

PN-ACT-957
46

Abstract

This report represents the first in a series of documents designed to measure, analyze, and report on the progress and accomplishments of the BASICS/Nigeria program. The Integrated Child Health Survey was a multi-stage, stratified sample survey designed to provide information on the health of mothers and children in areas covered by the USAID-supported BASICS/Nigeria program. Respondents were women between 15 and 49 years of age with at least one child under five years of age. A total of 4,906 women, with 7,640 children under five years of age, were surveyed in the 20 LGAs that are the focus of BASICS work in the states of Abia, Kano, and Lagos. The framework for the ICHS survey was conducted between August and November 2000. The ICHS questionnaire covered an extensive set of interventions including pregnancy, delivery and post-partum care; breastfeeding practices; vitamin A status; childhood immunization prevalence; care-seeking; and treatment of common childhood illnesses. The Integrated Child Health Survey (ICHS) 2000 Survey Report is limited to two key interventions of the BASICS/Nigeria program: childhood immunization and nutritional practices. Subsequent reports on the other child health topics covered in the survey will follow.

The ICHS revealed several important factors on the needs of child health programs in Nigeria, including:

- routine immunization is the initiative with the greatest potential for impact on child health in the country;
- based on vaccination cards, far fewer than half of children are protected against diphtheria, pertussis, tetanus, and measles by their first birthday in the Abia and Lagos LGAs
- early initiation of breastfeeding is low in all three states
- in all three states, mothers obtain breastfeeding advice and information mainly from nurses and midwives, suggesting an important role for health providers in supporting improved breastfeeding practices.

These and other results of the Integrated Child Health Survey provide baseline information that should be valuable to planners and communities in establishing program direction and prioritizing the use of resources.

Recommended Citation

BASICS II/Nigeria. 2002. *Integrated Child Health Survey (ICHS) Nigeria 2000 Survey Report*. Published by the Basic Support for Institutionalizing Child Survival Project (BASICS II) for the United States Agency for International Development, Arlington, Virginia.

BASICS II is a global child survival project funded by the Office of Health and Nutrition of the Bureau for Global Health of the U.S. Agency for International Development (USAID). BASICS II is conducted by the Partnership for Child Health Care, Inc., under contract no. HRN-C-00-99-00007-00. Partners are the Academy for Educational Development, John Snow, Inc., and Management Sciences for Health. Subcontractors include Emory University, The Johns Hopkins University, The Manoff Group Inc., the Program for Appropriate Technology in Health, Save the Children Federation, Inc., and TSL.



This document does not represent the views or opinion of USAID. It may be reproduced if credit is properly given.

BASICS II

1600 Wilson Boulevard, Suite 300
Arlington, Virginia 22209 USA
Tel. 703-312-6800 • Fax: 703-312-6900
E-mail address: infoctr@basics.org • website: www.basics.org

BEST AVAILABLE COPY

A

Foreword

The BASICS/Nigeria Integrated Child Health Survey (ICHS) 2000 Survey Report represents the first in a series of documents designed to measure, analyze, and report on the progress and accomplishments of the BASICS/Nigeria program. The Integrated Child Health Survey was a multi-stage, stratified sample survey designed to provide information on the health of mothers and children in areas covered by the USAID-supported BASICS/Nigeria program. These areas included sites in the states of Abia, Kano, and Lagos. The fieldwork for the ICHS survey was conducted between August and November 2000.

Respondents were women between 15 and 49 years of age with at least one child under five years of age. The ICHS questionnaire covered an extensive set of interventions including pregnancy, delivery, and post-partum care, breastfeeding practices; vitamin A status, childhood immunizations prevalence, care-seeking, and

treatment of common childhood illnesses. The Integrated Child Health Survey (ICHS) 2000 Survey Report is limited to two key interventions of the BASICS/Nigeria program, childhood immunization and nutritional practices. Subsequent reports on the other child health topics covered in the survey will follow.

The Integrated Child Health Survey (ICHS) 2000 Survey Report will be accompanied by several documents generated from further analysis of the ICHS dataset. A report on the knowledge, attitudes and practices of ICHS respondents who were either pregnant or had an infant under one year of age at the time of ICHS will be available shortly. In addition, the ICHS allows comparison of the areas where the BASICS I project supported the Community Partners for Health (CPH) to those areas without CPH activity. A document describing the results of that comparative analysis will also appear shortly.

Acronyms

ARI	acute respiratory infection
BASICS	Basic Support for Institutionalizing Child Survival Project
BCG	Bacillus Calmette et Guérin
CAPA	Catchment Area Planning and Action
CBC	communication for behavior change
CCCD	Combating Communicable Childhood Diseases Program
CDC	Centers for Disease Control and Prevention
CPH	Community Partners for Health
DfID	Department for International Development
DHS	Demographic and Health Survey
DPT	diphtheria, pertussis, and tetanus vaccine
EA	enumeration area
EBF	exclusive breastfeeding
EPI	Expanded Program on Immunization
FMOH	Federal Ministry of Health
ICC	Inter-agency Coordinating Committee
ICHS	Integrated Child Health Survey
IR	intermediate result
IVACG	International Vitamin A Consultative Group
JHU PCS	Johns Hopkins University Population Communications Services
KAP	knowledge, attitudes, and practices survey
LGA	local government area
MICS	Multiple Indicator Cluster Survey
MOST	Micronutrient Operational Strategies and Technologies Project
NGO	non-governmental organization
NID	National Immunization Day
NNT	neonatal tetanus
NPC	National Population Commission
NPI	National Programme on Immunization
QPM	quality protein maize
REACH	Resources for Child Health Project
RISC	Routine Immunization Sub-Committees
SO	strategic objective
TBA	traditional birth attendant
TT	tetanus toxoid vaccine
UNICEF	United Nations Children's Fund
USAID/N	United States Agency for International Development/Nigeria Mission
VAD	vitamin A deficiency
WHO	World Health Organization

Executive Summary

The BASICS II/Nigeria project completed an extensive Integrated Child Health Survey (ICHS) during the period of August to November 2000. The survey was originally designed to evaluate the likely effect of the Community Partners for Health (CPH), launched during BASICS I in the mid-1990s, in bringing about the increased use of a range of child health and nutrition behaviors and services. Since 1999, the BASICS II program in Nigeria has evolved to focus on two lead interventions: immunization and child nutrition. In coordination with this change, the survey's focus was expanded to provide baseline data for key indicators to evaluate the BASICS/Nigeria program in 20 target local government areas (LGAs).

A strategic planning exercise at the start of BASICS II facilitated the identification of child survival initiatives that would allow BASICS/Nigeria to achieve the greatest impact on the health of Nigerian children. Routine immunization, promotion of breastfeeding, and Vitamin A distribution are priority interventions currently considered to provide the greatest potential for impact. This report provides an analysis of the baseline data; a follow-up survey is planned prior to the completion of BASICS II program activities. Two related reports detail 1) women's knowledge, attitudes, and practices (KAP) related to infant health; and 2) the CPH assessment.

A total of 4,906 women, with 7,640 children under five years of age, were surveyed in the 20 LGAs that are the focus of BASICS' work in the states of Abia, Kano, and Lagos. The LGAs represent 21%, 27%, and 51%, respectively, of each state's population. As such, the aggregate totals presented in the report represent only those

LGAs of each state in which the survey was conducted and should not be interpreted to represent the state as a whole. The ICHS used two types of questionnaires: 1) a household questionnaire to gather general information on the household and its residents, on malaria prevention, and on hygiene; and 2) an individual woman questionnaire. The woman's questionnaire covered number of births and survival of children, pre- and postnatal care, breastfeeding and child feeding practices, vitamin A supplementation, common childhood illnesses, home care and care-seeking behaviors, and participation in CPH, civil society, and decision-making.

Immunization

BASICS II perceives that routine immunization is the initiative with the greatest potential for impact on child health. A strong routine immunization program is a cost-effective means to reduce child morbidity and mortality and ensures that each new generation receives full vaccination coverage within the first year of life. Based on vaccination cards, the ICHS results indicate that far fewer than half of children are protected against diphtheria, pertussis, tetanus, and measles by their first birthday in the Abia and Lagos LGAs. Even when information from vaccination cards is combined with mother's report, only one in every five children in Abia and less than half of children in the Lagos LGAs are fully immunized.¹ In Kano, immunization coverage for all antigens is very low. Based on the vaccination cards, less than 10% of children reach their first birthday with effective protection against common childhood

¹ A fully immunized child is one who, preferably by the age of one year, has received BCG, Polio 1-3, DPT 1-3, and measles immunizations.

annually have been recommended for children 6-59 months of age as a measure that can achieve significant reductions in child mortality. All three states began distribution of vitamin A supplements during 2000 and included the supplementation as a part of national immunization days (NIDs). Though survey dates overlapped unevenly with the implementation of vitamin A distribution through the NIDs, two-thirds of Abia respondents recalled receiving vitamin A, with about one-half provided by health promoters. In Kano, one-third of respondents was given vitamin A, primarily by health promoters and by nurses. Nurses were the main providers of vitamin A in Lagos, where only one in four recalled receiving vitamin A.

Conclusions

The results of the Integrated Child Health Survey provide baseline information that should be valuable to planners and communities in establishing program direction and prioritizing the use of resources. The KAP study results are presented in a separate report and provide additional insight. Analysis and use of the ICHS results as presented should acknowledge the nature of the state aggregates and the variations among LGAs within each state. Nevertheless, the findings provide a useful baseline for BASICS' catchment area planning and action (CAPA) process and for evaluation later in the program.

In developing action plans, programmers will need to recognize the regional differences among the states and LGAs represented in this survey. Local culture and leadership, religious influences, educational levels, and media exposure will influence program initiatives and channels for intervention. Access to and utilization of the formal health sector will need to be addressed.

Survey results indicate the need for improved record keeping as an important step toward a strengthened routine immunization system. Health care providers can stress the importance of follow-up for full vaccination through communication materials that reinforce the importance of the vaccination card. The results of the survey also indicate that the effort to eradicate polio must be bolstered by an improved routine polio immunization program. The program should include efforts to inform health workers, to give priority to vaccine supplies for routine immunization, and to educate the community about the importance of full vaccination within the first year of a child's life. It will be important to determine for each LGA what factors contribute to incomplete vaccination of children, including issues of access, utilization, and supply and to aggressively address those causes at each contact opportunity.

The primary focus of breastfeeding promotion in areas of BASICS intervention should be on improving practices within the first few days and weeks after delivery. Nurses and midwives who are responsible for prenatal counseling and advice on delivery and newborn health should be trained to promote early and exclusive breastfeeding. In LGAs with low prenatal coverage, unconventional methods will need to be identified to reach families with messages and counseling on early breastfeeding practices.

BASICS will need to continue to review the NIDs-linked vitamin A activities and to focus CAPA and other community mobilization activities on the importance of vitamin A. By assuring high coverage of children 6-59 months of age with vitamin A, BASICS can play an important role in reducing child mortality.

Introduction

The BASICS I project in Nigeria began in 1994, and the project's efforts were continued by BASICS II in 1999. As part of the periodic evaluation of BASICS I activities, BASICS II completed an extensive Integrated Child Health Survey (ICHS) in Nigeria during the period of August to November 2000. This survey had a dual purpose to assess the effectiveness of the Community Partners for Health

(CPH) initiative launched during BASICS I and to provide baseline information for activities of the BASICS II project in Nigeria. This report provides an analysis of the baseline data, collected in 20 Local Government Areas for BASICS II's two leading interventions: immunization and child nutrition. A separate report, currently in progress, will assess the CPH initiative and the KAP of the respondents.

