; $N = 621$						

Table 13 reveals that majority of respondents' either strongly agreed (43.2%) or agreed (27.1%) that poliovirus could kill or cripple children for life. Only 11.8% disagreed, and 6% strongly disagreed. Others (12.1%) were undecided. Generally 70.3% of mothers in the selected states were aware that poliovirus could kill or cripple children for life. Awareness was highest in Lagos State, where 81% of mothers either strongly agreed that poliovirus could kill or cripple children. Surprisingly, in Kano State, where polio cases are more, 69.3% of mothers were aware of its debilitating effect on children. Figures for the other states are Ekiti (66%) and Kaduna (65.4%). But it is obvious that this awareness was not matched by preventive action on the part of the mothers. For instance, while 70.3% of mothers believed that polio is a disease that kills or cripples children for life, 23.5% of them said it was not important to keep all immunisation appointments and 29.1% said extra doses of OPV were unnecessary. Tables 6 to 11 above show that socio-

psychological factors such as knowledge, attitudes, values, beliefs and practices of mothers influenced their decisions on polio immunisation.

RESEARCH QUESTION 7

What is the major factor responsible for mothers' response to the polio campaign?

To answer this question, respondents were asked to name the person or institution responsible for their decision on polio immunisation. The result is presented here below:



Table 14: Persons, Institutions, things that influenced Respondents most on polio decisions

	Institution Responsible Most for Mothers' Decision on Polio															
	Family members	Friends	Village or community	Traditional ruler	Religious leader	Neighbour	Teacher	Town association	Market/work place	Political leader	Radio	TV	Newspaper	Magazine	Bill board	Total
Lagos State	31.8 (n=4)	25 (n=37)	1.4 (n=2)	1.4 (n=2)	2.0 (n=3)	1.4 (n=2)	6.1 (n=9)	7.5 (n=4)	2.0 (n=3)	3.4 (n=5)	5.4 (n=8)	8.8 (n=13)	-	-	4.1 (n=6)	100 (n=148)
Kaduna State	55.9 (n=102)	8.7 (n=16)	4.9 (n=9)	4.9 (n=9)	8.2 (n=15)	0.5 (n=)	3.8 (n=7)	2.7 (n=5)	1.6 (n=3)	0.5 (n=1)	1.6 (n=3)	6.0 (n=11)	0.5 (n=1)	-	-	100 (n=183)
Kano State	49.4 (n=77)	1.3 (n=2)	17.3 (n=27)	5.1 (n=8)	9.0 (n=14)	1.3 (n=2)	-	-	-	-	16.0 (n=25)	-	-	0.6 (n=1)		100 (n=156)
Ekiti State	35.2 (n=50)	14.1 (n=29)	12.0 (n=17)	2.1 (n=3)	4.9 (n=7)	2.1 (n=3)	4 (n=2)	0.6 (n=1)	1.4 (n=2)	0.7 (n=1)	7.0 (n=10)	3.5 (n=5)	-	-	4.9 (n=7)	100 (n=147)
Total	43.9 (n=276)	11.9 (n=75)	8.7 (n=55)	3.5 (n=22)	6.2 (n=39)	1.3 (n=8)	2.9 (n=13)	7.0 (n=31)	1.3 (n=8)	1.1 (n=7)	7.3 (n=34)	4.6 (n=29)	0.2 (n=1)	0.2 (n=1)	2.1 (n=13)	100 (n=629)
$\chi^2 = 205.091$; $df = 45$; $P = 0.0000$, $N = 629$																

Table 14 shows that interpersonal networks represented by family members (43.9%), friends (11.9%), village or community leaders (8.7%), religious leaders (6.2%), traditional rulers (3.5%), school teachers (2.9%), neighbours (1.3%) and political leaders (1.1%) had the greatest influence on mothers regarding their decision to take their children for immunisation. In contrast, the mass media, contributed only 12.3% of influence on mothers regarding their decision to immunise their children.

RESEARCH QUESTION 8

What are the demographic attributes (i.e. education level, age, income, occupation, ethnic background, locality, religious affiliation,) of mothers in the selected states?

Eight variables – age, education, income, religion, ethnic group, occupation, marital status and number of children – were examined by respondents’ state of residence.

Respondents’ demographic attributes by states are presented in tables 1 to 8 below

Table 15: Respondents by age

Age group	Percentage
Less than 15 years	1.5
16-20 yrs	6.9
21-25 yrs	18.7
26-30 yrs	22.9
31-36 yrs	17
37-40 yrs	13
41-45 yrs	8.7
46-50 yrs	6.9
51 yrs and above	4.4
Total	100%
N	654

Table 15 contains the age group of the respondents. The table shows that most mothers in the states surveyed were young people majority of whom were aged between 21 and 36 years. They were 58.6%. Another 33% of them were aged 37 and above. The rest of the mothers 8.4% were less than 21 years.

Table 16: Respondents by education

Education	Percentage
No Education	7.6
Quaranic Education	16.1
Primary School Leaving Certificate	12.4
Secondary School Leaving Certificate	21.3
National Diploma	8.1
NCE	11.3
Higher National Diploma	7.2
B.A/B.Sc	12.2
M.S./M.Sc	2.4
Ph.D	0.5
Other	0.9
Total	100%
N	654

In Table 16 above, the academic attainment of the respondents is presented. The table indicates that 23.7% of mothers sampled had no formal education. Another 33.7% of

them had no education beyond secondary school level. It further reveals that 38.8% of the mothers had ND, NCE, HND or bachelors degree as highest level of education.

Table 17: Respondents by annual income

Annual Income	Percentage
Less than ₦100,000	39.9
₦100,001- ₦200,000	20.7
₦200,001- ₦300,000	7.9
₦300,001- ₦400,000	9.1
₦400,001- ₦500,000	5.5
₦500,001- ₦600,000	4.8
₦600,001- ₦700,000	3.5
₦700,001- ₦800,000	2.7
₦800,001- ₦900,000	2.0
₦900,001- ₦1,000,000	1.8
₦1,000,000 and above	2.2
Total	100%
N	654

Table 17 above reveals that 39.9% of selected mothers earned about N277 per day or not more than N100, 000 per annum. Another 20.7% of them earned about N555 per day or maximum of N200, 000 per annum.

Table 18: Respondents by religious affiliation

Religious Affiliation	Percentage
Christianity	53.4
Islam	44.3
Traditional	1.5
Other	0.8
Total	100%
N	654

Table 18 above shows more than half of the women (53.4%) were Christians, another 44.3% Muslims.

Table 19: Respondents by Ethnic Groups

Ethnic Group	Percentage
Efik	2.9
Hausa	32.8
Gbagyi (Gwari)	4.8
Ibo	4.6
Ibibio	8.3
Yoruba	31.3
Fulani	4.1
Kanuri	1.5
Others	9.7
Total	100%
N	654

Majority of the sampled women were Hausa with 32.8%, this is closely followed by the Yoruba.

Table 20: Respondents by occupation

Occupation	Percentage
Civil/public servant	33.9
Business women	11.5
Trader	11.7
Self employed	6.3
Unemployed	4.9
House wife	20.2
Student	6.4
Private sector employee	3.7
Others	1.4
Total	100%
N	654

Table 20 shows the type of work people of the states surveyed do. They were mostly civil/public servants, followed by those who were house wives (20.2%). Other mothers who engaged in buying and selling were 23.2%.

Table 21: Respondents by marital status

Marital Status	Percentage
Married	89.3
Divorced	3.8
Widow	3.4
Single mother	3.5
Total	100%
N	654

As contained in table 21, almost 90% of mothers in the selected states were married.

Table 22: Respondents by number of children

No of Children	Percentage
One child	41.1
Two children	22.9
Three children	19.9
Four children	9.8
More children	5.2
Other	1.1
Total	100%
N	654

Table 22 shows the family size of mothers in the states was revealed, in which they had compact family size. The table shows that majority of mothers (41.1%) had one child each, followed by those who had two children each (22.9%). Those with three children were 19.9%.

TESTING OF HYPOTHESES

In order to test the hypotheses formulated early in this study, cross tabulation and chi-square test were employed.

HYPOTHESIS ONE

Alt H1: There is difference in the application of the ACADA-related model across the study locations.

Null H1: There is no difference in the application of ACADA-related model across the study location.

To obtain information for this hypothesis, information officers in the study locations were asked to indicate the communication strategies they used in communicating polio information with mothers and other stakeholders in their respective local government areas. They were specifically asked to state the components of the ACADA communication model they used in communication planning for polio eradication campaign, particularly during NIDs, designed to tackle immediately incidents of polio outbreak.

The eight information officers interviewed in the selected LGAs said the ACADA Communication planning was widely used in the planning, implementation and review of polio immunisation programme in their areas, with assistance provided by UNICEF. Their responses are presented in Tables 23a and 23b show the responses of the information officers.

Table 23a: Application of ACADA Components by Selected LGAs

Components of ACADA	Yes %	No %
Assessment	100	0
Communication Analysis	100	0
Design	100	0
Action	100	0

Table 23b: Application of ACADA Communication Strategies by Selected LGAs

ACADA Related Communication Strategies	Yes %	No %
Advocacy	100	0
Social Mobilisation	100	0
Programme Communication	100	0

Tables 23a and 23b show all the states used the ACADA communication planning model, including its three-pronged communication strategies, to plan and implement their polio immunisation campaign messages.

HYPOTHESIS TWO

Alt H2: Information officers will differ in their rating of the effectiveness of ACADA-related communication strategies for polio information.

Null H2: Information officers will not differ in their rating of the effectiveness of ACADA-related communication strategies for polio information.

To obtain information for this hypothesis, information officers were asked to indicate their levels of agreement with the opinion that the application of ACADA-communication strategies has led to the improvement in mothers' response to the polio eradication campaign. Five of the eight information officers strongly agreed that its

application has led to improved turn-out of mothers for polio immunisation. The other three simply agreed with the opinion. Their responses in Table 24 show that they do not differ remarkably in their rating of the effectiveness of ACADA communication strategies.

Table 24: INFORMATION OFFICERS' RATING OF THE EFFECTIVENESS OF ACADA-MODEL

Application of ACADA-Model Improved Mothers' Response	Ikere LGA	Ido-Osi LGA	Kaduna North LGA	Chikun LGA	Gwale LGA	Rimin-Gado LGA	Ayobo-Ipaja LCDA	Lagos Mainland LGA	Total
Strongly Agreed	12.5%			12.5%	12.5%		12.5%	12.5%	62.5%
Agree		12.5%	12.5%			12.5%			37.5%
Can't Say									
Disagree									
Strongly Disagree									
Total									100%

HYPOTHESIS THREE

Alt H3: There is significant difference in major sources of polio information among mothers in the selected states.

Null H : There is no significant difference in major sources of polio information among mothers in the selected states.

To test the hypothesis, respondents' exposure to various channels of information on the polio campaign, including the mass media, was assessed. Their exposure pattern was further cross-tabulated with their responses



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Table 25: Respondents Exposure to Information Sources on Polio

Respondents' State	Respondents' exposure to sources of information on Polio Eradication									
	Radio	TV	N/Paper	Magazine	Bill Board	Hospitals	Hand bill/Poster	Friends & Family	Other	Total
Lagos State	23.2 (n=35)	34.4 (n=52)	2.0 (n=3)	0.7 (n=1)	2.0 (n=3)	21.9 (n=33)	3.3 (n=5)	10.6 (n=16)	2.0 (n=3)	100 (n=151)
Kaduna State	44 (n=81)	32.1 (n=59)	2.2 (n=4)	0.5 (n=1)	0.5 (n=1)	11.4 (n=21)	1.1 (n=2)	5.4 (n=10)	2.7 (n=5)	100 (n=184)
Kano State	85.4 (n=135)	2.5 (n=4)	1.3 (n=2)	-	-	1.9 (n=3)	6.3 (n=10)	1.9 (n=3)	0.6 (n=1)	100 (n=158)
Ekiti State	59.5 (n=91)	22.2 (n=34)	1.7 (n=2)	-	2.0 (n=3)	8.5 (n=13)	3.4 (n=5)	2.6 (n=4)	0.7 (n=1)	100 (n=153)
Total	52.9 (n=342)	23.1 (n=149)	1.7 (n=11)	0.5 (n=2)	1.1 (n=7)	10.8 (n=70)	3.4 (n=22)	5.1 (n=33)	1.5 (n=10)	100 (n=646)
$\chi^2 = 165.33$; df = 24; P < 0.05										

Table 25 shows that the calculated chi-square of 165.33 was greater than critical chi-square of 36.41. This was significant at 95% confidence interval ($P < 0.05$). This implies that a significant difference exists among the states and the sources of information most frequently used by respondents. Respondents named radio (52.9%) as the most frequently used source of information on polio eradication campaign. Except in Lagos State, where television was named by 34.4% of respondents as the most frequently used source of information, most respondents in all the states depended on radio most as the source of information on polio eradication.

HYPOTHESIS FOUR

Alt H4: There is significant difference between mothers' exposure to ACADA-based messages on polio and their responses to the polio eradication campaign.

Null H4: There is no significant difference between mothers' exposure to ACADA-based messages on polio and their responses to the polio eradication campaign



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Table 26: Cross tabulation of Respondents Exposure to Information Sources on Polio Immunisation and Compliance with Campaign

No of children who received additional OPV doses during NIDs	Mothers' Exposure to Polio Information and their Compliance									
	Radio	TV	N/Paper	Magazine	Bill Board	Hospitals	Hand bill/Poster	Friends & Family	Other	Total
One	38.9 (n=28)	31.9 (n=23)	-	2.8 (n=2)	1.4 (n=1)	13.9 (n=10)	4.2 (n=3)	4.2 (n=3)	2.8 (n=2)	100 (n=72)
Two	42.9 (n=48)	26.8 (n=30)	4.5 (n=5)	-	0.9 (n=1)	13.4 (n=15)	1.8 (n=2)	8.0 (n=9)	1.8 (n=2)	100 (n=112)
Three	53.1 (n=52)	27.6 (n=27)	-	-	-	11.2 (n=11)	2 (n=2)	6.1 (n=6)	-	100 (n=98)
Four	59.3 (n=51)	17.4 (n=15)	1.2 (n=1)	-	1.2 (n=1)	9.3 (n=8)	5.8 (n=5)	4.7 (n=4)	1.2 (n=1)	100 (n=876)
All my children	58.6 (n=163)	19.4 (n=54)	1.8 (n=5)	-	1.4 (n=4)	9.4 (n=26)	3.6 (n=10)	4.0 (n=11)	1.8 (n=5)	100 (n=278)
Total	52.9 (n=342)	23.1 (n=149)	1.7 (n=11)	0.3 (n=2)	1.1 (n=7)	10.8 (n=70)	3.4 (n=22)	5.1 (n=33)	1.5 (n=10)	100 (n=646)
$\chi^2 = 49.959$; df = 32; P.0.022; N=646										

Table 26 shows that 26 cells (57.8%) have expected count less than 5. The minimum expected count is 22. The table further shows there is a significant difference in respondents' exposure to the mass media and compliance with Polio eradication campaign. The assumption that there is no significant difference between mothers' exposure to ACADA-based messages on polio and their responses to the polio eradication campaign is not valid. The null hypothesis is, therefore, rejected.

HYPOTHESIS FIVE

Alt H5: Mothers in the study location depend more on interpersonal communication channels than mass media channels for information on polio eradication

Null H5: Mothers in study locations do not rely more in interpersonal communication channels than mass media channels for information on polio eradication campaign.

To test this hypothesis, respondents were asked to identify their most frequently used sources of information on polio immunisation.

Respondents were asked several questions in order to generate data to test the hypothesis. First, they were asked to identify the mass medium most frequently used as their source

of health information. Second, they were asked to name their most frequently used interpersonal source of health information. And third, they were asked to identify their most frequently used source of information on immunisation against polio from a list of both mass-mediated and interpersonal channels of communication. The results are presented in Tables 27, 28 and 29.

Table 27: Respondents' Most Frequently Used Mass Medium Source for Health Information

Crosstab

		Of the following mass media, which one do you use most frequently as your source of health information ?				Total
		Radio	Television	Newspaper	Magazine	
State	Lagos State	55 36.2%	89 58.6%	6 3.9%	2 1.3%	152 100.0%
	Kaduna State	91 49.2%	86 46.5%	6 3.2%	2 1.1%	185 100.0%
	Kano State	145 92.4%	7 4.5%	5 3.2%		157 100.0%
	Ekiti State	98 64.9%	47 31.1%	4 2.6%	2 1.3%	151 100.0%
Total		389 60.3%	229 35.5%	21 3.3%	6 .9%	645 100.0%

$$X^2 = 120.59, df = 9, P < 0.05$$

Radio, with 60.3%, was the most frequently used mass medium by respondents in the selected states. This was followed by television with a distant 35.5%. Newspapers (3.3%) and magazines (0.9%) accounted for the rest.

Table 27 shows that the calculated chi-square of 120.59 was greater than critical chi-square of 16.92. This was significant at 95% confidence interval ($P < 0.05$). This implies that significant difference exists between respondents across the states and mass media

most frequently use of health information. Respondents across the states used different mass media as sources of health information.

Table 28: Respondent's Most Frequently Used Interpersonal Source for Health Information

Crosstab

		Of the following persons, institutions or places, which one do you use most as your source of health information ?											Total
		Family member (Husband, parent, in-laws, etc)	Friends	Village/Community leader	Traditional ruler	Religious leader	Neighbour	Teachers	Local/Community	Town/Village association or union	Market or Workplace	Political leaders	
State	Lagos State	61 42.1%	31 21.4%	6 4.1%	3 2.1%	6 4.1%	7 4.8%	8 5.5%	8 5.5%	3 2.1%	7 4.8%	5 3.4%	145 100.0%
	Kaduna State	96 51.6%	34 18.3%	4 2.2%	10 5.4%	18 9.7%	11 5.9%	5 2.7%	3 1.6%	4 2.2%		1 .5%	186 100.0%
	Kano State	107 67.3%	4 2.5%	33 20.8%		2 1.3%	4 2.5%		3 1.9%	2 1.3%	3 1.9%	1 .6%	159 100.0%
	Ekiti State	59 40.1%	27 18.4%	16 10.9%	3 2.0%	10 6.8%	4 2.7%	4 2.7%	12 8.2%	5 3.4%	2 1.4%	5 3.4%	147 100.0%
Total		323 50.7%	96 15.1%	59 9.3%	16 2.5%	36 5.7%	26 4.1%	17 2.7%	26 4.1%	14 2.2%	12 1.9%	12 1.9%	637 100.0%

$$X^2 = 205.091, df = 45, P < 0.00$$

Table 28 shows that the calculated chi-square of 138.39 was greater than critical chi-square of 43.77. This was significant at 95% confidence interval ($P < 0.05$). This implies that significant difference exists among the states and personalities most frequently used as source of health information by respondents across the four states. Generally, family members (consisting of husbands, parents, in-laws) were used most (50.7%) by mothers. This was followed by friends (15.1%), village/community leaders (9.3%), religious leaders (5.7%), neighbours (4%) teachers (2.7%), traditional rulers (2.5%) and town/village association (2.2%). Political leaders were the least used (1.9%).

Table 29: Respondents' Most Frequently Used Information Source on Polio Immunisation

Crosstab

		From which source do you get most informational about immunization against polio ?								Total
		Radio	Television	Newspaper	Magazine	Billboard	Hospital	Handbill/Poster	Friends/Family members	
State	Lagos State	35 23.2%	52 34.4%	3 2.0%	1 .7%	3 2.0%	33 21.9%	5 3.3%	16 10.6%	3 2.0%
	Kaduna State	81 44.0%	59 32.1%	4 2.2%	1 .5%	1 .5%	21 11.4%	2 1.1%	10 5.4%	5 2.7%
	Kano State	135 85.4%	4 2.5%	2 1.3%			3 1.9%	10 6.3%	3 1.9%	1 .6%
	Ekiti State	91 59.5%	34 22.2%	2 1.3%		3 2.0%	13 8.5%	5 3.3%	4 2.6%	1 .7%
Total		342 52.9%	149 23.1%	11 1.7%	2 .3%	7 1.1%	70 10.8%	22 3.4%	33 5.1%	10 1.5%

$$X^2 = 165.33, df = 24, P < 0.05$$

Table 29 reveals that the calculated chi-square of 165.33 was greater than critical chi-square of 36.41. This was significant at 95% confidence interval ($p < 0.05$). This implies that there is a significant difference in the most frequently used source of information on polio immunisation by respondents across the states. Generally, respondents identified the mass media (radio, 52.9%); television, 23.1%; newspaper, 1.7% and magazine 0.3% as the frequently used source of information on polio immunisation. This means 78% of information on polio immunisation was sourced by respondents from the mass media. Only 22% came from other institutional or personal sources.

HYPOTHESIS SIX

Alt H6: Socio-psychological factors such as knowledge, attitudes, practices, values and beliefs influence mothers' acceptance or rejection of polio immunisation for their children.

Null H6: Socio-psychological factors such as knowledge, attitudes, practices, values and beliefs do not influence mothers' acceptance or rejection of polio immunisation for their children.

To test this hypothesis, the Likert Scale was used to obtain the opinions, beliefs, values, knowledge level and practices of mothers about polio immunisation. They were asked to simply indicate their levels of agreement or disagreement with some positive and negative statements about polio and immunisation against it. The results are presented in the following tables.

Table 30: Respondents' answers to the statement: "Immunisation against polio is the right of every child".

Respondents' State	Immunisation against polio is the right of every child					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	84.6(n=126)	12.8(n=19)	-	2.0(n=3)	0.7(n=1)	100(n=149)
Kaduna State	62.0(n=114)	23.4(n=43)	10.9(n=20)	3.3(n=6)	0.5(n=1)	100(n=184)
Kano State	45.5(n=70)	42.9(n=66)	5.8(n=9)	4.5(n=7)	1.3(n=2)	100(n=154)
Ekiti State	59.1(n=88)	36.2(n=54)	3.4(n=5)	0.7(n=1)	0.7(n=1)	100(n=149)
Total	62.6(n=398)	28.6(n=182)	5.3(n=34)	2.7(n=17)	8(n=5)	100(n=636)
$X^2 = 72.926$; $df = 12$; $P = 0.000$; $N = 636$						

Table 30 shows that majority of respondents either strongly agreed (62.6%) or agreed (28.6%) that immunisation against polio is the right of every Nigerian child. Only 2.7% of respondents disagreed and 0.8% strongly disagreed, with 5.3% undecided. Pearson Chi-Square tests reveal significant differences between states and respondents' perception about the right of every child to be immunised.

Table 31: Respondents' answer to the statement: "It is not important to keep all immunisation appointments"

Respondents' State	It is not important to keep all immunisation appointments					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	7.3(n=11)	2.0(n=3)	0.7(n=1)	38.1(n=57)	51.9(n=78)	100(n=150)
Kaduna State	10.4(n=19)	17.5(n=32)	11.5(n=21)	36.1(n=66)	24.6(n=45)	100(n=183)
Kano State	2.6(n=4)	39.0(n=60)	8.4(n=13)	42.9(n=66)	7.1(n=11)	100(n=154)
Ekiti State	2.0(n=3)	11.6(n=17)	6.1(n=9)	54.4(n=80)	25.9(n=38)	100(n=147)
Total	5.8(n=37)	17.7(n=112)	6.9(n=44)	42.4(n=269)	27.1(n=172)	100(n=634)
$X^2 = 156.326$; $df = 12$; $P = 0.000$; $N = 634$						

Table 31 above shows a majority of respondents either disagreed (42.4%) or strong disagreed (27.1%) that it is not important to keep all immunisation appointments. Only 23.5% of respondents either strongly agreed (5.8%) or agreed (17.7%). Others 6.9% were undecided. This indicates that majority of respondents (69.5%) believed it was important to keep all immunisation appointments.

The belief of respondents about the safety of additional Oral Polio Vaccine (OPV) was also tested. The results are presented in the table below.

Table 32: Respondents' answers to the statement "overdose of OPV is dangerous".

Respondents' State	Overdose of OPV is dangerous					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	8.8(n=13)	20.3(n=30)	14.9(n=22)	18.2(n=27)	37.8(n=56)	100(n=148)
Kaduna State	12.1(n=22)	19.8(n=36)	36.3(n=66)	23.1(n=42)	8.8(n=10)	100(n=182)
Kano State	4.5(n=7)	17.5(n=27)	18.8(n=29)	51.3(n=29)	7.8(n=12)	100(n=154)
Ekiti State	11.8(n=17)	19.4(n=28)	12.5(n=18)	25(n=36)	31.3(n=45)	100(n=144)
Total	9.4(n=59)	19.3(n=121)	21.5(n=135)	29.3(n=184)	20.5(n=129)	100(n=628)
$X^2 = 158.958$, $df = 12$; $P = 0.000$, $N = 628$						

Table 32 shows that almost half of the respondents (49.8%) disagreed with the statement that extra dose of OPV was dangerous, with 29.3% disagreeing and 20.5% strongly disagreeing. In all, about 28.9% of respondents agreed that extra dose of OPV was dangerous, with 9.4% strongly agreeing and 19.3% of them disagreeing. Others (21.5%) were undecided.

