Child Survival in Nigeria: Situation, Response, and Prospects

Key Issues

POLICY Project/Nigeria

October 2002

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This is a compilation of significant information and data on the current situation of child survival in Nigeria. Facts have been drawn from a wide range of sources including the Nigeria Demographic and Health Survey (1999), Population Bureau, Federal Office of Statistics, National Planning Commission, UNICEF's *Children's and Women's Rights in Nigeria: A Wake-up Call—Situation Assessment and Analysis* (2001), survey reports, academic articles, policy and programme documents, budget documents, and publications from development partners. This document is intended to serve as a concise public source of data on the major child survival issues in Nigeria and to assist policymakers to **"put children first"** in national priorities and in the design of public policies.

A Time for Action

The first five years of life are the most crucial to the physical and intellectual development of children and can determine their potential to learn and thrive for a lifetime. For young children, every single day counts. “The name of the child is today, tomorrow may be too late.” The challenges that we face regarding the health of Nigerian children cannot be put off, and they are not insurmountable. We have the tools, resources, and knowledge to address our nation’s most critical child survival problems and build on the considerable achievements that have been made since the World Summit for Children in 1990. What is needed is urgent action and greater national priority placed on children’s issues so that significant gaps and the growing disparity in child health and survival do not reverse the progress already made.

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Acknowledgments

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List of Abbreviations

ADB	African Development Bank
AFP	acute flaccid paralysis
ANC	Antenatal care
APIN	AIDS Prevention Initiative in Nigeria
ARCH	Applied Research on Child Health
ARI	acute respiratory infections
BASICS	Basic Support for Institutionalizing Child Survival
BCG	Bacille Calmette Guerin
BFHI	Baby-Friendly Hospital Initiative
BHSS	Basic Health Services Scheme
BI	birth interval
CBR	crude birth rate
CDD	control of diarrhoeal diseases
CEDPA	Centre for Development and Population Activities
CHAN	Christian Health Association of Nigeria
CIDA	Canadian International Development Agency
CMR	child mortality rate
CPH	Community Partnerships for Health
CRC	Child Rights Convention
CS	child survival
CSM	Cerebro- Spinal Meningitis
CSO	civil society organisations
DCD	Department of Child Development
DFID	Department for International Development
DPT	Diphtheria Pertussis Tetanus Toxoid
ECS	Equality of Child Survival
EDR	End of Decade Review
EPI	Expanded Programme on Immunisation
EU	European Union
FHI	Family Health International
FMOH	Federal Ministry of Health
FMWA&YD	Federal Ministry of Women Affairs and Youth Development
FOS	Federal Office of Statistics
FP	family planning
GAVI	Global Alliance for Vaccines and Immunisation
GNP	Gross National Product
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICC	Inter-agency Coordinating Committee
IDA	Iron Deficiency Anaemia
IDD	Iodine Deficiency Disorders
IEC	Information Education and Communication
IITA	International Institute of Tropical Agriculture
IMCI	Integrated Management of Childhood Illnesses
IMR	infant mortality rate
IP	implementing partner
ITNs	insecticide treated nets
JHU/CCP	Johns Hopkins University/Center for Communication Program

JICA	Japanese International Cooperation Agency
LGAs	local government areas
MCH	maternal and child health
MICS	Multiple Indicator Cluster Survey
MPSI	Making Pregnancy Safer Initiative
MTCT	mother-to-child transmission
NACA	National AIDS Control Agency
N-ARCH	Nigerian Applied Research for Child Health
NCFN	National Committee for Food and Nutrition
NCWC	National Child Welfare Committee
NCRIC	National Child Rights Implementation Committee
NDHS	National Demographic and Health Survey
NGOs	Non-governmental organisations
NHMIS	National Health Management Information Systems
NIDs	National Immunisation Days
NIGEP	Nigeria Guinea Worm Eradication Programme
NIMR	Nigerian Institute of Medical Research
NPA	National Plan of Action for Children
NPC	National Planning Commission
NPHCDA	National Primary Health Care Development Agency
NPI	National Programme on Immunisation
NPOA	National Programme of Action
OAU	Organisation of African Unity
OPV	oral polio vaccines
ORT	oral rehydration therapy
OVC	orphans and vulnerable children
PAFA	Population Activities Funds Agency
PAN	Paediatric Association of Nigeria
PEI	Polio Eradication Initiative
PEP	Primary Education Programme
PHC	primary health care
PIC	Participatory Information Collection
PPFN	Planned Parenthood Federation of Nigeria
PMTCT	Prevention of Mother-to-Child Transmission
RBM	Roll Back Malaria
RDA	recommended dietary allowance
RH	reproductive health
RI	routine immunisation
SCD	Sickle Cell Disease
SNIDs	Subnational Immunisation Days
TFR	total fertility rate
TT	tetanus toxoid
UNDP	United Nation’s Development Project
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNFPA	United Nations Population Funds
UNICEF	United Nations Children’s Fund
USAID	U.S. Agency for International Development
U5MR	under-5 mortality rate
VAD	vitamin-A deficiency

VPD	vaccine preventable diseases
WB	World Bank
WHO	World Health Organization
WSC	World Summit for Children

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Background

Nigeria's estimated population of 120 million in 2002 (projected from the 1991 National Population Census) makes it the largest country in sub-Saharan Africa and the tenth most populated country worldwide. Nigeria's population is largely rural, with 63.7 percent of the population living in rural areas. Currently, about 45 percent of Nigeria's total population is less than age 15, with about 20 percent (24 million) under age five. The sheer numbers involved, therefore, demand that child survival issues be placed in the forefront of the national agenda.

Despite its wealth of human and natural resources, Nigeria is ranked among the 13 poorest countries in the world; two of every three Nigerians (66%) live below the extreme poverty line of US$1 a day (World Bank, 2001). Nigeria's low gross national product (GNP)—per capita of $310 in 1998—is lower among people living in rural areas, limiting their access to adequate nutrition, quality health care, and other basic social services, especially among vulnerable groups (women and children) (World Bank, 1999; UNICEF, 1999). Less than one-half of the population has access to safe water (40% in rural areas) and only 41 percent have access to adequate sanitation (32% in rural areas). Overall, the adult literacy rate is 56 percent; however, the rate for males (67%) is much higher than for females (47%). These facts adversely affect the survival of children and the reproductive health (RH) status of women in general.

Child survival in Nigeria is threatened by nutritional deficiencies and illnesses, particularly malaria, diarrhoeal diseases, acute respiratory infections (ARI), and vaccine preventable diseases (VPD), which account for the majority of morbidity and mortality in childhood. Other threats include high maternal morbidity and mortality. There is the need for an enabling environment through well-articulated policies, projects, and programmes to ensure wholesome development of Nigerian children and enhance the quality of life.

Child Survival Indicators in Nigeria: Current Situation

Total population (millions)	120
Crude birth rate (CBR) (per 1,000)*	41
Total fertility rate (TFR) births per woman**[#]	5.2
Unmet need for family planning (FP)(%)**	18
Infant mortality rate (IMR) (per 1,000)**	71
Under-5 mortality rate (U5MR) (per 1,000)**	140
Child mortality rate (CMR) (per 1,000)**[a]	67
Neonatal mortality rate (per 1,000)**	35
Low birth weight (%)***	16
Percent of infants <6 months exclusively breastfed[¤]	1
Percent of children[b] stunted (height-for-age, below 2SD)**	46
Percent of children[b] wasted (weight-for-height, below 2SD)**	12
Percent of children underweight (weight-for-age, below 2SD)**	27
Percent of children 12–23 months fully immunised**	17
Maternal mortality ratio (per 100,000 live births)**	800
Number of orphans (double, maternal, paternal and all causes) in 2000	2,591,744

(Sources: *2001 Population Reference Bureau; **1999 National Demographic Health Survey); ***The State of the World's Children 2001 UNICEF; [¤]1999 Breast Feeding Patterns in the Developing World (http://www.worldpop.org/datafinder.htm); [#]TFR probably nearer 6.0, [a]All rates are expressed as deaths per 1,000 live births, except child mortality rate, which is expressed as deaths per 1,000 children surviving to first birthday and dying before age five; [b]Children less than age three

Infant/Child Mortality and Morbidity

At the dawn of the twenty-first century, it is tragic that one in seven Nigerian children die before his or her fifth birthday (FOS/UNICEF, 2000). A baby born in Nigeria is 30 times more likely to die before age five than one born in an industrialised country (NPC/UNICEF, 2001). Infant and child mortality rates are exceedingly high, and Nigeria ranks 15th highest in the world among countries with high under-five mortality (UNICEF, 2001). With more than one million children dying annually from preventable diseases, Nigeria is one of the least successful of African countries in achieving improvements in child survival in the past four decades, in spite of advances in universal immunization and oral re-hydration therapy (ORT) for diarrhoeal disease, and the wealth of Nigeria's human and natural resources.

Although the 1999 Nigeria Demographic and Health Survey (NDHS) shows some improvement in IMR and U5MR (see Table 1), these rates still fall short of the World Summit for Children (WSC) national goals for reducing IMR (50/60 per 1,000) and U5MR (70/80 per 1,000) by one-third by 2000. The 1999 NDHS report cautions, however, that its mortality rates are likely to be underestimates.[1] The huge variations in these rates among different parts of the country, notably urban and rural areas and north and south, are striking. UNICEF's 1999 Multiple Indicator Cluster Survey (MICS) shows that U5MR was almost 1.5 times higher in rural areas than in urban areas and that almost twice as many children died before their fifth birthday in the northwest than in the southwest of Nigeria.