1.1 Overview of Nigeria Child Health Status

There is evidence that the child health status in Nigeria is poor compared with many other developing countries. As of 1999, the Federal Office of Statistics/UNICEF reported the infant mortality rate at 105 deaths per 1,000 live births and under-five mortality at 159 deaths per 1,000 live births (FOS/UNICEF, 1999, preliminary report). While a number of factors are responsible, these deaths are the result of common preventable and/or treatable childhood illnesses. The data derived from the National Health Management Information System showed that the main contributors to infant deaths were malaria (27%), diarrhea (24%), acute respiratory infections (22%), and vaccine preventable diseases (10%) (FMOH, 2000, United Nations Systems, 2001).

Immunization programs are critical to combating such high child morbidity and mortality rates and are viewed by UNICEF and the World Health Organization as a cost-

effective approach to significantly improving child health status. The 1999 Nigeria Demographic and Health Survey (NDHS) reports low immunization coverage. As of 1999, only 17% of children 12-23 months of age were reported as fully vaccinated, down from about 30% in 1990. Nearly two of every five Nigerian children 12-23 months of age had not received any vaccinations. Immunization coverage rates fall rapidly after the first vaccinations are received (BCG, DPT1, and Polio1) (NDHS, 1999). When compared with recently released averages for sub-Saharan Africa, Nigeria's immunization coverage is fairly low. Preliminary data tables from the UNICEF/Nigeria 1999 Multiple Indicator Cluster Survey (FOS/UNICEF, 1999, preliminary report), estimate that DPT3 coverage for Nigeria was 36%, the estimate for the same year for the AFRO region of WHO (Sub-Saharan Africa) was 52% coverage (UNICEF, 2000).

Malnutrition increases a child's risk for the childhood illnesses cited above. Thus, in the struggle to reduce infant and child morbidity and mortality, adequate nutrition for children and their mothers remains a priority. The first important step affecting lifelong health and nutrition is early initiation of breastfeeding, especially within the first hour to ensure that the infant receives immune-rich colostrum. The NDHS indicates that 96% of children are breastfed, but the proportion of women initiating breastfeeding within the first hour

Table 1.2.1 Strategic Objectives and Intermediate Results of USAID, USAID/Nigeria, and BASICS II

USAID Child Survival Objective

SO 4: Increased use of maternal and child health services and preventive measures within a supportive policy

USAID/Nigeria Intermediate Results

IR 3: Improved Maternal and Child Health Practices

- 3.1 Improved Immunization Coverage
- 3.2 Improved Childhood Nutrition
- 3.3 Improved Maternal Health Care
- 3.4 Improved Prevention and Management of Diarrhea, Malaria and ARI

BASICS II Intermediate Results *[for immunization and nutrition]*

- Immunization IR 1: Routine immunization coverage increased sustainably through system strengthening
- Immunization IR 2: Comprehensive approaches to disease control designed and implemented
- Nutrition IR 1: Community-based integrated health and nutrition approaches demonstrated or scaled up
- Nutrition IR 2: Health systems capacity for improving child health through nutrition strengthened
- Nutrition IR 3: Use of strategies that focus on supporting household-level nutrition behaviors increased

accomplished. Once independent, the NGOs will assist their communities in efforts to strengthen child survival and other social services directly as well as by advocating for support from the government and the private sector

Within the 20 target LGAs, BASICS II has instituted a strategy called catchment area planning and action (CAPA). CAPA is a community-based approach intended to strengthen planning and action through a series of steps, including advocacy with state and LGA officials, the cascade training down to the primary health care and private facility level, and assessment and action by local decision-makers. The CAPA approach provides a platform from which numerous interventions can be developed. Initially, it serves as a vehicle for immunization programming and provides for the delivery of nutrition interventions. The intent is that eventually the CAPA process will serve as a vehicle by which needs and opportunities are

identified and multiple interventions are planned and implemented.

A strategic planning exercise facilitated the identification of child survival initiatives that would allow BASICS II to achieve the greatest impact on the health of Nigerian children. Routine immunization, promotion of breastfeeding, and Vitamin A distribution are the priority interventions currently considered to provide the greatest potential for impact. BASICS II remains open to future opportunities. By continuing representation preeminently at the planning and policy level, BASICS II is planning to initiate programs in the areas of malaria, peri/neonatal health, integrated management of childhood illness, and the role of social mobilization and communication for behavior change.

At the intermediate result level, six performance indicators have been selected to represent the changes in the use of child health services and behaviors sought by the current program.



The Integrated Child Health Survey

2.1 Survey Objectives

With the transition from BASICS I to BASICS II, BASICS/Nigeria underwent a series of assessment and strategic planning exercises. Recommendations from two review and planning teams in 1999 indicated the need to evaluate the likely effect of the Community Partners for Health through the use of a population-based household survey. In response, the Integrated Child Health Survey

(ICHS) was designed specifically to assess the effectiveness of the CPH model in bringing about measurable change in the use of child health interventions.

As the survey planning, questionnaire development, and sampling procedures were underway (March-June 2000), the BASICS/Nigeria program was evolving in response to USAID strategy shifts noted in the previous section. In particular, the Integrated Child Health Survey, originally planned only for those 9 local government areas where the CPHs were active, was expanded to include all 20 local government areas where BASICS would operate in the coming years. This decision altered the size and the scope of the ICHS, in effect doubling the total sample and increasing the logistical requirements for the fieldwork. By the end of the design stage, the two primary objectives of the ICHS were to:

- Examine the potential effect of the Community Partners for Health in bringing about increased use of a range of child health and nutrition behaviors and service use.
- Provide baseline data for key indicators to evaluate the BASICS II/Nigeria program in 20 local government areas.

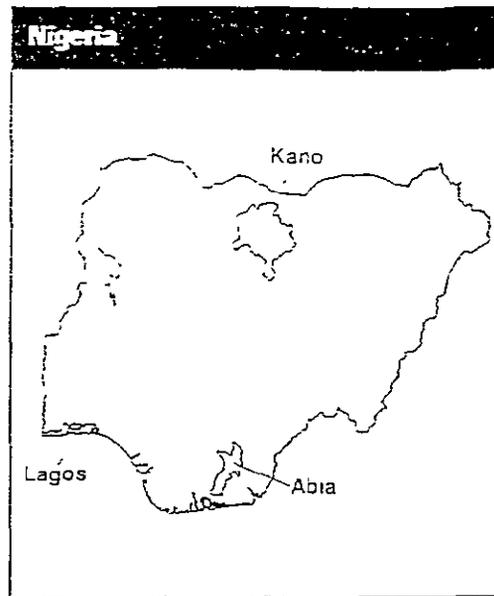
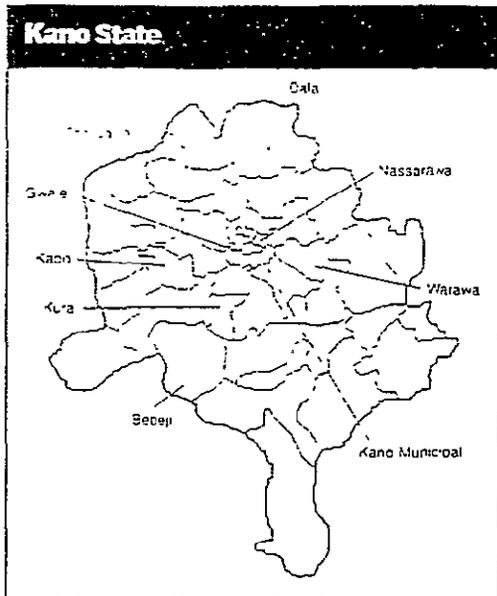
The Program Officer in charge of the BASICS II/Nigeria Monitoring and Evaluation

Unit, Dr. Hezekia Adesina, led the ICHS team, which included technical assistance and support from BASICS headquarters and international and Nigerian consultant staff.

The ICHS, as expanded to cover 20 target LGAs, yielded baseline information on child health indicators to be used for measuring program outcomes and impact on a population basis. A follow-up survey is planned prior to the completion of BASICS II program activities.

Throughout ICHS fieldwork, data entry, and initial data preparation (August 2000 through February 2001), the BASICS II program in Nigeria continued to strategize and focus efforts on a priority set of child health interventions: routine immunization, promotion of breastfeeding, and vitamin A distribution. With its initial mandate to establish a baseline for the evaluation of the effect of the CPH model, the ICHS targeted women with children under age five and covered a wide range of child health interventions. This Survey Report provides a general baseline for priority interventions of BASICS/Nigeria in the areas of childhood immunization and nutrition and focuses on the 20 local government areas where the BASICS/Nigeria program now intervenes.

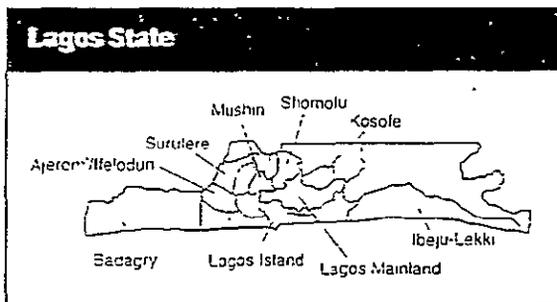
A more in-depth examination of knowledge, attitudes, and practices related specifically to infant health accompanied the main Integrated Child Health Survey. The



Lagos

Lagos was created in 1967, when the country's four regions were divided into 12 states. Unlike most of the other states, Lagos has maintained its original geographic boundaries. The state headquarters is located in Ikeja. A former national capital of Nigeria, Lagos has a large population of the various ethnic groups in the country, but the Yorubas are the most dominant ethnic group in the state. The state covers a land area of 3,577 square kilometers—only about 0.4% of the entire area of the country—but it accommodates 7,401,880 people and has the highest population density in the country.

Lagos is divided into 20 LGAs. Each LGA is administered by elected officers who are headed by an executive chairman.



BASICS II is operating in nine of the LGAs, representing 51% of the population: Ajero/Ifeleodun, Badagry, Lagos Island, Lagos Mainland, Mushin, Kosofe, Ibeju Lekki, Shomolu, and Surulere.

2.3 Sample Design

The sample design for the BASICS/Nigeria ICHS was intended to evaluate the activities from the first phase of the project and to provide baseline measures for a prospective evaluation of subsequent interventions with comparison areas. In order to meet this objective, a sampling strategy was developed to oversample in areas where BASICS was currently active. This procedure was necessary in order to obtain a sufficient number of cases to report on BASICS'

performance in those areas. Therefore, a multi-stage, stratified sample design was developed. The 10 LGAs with BASICS presence were subdivided into two strata: (1) areas within the LGA where BASICS was active (CPH area) and (2) areas within the LGA where BASICS was not active (non-CPH area). The ten LGAs where BASICS was slated to begin activities constituted a third and separate strata.

for use by countries around the world and on the Nigeria 1999 Demographic and Health Survey implemented by the National Population Commission. Modifications to these survey instruments were made to address issues of greatest programmatic relevance to BASICS/Nigeria. (The BASICS/Nigeria ICHS questionnaires appear in Annex 2.1.)

The household questionnaires collected information on all usual residents of the household, including information on their relationship to the head of household, sex, age, education level, survival status of parents for household residents under 15 years of age, and eligibility status. The survey also collected information not included in this analysis on characteristics of the household (e.g., source of drinking water, type of sanitary facility, type of fuel used for cooking, household ownership of appliances and vehicle); malaria prevention (e.g., bednet possession, use, treatment with insecticides), and hygiene (e.g., handwashing).