Table 33: Respondents' Belief about the Danger of Polio.

Respondents' State	Polio is a dangerous disease that kills or cripples children for life					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	65.5%(n=97)	15.5(n=23)	5.4(n=8)	6.8(n=10)	6.8(n=10)	100(n=148)
Kaduna State	35.7(n=65)	29.7(n=54)	15.4(n=28)	10.4(n=19)	8.8(n=16)	100(n=182)
Kano State	29.3(n=44)	40(n=60)	17.3(n=26)	11.3(n=17)	2(n=3)	100(n=150)
Ekiti State	44(n=62)	22(n=31)	9.2(n=13)	19.1(n=27)	5.7(n=8)	100(n=141)
Total	43.2(n=268)	27.1(n=168)	12.1(n=75)	11.8(n=73)	6.0(n=37)	100(n=621)
$X^2 = 72.580$; $df = 12$; $P = 0.000$; $N = 621$						

Table 33 reveals that majority of respondents' either strongly agreed (43.2%) or agreed (27.1%) that polio virus could kill or cripple children for life. Only 11.8% disagreed, and 6% strongly disagreed. Others (12.1%) were undecided.

Table 34: Respondents' belief about extra doses of OPV during NIDs

Respondents' State	Once my children have completed four doses of OPV at clinic, extra doses at NIDs are not necessary					
	Strongly agreed	Agree	Undecided	Disagree	Strongly disagree	Total
Lagos State	15.3(n=22)	16.7(n=24)	20.1(n=29)	30.6(n=41)	17.4(n=25)	100(n=144)
Kaduna State	8.9(n=16)	15.6(n=28)	31.7(n=57)	35(n=63)	8.9(n=16)	100(n=180)
Kano State	11.2(n=17)	25(n=38)	15.8(n=24)	47.4(n=72)	0.7(n=1)	100(n=152)
Ekiti State	7(n=10)	17.6(n=25)	16.2(n=23)	43.0(n=61)	16.2(n=23)	100(n=142)
Total	10.5(n=65)	18.6(n=115)	21.5(n=133)	38.8(n=240)	10.5(n=65)	100(n=618)
$\chi^2 = 54.751$; df = 12; P = 0.000; N = 618						

Table 34 above indicates that 29.1% of mothers either strongly agreed or agreed that extra doses of OPV during NIDs were not necessary. Such a view contradicts the goal of polio eradication, which emphasises continuous intake of OPV by all children under five years old.

Mothers were further asked whether extra doses of OPV during NIDs could boost children's immunity against polio. The question was necessary because polio experts had reported cases of polio among children who were partially immunised. Only extra doses of OPV administered during NIDs and mop-up immunisation can guarantee defence against polio infection.

Table 35: Respondents' opinion about whether extra doses of OPV during NIDs boost the child's immunity against Polio.

Response	Lagos%	Kaduna%	Ekiti%	Kano%
Strongly Agree	34.0	14.4	25.9	43.8
Agree	19.7	45.0	27.3	25.7
Neutral	29.9	18.3	25.2	13.9
Disagree	10.2	16.1	21.7	11.8
Strongly Disagree	6.1	6.1	0	4.9
Total	100%	100%	100%	100%
N	147	180	143	144

Table 35 above contains the relationship between mothers in the selected states and their opinion about whether extra doses of OPV during NIDs boost the child's immunity against polio. Table shows more mothers in the polio-endemic Kano State either strongly agreed (43.8%) or simply agreed that extra doses of OPV could boost children immunity against polio. This higher level of awareness might be due to intensified campaigns embarked upon by polio immunisation teams in the highest risks states in recent times. In Lagos State, 53.7% either strongly agreed or simply agreed that extra doses of OPV could boost their children's immunity against polio, 16.3% either disagreed or strongly disagreed while 29.9% of mothers were undecided. In Kaduna State, 59.4% of mothers either strongly agreed or agreed while 22.2% either disagreed or strongly disagreed and

18.3% others were neutral in their opinion. In Ekiti State, 53.2% either strongly agreed or agreed while 21.7% disagreed and 25.2% others maintained neutral opinion.

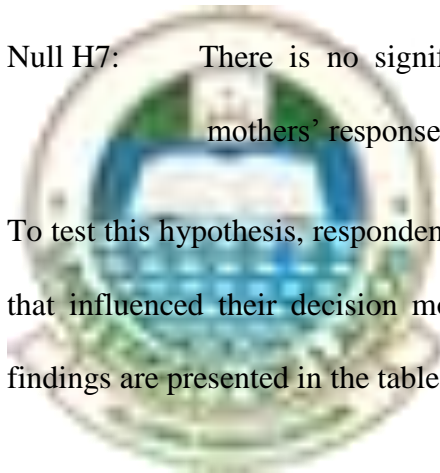
The null hypothesis is, therefore, rejected and the alternative hypothesis upheld.

HYPOTHESIS SEVEN

Alt H7: There is significant difference in the major factors responsible for mothers' response to the polio campaign in the study locations.

Null H7: There is no significant difference in the major factors responsible for mothers' response to the polio campaign in the study locations

To test this hypothesis, respondents were asked to identify the person, institution or thing that influenced their decision most regarding the immunisation of their children. The findings are presented in the table below:

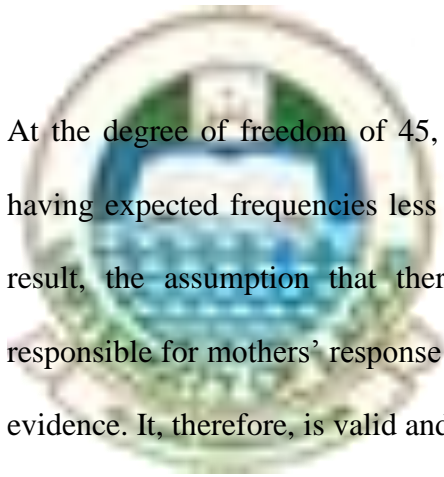


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Table 36: Relationship between the state and which of the following person, things, institution or places influence your decision most on your child's immunisation.

Response	Lagos%	Kaduna%	Ekiti%	Kano%
Family member	32.4	55.6	49.3	42.0
Friends	23.0	8.9.	1.3	19.6
Village/ Community Leader	1.4	5.0	14.7	1.4
Traditional Rulers	1.4	5.0	4.0	0.7
Religious Leader	2.0	8.3	12.0	4.9
Political Leader	1.4	0.6	1.3	2.1
Neighbors	6.1	3.3	0	1.4
Teachers	1.4	2.2	0	1.4
Local/Community	7.4	0.6	0	9.1
Town/Village Association or Union	2.0	1.7	0	1.4
Market or Workplace	3.4	0.6	0	0.7
Radio announcement	5.4	1.7	16.7	7.0
TV announcement	8.8	6.1	0	3.5
Newspaper	0	0.6	0	0
Magazine	0	0	0.7	0
Billboard message	4.1	0	0	4.9
Total	100%	100%	100%	100%
N	148	180	150	143

Table 36 above contains the relationship between the state and which one of the listed therein influences decision most on child's immunisation. The table shows that in all the states, majority of residents said family member influenced their decision most on their child's immunisation. But in Lagos, 23% of the residents named friends as their next influence. In Kaduna, friends (8.9%) and religious leaders (8.3%) had their influence too on their child's immunisation. In Ekiti, Village/Community leader (17.7%), religious leader (12.0%) and radio announcement (16.7%) influenced their decision most. In Kano, apart from family members, friends had influence on mothers' decision concerning their child's immunisation.



At the degree of freedom of 45, the P value equals 0.000, but with 54.7% of the cell having expected frequencies less than 5, the value of P (0.000) is less than 0.5%. As a result, the assumption that there is no significant difference in the major factors responsible for mothers' response to the polio campaign in the study sites is supported by evidence. It, therefore, is valid and accepted.

The implication of this finding is that substantial information gap still exists among mothers across the study locations regarding the fact that extra doses of OPV boost the immunity of children. This inadequate level of awareness may affect mothers' response to the campaign and further increase the risk of spread of the virus.

HYPOTHESIS EIGHT

Alt H8: There is relationship between mothers' demographic attributes and their responses to the polio eradication campaign.

Null H8: There is no relationship between mothers' demographic attributes and their responses to the polio eradication campaign.

Six variables – age, education, income, religion, ethnic group, and occupation, – were examined. Respondents' demographic attributes are presented in tables 34 to 40 below

Table 37: Cross tabulation of Respondents' Age and Response to Polio Campaign

Age Group	No of Children who received additional doses of OPV during NIDS						Total
	None %	One %	Two%	Three%	Four%	All%	
Less 15 yrs	0.5(n=3)	0.3(n=2)	0.2(n=1)	-	-	0.7(n=4)	1.7(n=10)
15-20yrs	1.5(n=9)	2.4(n=14)	1.5(n=9)	-	-	0.5(n=3)	5.9(n=35)
21-25yrs	4.5(n=27)	5.6(n=33)	4.4(n=26)	1.4(n=8)	0.2(n=1)	1.2(n=7)	17.2(n=102)
26-30 yrs	5(n=30)	6.(n=36)	5(n=30)	3.5(n=21)	1.4(n=8)	2.4(n=14)	23.4(n=139)
31-35 yrs	3.5(n=21)	4.5(n=27)	3.5(n=21)	2(n=12)	0.7(n=4)	4.5(n=17)	17.2(n=102)
36-40 yrs	3(n=18)	2.4(n=14)	1.9(n=11)	1.5(n=9)	1.4(n=8)	3.9(n=23)	14(n=83)
40-45 yrs	3(n=18)	2(n=12)	1.5(n=9)	1.4(n=8)	0.2(n=1)	0.8(n=5)	9(n=53)
46-50 yrs	1.4(n=8)	1.5(n=9)	0.8(n=5)	0.7(n=4)	0.7(n=4)	1.9(n=11)	7(n=41)
51and above	2.4(n=14)	0.3(n=2)	0.3(n=2)	0.3(n=2)	-	1.5(n=9)	4.9(n=29)
Total	25(n=148)	25.1(n=149)	19.2(n=114)	10.8(n=64)	4.4(n=26)	15.7(n=93)	100(n=594)
$\chi^2 = 85.44$; df = 40; $P < 0.000$							

Table 37 indicates the cross tabulation between respondent's age groups and their respondents to the polio eradication campaign. The table shows significant statistical

differences between age group and the number of respondents' children who received additional doses of OPV during National Immunisation Days (NIDs)

Table 38: Cross tabulation of Respondents Educational Qualification and their Responses to Polio Eradication Campaign.

Age Group	No of Children Who Received Additional OPV Doses						
	None %	One %	Two%	Three%	Four%	All%	Total
No Education	3.9(n=23)	1.2(n=17)	1.2(n=7)	0.3(n=2)	0.6(n=4)	0.8(n=5)	8(n=48)
Quranic Education	3.1(n=19)	2.7(n=16)	3.9(n=23)	1.7(n=10)	0.2(n=1)	5(n=31)	16.8(n=100)
Sec. Sch. Cert	4.4(n=26)	7.6(n=45)	5.6(n=33)	2.2(n=13)	0.8(n=5)	2.4(n=14)	22.9(n=136)
1 st Sch Lvg Cert	2.5(n=15)	2.3(n=20)	1.5(n=9)	1.9(n=11)	1(n=6)	1.9(n=11)	17(n=72)
ND	1.9(n=11)	1.7(n=10)	1(n=6)	1(n=6)	0.2(n=1)	1.7(n=10)	7(n=41)
NCE	3.1(n=19)	2.9(n=17)	2(n=12)	1.4(n=8)	0.8(n=5)	0.8(n=5)	11(n=66)
HND	1.9(n=11)	1.9(n=11)	1.4(n=8)	0.6(n=4)	0.2(n=1)	1.4(n=8)	7.2(n=43)
BA/B.Sc	3.1(n=19)	2.7(n=16)	2.4(n=14)	1.2(n=7)	0.3(n=2)	1.5(n=9)	11.3(n=67)
MA/M.Sc	0.5(n=3)	1(n=6)	-	0.3(n=2)	0.2(n=1)	0.03(n=2)	2.4(n=14)
Ph.D	0.2(n=1)	-	0.2(n=1)	-	-	0.2(n=1)	0.5(n=3)
Other	0.2(n=1)	0.2(n=1)	0.2(n=1)	-	-	0.2(n=1)	0.6(n=4)
Total	24.92(n=148)	25(n=149)	19(n=114)	10.8(n=64)	4.4(n=26)	15.7(n=93)	100(n=594)
$\chi^2 = 73.83$; df = 50; =0.016; N=594							

Table 38 reveals the cross tabulation of respondents' qualification and their responses to the polio eradication campaign. The table depicts significant difference in the educational qualification of the respondents and their responses to polio eradication campaign.

Table 39: Cross tabulation of Respondents' Income and their Responses to Polio Eradication Campaign.

Age Group	None %	One %	Two%	Three%	Four%	All%	Total
Less than ₦100,000 p.a	12.4(n=63)	10.8(n=55)	3.9(n=29)	3.9(n=29)	1.4(n=7)	7.5(n=38)	40(n=203)
₦100,001- ₦200,000	4.3(n=22)	4.7(n=24)	5(n=26)	1.8(n=9)	0.8(n=4)	3.45(n=17)	20(n=102)
₦200,001- ₦300,000	1.4(n=7)	1.8(n=9)	1.6(n=8)	1.4(n=8)	0.4(n=2)	0.8(n=4)	7.3(n=37)
₦300,001- ₦400,000	1.4(n=7)	2.4(n=12)	1.4(n=7)	2(n=10)	0.4(n=2)	2.2(n=22)	9.7(n=49)
₦400,001- ₦500,000	1.4(n=7)	1.2(n=6)	1.6(n=8)	1(n=5)	-	0.4(n=2)	5.5(n=28)
₦500,001- ₦600,000	0.4(n=2)	0.8(n=4)	1.8(n=9)	0.2(n=1)	0.6(n=3)	1.4(n=7)	5(n=26)
₦600,001- ₦700,000	0.6(n=3)	0.8(n=4)	1.2(n=6)	0.6(n=3)	0.4(n=2)	0.2(n=1)	3.7(n=19)
₦700,001- ₦800,000	0.8(n=4)	0.4(n=2)	0.4(n=2)	0.4(n=2)	0.2(n=1)	0.6(n=3)	2.8(n=14)
₦800,001- ₦900,000	0.4(n=2)	0.8(n=4)	0.2(n=1)	0.2(n=1)	0.4(n=2)	-	2(n=10)
₦900,001- ₦1,000,000	0.4(n=2)	0.2(n=1)	0.6(n=3)	0.2(n=1)	-	0.4(n=2)	1.8(n=9)
Over ₦1,000,000	0.8(n=4)	0.8(n=4)	0.2(n=1)	0.2(n=1)	-	0.2(n=1)	2.2(n=508)
Total	24.2(n=123)	24.41(n=124)	18.8(n=92)	11.8(n=60)	4.5(n=23)	16.2(n=86)	100(n=508)
$\chi^2 = 68.116$; $df = 50$; $P < 0.045$; $N = 508$							

Table 39 indicates the cross tabulation of respondents' income and their responses to polio eradication campaign. The above results show that significant difference exists between income level and responses of mothers to the polio eradication campaign.

Table 40: Cross tabulation of Respondents' Religion and their Responses to Polio Eradication Campaign

Religious Affiliation	No of Children who Received Additional doses of OPV						
	None %	One %	Two%	Three%	Four%	All%	Total
Christianity	12.6(n=74)	13.6(n=80)	9.9(n=58)	5.8(n=34)	3.1(n=18)	6.5(n=38)	51.4(n=302)
Islam	11(n=67)	10.9(n=64)	9.2(n=54)	4.4(n=26)	1.4(n=8)	8.9(n=52)	46.2(n=271)
Traditional	0.85(n=5)	02.(n=1)	0.2(n=1)	-	-	0.2(n=1)	1.5(n=8)
Other	-	0.3(n=2)	-	0.3(n=2)	-	0.2(n=1)	0.9(n=5)
Total	25(n=147)	25(n=147)	19.3(n=113)	10.6(n=62)	4.4(n=26)	15.7(n=92)	100(n=587)
$X^2 = 23.62$; df = 15; P< 0.072; N= 587							

Table 40 reveals the cross tabulation of respondent's religious affiliation with their responses to polio eradication campaign. The result shows no significant difference between respondents' religious affiliation and their responses to polio eradication campaign.

To ascertain whether respondents' ethnic background significantly influenced their responses to the polio eradication campaign, the table below is presented.

Table 41: Cross tabulation of Respondents Ethnic Groups and their Responses to Polio Campaign

Ethnic Group	No of Children who received additional doses of OPV during NIDS						
	None %	One %	Two%	Three%	Four%	All%	Total
Efik	0.7(n=4)	1(n=6)	0.8(n=5)	0.2(n=1)	-	0.2(n=1)	2.9(n=17)
Hausa	8.3(n=49)	8.3(n=49)	7.3(n=43)	2.9(n=17)	0.7(n=4)	6.4(n=38)	33.8(n=200)
Gbayi	1.5(n=9)	1.9(n=11)	1(n=6)	-	0.2(n=1)	-	4.6(n=27)
Ibo	0.7(n=4)	1.5(n=9)	1(n=6)	0.3(n=2)	0.2(n=1)	-	3.7(n=22)
Ibibio	1.7(n=10)	2(n=12)	0.8(n=5)	1.7(n=10)	0.7(n=4)	2(n=14)	9(n=53)
Yoruba	6.8(n=40)	6.6(n=39)	5.1(n=30)	4.9(n=29)	2.3(n=15)	5.7(n=34)	31.6(n=187)
Fulani	1.7(n=10)	0.2(n=1)	0.3(n=2)	0.5(n=3)	-	0.5(n=3)	4.2(n=25)
Kanuri	0.5(n=3)	0.2(n=1)	0.3(n=2)	0.3(n=2)	-	-	1.4(n=8)
Other	3.2(n=19)	2.5(n=15)	2.4(n=14)	0.8(n=5)	-	0.8(n=5)	9(n=53)
Total	25(n=148)	25.2(n=149)	19.1(n=113)	10.8(n=64)	4.2(n=25)	15.7(n=93)	100(n=592)
$X^2 = 73.60$; $df = 40$; $P < 0.001$; $N = 592$							

Table 41 shows significant difference exists between respondents' ethnic affiliation and their responses to the polio eradication campaign.

The researcher also investigated whether respondents' occupation would determine their responses to the campaign. The results are presented in the table below:

Table 42: Respondents' occupations and their Responses to Polio

Respondents' Occupation	No of Children who received additional doses of OPV during NIDS						
	None %	One %	Two%	Three%	Four%	All%	Total
Business woman	29.9(n=141)	4.7(n=22)	3.6(n=17)	0.4(n=2)	1.7(n=3.2)	3.2(n=15)	41.9(n=214)
Self employed	3.4(n=16)	1.1(n=5)	0.2(n=1)	0.2(n=1)	0.2(n=1)	0.8(n=4)	5.9(n=28)
Unemployed	1.7(n=8)	0.2(n=1)	0.4(n=2)	0.2(n=1)	0.8(n=4)	0.4(n=2)	3.8(n=18)
House wife	10.2(n=48)	0.4(n=2)	3.6(n=17)	2.8(n=13)	3.4(n=16)	0.8(n=4)	21.2(n=105)
Student	3.2(n=15)	0.6(n=3)	-	-	1.1(n=5)	0.2(n=1)	5.1(n=24)
Private sector employee	1.7(n=8)	-	0.2(n=1)	0.2(n=1)	-	-	21.1(n=10)
Other	-	0.4(n=2)	-	-	-	-	0.4(n=2)
Total	56.6(n=267)	9.3(n=44)	9.1(n=43)	4.0(n=19)	7.4(n=35)	6.1(n=29)	100(n=472)
$\chi^2 = 119.54$; $df = 48$; $P = 0.000$; $N = 472$							

Table 42 reveals that there is significant difference between respondents' occupation and responses to the polio immunisation campaign.

From the above analysis of the demographic attributes of respondents, data reveal that significant differences exist between respondents' age, level of education, income, ethnic background as well as occupation and their responses to the polio eradication campaign.

RESULTS FORM INTERVIEW SESSION WITH MOTHERS IN STUDY SITES

Interview sessions were held in all the eight LGAs selected for this study. In Lagos and Ekiti States, the researcher himself conducted the interviews. But in Kaduna and Kano

States, specially trained female research assistants who were literate in both English and Hausa Languages were used. This was done in order to overcome the researcher's language barrier and the social practice that forbids male visitors from entering many homes in that part of the country.

Participants were asked questions bothering on their awareness of polio and the immunisation campaign, their exposure patterns to sources of information on polio; their attitudes, beliefs and opinions about immunisation of their children against poliovirus and their responses towards the campaign.



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**Table 43: A matrix of Responses from Interview Sessions with Mothers in the
Selected States**

Polio communication issues	Ekiti State	Lagos State	Kaduna State	Kano State
Two Most Frequently used Mass Media	Radio Television	Television Radio	Television Radio	Radio Television
Two Most Frequently used Interpersonal Media	Family Friends	Family Friends	Family Friends	Family Community Leader
Most Frequently Mentioned Reason for Immunisation Acceptance	Advice of family, friends and hospital staff	Advice of family and friends	Advice of family and religious leaders	Advice of husbands, community and religious leaders
Most Frequently Mentioned Reason for Non-compliance	Extra doses of OPV unnecessary	Fever after immunisation	Suspicion about the safety of OPV/Fever after immunisation	Suspicion about the safety of and motive behind OPV
Most Positive Opinion/ Belief about Polio	Immunisation is the right of every child	Immunisation is the right of every child	Immunisation is the right of every child	Overdose of OPV is not dangerous
Most Negative opinion/ Belief about Polio	Extra doses of OPV are unnecessary	Extra doses of OPV are unnecessary	OPV can lead to sterility in children	OPV can lead to sterility in children

CHAPTER FIVE

FINDINGS AND DISCUSSION

The major purpose of this study was to examine the relationship between the application of UNICEF's ACADA communication model in polio campaign and the response of mothers to the eradication campaign in Lagos and Ekiti States, in South West Nigeria and Kaduna and Kano States in the North West. The survey research method was used to obtain information from mothers of child-bearing age in the four selected states. Using the multi-stage random sampling technique, 800 mothers were selected from the four states. Additionally, the focus group discussion was used to collect information from women from the eight selected LGAs. Interview sessions were also held with information officers and health educators in the eight LGAs to determine their approaches in the application of ACADA-related communication strategies in the polio eradication campaign.

Of the 800 structured questionnaires administered, 716 were returned out which 654 were filled correctly and found useful. Data were analysed using the univariate, bivariate techniques.

OBJECTIVES OF STUDY

The objectives of the study were:

1. To find out how the ACADA model for communication planning has been applied in the selected states
2. To determine whether information officers in the study sites will differ in their rating of the effectiveness of ACADA-related communication strategies?
3. To identify the major sources of health information for mothers in the study locations
4. To investigate the relationship between mothers' exposure to ACADA-based messages on polio and their compliance with polio immunisation
5. To determine whether mothers in study locations depend more on interpersonal channels than mass media channels for information polio immunisation
6. To find out whether socio-psychological factors such as knowledge, attitudes, practices, values and beliefs of mothers will have influence on their response to ACADA-based messages on polio eradication
7. To identify the major factors responsible for mothers' response to the polio eradication campaign
8. To examine the relationship between mothers' demographic attributes and their response to the polio eradication campaign

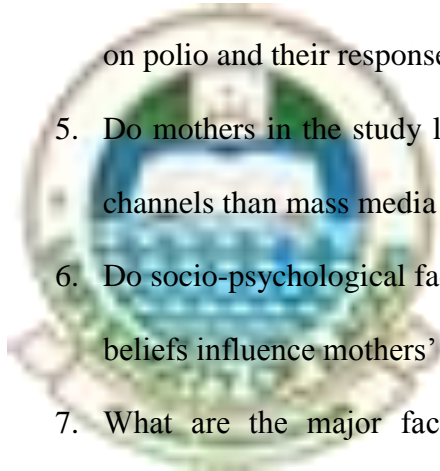


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RESEARCH QUESTIONS

This study was guided by the following research questions:

1. How has the ACADA model for communication planning been applied in the study locations?
2. Do information officers in the study sites differ in their rating of the effectiveness of ACADA-related communication strategies for polio information?
3. What are the major sources of health information for mothers in the study locations?
4. Is there a relationship between mothers' exposure to ACADA-related messages on polio and their response to the polio eradication campaign?
5. Do mothers in the study locations depend more on interpersonal communication channels than mass media channels for information on polio eradication?
6. Do socio-psychological factors such as knowledge, attitudes, practices, values and beliefs influence mothers' response to the polio campaign?
7. What are the major factors responsible for mothers' response to the polio campaign?
8. What is the relationship between the demographic attributes of mothers in the study locations and their response to the polio immunization campaign?



