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ADOLESCENT FERTILITY IN LIBERIA

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PREFACE

When The Pathfinder Fund began to consider the subject of adolescent fertility in Sub-Saharan Africa some years ago, the desire to do programmes was overridden by the questions: What do we know about the situation? What descriptive information exists that defines all of this? What are the problems, if they exist, that deserve resolutions? It was then found that what does exist to describe the circumstances was literally scattered to the four winds, in a report here, an article there, a survey here, a speech there. Nothing had been done to put the information in one piece of work. That provided the raison d'etre for preparing what you will find in these pages.

This volume, and its companions, are attempts to describe what is known about adolescent fertility in four distinct Sub-Saharan African countries -- Nigeria, Kenya, Liberia and Sierra Leone. These publications are intended to be used as "resource books" or as "fact books" for programmers and policymakers, both within and outside the respective countries. They attempt to gather together all of the information available on the subject to date, but they do not pretend to be entirely exhaustive.

The presentation is straightforward, it describes and summarizes the health, social and demographic context in which adolescent fertility occurs in each of these countries as well as what the implications are. All of this raises a number of questions and policy considerations, each set out more specifically in the Executive Summary. This volume does not presume to resolve these questions. That is a task that is purposely left to those who will study and discuss the "facts" discussed in this text. Our hope is that Adolescent Fertility in Liberia will begin, or at least contribute to, the discussion of this important subject. If that is done our purpose in undertaking the two-and-one-half year process, more than capably done by Benjamin Gyepi-Garbrah, was well served. The challenge is to begin the look for answers to the types of questions that arise out of this series.

John M. Paxman

The Pathfinder Fund
Chestnut Hill, Massachusetts
March 1985

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The following individuals provided me with unpublished material, Paul Campbell of the United States Bureau of the Census, Dr. Fernando Zacarias of the Centers for Disease Control, Bill Musoke of the United Nations Fund for Population Activities and Deborah Ainger of the International Planned Parenthood Federation (London).

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March 1985

INTRODUCTORY BACKGROUND

Objectives

The objective of this paper is to utilize secondary sources of information from censuses, surveys, research and administrative publications to describe some aspects of adolescent fertility in Liberia. The paper will also cover the socioeconomic characteristics and reproductive health behavior of adolescents as well as the demographic, social and medical implications of adolescent fertility. This will be followed, in conclusion, by a summary of the paper's key points. No policy recommendations will be made. They will be left to policymakers and population program developers of the country.

Research interest in adolescent fertility is a novelty throughout the world but more so in the developing countries. It was roughly in the early 1970s that serious thought was given to intensive and extensive studies of adolescents (Carolina Population Center, 1976 and 1978). Since then interest in the subject has risen throughout the world. This is evidenced by the huge increase in the number of courses, seminars, workshops, studies, newsletters, magazines and of national and international conferences (see references in Population Reports, 1976, 1979, 1980, 1982, 1983, 1984 a and b; WHO, 1977; Bogue, 1977; Parkes, et al., 1978).

This surge of interest grew out of initial recognition that boys and girls, during the period of transition from childhood to adulthood, exhibit distinct physiological and psychological features which are neither characteristics of adulthood nor of childhood and thus constitute a separate group of individuals with their own special needs and problems (WHO 1977). This was given an added fillip in developed countries by findings of increases in the number of teenage pregnancies. These have been sensationalized in the popular press and described in some quarters as an epidemic of teenage pregnancies (Cutright 1972; Ventura, 1977; Parkes et al., 1978; Jekel and Klerman, 1979; Holtrop, 1979; Hollingsworth and Kreutner, 1980; Smith and Mumford, 1980).

In developing countries interest in adolescent fertility is growing. This is due mainly to the findings, across cultures and countries, that early childbearing is strongly associated with increased pregnancy complications, higher maternal and infant mortality, lower social and occupational mobility for both mother and child and with a high rate of overall fertility and population growth (Sai, 1975; Population Reports, 1976, 1979, 1980, 1982, 1983, 1984 a and b; Engstrom, 1978; Sai 1978; Fortney, et al., 1979; Maine, 1981).

In Africa, studies in many countries including Nigeria, Kenya, Sierra Leone, Tanzania, Zambia and Zaire have also confirmed the hypothesis that early pregnancy is strongly associated with high rates of abortion, still births, infant and maternal mortality and morbidity, and high school drop out rates among female adolescents and the attendant loss of self-esteem and confidence (Akingba, 1974; Chibungo, 1974; Pauls, 1974; Arkutu, 1978; Gachuhi, 1980; Njogu, Aggarwal and Mati, 1980; Sierra Leone MOH/WHO, 1980; Stiles, 1982; Mott, 1982; Family Health International, 1984).

This growing interest in adolescent sexuality and its implications has found concrete expression in the activities of some voluntary organizations in Africa. The Family Planning Association of Liberia (FPAL) has since the mid-1970s intensified its effort in addressing the special family planning and reproductive health education needs of adolescents through its education campaign directed not only to students but to illiterate adolescents as well. In other African countries voluntary organizations have been formed which cater specifically to the family planning needs of adolescents. These include the Nigerian Association For Adolescent Guidance and the National Association of Adolescent Fertility Awareness in Sierra Leone.

Definition of Adolescence

There is no universally accepted definition of adolescence. Most societies accept the biological beginning of adolescence as the time when puberty starts. But the time when adolescence ends and adult status commences differs widely among cultures. In most traditional societies social maturity or adulthood is achieved when one marries. Since the age at marriage in these societies tends to be low, at least for females, the period of adolescence tends to be brief, often following fast on the beginning of puberty. This pattern is typical in the rural areas of developing countries, where the transition to adulthood is very short (Chui, 1978). The prevailing norm in industrialized societies is to extend the period of transition toward adulthood, not only through social legislation but also by increasing the amount of time taken for schooling and vocational training. There are, obviously, patterns that fall between these endpoints of the spectrum.

Legally, the minimum age one attains the age of majority or becomes an adult varies. The law therefore,

attempts, to a certain degree, to take the process of individual development into account, but it also seeks uniformity and certainty and so historically has rather arbitrarily selected the magic age at which one reaches legal 'adulthood' for some or all purposes. This is commonly referred to as the age of majority. At common law, the age of majority - the age at which individuals are competent to handle their own affairs - was fixed at 21, although now, the trend is to lower it somewhat, usually at 18. Many civil law countries have followed a similar rule. So the legal definition of adulthood has tended to operate independently of other social and biological factors. This can be seen in the fact that one may be an adolescent but legally adult or a youth but legally a minor, or under-age" (Paxman, 1984).

Social scientists and medical researchers, however, have found it useful when trying to establish age limits, to take as broad a view as possible, even to the extent of distinguishing the earlier phase of adolescence from the latter, e.g. 10-14 years, 15-19 years. It was proposed nearly two decades ago by a WHO Expert Committee that the age limits of 10-20 years be used to describe, chronologically, adolescence.

The concept of youth is overlapping, consisting of late adolescence and early adulthood. Most refer to youth as the age group between 15-24, while distinguishing between early (15-19) and late (20-24) phases. "Youth" as such is also a transitional stage in human development, though it shades across the line between adolescence and adulthood.

For the purposes of this paper "adolescence" is used interchangeably with "youth" and encompasses the age group 15-24.

Country Profile

The Republic of Liberia, with an area of 43,000 square miles, is situated on the great bulge along the West African coast. Liberia extends about 350 miles between Sierra Leone on the northwest and the Ivory Coast on the southeast. On the north of the country lies the Republic of Guinea and to the west and south lies the Atlantic Ocean.

Liberia has the distinction of being the oldest African republic. It was founded in 1822 through the efforts of the American Colonization Society to secure a permanent home in Africa for freed slaves from the United States of America. On July 26, 1847 the country was proclaimed a republic. It has since then been governed, for over one hundred years, as a democracy on a pattern very similar to the United States with an Executive, a Legislature and a Judiciary. In April 1980, however, the Army took over the reins of government in a coup d'etat. Elections are scheduled for 1985, at which time Liberia will return to civilian rule.

Geography

The country can be divided roughly into three main geographical zones: 1) a wide low-lying coastal belt with mangrove marshes, lagoons and tidal creeks; 2) an interior tropical rain belt covering a terrain of hills and plateaus with elevations rising from 600 to 1000 feet at the inland borders of the country; and 3) the Guinea Highland, at the northern part of the country, with sparse forest and mountains which rise to 5,000 feet.