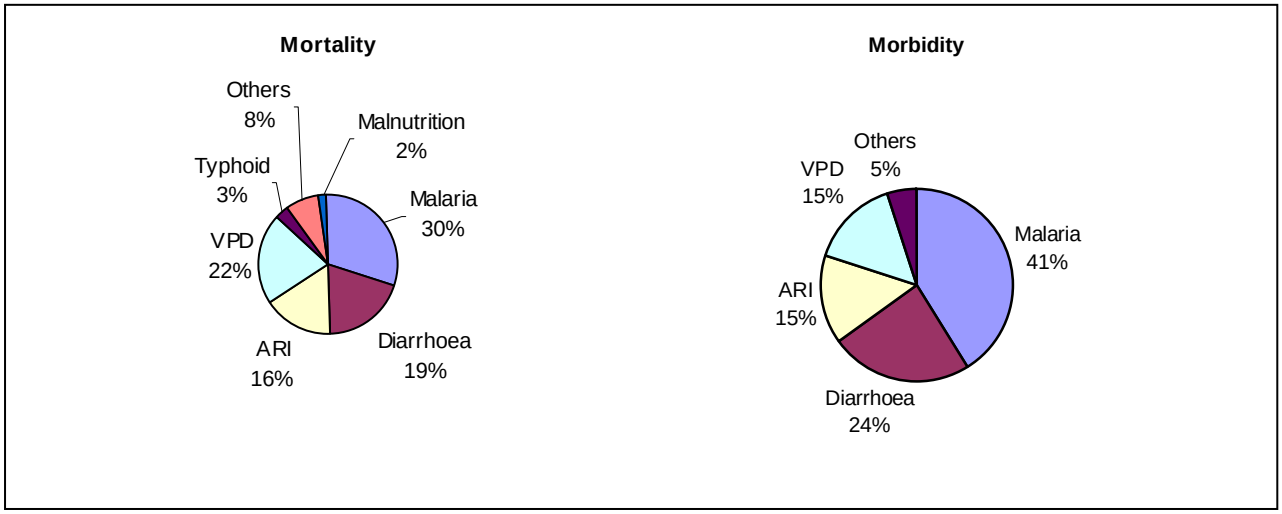
[1] NPC, 2000, Appendix C

Table 1. Comparison of Rates Between 1990 and 1999 NDHS

	1990	1999	% fall
IMR	95	71	23
U5MR	191	140	30

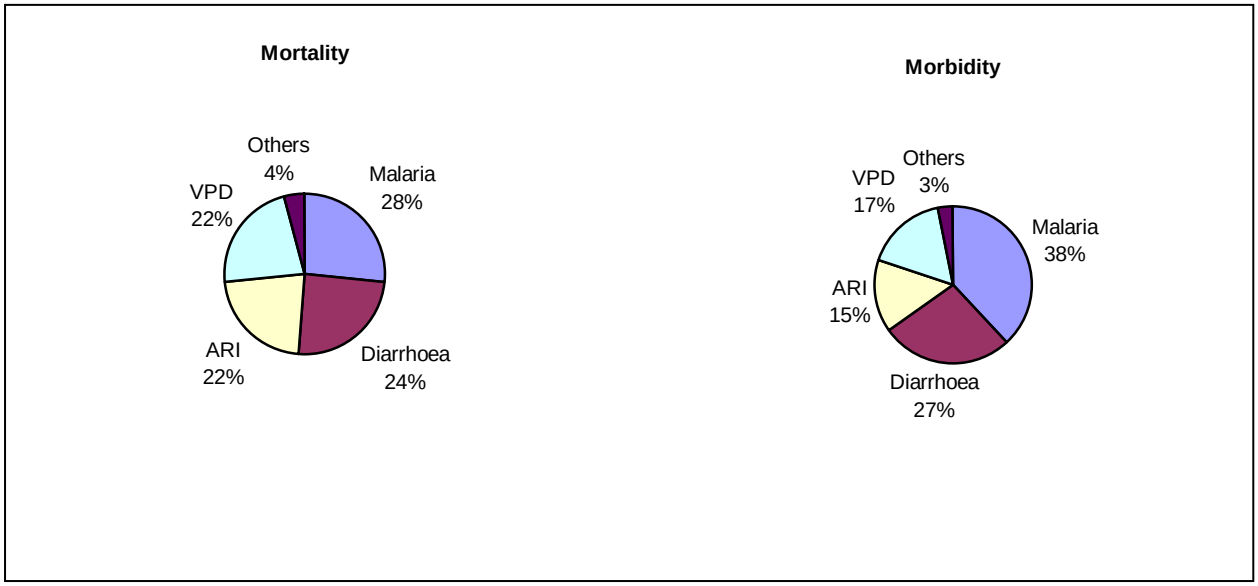
Major causes of childhood morbidity and mortality in Nigeria include childhood diseases, such as malaria, diarrhoea, ARI, and VPD, as shown below in Figures 1 and 2.

Figure 1. Percentage Breakdown of Under-Five Mortality and Morbidity by Reported Causes, 1999



Source: NHMIS

Figure 2. Percentage Breakdown of Infant Mortality and Morbidity by Reported Causes, 1999



Source: NHMIS

Underlying factors include childhood malnutrition, poor immunisation status, household poverty, and food insecurity. Other factors are maternal illiteracy, poor living conditions (housing, water, and sanitation), and poor home practices for childcare during illnesses. Also, the alarming rise in prevalence of HIV/AIDS among pregnant women with resultant mother-to-child transmission (MTCT) adds to the burden of child mortality and morbidity in Nigeria.

Equality of Child Survival (ECS)

The World Health Organisation (2000) developed the concept of "equality of child survival" to estimate and rank the extent to which under-five mortality in different countries reflects a pure chance of death (equal for all children) and variations in the underlying factors that amplify the risks of death. A value of one depicts complete equality of child survival, unaffected by underlying factors; values below one indicate a greater degree of inequality in child survival due to underlying factors. Using this measure, Nigeria's ECS was 0.336, ranking it fourth lowest of 191 countries (rank 187), ahead of only Central African Republic, Mozambique, and Liberia. War-torn countries such as Sierra Leone (rank 186) and Angola (rank 178) scored higher than Nigeria. Although the ECS indicator seeks to allow international comparisons by using a common set of underlying factors and, to a certain extent, a common source of data (DHS), there are uncertainties as to what these factors are, the weight attached to them, and the dates to which the data refer.

Determinants of Childhood Mortality and Morbidity

Childhood Illnesses and Child Survival

VPD, malaria, ARI, and diarrhoeal illnesses are the most common childhood ailments that contribute substantially to morbidity and mortality among children less than age five. As seen in Figures 1 and 2, the breakdowns are from routine data on notifiable diseases collected in 1999 by health authorities and collated through the National Health Management Information Systems (NHMIS). Although not absolutely reliable, these data provide an approximate picture of the diseases that lead to ill health and death among children less than five years of age in Nigeria.

Malaria. Malaria is by far the most important cause of morbidity and mortality in infants (38% and 28%) and young children (41% and 30%) (see Figures 1 and 2). About 75 percent of malaria deaths occur in children under five. Malaria also accounts for about 11 percent of maternal deaths, especially for first-time mothers. It contributes largely to neonatal and perinatal mortality as well as anaemia in young children, thus undermining their growth and development. It is estimated that 50 percent of the population has at least one episode of malaria each year, whereas children less than age five suffer from two to four attacks a year. In addition, malaria indirectly exacerbates poverty by diminishing productivity and household income, which further adversely affects child health and well-being. Malaria has remained problematic because, like in most other tropical countries, efforts to control malaria, prior to the Roll Back Malaria (RBM) Initiative, failed to adopt an intersectoral approach in considering the social and environmental factors sustaining the disease. Victims were thus virtually dependent on home-based treatment and chloroquine.

Diarrhoeal Illnesses. These illnesses are the second most common cause of infant deaths and the third main cause of under-five mortality, as shown in Figures 1 and 2. The World Bank (2001) reveals that Nigeria has lost 43 healthy years of life per 1,000 from diarrhoeal

illnesses. Data from the 1999 MICS and 1999 NDHS also buttress this fact; both surveys report a high prevalence of diarrhoea among children in the two weeks preceding the surveys. Figures were 15.3 percent among children under five (1999 MICS) and 15.5 percent among children under three (1999 NDHS). A comparison of data from the 1990 and 1999 NDHS reveals appreciable improvement in the treatment of diarrhoea by caregivers, indicating significant progress in the past decade. The huge investment in promoting ORT, embarked on in the 1980s by the government, has yielded substantial results as depicted by an increase in the proportion of children receiving ORT in the 1999 NDHS compared with data from the 1990 NDHS. Hitherto, the response of parents and other caregivers to diarrhoea has been to withhold fluids and foods. The strategy employed to improve home-based management of diarrhoea placed a heavy emphasis on the public education of parents and caregivers via commercial advertising and other means of communication. These methods could be borrowed in promoting other initiatives such as routine immunisation and the use of insecticide treated nets (ITNs) for malaria control.

ARI. ARI include a wide range of upper and lower respiratory tract infections (pneumonia), commonly manifesting with a cough, fever, and rapid breathing. ARI were the fourth main cause of under-five morbidity and, together with VPD, the third main cause of infant mortality. The World Bank (2001) highlights that Nigeria lost 41 healthy years of life per 1,000 due to ARI. Reports from the 1999 NDHS reveal that about 11 percent of infants less than three years of age had ARI symptoms in the two weeks preceding the survey; however, less than one-half were taken to a health facility for treatment. Although there was no urban–rural differential in the prevalence of ARI, affected children in urban areas were more likely to be taken to a health facility (65% vs. 45%). Also, variation in the prevalence of ARI across regions was minimal, but differences existed in the treatment of ARI. Only one-third of children with ARI in the northeast region were taken to health facilities in contrast to almost 70 percent of ill children in the southwest.

Sickle Cell Disease (SCD). SCD is the most common genetic disorder affecting Nigerians. About 25 percent of the population carry the sickle cell trait (the AS gene), and about 100,000 children born annually have a serious sickle cell disorder. The disease (resulting from homozygous S genes) affects about 2–3 percent of the population, which is one of the highest prevalence rates worldwide. Characteristics of the disease include episodes of haemolytic anaemia, resulting in bone infarction and bone-pain crisis, and pathologic involvement of many organs of the body. Chronic ill health is common, and children have recurrent anaemia, enlarged spleens and livers, and recurrent leg ulcers. They are more prone to malaria, pneumococcal infections, as well as meningitis and salmonella infections of the bone. Also, the risk of HIV/AIDS infection is higher in this group because of the need for frequent blood transfusions in poorly managed cases. The Paediatric Association of Nigeria (PAN) estimates that SCD contributes to about 5 percent of the overall burden of childhood mortality in Nigeria (NPC/UNICEF, 1998).

Childhood Malnutrition and Child Survival

In Nigeria, more than 50 percent of all childhood deaths have under-nutrition as an underlying factor (NPC/UNICEF, 1998). Progress in nutrition is assessed from indicators of malnutrition, breastfeeding, salt iodisation, and vitamin-A supplementation for children under five. WHO/UNICEF (1989) recommends that children be exclusively breastfed for the first four to six months of life, and thereafter introduced to appropriate and adequate complementary foods along with breast milk. According to the 1999 NDHS, 96 percent of mothers admitted to breastfeeding their babies, and 86 percent of children ages 12–23 months

were still being breastfed. Although it appears from these data that breastfeeding is widely practised, reports from the early 1990s reveal that only 1 percent of infants less than six months were exclusively breastfed. The 1999 NDHS reports that about 19.6 percent of infants less than three months and 8 percent of infants less than six months were exclusively breastfed. Despite the slight improvement, these rates suggest that Nigerian infants are not getting the maximum benefits of exclusive breastfeeding, given that about 40 percent of infants ages 2–3 months were already receiving supplements, thus putting them at risk of diarrhoeal infections, an underlying factor in malnutrition.

For older children, the problem is lack of adequate complementary feeding. Adequate complementary foods must contain the recommended dietary allowances (RDA) for energy, measured by caloric intake and protein. Among children ages 12–23 months, 13 percent were still on breast milk when they ought to have been introduced to adequate and appropriate complementary foods. The majority of children receive more cereal and root-based carbohydrates as opposed to protein-rich foods. Nutritional indices for children under age three are equally poor. Almost 50 percent are stunted (height for age <-2SD), with about 25 percent being severely stunted (<-3SD), indicating chronic malnutrition. Twelve percent are wasted (weight-for-height), indicating an acute or recent shortage of food and/or severe disease within a short time span; and 27 percent are underweight, representing a shortfall in weight-for-age (a combination of acute and chronic malnutrition). From the figures reported in the 1990 NDHS, the trend in the nutritional status of Nigerian children has worsened with regard to stunting and wasting (from 36% in 1990 to 46% in 1999 for stunting and 11% in 1990 to 12% in 1999 for wasting).

Providing a more complete picture, the 1999 MICS, which reports data on the nutritional status of children under age five, highlights that under-nutrition, present in about one-third (31%) of those children, is more prevalent in rural than urban areas and in children of mothers with less than a secondary school education. It also revealed striking regional variations, with the northeast and northwest in much worse situations than the southeast and southwest. These regional and zonal disparities may reflect a contribution of other factors, such as socio-cultural conditions and morbidity in determining the nutritional status of children under age five. The high prevalence of stunting observed in the 1999 NDHS survey is in the context of large-scale deepening poverty and household food insecurity. Supplementary data from the 1993 Participatory Information Collection (PIC) survey, published in 1997, shows widespread food poverty (calorie intake below the RDA), which is worse among rural than urban dwellers and in the northeast and northwest. Also, food poverty was found to be more pronounced among younger mothers and those with low income.