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HYPOTHESES

The study tested the following hypotheses:

- H1 There is no significant difference in the application of the ACADA model across the study locations
- H2 Information officers will not differ in their rating of the effectiveness of ACADA-related communication strategies for polio information
- H3 There is no significant relationship in major sources of health information among mothers in the selected states
- H4 There is no relationship between mothers' exposure to ACADA-based messages on polio and their response to the polio eradication campaign
- H5 Mothers in the study locations will not depend more on interpersonal communication channels than mass media channels for information on polio eradication
- H6 Socio-psychological factors such as knowledge, attitudes, practices, values and beliefs will not influence mothers' acceptance or rejection of polio immunization
- H7 There is no significant difference in the major factors responsible for mothers' response to the polio campaign in the study sites
- H8 There is no relationship between mothers' demographic attributes and their response to the polio eradication campaign

This chapter presents the summary of major findings as well as the interpretation and detailed discussion of the findings. Data for this study were collected primarily through the survey research method, using the questionnaire research instrument. Besides, the focus group discussion and interview were used to obtain additional information both from mothers as well as from information and health officials in the selected LGAs. The summary of findings is presented in chapter four.

1. Polio Immunisation teams in selected LGAs consistently applied UNICEF's ACADA communication planning framework in their campaign for polio eradication. The four steps of Assessment, Communication Analysis, Design and action were followed, with technical assistance provided by UNICEF. Their communication effort was carried out through the three main strategies of advocacy, social mobilisation and programme communication. Findings reveal that a permanent polio immunisation committee, made up of relevant stakeholders, was constituted in each of the LGAs. The committees, which consisted of health and information officials, traditional rulers, religious and political leaders, other respected community leaders, representatives of donor agencies (including UNICEF), women group leaders, youths and other influential stakeholders, existed at local, ward and community levels. Among other things, the committees, which held meetings regularly, were involved in micro planning, implementation, monitoring and review of immunisation activities in their localities.

This structure, which was similar in all the selected LGAs, was found to have increased community ownership of and participation in the polio immunisation programme as envisaged under the ACADA model for behaviour change.

The application of the ACADA model for behaviour change was found to be LGA or community-specific in order to deal with local peculiarities.

2. Information officers in the Polio Immunisation teams in the selected LGAs agreed that application of ACADA-related communication strategy for polio eradication has been largely effective. NPHCDA (2007: 2) has confirmed this in a report stating that “the improved quality of polio eradication implementation has resulted in an 80% decline in incidence of wild poliovirus transmission, 41% decline in infected LGAs and a decline in high risk states with large population immunity gap (>20% never immunised children) from five in the last quarter of 2006 to one state in the third quarter of 2007.” More recent data show dramatic decline in the number of polio cases in Nigeria. For example, The World Health Organization (2010: 7-18) reports that the proportion of zero-dose children in the 12 highest-risk states dropped below 5% for the first time ever in Nigeria by the end of 2009. In polio-endemic Kano State, the percentage of zero-dose children dropped from 29% in January 2009 to 19% in December of the same year. According to the WHO report (2010:18), Nigeria recorded 357 cases of polio in the first six months of 2009, 21 cases in the last six months and only two cases in the first quarter of 2010. The international agency which coordinates the polio eradication programme reports that unprecedented ownership of the polio

eradication programme by all levels of government as well as the support of traditional and religious leaders closed immunisation gaps and drove immunisation levels upwards, resulting in case number falling by more than 99% in 2009. This result is consistent with that of Rasmuson (1990) reported credible evidence of between 12-20% or more in absolute polio immunisation coverage and 33-100% increase in relative coverage when communication is included as a key component of immunisation. It is also consistent with the finding of Waisbord (2004) who reported that communication programmes in support of polio eradication has helped in building capacity (of stakeholders), development of micro-plans, organising of social mobilisation, carrying out of advocacy among local leaders and dealing with rumours and resistance.

3. The study reveals that radio (60.3%) and television (35.5%) were the major sources of health

Information used by mothers in selected states. Hospital officials came third with 10.8%. The implication of this finding is that the mass media, particularly radio and television should be used mostly to promote awareness about any social change programme that is targeted at a large number of people.

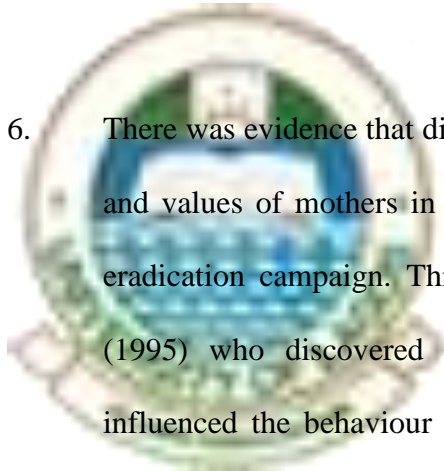
4. Data also show that most respondents were exposed to ACADA-related messages on Polio eradication, but the reasons cited for their responses to the polio eradication campaign were diverse. More than half of them (51.3%) identified the advice of family members (including husband and close relatives) as the major

factor responsible for their decision to immunise their children. Another 17.6% of respondents named information from the mass media (radio, TV, newspaper and magazine) the greatest influence on them. This was followed by the advice traditional/religious/community leaders (10.9%). Other factors include the advice of hospital staff (6.2%) communicated benefits of immunisation (6%), advice of friends (2.4%), among others. Chi-square tests reveal that significant difference exist between mothers' exposure of ACADA-related messages on polio and their responses to the polio eradication campaign.

This finding is consistent with those of Lazarsfeld *et al* (1948), Katz and Lazarsfeld (1955), Hovland *et al* (1949,1953), Klapper (1960), Severin and Tankard (1987), and Lowery and DeFleur (1988), which document evidence that the mass media are less effective in directly influencing individual personal decision. Lazarsfeld *et al* (1948), for example found that individuals were more influenced in their decisions by members of their primary and peer groups than the combined mass media. Klapper (1960) also found that the mass media were more agents of reinforcement than causal agents of behaviour change in individuals.

This study has confirmed existing finding that the mass media are less effective in attitude and behaviour change. The interpersonal networks of family, friends and neighbours, traditional and religious leaders are found to be more effective in inducing attitude and behaviour change.

5. The study reveals that the electronic media, made up of radio (52.9%) and television (23.1%), were used most by mothers as the major sources of polio information. Only 2% of respondents named newspapers (1.7%) and magazines (0.2%) as their major sources of polio information. This shows that women in the selected states are more exposed to the electronic media than their print counterparts. The implication of this is that Polio eradication partners will succeed better in spreading information on polio through the electronic media than the print media. Interpersonal channels such as hospital staff and friends/family members accounted for 10.8% and 5.1% of polio information sources respectively.



6. There was evidence that differences in the knowledge, beliefs, attitudes, practices, and values of mothers in selected states influenced their responses to the polio eradication campaign. This is consistent with the findings of Akinfeleye et al (1995) who discovered that certain values, beliefs, attitudes and practices influenced the behaviour and expectations of respondents regarding population and family life issues in Nigeria. One major implication of this finding is that those promoting attitude and behaviour change should seek to understand the current knowledge, beliefs, attitudes, practices, values and opinions of people about a development issue before embarking on attitude or behaviour change programme.

7. The study reveals that interpersonal influences of family members (43.9%), friends (11.9%) and traditional/religious/community leader (18.4%) were the

strongest factors in mothers' decisions to immunise their children against polio. The mass media represented by radio (7.3%), television (4.6%), newspaper (0.2%) and magazine (0.2%) accounted for only 12.3% of the influences on mothers' decisions.

However, differences exist among mothers in the selected states in terms of the degree of influence exerted on them by different persons and institutions. For example, family members (husbands and close relatives) exerted stronger influence on mothers' decisions in Kaduna State (55.9%) and Kano State (49.4%). The influence of family members decreased in Lagos State (31.8%) and Ekiti State (35.2%). Similarly, religious leaders, traditional rulers and village or community leaders exerted greater influence on mothers in Kano State (31.4%) than in Lagos State (4.8%), Ekiti State (19%) and Kaduna State (18%). This finding is consistent with that of Katz and Lazarsfeld (1955) which discovered that opinion leaders influenced other people in their community.

Also, the influence of friends on mothers was greater in Lagos State (25%) and Ekiti State (14.1%) than in Kaduna State (8.7%) and Kano State (1.3%). The influence of town or community associations was greater in Lagos State (7.5%) and Ekiti State (10.6%) than in Kaduna State (2.7%) and Kano state (0%). Radio was more influential in Kano State (16%) than other States: Lagos (5.4%), Kaduna (1.6%) and Ekiti (7.0%).

It is significant that the mass media, in contrast, altogether contributed only (12.3%) of influence on mothers regarding their decision to immunise their children. Radio (7.3%) was the most effective of them all. This was followed by

television (4.6%) as well as newspaper and magazine which contributed 0.2% each.

8. The study reveals that majority of women sampled (71.6%) were between age brackets 21 to 40. While 7.6% of them had no formal education, 45.6% others had quaranic, primary, secondary education or possessed National Diploma.

In terms of ethnic background, 32.8% were Hausa, 31.3% Yoruba, 8.3% Ibibio, 4.8% Gwari, 4.6% Ibo. Other ethnic groups made up the rest. The women also varied in occupation. Of the lot, 33.9% were public servants, 23.2% business women or traders, and 6.3% self-employed. It is significant that one-fifth (20.2%) were housewives.

Data reveal that significant differences exist between respondents' age, level of education, income, ethnic background as well as occupation and their responses to the polio eradication campaign. There was no evidence, however, that mothers differed in their religious affiliation and their responses to the campaign. Thus, the hypothesis that there is no significant difference in the demographic attributes of respondents and their responses to the polio eradication campaign is rejected and the alternative hypothesis upheld.

This finding is consistent with those of Lowery and Defleur (1988) and Hovland *et al* (1949) which found that the social/demographic categories to which people belonged and individual differences were more predictive of certain effects than mass media exposure. According to Lowery and DeFleur (1988), the demographic

categories to which people belong, their individual characteristics and their social relationships have far greater influence than the combined mass media.



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CHAPTER SIX

Conclusion & Recommendations/Contributions to Knowledge

The major purpose of this study was to examine the relationship between the application of the ACADA model for behaviour change and the response of mothers to the polio eradication campaign. The ACADA model has three main communication strategies: advocacy, social mobilisation and programme communication. The study reveals that the ACADA communication planning framework was used by the polio eradication partners in all the states selected for the study. The polio eradication partners used both the mass

media and interpersonal channels to disseminate information on polio and immunisation against it.

Though mothers were found to have used the mass media most for information on polio eradication campaign, the major influences on their decisions on polio immunisation for their children were family members, friends, and traditional / religious leaders as well health officials, and not the mass media. This study found strong evidence for the influential role of opinion leaders in behaviour change, particularly in northern Nigeria.

The study also reveals strong relationship between mothers' demographic attributes such as age, education, income, occupation as well as ethnic background and their responses to the polio eradication campaign. Similar relationship was discovered between mothers' socio-psychological attributes such as knowledge, attitudes, beliefs, values, opinions and practices and their responses to the polio campaign.

The conclusion that can be drawn from these findings is that though mothers obtained most of the information on polio immunisation from the mass media, their decisions on the immunisation of their children were largely influenced by the interpersonal networks of family members, friends, traditional and religious leaders, health workers to which they belonged and their own socio-psychological and demographic attributes.

Recommendations

1. In view of the major finding of this study that the mass media were not effective in inducing attitude and behaviour change in favour of the immunisation of all

children against polio, polio eradication partners and other development agencies that use the ACADA model for behaviour change must seek to understand socio-cultural environment of target population before embarking on any social change programme that is aimed mobilising people to adopt a behaviour.

2. The mass media particularly radio and television should be used mainly to create awareness of development issues. These can be supplemented with traditional media peculiar to each locality. For instance in Kano State, the traditional media were used to complement the contemporary media, particularly radio. The WHO (2010:17) reports that the Emir's trumpeter usually accompanied polio immunisation team, wailing a tune inviting children to come to be immunised. Beside the trumpeter, a social mobiliser calls parents through the megaphone to bring their children for immunisation. In other communities in the south west, town criers were used to disseminate information about polio immunisation. Development partners should, therefore, integrate the traditional and modern media in every intervention programme.

3. The most significant change in the polio eradication campaign in Nigeria is the shift in the attitudes of mothers in northern Nigeria because of the deep personal involvement of highly respected opinion leaders including governors, traditional rulers, religious leaders, district/village heads, and teachers. The traditional and religious leaders were used to administer drops of oral polio vaccine to children. In many cases, immunisation was held in emirs' palaces to boost the confidence of the people in the exercise. These "influencers" were involved in advocacy,

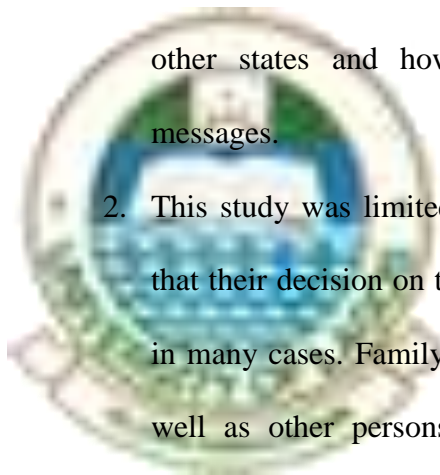
social mobilisation, role modelling, micro planning, implementation, monitoring, evaluation and review of immunisation activities.

4. Following this successful experiment in the involvement of opinion leaders in polio eradication, government, advocacy groups and development agencies should incorporate them in future social change programmes. Programme managers should work closely in partnership with them to overcome some of the obstacles to development in our society.
5. Similarly, those promoting social change must carry out formative research to understand the current knowledge, attitudes, values, opinions, beliefs, and practices of the target population on the subject of change before embarking on detailed planning for the change.
6. Government and development agencies must adopt the concept of participatory development which emphasises the involvement of the beneficiaries in the conception, planning, implementation, monitoring, evaluation and review of development programmes. This will engender community programme ownership and community involvement in the development process. This requires a localisation of the development process.
7. Governments and UNICEF should popularise the ACADA framework for communication planning by including it in the curriculum of relevant disciplines in tertiary institutions in Nigeria. There is also need to train programme officers involved in social change projects in the country in order to build their capacity for effective service delivery. This is necessary because most agencies under the

United Nations (UN) system have adopted the UNICEF- developed ACADA model for communication strategies in their intervention programmes.

Suggestions for Further Studies

1. This study was carried out in only four of the 36 states of the federation and in only eight of its 774 Local Government Areas, excluding the 37 Local Council Development Authorities (LCDAs) in Lagos State. This is therefore a major limitation of the study. Further studies are required in other parts of the federation to understand how the ACADA model has been implemented in other states and how mothers have responded to the ACADA-related messages.
2. This study was limited to mothers of child-bearing age. But findings reveal that their decision on the immunisation of children was not entirely their own in many cases. Family members, friends, traditional and religious leaders, as well as other persons exerted influences on mothers. Therefore, further studies are needed to unravel the nature of interpersonal communication networks and interpersonal influences in the different parts of the country. This will enable policy makers, advocacy groups and other development agencies to identify the major influencers in each social group within the target population for any intervention programme.
3. Detailed studies on media exposure patterns and media use among mothers are also needed. This study reveals that media exposure differs in the study locations. Therefore, a comprehensive study is needed to understand the



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media exposure patterns among mothers in all parts of the country. This is important for planners because such information is relevant in the media selection stage under the ACADA planning model. It appears there is no comprehensive national data yet on the media exposure patterns and media use among Nigerians.

Contributions to Knowledge

- This study has highlighted the relevance of ACADA communication model for planning, implementation, execution, monitoring and evaluation of development programmes. It pin-points how the model has been applied in polio eradication campaign in Nigeria. Specifically, the study shows a strong link between the application of ACADA-related communication strategy and the positive response of mothers to the polio eradication campaign in the study locations. The period of intensified use of the ACADA communication strategy for behaviour change among mothers and other stakeholders coincided with the period of significant drop in polio cases in Nigeria. For example, Nigeria had the worst cases of polio infection between 2003 and 2006 with the four years accounting for 63.7% of the 4,852 cases since the year 2000. In 2006 alone there were 1,122 cases, the worst case in 11 years. An aggressive use of integrated communication approach under the ACADA communication planning framework led to 74.6% drop in 2007 and 99% drop between 2009 and 2010.



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- The study has also established the preferred channels for social marketing messages by mothers in the study locations.
- Besides, It has revealed that though most mothers were exposed to ACADA-related messages on polio through the mass media, there was no relationship between mothers' exposure to mass mediated messages on polio and their responses to the polio eradication campaign. Mothers' decisions on polio immunisation were largely influenced by interpersonal interaction of family members, friends, village or community leader, religious leaders and traditional leader.
- The shows also underscored the importance of socio-cultural factors such as knowledge, beliefs, values, attitudes and practices in the acceptance development messages.



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APPENDIX I

QUESTIONNAIRE

My name is Mr. Olubunmi Ajibade, a doctoral candidate in the Department of Mass Communication, University of Lagos. I am conducting a study on the response of mothers to the polio eradication campaign in Nigeria, as part of the requirements for the award of Doctor of Philosophy (Ph.D.) degree.

You have been chosen as one of the respondents for this study. Kindly answer the following questions as frankly and as completely as possible. This exercise is purely for academic purpose, and your response will be treated in strict confidence. Thank you for your cooperation.

Instruction

Please tick () the most appropriate option or the option that corresponds to your opinion in each question.

1. Please indicate your age bracket

1. Less than 15 years old ()
2. 15-20 years old ()
3. 21-25 years old ()
4. 26-30 years old ()
5. 31-36 years old ()
6. 36-40 years old ()

7. 41-45 years old ()
8. 46-50 years old ()
9. 51 years old and above ()

2. What is your highest level of education?

1. No education ()
2. Quranic education ()
3. Primary School Leaving Certificate ()
4. Secondary School Certificate ()
5. National Diploma ()
6. N.C.E ()
7. Highest National Diploma ()
8. B.A/B.Sc ()
9. M.A/M.Sc. ()
10. Ph.D ()
11. Other (Please specify)



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3. What is your total annual income?

1. Less than N100,000 P.A ()
2. N100,001-N200,000 P.A ()
3. N200,001-N200,000 P.A ()
4. N300,001-N500,000 P.A ()

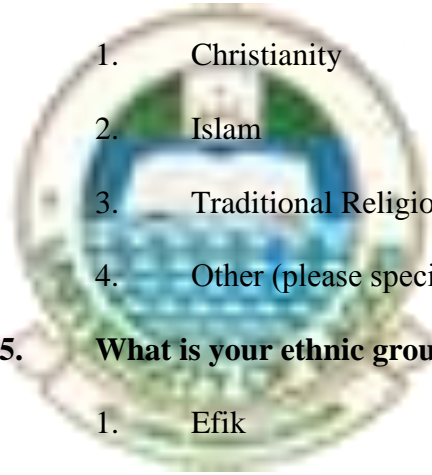
5. N400,001-N600,000 P.A ()
6. N500,001-N600,000 P.A ()
7. N600,001-N700,000 P.A ()
8. N700,001-N800,000 P.A ()
9. N800,001-N900,000 P.A ()
10. N900,001-N1,000,000 P.A ()
11. N1,000,000 and above

4. What is religious affliction?

1. Christianity ()
2. Islam ()
3. Traditional Religion ()
4. Other (please specify)

5. What is your ethnic group?

1. Efik ()
2. Hausa ()
3. Gbagyi (Gwari) ()
4. Ibo ()
5. Ibibio ()
6. Yoruba ()
7. Fulani ()
8. Kanuri ()
9. Other (please specify).....



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6. What is your occupation?

1. Civil/Public Servant ()
2. Business Woman ()
3. Trader ()
4. Self-employed ()
5. Unemployed ()
6. Housewife ()
7. Student ()
8. Private Sector ()
9. Other (please specify) ()

7. What is your marital status?

1. Married ()
2. Divorced ()
3. Widow ()
4. Single Mother ()
5. Other (please specify).....

8. How many children do you have?

0. None yet ()
1. One Child ()
2. Two Children ()
3. Three Children ()



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4. Four Children ()
5. Five Children ()
6. More Children ()
7. Other (please specify) ()

9. Please indicate the age(s) of your child or children

1. First Child ()
2. Second Child ()
3. Third Child ()
4. Fourth Child ()
5. Fifth Child ()
6. Sixth Child ()
7. Seventh Child ()
8. Other (please specify)..... ()



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10. Do you or your household own a radio set?

0. No ()
1. Yes ()

11. Do you or your household own a television set?

0. No ()
1. Yes ()

12. Do you buy newspaper(s)?

0. No ()

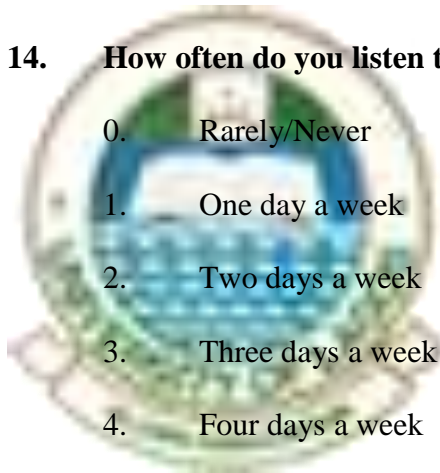
1. Yes ()

13. Do you buy magazine?

0. No ()

1. Yes ()

14. How often do you listen to radio?



0. Rarely/Never ()

1. One day a week ()

2. Two days a week ()

3. Three days a week ()

4. Four days a week ()

5. Five days a week ()

6. Six days a week ()

7. Seven days a week ()

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15. How often do you watch television?

0. Rarely/Never ()

1. Seven days a week ()

2. Six days a week ()

3. Five days a week ()
4. Four days a week ()
5. Three days a week ()
6. Two days a week ()
7. One day a week ()

16. How often do you read newspaper(s)

0. Rarely/Never ()
1. Seven days a week ()
2. Six days a week ()
3. Five days a week ()
4. Four days a week ()
5. Three days a week ()
6. Two days a week ()
7. One day a week ()



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17. How often do you read magazines(s)

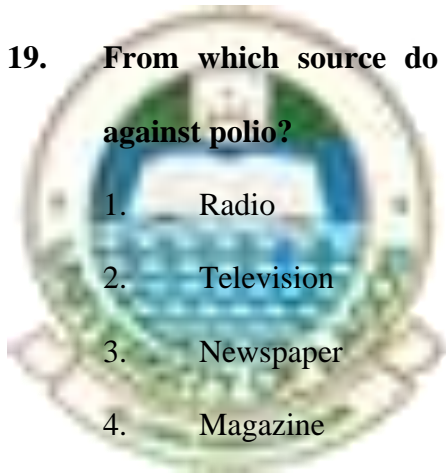
0. Rarely/Never ()
1. Seven days a week ()
2. Six days a week ()
3. Five days a week ()
4. Four days a week ()
5. Three days a week ()

6. Two days a week ()
7. One day a week ()

18. Have you heard about immunisation against polio?

0. No ()
1. Yes ()

19. From which source do you get most informational about immunisation against polio?



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1. Radio ()
2. Television ()
3. Newspaper ()
4. Magazine ()
5. Billboard ()
6. Hospital ()
7. Handbill/Poster ()
8. Friends/family members ()
9. Other (please specify).....

20. In which local government do you reside?

.....

21. How long have you been living in your present community?

1. Less than 5 years ()
2. 6-10 years ()
3. 11-15 years ()
4. 16-20 years ()
5. Magazine ()

22. Of the following mass media, which one do you use most frequently as your source of health information?



1. Radio ()
2. Television ()
3. Newspaper ()
4. Magazine ()

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23. Of the following persons, institutions or places, which one do you use most as your source of health information?