Liberia has a typical tropical climate. Average daily temperatures range from 70°F to low 80°F; humidity is seldom below 80%, except during the period between December and February, known as the Harmattan. During this time the dry, hot, dust-laden winds blow from across the Sahara Desert to reduce the average humidity to as low as 50%. There are only two distinct seasons, namely the rainy season, from May to November, and the dry season which extends for the remaining six months of the year. Yearly average rainfall ranges from 70 inches inland to 250 inches along parts of the coast.

Economy

The Liberian external economy depends heavily on iron ore, rubber plantations and other mineral products. In 1981 minerals, mainly iron ore accounted for 67% of Liberia's export trade. The second most important foreign exchange earner is rubber, which together with timber,

cocoa and coffee accounted for 31% of the exports. In 1981 the principal exports included fuels (27%), machinery and transport equipment (25%), manufactured goods (24%), and food (22%). The mix differs considerably from the 1960s when fuel imports accounted for only 4% of the total imports (World Bank, 1984).

Agriculture continues to dominate the domestic economy. It provided employment (mainly in the subsistence sector) for about 80% of the Liberian labor force in 1960. Between 1960 and 1980, however, rapid expansion of the secondary and tertiary sectors of the economy led to a reduction in the proportion of the labor force engaged in agriculture. The latter declined to 70% in 1980, while the proportion employed in industry rose from 10% to 14% and the labor force in the services sector increased from 10% to 16% during the same period (World Bank, 1984).

The Liberian economy from the mid-1950s to mid-1970s grew at a relatively high annual rate of nearly 7%, principally because of investments in mineral and rubber production (UNFFA, 1978). Since 1975 the modern sector of the economy has not done well because of the world recession which reduced not only production of, but also demand for, its export products. The traditional agriculture sector has also suffered because of adverse weather conditions. This resulted, in real terms, in a decline in the Gross Domestic Product (GDP). Between 1960 and 1982 per capita gross national product (GNP) grew at an annual rate of only 0.9%. In 1982 per capita income was US\$490, a \$30 decline, in real terms, from that of 1960 (World Bank, 1983 and 1984).

Population

The first population census of Liberia was conducted in 1962, at which time the total population was set at 1.02 million. The next census, conducted twelve years later in 1974, enumerated a population of 1.5 million. This implied an intercensal annual growth rate of 3.3%. This was considered an overestimation and a growth rate of 2.9%, obtained from the 1971 Population Growth Survey, is generally accepted for the period. The results of a third census conducted in 1984 are not yet available.

The demographic data base for the period before 1962 is very weak; hence estimates of pre-1962 population growth rates are characterized by very wide variations (United States Bureau of the Census, 1982; United Nations, 1985). Most experts agree, however, that the growth rate of the country's population has continued to accelerate since the 1950s, almost entirely as a result of the increasing differential between birth and death rates (Campbell, 1982). [Annex 1] The former has remained at a high level in contrast to the death rate, which has been falling steadily since the 1950s. Migration has not played any major role in Liberia's recent population dynamics.

Like almost all the developing countries, Liberia has since the 1950s experienced significant decline in its level of mortality due to improvements in sanitation and nutrition, increased female education, expansion of health services and increased use of modern medical technology and therapeutics. According to United Nations estimates, in

the early 1950s Liberia's crude death rate (CDR) per 1000 population stood at 27. By the early 1960s the CDR had fallen to 23. The estimated CDR for the early 1980s stands at 17. This implies that the rates have been reduced by a third over the last 30 years and a quarter; a reduction of 36.1% within the period covering the last 20 years (United Nations, 1985). The infant mortality rate per 1000 births was placed at 154 in the early 1960s. It had declined to 112 in early 1980, a decrease of about 27%. On the other hand, the country's crude birth rate (CBR) per 1000 population has remained almost constant since the 1950s at a very high level. During the early 1950s the CBR was estimated at 46 and remained virtually unchanged during the next twenty years. During the next 10 years, between the early 1970s and 1980s, the CBR rose to 49, in contrast with a decline in the CDR of 13% during the same period.

The product of the widening gap between the mortality and fertility levels (with migration being inconsequential) is clearly reflected in Liberia's population growth rate. According to United Nations medium variant projections, the country's annual growth in population was about 1.9% between 1950 and 1955. It has since accelerated, having peaked at 3.4% between 1975 and 1980, after which the annual growth rate is expected to decline persistently to about 2.0% during the 2020-2025 period. [Annex 1]

Liberia's population has thus increased very fast. From an estimated population of 855,000 in 1950 the country's population reached 1.87 million in 1980. By mid-1984 it is estimated to stand at 2.12 million. The country's population is projected to reach 3 million by 1995 and exceed the 6 million mark by the year 2020, when the total population of 6.1 million is projected (United Nations, 1985).

The population of Liberia is predominantly rural. This pattern is, however, changing rather fast due to a very high growth rate of the urban population as compared to that of the rural population. In 1962 only 20% of the country's population resided in urban areas. (Urban areas are defined either as localities with 2,000 or more inhabitants or as localities that possess "civic amenities," like schools, hospitals, electricity, water supply, etc. (U.S. Bureau of the Census, 1982). During the 1962-1974 intercensal period the urban population grew by an impressive rate of 6.6% per year, a combination of high rates of net migration and of natural increase. Net migration and the reclassification of towns and villages accounted for 60% of the total urban growth during the 1962-1974 intercensal period (Zachariah and Conde, 1981). By 1980, 35% of the Liberian population was residing in urban localities. Moreover, the growth rate of the urban population is expected to remain high throughout the rest of this century. By the year 2000, 52% of the country's population is expected to be living in urban areas. [Annex 1]

The population of Liberia is also predominantly indigenous. It is a culturally diverse society made up of about 18 ethnic groups with about 28 different languages and dialects. The main ethnic groups, according to the somewhat out-of-date 1962 census, are Kpelle who constituted 21% of the population, Bassa (16%), Gio (8%), Kru (8%),

Grebo (8%), Mano (7%), Galo (5%), Lorma (5%), and Krahn (5%) (Ministry of Planning and Economic Development, 1972).

Official and semi-official documents refer to Liberia as a Christian State (United States Department of Health, Education and Welfare, 1973). However, estimates made in the early 1960s show that between 60% and 70% of the total population adhere to tribal religions. The rest are Moslems and Christians, with the former probably more numerous than the latter. Like most other West African countries, most Moslems and Christians continue to hold tribal religious beliefs and/or combine these religious practices with their Moslem or Christian religion. Among Christians, Protestants outnumber Catholics by a very wide margin. The main Protestant denominations include Baptists, Methodists, Episcopalians, Lutherans and Pentecostals (Roberts, et al., 1972).

Government Policy on Population and Family Planning

At present the Government has no explicit policy on population, defined here as a coherent and interrelated body of legislation and regulations directed towards clearly defined demographic objectives. It has set up, however, a mechanism through which a comprehensive population policy could be developed and implemented. According to the United Nations Population Division, as of 1982, the Government:

recognizes the various implications of high population growth rates and its uneven distribution for the achievement of development objectives as stated in the 1976-1980 Development Plan. The Government supports a comprehensive health development policy, with family planning integrated into the existing maternal and child health services. In 1976, for the first time, the Government explicitly stated that its natural increase and fertility were too high. As of 1979, abortion has been legal on grounds of mental health, genetic defect or rape. The current significant level of immigration is perceived as being satisfactory. There is an attempt to improve the spatial distribution of the population by decelerating the flow of migrants into urban areas and by adjusting the urban and rural configuration (Quoted from UNFPA, 1982).

In the current 1981-85 socioeconomic development plan the Government has adopted the following objectives and strategies:

- a) To promote the understanding and the diversity of problems of population dynamics at the national and regional levels.
- b) To advance wider understanding of the interrelatedness of demographic and socioeconomic factors of development.
- c) To promote the socioeconomic measures and programs that aim to regulate population growth, morbidity and mortality, reproduction and family formation, population distribution and internal and international migration.

- d) To encourage the development of appropriate training and education services in support of these objectives (1984 Country Statement of the Republic of Liberia).

The implementation of these objectives has not been fully developed but in 1983 the Government set up a program to address this issue. In that year the Government established a national committee on population activities with representatives drawn from Government ministries and agencies, in addition to voluntary organizations, to advise the Government on population matters. This committee is expected to be expanded and its scope strengthened into a permanent institutional framework, a National Population Commission. The Commission, with technical support from the Ministry of Planning and Economic Affairs, is expected to coordinate all population activities, help in integrating population variables into the country's socioeconomic planning and draft Liberia's population policy proposal.