In addition to adequate protein and energy, intake of micronutrients, especially vitamin A, iron, and iodine, is essential for the normal functioning of the body. Vitamin-A deficiency (VAD) contributes to 25 percent of infant, child, and maternal mortality in Nigeria because of reduced resistance to protein-energy malnutrition, ARI, measles, malaria, and diarrhoea (UNICEF, 2002). Total dietary vitamin-A intake has been found to be inversely associated with the risk of diarrhoea, perhaps explaining the similar regional pattern of VAD and the higher prevalence of diarrhoea in the north than the south. Individuals suffering from VAD are susceptible to night blindness from xerophthalmia. More than 9 million children and 6 million mothers are vitamin-A deficient in Nigeria (UNICEF, 2002). The 1999 MICS reveals that less than one-quarter of children ages 6–59 months have received a high dose of vitamin A in the past 24 months. It also shows that the northern region with the most serious prevalence of VAD has received the least supplementation.

Iodine deficiency disorder (IDD) is a major threat to the health of children and adults. An estimated 25–35 million Nigerians are at risk in areas where the soil is iodine deficient. IDD remains the single most important preventable cause of brain damage.

Areas with high goitre (enlargement of the thyroid glands), with prevalence rates of more than 36 percent, include the states of Sokoto, Cross River, and Benue. As a result of the effective partnership between UNICEF and the Standards Organisation of Nigeria, implementation of the policy on universal salt iodisation has been possible in Nigeria. This is reflected in the 1999 MICS, which reports that 98 percent of Nigerian households consume iodised salt, with only the state of Taraba having a much lower level (78%).

Iron deficiency anaemia (IDA) is the most common micronutrient malnutrition problem in the world, affecting more than two billion people globally. In southeastern Nigeria in 1993, more than 50 percent of women and young children suffered from IDA. Anaemia contributes to one-in-five maternal deaths and to increased morbidity, foetal-growth retardation, compromised mental development, poor physical activity, and reduced labour productivity.

VPD and Child Survival

Childhood immunisation remains an important strategy in the reduction of morbidity and mortality from common VPD. According to UNICEF, the WHO, and National Programme on Immunisation (NPI) guidelines, a child should receive a Bacille Calmette-Guerin (BCG) vaccination for tuberculosis, four doses of oral polio, three doses of DPT (diphtheria, pertussis, and tetanus), and one dose of measles vaccine by age 12 months. VPD have been implicated in the deaths of more than 20 percent of children under five.

International comparative data show that Nigeria's immunisation coverage rates are among the worst in the world (UNICEF, 2001). The 1993 World Development Report, the sub-Saharan Africa model on the burden of disease, states that Nigeria lost 41 years of healthy life per 1,000 population due to VPD. The 1999 NDHS notes that only 14 percent of children had received all the above-mentioned vaccines by age 12 months and 17 percent had received them by age 23 months. It also reveals that 38 percent of Nigerian children surveyed had not received any vaccinations. When compared with data from the 1990 NDHS, it is distressing that the proportion of children less than 23 months vaccinated against childhood diseases has declined from 30 percent (1990 NDHS) to a shockingly low 17 percent (1999 NDHS).

Whereas data from the NPI reveal routine immunisation coverage levels of more than 80 percent (BCG, 95%; DPT3, 65%) by 1990, Expanded Programme on Immunisation (EPI) data show that BCG coverage declined to 13 percent and DPT3 coverage declined to 19 percent. Table 2 shows a list of countries with DPT3 coverage rates of less than 50 percent among those countries receiving assistance from the Global Alliance for Vaccines and Immunization (GAVI). Nigeria ranks seventh (GAVI, 2002).[2] Although this decline was for all types of vaccines, it was greater for DPT and polio than for BCG and measles, possibly because of the shortage of vaccines in Nigeria from 1996–1998. This decline in vaccination coverage was worse in rural areas; urban children are twice as likely to be immunised than rural children, probably as a result of awareness of the importance of immunisation and

[2] http://www.vaccinealliance.org/reference/awards.html

access to health services. Also vaccine coverage was lowest among children whose mothers had no secondary or higher education (1999 MICS).

Table 2. DPT Coverage Rates by Countries (June 2002)

Country	Number of Surviving Infants	Original DPT3 Coverage Rates (%)
Liberia	147,540	23
Niger	506,284	23
Sierra Leone	198,918	23
Somalia	270,769	30
Congo (DRC)	2,425,327	31
Afghanistan	901,328	31
Nigeria	4,608,972	38
Burkina Faso	456,000	42
Togo	84,383	43
Ethiopia	2,532,519	45
Djibouti	24,061	46
Cameroon	457,000	48

Nigeria remains one of the largest reservoirs of wild polio viruses, attracting the attention of the world in the effort to eradicate polio globally by 2002 and certify the world polio-free by 2005. Polio is a highly infectious viral disease that invades the central nervous system and can cause paralysis, especially in the legs. One in 200 infections leads to irreversible paralysis and 5–10 percent of those paralysed die when their breathing muscles are paralysed. Widely endemic in five continents in 1998, polio is now concentrated in parts of the Indian sub-continent and sub-Saharan Africa, including Nigeria.

Since the onset of the concerted efforts of the NPI and the international donor partners to eradicate polio in Nigeria via NIDs and SNIDs, the trend in the number of confirmed wild polio cases continued to be upward as a result of obviously better surveillance of acute flaccid paralysis (AFP) surveillance with 29 and 58 confirmed WPV cases in 2000 and 2001 respectively (CDC, 2002). The year 2002 seems to be an exception in that there appears to be an increase in cases due to probable resurgence of infections or heightened AFP surveillance.

Between January and August 2002, a total of 77 wild polio cases were confirmed. Although these cases are mainly restricted to particular regions of the country (in particular the northwest and central regions), polio eradication in Nigeria still remains a challenge at the end of 2002, as routine immunisation levels nationally and throughout these regions are low. However, some data suggest a reduction in the intensity of transmission. Coverage rates for the third dose of oral polio vaccine (OPV) was only 25 percent according to the 1999 NDHS, and 19 percent according to the 1999 MICS. The low immunisation coverage rates could be explained by weaknesses in the system of routine immunisation as well as the sporadic nature of campaigns.

Nigeria also reports a high incidence of neonatal tetanus. NHMIS figures show neonatal tetanus accounting for 11 percent of infant mortality in 1999, which is a reflection of the type and levels of antenatal care (ANC) prevalent among pregnant women. Tetanus toxoid (TT) immunisation during the antenatal period has been shown to have a greater

impact on neonatal mortality from tetanus than place of delivery. Two doses of TT during pregnancy offer full protection for three years, although this is not optimal; a woman requires five doses during the stipulated period to acquire full protection during the childbearing years. However, the 1999 NDHS reported that only 44 percent of mothers with a birth in the three years preceding the survey received two or more doses of TT.

Other VPD that contribute to the high U5MR and IMR include measles and cerebro-spinal meningitis (CSM). Measles is the leading cause of VPD in children from failure to deliver at least one dose of the vaccine to all infants and inadequate case management resulting in complications and consequent high measles morbidity and mortality. While the measles vaccination is included in the routine EPI for children, the CSM vaccine is only recommended for children during epidemics, which are common in northern Nigeria during the dry seasons.

Fertility, Family Planning, and Child Survival

Available data show a relationship between birth rates and infant deaths in developing countries. Certain patterns of reproductive behaviours are associated with poor child health. Infant and childhood mortality is higher for "high-risk" births. High-risk births are those occurring to women who are too young (before age 18) or too old (after age 34) or who have too many births (birth order four and above) as well as births that occur and too close together (less than 24 months apart). Comparing birth intervals (BI) of 24 months or more with those less than 24 months, the 1999 NDHS notes lower IMR (59) and U5MR (126) for longer birth intervals and higher IMR (104) and U5MR (174) for shorter birth intervals. Presently, fertility rates are high in Nigeria as indicated by a TFR of 5.2 births per woman and a crude birth rate of 41. The 1999 NDHS data assessment on fertility suggests an under-reporting of births, such that the true TFR for the five years preceding the survey is probably closer to 5.9 or 6.0 than the reported rate of 5.2.[3]

Childbearing begins early in Nigeria, with nearly one-half of women of the reproductive age becoming mothers before age 20. Teenage childbearing is higher in rural than in urban areas and has negative demographic, socio-economic, and socio-cultural consequences. These young mothers are more likely to suffer from severe complications during delivery, resulting in higher morbidity and mortality for both themselves and their children.

With an unmet need for family planning of 18 percent (13% for spacing, 5% for limiting births) and a contraceptive prevalence rate (CPR) of 9 percent, Nigerians are still having more children than planned and at shorter than desired birth intervals. A recently concluded multivariate cross-country analysis on effect of birth intervals on childhood morbidity and mortality reports that Nigerian mothers had short birth intervals and that these intervals posed substantial mortality and nutritional risks for children (Rutstein, 2001). The study also reveals that intervals of at least 36 months are associated with the lowest mortality and morbidity levels, with the IMR dropping by about 28 percent and the U5MR declining by 23 percent. Other benefits include a reduction in the annual number of deaths of children less than five years by 165,000 and a drop in the TFR of longer birth intervals of 8 percent.

Apart from poor budgetary allocations for FP/RH activities, there is also a marked level of resistance to family planning use in Nigeria because of socio-cultural and economic

[3] NPC, 2000, Appendix C

factors, particularly religious beliefs, low educational levels, poverty, misinformation, and poor spousal communication. Although this problem is widespread nationally, data from the 1999 NDHS show that approval of use of modern contraceptive methods is higher among urban residents than those in rural areas, higher among older than among younger respondents, and higher in the southwest, southeast, and central regions than in the northeast and northwest regions. In addition, females with at least secondary education are more likely to approve of modern contraceptive use than those with lower levels of education. Other barriers to family planning use include opposition by religious and traditional rulers, particularly in the northern regions due more to suspicion and misinformation than the tenets of Islam. In the southeast, the Catholic Church, which has a large following, insists on the use of natural family planning methods; this, together with suspicions arising from misinformation, poses many problems. There is therefore a need for more advocacy and social mobilisation, since ample data exist to suggest that high-risk births are linked to reduced child survival.

Maternal Morbidity/Mortality and Child Survival

Maternal mortality in Nigeria is high, varying between 700 and 800 deaths per 100,000 live births with wide geographical disparity ranging from 166 per 100,000 live births in the southeast to 1,549 per 100,000 live births in the northeast (1999 NDHS). Nigeria contributes to 10 percent of the world's maternal deaths with an average of seven for every 1,000 births. With about 2.4 million live births annually, about 17,000 Nigerian women die annually. Or to put it another way, one woman dies every 30 minutes from complications of pregnancy and childbirth (NPC/UNICEF, 2001). These indicators have a negative impact on child survival, since children who lose their mothers experience an increased risk of death or other complications, such as malnutrition. Studies have shown that children who lose their mothers during childbirth, particularly female children, are 10 times more likely to die than those whose mothers survive (Strong, 1992). For each woman who dies, approximately 20–30 others suffer short- and long-term disabilities from complications of pregnancy and childbirth. Major causes of maternal morbidity and mortality are haemorrhage, infection, unsafe abortion, hypertensive disease of pregnancy, and obstructed labour.

Apart from malaria, diarrhoeal illnesses, ARI, and VPD, a large proportion (30–40%) of infant morbidity and mortality globally and within Nigeria can be attributed to preventable factors during pregnancy and delivery (WHO, 1996; Owa et al., 1995; Lawoyin, 2000). Low-birth weight, which underlies a significant percentage of early deaths in infancy, is largely due to poor maternal weight gain during pregnancy, arising from maternal morbidity (malaria) and HIV/AIDS, among others (Njokanma and Olarewaju, 1994; Akpala, 1993). In addition, asphyxia and birth trauma, which also contribute to high infant mortality, occur in conditions of obstructed labour (from cephalo-pelvic disproportion) due to lack of essential obstetric care.