1. Family member (e.g. husband, parents, in-laws, etc. ()
2. Friends ()
3. Village/Community leader ()
4. Traditional ruler ()
5. Religious leader ()
6. Neighbours ()
7. Teachers ()

8. Local/community ()
 9. Town/village association or union ()
 10. Market or workplace ()
 11. Political leaders ()
- 24. Which of the following persons, things, institutions or places influence your decision most on your child's immunisation?**
1. Family member (e.g. husband, parents, in-laws, etc. ()
 2. Friends ()
 3. Village/Community leader ()
 4. Traditional ruler ()
 5. Religious leader ()
 6. Neighbours ()
 7. Teachers ()
 8. Local/community ()
 9. Town/village association or union ()
 10. Market or workplace ()
 11. Political leaders ()
 12. Radio announcements ()
 13. Television announcements ()
 14. Newspaper ()
 15. Magazine messages ()
 16. Handbills or posters ()
 17. Billboards messages ()



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25. Indicate which of the following Oral Polio Vaccines (OPV) your child aged 1 day-5 years received at a clinic. (Please tick only the dose(s) each child received)

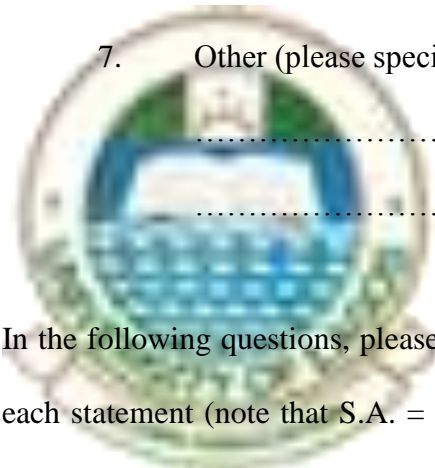
	OPVO at Birth	OPV I at 6 weeks	OPV II at 10 weeks	OPV III at 14 weeks
1 st Child				
2 nd Child				
3 rd Child				
4 th Child				
5 th Child				
6 th Child				
7 th Child				
8 th Child				
9 th Child				
10 th Child				

26. How many of your children under five years old received additional doses of OPV during national Immunisation Day (NIDS)

- 0. None ()
- 1. One ()
- 2. Two ()
- 3. Three ()
- 4. Four ()
- 5. All my children ()

27. If at least one of your children under five years missed immunisation during the NIDs, what was your strongest reason for not taking him/her for the additional doses of OPV?

1. They had already completed their four doses at the clinic ()
2. They were sick ()
3. I feared it could lead to overdose ()
4. I felt it could harm the children ()
5. I thought the health workers had ulterior motives ()
6. I did not consider it important ()
7. Other (please specify).....

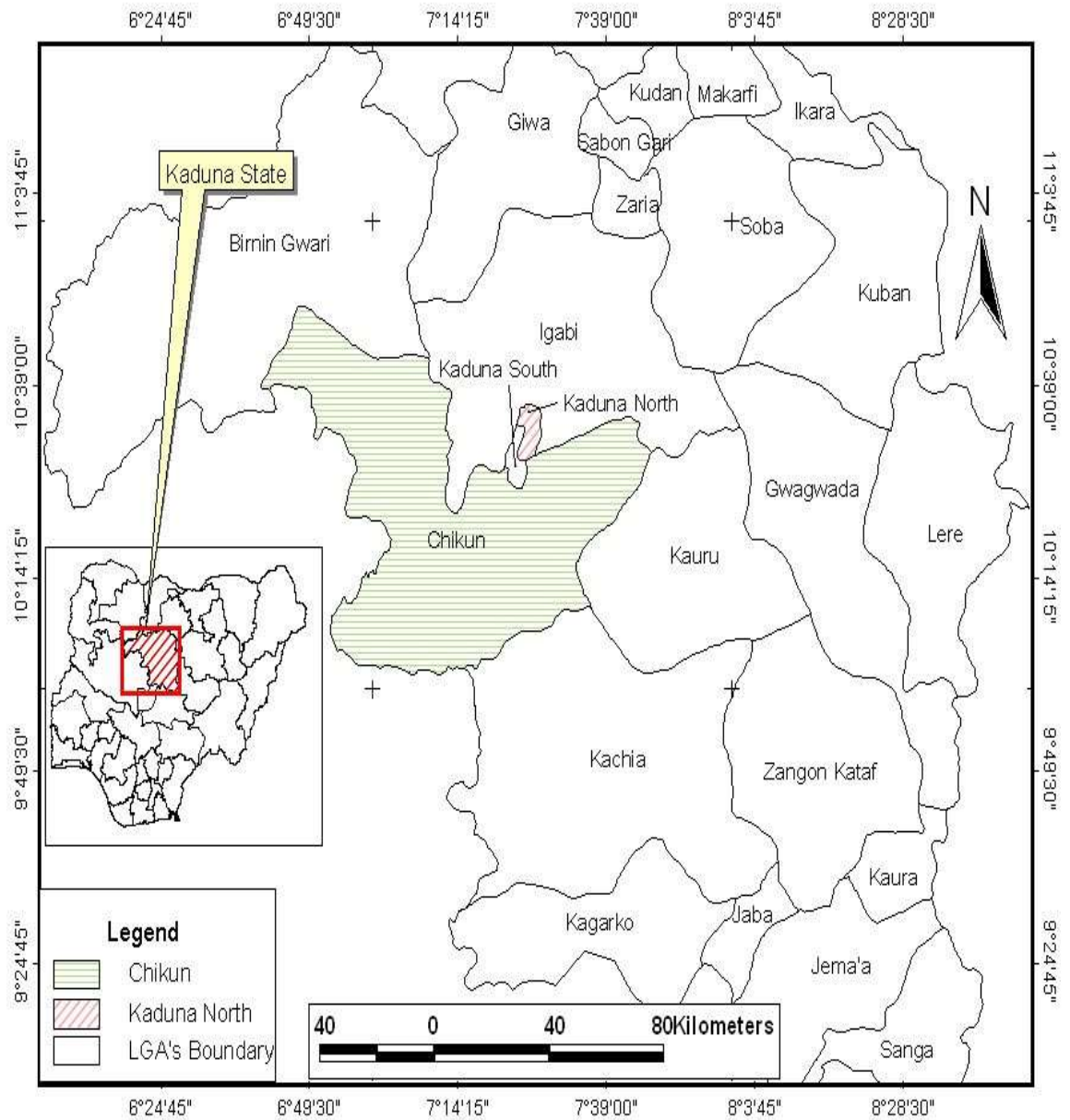


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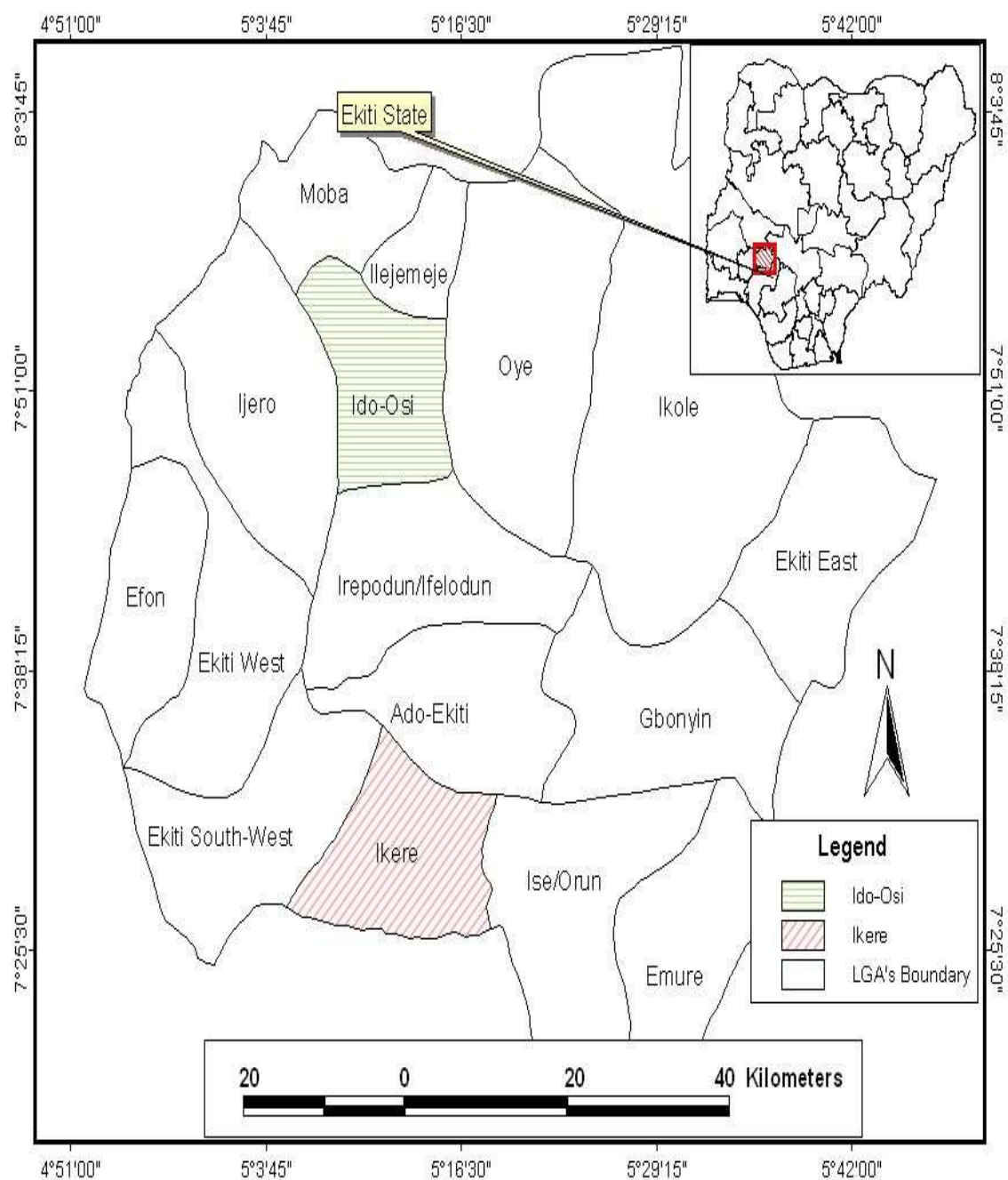
In the following questions, please indicate your level of agreement or disagreement with each statement (note that S.A. = Strongly Agree, A = Agree, N = Neutral, D= Disagree and SD = Strongly Disagree (tick only one response in each statement.

S/no		Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly Disagree (SD)
28	Immunisation against polio is the right t every child					
29	OPV doses prevent paralysis in children					
30	Hotness of the body, swelling of body at injection spots and restlessness that accompany					
31	It is not important to keep all immunisation appointments					
32	OPV contains HIV virus					
33	Overdose of OPV is dangerous					
34	My religion is against immunisation					
35	A sick child should not receive OPV					
36	OPV administered to child causes sterility later in life					
37	OPV is used by foreign countries to control Nigeria's population					
38	Extra doses of OPV during NIDs immunity against Polio					
39	Polio is dangerous disease that kills or cripples children for life					
40	Once my children have completed the normal four doses of OPV at the clinic extra doses at NIDs are not necessary					
41	A child cannot have overdose of OPV because the vaccine is safe					
42	All children in Nigeria under 5 years must receive the additional doses of OPV during NIDs even if they have received all clinic immunisation.					
43	Local preventive and treatment measures of paralysis are more effective than vaccination.					
44	It is possible to eradicate polio in Nigeria					
45	I believe messages on polio vaccination from human sources (family), friends, neighbours etc) than the mass media (i.e. radio, television, newspaper and magazine)					

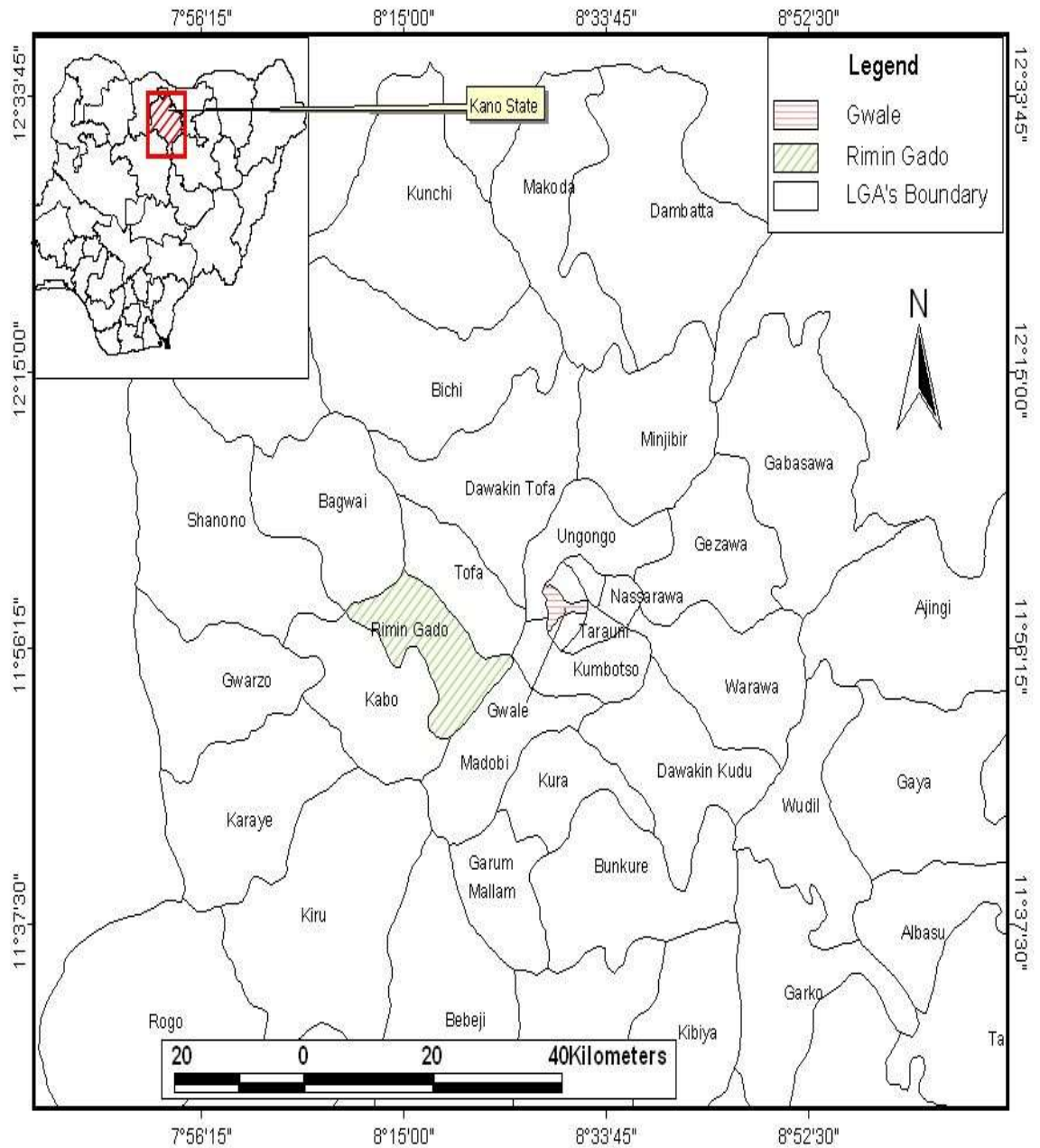
APPENDIX II: MAP OF KADUNA STATE (ONE OF THE STUDY SITES)



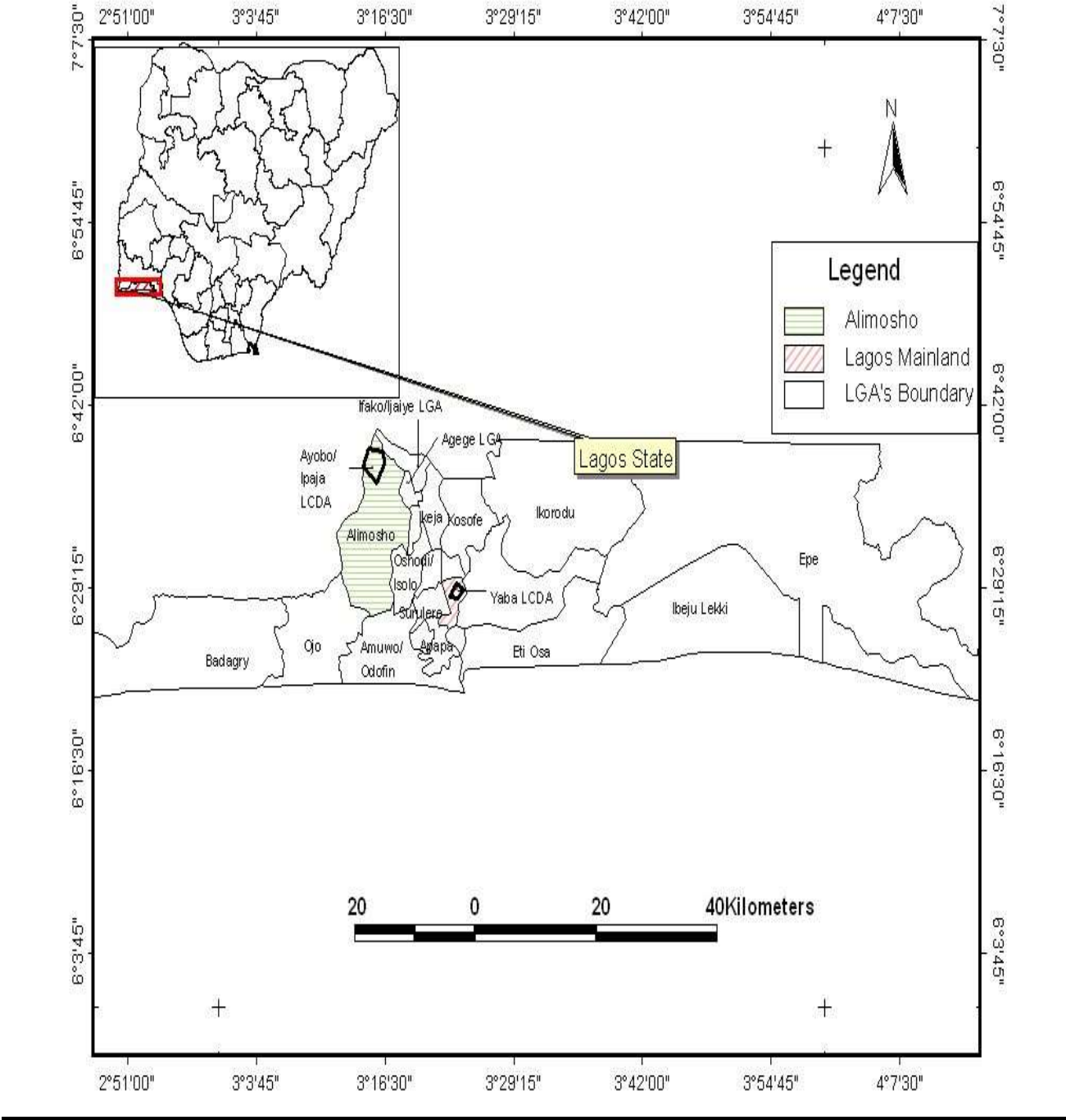
APPENDIX III: MAP OF EKITI STATE (ONE OF THE STUDY SITES)



APPENDIX IV: MAP OF KANO STATE (ONE OF THE STUDY SITES)



APPENDIX V: MAP OF LAGOS STATE (ONE OF THE STUDY SITES)



APPENDIX VI

Interview Schedule for Mothers

1. What are your sources of information on polio eradication campaign?
2. Which of the sources do you use most for information on polio eradication?
4. Which of the sources do you believe is the most credible?
5. Is polio vaccination beneficial to you and our children?
6. Does polio vaccination run contrary to any of your beliefs, values or traditional practices?
7. If your answer is yes, what are these beliefs, values or practices?
8. What is general assessment of polio vaccination?
9. Which individuals around you will normally convince you to take your children for polio vaccination?
10. Have you taken any of your children for polio vaccination?
11. If your answer to question 9 is yes, how many of your children under five years have received polio vaccination and how many are yet to?
12. If your answer to question 9 is no, why have you not taken your children for polio vaccination?
13. Do you believe that information on polio vaccination disseminated through radio, television, posters, newspaper, magazine, etc, is true?

14. Have you had any reason to change your attitude or behaviour about polio vaccination?

15. If yes, what is/are the reason(s)?



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APPENDIX VII

Interview Schedule (LGA Health Officials)

1. What are the specific barriers to effective polio eradication campaign in your community?
2. How do these barriers hinder polio vaccination?
3. How do you disseminate polio vaccination messages to the people?
4. Which are the most frequently used channels of communication for disseminating the messages?
5. Why were these communication channels used?
6. How do you plan your communication strategies for polio vaccination?
7. How are the beneficiaries of polio eradication, i.e. parents/guardian and their relations, involved by your LGA in polio vaccination?
8. Which attitude of parents, guardians, community/traditional leaders hinders polio eradication campaign most?
9. Which attitude of parents, guardians, community/traditional leaders promotes polio eradication campaign most?
10. How do the people in your community perceive polio eradication campaign generally?

APPENDIX VIII

INTERVIEW SESSION WITH MOTHERS AT KABUGA PRIMARY HEALTH CENTRE, GWALE, L.G. KANO STATE- 11-01-2009

Q: I will like to know whether the participants ever heard of the disease of polio

Responses

1st: I worked once as an immunisation officer. I faced some problems with some mothers that when we go to them, we found much to have the stereotype that OPV causes infertility. We had tried to enlighten them where some agreed and some did not and they would only let their children for the OPVs after seeking permission from their husbands. However, there has been an improvement recently as people are now seeing its positive effects.

2nd: yes, I heard of polio to be a communicable disease that affects children. It causes paralysis of their legs and arms. It is also a communicable disease among children.

3rd: I also heard of the polio as a disease that paralyses the legs and arms of children. There was a time I saw a woman taking her paralysed child to the hospital. She was told that her child was suffering from polio. She told the doctors that it was the fault of her husband who did not let his children for OPVs, until this child got affected. As a result of this, he is now letting all his children for OPVs.

4th: yes, I heard of polio. There was a man whose daughter was paralysed. He was complaining that his daughter was paralysed due to over-dose OPVs.

Q2. Where do you get to know about polio?

1st: Health officials educate and campaigns for polio immunisation through radio television during N.I.Ds

2nd Town criers also announce for the N.I.Ds exercise. These are the major means of letting the public's to know about polio.

3rd I know about polio as I have seeing some women visiting house by house to enlighten families about polio.

4th people are enlightened about polio through radio and television and when one goes to the hospital, he will be enlightened there. Likewise in magazines especially during N.I.Ds exercise

5th The polio immunisation officials enlighten families about polio, and also announce for the exercise taking place in various village heads residence.

Q3: Who influences you about the polio?

1st: people are really influenced most with polio immunisation officials. This is because, when they enter someone's house, they discuss about its safer sides and make the OPV in their own children so as to how safe the OPV is. But people do not normally believe in radio programs about polio.

2nd: she confirms the 1st respondent's statement.

3rd: some people are influenced only if they take their affected children to hospital, and they were told there about the polio. This is the only way that they should agree.

Q4: I want to know whether all your children are immunised against polio.

1st: yes, all my children are immunised against polio

2nd: I am old indeed, all my children under the age of 15 years were immunised, but as for those above the age of 15 years, were not immunised. Even before polio, my children had been immunised against some diseases like meningitis.

3rd: All my children had been immunised

4th: My children grown up healthier because they receive different immunisation apart from polios like VCDs, measles

Q5: Does the OPVs contradicts your religion, culture or beliefs?

1st: I believed that, it is improvement in life that brought about the ways to cure polio. I therefore accept it as good to humanity.

2nd: I believed in OPVs. Decades back, we were all aware of the disease of laws which mess one's face. There was an immunisation against it as result of which, this disease is not longer in existence. This is why we must accept OPVs.

3rd: OPV does not affect religion at all. In fact, the issue of health and safety is concerned by every religion. Here in Gwale LK.G, we don't regard polio immunisation as against our religion.

Q6: who influence you to be letting your children for OPVs?

1st: My husband and I know that school proprietors do not let their pupil for OPVs. Also religious leaders, the case of which one time caused a conflict in Dorayi Town.

2nd : My parents, because they use to take me for immunisation since my childhood that is why I am also taking my own children. I also influence my neighbours for that.

3rd: Husbands and teachers in Kano State are now calling for letting children for the OPVs. This is in line of a testimony made by His Excellency the Governor of Kano State, Mallam Ibrahim Shekarau, who is also a Muslim.

Q7: I don't know whether someone want to shed more light on our discussion?

1st: My name is Hadiza Sadiq. I had once worked for OPVs officials during one NIDs. To my own suggestions, it will be good for OPVs officials to be playing politics in dealing with mothers during OPV exercise that will make them agree. The OPV is indeed good to our children especially as it embraces the Governor's testimony. It is to our advantage that our children will be healthier if they are immunised against polio.



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APPENDIX IX

Interview with Lawan Japha (GwaleLGA Kano state)

Q: please introduce yourself

A: My name is Lawan Japha I'm in charge of this facility, Kabuga Primary Health Centre and I'm also the ward focal person of Kabuga Ward. My qualification is I'm a CHO (Community Health Officer)

Q: Are you familiar with polio eradication campaign

A: I've been in it for long

Q: How Many years

A: more than 10 years

Q: I'm sure you have some field experiences. Now what do you think are the specific problems militating against polio eradication in the local government?

A: To my understanding whenever we call for community dialogue, that's where we get the real information and that's where we get to the community. Always people are complaining that when they go to the health facility there are no drugs and other health services are not free while is this polio free of charge. They always question this and that has been the biggest factor.

Q: Because it is free they suspecting anything evil about it?

A: Yes that's what they mean. If you have an accident and you go to the health facility you can't get drugs. So people are complaining about this because whenever we go with something like net (Insecticide Treated Net,ITN) people come out spontaneously receiving the vaccines like salt.

Q: Apart from the vaccines, you give them additional gifts and incentives

A: yes, that's what we do to give encouragement to come out.