But even prior to these developments the Government was active in the field of population activities. It participated actively in both the 1974 World Population Conference in Bucharest and the 1984 International Conference on Population in Mexico City, where it endorsed the declarations of the World Plan of Action.*

The first significant statement of official attitude regarding fertility occurred in 1973. This was contained in President Tolbert's press release of May 1, 1973 in which he stated:

The wholesome functioning society envisages an integrated development plan of qualitative improvement in the standard of living for all our people. This involves not only the development of physical amenities such as roads and buildings but also improved techniques of food production, health education toward the achievement of improved nutrition, protected water supplies, sanitary waste disposal, systematic immunization, maternal and child health and family planning.

Somewhere along the line, the impression may have been left that our health policy precluded the concept of family planning. This is an illogical assumption. . . . Responsible parenthood is just as important as responsible fiscal policy (The Pathfinder Fund Files).

* One wonders why, though, the Government hesitated until 1976 before officially acknowledging that the country's rate of natural increase and fertility were too high, and why no strong measures have been taken to reduce its fertility. There are, however, reasons for the delay in acknowledging these facts. First, as in many African countries, there was local opposition, based on religious and other cultural values, to any idea or plan for fertility reduction. Traditional pronatalist values still held sway. Moreover, in the absence of any overwhelming empirical justification, most of the political leaders and policymakers within the civil service remained skeptical about the negative relationship between Liberia's population growth rates and the country's rate of economic development.

The same year that the government endorsed the integration of family planning into the health services also saw the President's acceptance of an invitation to become the chief patron of the Family Planning Association of Liberia (FPAL), a nationwide organization. FPAL is a voluntary organization, founded in 1956 and has, since 1967, been affiliated with International Planned Parenthood Federation (IPPF) of London, from whom most of its financing comes.

The next major expression of official support for planned parenthood or family planning was registered in 1974. This was contained in the President's letter dated August 1, 1974 addressed to the Fourth Regional Council Meeting of the IPPF in Nairobi, Kenya (August 3-5, 1974). In this letter the President wrote:

Liberia supports the right of access of every individual to the knowledge and means of regulating the size of the family. We also share the view that the size of the family should be subject to the free choice of every parent. . . . Liberia will accordingly continue to give all the assistance within its power to programs connected with the execution of responsible sex education and planned parenthood.

In spite of this statement the Government did not change its neutral position on fertility reduction. By late 1970s there were many who stressed the viewpoint that:

the population is not large in itself, there is land available and there are natural resources capable of development; however, the pattern of spatial distribution of the population is regarded as inefficient from the viewpoint of cost of providing transport, communications, health and education infrastructure and other necessary services (UNFPA, 1978).

This viewpoint provided the background to the Seminar on the Results of the 1974 Census held in Monrovia in 1977. The seminar discussed, among other items, the relationship between Liberia's population and economic development. It was again observed that:

because of the rich endowment of minerals, tropical forests and agricultural land, it might seem that the major population problem in Liberia was not so much the size of the population, which was still small, but its high rate of growth (UNFPA, 1978).

The Seminar provided an opportunity for airing different viewpoints on the population debate but did not have any impact on the Government's position. After all, the final thirteen recommendations to the Government were mainly concerned with methodological issues and did not contain a word about population policy. According to the UNFPA report,

some crucial ingredients conducive to policy formulation were still missing. First, there was widespread lack of awareness of the role of population on national socioeconomic development. Second, demographic information on the country was unsatisfactory and invariably inaccessible. Finally, most of the active participants in the debate continued to view with disfavor any thought of reducing the country's population growth rates (UNFPA, 1979).

The Government's position on fertility regulation has, since the early 1970s, been based on two main principles: 1) its belief in the right of access of every individual to the knowledge and means to regulate the size of the family; and, 2) the view that "the size of the family should be subject to the free choice of every parent." It is under these guiding principles that the Government has implemented its own program of family planning within the context of the general health services, while at the same time allowing, private family planning-oriented activities to function in the country.

The Government's own family planning program started in late 1975 with two pilot study projects. These were established by the Ministry of Health with financial and technical assistance from the UNFPA and USAID. The purpose of the UNFPA-sponsored program was to integrate family planning into Liberia's Maternal and Child Health (MCH) program. Both projects commenced in 1976.

Since 1979 two major government projects have also been implemented which could expand the geographical coverage of family planning services. The first is a four-year UNFPA program to include the expansion of the integrated maternal and child health and family planning program especially in the rural areas. The second project, started in 1982, is the 5-year primary health care project, financed jointly by USAID and the Government of Liberia. This project has a family planning component which is aimed at attracting 20% of the target population of women of reproductive age each year for five years (UNFPA, 1982). In addition, FPAL and other organizations continue to receive financial assistance from external sources for their work programs. The major external funding agencies, in addition to the USAID and UNFPA, include IPPF, The Pathfinder Fund, Family Planning International Assistance and International Federation of Family Life Promotion (IFFP).

Before government involvement in family planning, the FPAL was very active in the field. It continues to fill an important role. The association receives material support from the IPPF and the Government. Since 1980 the Head of State, Samuel K. Doe, has remained the patron of the FPAL. The Government continues to provide FPAL with such benefits as yearly subsidies, duty-free privileges for the importation of contraceptives and other family planning-related materials. It also allows the organization to use Government hospital and clinic facilities to serve its family planning clients.

Family planning services are theoretically available to all women, but in practice almost all the services are available to older adults in the urban areas, where Government hospitals are located. Moreover, because of shortage of funds and of trained personnel, and problems of transportation and logistic support, the FPAL also concentrates most of its activities in the urban areas.

Adolescents in Liberia receive very minimal family planning services geared specifically to their special needs. The Government does not directly provide adolescents with any organized programs in population or family life education within the country's educational system. The FPAL, however, continues to address these issues, in a limited way, through its on going program, the Responsible Parenthood Campaign, whose aim it is to educate the young on the consequences of unwanted pregnancies. This campaign, begun in 1975, consists of lectures, film shows and discussions on the importance of child spacing, family planning methods and talks on venereal diseases. In 1978 FPAL was giving talks, at the request of schools, on family life education and personal hygiene at about 20 private junior and senior high schools (UNFPA, 1978). For the benefit of the sometimes illiterate, non-school-going population, some of FPAL's lectures and talks are presented in local languages. However, because of financial constraints and the lack of professional staff, these FPAL activities are very limited in geographical coverage.

Government involvement with population education* is very modest. In the late 1970s the Ministry of Education received financial assistance from the World Bank to engage the services of a UNESCO expert in its curriculum revision program. In the course of this revision family life education was recommended for inclusion in the junior and senior high school curricula. It was recommended that the subject could be integrated with social studies and science programs in junior high and with liberal arts, social studies and vocational technical education in senior high schools. Interest in this recommendation within the Education Ministry was reported to be high but it would require hard work and time before the idea becomes a reality. The main drawbacks include shortage of funds and of administrative and managerial capacity in population education. As of 1978 only the Ministry of Agriculture provided a course on family planning to its field workers. The course was given by the staff from FPAL to the ministry's agriculture and home economics extension workers (UNFPA, 1978).

Detailed information on the clientele of the family planning-oriented organizations, like Young Men's Christian Association, are very sketchy and in most cases not available. Almost all of them provide services for women in the reproductive age group irrespective of age or marital status. [Annex 3] FPAL provides family planning services

* Population education explains the causes, nature, and consequences of population growth and movement and how they relate to other social and economic problems.

in private hospitals and in some government hospitals and clinics. In theory, adolescents should not have any difficulty obtaining family planning and counselling services. However, because of the sensitive nature of the subject, as well as the social position and ignorance of adolescents themselves, very few appear to avail themselves of these services. The very fact that family planning services are provided within the context of maternal and child health does little to encourage most non-pregnant, but sexually active, young adolescents to visit the clinics for advice, much less to obtain a method of contraception. These are some of the problems which need to be resolved as the Government and FPAL join forces to expand and improve the family planning component of Liberia's MCH program.

SOCIOECONOMIC CHARACTERISTICS OF ADOLESCENTS

Adolescents differ in many respects from the adult population. Liberian adolescents are more literate, more urbanized and have lower rates of marriage and economic activity than their adult counterparts. In 1974 over one-third of all adolescents resided in urban areas. They also differ among themselves in many ways. Those aged 15-19 differ from the older adolescents aged 20-24 with respect to education attainment, marital status and economic activity. Before proceeding to a brief discussion of these, a word about the population characteristics of adolescents as a group.