The woman's questionnaire covered background and exposure characteristics including age, length of residence, education, reading ability, frequency of media exposure, religion, ethnicity, and work outside of the home. A series of questions examined knowledge of and membership and participation in Community Partners for Health. The woman's questionnaire also gathered information on number of births and survival of children; prenatal care, delivery, newborn, and postpartum care; breastfeeding practices, vitamin A supplementation, immunizations and participation in National Immunization Days, prevalence of common childhood illnesses, including fever, acute respiratory infections, and diarrhea; home care and care-seeking behaviors; child feeding practices, especially during illness; and women's participation in civil society and decision-making.

2.5 Training and Fieldwork

The staffing structure for the BASICS/Nigeria ICHS field operations appears in Annex 2.2.

Each of the three survey sites was under the direction of a field coordinator who was an experienced survey researcher recruited from a local university. Working directly with the field coordinator was an office editor responsible for ensuring the completeness and accuracy of questionnaires coming from the interview teams. A supervisor headed each interview team. Supervisors were selected from among the interviewer candidates and were typically Ministry of Health personnel with management responsibilities for maternal and child health programs and experience in survey fieldwork.

Each interview team consisted of four to six interviewers, a field editor, and an enumeration area guide. Interviewers were recruited from among Ministry of Health personnel and other qualified candidates in each of the three sites. Enumeration area guides were recruited from among the geographers and other personnel at the local offices of the National Population Commission. (A complete list of survey personnel appears in Annex 2.3.)

Interview team supervisors received a day of orientation prior to the training of their teams. The orientation session allowed the supervisors to review and discuss topics including the procedures and organization for fieldwork. The orientation also provided an in-depth review of the survey instruments, including the household listing forms, the household schedule, and the woman's questionnaire. Roles and responsibilities for all survey personnel were discussed. The supervisor orientation was immediately followed by four days of training for the interview teams. Topics covered in the training sessions included the survey instruments, interviewing procedures, and instructions for recording responses. Training methods included lectures, role-plays, classroom practice sessions, field practice sessions, and group discussions of the practice sessions. Training for each of the three sites was conducted immediately prior to fieldwork at each site between August and October 2000.

General Findings

3.1 Characteristics of Women and Children in Sample

The following tables illustrate the general characteristics of the surveyed populations in the 20 LGAs of Abia, Kano, and Lagos. These characteristics include ages of the women and young children, and the women's religion, education, and media exposure.

The mean age of the surveyed women was 29 years (Figure 3.1.1). Respondents in Kano LGAs were younger, on average, than in Lagos or Abia. As seen in Table 3.1.1, 36% of respondents in Kano were less than 24 years of age, compared to 16% in Abia and 18% in Lagos. These figures—taken with recently conducted national household surveys that show that approximately 50% of women 15-19 years of age in the northern region have begun childbearing, are indicative of high levels of early childbearing, which has been associated with high risk pregnancy and low birth weight (NDHS, 1999).

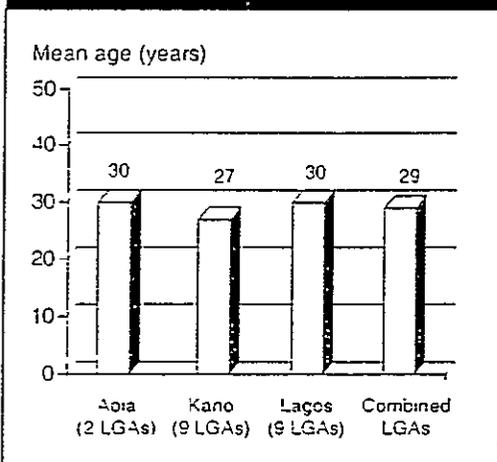
Table 3.1.2 illustrates the distribution of children by age in months in this study. Twenty-four percent of children under five

surveyed in the Abia LGAs were under one year of age, compared to 21% in Kano and 25% in Lagos. Children less than two years old comprised 45% of those surveyed under age five in Lagos, 42% in Abia, and 37% in Kano.

Table 3.1.3 shows state aggregate totals for the highest level of education attained by the women surveyed. In Abia and Lagos, high proportions of respondents reported attendance at secondary level and higher. More than four-fifths of women surveyed in Kano state LGAs (83%) have primary education or less—a factor that should receive careful consideration when developing communications for behavior change.

Table 3.1.4 shows the percentage distribution of women by religious affiliation, reflecting the dominant religion in each of the project sites. Whereas the Abia and Kano respondents were primarily of one faith (99% Christian and 96% Muslim, respectively), respondents in Lagos were split with 60% Christian and 40% of Islamic faith. BASICS II will need to take note of the implications of religious differences in building strategies for program formulation and implementation in each of the project sites around the country. As messages and strategies are developed to increase use of services, programmers need to understand the underlying religious beliefs and customs that influence child health, including who makes child care decisions and how and when services are sought. Similarly, as the project attempts to scale up successful initiatives, messages and

Figure 3.1.1 Mean age of women in the sample for project area LGAs, by state, BASICS II/Nigeria ICHS 2000



strategies need to be adapted for areas with different religious beliefs and customs. Lagos LGAs, with a mix of faiths, will need to adapt communications to reach all parts of the population. Areas with diverse populations must also be accounted for when pre-testing materials, as well.

The proportion of women who read newspapers and magazines in all the LGAs in Kano was considerably lower than that of the women in the LGAs of either Abia or Lagos State. The lower percentages of surveyed women in Kano LGAs who reported regularly reading print media (Table 3.1.5) may directly correspond to the observations for Table 3.1.3 (educational level attained). Two rural LGAs in Lagos (Badagry and Ibeju Lekki) showed similarly low readership (16% and 9%, respectively). Weekly exposure to radio was over 50% in all but three of the surveyed LGAs, providing strong rationale for including this medium in broad-based communication efforts. For the Warawa LGA in Kano, only 17% of the respondents listened to radio programs; the cell sizes were too small to

determine exposure to TV or print media, but that figure also should be presumed to be low. In designing advocacy and behavioral change communications strategies for health programs in these LGAs, programmers will need to seek locally appropriate means to influence health behaviors. Reported exposure to TV is above or near three-quarters for both LGAs in Abia and for all but two in Lagos. These LGAs are primarily urban, with good access to electricity. The LGAs in Lagos, Badagry and Ibeju Lekki, with 40% and 16% TV exposure, respectively, are rural and have more limited access to electricity. Television exposure in the Kano LGAs varies widely, from around 60% (55–70%) in Dala, Gwale, and Kano Municipal to 17% in Kura. This variability poses significant programming challenges for state-level planners in Kano. It will be important to identify traditional means through which women receive information (e.g., market groups, women's associations, trusted elder women or neighbors, mosques). These avenues should be tapped by communication and outreach efforts.

Table 3.1.3 Distribution of eligible women interviewed by highest education level attended, by state, BASICS II/Nigeria ICHS 2000

State (LGAs)	Percentage completing education level					N (women)
	No education	Koranic primary	Primary	Secondary/higher	Total	
Abia (2 LGAs)	2	0	20	78	100	954
Kano (9 LGAs)	24	43	16	17	100	1890
Lagos (9 LGAs)	10	*	24	66	100	2062
Project area average	14%	17%	20%	49%	100%	4906

* Data suppressed due to small cell size (fewer than 10 observations)

Immunization

Working in conjunction with USAID, WHO, CDC, UNICEF, DfID, and other international organization partners as well as with the World Bank, the Gates Foundation, Rotary International, and Red Cross, BASICS II seeks to improve routine immunization coverage in Nigeria. Systems-strengthening approaches, such as CAPA, improvements in monitoring, advocacy at the LGA and state levels for

political and financial support, social mobilization, and training, will be the primary mechanisms for accomplishing routine immunization

BASICS II provides technical support to the National Polio Eradication effort by active participation in the Inter-agency Coordinating Committee (ICC) and its subcommittees on routine immunization training and social mobilization. Contributions to national immunization days (NIDs) include support to national and zonal training for NID implementation and post-round zonal and national program review in all six of Nigeria's geopolitical zones. These zones were set up in part to increase equity and to accommodate variations in economic and social conditions

BASICS II perceives that routine immunization is the initiative with the greatest potential for cost-effective impact on child health. As such, support for routine immunization is central to BASICS' assistance in Nigeria. To a lesser extent and only as budget and project requirements allow, the project will explore disease reduction activities in selected LGAs for the development of national strategies for the significant reduction of measles and neonatal tetanus. The project staff is pursuing two complementary paths of activity:

- Supporting the Nigerian Immunization Program with an emphasis on improved program monitoring/assessment.

- Involving the community in the planning and implementation of more effective routine immunization services in selected areas of three states to provide quality services and to achieve high levels of sustainable immunization coverage.

4.1 Record Keeping/Immunization Cards

As the BASICS II project works to strengthen the management of routine immunization services, the ability to document and monitor immunization coverage will receive priority attention. Vaccination cards must be consistently available at service delivery points and child caregivers must feel motivated to retain these records over time.

Figure 4.1.1 illustrates the overall levels, aggregated by state, of immunization cards held for children 0–23 months of age. It is important to note that the state aggregate totals represent only those LGAs of each state in which the survey was conducted and should not be construed as representative of the state as a whole. The figures are broken out for children 0–11 months and 12–23 months of age in Table 4.1.1.

The aggregates for Abia and Lagos indicate that approximately two-thirds of children under age one had vaccination cards. However, card ownership among the group of children 12–23 months of age dropped to just over half in both states. These lower levels may be indicative of serious problems with

Among the most important indicators of a strong routine immunization program is the percentage of children immunized against DPT3 and measles by one year of age (the last in the series of childhood immunizations). Evidence of coverage based on cards indicates a state aggregate for Lagos of 45% for DPT3 and 37% for measles during the first year of life. In Abia, DPT3 and measles coverage stand at 39% and 32% respectively. However, it should be remembered that these aggregates mask lower levels in some of the LGAs surveyed. Coverage figures in this range indicate that the rudiments of a routine immunization program are in place. However, significant effort will be required to achieve and sustain

coverage levels that effectively convey protection on a population basis.

The aggregate for the state of Kano, even using the most optimistic scenario of mother's reporting, shows a low 11% measles coverage in the first year of life and the same for DPT3 coverage. In light of the low proportion of surveyed children in Kano who have vaccination cards, even these figures may be optimistic. These numbers indicate serious problems of utilization, but also may reflect recent vaccine supply problems in the state.

BCG (or DPT1) immunization, generally administered during the first contact of a newborn with health services (i.e., at birth or shortly thereafter), can serve as an indicator

Table 4.2.1 Vaccination by source of information: Children 12-23 months of age who received specific vaccines by 12 months of age, according to vaccination card or mother's report & card, BASICS II/Nigeria ICHS 2000

State (LGAs)	Percentage of children who received										N (children 12-23 months)
	BCG	DPT			Polio			Measles	FIC ^a		
		DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3			
Abia (2 LGAs)											
Card	38	43	42	39	33	43	45	35	32	14	154
Mother's report & card	56	64	62	57	49	58	66	52	48	20	299
Kano (9 LGAs)											
Card	13	9	8	6	9	8	7	4	6	*	73
Mother's report & card	24	17	15	11	17	16	15	7	11	2	471
Lagos (9 LGAs)											
Card	51	51	50	45	44	52	50	46	37	29	328
Mother's report & card	74	73	72	65	64	71	73	67	54	42	592
Project Area Average											
Card	35	35	34	30	30	35	34	29	25	16	555
Mother's report & card	56%	55%	54%	48%	47%	52%	55%	48%	40%	26%	1362

- a. For children whose information was based on mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.
- b. FIC: Child fully immunized by 12 months of age: child received one dose of BCG, three doses of DPT a, and three doses of polio vaccine, and one dose of measles antigen.
- * Data suppressed due to small cell size (fewer than 10 observations).