Q: How do these.... Some people also look at religious and political sides to the people's reluctance. How do you see the religious and political reasons?

A: It is really, but not as before. Previously there has been this issue of religious issue. They say polio vaccines come from Western people, so anything from West, you know religion will not accept it. That is the perception of some (Islamic) scholars. But some say no, because panadol is from white people and you collect it from them. So why not polio vaccine? So it is a previous issue now. This issue of religion.

Q: How do these barriers hinder the polio vaccination exercise as you go to the field. People not coming out as you expect or is there a large turnout, hundred per cent turn-out of mothers for vaccination?

A: What we do about these barriers to get rid of them is that we invite Islamic scholars to talk to the people in dialogue. We provide social mobilisation to enlighten people about the importance. We even take along with us people who have been paralysed by polio to serve as an example. We tell them to look at what will happen if you don't allow us to give these children polio vaccines.

Q: What is the level of success in recent times about the eradication?

A: The success is extremely good compared to the previous rounds. Because now we get high coverage unlike before when we go and have many rejections, but now there are very few wards and within those wards, very few settlements and within

those settlements, very few households. So we are really improving with regard to this.

Q: What do you attribute to the success of this campaign in recent times, why do you think it's been successful?

A: That plus I have told you earlier. It really helps. Immunisation Plus is intensive social mobilisation. It has been of great help.

Q: How do you disseminate information about polio campaign? How do you inform the people or carry the people along through information?

A: Now at L.G.A. level, we have an information officer. We give him the message and he goes to radio and air it. He gives the information about the coming of vaccinators. This covers all the people. Then we have a little lower dissemination at ward level. We do community dialogue; we go and gather people and inform them. We have the town carrier, we give him megaphone and he goes everywhere disseminating the information. Then we invite Ulamas and other women and also disseminate knowledge at our health facilities.

Q: Considering the fact that Gwale L.G. is wide what problems do you have with town criers; are they able to cover the all places?

A: Before, they couldn't but now, especially with regard to the recent measles campaign, we give each team one town crier. Each team has one town crier. We recruited 150 town-criers. One team has one town crier, so we were able to cover all settlements in the LGA.

Q: At what time of the day does the town crier go round to give the information to the people?

A: Two days before the exercise, he starts going round to inform the people about the campaign from so and so time, to so and so time and at so and so place. This is always two days before the implementation. And as the campaign begins, he goes round to confirm to the people that the programme has begun. He tells them to take their children to a designated centre where immunisation is taking place. He does the same thing the next day until the immunisation exercise comes to an end.

Q: How do you plan your communication strategy for the polio campaign? Who are the people you involve? May be after each campaign or each round, do you come together to evaluate what you have done; areas of success, areas of failures and then you now map out strategies to ensure success in the next round. How do you plan your communication campaign?

A: We do a plan before implementation and then we continue to review it every day, to see our success and what are our facilities and then we make a plan against tomorrow. That's what we do.

Q: What are the attitudes of parents, guardians, community leaders to polio eradication campaign, religious leaders and others? What is their attitude positive generally to the polio eradication campaign?

A: Like I told you before, many people have their own perception-- some religious, some political, some social and some poverty, some attitudes and some financial. Some people say "my child is okay". He doesn't need any vaccination. For some anything that comes from Western people has a hidden agenda. For some it is political. May be if the governor is from ANPP like the case of Kano and the programme is government-owned and is a PDP man. So because I'm a PDP man,

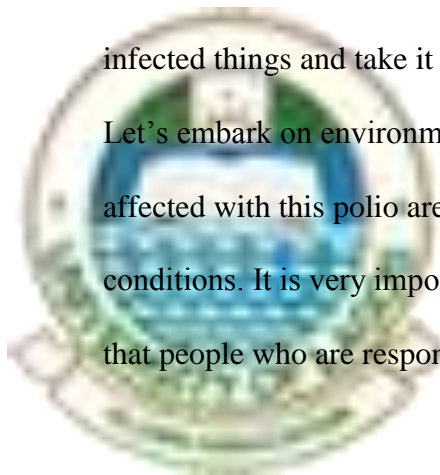
I will not accept it, go with your immunisation because I do not belong to that party. But with this social mobilisation, we have been telling people that health has no relationship with politics or religion. Everybody needs health, be it Muslim, Christian or whoever.

Q: Is there any other thing you want to add?

A What I wanted to add which is not part of your questions is that as we do this campaign for polio, we are supposed to have a campaign for environmental sanitation because this polio, how does to get transmitted?

It is a communicable disease. This means it is a disease you can take from infected things and take it into your mouth.

Let's embark on environmental sanitation because most of the people that are affected with this polio are those people living under very poor environmental conditions. It is very important that we embark on this. That's my advice. I hope that people who are responsible to put this plans will hear me and take action.



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APPENDIX X

Interview with Sambo Sabo Abba (Information Officer for Kaduna North LGA)

Q: May we know you, your name, full names and title in this LGA

A: My Names are Sambo Sabo Abba. I'm the Assistant Information Officer of Kaduna-North Local Govt.

Q: I'm sure that you have some experience in polio campaign in the local government. Can you share with us some of your experiences in the field?

A: Actually, before any programme relating to polio which is immunisation against the five killer diseases for the infants. There is a committee, a permanent committee which includes health educators, district heads, religious leaders, different groups, and youths. So we sit down with them, we hold meetings and plan our strategies. Then the district heads will go back to the ward level and inform the ward heads and the village heads so that they will inform the people at the grassroots. Equally the religious leaders most especially the two major religions like CAN and JN (Jama'atul Nasrul Islam). So they have representation at that particular committee where they will send these messages to mosques and churches, most especially during major services like Fridays and Sundays. And we have leaders of thought. A certain group of elders from the 12 wards of the local government but I say from six districts where each district has a

district head which are people that are highly respected within the community or within the local government so they campaign what we discuss at the meetings. You know initially that polio vaccination was not accepted. They said it carries virus like family planning, HIV/AIDS. So these two major things are things that were against polio. Then we invited the religious leaders into that committee, let them know what is happening, where some paper were presented to them. We have Islamic researchers who are highly respected; we have Christian researchers who are respected. The results of their findings of polio were presented to them. So they equally agree with us. Whenever we are flagging off that particular programme or exercise you find them there. Apart from them, other people were also invited to be there; they campaign through the village and wards heads where women were sent out to bring their children. Even the chairman of the local government, the vice chairman, the councillors all bring their children under five years, and they are immunised there. For instance, like this Sheikh highly respected the son of late Abubakar Gumi, Dr. Ahmed, I could recall if not pictures are missing we have some pictures where he was immunising his children. He said even Saudi Arabian authority agrees with it. One interesting thing again to note, Hajj this year, somebody who is 60 years must accept polio.

Q: 60?

A: yes, they were immunised, they give them drugs, even if you refuse to take it here when you get to Jeddah Airport, King Abdul Azeez Airport, before you pass the immigration you must do that. That's an order from Saudi Authority.

Q: Why do you think they gave this order?

- A: Because they accepted it, they thought somebody may be carrying the virus.
- Q: Okay from Nigeria. So let them give him before they join their people
- A: You know because millions of people are performing hajj every year. So interaction movement in-between each other, you sit at the restaurant, it is an airborne disease, this is what we all understand about it.
- Q: Now, how do you use the media as well to break the campaign for the people?
- A: Oh yes, the council removes substantial amount of money. We produce jingles; apart from jingles we use town criers. We use Imams at major and small mosques, and pastors in churches because we invite them. When we invite the leaders, they normally hold their meetings. This is the message of the government. This is when this thing is going to start. So they campaign at the worship centres.
- Q: Now which of these media do you use most-radio, T.V?
- A: You know, we in Kaduna-North here we have highly populated people, mostly Hausas. And even a Fulani man today if he is carrying his cattle to the bush you will find him with a small radio. So radio is the most important thing to deliver that message because like NEPA now, no stability of light for PHCN who will only use television. But a small battery of 15 Naira in a small transistor radio will serve the purpose.
- Q: Now what are the major problems you encounter in this polio campaign?
- A: Actually, there is a lot of resistance. The map I give you when you look at the key, when you look at key of that map, you will see rejection area. You see danger alert of rejection areas on the map of the local government. It is there indicated when you follow it thoroughly. So rejection is not much. So when we

find rejection area we mark it. When the next round of the exercise comes up, we launch it there. We go to that rejection area to launch that particular programme. We look at that particular district and the district head will be called to be warned. He will not sleep even in the mid-night. I could recall this (Anguwan Shanu and Anguwan Kanwa) they used to reject but there was a time the district head himself was going round with us house-to-house with the village and ward heads house-to-house, everybody must be immunised. If it will be possible, a child before admitted into primary school, let him produce a certificate anything that he has taken that complete dose. I think that will help.

Q: Now what do you think are the bases of this rejection in those areas?

A: In those areas, I will call it illiteracy. You know when you hear somebody say these vaccines they will not allow your child to reach certain age or these vaccines carry family planning, your children can only deliver four or three children; that's all. It carries HIV virus, so without knowing whom you are to ask. That's why before polio starts at this particular major rejection area, we send our medical staff house-to-house. The men will be outside, the women, because we employ those from that particular area to administer the vaccines. Because when you bring an outsider, they will never accept. But a particular person from that particular area, give him the job, he will not come and cheat them because they know who he is; they know who his parents are. If it is bad he will not join in that particular campaign. That's normally one of the strategies we use.

A: What's the success rate now compared to some years back? You know the problem got worse from 2003?

B: At least, Kaduna-North local government has achieved 97% in polio immunisation coverage.

A: You talk about ignorance, what do you think is the literacy level in this local government? Especially now that the national average, the literacy level at the national level is 45%.

B: You know there is poverty. Now that this particular government came in, it is saying that primary education is free. Books, uniform are free. You know the poverty level before was high. Somebody cannot ignore his children to eat to go and pay school fees in a government primary school. Now attendance into the primary school has gone high. Most especially we have to employ over 70 teachers in the last three years. So, poverty, illiteracy and ignorance hindered children from going to school. You find small children (child abuse) selling things without going to school. We asked them: "So this is how you will grow up, this how she will grow up." The two ignorant people will get married, how can you convince them?

A: And they give birth to ignorant children.

B: Of course.

A: So the circle continues (laughs)

B: Yes, because wherever we know there is a case of polio, we rush there. We always tell them when this thing happens, there is no prevention. At times we show drama on television, drama we sponsor to show them the effect, and anywhere there is a programme for polio, we invite those dramatists to show them physically what is the effect.

A: So you use drama as well?

B: We use drama as well. We use drama as well.

A: I think it is quite interesting to know that your communication strategies are, you know....

B: Yes, I believe next round, we may achieve 100% because people are beginning to understand. They are beginning to understand.



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APPENDIX XI

INTERVIEW SESSION WITH MOTHERS IN CHIKUN LGA KADUNA STATE- (08/01/09)

Question: What are your sources of information on Polio Eradication Campaign?

That is, we want to know where you get information about immunisation and polio. Is it from the television, the radio, through your family, friends, religious leaders and all that? We want to know where you get information from, about polio vaccination.

F1: Television, television

Q: mostly television

F1: Yes, I get my information through family members and also the television, and the radio

Q: which one do you get it most?

F2: from the radio

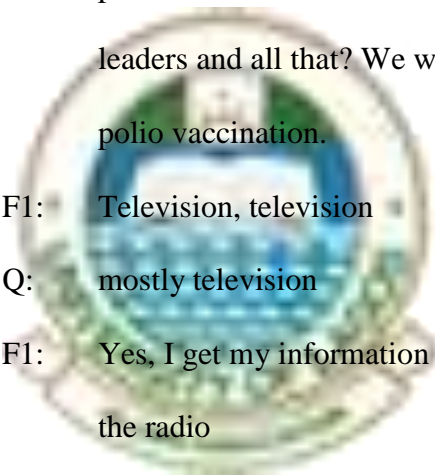
F3 : most basic the information through family and friends and T.V

F4: Also, I get information through television, radio and through relations

F5: I got mine through the hospital

Q: Through the hospital

F5: yes



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Q: Among the sources like television radio, newspaper, your family, friends and the hospital, which one do you use most, if you get information, which one do you use most? It is television, is it radio, it is newspaper or most often from friends or from hospital?

F1: From television

Q: from television

F1: yes

Q: why do you use the television most?

F1: sometimes they use to show it. Show news that they will start polio

F2: From the hospital because most times they are the ones that advise you to go for it and they told you the danger you incur when you don't go for it.

Q: You all agree with them of any other one?

Q: Which of the source do you believe most? If you get it from television, radio or newspaper, hospital, family and friends, which source are you going to believe most that will always make you go out for the immunisation?

F1: from the television

Q: from the television

F1: yes

Q: why do you believe television?

F1: Because the government has said it before they announced it so I believe the information is real

F2: also me too, the television... yes

F3: yes also, television

F4: Television

F5: Television

Q: Do you think polio vaccination; to vaccinate the children do you think it is beneficial to your children? To you and even your children, do you think it's helpful to them? Do you think it can help them?

F1: yes, it's helpful

Q: okay, why do you think it is helpful?

F1: like olden days, our parents use to tell us that this generation is good, governor will come with this one to give the children, but in their own time there was nothing like that. And this measles, this measles, you find out that if your child... afterbirth, you give them the full dose of this EPD and the rest it will be... when the thing comes, when the measles come for the time, it will not affect them much. But if the child not take it, it may lead to death, it will kill the child. That is my own little understanding.

Q: okay. So, how many of your children under five years have received polio vaccination and how many are yet to? Is there anyone that has not collected?

Chorus: They have all collected?

Q: All of them have collected?

Chorus: yes

Q: Do you believe that information on polio vaccination that is passed across through radio, television, poster, newspaper, and magazine. Do you believe it's true?

Chorus: Yes!

Q: Why do you believe is true?

F1: Because it is sponsored by the government

Q: Have you had any reason to change your attitude or behaviour towards polio vaccination at all? Is there any reason at all to want to change your attitude? Is it that there is no improvement or something and you decided to change your attitude? Do you have any reason to change your attitude at all?

Chorus: No!

Q: You don't have any reason to do that?

Chorus: No!

Q: What do you think are the problems related to this immunisation?

What problems do you face during immunisation?

F1: From workers or the people?

Q: Everything, every problem. Any problem you know. The people vis-a-vis after immunisation or before, during and after immunisation?

F1: I don't think we have problem around here. I don't know of the side because mostly they don't like it so, I don't knowaround this place we don't use to have problems

F2: The problem we use to have at time is after collecting the vaccine at times, the child will have fever and at times, the place will swell up. We don't know whether it is the usual thing.

Chorus: it is normal

F3: They will advise you to give the child paracetamol. Even if you go for BCG and the rest the body will be hot. So they will advise you to give him paracetamol.

- Q: Does this hotness or swelling, next time make you not to want to go for immunisation?
- F1: No because when you go to the hospital, you want to collect treatment, the nurses; they will even tell you that it is normal. Some will even tell you when the body is hot, don't bath the child. You leave him to the next day. So, it is normal.
- Q: Now, which ... you want to say something?
- F1: I want to ask you a question. Why is that if the child has fever, they will advice that the child should not collect the vaccine?
- Q: Well, they don't want to make the condition of the child worse. You know, it can increase the temperature. Because, normally, one of the side effect is that the child will have temperature. You know, fever also cause temperature, it can make the temperature very high.
- F2: but I think they advise to give the baby paracetamol before the vaccination so that the body will not be hot. And after it, you can still give the baby again and that will not cause it any running temperature.
- F3: Why I asked that question is because when the day of collecting the vaccine has already reach, may be if the child is having fever... that is why I asked the question.
- Q: So you will not take the child for vaccine. Now you know this polio immunisation, they say they can give you many times, it doesn't mean you have taken it once.... Your children how many times have they taken polio immunisation

F1: My baby is only four months old, so she has not taken anyone home. But she has been taking in the clinics. That is the monthly due.

Q: Because some people think that if you take it once, there is no need for you to take it again. So, sometimes they come to the house, sometimes they go to their school or anywhere you find them. Some say “ah! No don’t take it o, it will result to problem o” you know, you understand. So I don’t know if you have the some experience here?

F1: Me, my baby have taken it up to three times after the one she takes from the hospital, I’ve not seen any bad result for her body or on her health, I don’t think it is fearless or favourable for us to collect...I don’t think when you collect it more than once or two times, is our does because one or two times it is overdoes because there is a certain time that the other one you collected will expire from the body, then you take another one.

Q: now, from the way you have spoken it appear that you have knowledge of this polio... the first and all that. Where did you get all these information from and how did you come about all these information?

F1: I got my from the hospital. Then I was going for my antenatal ... that was when I got the information.

Q: you no et from... the thing just happen... you must get the information from somewhere. No be so? Kay, has many of us have television at home?

Chorus: everybody

Q: It is one thing to have television, it is another thing to watch it. You no say women they cook eh; they wash something. The television can be on; you are doing something in the kitchen. How do you watch T.v?

F1: like me

Q: How many hours and what time do you watch T.V?

F1: Like me, I cannot watch T.V because I' ve not finished my housework. If I'm through, may be from four o'clock I can watch.

F2: Also me too. Now I cannot watch T.V. because I'm still working, even if I've finished what I have to do in the morning. I'm still waiting for one I am going to do in the afternoon so I cannot watch television because I will not concentrate much to have the information most.

F3: Like how many hours do you spend watching T.V. per day? On the average?

F1: I spend like four hours watching if I am idle

Q: if you are idle?

F1: yes

Q: if you are not idle, no show at all?

F1: yes (laughs)

Q: okay, what about others, how many hours do you spend watching T.V?

F2: I use to watch television. It is not less than two hours because sometime I wake up to do my house work. Then I will go to work, from the place if I come back, maybe I will do some cooking. From there have my business, then I will start doing my work after then, I feel time is for one that am doing on it, watch it than two hours then.

Q: What is your television viewing habit?

F3: it is not more than an hour because I'm a very busy woman. In the evening I do work, I have much work to do in the evening so I don't watch television much.

F4: like me, at times I do watch it in the morning like six to seven, then in the evening because I do go afternoon work. Even now, I was just preparing to go and bath and go if I come back in the evening because I don't normally like to miss the news because is good. So that is it I don't watch it except in the evening that is, from seven up to ten o'clock at time (cuts... for three hours) yes!

F5: Anytime I'm busy, I'm always watching television

Q: Like how many hours per day?

F5: let's say if I will less busy for the next four hours I can watch it throughout.

Q: But you are always busy?(laughs)

Q: When you say you are busy watching television, are we... because I know that women like watching film so much, this..... is it that you people just watch Nigerian film or this t.v. we are talking about, we are talking like watching news and this advert like playing t.v. like that so you will see that they are showing this advert. So like how many people like watching news because it's through news that they like showing this advert to people?

F1: Like me I watch news, like NTA news. I don't want to leave it and AIT after that I watch my film. Like today is Thursday, I watch Super Story after Super Story news.

F2: me I don't understand what they are saying so I don't have interest in it. So I don't watch news

F3: Like me I like hearing news, because is good for somebody to be current on what is happening. So, before I was having this problem. I was not having the aerial, it was at last I bought the serial and since when I bought the aerial, it is about ... Is not every day that I do because I like hearing news so that I will be current. In all that is....

F4: for me, I'm not in the habit of hearing news, so ... that's why I always got my information from the hospital, I always watch movie.

Q: what of newspaper? How many of us read newspapers? And how do you read it?

F1: Like this questionnaire I went through it.... Somewhere we are asked to choose the one we are.... So chose magazine because at times, at house, my husband will buy magazine.

Q: What type of magazine? All these City People or what...?

F1: Me, I don't know, all know is magazine... not this fashion magazine (....

Q: Maybe *Newswatch*, *Tell* or *The News*

F1: Eh! Eh!.... The News

F2: Me I don't read both the magazine and newspaper

Q: why? It is that there is no time

F2: Sometimes, if I see my friends with it holding it, they are telling me that the information inside is good for me to know, then I will collect it but me I don't buy newspaper to read.

Q: is it because of money?

F2: May be sometimes, even though I get magazine if I start to read I will just ... sleep (laughs) so, I will not finish it.

F3: I don't read magazines and newspaper

Q: you don't have time

F3: yes

F4: Like me, what I take, I take watching till is not that I haven't been reading magazines, but the one I read much is eh.... Let's say like in my church we have the Cross News. So because I'm a catholic, we have the Cross News. So anytime they print it, so I use to like to know about Kaduna, what is happening... is not that I don't read stars because is the one I don't normally miss but the others... The cross News because at times I use to read other ...eh! Important places.

Q: But no be every time?

F4: No be every time but the Cross News I don't want to miss it monthly.

F5: Me, I don't' buy it, but sometimes if I see in my room I do read it, but it not always, it is once in a while.

Q: Since you don't read magazines, newspaper and because you are so busy you don't watch T.V. all the time, it means that you get your information from human source most abi?

Chorus: yes!

Q: May be from friends....

F1: just as I've already said that I do get it through radio and T.V. much

Q: Thank you, I think that's all, we thank you all for joining us.

APPENDIX XII

INTERVIEW SESSION WITH MOTHERS AT RIMIN GADO, KANO STATE (15/1/2009)

Question: the ... the ... this called polio?

Ans: yes, I know about polio. I learnt it is done in order to prevent some diseases.

Question: Which source of information do you obtain most source of information on polio from radio?

Ans: I learnt about polio from the members at my community

Question: Which of the sources do you believe most?

Ans: I believe in both radio and community leaders.

Question: Have you immunised your children against polio?

Ans: We all take our children to hospital or to ... we allow our children to be immunised against polio.

Question: If your answer is no why have you not immunised them?

Ans: My answer is yes because we all take our children to the hospital ... we allow our children to be immunised against polio

Question: Does polio immunisation run contrary to any of your beliefs, values or customs?

Ans: The polio contradicts our beliefs but we take our children for immunisation because the society or the media or the health officials encourage us to do it so that is why we are doing it. But it is against our

belief because our forefathers have not done it and we don't think that it is not necessary to do it. But we are only taking it because we learnt that other people are taking their children for immunisation, so we cannot even see the harm physically so that is why we allow our children to be immunised.

Question: Who influences most of your decision about polio immunisation?

Husbands, political leaders, religious leaders, friends?

Ans: We believe in our husbands. Whatever our husbands say, we agree and we know he is not going to do anything that will harm our children, we believe in what our husbands say. That is the person we believe in.

Thank you.

Question: Do you think it is beneficial to ...? Is it very good? Is it good?

F1: It is very important for the children because as you can see now, most of the children that are not taking the vaccine, some will even take only one and leave the rest. It will affect the most time, it affects them... some of the children we see, their eyes are not strong. Some of them may get paralysed. So is very good to take the vaccine, is very good for the children.

Question: Ramat! You agree

F2: i agree

Question: You agree too? Or you get something you want to add?

F2: I agree

Question: You agree too? Or you get something you want to add?

Feel free, just feel free it is an interactive something.

... welcome ma.

F6: Thank you very much

Question: We are discussing about this polio immunisation

F6: okay

Question: I guess say you get pikin wey small less than ... wey you don take for polio immunisation?

F6: from one to five years?

Question: One to four. Do you think it is beneficial? This polio immunisation, is it useful?

F6: Yes

Question: Why do you think so?

F6: Because if you note nowadays, children of nowadays are ... is hard to see children paralyzing like way e be so. Because now there is an improvement, especially those with kwashiorkor and other disease are no more existing like before. So, for that, there is an improvement. So it is important.

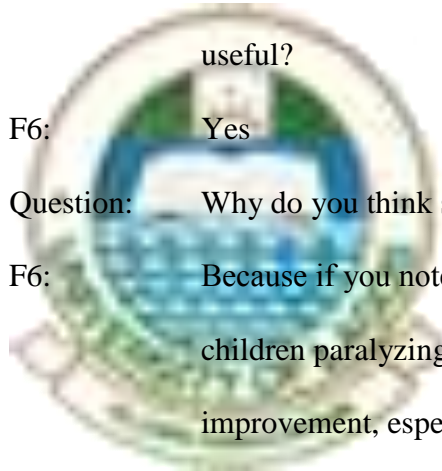
Question: Let me ask you, how many of us have taken our children for polio immunisation?

F1: All the dose

Question: All the doses?

F1: Yes

Question: And you?



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F2: Me na all

F3: All the doses

F4: All the doses

F5: All the doses

Question: So you are all Christians, or do you have a Muslim here? And you all have your various traditions and beliefs? So this polio vaccination is it against your belief as a Christian or your traditional belief, is it against your belief?

Chorus: No!

Question: Is not against your belief?

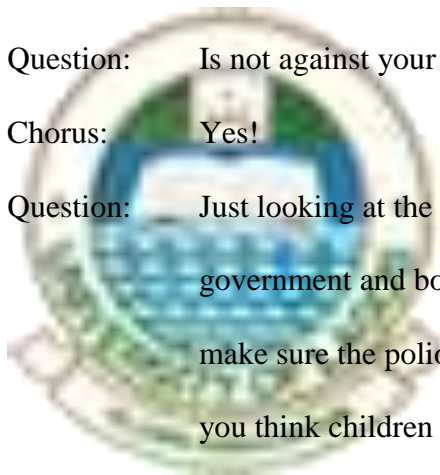
Chorus: Yes!