Lack of adequate ANC in most parts of the country, particularly the northern regions and rural areas, has resulted in low TT immunisation rates and consequently high prevalence of neonatal tetanus. The 1999 NDHS reports that about two-thirds (64%) of women with births in the three years preceding the survey had received ANC from a health professional. However, marked urban/rural and zonal differences exist. The proportion of pregnant women who had no ANC in rural areas was almost four times that in urban areas (37% vs. 10%). Comparing zones, 28 percent of women received ANC in the northeast, in contrast to 82 and 89 percent in the southeast and southwest, respectively. Poor ANC coverage is reflected in the level of TT.

HIV/AIDS and Child Survival

Since it was first reported in 1986, the prevalence of HIV/AIDS in Nigeria has steadily risen. The rate among women attending antenatal clinics has increased from 1.8 percent in 1991 to 5.8 percent in 2001 (FMOH, 2001). Among teenagers and young adults, the prevalence rate is 6 to 6.5 percent. It is estimated that about 3.4 million people in Nigeria are presently HIV-positive and that this number will rise to more than 4 million in 2005 if nothing is done to stem the scourge (POLICY/Nigeria, 2002).

Implications of these data on child survival are manifold and grievous, since they threaten to reverse the modest gains made in reducing infant and under-five mortality through immunisation and other child survival strategies. First, because of the 30-percent risk of MTCT of HIV, infants born to HIV-positive mothers are at risk of becoming HIV infected. MTCT of HIV can occur either during pregnancy (10–30%), delivery (40–60%), or through breastfeeding (15–20%). Globally, the rate of MTCT of HIV is estimated to vary from 15–35 percent, with a range of 15–20 percent in developed countries where most infants are formula-fed, however increasing to as high as 39 percent in developing countries such as Nigeria because of the practice of mixed feeding. By the end of 2000, an estimated 200,000 children under five had died from HIV/AIDS acquired through MTCT. Unless action is taken, this number is projected to reach 700,000 by 2010 (NPC/UNICEF, 2001). Second, because of the possibility of transmitting the virus via breast milk, breastfeeding, which had hitherto been shown to be the single most important measure in preventing infant deaths from diarrhoea, malnutrition, and respiratory infections, is now threatened. Thus, in resource-poor settings such as Nigeria, where alternatives are not easily affordable, providing adequate infant nutrition is difficult.

Third, as a result of deaths occurring from AIDS, about 1.4 million children (about 700,000 under the age of 10), have lost both parents or their mothers. In addition, there are children who because of their circumstances have become adversely vulnerable, such as those who have lost one or both parents in armed conflicts or through natural or man-made disasters. Examples of these circumstances include the Benue/Nassarawa boundary/ethnic conflicts, the Plateau religious/ethnic conflict, Ife/Modakeke, and the Urhobo, Ijaw and Itsekiri conflicts, which have left a host of abandoned and orphaned children. Also, the recent Lagos bomb explosion and the Yoruba/Hausa communities armed conflict has recently produced orphaned children.

These orphans and vulnerable children (OVC) are left to fend for themselves and in many cases take up parental responsibilities, thus becoming victims of family impoverishment that is the inevitable consequence of the impact of AIDS and the armed conflicts on the most productive age groups. The process of family pauperisation will adversely affect children's nutrition and health, diminishing their access to health services, education, and other social services.

Availability/Accessibility of Health Services and Child Survival

Nigeria's National Health Policy, launched in 1989 and revised in 1996, one year before the WSC, has a goal of attaining a "level of health that will enable all Nigerians to achieve socially and economically productive lives" with a "national health system that is based on Primary Health Care (PHC)." By 1990, only 17 percent of the population had

access to modern health facilities; thus, a revitalised PHC system under the National Health Policy was expected to correct the unsatisfactory coverage level.

PHC facilities are supposed to provide basic preventive and health promotion services that include immunisation, health education, and promotion of adequate nutrition as well as management of simple malaria, diarrhoea, ARI, and other common illnesses. PHC also provides ANC, FP services, and basic surgical services. In spite of the laudable goal of its health policies, Nigeria continues to spend below the WHO-stipulated 5 percent (less than $5 per capita) of its annual budget on health care. During the years of military rule, the health budget fell to 1.4 percent; however, the return to democracy has made an improvement (4.4% in 2000), although still short of the recommended 5 percent.

In terms of health infrastructure, Nigeria is well covered, having about 18,258 PHC facilities, 3,275 secondary facilities, and 29 tertiary facilities (NHMIS). Although these numbers seem adequate, the 1999 NDHS reports that 9 percent of households surveyed had no access to any health facility, 34 percent had no private doctor, and 24 percent had no access to a pharmacy. These data show regional variations with the northeast and north–central regions being the worst served. In addition, timely access to secondary and tertiary services is more problematic than facilities on the ground may suggest.

The health system has been plagued by problems of service quality, including unfriendly staff, inadequate skills, insufficient numbers of skilled workers as a result of a "brain drain," decaying infrastructure, unavailable equipment, as well as a chronic drug shortage. Other factors include a financial barrier to access from poorly designed cost-recovery mechanisms; lack of effective community participation or real decentralisation; weak referral systems among primary, secondary, and tertiary care; overlapping vertical programmes; reduced national funding; and weak information systems. In addition, the majority of the population regards public health services poorly; 26 percent of people surveyed in Lagos state using the Core Welfare Indicator Questionnaire Survey of 1999, conducted by the Federal Office of Statistics as part of the National Integrated Survey of Households, reported dissatisfaction with public health services because of cost (56%), unavailability of drugs (33%), and long waiting periods (33%).

In this dearth of adequate and accessible health services, immunisation is the most affected child survival intervention. A study conducted on available services in public sector health facilities in the relatively well-served southwest zone reports that no PHC service was available in more than 50 percent of the facilities surveyed. Although immunisation was the most widely available service, it only existed in about 45 percent of surveyed facilities. Factors in health service delivery that led to the previous successes achieved in immunisation coverage in the late 1980s and early 1990s included adequate funding, proper logistics, availability of power generators, information and education (IEC) materials, and training packages for health staff. The snag at that time, and a lesson to be learned, is that all these activities were overwhelmingly donor-funded and managed, and depended on massive and costly single-antigen mobile campaigns. Thus, when donor funding was withdrawn, coverage rates plummeted.

Non-health Factors Influencing Child Survival

Female Literacy. Women's education has been reported as a key factor in reducing infant and child mortality. The higher a woman's level of education, the more likely it is that she will marry later, play a greater role in decision making, and exercise her reproductive rights.

Her children will tend to be better nourished and enjoy better health. Data from both the 1999 NDHS and the 1999 MICS reveal that lower educational levels among females was related to higher infant and under-five mortality. Both surveys highlighted female illiteracy and under-five mortality being twice as high in the northern zones than in the south. Similarly, rural areas had lower levels of female literacy and consequently higher under-five mortality than urban areas. The relationship between female literacy and child survival is also clearly demonstrated when looking at immunisation coverage rates and treatment of diarrhoeal illnesses. Timely and appropriate use of ORT in the treatment of diarrhoeal illnesses (the second main cause of under-five mortality after malaria) reduces mortality outcomes. The 1999 NDHS reports that the proportion of caregivers that use ORT progressively rises with levels of education. The same survey data also show that the proportion of children not immunised at all decreases from 60 percent among illiterate mothers to 24 percent among mothers with primary education, before dropping to 10 percent among mothers with secondary education.

Access to Safe Water and Adequate Sanitation. Many of the diseases that lead to increased morbidity and mortality of children under five are largely related to the unavailability of safe water, unhygienic behaviours, poor sanitary facilities, and poor housing conditions. ARI, a major killer of children under five, along with VPD such as measles, diphtheria, and tuberculosis, are easily spread in poor overcrowded houses. Also, increased prevalence of diarrhoeal diseases, cholera, and typhoid is seen in situations of unsanitary refuse, excreta disposal, and use of unsafe drinking water. In addition, inadequate drainage and accumulated wastewater encourage breeding of mosquitoes with increased malaria attacks (the single most significant cause of death among children). The 1999 MICS reports that 54 percent of the population had access to safe drinking water (71% and 48% in urban and rural areas, respectively). The southeast is the worst hit region; only 39 percent of the population get their drinking water from safe sources. Just over one-half (53%) of the population live in households with a sanitary means of excreta disposal (1999 MICS), a situation which varies from 40 percent in the northeast to 58 percent in the southwest, and from 44 percent in rural areas to 75 percent in urban areas. A comparison of data from the 1990 and 1999 NDHS shows improvement in access to safe water; the proportion of the population collecting water from surface sources declined from 52 to 38 percent, while the proportion of obtaining water from ground sources such as boreholes and wells rose from 35 to 44 percent between the two surveys.

Poor access to safe drinking water encourages the spread of certain vector-borne illnesses: onchocerciasis (river blindness) and dracunliasis (guinea worm), which are transmitted by vectors associated with water, causing more debilitating illnesses than those listed above. In the 1990s, remarkable progress was made in reducing guinea worm cases from 394,082 in 1990 to 13,237 in 1999, representing a 97 percent reduction from efforts of the Nigeria Guinea Worm Eradication Programme (NIGEP). In 1999, only about eight states were reporting significant numbers of cases. Poor coverage for water supply and sanitation is linked with insufficient funding of operations and maintenance, lack of capital to complete and initiate water projects, and inadequacy of skilled labour and management capacity. Other problems are inefficient billing and collection of water revenue needed for operation and maintenance, and inadequate monitoring and evaluation of performance.

Compounding the lack of safe water is the lack of awareness of the health consequences of unhygienic behaviours, such as defecating and urinating in bushes outside houses, poor refuse disposal, and infrequent hand washing. Another problem is the use of the same water source for bathing, washing, and feeding of cattle.

Poverty. There is a synergistic interrelationship between poverty, ignorance, poor health, malnutrition, and reduced child survival, which is worsened by social exclusion and political marginalisation. A child born to a financially deprived and less educated family is at risk of dying perinatally or within the first month of life, since the mother was probably poorly nourished during pregnancy, had little or no ANC, and is unlikely to have delivered at a health facility. On surviving the first month of life, the child is then exposed to increased risks of illnesses, such as malaria and diarrhoea, due to poor living conditions, limited access to safe water and inadequate sanitation, malnutrition from household food insecurity, or ignorance about good child feeding practices. Large family size (from ignorance of and lack of access to family planning) puts pressure on the mother to work in order to provide for the family, thus leaving the child quite possibly inadequately cared for. All these factors are further aggravated by limited access to health services due to poor income and low levels of maternal education, often leading to the non-immunisation of the child.

A World Bank analysis (Table 3), based on 1990 NDHS data and subdividing the surveyed households into quintiles, found a significant relationship between poverty and increased infant and child mortality, low immunisation coverage rates, reduced access to health services, and malnutrition.