Percentage of the Population

In 1962 the total male and female adolescents aged 15-24 was 167,600. This accounted for 16% of the country's population. During the 1962-74 intercensal period, the adolescent population increased 67% resulting in a recorded population of 280,600 or 19% of Liberia's total population. In both census years female adolescents outnumbered their male counterparts. The sex ratios in 1962 and 1974 were respectively 79 and 86 males per 100 female adolescents.

From the above it may be seen that the number of adolescents in Liberia is increasing at a faster rate than that of the general population. The U.N. medium variant projections indicate that between 1980 and 2000 the number of adolescents will continue to grow faster than the overall population. This implies further increases in their proportion in the total population. By the end of the century, one-fifth of Liberia's population is expected to be between the ages of 15 and 24.

Educational Attainment

Though improvements have been made since the 1960s, the general level of education and of literacy in the country remains low. In 1962 only 13% and 5% of the total male and female population aged 10 and over were considered literate. By 1974 these rates had increased to 30% for males and 12% for females (U.S. Bureau of Census, 1982). In 1983 the adult literacy rate was 42% for males and 29% for females (1984 Country Statement of the Republic of Liberia).

The literacy rates for adolescents in 1962 and 1974 were higher than those of the general population aged 10 years and over. Moreover the rates for male adolescents remain higher than the female rates although the rates for both sexes have risen substantially. [Table 1] The female adolescent literacy rate almost tripled and that of the male doubled during the 1962-1974 intercensal period. Among females aged 15-19 their literacy rate rose from 8% in 1962 to 24% in 1974; and among those aged 20-24 the rate went up from 5% to 13%. The literacy rate for male adolescents aged 15-19 also increased from 24% in 1962 to 53% in 1974; among males aged 20-24, literacy in 1974 stood at 51% compared to the 1962 rate of 25%.

Despite improvements, the level of educational attainment among adolescents is extremely low. [Table 1] In 1962 only 4% and 2% of male and female adolescents aged 15-19 had completed primary school; among adolescents aged 20-24 the proportion of primary school graduates was 11% among males and 3% among females. In 1962 only 3% and 1% of males and females aged 20-24, respectively, had completed secondary school.

TABLE 1: Educational Attainment and Literacy Rate (%) of Adolescents by Age and Sex in Liberia, 1962 and 1974

	<u>Age</u>	<u>Sex</u>	<u>Primary</u>	<u>Secondary</u>	<u>Higher</u>	<u>Literacy Rate</u>
<u>1962</u>	15-19	M	4.2	0.3	---	24.3
	15-19	F	2.1	0.3	---	8.4
	20-24	M	10.6	2.9	0.5	25.0
	20-24	F	2.5	1.0	0.2	5.1
<u>1974</u>	15-19	M	14.8	0.9	---	52.6
	15-19	F	7.4	0.6	---	24.4
	20-24	M	30.0	7.7	0.6	50.5
	20-24	F	7.6	2.7	0.4	13.1

Source: Campbell, P.R.: Liberia, Country Demographic Profiles. No. ISP-DP-28. Washington, D.C., United States Bureau of the Census, 1980.

These levels increased during the 1962-74 intercensal period, but the rates continued to be low. Only 7% and 8% of females aged 15-19 and 20-24, respectively, had completed primary school by 1974. Among male adolescents, comparative figures were 15% and 30% for the older and younger adolescents, respectively.

The literacy rate and levels of educational attainment among adolescents confirm a pattern found in almost all the African countries: the tendency for males to record higher school enrollment ratios, higher literacy rates and higher level of educational attainment at the same age. Since the early 1960s, however, improvements have been made and more females have been enrolled in schools than during the pre-1960 period. Nevertheless, the gap between the sexes persists and is evidenced by the fact that in 1980 only 11% of females aged 12-17 were enrolled in secondary school compared to 29% of their male counterparts (UNESCO, 1983).

Marriage

Like most other developing countries, marriage is almost universal. Liberian women traditionally have married very early in life. The minimum legal age at marriage based on the 1956 (Revised) Domestic Relations Law was 21 for males and 18 for females with or without parental consent. In spite of this law only 46% of females aged 15-19 remained unmarried in 1962 (Campbell, 1982). In order to legitimize reality, the 1973 New Domestic Relations Law reduced the minimum legal age to 16, with parental consent for both sexes if they were under 18.

The 1962 and 1974 censuses do reveal very marked differences in marriage age among adolescents. [Table 2] Males tend to marry late in life compared to females. In 1962, 55% and 84% of females aged 15-19 and 20-24 respectively were married. These figures contrast markedly with the male adolescents, of whom only 4% and 28% of those respectively aged 15-19 and 20-24 were married.

TABLE 2: Percent Distribution of Male and Female Adolescents by Union Status, by Age and Sex in Liberia, 1962 and 1974

Union Status	1962		1974	
	15-19	20-24	15-19	20-24
	<u>Female Adolescents</u>			
Single	43.5	12.0	57.7	21.4
Married	54.5	83.9	40.9	74.8
Divorced/Separated	1.6	3.1	1.1	2.9
Widowed	0.4	1.0	0.3	0.9
Total	100.0	100.0	100.0	100.0
	<u>Male Adolescents</u>			
Single	95.2	68.5	96.8	74.4
Married	4.3	28.3	2.9	23.6
Divorced/Separated	0.4	2.6	0.3	1.7
Widowed	0.1	0.6	0.1	0.3
Total	100.0	100.0	100.0	100.0

Source: Campbell, P.R.: Liberia, Country Demographic Profiles. No. ISP-DP-28. Washington, D.C., United States Bureau of the Census, 1980.

By 1974, the proportion of both male and female adolescents who were married declined slightly but the difference between the sexes was still evident. Two-fifths of adolescent females aged 15-19 and three-fourths of those aged 20-24 were married. These figures represent a drop of 14 points among the younger female adolescents and 9 points among the older female adolescents from the 1962 figures. Among males only 3% of those aged 15-19 and 24% of those aged 20-24 were married in 1974. Undoubtedly, increased school enrollment explains a large part of this reduction in the proportion married among adolescents. In Liberia, as throughout most of Sub-Saharan Africa, marriage among adolescents is generally incompatible with regular school attendance.

TABLE 3: Economic Activity Rates* (Percentages) of Adolescents by Age and Sex in Liberia, 1962-2000

<u>Age Group</u>	<u>Sex</u>	<u>1962</u>	<u>1974</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>2000</u>
15-19	M	46.5	21.1	57.8	54.3	50.7	43.3
	F	34.9	15.4	27.5	25.4	23.3	19.8
20-24	M	74.8	51.3	84.0	83.0	82.0	79.8
	F	41.2	21.6	36.5	35.8	35.1	34.7

* The economically active populations in 1962 and 1974 are not strictly comparable. In 1974 the economic active population was defined as "those who worked for pay or profit during the 12 months before the census. Differences in the labor force estimates between the two censuses are due largely to conceptual problems and the lack of consistency and clarity at both the enumeration and processing stages" (Liberia Ministry of Economic Affairs, 1981). The decline in economic activity rates between 1962 and 1974 should therefore be interpreted with caution. However, for the school-age population it is believed that the decline may have occurred because of the large increase in school attendance (Campbell, 1982).

Source: Campbell, P.R.: Liberia, Country Demographic Profiles. No. ISP-DP-28. Washington, D.C., United States Bureau of the Census, 1980.

International Labor Organization: Labor Force Estimates and Projections, 1950-2000. Geneva, ILO, 1977. Table 5, p. 133.

Economic Activity

Young persons have lower economic activity rates than the older population, and the rates are declining. This decline is explained mainly by the rise in school attendance. According to International Labour Organization (ILO) projections, this decline is expected to continue through the end of the century (ILO, 1977). One obvious impact of this is a further increase in Liberia's already high economic dependency burden. In 1980 the country's overall labor force participation rate was 37%; in 2000 it is expected to fall to 33% (ILO, 1977).

Male economic activity rates are higher than those for female adolescents. [Table 3] This mainly arises from the practice of restricting females to domestic activities, which are technically not considered as employment in census nomenclature. According to ILO projections higher male adolescent activity rates are expected to continue through the year 2000. At the same time overall participation rates are falling. However, with increasing female education and participation in non-domestic economic activity the gap between the two is expected to narrow somewhat (ILO, 1977).