Question: Just looking at the way they are vaccinating these children, the way the government and both World Health Organisation are making efforts to make sure the polio immunisation is done, what is your assessment. Do you think children are getting more paralysed or it is rescuing some situation? How do you assess the overall situation?

F1: Just as I have already said, there is an important. Before if you look at in the stream you will see them paralyzing. But they are not... I scare you cannot see somebody like that. Even if you see, at times is around the farm.

M: Let me start with you.

F: Just as awareness has been going on/intense on polio, where do you get the message on the disease, which has become epidemic in the country?



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- F: I do get my information from radio and television, that is where the campaign has been reaching us.
- M: You mean you do get the message/information from the radio and television. What type of programme do you get to see or hear (on radio) that do keep you aware of the effect/consequence of this disease?
- F: Series of programme do go on to keep us informed. Also, when we do come to the hospitals, they do warn us and make us understand why we must bring our children for immunisation.
- M: Don't you get these messages too from the Arabic schools you do attend?
- F: Yes, we do get substantial information there too.
- M: Hope you do get information (messages on how government have been making effort to make sure polio is eradicated from this country?
- F: We do get the message on television and radio even, those treating polio too do keep us informed.
- M: They (polio attendants) do come after you?
- F: Yes, they do come after us.
- M: for example, do you always release your children for the immunisation?
- F: We do release them (children) for the immunisation
- M: How many of your children have you taken for the immunisation?
- GF: Just two. I do take my children to the palace when I get information that they (polio attendants) are around or when they are sent by the government
- M: What about you? (children)

F2: I do take our children there

M: How many of your children have you taken for immunisation?

F2: I have just a child and he has been (immunised)

F3: I have four children and they all have been immunised

M: You said you have four children and they all have been immunised against polio?

F3: Yes

F4: I have just a daughter and she has been immunised. The immunisation took place at the king's palace.

M: Kings Palace?

F4: yes

F5: Myself I went for the immunisation at the king's palace, even I was given soaps when I took my children for the immunisation (four children)

F6: I have no child

M: If God willing you gave birth, will you take your child for immunisation?

F6: If God willing?

M: You mean

F6: If God willing I will take my child for immunisation

M: And you

F7: I have three children and I have taken them for immunisation

M: Did this immunisation for polio has an advantage or not?

F: The exercise is very good and laudable. Ones mind will be at rest and whoever resists the exercise will have himself/herself to blame.



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M: If you think these nine questions I have asked you are relevant, do you think this campaign for polio should continue?

F: It should continue (in chorus)

- Since is a precaution
- Since one will come to the hospital and will be attended to, one will take her child (infant) for the immunisation and will be attended to.

M: Do you think this awareness or campaign against polio is sufficient or more avenue should be employed for the campaign?

F: All we want is our children's safety/ our children to be sickness free. Any additional effort is welcome.

M: Is the awareness from the radio and television sufficient?

F1: It is not sufficient, all we want is good health.

F2: If some get the message, some will not. Some are even adamant that they will not release their children (for the immunisation). They will say allow my children to be , God will make them healthy.

M: What measures do you think we can employ in making parents do take their children for immunisation?

F: Whosoever thinks she can no matter what some will not allow their children to be immunised. Even when you advise those you stay in the same house with, they will remain adamant. If you allow your children to be immunised, they will call you a fool.

M: Don't you think you all reserve the right not to allow your children for immunisation?

F: Yes, we do, but immunisation is a precaution against paralysis.

M: How do you think parents can be well informed on how they will continue to take their children for the immunisation? Because as you have mentioned earlier, some parents still don't take their children (for immunisation)

F: Those who Allah made them understand

- Even till tomorrow some parents will not take their children.

M- You people are not saying anything.

It is very necessary for every mother to take her child for immunisation. Reason being that the disease should be eradicated. If some parents do take their children and others don't the disease will continue to spread, since government is making all effort the disease is eradicated from the country. It is very necessary for every parent to allow their children for exercise. Those that were ever saying they will not allow their children should endeavour to allow their children to be immunised.

It has never happened that a child got paralysed when he/she was given polio vaccine.

M: And you, you have been mute

F: she has said it all

M: Now, where do you get the information/message that you should take your children for polio treatment?

is the message emanating from the king's palace or village head, or through health educators who do tell you that on so date that polio people will be around that you need to take your children there.

F: It is the king that does relate the message through the town crier?

M: The immunisation team, did they consist of the village residents or outsiders?

F: Sometimes we do get the village residents and another time we get both.

- Residents

M: How do you want it now? Do you want the village residents only or to include outsiders.

F: Whichever way is appropriate

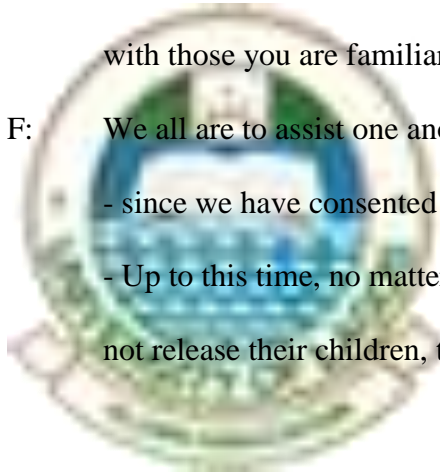
- Whosoever they bring is highly welcomed.

M: Reason being that it is assumed that you will be able to listen to, and relate freely with those you are familiar with. Or what do you think?

F: We all are to assist one another

- since we have consented to the exercise, we have to co-operate.

- Up to this time, no matter how you take some they know to them, they still will not release their children, they will tell the person.



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APPENDIX XIII

INTERVIEW SESSION WITH MOTHERS AT AYOBO-IPAJA LOCAL COUNCIL DEVELOPMENT AUTHORITY, LAGOS STATE, ON FEBRUARY 12, 2009

Good morning Ma's, my name is Olubunmi Ajibade, I work at the University of Lagos. We are doing a research on how mothers respond to Polio Immunisation Campaign, where you get information from.

Q: Have you heard about the Polio Vaccination before?

A: Yes

Q: Where did you hear about it?

A: "They" do go around talking about it and announcing it.

Q: Do you hear about it on radio and television?

A: Yes, from radio, television ... everyday.

Q: Do you read newspapers?

A: No, I don't really read newspapers.

Q: What about magazines?

A: No, I used to do that before.

Q: Which one do you use most, radio or television?

A: Television.

Q: Where did you get the information about this Polio Campaign?

A: From the health centre.

Q: Have all your children been given Polio injection?

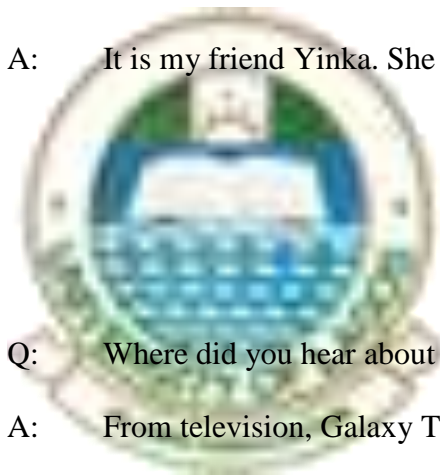
A: Yes, all four of them have been given. Every time “they talk of it, I bring my children to be injected.”

Q: Why do you bring them for the Immunisation?

A: It is for protection against paralysis because sometimes, when we see on the television and newspapers, we see children that are paralysed. So, what I understand from this is that by giving them polio injection, they are protected.

Q: So who really persuaded you to come for this Polio Vaccination with your children?

A: It is my friend Yinka. She is a nurse here.



INTERVIEW II

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Q: Where did you hear about Polio?

A: From television, Galaxy Television.

Q: Do you listen to radio at all?

A: Yes

Q: Which one do you use the most, radio or television?

A: Television

Q: How many of your children has?

A: (Cuts in) It is only one, only this one.

Q: Has she taken the immunisation?

A: Yes

Q: Do you go for it with your child every time it is announced?

A: Yes

Q: Why do you think it is good?

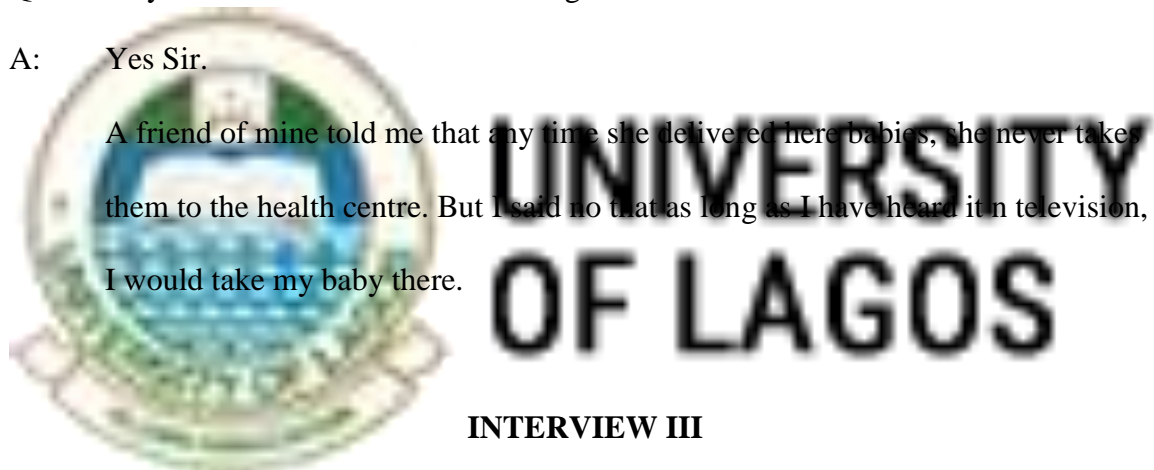
A: Because it is very good, it will help the children to grow up. Because it gives them good health and protection.

Q: Some people say that the injection gives children high temperature. Has this ever happened to you before?

A: No, it has never happened to me.

Q: So you believe that children should go for immunisation.

A: Yes Sir.



A friend of mine told me that any time she delivered here babies, she never takes them to the health centre. But I said no that as long as I have heard it on television, I would take my baby there.

INTERVIEW III

Q: Do you watch television everyday or how many times a week do you watch it?

A: I watch it in the night.

Q: Only at night?

A: Yes, because that is when I'm free to do it, because in the morning, I ...

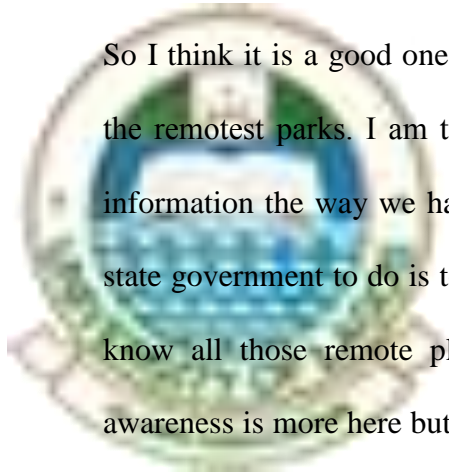
Q: People that announce with placards, have they ever come to you before?

A: Yes.

INTERVIEW IV

Q: Have you heard about this Polio Immunisation Campaign?

A: It has been n for quite some time and I think there is something the Lagos State Government is doing now that they now go in the neighbourhoods to get children immunised, they go to schools. And I think it is a good one for parents who are not at home during the working days, at least on weekends, they come around. So it is a good thing the come Saturdays and Sundays. My older daughters too come home with papers from school asking if we want them to get immunised or not. So I think it is a good one. The only thing is that the awareness is not getting to the remotest parks. I am talking about places where people don't have access to information the way we have in the metropolis. So, what I would encourage the state government to do is to go into the suburbs. Places like Owoye Oni-irin, you know all those remote places, that is where we expect them to go to. The awareness is more here but it is better for them to get people to go into the remote areas to get people more informed.



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Then, try and see a programme where people can tune in and listen to and run an advert during that programme. Or may be any other programme that people come around to listen to, may be like *Iri-Aye* or this programme on MITV, *L'abe Orun* that is run on weekends. When the advert is coming in during programmes like this, it is always good. But a lot of people have this mindset of when I immunise my child, there might be a problem. It is not going to be a problem, the

only thing I understand is when a new thing is coming into the system, the system would always want to react to it but I think it is better for our kids.

Now, like those days when I was growing up, I used to see a lot of people that were crippled but with the campaign now, it is becoming lower. So we will encourage the state government to go into the remote areas to get people more informed about the benefits of getting their child immunised.

Q: Okay, talking about awareness, how did you come to know about Polio Immunisation, which of the sources, which of the channels do you use much?

A: I have heard about polio as far back as the eighties, in those days of the EPI so, for me whether they advertise or not, I think my kids will always take immunisation. But I think a lot of people tend to listen to radio and T.V. Fine, if there is also website where people can log on to but for me anybody that can even log on a website to check for information, it means the person is informed but those that really need it are people in the remote area. So T.V and radio are the best options we have.

Q: Town announcers in your area, do they come around?

A: Yes, there was a day I was passing through Akinogun here and I saw somebody saying the immunisation would start very soon that people should ... I think it is okay around here. But the last time I took my baby home, somebody was complaining that they don't come to their neighbourhood the way they come and I said, look, from the part of Lagos I am from I know they come from time to time to get kids immunised so what I would just say is let's go with the radio and T.V.

and let's target the remote areas not where it is well-equipped where we can always walk in to the health centre to get kids immunised. When they are doing the campaign, they should just focus on the remote areas.

Q: What/Who is the greatest influence that convinced you to get your children immunised? Husband, friends, radio?

A: My school has been the main thing because I remember when I was in primary school, they use to take us to run campaigns for immunisation. So I think going to school goes a long way because if the parent is not well informed about it, when the children get to school, they come home to talk about it and how they are supposed to do it and the good thing is these days when children are immunised, a mark is put on them so they don't take it twice. So even if parents are not willing to, they can easily go to school and immunise the children and I think with time parents will see the benefits. I think the school is a good one because that is where I got well informed about immunisation.

Q: Which one do you use most for your information? Radio, T.V., newspaper, magazine or billboards?

A: I use all.

Q: Which one do you use the most out of the rest?

A: While working I listen to radio a lot, when I am at home I watch TV and when I'm going to work, I see Billboard whether relevant or not, I look at them. But I think for a lot of people who are not learned, who are actually targeting Radio or T.V would be the best bet. I think Radio would even be better. No matter what,

people will still put on their radio, you see people at their security post with their radios, when there is no light, you can put batteries, so I think radio is a good one.

INTERVIEW V

Q: You don't hear about Polio Immunisation?

A: Yes

Q: Where did you hear about it?

A: I heard about it in a lot of places.

Q: Was it from friends, family, radio or T.V?

A: From my friends who visit the health centre and I see people that immunize children on the streets.

Because the 2 children I have, I usually take them to private hospital but I started coming here because it seems better.

Q: Do you hear about immunisation on radio and T.V?

A: Yes, I hear it a lot from radio and T.V.

Q: Do you read about it in newspapers and posters?

A: Yes.

Q: Who would you say really convinced you to immunise your children?

A: I was encouraged in the hospital; I had my delivery to come to health centre and immunise my child. When I got here, I discovered that it is actually better than private hospital.

Q: Is it every time that announcers come to your neighbourhood that you take your children?

A: Yes.

Q: Does it give your children high temperature.

A: No Sir.

Q: If you are asked to come for immunisation again, will you go?

A: Yes

INTERVIEW WITH MRS MOJISOLA OLAGUNJU (HEALTH WORKER)

Q: Can we get to know your name, your position in the health centre and your involvement in polio campaign?

A: I am Mrs. Mojisola Olagunju, one of the health workers in the centre and I have been supervising the campaign for like 5-6 years now. On a monthly or quarterly basis when we are called upon, we go out to immunise the children making sure that no child is missed.

Q: How many times do you do it in a campaign?

A: Actually, it differs, it depends on the number of times that the government wants us to do but the least time we do it in a year is about 5 times, so at interval of 3 months. Sometimes we do it for half year or 3 times at a stretch, there could be a break. Then in the last quarter of the year, we do the balancing.

Q: What the challenges/problems encountered during the campaign as you go from house to house?

A: The problems are that some people are still biased about the polio vaccination. Some have wrong ideas about it and they will refuse bluntly, though we have a way of making them understand the usefulness and importance of the polio vaccine to the children. Some comply after explanation while some still refuse. Such cases are reported to the authorities and they visit them and try to educate them. Some comply after this while some still refuse.

Q: What are their major complaints?

A: Some don't even give us the reason. Some say it can cause their children to be impotent in future or they want to reduce the number of children one would have in future due to the vaccine. While some on religious basis. They will tell you that they can't take it and there is nothing you can do about it or convince them. Most reasons due based on religion or wrong ideas that have been implanted in them.

Q: Is there any committee that plans on the security of the immunisation programme?

A: The community are really involved i.e. the Baales, chiefs, CDA, politicians, councillors etc. They help to mobilize people.

Q: What of religious leaders?

A: Yes, all the churches are being given letters for awareness. On Sundays, we go to the churches to immunise children and also to the mosques. The religious leaders are really involved and really co-operating.

Q: Do you met from time to time with these leaders and plan the polio campaign with them?

A: Actually, my boss does that, that is not my job. The health educators go about to have meetings with the community leaders and tell them of upcoming programmes.

Q: In terms of collation, how would you rate the percentage of people that refuse... may be 10%?

A: It is just about 2% now before it was high, almost 10%. Now the awareness is getting to people and they are seeing reasons why they immunise their children. So the remaining 2% are the adamant people. You know some people can't be changed.

Q: Do you give them incentives for encouragement because in some places they are given this like Vitamin C.

A: Yes, we do that sometimes, we call that immunisation plus. The plus is the thing we give in addition, sometimes it could be sweets, pencils or treated mosquito nets, biscuits, exercise books.

Q: How many times do you do IPD in a year?

A: Twice.

Q: Would you say that it has been encouraging them to come.

A: Yes, because the people feel appreciated, so that next time, when they are called upon, they will be willing to come.

Q: The one you did in the hospital, how was the response? Do all mothers respond to it?

A: Most mothers do, because the awareness is high, people are well informed now through radio, T.V and talks are given in the health centre before the actual

immunisation. We discovered that it goes a long way because they now know the importance. It helps them know what to do if a problem arises with the children when they are at home.



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APPENDIX XIV: SAMPLE OF ACADA COMMUNICATION PLANNING

FRAMEWORK

Source: UNICEF AND WHO (2000), *Communication Handbook for Polio Eradication and Routine EPI*. New York: UNICEF

The following grid illustrates how the three development communication strategies can be applied to planning. It gives examples of target audiences, activities and outcomes for each strategy.

Strategy	Participants/targets	Activities	Outcomes
Advocacy	<ul style="list-style-type: none"> Political leaders Decision makers Opinion leaders 	<i>Advocacy with them through:</i> <ul style="list-style-type: none"> Negotiation Joint planning/review Lobbying Special events Seminars 	<i>Advocacy/action by them for:</i> <ul style="list-style-type: none"> Political will Resource allocation Policy changes
Social mobilization (Partners in service delivery)	<ul style="list-style-type: none"> Ministry of health Other ministries NGOs Service clubs Media producers Advertisers Artists and intellectuals Curriculum developers 	<i>Advocacy with them through:</i> <ul style="list-style-type: none"> Orientation programmes Joint planning Regular meetings Joint events Workshops Study tours 	<i>Advocacy/action by them for:</i> <ul style="list-style-type: none"> Alliance formation Organizational motivation Multisectoral collaboration Institutional agreements
Social mobilization/ programme communication (Fieldworkers/ other partners in service delivery)	<ul style="list-style-type: none"> Health workers Teachers Extension workers Cooperative agents 	<ul style="list-style-type: none"> Interpersonal communication training Organizational motivation Recognition Feedback Supervision 	<ul style="list-style-type: none"> Improved communication with clients Improved planning High-quality services Attitude changes
Social mobilization/ programme communication (Partners in the community)	<ul style="list-style-type: none"> Political, traditional and religious leaders Administrative authorities CBOs Women's/youth organizations Economic organizations Cooperatives 	<ul style="list-style-type: none"> Training Community mobilization, organization and participation Participatory research, planning, implementation Strengthening of existing structure, monitoring/ feedback 	<ul style="list-style-type: none"> Community participation Service utilization Community ownership Community financing Empowerment
Programme communication (Users/clients)	<ul style="list-style-type: none"> Child caretakers Parents Men Women Individuals 	<ul style="list-style-type: none"> Audience research Behaviour analysis Development and use of educational materials and media Health education/ promotion by fieldworkers Training Dissemination of messages/materials 	<ul style="list-style-type: none"> Change in knowledge, attitudes and behaviour Increased and sustained demand for services Adoption of appropriate technologies Accelerated programme achievement Increased immunization coverages Disease/mortality reduction

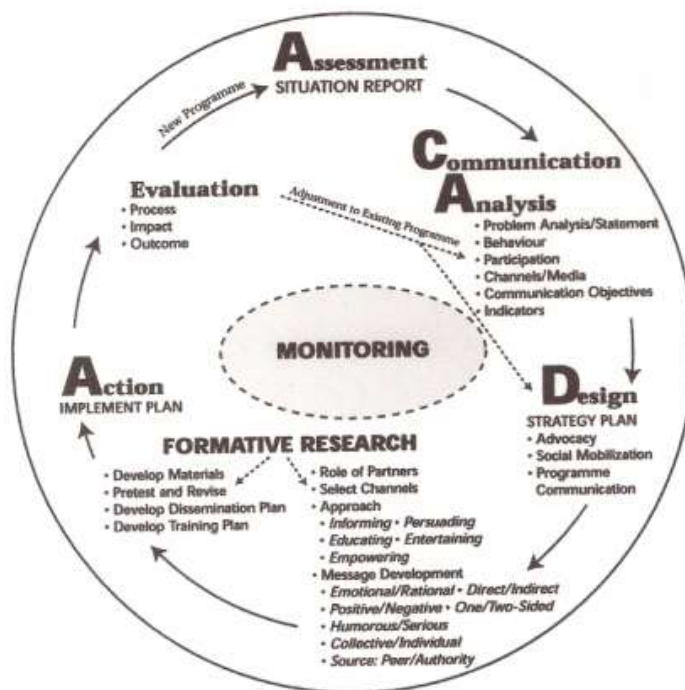
Communication for development goes beyond the term *social mobilization* that is so widely (and often wrongly) used in EPI programmes. In this Handbook, the wider term *communication for development* (or simply *communication*) is used instead.

Communication for development seeks not only to transfer messages, but also to promote interaction around the messages for target audiences to understand them better, accept them and practise the healthy behaviours proposed, not once, but long enough to reap the benefits that such behaviours bring. The ultimate goal, therefore, is a behaviour change, i.e. bringing about and sustaining the desired healthy behaviour. In the case of immunization programmes, one of the promoted behaviours is to take children for immunization regularly, according to the immunization schedule.

2.3 Communication planning framework

Influencing or modifying human behaviour is a complex process that needs to be planned carefully. A number of communication planning frameworks have been developed by different agencies working in development and are available for use. These include the UNICEF-developed ACADA (assessment, communication analysis, design and action) planning model, the P Process developed by Johns Hopkins University, and others.

ACADA communication planning model





Step-by-step development of an integrated communication plan

DEVELOPING THE
INTEGRATED PLAN

Routine EPI, supplemental immunization and surveillance need to be supported by well-planned communication activities. Communication activities supporting the three programme areas should be well integrated to reduce confusion and strengthen the overall programme. The ACADA planning steps introduced in section 2.3 should help communication planners achieve the needed programme integration. The steps are reiterated below and their application in EPI/NIDs/surveillance communication planning is discussed in this chapter.

A. Preparatory activities

- 3.1 Establish or reactivate a communication committee
- 3.2 Establish roles for partners and allies
- 3.3 Develop plans on the basis of research information

B. Assessment

- 3.4 Review the status of routine EPI/NIDs/surveillance and related interventions
- 3.5 Determine overall routine EPI/NIDs/surveillance problem(s) to address

C. Communication analysis

- 3.6 Problem analysis and formulation
- 3.7 Determine problem behaviour(s) to address
- 3.8 Conduct behaviour analysis
- 3.9 Conduct participant analysis
- 3.10 Conduct channels/media analysis
- 3.11 Develop communication objectives
- 3.12 Develop strategies and activities
- 3.13 Develop monitoring and evaluation indicators

D. Design

- 3.14 Develop plans for message development
- 3.15 Develop plans for material development
- 3.16 Develop plans for dissemination
- 3.17 Develop plans for training
- 3.18 Put together the integrated communication strategy planning matrix
- 3.19 Write the plan of action

A. Preparatory activities**3.1 Establish or reactivate a communication committee**

Many countries have an inter-agency coordination committee (ICC) to oversee the planning, implementation and coordination of all aspects of immunization. If it does not already exist, it is advisable that an ICC be formed for national and district/community immunization programming and that this ICC functions year-round. Forming the ICC is the responsibility of EPI management as a whole. Prototype ICC terms of reference are in Annex Eight A.