Table 3. Relationship Between Poverty and Child Survival Indicators

Child Survival Indicators	Poorest	Richest	Poor/Rich Ratio
IMR	102.0	68.6	1.5
U5MR	239.6	119.8	2.0
TFR	6.6	4.7	1.4
Children stunted (%)	48.5	32.1	1.5
Children underweight (% moderate)	40.2	22.2	1.8
Children underweight (% severe)	16.4	4.9	3.3
Children 12–23months (% immunised)	14.0	51.0	3.6

Source: World Bank, 2002

The relationship between poverty and child survival is pertinent, since economic and development data published by the World Bank suggest deepening poverty in the past two decades. Recent estimates place about 70 percent of the Nigerian population below the poverty line (UNDP, 2001). In a localised study conducted in southwest Nigeria (ITN–Oriade Study), persons earning less than $1 a day were 9 percent less likely to use ITNs, less able to perceive malaria as a preventable disease, and less likely to have adequate drug treatment than those with a higher income. This study also reported a strong association between poverty (income less than $1 a day) and access to safe water and adequate sanitation (refuse disposal).

Cultural Factors and Gender Bias. There are deeply rooted cultural beliefs and attitudes that sometimes result in practices harmful to the survival of children and women. These include food taboos, gender-related practices such as early marriage and lower levels of education among females, and the attendant risks of maternal morbidity and mortality. Also, the inability of women to exercise their reproductive rights due to culturally based limitations brings about higher levels of maternal, infant, and child mortality. Some cultural factors lead to poor childcare practices in Nigeria; for instance, widespread beliefs about the aetiology of illnesses being attributed to evil spirits and use of traditional medicine as the first line of treatment for illnesses. To some extent, infant feeding practices have a cultural bias—in some tribes, colostrum is not fed to newborn babies because it is believed to be dirty and thus

breastfeeding is delayed and not sustained. The tendency is to withhold protein-rich foods, such as meat, chicken, and eggs, from infants because of the misconception that feeding children those foods may encourage them to steal later on in life.

Responses

Political Support

Nigeria is a signatory to both the 1989 UN Convention on the Rights of the Child (CRC) and the Organisation of African Unity (OAU) Charter on the Rights and Welfare of the Child. Following ratification of the CRC in 1991, the government of Nigeria simplified and translated this document into the three major Nigerian languages. Nigeria also ratified the Declaration and Plan of Action for Children arising from the WSC, held in New York in 1990. This action was followed up with the preparation of a National Programme of Action (NPOA) for the Survival, Protection, and Development of Children, adopted in 1992. In 2000, there was also an End of Decade Review (EDR) of the progress made towards achieving these set goals.

The EDR highlighted the prolonged military rule and unstable political atmosphere that had scuttled implementation of policies relating to women and children as well as limiting planning in most spheres of national life to a top–bottom approach. The review also noted the weaknesses of sectoral linkages on issues regarding child survival, resulting in duplications of effort and inefficiency in managing scarce resources. In addition, limited funds budgeted for programmes involving children were late in reaching implementing officers, thus posing a further constraint in achieving the set goals. There has also been the persistent failure of national planning in recognising that poverty weakens the capacity of parents to contribute financially to implementation of projects involving women and children (FMWA&YD, 2000).

Regarding child health, the country has adopted and implemented to a certain extent a number of major global initiatives affecting children, such as the Safe Motherhood Initiative and its follow-up Making Pregnancy Safer, Baby-Friendly Hospital Initiative (BFHI), and Integrated Management of Childhood Illness (IMCI). Others are RBM Initiative, Elimination of IDD, VAD Control, and NPI, the latter with a special emphasis on the eradication of poliomyelitis. In 2001, the country hosted an HIV/AIDS summit. The involvement and pronouncements of President Olusegun Obasanjo—"We are determined not to allow our country to be overwhelmed by HIV/AIDS"—demonstrated a high level of political commitment in limiting the scourge and impact of HIV/AIDS. The country also formed a stakeholders' task team headed by the Federal Ministry of Women Affairs and Youth Development (FMWA&YD) to work on a country action plan for OVC. In addition, the National AIDS Control Agency (NACA) has established Prevention of Mother-to-Child Transmission (PMTCT) projects in 11 teaching hospitals nationwide.

In spite of these initiatives and programmes, the rate of improvement in child survival indices has been slow and one of the worst in sub-Saharan Africa, principally because of poor planning and funding by the government, limited intersectoral approaches, lack of decentralised management capacity, and nonsustainability of donor-funded programmes. However, with the return to democracy, it appears that the political environment is increasingly becoming conducive for implementing national programmes and plans. There is also increasing stakeholder participation and intersectoral and multisectoral collaboration on child survival issues. The same degree of political commitment apparent nationally should

exist at the state and local government levels as health, particularly child health, is on the concurrent list.

Policies and Plans

Nigeria has in place several policies and plans that affect the survival of children and their mothers. Some of these have been adopted and are being implemented, whereas some are drafts or under review. These documents include the National Health Policy of 1988 (revised in 1996), Maternal and Child Health (MCH) Policy (1994), National Immunisation Policy and Standards of Practice (1996), which is currently being revised. Others include the National Acute Respiratory Infections Programme: National Policy and Plan of Actions, 1991–1995; Breastfeeding Policy (1999); Essential Drug Policy; National Nutrition Policy, compiled in 1995, adopted in 1998, and recently published in 2001; National Reproductive Health Policy (2001); and National Policy on Population and Sustainable Development (2001 draft). In addition, the Water Supply and Sanitation Policy was adopted in 2000.

In addition, the government adopted the policy on Fortification of Food with Vitamin A; National Programme of Action for the Survival, Protection, and Development of the Nigerian Child (1992); and National Policy on Women (2000), which strives to enhance the status of women, and the MCH component of the National Primary Health Care Development Programme, aimed at improving the health status of women and children. The Federal Ministry of Health (FMOH) also strongly supports and is implementing all aspects of the RBM Initiative backed by the Guidelines for Malaria Control in Nigeria (1989), National Malaria Control Policy (1997), National Antimalarial Policy (2001), and the Strategic Plan for Rolling Back Malaria in Nigeria, 2001–2010 (2000).

There is also a draft Child Policy, which was recently approved by the president. This policy provides broad-based direction to various levels of government, donor agencies, NGOs and the private sector, and other concerned stakeholders in survival, development, and total well-being of the Nigerian child; however, it does not address the issues of orphans and vulnerable children (due to AIDS) and weakly articulates the survival issues, especially in relation to nutrition, immunisation, and other health issues. These omissions underscore the need for multisectoral collaboration and widespread stakeholder contributions to such documents.

Legislation and Protection of Children's Rights

As follow-up to the WSC in 1990, the government of Nigeria established the National Child Welfare Committee (NCWC) to formulate a framework for implementing the summit's goals. WSC, a historic meeting at the United Nations that brought the welfare of children to the forefront of the global agenda by promising to improve the lives of children in every part of the world, was rights-based and outlined specific actions to be taken to improve child survival, such as the following:

- Combating childhood diseases through low-cost remedies and strengthening PHC and the Basic Health Services Scheme (BHSS); prioritising the prevention and treatment of AIDS; providing universal access to safe drinking water and sanitary excreta disposal; and control of water-borne diseases.
- Overcoming malnutrition, including ensuring household food security and developing strategies that include employment and income-generating opportunities;

dissemination of knowledge; and support for increased food production and distribution.

In 1991, Nigeria ratified the 1989 CRC, which is to date the most widely ratified international agreement and advocates, among other things, that "every child has a right to life," is entitled to good health, protection from diseases, and proper medical care for survival, personal growth, and development; and should not be denied his/her rights to health care services. Incorporated in these rights are the following:

- Provision of medical assistance and health care to all children with emphasis on PHC.
- Combating of disease and malnutrition.
- Provision of adequate pre- and postnatal care for mothers.
- Provision of access by all segments of society to basic knowledge of child health, nutrition, environmental sanitation, and child health-related issues.
- Development of preventive health care guidance for parents and of FP services.
- Appropriate measures to abolish practices prejudicial to the health of children.
- Provision of adequate housing (adequate environmental conditions, water and sanitation) and household food security.

On a regional level, the Heads of States of the OAU (now the African Union) in 1991 declared the 1990s the "Decade of the African Child" at an Abuja Summit, having adopted in 1990 at Addis Ababa a Charter on the Rights and Welfare of the African Child. In 1994, Nigeria established the National Child Rights Implementation Committee (NCRIC) with a charge to popularise the above documents. The Department of Child Development of the FMWA&YD, in collaboration with UNICEF and the NCRIC, produced the document, "Nigeria and the Rights of the Child," to facilitate easy assimilation of the child rights principles and improve public attitudes towards child survival and development. Presently, a bill to protect the rights of women, the girl-child, and children has been submitted to the National Assembly for passage by the house.

Donors/Partners

The Nigerian government has enjoyed and still enjoys the goodwill of many international donors and partners in the area of child survival and maternal health. As a result of the decline in public funding in the late 1980s and early 1990s, the health sector became highly dependent on donor funding and technical input from development partners. WHO, the World Bank, African Development Bank (ADB), USAID, through its implementing partners (IPs), UNICEF, and the Department for International Development (DFID) are key players. Funds from these agencies support the formulation of policies, plans, and guidelines; advocacy and dialogue; health sector reforms; capacity building; child and maternal health service delivery, including access to adequate immunisation services; and vitamin-A supplementation. Other areas that receive support from these agencies include NGO capacity and network building, research, and awareness about child survival issues.

Others partners that significantly contribute to child survival in Nigeria include the Interagency Coordinating Committee (ICC) for the Polio Eradication Initiative (PEI) and routine immunisation to which Rotary International via Polio Plus, the Canadian and Japanese governments, and the European Union (EU) belong. Other funding sources include the Bill and Melinda Gates Foundation and the Global Alliance on Vaccine and Immunisation (GAVI), and the Global Fund for AIDS, Tuberculosis, and Malaria.

USAID IPs involved in engaging individuals, institutions, and communities in behaviour change, capacity building, and service delivery for child survival include Basic Support for Institutionalising Child Survival (BASICS) and the John Hopkins University Center for Communication Programs (JHU/CCP). Family Health International (FHI), the Centre for Development and Population Activities (CEDPA), and Africare are working on OVC.

Recently, the POLICY Project and Netmark have been engaged in advocacy and malaria work, respectively. WHO, UNICEF, and the Bill and Melinda Gates Foundation through the AIDS Prevention Initiative in Nigeria (APIN) are assisting in the PMTCT of HIV/AIDS to reduce paediatric AIDS. To aid operations research, the Applied Research on Child Health (ARCH), with funding from USAID and the Centre for International Health, the Boston University School of Public Health, initiated the Nigerian Applied Research on Child Health (N-ARCH). Its main focus is to generate new knowledge to contribute directly to the improvement of the health and survival of young Nigerian children, while building the individual and institutional capacities of Nigerians to undertake such research in the longer term. It collaborates with research institutes, such as the Nigerian Institute of Medical Research (NIMR), and strives to build bridges between the research and implementation communities, private NGOs, and the public.

While some of these donor-funded programmes are widespread across the country, such as UNICEF working in 100 local government areas (LGAs), others are limited to focal states and LGAs. Examples of partners working in focal states include DFID, which is facilitating health sector reforms at state level, principally in Benue, Ekiti, Enugu, and Jigawa; BASICS, with programmes in 20 LGAs in Abia, Kano, and Lagos; Helen Keller International (HKI), funded by Micronutrient Initiative (Canada), which is involved in the control of Onchocerciasis and Trachoma, VAD in women and children, and folate/iron supplementation in pregnant women in affected communities in Adamawa and Borno.

National NGOs

National NGOs that have been active in critical areas of child survival include the Rotary Club of Nigeria, which has immensely to the PEI efforts in Nigeria, mainly in the supply of OPV through the WHO. Assisting with the implementation of the PEI in Nigeria are agencies such as the Nigerian Red Cross, Christian Health Association of Nigeria (CHAN), Rotary Clubs, and professional bodies governing pharmacists, community health workers, and other related health fields. PAN, although a professional body, has had some impact in advocating for child health issues.