REPRODUCTIVE HEALTH BEHAVIOR

Liberia's adolescent female population constitutes a significant, and growing, proportion of females in the reproductive age group (15-49). The 1974 census revealed that adolescents aged 15-24 constituted 40% of the 377,000 females in the reproductive age. According to the UN medium variant projections, this proportion rose to 41% in 1980 and may rise further to 42% in 1990 and to 45% by the year 2000. Thus, by the end of the century, about 45 out of every 100 potential mothers in the Liberian population will be adolescents. This section will discuss some aspects of adolescent reproductive health behavior. Topics which will be discussed include fertility, contraceptive use, abortion, sexually transmitted diseases, maternal mortality and morbidity.

Unfortunately, such data for adolescents in particular, and for women in general, are practically nonexistent in Liberia. What limited information exists is generally unpublished in the files of ministries and government departments. The need for more complete information, echoed in the 1978 UNFPA report, is not new. In his 1965-1966 Annual Report, Dr. Edwin M. Barclay, then Liberia's Director General of Public Health, itemized eight areas of concern for the country. These included the need for studies of maternal and infant mortality, the need for reporting births, maternal deaths, and lack of adequate statistical information on mothers and children. In spite of this as of mid-1984 not much new information could be reported for these areas of concern.

Fertility

Liberia's overall fertility level may not be Africa's highest, but with an estimated total fertility rate of 6.7, it ranks among the highest in the world. In a study by Massalee, reported by the United States Bureau of the Census, the 1970 age specific fertility rates for adolescents aged 15-19 and 20-24 were respectively placed at 230 and 273 per 1000 females. [Table 4] These adolescent rates are one of the highest even by African standards. For instance, Liberian adolescents aged 15-19 were ranked sixth highest in fertility among 25 African countries using data for the 1954-78 period (Population Reports, M-4, 1979). The contribution of Liberian adolescents to the country's overall fertility is therefore very substantial. The teenagers, aged 15-19, in 1970 were responsible for 17% of the country's overall total fertility, again one of the highest in the world.

Most experts believe that the general level of adolescent fertility in Liberia will remain high and possibly decline very slowly through the year 2000. However, it is likely that with projected increases in school enrollment (particularly of young women), increases in average marriage age, and greater use of family planning services, the contribution of adolescents to the country's overall fertility may gradually decline. Other factors, however, including increased adolescent fecundity, may work in the opposite direction.

Just as we identified differences in the socioeconomic characteristics of adolescents, the fertility of adolescents differs

with respect to certain socioeconomic variables. The 1970-71 Population Growth Survey identified fertility differentials by age of mother, tribal affiliation, and urban-rural residence; it also noted that the "deficiencies caused by age misreporting has undoubtedly distorted many of the distributions shown in this paper; therefore, caution should be used in all data interpretations relating to age" (Department of

TABLE 4: Total Fertility Rate, Adolescent Fertility Rate Per 1000 and Adolescent Contribution to Total Fertility Rate, Liberia and Selected African Countries, 1961-1982

Country	Year	Total Fertility Rate	Fertility Rate Per 1000 by Age		Contribution (%) to Total Fertility Rate Age 15-24
			15-19	20-24	
Liberia	1970	6.7	231	273	37.7
Burundi	1971	6.1	51	252	24.7
Chad	1964	5.4	171	282	42.0
Ethiopia	1968-71	5.8	163	287	39.1
Gabon	1960-61	4.1	171	190	43.5
Ghana	1979-80	6.5	136	255	30.2
Kenya	1977-78	8.0	168	343	31.9
Mozambique	1970	5.8	96	248	29.9
Nigeria	1981-82	5.7	127	256	33.8
Senegal	1978	7.1	197	305	35.4
Zambia	1974	6.7	137	143	21.1

Sources: U.S. Bureau of the Census: A Compilation of Age-Specific Fertility Rates for Developing Countries. International Research Document No. 7. Washington, D.C., United States Government Printing Office, 1980.

Central Bureau of Statistics: Ghana Fertility Survey, 1979-80. Vol. 1. Background Methodology and Findings. Accra, C.B.S.; London, World Fertility Survey, 1983.

Lightbourne, R. and S. Singh: The World Fertility Survey: Charting Global Childbearing, Population Bulletin, Vol. 37, No. 1. Population Reference Bureau, March 1982. Tables 3 and 5.

National Population Commission: Nigeria Fertility Survey, 1981-82 Preliminary Report. Lagos, National Population Commission; London, World Fertility Survey, 1983.

Planning and Economic Affairs, 1970). Probably as a result of this, very few published fertility tables were disaggregated by age.

Rural fertility is generally higher than urban fertility level. The fertility rate, defined as the number of births per 1,000 female population aged 10-49 in 1971 was 165 and 148 in rural and urban areas respectively. However, this does not show up among the adolescent population. The 1970-71 survey found that adolescents aged 15-19 recorded differentials inconsistent with the national pattern while those aged 20-24 followed the national one.

This lack of consistent pattern demonstrates that variables other than residence significantly affect adolescent fertility. This was indirectly confirmed by Dzegede's study of rural-urban fertility. He found the existence of higher overall rural fertility. On the other hand, the 1978 demographic survey found a higher urban fertility. According to this national survey the urban crude birth rate in 1978 was 51 per 1,000 population compared with the rural CBR of 47 (Personal Communication with P.R. Campbell of the U.S. Bureau of the Census, 1983). This may mean that the overall fertility in Liberia has not yet peaked and, like Kenyan fertility during the 1970s, may rise from an already high level before declining (Mott and Mott, 1980).

Contraception

Both traditional and efficient modern methods of contraception are used in Liberia, but the extent of their utilization throughout the country is not known with certainty. The use of modern methods, however, is believed to be negligible.

In 1976, there were only 15,786 visits to all the family planning clinics in the country. A total of 14,153 received contraceptive services comprising 4,623 new acceptors and 9,530 continuing acceptors (IPPF, 1978). Dropout rates during the year were extremely high, ranging from 60% in the capital Monrovia to about 90% up country. The main contraceptives used, in order of importance, were oral pills, intrauterine devices (IUDs), injectables, and others.

The proportion, countrywide, of adolescent users of modern contraception in Liberia is not known. Moreover, we do not know the proportion of sexually active adolescents, although it is generally believed that premarital sexual activity among the present generation of adolescents is higher than those of previous generations, this in part as a result of the so-called sexual revolution. A 1984 survey of adolescents in the Greater Monrovia shed some light on the extent of sexual behavior and contraceptive knowledge among this population (personal communication with D.J. Nichols, Family Health International, 1984).

Preliminary results from this survey show that Monrovia adolescents, between the ages 14-21, are very active sexually. A vast majority of them have had sex. It is not surprising therefore that most of them approve of premarital sex and use of contraception. Moreover,

their knowledge of reproductive health and contraceptive methods is high. Despite this very few of them could correctly identify the fertile period. There are interesting differentials, however, between males and females and those in school and non-school-going adolescents. [Table 5]

TABLE 5: Preliminary Data on Reproductive Health, Attitudes and Practices Among Adolescents Aged 14-21 in Greater Monrovia, 1984

<u>Status</u>	<u>Non-Student</u>		<u>Student</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Number of respondents	325	320	403	471
Mean age	17.8	17.4	18.4	17.6
Mean years schooling	6.3	4.8	9.3	9.4
% with reproductive health knowledge	80	77	80	91
% who know of a contraceptive method	75	72	65	76
% who know of STD	83	60	84	81
% correctly identifying fertile period	13	8	7	11
% with friend pregnant before marriage	85	80	79	79
% approving premarital sex	68	52	70	60
% favoring contraceptive use	75	73	76	76
% ever had sexual relations	75	72	87	66
% having sex one or more times per week	39	48	32	27

Source: Republic of Liberia, Ministry of Health and Social Welfare, and Family Health International. Monrovia Adolescent Sexuality Study, Preliminary Tabulations, 1985.

Contraceptive use among Greater Monrovia adolescents is very modest. [Table 6] Among the non-student females 26% of them have never had sexual relations compared with 34% among those in school. The majority of the sexually active adolescents do, however, appear to engage in this type of activity without the benefit of any contraceptive protection. Sixty-six percent of all sexually active, non-student female adolescents and 46% of their school-going counterparts have never used any means of contraception. Those currently using contraception constitute only 26% and 42% respectively. Of the male adolescents 84% (non-school) and 61% (school-going) have never used contraception.

TABLE 6: Sexual and Contraceptive Practice Among Adolescents Aged 14-21 in Greater Monrovia, 1984

<u>Status</u>	<u>Non-Student</u>		<u>Student</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Never had sexual relations	25%	26%	13%	34%
Had sexual relations:				
- Never used contraception	63%	49%	53%	31%
- Past user only	2%	6%	14%	8%
- Current user	<u>10%</u>	<u>19%</u>	<u>20%</u>	<u>28%</u>
Total	100%	100%	100%	100%
(Number of cases)	(318)	(300)	(402)	(468)

Source: Republic of Liberia, Ministry of Health and Social Welfare, and Family Health International. Monrovia Adolescent Sexuality Study, Preliminary Tabulations, 1985.