To enhance planning and implementation of communication activities, a communication committee (CC) should be established (or reactivated) at the national level as a subcommittee of the ICC. The committee should be responsible for the overall coordination of communication activities of routine immunization, supplemental immunization and surveillance (see Annex Eight B for the terms of reference of a CC). Making the CC a subcommittee of the ICC should ensure that communication is seen as an important component of the central programme and not a separate appendage. This should, in turn, promote integration and coordination of the different programme components.

CCs should have broad representation and should include multidisciplinary teams of communication experts, social scientists, clinicians, health workers and community representatives, as well as representatives of the ministry of health, line ministries, key partner agencies and community institutions considered important to the implementation of the communication component of the programme. CCs should oversee the planning and implementation of all aspects of communication, including advocacy, social mobilization, programme communication, community participation and capacity-building. The committees should be maintained in an active state year-round (see Chapter Seven for a more detailed discussion on maintaining participation).

The national CC should be established at least eight months ahead of the national immunization day (NID). Provinces, districts and lower levels should be encouraged to establish similar committees as subcommittees of the main committees for planning, implementing and coordinating NIDs, routine immunization and surveillance communication activities.

Many countries have successfully used committees to involve other sectors and communities in immunization activities. The box on the following page presents the network of committees established and used for NIDs in Uganda. The same committees could be institutionalized to serve routine EPI and surveillance communication needs.

EPI communication delivery structure in Uganda

1 National level

A multidisciplinary committee was established to plan and implement communication and social mobilization activities at the national level with the following membership: Ministry of Health (MOH), line ministries, NGOs, media institutions, security organizations and service clubs. The committee developed a national social mobilization plan, facilitated formation of lower-level committees and structures, identified and recruited partners, developed strategies for reaching special groups, developed and disseminated IEC messages and materials and coordinated and supervised social mobilization activities nationwide.

2 District level

A committee with the following membership was established at the district level: the District Health Team, NGOs, line departments (Education, Information, Gender, Community Development, Security Organizations, Local Government), local political and religious leaders and other partners. This level planned social mobilization activities, trained subcounty social mobilization teams, coordinated social mobilization activities, facilitated formation of lower-level social mobilization structures, supervised lower level social mobilization activities, mobilized local resources, identified and recruited partners, designed strategies to reach special groups, and identified and trained drama groups for NIDs promotion.

3 Subcounty level

A three-person subcounty social mobilization team with the following membership was established: subcounty chairperson, subcounty chief and the health inspector. These individuals were given training in social mobilization and they, in turn, trained parish mobilizers. In addition, they planned mobilization activities, participated in the identification and siting of immunization posts, identified and mobilized local resources, carried out sensitization in schools and coordinated, supervised and evaluated social mobilization activities in the subcounty.

4 Parish mobilizers

Subcounty level volunteers identified and trained three people in NIDs social mobilization. The three then conducted social mobilization activities, guided identification of immunization sites and assisted with work on these sites during immunization.

3.2 Establish roles for partners and allies

Failure to clarify collective and individual roles of collaborating partners is common in health and social development programmes. Unclear roles can result in inactive, unfocused participation.

Annex Eight B gives an example of collective roles of the communication committee. Clear roles will also need to be outlined for participating individuals and organizations. For example, a department of the university may be assigned research and evaluation responsibilities; the Office of the District Commissioner may be responsible for mobilizing vehicles from other departments during NIDs; the Department of Social Services may be responsible for traditional media activities; while the Ministry of Education may be responsible for

coordinating AFP reporting activities of school children. Partners should be given every opportunity to participate in the process of assigning responsibilities and to indicate their capacity and willingness to play the assigned roles. Roles assigned should be entered in the appropriate column in the plan of action (see plan of action format in 2.4 and 3.19).

It is important to:

- Provide opportunities for the various individuals and organizations to report regularly on the activities they are carrying out.
- Thank agencies for work accomplished and generate ideas to facilitate performance of the tasks that remain to be done.
- Agree on new roles and responsibilities for partners when the old roles have been fulfilled.
- Facilitate mobilization of the resources that partners need in order to play their roles effectively.

3.3 Develop plans on the basis of research information

The importance of research in all forms of planning, including communication planning, is well established. Research provides pertinent information to facilitate development of relevant, focused plans. It also enables programme managers to assess and revise their strategies. It is, therefore, strongly recommended that programmes always use research information in communication planning.

- Conduct research through collaborative institutions. Select research partners who are conversant with development work. Different institutions have different research orientations and will not always collect targeted data that can be easily used in development work. Some of the institutions may need orientation to produce research of benefit to the EPI programme.
- Involve district teams and community members in the research process. This will build research capacity in-country and increase appreciation for the role of research. Involvement in data collection and analysis should give health workers, volunteers and community members an opportunity to interact firsthand with pertinent issues on the ground.
- Summarize research findings and their implications for EPI planning and share with the communities, partners and district-level teams so that they can use the findings to develop their plans.

B. Assessment

3.4 Review the status of routine EPI/NIDs/surveillance and related interventions

Assessment is the first step in preparation for planning and implementation of effective communication activities. In this step, an effort is made to document the status of the EPI programme as a whole and identify successes, weaknesses, lessons, issues, problems, participants, behaviours, credible channels, etc. Assessment should look at all aspects of the programme, not just communication aspects, and should, therefore, be approached as a collaborative effort in which all EPI departments participate. This ensures identification of all the real issues that need to be addressed in the programme. The main activity in assessment, then, is to identify what information is missing and to design and carry out research to fill in the gaps.

The following are examples of documents that could be reviewed during assessment:

- EPI reports and other EPI/NIDs/surveillance records
- Relevant research reports
- Existing policies and practices
- Planning guidelines at all levels

Some of the problems and issues identified during assessment may be the kind that can be solved through communication interventions. Others may not be of a communication nature and may need to be addressed by other departments. Knowledge of these issues should promote comprehensive EPI/NIDs/surveillance planning in which communication and other departments play an important role.

The box on the following page presents a list of lessons African countries have learned from three years of implementing NIDs. The list may provide some guidance on the pertinent questions EPI programmes should be focusing on.

Top 10 lessons learned from three years of implementing NIDs in Africa

- 1.** It is important and beneficial to involve communities (through their leaders) in planning and implementing health activities. By working with communities, NIDs implementers have become more aware of the great achievements that can be made when health services work in close cooperation with communities and caregivers.
- 2.** Cooperation with communities produces optimum results when communities are approached early; when there is frequent contact between the community and health services; when the health issues are presented as national issues that ought to be supported by all; and when the community is allowed adequate leeway to claim ownership of the activities.
- 3.** It is important to start NIDs planning early, at least eight months before the NIDs dates. During the planning and implementing of NIDs activities, it is important to maintain focus on routine EPI and include routine EPI messages in NIDs.
- 4.** NID publicity should have an appeal wide enough to catch the attention, approval and acceptance of all communities in a country. When this is not the case, sections of the community (especially minority groups, people in the top economic bracket, intellectuals, and cultural and religious objectors) tend to see the exercise as meant for other people and not themselves.
- 5.** It is important to make special efforts to discuss the meaning and value of NIDs with private and public medical practitioners ahead of time and obtain their support. Some members of this important category have opposed NIDs in some countries, and when they have done so, people have tended to believe them on the basis that they are more credible, as they are trained medical people who are more knowledgeable on immunization.
- 6.** Whenever a damaging rumour or some other form of opposition to NIDs or vaccination occurs, the programme must find time to investigate the cause as quickly as possible and design and implement appropriate strategies to address the resistance. If this is not done, the situation could become compounded and cause more damage to the programme. Special strategies should be designed to reach the various hard-to-reach and hard-to-convince groups.
- 7.** Great attention should be paid to communication and feedback between the centre and the regions during the planning and implementation of NIDs. Because of inadequate attention to this important area, communication breakdowns have occurred, leading to reduced programme achievement and reporting.
- 8.** There is need to design strategies that establish continuity between NIDs and the regular EPI programme in order to make the two programme components mutually supportive. The strategies should include making communication and social mobilization a continuous activity.
- 9.** Early steps should be taken to involve religious groups as allies, as they have proven to be a potent force for mobilization. It has also been learned that when they do not have a full understanding, some religious and cultural groups stand in the way of health initiatives.
- 10.** NID funds, commodities and materials should be estimated, obtained, and sent out to the regions well in advance of NIDs to facilitate smooth operations.

Example of an assessment of the EPI programme of country X

In 1998, the programme reactivated the inter-agency coordinating committee (ICC) to plan and implement NIDs rounds one and two. There was no committee looking specifically at communication activities. At the end of both rounds of NIDs, the ICC became dormant. Three months later, all the regions have not brought in complete returns on the achievements made during NIDs.

The report compiled by the NIDs contact person shows the percentage of children immunized as the following:

The figures show a declining trend in the percentage of children immunized during each subsequent NID. As in 1997, the northern province and the mountainous parts of the eastern province had the lowest coverage. While parents were enthusiastic to bring their children for immunization in 1997, in 1998 they had many reservations and excuses. Although the causes have not been studied systematically, those participating in immunization activities comment as below:

- Parents ask why their children should receive so many polio immunizations and wondered whether the many immunizations could harm their children.
- In the northern province there was a strong rumour that polio vaccines were laced with contraceptives.
- People felt that their time was better spent searching for food for the family than taking healthy children for immunization.

Before NIDs, the full immunization coverage (all antigens) of children under one year of age was 51 per cent. NIDs have helped raise the coverage to about 65 per cent. It is hoped that 1999 NIDs will raise the coverage to 80 per cent or above. But as happened after attaining UCI in the mid-1980s, it is feared that the coverage may drop after NIDs activities stop. No specific strategies have been developed to ensure that coverage does not drop after NIDs immunizations stop. At the moment there is poor linkage between NIDs and routine EPI. The contact person for routine EPI has complained that health workers take NIDs more seriously than routine EPI, and this makes her work more difficult. Routine EPI is also underfunded. During the first NIDs in 1997, we were lucky to have the First Lady launch activities at a well-attended event in which the ministers of line ministries (Health, Education, Labour, National Guidance, Youth and Women Affairs) participated. Permanent secretaries from these and other ministries, as well as a number of members of Parliament, directors of parastatals and members of the diplomatic corps, attended the occasion. In 1998, Justice Emily Lea of the High Court launched the event, with a visibly reduced presence of high-level national dignitaries. The event was attended by the Deputy Minister for Health, Permanent Secretaries for Health, Labour and the Ministries of National Guidance and Youth and Women Affairs. At the moment, there is no AFP surveillance system in place. The technical department is working on a surveillance draft that may be discussed and approved later this year. When the system is in place, the communication department will develop messages to promote it.

Successes

- The immunization programme is well established with basic support structures, such as the ICC.
- NIDs activities have been fairly successful and have increased immunization coverage.
- The programme has increased the coverage from 51 per cent to 65 per cent.

Weaknesses

- At 65 per cent, immunization coverage is still low.
- While some parts of the country have high immunization coverage, other parts have low coverage and a poor turnout during NIDs immunization.
- There is no committee/subcommittee looking into communication activities. As a result, communication strategies have shown some weaknesses.
- The ICC falls dormant at the end of NIDs, thus providing no continuity.
- No studies have been done to increase knowledge about areas of difficulty, such as resistance to the programme.
- There is weak linkage between NIDs and routine EPI, and NIDs tend to take attention away from routine EPI.
- Routine EPI is underfunded.
- There is no surveillance system in place and so health workers and caretakers are not reporting AFP cases.

Issues and problems

- Interest in the programme, both among high-level leaders and parents, is waning and there is need to develop more effective strategies to sustain interest in both target audiences.
- There is poor linkage between NIDs and the routine immunization programme. This area needs attention if the gains made through NIDs are to be sustained.
- There is a need to carry out studies to understand better the cause of waning interest, resistance and reduced coverage with each subsequent NID.
- Urgent attention should be paid to the development of both technical and communication components of the surveillance system. There is need to bring communication people into the surveillance development process as soon as possible.

3.5 Determine overall routine EPI/NIDs/surveillance problem(s) to address

At this level of assessment, many problems are identified, some of which may not be related to communication.

For instance, using our country assessment example given on the previous page, some of the problems that need to be addressed are:

1. Immunization coverage is low.
2. There is a decrease in immunization coverage from 1997 to 1998.
3. Some parts of the country (the northern province and the mountainous eastern province) have low immunization coverage and a poor turnout during NIDs.
4. Caretakers are questioning the value of immunizations.
5. Political support for NIDs is waning.
6. NIDs detract health workers and other staff from routine EPI.
7. There is no communication subcommittee within the ICC.
8. There is no surveillance system in place, and so health workers and caretakers are not reporting AFP cases.

After assessing the EPI programme, the next stage is to determine the key problem (or problems) that need to be addressed. At this level, the problems need not be related to communication.

C. Communication analysis

3.6 Problem analysis and formulation

The problems identified during assessment may not be problems in their own right, but manifestations, causes or explanations of the main problems. It is important then to begin analysis with the development problem itself, rather than discussing which media to use or what messages to disseminate. Only after painting a clear picture of the problem will it become evident which groups of people, performing particular behaviours with appropriate resources, need to be involved in the communication programme. Analysis also helps to develop messages and strategies that introduce, teach or reinforce performance of desired behaviour more effectively.

Using the following worksheet enables systematic analysis of the problem, tracing its causes and arriving at a problem statement that is sufficiently elaborated.

WORKSHEET 1: Problem Analysis

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Problem:			
Manifestation: <i>What is the manifestation of the problem?</i>			
Level of causality	Behavioural causes	Non-behavioural causes	Sources of information*
Immediate causes <i>These causes may include programme structure, lack of information, lack of capacity, etc., and may include problems of supply distribution</i>			
Underlying causes <i>These are usually at the level of government policy and practices, and include causes such as the school system, kinds of health services available, etc. The causes may include lack of infrastructure</i>			
Basic causes <i>Sociocultural, political and economic factors</i>			

*The sources of information column ensures that planners think about the causes and the reliability of the sources they are obtaining information from. It is important that problem analysis be research-based. Research helps to identify and quantify the scope of the problem accurately, including recognition of segments of the population most affected.

An example of problem analysis

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Problem: Low vaccine coverage			
Manifestation: High incidence of vaccine preventable diseases. (Source: MHC/EPI routine report, 1987)			
Level of causality	Behavioural causes	Non-behavioural causes	Sources of information
Immediate causes	Caretakers don't bring children for immunization Political and other rumours Lack of information among political leaders Service providers reprehend mothers	Inadequate access to health care facilities Shortage of vaccines	Records at health centres Health workers Newspapers and health staff Meetings, briefings, one-on-one interaction MOH (provincial) and NGOs Interviews with caretakers
Underlying causes	Religious resistance Low prioritization of EPI among political leaders Weak education system	Transport issues Shortage of staff	Statements by religious leaders Newspapers, briefings, one-on-one interaction District hospital
Basic causes	Low allocation of funds for education/social sector	Lack of funds	Government data

This framework of problem analysis enables us to analyse, in an integrated manner, the problems identified during assessment. In doing this, we distinguish between problems that are behavioural in nature and those that are not. From now on the focus is on behavioural problems and the problem analysis results will be used to arrive at a strong problem statement.

The **problem statement** answers the following questions:

1. What is happening (are people doing/not doing) that is a problem?
2. Where and when does it usually take place?
3. Whom does it affect?
4. What are the primary effects of the problem?
5. What are the possible causes?

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

The problem statement should be put in terms of what people are or are not doing so that it will be clear what aspects of the problem a communication programme can address.

Below is an example of one country team's efforts to define the problem more precisely as data from research became available. The final statement makes it clear what aspect of the problem communication would address.

Example of a problem statement:

In an initial team meeting, members agreed to the following draft statement of the problem:

Draft problem statement:

Country X has a very low vaccine coverage believed to be caused by poor planning and lack of infrastructure.

Available data, demographic health surveys and focused research to fill missing information enabled the country team to expand the draft statement to the following final problem statement

Final problem statement:

Country X had low coverage, 35 per cent for measles and 45 per cent for polio among children 0–5 years of age, in the years 1985 and 1986 (data recorded during routine immunizations), resulting in increased incidence of measles and polio. This is a result of poor planning, religious resistance and the absence of outreach services for populations in rural regions and urban high-density areas.

3.7 Determine problem behaviour(s) to address

To determine problem behaviours to address:

- Review all the behavioural causes identified above.
- Rate and prioritize behavioural causes on the basis of changeability and importance.
- Out of important and changeable behaviours, select one to three behaviours to address.

Only a few problem behaviours (no more than three) should be selected at any one time. The fewer the problems, the easier it is to come up with a focused plan that will achieve demonstrable results.

Criteria for determining changeability and importance of behaviour

Determining importance

- *Relevance*—How strong is the link between the behaviour and the health problem?
- *Occurrence*—How frequently or rarely does the behaviour occur?
- *Impact*—Does the behaviour have a demonstrable effect on the health problem?

Determining changeability

- *Stage of behaviour*—Is the behaviour in a developmental stage or is it already established?
- *Cultural acceptability*—Is the ideal behaviour that should replace the current behaviour compatible with acceptable sociocultural norms and practices?
- *Past successes/failures*—What successes/failures have been realized in efforts to change this behaviour in other programmes in the past?
- *Cost*—At what cost (in time, energy, social status, money and materials) will the ideal behaviour come about? Is the cost acceptable or too high?
- *Consequences*—Will the new behaviour yield positive or negative consequences for the person performing it?
- *Persistence*—Does the new behaviour require compliance over an acceptable or an unrealistically long period of time?
- *Complexity*—Is the behaviour too complex or can it be easily divided into a small number of elements or steps to facilitate adoption?

3.7.1 Behaviour rating and prioritization

What people know or think is important to health programmes. But it is what they do or fail to do that ultimately impacts programme achievement directly. For this reason, communication programmes should focus on behaviour and not knowledge or attitudes. Changes in knowledge and attitudes are only intermediate aims in communication for development. Properly planned, behaviour-driven communication should automatically address concerns about knowledge and attitudes as part of the communication package.

Communication is only effective when it is applied to behaviours that can change. The more changeable the behaviour, the more effective communication interventions are likely to be. Another factor to consider is the importance of the behaviour in solving the key problem. Criteria that can be used to determine changeability and importance of a behaviour are as follows:

3.7.2 Changeability and importance rating

To arrive at a manageable list of behaviours on which to focus, each problem behaviour is categorized using the above criteria on the changeability and importance worksheet given below.

WORKSHEET 2: Changeability and importance grid

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

	<i>More important</i>	<i>Less important</i>
<i>More changeable</i>	Priority 1 <i>More changeable and important behaviours. High priority for programme focus.</i>	Priority 3 <i>More changeable but less important behaviours. Low priority except to demonstrate change for "political" purposes.</i>
<i>Less changeable</i>	Priority 2 <i>Less changeable but important behaviours. Priority for innovative programmes.</i>	Priority 4 <i>Less changeable and less important behaviours. Not worth spending resources on.</i>

As mentioned in the grid above, Priority 1 behaviours are clearly the most cost-effective to focus communication efforts on. Little purpose is served focusing on Priority 4 behaviours, and Priority 3 behaviours may be of importance only when there is a political need to document change in these areas. Where such a need exists, these behaviours are often given only a temporary priority. More research and good analysis are needed to find innovative strategies for addressing Priority 2 concerns.

Following this analysis, the communication team should now have a short list of feasible behaviours that have an established impact and are amenable to change.

3.8 Conduct behaviour analysis

After determining problem behaviours to focus on, the next step is to analyse the chosen problem behaviours in order to understand them better and determine the behaviours to promote in their place. The behaviours are analysed on the basis of research findings.

The worksheet below should help in the behaviour analysis process. The grid carries an example based on the problem behaviour: *Caretakers do not take children with AFP to the health facility.*

WORKSHEET 3: Behaviour analysis worksheet

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Problem behaviour	Manifestation	Behaviours to Promote	Barriers to ideal behaviour	Factors encouraging ideal behaviour
Some caretakers do not take children with AFP to the health facility	They hide children with AFP They take children with AFP to traditional healers	Take children with AFP to health facilities within 24 hours of onset Advise neighbours to take children with AFP to health facility	Belief that paralysis is caused by evil spirits or witchcraft Belief that paralysis is a shameful disease Health workers ridicule caretakers when they take children with AFP to health facilities Health facilities are far Poverty—no bus fare to health facility	Caretakers take children to health facilities for other medical problems Health facility committees are being established A mechanism for reporting AFP within the community is being identified Youth organizations are very active in the community Representatives of traditional healers are willing to cooperate with health sector

3.9 Conduct participant analysis

During participant analysis, all categories of stakeholders that ought to be involved in the communication effort as either target audiences, partners or allies are identified and analysed. This includes identifying organizations that can support communication efforts as well.

3.9.1 Primary and secondary target audiences

Communication target audiences are identified in relation to key problem behaviours or behaviours to be promoted. Suppose that one of the problem behaviours identified in 3.5 is: *Some caretakers do not take children for immunization*. To identify key audiences, communication planners ask the following series of questions:

- *Who does not take children for immunization?* (This question helps to identify primary audiences/participants, i.e. the people who must take action for children to get immunized.)
- *Who is in a position to influence those who do not take children for immunization?* (This question helps to identify secondary target audiences in the immediate environment of primary target audiences, such as family and friends.)
- *Who will inform, support, persuade primary target audiences to take children for immunization?* (This question helps planners identify another important category of secondary audiences—the motivators.)

From this set of questions, the following target audiences may be identified:

Primary audiences: Mothers and fathers who have children under five years.

Secondary audiences: Grandmothers, siblings, religious leaders, members of the administration, local opinion leaders (teachers and community-based extension workers), traditional birth attendants, etc. A secondary category of secondary audiences may be identified as clinical officers, nurses at health facilities, family-health field educators and growth monitoring agents.

The general audiences identified above should be reviewed further to determine whether there is a need to subdivide them into narrower audience categories that can be reached more effectively with specific targeted communication efforts.

Take, for example, the problem: *Some caretakers do not take children for immunization*. Primary target audiences were identified as mothers and fathers who have children under five years. To complete the analysis, research information is used to answer questions such as the following:

- Are fathers and mothers with children under five years all the same, or can they be divided into different categories?
- Do they all live in the same place under the same socio-economic conditions?
- Do they all have the same needs?
- Do they all have the same reasons for not taking children for immunization?
- Can they all be reached effectively by the same communication effort, or do they need to be divided into more closely defined, smaller subcategories?

These and related questions should help communication planners decide on the subcategories of the general target audiences they will finally focus on. Ideally, each target group identified should be defined by at least three characteristics, e.g. *mothers who have children under five years, having primary school education, living in the rural area and belonging to the Angels Church*. These characteristics can include marital status, age, level of education, socio-economic status, area of residence, religious affiliation, number of children, etc.

3.9.2 Other partners to involve

In addition to determining primary and secondary audiences, participant analysis is concerned with identifying other individuals and institutions that may be enlisted to support behaviour change and behaviour development in the community. Partners may play an advocacy, social mobilization or programme communication role. Many may play more than one role at the same time. To identify partners, a different set of questions is asked.

Advocacy partners

- Who holds the key to programme acceptance in this community?
- Who are other influential people/groups?

Social mobilization partners

- Which agency or individuals are interested in or working for immunization?
- What facilities do they have (networks in the community, personnel, experience, training facilities, funds, transport, etc.)?
- What is their reputation in the community?
- What influence do they have with the authorities and primary and secondary target groups?

Programme communication partners

Programme communication partners are normally based in the community and are identified by asking the question:

- Who can motivate target audiences to adopt the behaviour being promoted?

Possible partners include influential people or other groups and individuals in the community.

The worksheet below may be used to identify individuals and organizations to be involved in a communication effort.

WORKSHEET 4: Participant analysis

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Problem behaviour	Participants			
	Programme communication		Social mobilization	Advocacy
	<i>Primary target audiences</i>	<i>Secondary audiences</i>	<i>Partners/allies</i>	<i>Partners</i>

The following case study of Zimbabwe provides an example of effective participant analysis.

Zimbabwe

Zimbabwe has one of the most successful EPI programmes on the continent. It has also had some of the most encouraging results in NID activities. Throughout the 1990s, Zimbabwe has reported maintaining OPV3 coverage above 80 per cent. Both rounds of NIDs conducted in 1996 reached an average of 96 per cent of children under five years.

What is the secret behind Zimbabwe's success?

Routine programme: One reason for Zimbabwe's ability to maintain the high immunization coverage on routine immunization is the extensive network of motivators the country has built over the years to support routine immunization. The network stretches from the national to the village level. Each of the country's public clinics is supported by a volunteer clinic committee, village community workers and community-based growth monitoring agents who disseminate health messages at public meetings, in group settings (women's groups, youth groups, etc.) and with couples during home visits.