While Table 4.2.1 presents data on immunizations received by the age of one year, Table 4.2.2 presents data on immunization coverage for the same group of children 12-23 months of age at any time prior to the ICHS survey. Experience in other countries has shown that if a program has not yet achieved the ultimate goal of full immunization coverage at one year, a higher percentage of children tend to complete the immunization schedule by age 23 months. A vaccination program can build from this point towards achieving timely completion (by one year of age) for future cohorts of children. A comparison of Table 4.2.1 and Table 4.2.2 shows the routine immunization program's ability to reach children, if not by 12 months of age, then before they reach their second birthday. Using coverage based on cards, Tables 4.2.1 and 4.2.2 show that there were virtually no differences in the proportion of children vaccinated by 12 months compared to those

vaccinated by any time prior to the survey (but prior to 23 months). These figures would indicate an inability of the routine system to provide the follow-up necessary to identify and reach unvaccinated children.

Dropout Rates

A further important measure of routine immunization service is the dropout rate of children from one immunization to another. In a strong routine immunization program, a child who receives his/her first immunizations at birth will be followed and appropriately vaccinated for all antigens within a reasonable amount of time (ideally by one year of age). Table 4.2.3 illustrates dropout rates for several antigens.

Frequently, the dropout rate is calculated from BCG or DPT1 to measles. In the case of Nigeria, it is more informative to calculate dropout from DPT1 to DPT3, since future analysis of dropout rates involving measles immunization could be influenced by mass

Recommendations

The low numbers of children vaccinated against polio, even at two years of age, indicate a general neglect of routine polio immunization, which runs counter to WHO policy. WHO policy is that the national immunization days are to supplement and not replace routine immunization. In order to improve routine polio immunization, programmers need to assess the root of the problem. It may be that health workers are improperly informed about the need for routine polio immunization in addition to the mass vaccination campaigns; or it may be that vaccine supplies have been depleted by the campaigns themselves. It also may be, as in anecdotes from other countries, that mothers come to believe that mass polio immunization is all they need and tend to neglect routine immunization. National campaigns require resources, both human and material, that are beyond the capacity of national or district governments to sustain. National campaigns are intended to supplement—not replace—routine immunization in the short term. Long-term gains against childhood communicable diseases in Nigeria will only be achieved through a strong routine immunization program.

The analyses presented here are based on the most rigorous and valid definition of coverage, that is, coverage based on vaccination cards seen and for children immunized prior to their first birthday. In the Lagos and Abia LGAs, this method accounts for just over one-half of all children surveyed in this age range. The resulting coverage data paint a picture of a system in need of strengthening from the bottom up if coverage is to be increased and sustained into the future. Additionally, in efforts to achieve a quality routine immunization program with interventions based on clear and accurate information, the need for strong record keeping cannot be overemphasized.

The low coverage, even at 23 months for some antigens is indicative of under-use of routine immunization services and lack of follow-up. Inadequate or interrupted vaccine supplies can also result in missed opportunities to vaccinate when a child does visit a health facility. For each LGA, it will be important to determine the reasons for children remaining unvaccinated and dropping out and to aggressively address those causes at each contact opportunity.

The rates for DTP3 to measles are consistent with an earlier analysis of the urban immunization program in Lagos for the REACH Project (1990). The highest dropout rates for this marker are for Abia, with two primarily urban LGAs surveyed. In Kano where overall immunization is lower, measles coverage exceeded that of DTP3 with a dropout rate equal to -13%. Weak immunization systems may be unable to provide three timely doses of DTP before nine months of age, such that measles is often given on the child's first visit with DPT1 or the second visit with DTP2.

Recommendations

The dropout rates presented here are aggregates for all surveyed LGAs in each state and may mask specific local problems within the immunization program. It will therefore be important to interpret where the dropout is occurring for each state and for each LGA and to specifically tailor community interventions to remedy the poorest performing parts of the system.

4.3 Vaccinations by Provider

Improving vaccination coverage is inherently linked to issues of accessibility and utilization of public health services. Table 4.3.1 presents a breakdown of providers of vaccinations to

children 12-23 months of age at the time of the survey. Due to the sequencing of questions in the survey, the data presented in this table relate to those children whose mother presented a vaccination card or whose mother volunteered that the child had ever received a vaccine not reported on a card. Questions probing mothers' recall of specific immunizations occurred later in the interview.

From this data, it appears that in the surveyed LGAs the private sector role in childhood immunization is very limited; and in the public sector, the preponderance of mobile clinics, including NIDs for polio eradication, constitutes a source of concern. Due to the use of a single response category for 'mobile clinic', it is impossible to differentiate regularized routine outreach for immunization from other types of less regular, ad hoc services. However, the data presented here point to the need for programmatic effort to strengthen the sources of routine immunization and to increase the availability of trained, reliable providers of immunization. Efforts should be made to assure a continuous vaccine supply to those who provide care for young children.

Table 4.3.2 presents the reported experience of mothers with National Immunization Days. For all children under five years of age, mothers were asked if their child received vaccines as part of NIDs held in

Table 4.3.1 Children 12-23 months of age who received vaccines, by type of provider and state, BASICS II/Nigeria ICHS 2000

State (LGAs)	Provider of vaccinations (%)							N (children 12-23 months)
	Public sector			Private sector				
	Hospital	Health center/ Clinic/ Post	Mobile clinic, incl. NIDs 'at home'	Hospital/ Clinic	Pharmacy	Patent medicine vendor	Other	
Abia (2 LGAs)	0.4	15	92	4	0	0	0.4	289
Kano (9 LGAs)	7	14	83	0.8	0	0.3	0.3	402
Lagos (9 LGAs)	2	4	71	2	0	0	0	568
Project area average	3%	10%	80%	2%	0%	0.1%	0.2%	1259

Table 4.4.1 Doses of tetanus toxoid received during last pregnancy by mothers of children 0-11 months of age, based on mother's report, BASICS II/Nigeria ICHS 2000

Percentage of children whose mothers received

State (LGAs)	0 doses	1 dose	2+ doses	DK/missing	Total	N (children 0-11 months)
Abia (2 LGAs)	3	6	89	2	100	389
Kano (9 LGAs)	42	8	46	2	100	597
Lagos (9 LGAs)	10	9	79	3	100	737
Project area average	19%	8%	70%	2%	100%	1723

finished in early October. The trend in Abia LGAs, where the ICHS was conducted between rounds of the 2000 NIDs, shows a continued increase in participation. These numbers must be considered in light of the heavy resource allocation needed to mount NIDs and the difficulty of sustaining such an effort. That these resources are devoted to vaccination against polio alone provides further incentive to strengthen the routine immunization system in the country for all antigens.

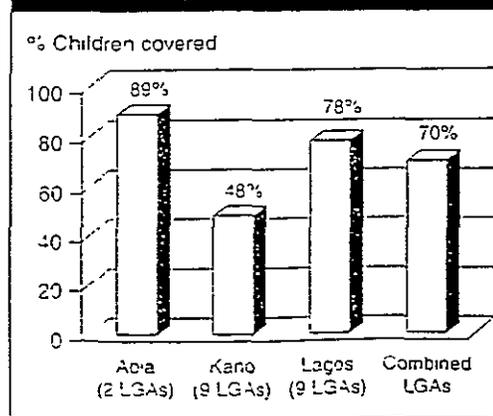
4.4 Protection Against Neonatal Tetanus

At the World Summit for Children, the international public health community set a goal for the year 2000 of protecting at least 90% of newborns against neonatal tetanus. This protection is achieved through the immunization of women of childbearing age with tetanus toxoid vaccine (TT), so that their children are protected at delivery. Record keeping is inconsistent for prenatal care and maternal immunizations. While 45% of women reported having a maternal health card, only 9% of the women surveyed actually presented the card. Therefore, ICHS relied on mothers' reporting of immunizations received during the last pregnancy as a simple measure of coverage for this survey. A child is considered protected if his/her mother reports that she received at least two TT shots when pregnant

with the indexed child. This conservative measure is likely to underestimate TT coverage, particularly since this report has not taken into consideration lifetime coverage or other TT immunizations received prior to the last pregnancy. Furthermore, a forthcoming study from the Central African Republic on serologic protection indicates that mothers may actually under-report their TT immunizations (Deming, et. al., in press). This would indicate actual coverage is at least as good as that presented.

Table 4.4.1 and Figure 4.4.1 indicate higher than expected levels of protection

Figure 4.4.1 Tetanus toxoid coverage for mothers of children 0-11 months of age who reported two or more doses received during last pregnancy, BASICS II/Nigeria ICHS 2000





Nutrition

BASICS II seeks to improve infant feeding practices and vitamin A coverage in Nigeria through partnerships with UNICEF, community-based organizations, state governments, NPI, and FMOH. Community mobilization and communications activities are carried out in collaboration with district and LGA health teams. These include approaches such as CAPA, improving health provider skills such as

counseling and the use of monitoring data, and advocacy at the LGA and state levels. The approaches, tools and experiences from 20 LGAs in Abia, Kano, and Lagos are being disseminated and transferred to other states through collaboration with FMOH, NGOs, and other donors

Limited technical support will be provided by BASICS at the national level through the Ad Hoc Committee on Vitamin A that is part of the Inter-agency Coordinating Committee (ICC). As part of BASICS' support to the polio NIDs, contributions to vitamin A supplementation linked with multiple rounds of NIDs will include support to national and zonal training for implementation. A program review on vitamin A components of polio NIDs will be conducted in three project area states.

Intervention approaches in Nigeria are based on evidence from the global and Africa regional literature and on 'best practices' from successful breastfeeding promotion programs (WHO 2000, Linkages 2001) and vitamin A supplementation activities (BASICS/MOST Regional Meeting, 2001). The project staff is pursuing three complementary paths of activity:

- Supporting integrated community-based health and nutrition activities (e.g. promotion of breastfeeding) in coordination with immunization and malaria control activities
- Strengthening health services capacity to support community actions and provide improved coverage and quality of

services for infant feeding and vitamin A supplementation.

- Developing multi-channel communications activities targeted at key audience segments (in collaboration with JHU) and performing advocacy regarding the importance of nutrition.

In this section, a few selected variables directly related to nutrition activities supported by BASICS are reported from the ICHS. Additional information on the knowledge, attitudes, and practices related to infant feeding and micronutrients in this population is available in the KAP Survey Report (BASICS II/Nigeria, 2001)

5.1 Breastfeeding Counseling During Pregnancy

As the BASICS II project implements a comprehensive behavior change strategy for improving breastfeeding practices, counseling during pregnancy on the two topics of early initiation within one hour after delivery and no feeding of fluids during the first few days and months will receive priority attention

As seen in Figure 5.1 1, over 80% of the mothers interviewed in Abia and Lagos LGAs reported receiving some information or advice on breastfeeding during their last pregnancy. This is consistent with the high levels of prenatal care in Abia and Lagos, as compared with Kano (FOS/UNICEF, 1999, preliminary report). In Kano, almost one-half of the women reported receiving no information or guidance

Table 5.1.1 Women who received advice on exclusive breastfeeding during their last pregnancy by source of advice, by state and LGA, BASICS II/Nigeria (CHS 2000)

State (LGAs)	Percentage received advice	Source of advice (%)			N (women)
		Doctor	Nurse/Midwife	Other ^a	
Abia (2 LGAs)	85	23	91	4	947
Aoa North	89	25	91	*	280
Aba South	84	21	91	*	667
Kano (9 LGAs)	51	2	90	8	1887
Bebeji	33	*	89	*	144
Dala	69	*	95	*	141
Gwale	74	*	93	*	265
Kaoo	*	*	*	*	144
Kura	23	*	81	*	138
Municipal	73	*	92	4	362
Nassarawa	68	*	91	*	406
Tsanyawa	31	*	40	60*	144
Warawa	*	*	*	*	143
Lagos (9 LGAs)	87	22	81	11	2056
Ajeromi/Ifelodun	87	9	90	3	421
Badagry	81	*	80	18	122
Ibeju Lekki	76	*	65	40*	140
Kosofe	86	24	78	*	123
Lagos Island	84	11	77	19	275
Lagos Mainland	83	31	77	10	275
Mushin	91	21	78	5	288
Shomolu	96	49	77	14	144
Surulere	96	40	86	9	268
Project area average	73%	16%	85%	9%	4890

a 'Other' includes Auxiliary Midwife and TBA; most of the women in the 'Other' category in Tsanyawa, Kano and Ibeju Lekki, Lagos cited TBAs

* Data suppressed due to small cell size (fewer than 10 observations)

important issue is addressed during the prenatal counseling and care that is given by those attending births in program areas.