Maternal Mortality and Morbidity

Though overall mortality and morbidity rates among adolescents are generally the lowest compared to other phases of human life, with the exception of 5-14 year olds, maternal mortality and morbidity conditions among young adolescents are among the worst (WHO, 1977). Medical and surgical complications of early (below age 20) and late (above age 34) childbirth are worse than those which occur in the 20-34 age group. As the WHO publication Health Needs of Adolescents states, pregnancy related deaths "are the main cause of death in 15-19 year old females . . . death rates from causes related to abortion and delivery are particularly high in girls below 18 years of age" (WHO, 1977).

The actual level of maternal mortality and morbidity in Liberia remains unknown. It is, however, believed to be high and young mothers are considered very susceptible to the high incidence of parasitic and other infectious diseases. The main reason for this is that the bulk of the population is poorly served with modern health services. Only one-third of the population residing mainly in the urban, periurban, mining and rubber plantation areas have access to any form of modern medical services. Poor health is aggravated by poor hygiene, inadequate sanitation, unavailability of safe water and inadequate health education (Liberia Ministry of Health and Social Welfare, 1981).

The level of maternal mortality and morbidity among the young adolescents aged 15-19, who generally register a higher rate than the older females aged 20-34, is therefore expected to be higher than the overall maternal mortality.

Pregnancy Termination

Abortion is still relatively restricted in Liberia, but since 1979 it has been legalized, if accompanied by an authorization from a committee of physicians, on the grounds of mental health, genetic defects, and rape. Data on legal and illegal abortion are not available.

The incidence of abortion among Liberian adolescents countrywide is also unknown. Preliminary data from the 1984 Adolescent Sexuality Survey indicate, however, that in Greater Monrovia 49% of adolescents out of school and 28% of those still in school have been pregnant before. Among those who became pregnant, 33% of those out-of-school and 53% of those in school terminated their pregnancy through induced abortion. [Table 7] At the national level, there is perhaps reason to

TABLE 7: Behavior of Adolescent Females Aged 14-21 with Respect to Sexuality, Pregnancy, and Pregnancy Outcome in Greater Monrovia, 1984

<u>Status</u>	<u>Non-Student</u>	<u>Student</u>
Never had sexual relations	26%	34%
Had sexual relations:		
- Never pregnant	24%	38%
- Ever pregnant		
- Never had induced abortion	33%	13%
- Ever had induced abortion	16%	15%
Not reported	---	1%
Total	100%	100%
(Number of cases)	(300)	(468)

Source: Republic of Liberia, Ministry of Health and Social Welfare, and Family Health International. Monrovia Adolescent Sexuality Study, Preliminary Tabulations, 1985.

speculate that the behavior may not deviate much from their counterparts in Sierra Leone, Kenya, or Nigeria, where some data also exist. A brief review of that data reveals what is known. For instance, a 1973-1975 Sierra Leone Ministry of Health and World Health Organization study found that adolescents aged 15-19 and 20-24 accounted for 23.2% and 20.9% respectively of all abortions, though about 22% and 19% of females in the reproductive age group 15-49 were in these two age groups (Sierra Leone Ministry of Health and World Health Organization, 1980). In a more recent study at Freetown's Princess Christian Maternity Hospital, Stiles found that 82% of those who had induced abortion were aged 15-24; about 30% of these have had previous abortions (Stiles, 1982). In another hospital study in which 13,500 deliveries and 1,418 abortions at Nigeria's University of Benin Teaching Hospital between 1974 and 1979 were reviewed, Omu, Oronsaye, and Asuquo found that adolescent girls accounted for 60.8% of all induced abortions and that 71.7% of these adolescents were primary and secondary schoolgirls (Omu, et al., 1981). Whether all of this has any bearing on the situation in Liberia is problematic.

Sexually Transmitted Diseases (STDs)

There are no detailed published data on STDs in Liberia. The gathering of such information, like in most developing countries, is constrained by its low priority, poor funding, easy public accessibility to antibiotics, self-medication and other local medications obtained outside recognized hospitals and clinics. All published data tend to be under-reported.

What little is known about the situation among adolescents is derived from the Greater Monrovia Survey. Among the sexually active adolescents, preliminary results of the 1984 survey show that 30% and 27% of male non-students and male students, respectively, have contracted STDs. The respective figures for females are 17% and 19%.

In a country report to the First AFRO Intercountry Workshop on Sexually Transmitted Diseases held in Nairobi, Kenya, in 1978, it was stated that the "incidence of gonorrhea in the country is high and increasing rapidly." In addition to gonorrhea, the report also indicated that some of the other STDs reported by physicians include soft chancre, granuloma inguinale, candida albican, and trichomonas. Yaws was reported to have been eradicated in the country following the 1958-64 mass treatment campaigns except in Maryland and Sinoe counties where sporadic outbreaks have been reported since 1974. Due to cross immunity acquired from yaws in the older population, few cases of syphilis have been reported in Liberia since the late 1970s (1978 Country Report on Sexually Transmitted Diseases).

The report, however, fails to disaggregate the number of reported STDs by age to facilitate identification of STDs incidence among adolescents. However, using inadequate data from other African countries as proxy, we may cautiously conclude that the incidence of STDs among Liberian adolescents nationwide may be above the national average which, according to the 1978 Country Report, is thought to be high and rising.

IMPLICATIONS OF ADOLESCENT FERTILITY

Available information indicates that Liberian females continue to marry at relatively young ages, although this practice has been changing since the 1960s, mainly as a result of increasing female school enrollment. Low marriage age and the implied low age at first childbirth have very important demographic, social, medical and health implications. The objective of this section is to examine these.

Medical and Health Implications

The detrimental effects of early childbirth on the medical and health condition of the mother, the child and the immediate community are well known although not satisfactorily documented in developing countries (Population Reports, 1979). Liberia has practically no published data on this topic but the conditions are probably similar to those of other African countries at a similar level of socioeconomic development.

The traditional practice of early marriage of young girls to older husbands, and in some cases into polygamous households with senior wives, tended to provide psychological sustenance and moral support to the very young expectant mothers. It also helped prepare the mothers for the problems involved in parenting.

On the other hand, this type of support cannot prevent the occurrence of many serious medical and health risks associated with early pregnancy and childbirth. Unfortunately, the number of such pregnancies are believed to be increasing in most parts of the world. This has arisen because the size of the adolescent population has increased. In addition, adolescent subfecundity is declining as a result of improvements in health, medical care and nutrition which have in turn gradually reduced the average age at menarche throughout the world (Frisch and McArthur, 1974; Population Reports, 1979).

A development which has had an opposite effect is the increase in age of social maturity and marriage due to the prolonged period devoted to formal education and vocational or professional training. These two changes in Africa and the rest of the world have given rise to the widening of the so called biosocial gap between the age at menarche and marriage (Kemekpor, 1973; Sogbanmu and Aregbesola, 1979; Kenya Central Bureau of Statistics, 1980; Igaga, 1981). This implies that an increasing percentage of sexually active adolescents, who, in the past decades would have been married are exposing themselves to the risk of pregnancy, childbirth, sexually transmitted diseases (STDs) and pelvic inflammatory disease (PID) (Population Reports, L-4, 1983).

The incidence of these factors remains unknown, but they do pose problems for not only the young mother and the child, but also to the country due to the strain that their management puts on the country's resources. These problems are best presented by examining some pregnancy-related morbidity and mortality statistics of African countries with comparable standards of living and health care systems to that of Liberia.

Complications Arising from Adolescent Pregnancy

Maternal mortality and morbidity are very high for adolescents under age 20, they then decline for those between 20 and 29 and rise again after age 30 or 35. This pattern generally holds throughout the world. However, poor living conditions, nutrition, antenatal care and inadequate health education may aggravate the situation. This, too, makes the Liberian situation disturbing.

Obstetric complications for the mother include first and third trimester bleeding; severe anaemia; prolonged, difficult and obstructed labor; cephalopelvic disproportion; preeclampsia and prematurity, stillbirth and high perinatal mortality.