Most of the time, motivators in Zimbabwe have educational materials on immunization to use, and every effort is made to keep immunization in the media, taking advantage of existing radio and TV programmes on national and local radio and TV networks. Presented as news reports and general interest features, EPI materials often get free air time.

Educational materials are developed at national and provincial levels and displayed on health centre notice boards and other public places with monthly themes, to reduce message fatigue. The country has adapted WHO EPI manuals and is in the process of integrating them into nurses' training curricula.

As is the case in many other countries, there is no explicit communication budget in Zimbabwe's EPI budget. Instead, the communication section sells its services to the budget holding departments, mainly the service delivery department.

NIDs: Both rounds of Zimbabwe's NIDs realized a high success rate because of the all-out effort made to mobilize communities and institutions, along with their resources, from the national to the village level. A workable division of labor was established between the mobilized partners. The programme disseminated key information that the public needed to understand the rationale behind NIDs and take action.

Messages disseminated answered the following key questions: What are NIDs? Why are NIDs conducted? At what venues? Who will be vaccinated? What are parents expected to do? Another message was that OPV doses given during NIDs are extra doses that supplement, but do not replace, the doses given during the usual schedule. Through phone-in programmes, questions asked by the public were answered, and Harare city vaccination points were listed in a local newspaper.

Partners mobilized included: (1) the local Rotary Club, which supported planning and monitoring; provided vehicles; supplied T-shirts, banners, posters, a cold room, food for volunteers, electrical plugs, adapters and ice liners; funded NIDs launching day activities; gave technical advice in developing radio messages and produced radio advertisements; (2) the Ministry of Transport and Energy, which provided vehicles used by health workers to sensitize the community prior to NIDs; (3) community workers: village health workers, farm health workers, city health promoters; (4) community-based distributors, who sensitized the community, worked with health workers at vaccination points, and collected data; (5) health workers and environmental health officers, who trained community leaders; (6) the Red Cross, which mobilized volunteers; (7) local farmers, who provided transport and volunteers; (8) churches, local community leaders, chiefs, politicians and local communities members, who sensitized local communities, donated cash and provided "Kick Polio Out of Africa" sun visors; (9) the Public Health Association, which provided a forum for the community and health workers to discuss and educate each other on NIDs; (10) ZANU-PF secretaries for health, who trained the community at the village level; (11) local radio and television, which gave free air time before and during NIDs; (12) politicians and other leaders, who also participated by launching NIDs at various levels.

Inspired by this success, Zimbabwe moved on to implementing measles NIDs.

3.10 Conduct channels/media analysis

Channels and media analysis provides answers to the following questions:

- What channels of communication are available for reaching the identified target audiences?
- What are the strengths and weaknesses of each channel?
- How effective are the channels in reaching the target audiences we wish to reach with the message(s) we plan to deliver?
- Where do people seek information on health or immunization? Why do they go to this particular place or individual? How can the place or individual be integrated in promotion of immunization messages?

Generic strengths and weaknesses of communication channels are given in Annex Two.

Structures through which messages can be disseminated to reach ultimate beneficiaries in the community should be closely analysed and strategic ones selected and incorporated into the programme. Selection of appropriate structures should ensure that messages reach intended target audiences. The structures should also be those that can help to sustain the gains the programme may make.

Below are some of the structures that have been used by programmers with good results in the past:

- Health workers networks at various levels
- Local authority structures
- Provincial administration
- Churches, mosques, temples and other religious facilities
- Women's organizations
- Youth organizations
- Schools (teachers and students)
- Village-based traditional "health consultants" (such as traditional birth attendants, traditional healers, medicine sellers)
- Motivators (including paid staff and volunteer village workers)
- NGOs

Collectively, these networks have the capacity to reach virtually all households.

The worksheet below should help communication planners approach channels analysis more systematically.

WORKSHEET 5: Channels analysis

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Target audiences	Group affiliation (religious, social, economic)	Where do target audiences go often/spend substantial time?	Whom does the target audience consult on health issues?	Who else can influence the target audience in health-related matters?	Channels to be used in EPI communication

3.11 Develop communication objectives

Having carried out the essential assessment and analysis, we are now in a position to state communication objectives to form the basis of our interventions.

First, an objective is a statement of the desired end result. The desired end result in communication for development is change from a *problem behaviour* (such as keeping children with AFP at home) to a *desirable behaviour* (such as notifying a health worker about children with AFP within 24 hours). Since the desired end result is behaviour change, communication objectives should be stated in behaviour (and not knowledge or attitude) terms.

Second, objectives must be specific and must be stated in such a way that they can be interpreted only **one way**. Vague objectives will be interpreted differently by different people and this will cause confusion. Besides, when objectives are vague, it is difficult to establish when they have been met or not. Good objectives are, therefore, SMART:

Specific—Objectives clearly state what is desired in terms of the end result.

Measurable—Criteria are specified for how the output will be measured in terms of quality, quantity, timeliness and/or cost.

Appropriate—Objectives should be culturally and locally acceptable.

Realistic—Objectives should be within realistic control of the individual but ambitious enough to challenge.

Time-bound—Time (and/or milestones) by which objective to be achieved is stated.

Communication objectives are derived from the problem behaviour (see 3.7) and behaviours to promote (see 3.8). Take, for example, the problem: *Caretakers do not take children under 15 years of age with AFP to the health facility and do not inform health workers about AFP cases*. The behaviour to promote may be:

- Caretakers should notify a health worker about children under 15 years of age with AFP within 24 hours.
- Caretakers should tell neighbours who have children with AFP to take the children to the health facility.

From the problem and the behaviours to promote above, SMART objectives could be as below:

Objective 1: *By the end of the year 2000, all caretakers (fathers and mothers) in Botswana will notify a health worker within 24 hours about their children aged 0–15 years who get AFP.*

Objective 2: *By the end of the year 2000, all caretakers (fathers and mothers) in Botswana will advise relatives, friends and neighbours with children aged 0–15 years with AFP to notify a health worker about such children within 24 hours.*

Note: Writing objectives is not as easy a task as many planners believe. For example, it took 20 minutes to write the initial version of the objective above. In spite of that time investment, when a peer reviewed it, she found several points of vagueness. The objective was then rewritten as two objectives and discussed with peers and revised again. Even then, as you read it, you may still notice something that needs changing to make the objective more SMART. Feel free to make that change. And when you write your own objective, subject it to rigorous peer review as this will invariably improve it.

3.12 Develop strategies and activities

As stated in 3.11, an objective is a statement of the desired end result. In this section we seek an answer to the question: *How do we reach the desired end result?*

As all development workers know, we get to the objective by developing and implementing appropriate strategies and activities. The figure below illustrates the relationship between objectives, strategies and activities.

A **strategy** is a short statement or phrase indicating a general methodology to be used to achieve a stated objective. In that form, the statement is too general to be implemented. It needs to be redefined and amplified to be acted upon.

Activities amplify a strategy, giving it the details it needs to be implementable. Example: *training health workers to disseminate key messages to caretakers*. As a strategy, it is stated in only one phrase that cannot be implemented. Activities give the strategy greater definition and break it into individual units that can be implemented and scheduled on an action plan (see 3.19 for the worksheet that provides a schedule for the integrated plan of action).



The box on the following page, using the AFP example, illustrates how to move from objectives to strategies and activity statements.

Objective 1

By the end of the year 2000, all caretakers (fathers and mothers) in Botswana will notify a health worker within 24 hours about their children aged 0–15 years who get AFP.

How will the objective be reached?

By implementing the following strategies:

- Training health workers to disseminate key messages to caretakers.
- Using religious institutions (churches, mosques, etc.) and other community groups to disseminate information to caretakers.
- Disseminating information in the mass media.

How will the strategies be implemented?

By implementing the following activities:

Preparatory work/action

- Hold a half-day briefing meeting with partners and EPI contact persons in the districts.
- Develop appropriate training curricula and IEC materials* to support the programme.

Training of health workers

- Identify and train 20 trainers, 2 per district, for 5 days and give them IEC materials to distribute.
- District trainers conduct training for health centre-based EPI contact persons (1 course of 30 per district).
- Trainers and health centre contact persons train operational health workers.
- Trained health workers disseminate messages at health facilities and in the community.

Working with religious institutions and community groups

- Conduct a survey to identify religious and community organizations to work with.
- Hold a one-day workshop with selected organizations to develop strategies for working together.
- Select and train trainers and contact persons from identified organizations (2 courses of 30 participants).
- Contact persons and trainers train identified message disseminators in the various organizations with the help of district trainers and health centre-based EPI contact persons.
- Trained message disseminators disseminate messages during various religious, village and family gatherings.

Information dissemination through the media

- Air radio spots two times a day for six months.

*Monitoring and evaluation***

- On the basis of strategies, activities and indicators (see also 3.13), develop an appropriate monitoring system and formats.
- Conduct routine monitoring at the national and lower levels.
- Receive monitoring data from the districts quarterly and give appropriate feedback to field staff.
- Prepare and disseminate quarterly reports.
- Evaluate communication activities early in the year 2001.

*IEC materials will include electronic and print materials. (See Chapter Four for material development.)

**See monitoring and evaluation in Chapter Nine.

3.13 Develop monitoring and evaluation indicators

Many communication programmes omit monitoring and evaluation, thereby missing the opportunity to track the performance and impact of their programmes. Communication planners are urged to break these practices and ensure that monitoring and evaluation indicators are established and used appropriately in EPI programmes. Monitoring and evaluation activities will enable communication planners to gain greater understanding of their programmes and find ways and means of strengthening them.

Monitoring and evaluation indicators are drawn mainly from programme objectives/activities and may be classified in three main categories, depending on the aspects of the programme to be assessed and how soon after commencement of the project evaluation is expected to take place.

Process indicators focus on short-term achievements of a programme and programme activities and the performance of programme processes and administrative and logistic arrangements. These indicators deal with the following questions: Were activities implemented as planned? How efficiently? How well did administrative and logistic arrangements work?

Impact indicators are useful in assessing medium-term effects of a programme. Impact evaluation usually uses quantitative research methods and provides information on the extent to which programme objectives have been achieved.

Outcome indicators are useful in providing information on the long-term effects of programme interventions. In a health programme, outcome indicators assess change in morbidity, mortality, health status and quality of life. Outcome evaluation uses quantitative research methods.

Example: Possible monitoring and evaluation indicators for Objective 1 in section 3.11

Objective 1 in section 3.11:

By the end of the year 2000, all caretakers (fathers and mothers) in Botswana will notify a health worker within 24 hours about their children aged 0–15 years who get AFP.

Possible activities relating to the objective are listed in the box in 3.12. Taking the objective and activities together, monitoring and evaluation indicators may include the following:

Process indicators

Half-day briefing meeting is held
Training curriculum is developed
Type and quality of IEC materials developed
Number of national trainers trained
Number of district trainers trained
Number of health workers disseminating needed messages
Type and quality of radio spots developed
Number of times radio spots aired
Frequency and quality of field staff reports
Consistency in giving feedback to field staff
Consistency in preparing quarterly reports

Impact indicators

AFP cases reported to health workers
% of caretakers notifying health workers of AFP cases within 24 hours
% change in the number of caretakers who know that AFP cases in children 0–15 years should be notified to health workers within 24 hours
% change in number of caretakers convinced that it is necessary to notify health workers about children with AFP within 24 hours

Outcome indicators

Botswana certified polio-free by WHO

Notice that process indicators based on planned activities can make a good basis for developing a monitoring checklist. Monitoring provides a basis to track programme progress; evaluation measures programme progress. More on monitoring and evaluation is in Chapter Nine.

Communication-related programme indicators for EPI may include the following:

Programme process and management

- Number of communication committees established.
- Number of meetings held by each committee.
- Number of provinces using this Handbook for planning EPI activities.
- Number of districts developing integrated EPI/NIDs/surveillance plans instead of free-standing NIDs plans.
- Number of committees commencing communication planning at least eight months in advance of NIDs.
- Quality of monitoring, documentation and reporting (e.g. reports received on time and correctly completed).
- Type and quality of data collected from the field for decision-making.
- How data collected are used.
- Availability of structures and processes that promote joint planning, consultation and information-sharing between the different EPI departments.

Knowledge

- Percentage of caretakers reached by immunization messages.
- Percentage of caretakers who know the minimum number of times they need to bring a child for vaccination by the age of one year.
- Percentage of caretakers who know the linkage between routine immunization and supplemental immunization.
- Percentage of caretakers who can identify the symptoms of AFP.
- Percentage of community leaders who know why members of the community should report cases of AFP.
- Percentage of community workers who can correctly describe the process of reporting AFP.

Attitudes

- Percentage of caretakers who believe that children should be immunized.
- Percentage of caretakers who are convinced that immunizations given during routine immunization and those given during NIDs:
 - Use the same vaccine
 - Have the same effectiveness
 - Are both safe
 - Are both necessary

- Percentage of caretakers convinced that it is necessary to notify health workers about children with AFP within 24 hours.

Behaviour

- Percentage of caretakers bringing children under one year to receive routine immunization according to the vaccination schedule.
- Percentage of caretakers bringing children under five years of age for both rounds of NIDs immunization.
- Partners and organizations participating in at least 80 per cent of the committees for NIDs and routine immunization.

Training and capacity-building

- Percentage of planned training and capacity-building activities:
 - Implemented
 - Implemented on time
- The number of training activities using participatory training methods.
- Number of people trained.
- Number of supportive supervision activities carried out by the national level and the district teams.
- Level of funds committed to training and capacity-building.

Sustainability

- Level of political and leadership support.
- Level of government funding and funding of donors and other programme supporters.
- Structures established to support communication at the different levels: national, district and community.
- How often research data are used in planning communication activities.
- Quality of long-range communication programmes developed.
- Level of community involvement in planning, funding, implementation, monitoring and evaluation of communication activities.
- Level of decentralization of resource allocation and programme management.

D. Design

Development of monitoring and evaluation indicators above completes the analysis steps. From here, we embark on the design steps. This section discusses how to develop plans in these areas. Other aspects of message and material development are in Chapter Four, while dissemination and training are discussed in greater detail in Chapter Five.

3.14 Develop plans for message development

Planning for message development involves decision-making in three main areas:

- Determining message concepts that will bring about the desired behaviour change.
- Selecting the communication approach.
- Choosing the message appeal or tone.

3.14.1 Determining basic message concepts

Messages to be communicated depend on target audiences, behaviours to promote (see 3.8) and factors likely to influence target audiences to adopt the desired behaviour. The behaviour promotion grid below will help communication planners determine the needed message areas and concepts. Actual complete messages cannot be put on the grid, as these can only be determined on the basis of audience research.

WORKSHEET 6: Message concepts

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

<i>Target audience</i>	<i>Behaviours to promote</i>	<i>Factors influencing adoption</i>	<i>Message areas/concepts</i>	<i>Communication approach</i>	<i>Appeal/tone</i>

Good messages:

- Reinforce positive factors identified on the grid above.
- Address misunderstandings and areas of deficient knowledge.
- Address attitudes.
- Give the benefits of behaviours being promoted.
- Urge specific action.
- State where to find the services being promoted.
- State where to find help, if needed.
- Address barriers to action.

More on message development is in Chapter Four.

3.14.2 Choosing the communication approach

During planning for message development, communication planners determine the basic communication approach they wish to take. Depending on the communication problem and research findings, planners may wish to take any or a combination of the following approaches:

- Informing
- Entertaining

- Persuading
- Educating
- Empowering

3.14.3 Choosing the message appeal and tone

Communication planners also determine the appeal that the messages should have. Depending on research findings, and the behaviours that need to be promoted, planners may select any or a combination of the following possible message tones:

- Positive or negative
- Rational or emotional
- Mass or individual
- Humorous or serious
- One- or two-sided
- Direct or indirect
- Definite or open-ended
- From a peer or from an authoritative source

3.15 Develop plans for material development

Many different materials can be developed to enhance communication. These materials should be determined on the basis of the target audience and the channel/setting in which the materials will be used. The worksheet below may be used in determining the materials to develop.

WORKSHEET 7: Plans for material development

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Strategy	Target audience	Materials to develop		
		Mass media	Group settings	One-on-one
Advocacy				
Social mobilization				
Programme communication				
Training				

Programmes should avoid developing posters, calendars, booklets and similar materials merely because many organizations develop them. Educational materials should be:

- Appropriate to the topic and target audience.
- Appropriate to the context/setting in which they will be used.

3.16 Develop plans for dissemination

Since the beginning of this planning process, many decisions that go into the communication plan have been taken. In this section, we think about how the pieces will fit together:

- How the messages will reach intended audiences.
- How educational materials will be distributed.
- How educational materials will be used.

Developing the dissemination plan involves, first, matching target audiences with activities, the settings in which they will take place, and materials that will be used to support those activities. Second, it involves developing a material distribution strategy and guidelines on how the materials can best be used. The grid below may be used to guide planning deliberations.

WORKSHEET 8: Dissemination plan

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Strategy audiences	Target audiences	Activities' materials			Educational strategy	Material distribution strategy	How material will be used
		Mass	Group	One-on-one			
Advocacy							
Social mobilization							
Programme comm.							
Training							

Activities: Generic activities have been identified in section 3.12. They are revised and listed according to the different channels/settings in which they take place—mass, group and one-on-one. Listing activities this way helps to evaluate them and answer the following questions:

- Are there adequate activities in all three communication channels/settings?
- Are the activities mutually supportive?
- Are the proposed educational materials the right kind to support activities in their different settings? Do we need to add more materials or drop some?

3.17 Develop plans for training

Effective implementation of EPI communication programmes may require both paid and volunteer implementers at various levels. Some of the participants may need training in order to:

- Acquaint themselves with the objectives, strategies and activities of the programme.
- Know the roles they are expected to play.
- Acquire information and skills needed to perform assigned roles.

Communication planners should, therefore, develop appropriate training activities to meet programme needs. Training categories may include:

- Various paid and volunteer motivators (e.g. community-based motivators, such as community health workers, people assisting at vaccination points, etc.).
- Immunizers and other appropriate health workers (to improve their interpersonal communication skills and build consensus about key information to be given to caretakers bringing children for immunization).
- Supervisors (to upgrade their ability to provide supportive supervision—see also 5.4.5).

The grid below may be used by communication planners to develop training plans. See 5.4.1 for a more detailed discussion on training and capacity-building.

WORKSHEET 9: Training plan

(A blank worksheet for use and/or photocopying can be found in the worksheet booklet.)

Training target groups	Training content	Duration of training	Officer responsible	Source of funds

3.18 Put together the integrated communication strategy planning matrix

In the present chapter (from 3.4 to 3.17), we have been developing sections of the integrated communication plan for the different strategies (advocacy, social mobilization and programme communication) in the different programmes of routine EPI, NIDs and surveillance. In this section, we bring together all the pieces to form one complete plan. We use the integrated communication plan format presented in 2.4 (the grid is reproduced below).

WORKSHEET 10: Integrated communication strategy planning matrix (routine EPI/NIDs/surveillance)

(A worksheet for use and/or photocopying can be found in the worksheet booklet.)

	Problem behaviour (see 3.8)	Behaviours to promote (see 3.8)	Target audience (see 3.9)	Comm. objectives (see 3.11)	Strategies (see 3.12)	Activities (see 3.12)	Monitoring & evaluation indicators (see 3.13)	Message areas (see 3.14)	Comm. approach (see 3.14)	Message appeal (see 3.14)	Message tone (see 3.14)	Channels of comm. (see 3.10 & 3.15)	Comm. materials (see 3.15)
Advocacy													
Social mobilization													
Programme communication													

3.19 Write the plan of action

Item 3.18 presents the integrated communication strategy planning matrix. The plan of action expands the planning matrix and provides information on the delivery/implementation schedule for the activities. Information on the source of funds for the activities and the officer responsible for initiating action is also to be filled in as this provides accountability and assists in tracking and monitoring programme progress.

The worksheet below may be used to develop the plan of action.

WORKSHEET 11: Implementation schedule/plan of action

(A worksheet for use and/or photocopying can be found in the worksheet booklet.)

Activity	J	F	M	A	M	J	J	A	S	O	N	D	Officer/ Org.*	Source of funds

* Officer/organization responsible for action



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APPENDIX XVI

: SAMPLE MESSAGES FOR CAREGIVERS REGARDING IMMUNISATION

Source: WHO (2002). *Communication for Polio Eradication and Routine Immunisation*.

Geneva: WHO Press

Sample messages for caregivers regarding immunization

Creating effective messages is not easy; it entails expressing appropriate and truthful technical, practical and motivational information in a way that can be easily understood but not easily misinterpreted by various audiences. Below are some generic messages about immunization that should be targeted at caregivers. In general, however, such generic messages should *not* simply be copied into local materials; instead, messages should be developed on the basis of audience research and then should be pre-tested. Therefore, the messages below should be considered *suggestions* as to the content but not to the actual wording of caregiver messages.⁹

Routine immunization

- Immunization protects your infant from certain diseases like polio and measles. Ensure that your infant completes the basic series of immunizations by his or her first birthday.
- It is your responsibility as a parent to know when and where to take your child for his or her next immunization. Check your baby's immunization card or ask your health worker.
- To get good protection against many diseases, people need to be vaccinated more than once.
- All women of childbearing age should be sure to receive enough tetanus vaccinations to protect themselves and their babies. Ask your health worker to check whether you need additional vaccination.
- It is normal for some injections to cause mild side effects such as light fever, soreness and redness. Consult with a health worker for advice about what to do if this happens.

National immunization days (NIDs)

- Polio kills or cripples children – vaccinate and protect your child.
- Polio vaccine is safe, free and given as drops in the mouth. The vaccine is called oral polio vaccine.
- NIDs will be conducted to eradicate polio from [name of country]. Take your children under age five to a nearby immunization site for polio vaccination from [inclusive dates] and again from [inclusive dates]. In addition, encourage your relatives, friends and neighbours to take their children under age five to get polio drops. Every child under age five should receive drops every time there is a NID.
- Before and after NIDs, take your child to the nearest vaccination site for his or her regular vaccination, according to the schedule on the child's vaccination card (or ask your health worker).
- Doses given during NIDs are additional doses to better protect your child.
- All women of childbearing age should be sure to receive enough tetanus vaccinations to protect themselves and their babies. Ask your health worker to check whether you need additional vaccination.

House-to-house campaigns

- During the NIDs this year, vaccinators will come to your house to vaccinate your children under age five. Please welcome vaccinators warmly. Try to ensure that all children under age five are home to receive their polio drops.
- (Also provide the messages listed under NIDs.)

AFP surveillance

- Immediately take any child under age 15 to the nearest health facility if he or she suddenly loses strength in one or both legs or arms. Likewise, take any baby who suddenly stops crawling, standing, or sitting to the nearest health facility. If this is not possible, inform the facility or a health worker immediately about the child's condition.
- Health workers must take stool samples from children under age 15 who exhibit a sudden loss of strength in one or both legs or arms to determine if the child has polio. Parents, please allow the taking (collection) of stool samples from your child.
- If you take a child with sudden loss of strength in one or both legs or arms to a traditional healer, be sure that this does not delay you in taking him or her to a health facility to be tested for polio.
- It is very important to act immediately if you become aware of a child under age 15 with sudden loss of strength in one or both legs or arms (which is called sudden floppy paralysis). Quick action can 1) allow the family to know sooner whether the child has polio or not, 2) help the family get advice on how to limit the disability caused by the disease, and 3) alert health workers to quickly give polio drops to other children so they will not come down with the disease.

Vitamin A supplementation

- Your children require vitamin A for proper growth and health.
- Vitamin A helps the body fight infections like measles and diarrhoea.
- Lack of vitamin A can cause night blindness.
- Take all children over age six months and under age five to receive vitamin A drops, in addition to polio drops, during the [round] of NIDs on [date]. Both polio drops and vitamin A drops are safe, free and effective.
- Ask your health worker about where and when to take your children for their next vitamin A dose. Each child should receive a new dose of vitamin A every six months.

New vaccines and technologies (see also checklist No. 11)

- The national immunization service now offers protection against an additional disease(s): (name of disease[s]).
- Hepatitis B vaccine protects against serious diseases of the liver. The vaccine prevents infections in children that can cause death when they reach adulthood many years later.
- Hib vaccine protects against many, but not all, cases of pneumonia and meningitis – two diseases that kill many, many children.
- Your children will receive the new vaccine at the same time they already receive protection against other diseases (diphtheria, tetanus, and whooping cough) [if quadrivalent or pentavalent is being used, in the same injection also]. Therefore, the new vaccine is like a bonus for your children – more protection with no more effort.
- The new vaccine is extremely safe and causes no new side effects.
- From now on, injections for immunization will be given in special syringes that make it easier to ensure that every vaccination is safe.

APPENDIX X: Emir Kano Immunising a child

Source: WHO (2010c). *Global Polio Eradication Initiative: Annual Report 2009 (Every Last Child)*. Geneva: WHO Press.



HRH the Emir of Kano immunizes his grandson at the launch of the November 2009 Immunization Plus Days.