Table 5.2.2 shows the high proportion of

newborns in the surveyed LGAs who are given water and other foods. LGAs in Kano consistently and almost universally follow this practice; there is greater variability in Lagos.

Recommendations

The primary focus of breastfeeding promotion should be on improving practices in the first few days and weeks after delivery. Private sector and government health providers who come in contact with pregnant women or those who attend births should be supported to improve counseling skills and provide consistent messages regarding the dangers of not initiating breastfeeding in the first hour and of giving water or sugar water. Since these practices are widespread, community-wide efforts to raise awareness will be necessary. In addition to messages and counseling given to individual mothers by health providers, changing these cultural norms will need a broader effort and approval of those who are influential in the community. The CAPA process is a key point of intervention for making community members aware that widespread and long-held beliefs in giving water and delayed initiation of breastfeeding need to be changed to improve child health. The role of the media could be important.

Table 5.2.2 Infants given anything other than breastmilk in their first three days (last birth), by state and LGA, BASICS II/Nigeria ICHS 2000

State (LGAs)	Type of food/fluids given						N (infants)
	Percentage given other foods/fluids	Other milk/Formula	Water	Sugar-water	Tea/Infusions	Other*	
Abia (2 LGAs)	73	10	52	37	*	2	947
Aba North	69	13	53	35	0	*	280
Aba South	74	8	51	38	-	*	667
Kano (9 LGAs)	93	13	87	5	*	11	1887
Bebeji	99	*	96	0	*	*	144
Dala	89	42	86	*	*	16	141
Gwale	96	5	94	7	0	24	265
Kapo	97	*	93	*	0	*	144
Kura	75	*	71	*	0	*	138
Municipal	95	21	81	8	0	12	362
Nassarawa	91	19	82	6	0	12	406
Tsanyawa	97	*	94	11	0	15	144
Warawa	99	*	97	0	0	*	143
Lagos (9 LGAs)	74	6	51	28	*	3	2056
Ajeromi/Ifelodun	89	9	62	44	0	*	421
Badagry	85	8	20	57	0	0	122
Ibeju Lekki	88	8	67	32	0	*	140
Kosofe	64	*	25	36	0	*	123
Lagos Island	79	10	65	15	0	6	275
Lagos Mainland	76	4	50	29	0	0	275
Mushin	53	8	45	12	0	*	288
Shomolu	67	*	48	18	0	0	144
Surulere	63	*	49	19	0	*	268
Project area average	81%	10%	65%	21%	*	6%	4890

a Includes fruit juice, gripe water, salt solution and honey

* Data suppressed due to small cell size (fewer than 10 observations)

5.3 Prevalence of Exclusive Breastfeeding in Infants

Figure 5.3.1 shows the low prevalence of exclusive breastfeeding in all three states for infants below four months of age. The survey findings are consistent with past national estimates for Nigeria from DHS and MICS surveys (FOS/UNICEF 1999, preliminary report). Successfully increasing exclusive breastfeeding levels in Nigeria has high potential impact for reducing neonatal mortality and morbidity and infant mortality due to diarrhea and ARI. Additional benefits can be achieved through the extended period

of postpartum infertility that can be expected to result from longer durations of exclusive breastfeeding.

The recommended duration of exclusive breastfeeding (i.e., giving no other fluids, not even water) is six months (WHO, 2001). In Nigeria, as noted above, the proportion of infants receiving exclusive breastfeeding for this duration is very low. Table 5.3.1 shows that the problem of non-exclusive breastfeeding is already prevalent within the first two months after birth. This is consistent with the feeding of water and sugar water in the first three days, shown in Figure 5.2.1 above.

Table 5.3.1 Infants' breastfeeding status, by age and by state, BASICS II/Nigeria ICHS 2000

State Infant age in months	Percentage fed					Total	N (infants)
	No breast- feeding	Exclusively breastfed	Plain water only	Other liquids	Liquids, food supplements		
Abia (2 LGAs)	*	11	34	7	45	100	207
< 2	-	-	58	-	26	100	50
2-3	-	-	40	-	42	100	83
4-5	-	14	12	-	61	100	74
< 4 months (120 days)	-	10	47	5	36	100	133
< 6 months (180 days)	-	11	34	7	45	100	207
Kano (9 LGAs)	5	3	39	2	51	100	323
< 2	8	-	34	-	51	100	132
2-3	-	-	46	-	49	100	107
4-5	-	-	39	-	54	100	84
< 4 months (120 days)	5	3	39	3	50	100	239
< 6 months (180 days)	5	3	39	2	51	100	323
Lagos (9 LGAs)	*	16	32	19	31	100	324
< 2	-	16	42	12	30	100	67
2-3	-	19	29	24	25	100	126
4-5	-	13	30	19	37	100	131
< 4 months (120 days)	-	19	34	20	26	100	193
< 6 months (180 days)	-	16	32	19	31	100	324
Project area average	3%	10%	35%	10%	42%	100%	854
< 2	5	8	41	6	40	100	249
2-3	-	11	38	12	37	100	316
4-5	-	10	28	12	48	100	289
< 4 months (120 days)	3	10	39	9	39	100	565
< 6 months (180 days)	3	10	35	10	42	100	854

* Data suppressed due to small cell size (fewer than 10 observations)

Figure 5.4.1 Average number of breastfeeds per 24 hours, by age of child, BASICS II/Nigeria ICHS 2000

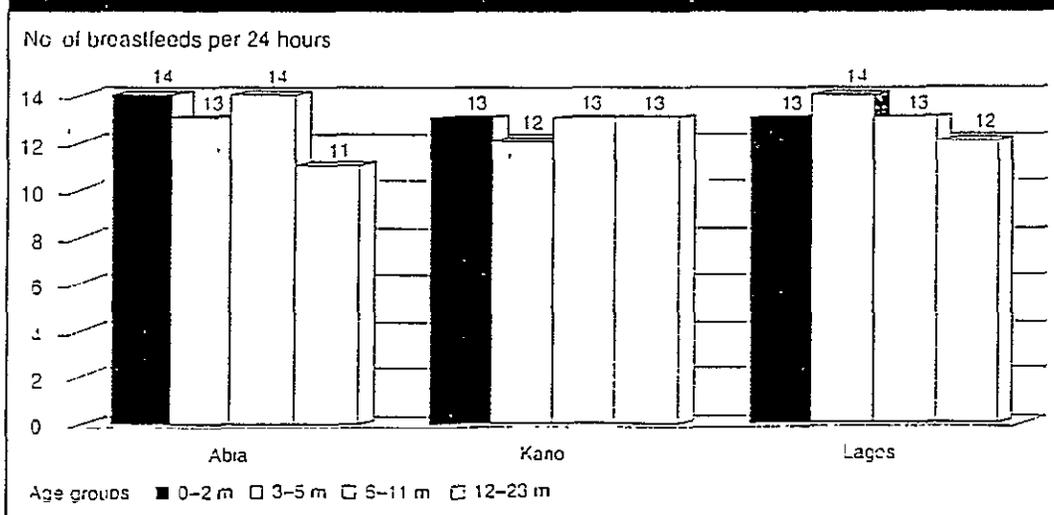


Table 5.6.1 Children 12-59 months of age who received vitamin A supplements in the past 6 months, by state and LGA, BASICS II/Nigeria ICHS 2000

Percentage of type of provider of vitamin A.

State (LGAs)	Received vitamin A	Hospital	Nurse	Health promoter	Pharmacist/ other	Total	N (children)
Abia (2 LGAs)	63	15	24	52	10	100	1261
Aoa North	69	11	31	44	14	100	372
Aba South	60	15	21	55	8	100	889
Kano (9 LGAs)	32	9	33	48	10	100	2404
Bebiji	53	*	9	81	*	100	209
Dala	50	11	64	24	*	100	184
Gwale	42	16	11	47	27	100	328
Kaoo	*	*	*	*	*	100	183
Kura	46	*	*	88	*	100	162
Municipal	30	*	64	22	8	100	455
Nassarawa	24	15	65	11	10	100	527
Tsanyawa	27	*	0	96	0	100	180
Warawa	26	0	*	76	*	100	176
Lagos (9 LGAs)	26	28	67	2	2	100	2216
Ajeromi/Ifelodun	21	15	81	*	*		497
Badagry	35	*	91	0	0	100	130
Ibeju Lekki	16	*	80	0	*	100	157
Kosofe	21	*	85	*	*	100	127
Lagos Is.	35	39	56	*	*	100	272
Lagos Mainland	25	*	86	0	*	100	298
Mushin	33	58	38	*	0	100	296
Shomolu	25	26	74	0	0	100	158
Surulere	25	47	51	*	0	100	281
Total (20 LGAs)	36%	16%	39%	37%	8%	100%	5881

* Data suppressed due to small cell size (lower than 10 observations)

Summary

The results of the Integrated Child Health Survey provide baseline information that should be valuable to planners and communities in establishing program direction and prioritizing the use of resources. The KAP study results presented in a separate report provide additional insight. Analysis and use of the survey results as presented should acknowledge the nature of the state aggregates and the

variations among LGAs within each state. Nevertheless, the findings provide a useful baseline for BASICS' catchment area planning and action (CAPA) process and for evaluation later in the program.

In developing action plans, programmers will need to recognize the regional differences among the states and LGAs represented in this survey. Local culture and leadership, religious influences, educational levels, and media exposure are characteristics of the population that will influence the choice of program initiatives and channels for intervention. Access to and use of the formal health sector will need to be addressed.

Survey results indicate the need to improve record keeping as an important step toward a strengthened routine immunization system. Health care providers can stress the importance of follow-up for full vaccination through communications that reinforce to mothers the importance of the vaccination card. The effort to eradicate polio must be bolstered by improved routine polio immunization, including efforts to inform health workers, to give priority to vaccine supplies for routine immunization, and to educate the community about the importance

of full vaccination within the first year of a child's life. It will be important to determine for each LGA what factors contribute to incomplete vaccination of children, including issues of access, utilization, and supply, and to aggressively address those causes at each contact opportunity.

The primary focus of breastfeeding promotion in areas of BASICS intervention should be on improving practices within the first few days and weeks after delivery. Nurses and midwives responsible for prenatal counseling and advice surrounding delivery and newborn health should be trained to promote early and exclusive breastfeeding. In LGAs with low prenatal coverage, unconventional methods will need to be identified for reaching families with messages and counseling on early breastfeeding practices.

BASICS will need to continue to review the NIDs-linked vitamin A activities and focus CAPA and other community mobilization activities on the importance of vitamin A. By assuring high coverage of children 6–59 months of age with vitamin A, BASICS can play an important role in reducing child mortality.