There is practically no available published material on these conditions in Liberia. Results from studies in Nigeria, Zambia, Zaire, Kenya and Sierra Leone, however, may throw some light on these conditions in Liberia (Adadevoh, 1974; Eflong and Banjoko, 1975; Njogu, 1980; Ngoka and Mati; Sierra Leone MOH/WHO, 1980). In the Sierra Leonean study, for instance, adolescents aged 15-24 were responsible for 38% of all the pregnancy-related complications, the bulk of which was concentrated in the 15-19 age group. Adolescents aged 15-24 also accounted for 55% of all urinary infections and 44% of infections of the genital tract for all women during pregnancy. As reported in clinical studies by Adadevoh and Akingba (for Nigeria), Chibungo (for Zambia) and Ngoka and Mati (for Kenya) cephalopelvic disproportion, which gives rise to obstructed labor, is common in societies with very low age at first marriage. This serious obstetric problem develops because physical maturity particularly of the pelvis, in the words of Adadevoh, "often lags behind the ability to conceive. As such, the pelvis, and its outlet may not be matured enough for the delivery of a fetus when conception takes place. In addition, overall physical growth may be impaired as is often the case, as a result of other environmental factors including nutrition". Adadevoh cites the case among the Isoko ethnic group of Southern Nigeria where "obstructed labor, fistulae (vesicovaginal mainly) puerperal infection and maternal deaths have often been reported. The untold personal tragedy of fistulae, genital blockage which may result from it even after surgical repair, tubal block, ammenorrhoea and infertility associated with pelvic infection are made worse by the fact that such brides are abandoned by their husbands" (Adadevoh, 1974).

The obstetrical and medical complications which plague very young mothers are similar throughout the world. However, in view of the close relationship between these complications and economic development it is likely that the incidence and intensity of these complications compared to those of developed countries are higher in developing countries such as Liberia because of poverty, ignorance and lack of comprehensive and efficient prenatal and postnatal care. This situation is aggravated in cases involving unmarried adolescents who, in addition to carrying the burden of social opprobrium, may have to go through pregnancy without any moral or material support from their partners.

Numerous surveys have also shown that single mothers are more likely to lose their babies than are married women (U.S. Department of Health, 1967; Diggory, 1981). In the 1970 Perinatal Survey in Britain, for instance, it was found that the single woman was seven times as likely to lose her baby at or around birth than the married woman (Chamberlain, et al., 1975).

Other important factors affect adolescent pregnancy-related mortality and morbidity. These include the mother's parity, her socioeconomic status and prenatal care (International Planned Parenthood Federation, 1970; Deschamps and Valantin, 1978). Deschamps, for instance, found that European adolescents having their first births and enrolled in a special teenage pregnancy program have no greater obstetrical or neonatal risks than adult women. Similar findings have been reported in two Nigerian studies. In one study, Ibeziako observed that "the relationship between age-fistula-and infertility is significant only in areas where obstetric services are inadequate" (Ibeziako, 1974). In the second study, conducted at Nigeria's Lagos University Teaching Hospital, Efiang and Bajoko compared the obstetric performance of three groups of primigravidae (aged 16 and under with and without adequate antenatal care and a control group of primigravidae aged 22 years who also received adequate antenatal care). They found that the primigravidae with inadequate antenatal care had severe preeclampsia and eclampsia compared to those who had adequate care and the control group; 24% of those with inadequate care had small babies weighing 2.5 kilograms and under compared with only 8% for the control group. Most important, they also observed that increased incidence of preeclampsia and low birth weight diminished considerably with good antenatal care (Efiang and Banjoko, 1975).

These results demonstrate that when proper pediatric, obstetric and gynaecological care is made accessible to very young women irrespective of socioeconomic background, most of the serious complications associated with adolescent pregnancy are substantially reduced.

The unfortunate reality in countries such as Liberia is that the majority of adolescents who become pregnant at very early ages do not receive the benefit of satisfactory maternity services. Their offspring are denied adequate pediatric attention because such services are expensive and often unavailable. Among the few who have access to these services, a substantial proportion do not fully utilize them because of the following reasons: hesitation in seeking obstetric care because of inexperience; ignorance and immaturity; drop out or noncompliance with clinic appointments because of intimidation and embarrassment; and inappropriate adult-oriented obstetric and gynecologic care which fail to address the special emotional and psychosocial problems of young adolescents. The unmarried but pregnant adolescent in Liberia, like her counterpart in most other African countries, thus faces an unenviable dilemma of either procuring a criminal abortion with all the attendant complications, or carrying the pregnancy to term. If she is a student and takes the latter course of action she may have to drop out of school, experience very probable lower future social mobility, incur shame and embarrassment for herself and her family in addition to facing

the associated risks of early childbirth. For the married pregnant adolescent, the advantage of psychosocial and material support from spouse and other family members may not be enough to overcome the medical and surgical complications, particularly if, as is often the case, she does not receive adequate obstetric care. Moreover, the children from such pregnancies do not generally fare well medically compared to their counterparts born to mothers between the ages of 20 and 34.

Pregnancy Termination

Available data from these countries demonstrates that the incidence of abortion (particularly illegal abortion) on the continent is very high among the adolescent population, despite the illegal nature of abortion, the social and religious taboos against it and the high economic cost involved in procuring the service. These factors tend to influence the demand for the services of unqualified abortionists who include nurses, midwives, dispensers, hospital attendants and "native doctors". These persons usually operate under very poor hygienic conditions. Patients are sent to hospitals only when serious and often fatal complications develop. In a study conducted by Omu and others at Nigeria's University of Benin Teaching Hospital, for instance, it was found that only 17% of the abortion cases were performed by qualified physicians; that the majority of the patients had more than one complication, the commonest of which were hemorrhage, sepsis and cervical laceration, and after the twelfth week perforation of the uterus, peritonitis and endotoxic shock came into evidence, and that complications from induced abortion among adolescents aged under 20 accounted for 21% of all gynecological conditions and 17% of maternal mortality in the hospital (Omu, et al., 1981). In Sierra Leone a joint study conducted by the country's Ministry of Health and the World Health Organization also found that after anemia, abortion was the most prevalent complication of pregnancy and puerperium among females in the reproductive age group (Sierra Leone Ministry of Health and WHO, 1980). In another study conducted at Freetown's Princess Christian Maternity Hospital, Stiles found that 56% of all abortions induced outside the hospital were septic compared with 5% for those admitted following spontaneous abortion (Stiles, 1982).

Moreover, the proportion of hospital services utilized in the management of abortion cases far outweighs the relative proportion of abortions among total hospital admissions. Between July 1974 and February 1975, 25% of all hospital services at Nigeria's University of Benin Teaching Hospital was devoted to abortion complications alone (Population Reports, 1980).

Abortion and its associated complications therefore contribute to tragic loss of human lives and tie down considerable proportion of an already overstretched health personnel and facilities in developing countries such as Liberia.

Sexually Transmitted Diseases

Another development closely connected with sexual activity among unmarried adolescents is the increase in the number of sexually transmitted diseases (STDs) among adolescents. Again no good data exist on the subject. The 1978 country report decried the low priority accorded to the subject compared to other communicable diseases. Detailed information on the effects of STDs on the general population is unknown. However, the high and increasing evidence of gonorrhoea in the country implies a conclusion that Osoba reached in his review of STDs in Tropical Africa. According to Osoba, in Tropical Africa, gonorrhoea, the most recognized STD, frequently causes "epididymitis and urethral stricture in men and salpingitis and pelvic inflammatory disease in women" (Osoba, 1981). Moreover, the high incidence of infertility reported among older adults may not be unrelated to STDs.

STD complications are however not restricted to men and women but to their children as well. The most common of these are opthalmia in neonates and congenital syphilis. Alausa and Osoba recently identified gonococcal vulvovaginitis among children aged 1 to 12 in a prospective clinical study of 42 children in Nigeria. Eighty percent of the children with proven sources of infection were infected by contaminated bedclothing, underclothing and towels of parents, sisters and housemaids. The remaining 20% contracted the disease from precocious sexual intercourse (Alausa and Osoba, 1980). This is thus a problem closely associated with poverty, ignorance and poor personal hygiene and is likely to be found in Liberia.

It is obvious that although the actual incidence of these diseases in Liberia remains unknown their social and economic implications in terms of health care expenditures, lost productivity, missed school days, and human suffering are substantial. The social consequences were also underscored by St. John, Brown and Tyler in an editorial entitled "Pelvic Inflammatory Disease, 1980", in the American Journal of Obstetrics and Gynecology following the First International Symposium on PID at the Center for Disease Control in Atlanta, USA in 1980. The editorial stressed that in addition to the economic consequences, "we should not understate the social effects of PID. PID causes recurrent pelvic infection, chronic pelvic pain, and infertility; family integrity is jeopardized; and individuals are unable to fill social roles. These social consequences are most serious because PID frequently occurs among women less than 25 years of age" (St. John et al., 1980).