At the grassroots level, many of the Community Partnerships for Health (CPH), facilitated by BASICS in its three focal states, have been effectively implementing child survival programmes as well as facilitating advocacy on child health issues. There are numerous NGOs implementing programmes in FP/RH, notably Planned Parenthood Federation of Nigeria (PPFN) and zonal networks of civil society organisations (CSOs), such as the Nigerian Network for Population and Reproductive Health (NINPREH), which provides advocacy and service provision, with support from the USAID-funded POLICY Project. Although there is a sizeable number of NGOs working in child rights and protection, there are only a few that show a strong commitment to promoting child health issues.

Intervention Programmes

An assessment of interventions aimed at improving child survival should use a rights-based approach against the backdrop of the goals of the WSC as outlined earlier.

Provision of Child Health Services

Nigeria's National Health Policy's objective is health care delivery through the provision and expansion of PHC, which was adopted in 1987. The PHC approach is basically similar to the Basic Health Services Scheme (BHSS), which had been Nigeria's strategy for provision of health to all her citizens prior to the adoption of PHC in 1987, except for a new emphasis on intersectoral linkages and greater community participation. In addition to increasing the proportion of the population with access to adequate and affordable health care through expansion and greater decentralisation, the prevention of untimely deaths and illnesses among children and high-risk mothers is an essential part of this health care delivery system. Strengthening and sustaining the PHC system within the National Health Policy has been the focus since the early 1990s, which resulted in the creation of the National Primary Health Care Development Agency (NPHCDA). The NPHCDA is expected to strengthen PHC implementation through supervision and technical assistance to the LGAs.

Under the three-tier system for organising health services, local governments provide MCH services with some input at the secondary and tertiary levels by the state and federal governments, respectively. However, government efforts at making adequate MCH services easily accessible and available in Nigeria are still limited (as illustrated in the section on health services and child survival). Also, health expenditure in Nigeria is largely borne by the private sector, which accounts for 72 percent of expenditures in contrast to the public sector, which accounts for 28 percent. Recognising the inherent problems that exist in the health system, the World Bank, ADB, and DFID are assisting the Nigerian government (principally the FMOH) in health sector reforms with a particular emphasis on improving immunisation services. The World Bank facility for health system reforms goes directly to participating states, while the government of Nigeria stands as guarantor.

As part of its effort to revitalise PHC, which is the basis for improved child health, the present administration through NPHCDA is constructing 200 model health centres in 200 LGAs nationwide. In addition, Professor Olikoye Ransome-Kuti (Chairman of the NPHCDA) states that "provision of necessary skills, management techniques, and capacity building through the active involvement, participation, and sense of ownership by communities at village and district levels remain the most enduring process left to us to institutionalise PHC in the country." Also, the NPHCDA is revitalising the Bamako Initiative in its model LGAs. The initiative was adopted in the 1990s to strengthen PHC through the adequate supply of basic drugs, community involvement in the management of health care, and improved financing.

Presently, routine immunisation is implemented by LGAs with state governments and NPHCDA providing supervision, monitoring, and evaluation with technical assistance in capacity building and training. The NPI has the task of providing vaccines, strengthening the cold chain system as well as giving technical support to the LGAs, monitoring and evaluating routine immunisation and polio eradication activities. The Epidemiology Unit of the Public Health Division of the FMOH has the task of collating information on VPD as well as other notifiable diseases. With the duplicity of activities outlined in the tasks of these federal agencies, their grossly over-centralised management styles and top-down structures operating across all three tiers of government, the communication channels and specific roles of the

local government in implementing what are largely vertical programmes is becoming increasingly unclear. There is, therefore, a need to ensure integration of closely related health care services to encourage better planning and implementation and avoid wastage of scarce resources.

Combating Diseases and Malnutrition

Government responses in this area aim at reducing morbidity and mortality from malaria, VPD, diarrhoea, and ARI. Efforts are being made to ensure food security at the household level and reduce micronutrient deficiencies through the fortification of foods and supplementation.

Malaria. Malaria control is identified as a priority programme within the framework of the National Health Policy. Nigeria has adopted the RBM Initiative in its effort to combat malaria. The RBM Initiative, founded by a global partnership of WHO, UNICEF, World Bank, and UNDP in 1998, has a goal of halving the malaria burden worldwide by 2010 through six core strategies: dynamic global movement, well-coordinated actions, evidence-based decisions, multiple prevention, rapid diagnosis, and treatment and focused research**.**

The Nigerian government demonstrated its political commitment to this initiative by hosting the African Summit on the RBM Initiative in Abuja in 2000, which resulted in the signing of the Abuja Declaration by the presidents and head of states of the governments in Africa. At this summit, the Strategic Plan for RBM in Nigeria (2001–2005) was launched. The declaration has three main goals: correct treatment, preventive measures, and presumptive intermittent treatment. The government heads resolved to commence immediate and sustainable actions to strengthen basic health services to ensure that by 2005:

- At least 60 percent of those suffering from malaria have prompt access to and are able to use correct and affordable treatment within 24 hours of the onset of symptoms;
- At least 60 percent of those at risk of malaria (particularly children under five and pregnant women) benefit from the use of ITNs; and
- At least 60 percent of women in their first pregnancies have access to recommended preventive treatment for malaria.

To effectively achieve these goals, several structures have been developed in line with the RBM principles, such as the establishment of a National Malaria Program at national, state, and LGA levels. The government has adopted the ITN massive promotion and awareness campaign (IMPAC) initiative, which is receiving support from the RBM partners via the WHO, UNICEF, UNDP, World Bank, and other development partners, such as DFID, USAID, BASICS, and the POLICY Project.

Integrated Management of Childhood Illnesses (IMCI). Mortality and morbidity in children under five in Nigeria are largely due to five major childhood illnesses, chief of which is malaria. The other illnesses are ARI (pneumonia), diarrhoea, measles, and malnutrition. The IMCI strategy was developed by the WHO and UNICEF in 1995 in response to the challenges of providing quality health care for children, since prior to the strategy's conception most efforts were limited to vertical programmes, such as Control of Diarrhoeal Diseases (CDD), ARI Control, and others. These programmes were not very successful in reducing mortality in developing countries, partly because most of these activities were donor-driven in Nigeria as in most other developing nations. This strategy is a

sector-wide health approach that has proven effective, cost-beneficial, and which has the greatest potential to reduce the burden of childhood diseases in Nigeria (World Bank, 2002).

IMCI ensures accurate identification and treatment of childhood illnesses, prompt referral of severe cases, a strengthening of preventive and promotive activities in the home, communities, and health facilities (such as routine immunisation and growth monitoring). Its three main components are

- Improvement of case management skills of health workers;
- Health systems improvement to support IMCI; and
- Improvement of family and community practices that support child survival.

The Nigerian government, with support from the WHO and UNICEF, began implementing IMCI in 1997 following adoption at the National Health Council as the main thrust of all child survival efforts. Since its introduction, IMCI has gone through the early implementation phase, principally in six LGAs, each representing the geopolitical zones of the country. IMCI is now in the expansion phase in these six sites and is planning to increase its geographical spread to 200 LGAs. IMCI is also implemented in the USAID/BASICS-supported LGAs; however, since its inception, IMCI has been largely donor-funded, receiving poor budgetary allocations arising from little political commitment. It is yet to be integrated into any health policy as the last Maternal and Child Health Policy (1994) and the National Health Policy (l996) both predate its introduction.

VPD and Immunisation. In Nigeria, immunisation has received the greatest attention of all child survival strategies recently, owing to the global effort at eradicating poliomyelitis (polio). Polio eradication in Nigeria is being achieved through

- Improving the coordination between partners and government to ensure effective and efficient implementation of activities;
- Conducting high-quality supplemental immunization activities (NIDs, SNIDs, and mop-ups) and vitamin-A supplementation to reach all children less than 60 months of age;
- Developing a sensitive and responsive surveillance system that can rapidly detect all circulating wild poliovirus in Nigeria; and
- Using the skills developed and resources mobilised for polio eradication to achieve the greatest possible benefit for routine immunisation services and disease control in general.

For effective implementation of the immunisation strategy, NPI has received a lot of international support from partners in the ICC, specifically the WHO for surveillance and technical issues on immunisation; UNICEF for procurement and supplies and routine immunisation; USAID for social mobilisation, finance, and training; and Rotary International for advocacy and social mobilisation at the grassroots level. Other partners, such as the EU, DFID, Japanese International Cooperation Agency (JICA), and the Canadian International Development Agency (CIDA), have provided support to the PEI as well as strengthening routine immunisation. Locally, organisations such as the Nigerian Red Cross and CHAN are also collaborating with the national efforts when necessary.

To date, remarkable progress has been made towards achieving the polio eradication goal, with about 47 million children being reached even in the very difficult and hard-to-reach areas. Despite this success, there seems to be a resurgence in the number of confirmed

wild polio cases in 2002 (77 confirmed cases), using the numbers published as of August 2002, although localised mainly in the states of Kano, Jigawa, and Kaduna.

Despite Nigeria's modest achievements towards polio eradication, coverage rates for routine immunisation are only slowly rising, thus raising questions as to whether there has been an over-concentration of national and development partner efforts on PEI in the past three years. Time and resource demands of the PEI effort divert attention of most national and international agency personnel from planned work in the areas of routine immunisation and other child survival activities in nutrition. Against this backdrop, it is encouraging that some of the developmental partners in the ICC (BASICS, UNICEF, and EU) are supporting routine immunisation in their focus states. The World Bank and DFID are supporting health system reforms in participating states aimed at revitalising routine immunisation services. There is also increasing private sector collaboration, as CocaCola PLC has joined efforts to aid adequate distribution of vaccines nationwide. NPI has also received assistance from the GAVI fund, which was established to help governments of the world's poorest countries strengthen their immunisation services and provide new and under-used vaccines.

Malnutrition. Despite the fact that more than 50 percent of childhood mortality and morbidity is attributed to the underlying problem of malnutrition, childhood nutrition has received little attention in comparison to the magnitude of the problem. For instance, the Food and Nutrition Policy, approved in 1998 and published in 2001, is yet to be launched and nationally disseminated. This policy identifies poverty, inadequate investment in the social sector, inadequate dietary intake, and disease as the major causes of malnutrition in Nigeria, and specifies micronutrient deficiencies as major consequences of this situation. For these reasons, reducing under-nutrition among children, women, and the aged, and particularly severe and moderate malnutrition among children under five, by 30 percent by 2010 and reducing micronutrient deficiencies, particularly IDD, VAD, and IDA, by 50 percent of current levels by 2010 are among the targets of the policy.

Modest achievements in nutrition include the formation of the National Committee of Food and Nutrition (NCFN), which resides in the National Planning Commission (NPC). Presently, the NCFN's institutional framework is weak for the task of moving nutrition matters ahead nationally. In response, USAID, in collaboration with other stakeholders, formed the coalition, Nutrition Partners, to ensure that nutrition issues are placed high on the national agenda. Membership of Nutrition Partners includes the NCFN, WHO, USAID, UNICEF, International Institute of Tropical Agriculture (IITA), BASICS, POLICY Project, Nutrition Society of Nigeria, Helen Keller International, and Food Basket of Nigeria (national NGO).

Other accomplishments include the approval of the Food and Nutrition Policy in 1998, the launching of the National Breastfeeding Policy, and the implementation of exclusive breastfeeding through the BFHI; and in accordance with other related policies such as the Food and Nutrition Policy (approved in 1998), the Maternal and Child Health Policy (1994), and the Health Sector Nutrition Policy. All these accomplishments have raised awareness of the advantages of exclusive breastfeeding and exclusive breastfeeding rates. In addition, through USAID support, a nationwide nutrition and food consumption survey has been completed and the results are expected in the last quarter of 2002.