References

- Deming, M. S., et. al *Tetanus toxoid coverage from the multiple-indicator cluster survey as an indicator of the prevalence of serologic protection against neonatal tetanus* *Bulletin of the World Health Organization*. Geneva. WHO, forthcoming
- Nigerian Population Commission 2000. *Nigeria Demographic and Health Survey* Nigeria NPC
- United Nations Systems 2001 *Nigeria Common Country Assessment*. New York. UN.
- Federal Ministry of Health 2000 *National Health Profile* Nigeria: FMOH.
- Federal Office of Statistics/UNICEF. 1999 *Multiple Indicator Cluster Survey* (data tables) Nigeria UNICEF Nigeria.
- Programme Division/UNICEF. 1995 *Monitoring progress toward the goals of the World Summit for Children*. New York: UNICEF.
- UNICEF. 2000 *The State of the World's Children* New York. UNICEF
- World Health Organization. 2001 *WHO vaccine-preventable diseases monitoring system: 2001 global summary*. Geneva. WHO

Annex 1.1

Proposed Strategic Objective-Level Performance Indicators, Nigeria			
Indicator	Definition	Numerator	Denominator
Immunization			
Fully Immunized Child Rate	Proportion of children 12-23 months of age who are fully immunized by age 12 months (three doses of OPV, three doses of DPT, BCG, and measles)	Number of children 12-23 months of age who received three doses of OPV, three doses of DPT, BCG and measles by their first birthday	Total number of children 12-23 months of age
DPT3 Coverage Rate (by one year)	Proportion of children who received three doses of DPT before their first birthday	Number of children receiving DPT3 before their first birthday	Total number of children either children 12-23 months of age or an estimate of surviving infants under one year of age
DPT1-DPT3 Drop Out Rate	Proportion of children who received DPT1 but had not received DPT3 immunization before their first birthday	Proportion of infants receiving DPT1 immunization by their first birthday MINUS proportion of children receiving DPT3	Proportion of children receiving DPT1
TT Coverage for "Protection at Birth"	Percentage of births whose mothers received tetanus toxoid vaccination sufficient to protect against neonatal tetanus (by card or recall)	Infants born to mothers who received tetanus toxoid vaccinations sufficient to provide protection against neonatal tetanus (a) at least 2 doses of TT, of which the last dose was received less than three years ago; PLUS b) three or four doses, with the last dose less than 10 years ago, PLUS c) five doses ever	All infants under one year of age
Nutrition			
Exclusive Breastfeeding Rate	Percentage of infants less than 4 months of age exclusively breastfed	Infants less than 120 days of age who received no foods or fluids other than breastmilk in the 24 hours prior to the survey	Infants less than 120 days of age
Vitamin A Supplementation Coverage Rate	Percentage of children 12-59 months of age who received vitamin A supplementation in the previous six months	Children 12-59 months of age who received vitamin A supplementation in the previous six months	Children 12-59 months of age

Annex 2.1
BASICS/Nigeria
Integrated Child Health Survey

BASICS/Nigeria Integrated Child Health Baseline Survey

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household. Please use additional pages, as necessary, to record information on all household residents.

LINE NO	USUAL RESIDENTS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE	AGE	EDUCATION IF AGE 5 OR OLDER			PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD						ENRICHMENT			SELECTED RESPONDENT
						Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? **	What is the highest grade (NAME) completed at that level?****	Is (NAME)'s natural mother alive?	IF ALIVE Does (NAME)'s natural mother live in this HH?	What is her name? RECORD BOTH THIS LINE NUMBER	Is (NAME)'s natural father alive?	IF ALIVE Does (NAME)'s natural father live in this HH?	What is his name? RECORD FATHER'S LINE NUMBER	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15 OR	CIRCLE LINE NUMBER OF ALL CHILD UNDER AGE 6	CIRCLE NUMBER OF FEMALE WOMEN	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1			M F	YES NO	IN YEARS	YES NO	LEVEL	GRADE	Y N OK	YLS NO		Y N OK						
2			M F	YES NO	IN YEARS	YES NO	LEVEL	GRADE	Y N OK	YLS NO		Y N OK						
3			M F	YES NO	IN YEARS	YES NO	LEVEL	GRADE	Y N OK	YLS NO		Y N OK						
4			M F	YES NO	IN YEARS	YES NO	LEVEL	GRADE	Y N OK	YLS NO		Y N OK						
5			M F	YES NO	IN YEARS	YES NO	LEVEL	GRADE	Y N OK	YLS NO		Y N OK						
6			M F	YES NO	IN YEARS	YES NO	LEVEL	GRADE	Y N OK	YLS NO		Y N OK						

* CODES FOR Q3
RELATIONSHIP TO HEAD OF HOUSEHOLD
01 = HEAD
02 = WIFE
02b = HUSBAND
03 = SON OR DAUGHTER

04 = SON IN LAW OR DAUGHTER IN LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT IN LAW
08 = BROTHER OR SISTER

10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

* Q10 THROUGH Q15
THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.

* CODES FOR Q8
EDUCATION LEVEL:
1 = PRIMARY
2 = SECONDARY
3 = HIGH
4 = MIDDLE
5 = KORANIC P.H.
6 = KORANIC S.C.
98 = DON'T KNOW

* CODES FOR Q9
EDUCATION GRADE
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

BASICS/Nigeria

Integrated Child Health Baseline Survey

HOUSEHOLD SCHEDULE

VC	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
25	Does your household have:	YES NO	
	Electricity?	ELECTRICITY 1 2	
	A radio?	RADIO 1 2	
	A television?	TELEVISION 1 2	
	A telephone?	TELEPHONE 1 2	
	A refrigerator?	REFRIGERATOR 1 2	
	A clock?	CLOCK 1 2	
	A sewing machine?	SEWING MACHINE 1 2	
25	What type of fuel does your household mainly use for cooking?	ELECTRICITY 01 LPG/NATURAL GAS 02 BICGAS 03 KEPOSENE 04 COAL, LIGNITE 05 CHARCOAL 06 FIREWOOD, STRAW 07 DUNG 08 SAW DUST 09 OTHER _____ 96 (SPECIFY)	
27	Does any member of your household own	YES NO	
	A bicycle?	BICYCLE 1 2	
	A motorcycle or motor scooter?	MOTORCYCLE/SCOOTER 1 2	
	A car or truck?	CAR/TRUCK 1 2	
	A donkey?	DONKEY 1 2	
	A camel?	CAMEL 1 2	
28	Does your household have any bednets that can be used while sleeping?	YES 1 NO 2	
29	CHECK COLUMNS (5) AND (6) NUMBER OF CHILDREN UNDER AGE 5 WHO SLEPT IN THE HOUSEHOLD LAST NIGHT NONE <input type="checkbox"/> _____ → 32 ONE <input type="checkbox"/> _____ TWO OR MORE <input type="checkbox"/> _____ → 30		
30	Did (NAME) sleep under a bednet last night?	YES 1 NO 2	31
31	How many of these children slept under a bednet last night?	NUMBER OF CHILDREN <input type="checkbox"/>	
32	How many children under age 5 usually sleep under a bednet?	ONE CHILD 1 TWO CHILDREN 2 THREE OR MORE 3	
33	Do you usually sleep under a bednet?	YES 1 NO 2	
34	Did you sleep under a bednet last night?	YES 1 NO 2	
35	Now let us talk about the bednet you sleep under most often. How long ago was the bednet bought or obtained?	< 1 YR 1 1 - < 2 YRS 2 2 - < 3 YRS 3 3 AND ABOVE 4	

BASICS/Nigeria Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

IDENTIFICATION							
NAME OF ENUMERATION AREA _____	E- NO						
CPH EA	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px; text-align: center;">Y</td><td style="width: 20px; height: 20px; text-align: center;">N</td></tr> </table>					Y	N
Y	N						
NAME OF COMMUNITY PARTNERS FOR HEALTH _____							
LOCAL GOV'T AREA							
CLUSTER NO							
HOUSEHOLD NUMBER							
NAME OF HOUSEHOLD HEAD _____							
URBAN/RURAL (URBAN=1, RURAL=2)							

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE				DAY <table border="1" style="width: 20px; height: 20px;"></table> MONTH <table border="1" style="width: 20px; height: 20px;"></table> YEAR <table border="1" style="width: 20px; height: 20px;"></table>
INTERVIEWER'S NAME				INTERVIEWER'S CODE <table border="1" style="width: 20px; height: 20px;"></table>
RESULT*				RESULT* <table border="1" style="width: 20px; height: 20px;"></table>
NEXT VISIT DATE				TOTAL NO OF VISITS <table border="1" style="width: 20px; height: 20px;"></table>
TIME				
*RESULT CODES 1 COMPLETED 2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT 3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME 4 POSTPONED 5 REFUSED 6 DWELLING VACANT OR ADDRESS NOT A DWELLING 7 DWELLING DESTROYED 8 DWELLING NOT FOUND 9 OTHER _____ (SPECIFY)				TOTAL PERSONS IN HOUSEHOLD <table border="1" style="width: 20px; height: 20px;"></table> TOTAL ELIGIBLE WOMEN <table border="1" style="width: 20px; height: 20px;"></table> TOTAL ELIGIBLE CHILDREN <table border="1" style="width: 20px; height: 20px;"></table> LINE NO OF RESP TO HOUSEHOLD SCHEDULE <table border="1" style="width: 20px; height: 20px;"></table>

SUPERVISOR NAME _____ <table border="1" style="width: 20px; height: 20px;"></table> DATE _____	FIELD EDITOR NAME _____ <table border="1" style="width: 20px; height: 20px;"></table> DATE _____	OFFICE EDITOR NAME _____ <table border="1" style="width: 20px; height: 20px;"></table> DATE _____	KEYED BY NAME _____ <table border="1" style="width: 20px; height: 20px;"></table> DATE _____
--	--	---	--

BASICS/Nigeria
Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
113	Do you usually watch television almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY 1 AT LEAST ONCE A WEEK 2 LESS THAN ONCE A WEEK 3 NOT AT ALL 4	
114	What is your religion?	CHRISTIANITY 1 ISLAM 2 TRADITIONALIST 3 OTHER 4 (SPECIFY)	
115	What is your ethnic group?	IBO 1 HAUSA 2 YORUBA 3 OTHER 4 (SPECIFY)	
116	Do you work or do any business to earn money?	YES 1 NO 2	119
117	What kind of work do you do?	HANDICRAFTS 1 HARVESTING 2 SELLING FOODS 3 SHOP KEEPER/STREET VENDOR 4 SERVANT/HOUSEHOLD WORKER 5 CIVILSERVANT 6 COMPLETE HOUSEWIFE 7 OTHER 9 (SPECIFY)	
118	Who takes care of your (CHILD/CHILDREN) when you are working?	MOTHER (RESPONDENT) A HUSBAND/PARTNER B OLDER CHILDREN C RELATIVES D NEIGHBORS/FRIENDS E MAID F NURSERY SCHOOL G OTHER X (SPECIFY)	
119	Now I'd like to ask you some questions about non governmental organizations that operate in your neighborhood Have you ever heard of the (NAME OF THE CPH)?	YES 1 NO 2	131
120	Are you a member of the (NAME OF THE CPH)?	YES 1 NO 2	
121	How did you learn of (NAME OF CPH)?	CPH/CSO MEMBERS 1 BASICS 2 RADIO/TV 3 FRIENDS 4 SPOUSE/CHILDREN 5 OTHER 6 (SPECIFY)	

BASICS/Nigeria
Integrated Child Health Survey
WOMAN'S QUESTIONNAIRE

SECTION 2: REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth? **	YES 1 NO 2	END
202	Are you pregnant now?	YES 1 NO 2 UNSURE 3	304
203	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS	MCNTHS <input type="text"/> <input type="text"/>	

(Continued on next page)