Progress has been made in the control of micronutrient deficiencies, since Nigeria has achieved more than 98 percent household consumption of iodised edible salt. Provided that all the vulnerable population has daily access to adequately iodised salt, all the required

biological needs for iodine would be met. In this regard, it is heartening that there has been a reduction in the goitre prevalence rates at the sentinel sites from a national average of 20 to 11 percent. Nationwide distribution of vitamin-A supplements during NIDs for polio eradication commenced in October 2000 and has since continued, thus boosting the immunity of children under five against common illnesses. In addition, the government has adopted a policy on the fortification of food (vegetable oil and flour) with vitamin A; and regulatory agencies (National Agency for Food and Drug Administration and Control (NAFDAC)) are ensuring adequate implementation through effective monitoring and supervision. Efforts are underway at dietary diversification to eventually change feeding behaviour as a more sustainable strategy of combating VAD, given that the cost of continued supplementation is enormous.

To tackle the problems of VAD, the ICC formed a subcommittee on vitamin A, which has BASICS, USAID, WHO, UNICEF, FMOH, NPI, and Polio Plus as members. Recently, in September 2002, the NCFN, with UNICEF assistance, drew up a draft national action plan for Micronutrient Deficiency Control in Nigeria in order to achieve the targets set out in the Food and Nutrition Policy. There is a plan by the Nutrition Partners to develop a strategic plan of action for nutrition to facilitate effective implementation of the Food and Nutrition Policy. This plan will have as one of its activities the immediate review of the existing policy, which was formulated in 1995 and adopted in 1998.

Provision of Adequate Pre- and Postnatal Care for Mothers

The relationship between high maternal morbidity and mortality and high infant and under-five morbidity and mortality and the contribution of underlying factors, such as poor prenatal, natal, and postnatal care for mothers was described earlier. In response to these, the Nigerian government identified Safe Motherhood and its follow-up Making Pregnancy Safer Initiative (MPSI) as priority strategies for reducing the prevailing high maternal mortality. Most interventions aimed at reducing maternal mortality are donor-driven, with support from partners such as the WHO, World Bank, UNICEF, UNFPA, and Ipas. The Catholic diocese, Anglican diocese, and other religious bodies support the government's efforts through the establishment of mission hospitals.

Safe Motherhood committees have been established at national, zonal, and state levels for advocacy and technical support, although poor funding has stalled their activities. In support of the MPSI, the FMOH, with support from the WHO, created the REDUCE Advocacy Tool, which has the goal of reducing maternal deaths by 50 percent in 10 years. UNICEF is also supporting the Nigerian government in making public health institutions women- and child-friendly as a follow-up to the BFHI. Ipas, an international NGO working in Nigeria, has focused on improving postabortion care and related RH care for Nigerian women through training and decentralisation of services.

Other interventions, supported largely by the WHO and UNFPA, include training of large numbers of birth attendants, upgrading the skills of midwives in Life Saving Skills and medical officers in Expanded Life Saving Skills, which are integral parts of capacity building in the MPSI. Other components are provision of adequate equipment for quality delivery services and emergency obstetric care; functioning of referral systems between PHC facilities (basic essential obstetric care facilities) and secondary health care facilities (comprehensive essential obstetric care facilities) within the same LGA.

Presently, USAID does not directly support MPSI or Safe Motherhood, but does so indirectly through policy work, strategy development, and advocacy. Although community-based activities by NGOs and local governments are expanding, these activities are mostly inadequate giving the magnitude of the problem and the size of most vulnerable populations, especially since rural communities and the northern zones are still grossly underserved.

Access to Basic Knowledge of Child Health, Nutrition, and Child Health-related Issues

Activities in this area have focused on IEC: basic of knowledge of child health, nutrition, environmental sanitation, and child health-related issues. This has been through improving formal and non-formal education. Progress has been made in increasing the awareness of the public of the benefits of child survival interventions, such as routine immunisation, adequate infant and childhood nutrition (specifically exclusive breastfeeding), use of ITNs, appropriate home childcare methods, and adequate environmental sanitation.

The Nigerian government has received the support of partners such as UNICEF, WHO, and USAID through its IPs (i.e., JHU/CCP and Netmark) in developing these messages as well as disseminating them through posters, pamphlets, radio, and television dramas to increase the knowledge of the populace. Also, there has been a concerted effort at all levels, and especially by the NPHCDA, to ensure community participation in implementing PHC activities for children and women, which includes the development of community gardens to facilitate dietary diversification through UNICEF, HKI, and NPHCDA's focus on LGAs.

Recognising the relationship between a mother's level of education and infant and childhood mortality, as well as encouraging female education in the broadest sense, seems to be the government's most effective approach for tackling the lingering problems of poor environmental sanitation, inadequate child nutrition, and ignorance of correct child care methods. Re-launching of the Universal Basic Education Scheme in 1999 and the steady increase in budgetary allocation to education demonstrates this government's commitment to the implementation of the programme, which seeks to address the issues of access, retention, quality of service, and infrastructure. It also aims to provide for educationally underserved groups and has similar goals with the NPOA for the survival, development, and protection of Nigerian children that seeks to remove all barriers to the active participation of women and girls in education.

In supporting the government's efforts in achieving its goal of making Nigerians in general and females in particular more literate, UNICEF established the Child-friendly, Rights-based School Initiative, initially in the eight northern states that are educationally disadvantaged. USAID is implementing its Primary Education Programme (PEP), which will assist the Federal Ministry of Education and three state governments to lay the foundation for improved primary education. Other donors supporting enhanced female education include the Ford Foundation and the John D and Catherine T. MacArthur Foundation.

Development of Preventive Health Care Guidance and FP Services for Parents

In ensuring that parents as well as other caregivers understand the essentials of nurturing and caring for their children, since 1987 Nigeria has given attention to early childhood education for healthy growth and all around development of every citizen. Thus, the country's blueprint on Basic Education (1999) emphasises the importance of early childcare as a prerequisite for a child's physical, cognitive, and psycho-social development.

In addition, by 1996, the government had established 2,045 early childcare facilities, which are low-cost, community-based, and participatory in rural as well as poor urban settings. These facilities were originally targeted to 75,000 children in 10 selected states; however, the numbers have steadily increased to more than 400,000 children in 12 states. Also, more than 15,000 parents and caregivers have been trained in early childcare concepts, and these training sessions have been reinforced through awareness campaigns and workshops and community mobilisation visits. Assistance for these programmes has been received from NGOs, such as the Community Partnership for Health (CPH) sponsored by BASICS/USAID, the private sector (Bernard Van Leer Foundation), and international donors (UNICEF, UNDP, and UNESCO).

Regarding FP services, data suggest that the country has not done so well. FP services to a large extent are donor-driven, weak, and fragmented. It is hoped that the recently approved, but yet to be launched, Reproductive Health Policy (2001) and its accompanying Strategic Framework and Plan will create a better environment and accompanying political commitment for improved implementation of FP services. Previously, the Population Activities Funds Agency (PAFA) coordinated FP/RH activities and had a definite budget line; however, since it was scrapped by the present administration, the RH unit of the Department of Community Development and Population Activities in the FMOH has coordinated activities, and it is not certain how much the government is spending on FP/RH activities.

Supporting the government's effort in the provision of FP services are UNFPA, USAID, CIDA, DFID, and the Dutch Development Agency. PPFN is a lead NGO in FP service delivery and advocacy with more than 75 outlets nationwide, with support from the International Planned Parenthood Federation and USAID. Others are EngenderHealth, VISION, CEDPA, JHU/CCP, which are USAID cooperating agencies; Pathfinder International; Population Services International and its local affiliate; and the Society for Family Health. To ensure RH commodity security, the FMOH, with technical assistance from the USAID-funded DELIVER Project, organised a stakeholders workshop early in 2002, at which the government announced that it had committed N44 million towards commodity procurement. In addition, there is an ongoing effort to use Nigeria as a pilot country for commodity security using the Country Assessment Framework approach. It is hoped that when completed this assessment will help address some of the pressing problems identified.

Abolition of Practices Prejudicial to the Health of Children

Some of the practices inherent in the Nigerian culture that are prejudicial to children's health include female circumcision and cultural factors, such as feeding practices (discarding colostrum, withholding protein-rich foods from children) and girl-child marriages. Most interventions, such as implementation of IMCI, BFHI, and other IEC activities initiated by the government, seek to address appropriate childcare practices at home and especially during illness. Supporting the government's efforts in this area are UNICEF, WHO, USAID, and other donors through their various programmes, particularly those aimed at providing an Essential Care Package for the reduction of maternal, neonatal, and infant/child mortality.

In regard to harmful practices, some states in northern Nigeria have passed laws abolishing girl-child marriages. In addition, female circumcision has been abolished in the states of Edo and Delta. The passage of the Women and Children's Bill by the National Assembly sets the minimum age of marriage at 18 years.

Adequate Housing (Water, Sanitation, and Environmental Conditions) and Household Food Security

The remarkable increase in the proportion of the population that has access to safe water from 1990 to 1999, as reported by the NDHS, is a reflection of the large investments in rural water supply. In September 1999, a national consultation was held to produce a draft national water vision for Nigeria. The goal outlined in the vision statement says that "optimising the use of water resources to eradicate poverty, enhance and improve public health, increase food production, protect the environment, and ensure integrated rural development for a balanced social development."

National and state agencies involved in this effort are the Federal Ministry of Water Resources, the State Water Agencies, the Agricultural Development Projects, the River Basin Developmental Authorities, and the defunct Department of Rural Roads and Infrastructure. Also, external agencies have supported this course, which include UNICEF, UNDP, World Bank, ADB, and the Jimmy Carter Global 2000 Foundation (with a focus on guinea worm eradication). The World Bank and ADB have mainly supported urban water supply systems though achievements in urban water schemes has failed to keep pace with the growth of the urban population.

Responding to further identified needs for safe water and adequate environmental sanitation, the government adopted a new National Water Supply and Sanitation Policy to focus on the provision of sufficient potable water and adequate sanitation for all Nigerians in an affordable and sustainable way through participatory investment by the government, private sector, and the beneficiary. The initial target of the policy is to improve service coverage from 40 to 60 percent by 2003, to reach 100 percent by 2011. This policy identifies the strategies, policy instruments, legislative provisions, and funding arrangements needed to achieve these targets. It also lays out a strategy for the reform of the sector, based on a set of fundamental principles, which include consideration of water as an economic good as well as a social service.

Despite its title, this policy has an obvious gap in that there is only one paragraph of 47 devoted to sanitation. It would appear that the same amount of effort put into preparing the water segment of the policy would need to be repeated for the sanitation aspect. To date, the State Rural Water Supply and Sanitation agencies have gained considerable experience in improving sanitation coverage and hygiene practice. These agencies are supported by UNICEF in their efforts to promote an integrated approach to sanitation development, which in addition to latrine construction includes hygiene education, social mobilisation, and community participation/empowerment (through village water and sanitation committees).

Capacity Building and Constraints

Most of the international donor and development agencies have assisted and still assist the three tiers of the Nigerian government in building the capacity of personnel involved in the implementation of most of the outlined programmes aimed at improving child survival. Assistance received in this area focuses mainly on building personnel through training workshops, or sponsorship to attend and participate in international conferences, including staff from the community level (e.g., vaccinators trained for the PEI through USAID sponsorship) to the national level (e.g., change agent programme initiated by DFID for immunisation and health sector reforms). Some partners have provided further support

for establishing physical structures, such as specialised research laboratories, provision of vehicles, computers, and other equipment. Key players in this sector are UNICEF, USAID, WHO, DFID, and the EU.