BASICS/Nigeria
Integrated Child Health Survey
WOMAN'S QUESTIONNAIRE

SECTION 3 PREGNANCY, POST-PARTUM CARE, AND BREASTFEEDING

<p>CHECK Q206 AND ENTER THE NUMBER OF BIRTHS IN 1995 OR LATER IF NONE RECORDED</p> <p>ONE OR MORE BIRTHS SINCE JUNE 1995 <input style="width: 40px; height: 15px;" type="text"/></p>
<p>ENTER THE NAME, LINE NUMBER AND SURVIVAL STATUS OF EACH BIRTH SINCE JUNE 1995 IN THE TABLE BELOW ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH</p> <p>Now I would like to ask you some questions about the health of all of your children born in the last five years. We will talk about one child at a time</p>

NO.	QUESTION(S)	LAST BIRTH NAME _____	NEXT-TO LAST BIRTH NAME _____	SECOND-TO-LAST BIRTH NAME _____	SKIP TO	
301	LINE NUMBER FROM Q204	LINE NUMBER . <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/>	LINE NUMBER . . . <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/>	LINE NUMBER . . <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/>		
302	FROM Q204 AND Q207	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/>	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/>	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/>		
303	When you were pregnant with (NAME), did you see anyone for antenatal care?	YES 1 NO 2			307	
304	Who did you see for antenatal care?	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B AUXILIARY MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D OTHER _____ X (SPECIFY)				
305	How many months pregnant were you when you first received antenatal care?	MONTHS <input style="width: 20px; height: 15px;" type="text"/> <input style="width: 20px; height: 15px;" type="text"/> DONT KNOW 98				

BASICS/Nigeria
Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

Q.C.	QUESTIONS	LAST BIRTH	NEXT TO LAST BIRTH	SECOND TO LAST BIRTH	SKIP TO																												
		NAME _____	NAME _____	NAME _____																													
312	RECORD THE NUMBER OF PRENATAL VISITS WHILE RESPONDENT WAS PREGNANT WITH (NAME)	NUMBER OF VISITS <input type="text"/>	NUMBER OF VISITS <input type="text"/>	NUMBER OF VISITS <input type="text"/>																													
313	RECORD THE DATES FOR EACH TT INJECTION LISTED ON THE CARD	<table border="1"> <thead> <tr> <th></th> <th>Day</th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr><td>First</td><td></td><td></td><td></td></tr> <tr><td>Second</td><td></td><td></td><td></td></tr> <tr><td>Third</td><td></td><td></td><td></td></tr> <tr><td>Fourth</td><td></td><td></td><td></td></tr> <tr><td>Fifth</td><td></td><td></td><td></td></tr> <tr><td>Sixth</td><td></td><td></td><td></td></tr> </tbody> </table>				Day	Month	Year	First				Second				Third				Fourth				Fifth				Sixth				
	Day	Month	Year																														
First																																	
Second																																	
Third																																	
Fourth																																	
Fifth																																	
Sixth																																	
314	Was (NAME) weighed at birth? ASK TO SEE HEALTH CARD	YES 1 NO 2 DONT KNOW 3	YES 1 NO 2 DONT KNOW 3	YES 1 NO 2 DONT KNOW 3																													
315	How much did (NAME) weigh? RECORD WEIGHT (in KG) FROM HEALTH CARD, IF AVAILABLE	FROM CARD 1 <input type="text"/> FROM RECALL . . . 2 <input type="text"/> DONT KNOW 3	FROM CARD 1 <input type="text"/> FROM RECALL . . . 2 <input type="text"/> DONT KNOW 3	FROM CARD 1 <input type="text"/> FROM RECALL . . . 2 <input type="text"/> DONT KNOW 3																													
316	Where did you give birth to (NAME)? IF SOURCE IS HOSPITAL HEALTH CENTER OR CLINIC, WRITE THE NAME OF THE FACILITY _____ (NAME OF FACILITY) OTHER _____ (SPECIFY)	HOME YOUR HOME 11 OTHER HOME 12 PUBLIC SECTOR GOVT HOSP 21 GOVT HEALTH CENTER . . 22 GOVT HEALTH POST . . . 23 OTHER PUBLIC 24 PRIVATE MEDICAL SECTOR PVO HOSP/CLINIC . . . 31 OTHER PVT MEDICAL . . 32 RELIGIOUS HOME 33 DONT KNOW 34 OTHER _____ 35 (SPECIFY)	HOME YOUR HOME 11 OTHER HOME 12 PUBLIC SECTOR GOVT HOSP 21 GOVT HEALTH CENTER 22 GOVT HEALTH POST . 23 OTHER PUBLIC 24 PRIVATE MEDICAL SECTOR PVO HOSP/CLINIC . . . 31 OTHER PVT MEDICAL 32 RELIGIOUS HOME 33 DONT KNOW 34 OTHER _____ 35 (SPECIFY)	HOME YOUR HOME 11 OTHER HOME 12 PUBLIC SECTOR GOVT HOSP 21 GOVT HEALTH CENTER 22 GOVT HEALTH POST . 23 OTHER PUBLIC 24 PRIVATE MEDICAL SECTOR PVO HOSP/CLINIC . . . 31 OTHER PVT MEDICAL . 32 RELIGIOUS HOME 33 DONT KNOW 34 OTHER _____ 35 (SPECIFY)																													

BASICS/Nigeria
Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

NO	QUESTIONS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-TO-LAST BIRTH	SKIP TO
		NAME _____	NAME _____	NAME _____	
321	a Who checked on your health or the health of your baby at that time?	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B AUXILIARY MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E COMMUNITY HEALTH PROMOTER F OTHER _____ X (SPECIFY) NO ONE Y	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B AUXILIARY MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E COMMUNITY HEALTH PROMOTER F OTHER _____ X (SPECIFY) NO ONE Y	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B AUXILIARY MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D RELATIVE/FRIEND E COMMUNITY HEALTH PROMOTER F OTHER _____ X (SPECIFY) NO ONE Y	
	b Was the person from the CPH or CPH health facility?	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2	
322	Where did this first check-up take place? IF SOURCE IS HOSPITAL HEALTH CENTER OR CLINIC, WRITE THE NAME OF THE FACILITY. _____ (NAME OF FACILITY)	HOME YOUR HOME 11 OTHER HOME 12 PUBLIC SECTOR GOVT HOSPITAL 21 GOVT HEALTH CENTER 22 GOVT HEALTH POST 23 OTHER PUBLIC 25 (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/CLINIC 31 OTHER PRIVATE MEDICAL 35 (SPECIFY) OTHER _____ 96 (SPECIFY)	HOME YOUR HOME 11 OTHER HOME 12 PUBLIC SECTOR GOVT HOSPITAL 21 GOVT HEALTH CENTER 22 GOVT HEALTH POST 23 OTHER PUBLIC 25 (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/CLINIC 31 OTHER PRIVATE MEDICAL 35 (SPECIFY) OTHER _____ 96 (SPECIFY)	HOME YOUR HOME 11 OTHER HOME 12 PUBLIC SECTOR GOVT HOSPITAL 21 GOVT HEALTH CENTER 22 GOVT HEALTH POST 23 OTHER PUBLIC 25 (SPECIFY) PRIVATE MEDICAL SECTOR PVT HOSPITAL/CLINIC 31 OTHER PRIVATE MEDICAL 36 (SPECIFY) OTHER _____ 96 (SPECIFY)	
323	During this visit did the health worker give you any advice about any of the following?	NEWBORN CARE A SIGNS OF INFANT ILLNESS B BREASTFEEDING C INFANT NUTRITION D VITAMINS E IMMUNIZATIONS F POST-PARTUM COMPLICATIONS OF MOTHER G FAMILY PLANNING H IRON TABLETS I WEIGHING BABY J OTHER _____ K (SPECIFY)	NEWBORN CARE A SIGNS OF INFANT ILLNESS B BREASTFEEDING C INFANT NUTRITION D VITAMINS E IMMUNIZATIONS F POST-PARTUM COMPLICATIONS OF MOTHER G FAMILY PLANNING H IRON TABLETS I WEIGHING BABY J OTHER _____ K (SPECIFY)	NEWBORN CARE A SIGNS OF INFANT ILLNESS B BREASTFEEDING C INFANT NUTRITION D VITAMINS E IMMUNIZATIONS F POST-PARTUM COMPLICATIONS OF MOTHER G FAMILY PLANNING H IRON TABLETS I WEIGHING BABY J OTHER _____ K (SPECIFY)	

BASICS/Nigeria
Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

NO	QUESTIONS	LAST BIRTH-		NEXT-TO-LAST BIRTH-		SECOND TO-LAST BIRTH-		SKIP TO
		NAME _____		NAME _____		NAME _____		
002	CHECK Q302 CHILD ALIVE?	ALIVE <input type="checkbox"/> ↓ NEXT CHILD ←	DEAD <input type="checkbox"/>	ALIVE <input type="checkbox"/> ↓ NEXT CHILD ←	DEAD <input type="checkbox"/>	ALIVE <input type="checkbox"/> ↓ END SECT ON C ←	DEAD <input type="checkbox"/>	
333	Are you breastfeeding (NAME) now?	YES 1 NO 2		YES 1 NO 2		YES 1 NO 2		
334	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROSE FOR APPROX NUMBER	NUMBER OF NIGHTTIME FEEDINGS <input type="text"/>		NUMBER OF NIGHTTIME FEEDINGS <input type="text"/>		NUMBER OF NIGHTTIME FEEDINGS <input type="text"/>		
335	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROSE FOR APPROX NUMBER	NUMBER OF DAYTIME FEEDINGS <input type="text"/>		NUMBER OF DAYTIME FEEDINGS <input type="text"/>		NUMBER OF DAYTIME FEEDINGS <input type="text"/>		
336	Did (NAME) drink anything from a feeding bottle with a nipple yesterday or last night?	YES 1 NO 2		YES 1 NO 2		YES 1 NO 2		

BASICS/Nigeria
Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

NO	QUESTIONS	LAST BIRTH			NEXT TO LAST BIRTH			SECOND TO LAST BIRTH					
		NAME _____			NAME _____			NAME _____					
405	(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD (2) WRITE "NA" IN DAY COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED												
		BCG	DAY	MONTH	YEAR	BCG	DAY	MONTH	YEAR	BCG	DAY	MONTH	YEAR
	BCG												
	POLIO 0 (given from birth to 14 days)	P0				P0				P0			
	POLIO 1	P1				P1				P1			
	POLIO 2	P2				P2				P2			
	POLIO 3	P3				P3				P3			
	DPT1	D1				D1				D1			
	DPT2	D2				D2				D2			
	DPT3	D3				D3				D3			
	MEASLES	MEA				MEA				MEA			
	VITAMIN A (Most recent)	VA				VA				VA			
406	Was (NAME) received any vaccinations that are not recorded on this or any other card, including vaccinations received in a national immunization day campaign?	YES 1				YES 1				YES 1			
		NO 2				NO 2				NO 2			
		DONT KNOW 8				DONT KNOW 8				DONT KNOW 8			
407	Where did (NAME) receive these vaccinations?	PUBLIC SECTOR GOVT HOSPITAL A GOVT HLTH CENTER/CLINIC B GOVT HEALTH POST C MOBILE CLINIC D OTHER PUBLIC E (SPECIFY)			PUBLIC SECTOR GOVT HOSPITAL A GOVT HLTH CENTER/CLINIC B GOVT HEALTH POST C MOBILE CLINIC D OTHER PUBLIC E (SPECIFY)			PUBLIC SECTOR GOVT HOSPITAL A GOVT HLTH CENTER/CLINIC B GOVT HEALTH POST C MOBILE CLINIC D OTHER PUBLIC E (SPECIFY)					
		PRIVATE MEDICAL SECTOR PVT HOSPITAL/CLINIC F PHARMACY G PMV H OTHER PVO I (SPECIFY)			PRIVATE MEDICAL SECTOR PVT HOSPITAL/CLINIC F PHARMACY G PMV H OTHER PVO I (SPECIFY)			PRIVATE MEDICAL SECTOR PVT HOSPITAL/CLINIC F PHARMACY G PMV H OTHER PVO I (SPECIFY)					
		OTHER SOURCES TRADITIONAL PRACT J OTHER X (SPECIFY)			OTHER SOURCES TRADITIONAL PRACT J OTHER X (SPECIFY)			OTHER SOURCES TRADITIONAL PRACT J OTHER X (SPECIFY)					

BASICS/Nigeria

Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

SECTION 5. CHILDHOOD ILLNESS AND CHILD FEEDING PRACTICES

501	Has (NAME) been ill with a fever at any time during the past two weeks?	YES 1 NO 2 DON'T KNOW 3	YES 1 NO 2 DON'T KNOW 3	YES 1 NO 2 DON'T KNOW 3
502	Has (NAME) had an illness with a cough at any time in the last two weeks?	YES 1 NO 2 (SKIP TO 508) DON'T KNOW 3	YES 1 NO 2 (SKIP TO 508) DON'T KNOW 3	YES 1 NO 2 (SKIP TO 508) DON'T KNOW 3
503	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, fast breaths?	YES 1 NO 2 DON'T KNOW 3	YES 1 NO 2 DON'T KNOW 3	YES 1 NO 2 DON'T KNOW 3
504	CHECK Q501 AND Q502 FEVER OR COUGH?	*YES* IN 501 OR 502 <input type="checkbox"/> (SKIP TO 518) OTHER <input type="checkbox"/>	*YES* IN 501 OR 502 <input type="checkbox"/> (SKIP TO 518) OTHER <input type="checkbox"/>	*YES* IN 501 OR 502 <input type="checkbox"/> (SKIP TO 518) OTHER <input type="checkbox"/>
505	Did you seek advice or treatment for the fever/cough?	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2
506	How long after you noticed (NAME's) cough and fast breathing did you seek treatment?	_____ HOURS _____ DAYS OTHERS _____ (SPECIFY)	_____ HOURS _____ DAYS OTHER _____ (SPECIFY)	_____ HOURS _____ DAYS OTHER _____ (SPECIFY)
507	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED IF SOURCE IS HOSPITAL HEALTH CENTER, OR CLINIC WRITE THE NAME OF THE FACILITY _____ (NAME OF FACILITY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER/CLINIC B GOVT HEALTH POST C MOBILE CLINIC D OTHER PUB _____ E (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER/CLINIC B GOVT HEALTH POST C MOBILE CLINIC D OTHER PUB _____ E (SPECIFY)	PUBLIC SECTOR GOVT HOSPITAL A GOVT HEALTH CENTER/CLINIC B GOVT HEALTH POST C MOBILE CLINIC D OTHER PUB _____ E (SPECIFY)
508	Has (NAME) been ill with convulsions at any time during the last two weeks?	YES 1 NO 2 DON'T KNOW 3	YES 1 NO 2 DON'T KNOW 3	YES 1 NO 2 DON'T KNOW 3
509	CHECK Q501 AND Q508. HAD FEVER OR CONVULSIONS?	*YES* IN 501 OR 508 <input type="checkbox"/> *NO* *DK* IN 501 OR 508 <input type="checkbox"/> (SKIP TO 518)	*YES* IN 501 OR 508 <input type="checkbox"/> *NO* *DK* IN 501 OR 508 <input type="checkbox"/> (SKIP TO 518)	*YES* IN 501 OR 508 <input type="checkbox"/> *NO* *DK* IN 501 OR 508 <input type="checkbox"/> (SKIP TO 518)

BASICS/Nigeria

Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

519	<p>Now would like to know how much (NAME) was offered to drink during the diarrhea. Was he/she offered less than usual to drink, about the same amount, or more than usual to drink?</p> <p>IF LESS PROBE: Was he/she offered much less than usual to drink or somewhat less?</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS 2</p> <p>ABOUT THE SAME 3</p> <p>MORE 4</p> <p>NOTHING TO DRINK 5</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS 2</p> <p>ABOUT THE SAME 3</p> <p>MORE 4</p> <p>NOTHING TO DRINK 5</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS 2</p> <p>ABOUT THE SAME 3</p> <p>MORE 4</p> <p>NOTHING TO DRINK 5</p> <p>DON'T KNOW 8</p>																																				
520	<p>When (NAME) had diarrhea, was (NAME) offered less than usual to eat, about the same amount, or more than usual to eat?</p> <p>IF LESS, PROBE: Was he/she offered much less than usual to drink or somewhat less?</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS 2</p> <p>ABOUT THE SAME 3</p> <p>MORE 4</p> <p>NOTHING TO EAT 5</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS 2</p> <p>ABOUT THE SAME 3</p> <p>MORE 4</p> <p>NOTHING TO EAT 5</p> <p>DON'T KNOW 8</p>	<p>MUCH LESS 1</p> <p>SOMEWHAT LESS 2</p> <p>ABOUT THE SAME 3</p> <p>MORE 4</p> <p>NOTHING TO EAT 5</p> <p>DON'T KNOW 8</p>																																				
521	<p>Was he/she given any of the following to drink</p> <p>a. A fluid made from a sachet packet called (ORS)?</p> <p>b. A government-recommended home-made fluid?</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>FLUID FROM ORS PACKET</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>HOMEMADE FLUID</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	FLUID FROM ORS PACKET	1	2	8	HOMEMADE FLUID	1	2	8	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>FLUID FROM ORS PACKET</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>HOMEMADE FLUID</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	FLUID FROM ORS PACKET	1	2	8	HOMEMADE FLUID	1	2	8	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>FLUID FROM ORS PACKET</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>HOMEMADE FLUID</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	FLUID FROM ORS PACKET	1	2	8	HOMEMADE FLUID	1	2	8
	Y	N	DK																																					
FLUID FROM ORS PACKET	1	2	8																																					
HOMEMADE FLUID	1	2	8																																					
	Y	N	DK																																					
FLUID FROM ORS PACKET	1	2	8																																					
HOMEMADE FLUID	1	2	8																																					
	Y	N	DK																																					
FLUID FROM ORS PACKET	1	2	8																																					
HOMEMADE FLUID	1	2	8																																					
522	<p>Was anything (else) given to treat the diarrhea?</p>	<p>YES 1</p> <p>NO 2</p> <p style="text-align: center;">(SKIP TO 524)</p>	<p>YES 1</p> <p>NO 2</p> <p style="text-align: center;">(SKIP TO 524)</p>	<p>YES 1</p> <p>NO 2</p> <p style="text-align: center;">(SKIP TO 524)</p>																																				
523	<p>What was given to treat the diarrhea?</p> <p>Anything else?</p> <p>RECORD ALL MENTIONED</p>	<p>PILL OR SYRUP A</p> <p>INJECTION B</p> <p>(I.V.) INTRAVENOUS C</p> <p>HOME REMEDIES/ HERBAL MEDICINES D</p> <p>OTHER E</p> <p style="text-align: center;">(SPECIFY)</p>	<p>PILL OR SYRUP A</p> <p>INJECTION B</p> <p>(I.V.) INTRAVENOUS C</p> <p>HOME REMEDIES/ HERBAL MEDICINES D</p> <p>OTHER E</p> <p style="text-align: center;">(SPECIFY)</p>	<p>PILL OR SYRUP A</p> <p>INJECTION B</p> <p>(I.V.) INTRAVENOUS C</p> <p>HOME REMEDIES/ HERBAL MEDICINES D</p> <p>OTHER E</p> <p style="text-align: center;">(SPECIFY)</p>																																				
524	<p>Did you seek advice or treatment for (NAME'S) diarrhea?</p>	<p>YES 1</p> <p>NO 2</p> <p style="text-align: center;">(SKIP TO 526)</p>	<p>YES 1</p> <p>NO 2</p> <p style="text-align: center;">(SKIP TO 526)</p>	<p>YES 1</p> <p>NO 2</p> <p style="text-align: center;">(SKIP TO 526)</p>																																				

BASICS/Nigeria Integrated Child Health Survey

WOMAN'S QUESTIONNAIRE

SECTION 6 PARTICIPATION IN CIVIL SOCIETY, POLITICS, AND DECISION-MAKING

NC	QUESTIONS AND FILTERS	RESPONSE		
601	Should women participate in politics?	YES	1	
		NO.	2	
		DON'T KNOW	3	
602	Did you register to vote in the last election?	YES.	1	
		NO	2	
603	Have you ever voted in any election?	YES	1	
		NO.	2	
604	Did you vote in the last election?	YES	1	
		NO.	2	
605	Are women involved when important family decisions are being made?	YES	1	
		NO	2	
606	Are women involved in decision-making in your community?	YES	1	
		NO	2	
607	Do you require permission to CIRCLE YES (1) OR NO (2) FOR EACH RESPONSE, A-E		Yes	No
		a) visit with friends?	1	2
		b) visit parents and relatives?	1	2
		c) go to hospital when ill?	1	2
		d) take an ill child to the hospital?	1	2
		e) visit a family planning clinic?	1	2

Annex 2.3 Nigeria ICHS 2000 Field Staff

Abia Team

Coordinator

Dr. Martins Ifeanacho

Supervisors

Dorothy Ucnegou

Roseline Nnochin

Dr. N. Ifeayi

Vesta Amadi

Nkkechi Anuriegba

Editors

Adaku Nnaoma

I Jane

David Ahuahuogu

Modestus Ifo

E. Odinakachi

Victor Nwagu

Cartographers

Emeka Kalu

O. Elendu

J. C. Nwaogazi

Wilson Nmago

N. Jiakpona

Interviewers

A. Ezeonyebuchi

I Njoku

A. Iheonunekwu

Ihuoma Ufomadu

A. Nwamaka

Kelechi Ibeakalem

Bibiana Okoye

N. Ibeabuchi

C. Mgbeoji

N. Nwokeji

Carolyn Ukaobi

Ngozi Onwuchekwa

Chinedu R.

O. Uwaezuoke

Chiyere Ezebuio

P. Nwachukwu

Chiyere Nwankwo

R. Uwakwe

Ebere Nkihe

Violet Ikwunze

F. Onyemalem

Lagos Team

Coordinator

Pro: Layi Egunjobi

Supervisors

A.A. Adenuga	F.A. Iwajomo
A.I. Akinola	O.A. Sonde
E.O. Adeyeye	P.E. Adajo

Editors

D.A. Fadugba Bola	J.A. Elejire
Elue Dominic	K.O. Oloyede
G.O. Ogunranti	S.S. Akinjayan

Cartographers

D. Ihuoma	Olasupo K Taiwo
F.J. Ogunleye	S.A. Hammey
O.J. Adesola	S.T. Alagbede

Interviewers

A.A. Ademof	G.I. Olarewaju	R.M. Jairo
A.A. Aiolabi	Grace A. Affo	S.A. Odoemene
A.A. Badejo	H.M. Akingunde	S.A. Okah
A.A. Salami	J.E. Inko-Tariah	S.A. Olambiwonnu
A.D. Akande	J.R. Jonathan	S.K. Noibi
A.O. Adesida	M.O. Aina	S.O. Oniwonlu
Abodunde Atinuke	M.O. Obesuyi	Stephen Mautin
C.M. Omgha	O.A. Adefolu	T.O. Adewuyi
E. Ojesina	O.I. Ogunyinka	T.O. Saseun-Thomas
E.O. Agada	O.O. Aro	V.T. Agbejule
F.I. Akintaju	P.E. Semako	Wuraola J Idowu
F.V. Akinjateju	P.I. Aoejuwon	
G.C. Iawemmuo	R.B. Oriola	