In spite of the scope of assistance Nigeria has received from developmental partners, the size of the nation combined with years of neglect under military rule has made contributions to date seem insignificant. The need for building the capacity of the population is still remarkable, especially in the northern regions where child survival indicators are worse than the national averages. In addition, bureaucratic bottlenecks involved in hiring new staff in the public sector and the comparatively poorer public sector salaries limit the ability to recruit staff with enhanced capacity.

Research and Surveillance

Recognising the importance of research in addressing child survival issues, the Nigerian Applied Research on Child Health (N-ARCH) Project was created and has the task of

- Generating new knowledge that will contribute directly to the health and survival of young children in Nigeria;
- Building the individual and institutional capacity of Nigerian researchers to undertake such applied research in the longer term; and
- Constructing bridges between research and implementation as well as communities, NGOs, and private and public sectors.

The N-ARCH Project is supported by USAID and the Boston University School of Public Health and collaborates with other research institutes, such as the NIMR, on child health research issues. In 2000, N-ARCH organised a national seminar on Priorities in Child Health Research in Nigeria, at which a wide range of research topics on Malaria, ARI, NPI, and NPI diseases and general issues (e.g., public private sector partnerships in child health, options for funding child health research) were identified.

Established in 1990, the NHMIS was charged with generating routine data for planning and programming. The NHMIS has been unable to generate timely and complete data on key indicators and as such individual programmes, such as the NPI and RBM Initiative, have sponsored their own parallel data collection systems, compounding problems by burdening local health staff even more. The weakness in data recording, collation, and reporting across all tiers of the health system, as well as the poor capacity to analyse data for health policy development, planning, and management, are major challenges to overcome. Despite these weaknesses, there are successes, such as AFP surveillance for the circulating wild polio viruses, which has become greatly heightened and has enabled the NPI to focus on the communities that are still affected.

Although routine surveillance data may not be readily available, periodic data from surveys such as the NDHS and MICS provide valuable data for monitoring key health and survival indicators; however, they are of limited value for monitoring and assessing the capacity of the health system and its response to child survival needs. There is, therefore, a need to enhance routine surveillance, especially for malaria and nutrition.

OVC

Virtually all the responses in this area have been donor-led. However, in 2000 the Department of Child Development (DCD) of the FMWA&YD conducted a nationwide survey on AIDS orphans; and although the survey had its limitations, it was government's first attempt at studying the impact of HIV/AIDS on children. The World Bank also recently concluded a national orphan intervention study by collecting data from 12 states with ongoing World Bank projects. There have been community programmes supported by USAID through CEDPA, Africare, FHI, and POLICY, as well as DFID, in its focal states. Most of these programmes have been targeted at all orphans in project communities in order to minimise stigma against people affected by AIDS. Other partners working in this field are UNICEF and UNAIDS. In September 2002 at a meeting of stakeholders led by the DCD of FMWA&YD, a short-term national plan of action for tackling OVC issues was adopted and its implementation is now ongoing.

Coordination

Government agencies involved in implementing child survival activities are many and sometimes overlap, especially at the national level. There is an urgent need for all agencies implementing child survival activities to collaborate more effectively through regular stakeholder meetings in order that players in this field are well informed about programmes being implemented and can discover ways in which agencies with particular advantages in some areas can leverage the resources of other key stakeholders to avoid duplication of effort in the field.

Impact

Following from the above review, the interventions in child survival to a large extent have not achieved as much impact as would have been expected, given the amount of funds and resources that have been put into these programmes. This is demonstrated by the fact that in just over four decades since Nigeria's independence the country has had the worst record in Africa in reducing childhood mortality as illustrated by the U5MR reported in the 1999 MICS, despite the country's enormous wealth. While other countries report improvements, Nigeria's was the least with a 10-percent reduction, while the average improvement in sub-Saharan Africa was about 34 percent.

Prospects

The present civilian administration has demonstrated goodwill and commitment towards improving child survival as shown by its poverty alleviation programmes; revamping the previously neglected PHC services through the NPHCDA; and specifically supporting the RBM Initiative and the PEI. However, more needs to be done, particularly in increasing government funding for routine immunisation, childhood nutrition, as well as implementation of IMCI as an encompassing programme targeted at child survival. In addition, benefits of establishing an effective school health programme should be explored. There is also a need to emphasize female education as well as FP as integral elements of the child survival strategy.

Annex 1: Summary Table on Key Actors, Focus Areas, and Estimated Financial Commitments

Country Source	Agency	Implementing Partners and or Projects	Focus Areas	Estimated Funds Committed
Nigeria	Federal Ministry of Health (FMOH), Maternal and Child Health Unit of Department of Community Development & Population Activities (DCDPA) Department of Public Health, Roll Back Malaria (RBM) Initiative National Programme of Immunisation (NPI) National Primary Healthcare Development Agency (NPHCDA)	Other Federal line Ministries (Women Affairs & Youth Development, Information &National Orientation, National Planning Commission, and Federal Ministry of Agric & Rural Development. National Aids Control Agency Federal Office of Statistics	Coordination and implementation of Policies, Guidelines and Plan of Action. Resource Mobilisation, Vaccine management External relations, Program monitoring, supervision, evaluation and coordination of research; technical support to states, etc. Establishment of health information management systems Management of teaching hospitals, federal medical centres, and training of medical doctors Essential drug supply	**2002–2007** $74,268,000 for programme cooperation with UNICEF **Year 2001 Appropriation Act** **Polio eradication/surveillance** N15, 000,000.00 **NPI** N2, 694, 300,000.00 **NPHCDA** N626, 000,000.00 **RBM** $7, 500,000.00 **National Nutrition Programme** N7,000,000.00
		State Ministries of Health (36) Department of Health Services (FCDA, Abuja) Other State and FCDA line ministries Local Government Health Departments Universities (Institutes of Child Health)/ Research Institutes	Management of secondary, some tertiary and PHC health facilities Provision of technical assistance to LG health programmes Training of nurses, midwives and other cadre of health workers Basic Health Services, community health, hygiene, and sanitation Research/Surveys	**2002 Budget (Recommended capital & recurrent expend.)** **Polio eradication/surveillance** N 2,380.000.00 **NPI** N2, 257, 011,640.00 **NPHCDA** N1,499,155,620.00 **RBM** N9,000,000 000.00

USA	USAID	Population, Nutrition, and Health Office USAID/Nigeria	Policy, Advocacy, Research, Coordination and oversight of all the PHN programmes in Nigeria.	
		Futures Group International (POLICY Project)	Support for policies and plans development; Produce information for policies and plans; NGO Coalition building; Advocacy and Policy dialogue	$100,000.00(1 year)
		Basic Support for Institutionalising Child Survival (BASICS)	Community based approach to child survival collaborating with NPI, states and LGA's Strengthening health systems. Strengthening routine immunisation. NID's (Polio eradication) Malaria and IMCI Childhood Nutrition	$1,360,000.00 $1,660,000.00 $500,000.00 $975,000.00 **$4,495.000.00 FY 2002**
		Netmark	Malaria: social marketing for Insecticide Treated Mosquito nets.	$1,095,000.00 FY 2002
		Malaria Coalition	Malaria control in target groups: under 5s, pregnant mothers	$600,000.00 FY 2002
		ARCH	Research on breastfeeding practices in Nigeria, Malaria, NPI, and VPD, ARI, and public/private mix in child healthcare	$525,000.00 FY 2002
		IITA	Food fortification survey/food security at household levels	$530,000.00 FY 2002
		JHU/CCP	IEC–Training and Social Mobilisation, Behaviour Change Communication with emphasis on polio eradication, family planning	$600,000.000 $ 500,000.00 **$1,100,000.00 until 2005**

UN	WHO	Expanded Programme on Immunisation	Immunisation and vaccine development (advocacy, social mobilisation, and capacity building) to increase RI Improved safe injection practices Polio eradication Elimination of neonatal tetanus by Year 2003 Capacity building for 30 NPI staff	$ 2,051,060.00 $ 8,980,500.00 $17, 440,000.00 $ 500,000.00 $ 500,000.00 **$29, 471,560.00 until 2003**
		Nutrition	Implementation of National Nutrition Policy with emphasis on infant feeding Database on PEM, IDD, VAD, Breastfeeding in 11 LGAs	$19,400.00 until 2003 $30,600.00 until 2003
		Integrated Management of Childhood Illnesses (IMCI)	Improved quality of care, promotion of growth and development, effective partnerships for child health at national, state, and LGA level	$**902,345.00 until 2003**
		RBM	Improve capacity of health care providers, states and LGAs to implement RBM strategy. Linkage with other partners strengthened	**$1, 627,650.00 until 2003**

	UNICEF	Survival and Early Child Care (SECC) programme in 100 LGAs in four zones	Maternal and under-5 mortality reduction Immunisation (routine imm.) Early childhood nutrition, stimulation, and promotion of learning HIV/AIDS prevention and care Polio Eradication	 $66,960,000.00 (2002–2007) $109,500,000.00
	World Bank	Federal Ministry of Health State Ministries of Health (SMOH) SMOH of Adamawa, Anambara*, Bayelsa, Borno, Delta, Ebonyi, Ekiti, Enugu, FCT, Kebbi Kogi, Kwara,Ondo, Osun, Sokoto*, Zamfara* *	Health systems Development Project II • Strengthening of FMOH for capacity building and reinforcement of key public health functions, coordinate monitor and evaluate implementation of the Health systems reform project • Strengthening capacities of SMOH for planning, financial management monitoring and evaluation. • Strengthening delivery of priority health services including immunisation, and safe motherhood services.	$7.92 million 63.70 million $53.78 million

* Conditional

UK	DFID	FMOH Benue, Ekiti , Enugu, Jigawa Implementing partners: The Futures Group (Europe)	Malaria Bed Net Project Change Agent Programme (CAP) for Immunisation and Health Sector Reforms Partnership for Transforming Health Services (PATHS) Water and Sanitation	 £35,000,000.00 over 7 yrs
EU	Delegation of the European Commission in Nigeria	National Programme on Immunisation Abia, Cross River, Gombe, Kebbi, Osun and Plateau	Partnership to Reinforce Immunisation Efficiency (PRIME) Polio Eradication Initiative Technical assistance to revitalise sustainable delivery of Routine Immunisation (RI) in 6 states Water and Sanitation Quick start project in 24 small towns in Adamawa, Delta, Ekiti	**$55,199,100.00 over 5yrs** $18,399,700.00 for 2001 NIDs $36,799,400.00 over 5yrs N19,000,000.00
Canada	Canadian International Development Agency (CIDA) Micronutrient initiative	WHO HKI	Polio Eradication Initiative (Procurement of polio vaccines) Vitamin A and Iron Supplementation	$ 6 million in Y 2000 $20 million in Y 2002
Japan	Japan International Cooperation Agency (JICA)	UNICEF	Polio Eradication Initiative (Procurement of polio vaccines) Combating Infectious Diseases in Children, OPV procurement and Cold Chain equipment.	$ 5 million in Y 2000 $6 million in Y 2001 $2.85 million in Y 2002
African Union	African Development Bank	SMOH of Abia, Akwa-Ibom, Bauchi, Benue, Edo, Imo, Kaduna, Katsina, Lagos, Niger, Yobe	Strengthening delivery of priority health services including immunisation, and safe motherhood services	

Foundations	Bill and Melinda Gates Rotary International Nigerian Red Cross	WHO/World Bank NPI FMOH	Polio Eradication Initiative Procurement of OPV Polio Eradication Initiative	$27 million for Y2003-4 Volunteer vaccinators

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