Moreover, strong associations have also been found between age of onset of sexual activity and the risk of PID. In their Uganda study Grech and associates found that 83.8% of patients with PID experienced their sex before age 16. In a 1970-74 Swedish study it was also found that the risk of salpingitis of sexually active 15 year olds is 1:8 compared with a risk of 1:80 for the 24 year old (WHO, 1981). The female sexually active adolescent is thus very vulnerable to PID complications.

In most developing countries use of penicillin is reported to have played an important role in reducing the high incidence of most STDs

(Rampen, 1978). Other factors responsible for this decline include improved socioeconomic conditions, better sanitation and greater emphasis on preventive medicine. These improvements have more than counterbalanced the increase in sexually transmitted infections arising from the general rise in sexual activity (WHO, 1981). However, recent increase in nongonococcal STDs and certain gonococcal strains insensitive to the frequently used penicillin and other less expensive antibiotics pose a serious threat to the containment of STDs, particularly among adolescents who are increasingly becoming more sexually active at younger ages (Osoba, et al., 1977; Perine, et al., 1980; Catterall, 1981). Reports from Nigeria, Sierra Leone and other African countries show that over two-thirds of the gonococcal strains in many tropical areas have diminished sensitivity to penicillin (Osoba, 1981; Gooding, 1984). This is aggravated by the chronic nature of many STDs and complicated in countries like Liberia where most of the primary cases of STDs are treated by unauthorized and unqualified pharmacists, nurses and druggists outside approved hospitals and clinics.

Demographic and Social Impact

As in other African countries, the great majority of childbearing in Liberia occurs within marriage. Moreover, the time period between marriage and first birth has remained short in light of the social pressures exerted on almost all newly married couples to procreate immediately while others are cajoled into marriage in order to legitimize premarital pregnancies.

Early marriage and childbirth have been found to be closely related to the demographic dynamics of any society. Theoretically, when other factors are held constant, there is a very strong negative relationship between marriage age and fertility. Not only do early marriage and childbirth shorten the period between generations, they also increase the reproductive age span to near its physiological limit. Hajnal's in-depth study of European marriage patterns also provides excellent empirical evidence concerning this relationship. He found that one of the most important reasons behind European fertility decline during its transition from high to low levels of fertility and mortality was the marked rise in the average age at marriage (Hajnal, 1965).

In Africa, however, infertility, polygyny, marriage instability and use of traditional means of fertility regulation (including abortion, prolonged breastfeeding and postpartum sexual abstinence) have tended to confound this negative relationship when one examines fertility levels throughout the reproductive period.

This relationship, holds, however, when the adolescent population is examined separately. The effects of infertility, marital instability and fertility regulation are negligible among young persons. In most cases social pressures are exerted on young couples to procreate during their first year of marriage. If reduction of the country's fertility rate is an objective, programs and policies which postpone marriages or increase the marriage age should provide excellent options.

At the individual level, very early childbirth has undesirable consequences for both mother and child. For the mother early pregnancy and childbirth may restrict her future opportunities for social and economic advancement. Pregnancy may result in either temporary or complete cessation of education, which in turn compromises the young woman's future job or career opportunities. This fear is the main reason why most adolescent schoolgirls resort to criminal abortion (Akingba and Gbajumo, 1972).

If the child is born out of wedlock his or her legal rights of inheritance may also be negatively affected. Not much is known about this issue within Liberian society. While Lee and Paxman's review demonstrates that throughout the world discrimination against illegitimate children is being gradually eliminated (Lee and Paxman, 1974), other new social changes are evolving which threaten the welfare of children born out of wedlock, particularly in poor urban communities. In the cities and towns of developing countries the importance and influence of the traditional extended family system, which used to cater to the needs of all children irrespective of legitimacy status, is declining rapidly. Children born out of wedlock to adolescents and into poverty in such communities are increasingly neglected and abandoned.

The detrimental effects on such children cannot be overemphasized. Psychiatric literature also provides abundant evidence of the "overt or repressed hostility of parents towards an unwanted child; their conscious and unconscious wish to be rid of the child and the consequent severe guilt feelings; their disguised manifestations of anger and rejection as well as such direct expressions as child battering, neglect, uncontrollable screaming at the child, or irrational punishment" (Revelle, 1971).

It is evident from available information from other African countries with similar levels of socioeconomic development as Liberia that the existing pattern of early pregnancy and childbirth has serious public health implications which need to be addressed before they become even more complicated and unmanageable. Moreover, there are indications that the associated problems are increasing in complexity as the biosocial gap increases without any commensurate rise in the adolescent population's capacity to combat these problems through family planning and counseling. In most cases adolescents do not receive any family planning counseling service, reproductive health education or any adolescent-oriented prenatal and postnatal health services. They are invariably left to rely on their own resources although these issues continue to be of concern to parents, youth-oriented agencies and the government.

CONCLUSION: SUMMARY OF KEY POINTS

This overview of Liberia's adolescent fertility has made use of secondary data sources from official censuses, surveys and other publications. Data on the reproductive health behavior of adolescents is virtually non-existent therefore some of the conclusions presented below were obtained from experiences of countries with similar socioeconomic conditions.

Socioeconomic Characteristics of Adolescents

1. Adolescent males and females aged 15-24 constitute a very sizeable and growing proportion of Liberia's population. In 1974 there were 281,000 such young persons. The adolescent population is expected to increase faster than the overall population and therefore increase their proportion of Liberia's population from 18% 1985 and 20% by the year 2000.

2. Adolescents differ in many respects from the adult population. They are more literate and more urbanized, but have lower rates of marriage and economic activity than those over age 24.

3. Liberian adolescents are not a homogeneous unit but differ among themselves in their socioeconomic characteristics. Younger adolescents (aged 15-19) differ from those aged 20-24 with respect to education characteristics, marital status and economic activity.

4. The level of education attainment among adolescents is very low although improvements have been made since the 1960s. Between 1962 and 1974 the proportion of female adolescents aged 15-19 who have completed primary school increased from 2% to 7% in 1974. Corresponding percentages for males were 4% in 1962 and 15% in 1974. The same pattern was found among adolescents aged 20-24 and at the secondary school level.

5. Males record substantially higher educational attainment and literacy rates than female adolescents. In 1974, 51% of males aged 15-19 were enrolled in school compared with 20% for their female counterparts.

6. Marriage is almost universal; females marry very early in life compared to their male counterparts. In 1962, 55% and 84% of females aged 15-19 and 20-24 respectively were married. These contrast with 4% among males aged 15-19 and 28% among those aged 20-24. As a result of increased school enrollment, the proportion of married male and female adolescents declined between 1962 and 1974.

7. Female adolescents have lower economic activity rates compared to their male counterparts. Overall activity rates declined between 1962 and 1974 as a result of increased school attendance. According to ILO projections this decline is expected to continue through the year 2000.

Reproductive Health Behavior

1. Adolescents form a significant proportion of females in the reproductive age group 15-49, and the proportion is increasing. In 1974, 40% of all potential mothers were adolescents aged 15-24. According to UN projections, this proportion is expected to rise to 42% in 1985 and may rise further to 44% in 1995 and to 45% in the year 2000. At present, at least 4 out of every 10 potential mothers are adolescents.

2. The level of modern contraceptive use among adolescent females throughout the country is not known but is believed to be too low to have any impact on adolescent fertility. Among sexually active adolescents in Greater Monrovia the use is more noticeable (35% of all sexually active females surveyed) but a substantial majority have never used contraception.

3. Abortion is restrictive but since 1979 may be legally obtained on the grounds of mental health, genetic defect, and rape as determined by a committee of doctors. The little data that does exist, drawn from adolescents in Greater Monrovia, indicate that about two out of every five pregnancies end in abortion.

4. There is no published data on sexually transmitted diseases (STDs) but a 1978 country report indicates that the "incidence of gonorrhea in the country is high and increasing rapidly." Data from Greater Monrovia indicate that among adolescents one-third of the sexually active males and one-fifth of the females have been infected by an STD.

5. The level of maternal mortality and morbidity among adolescents is not known. It is, however, believed to be high and susceptible to the high incidence of parasitic and other infectious diseases.

6. Adolescent fertility in Liberia is among the world's highest. In addition, the contribution of adolescent childbearing to the country's overall fertility is also very high. In 1970, teenage adolescents alone accounted for 17% of Liberia's overall fertility; 38% of all births were to women between 15 and 24.

7. Little information on fertility differentials is available from official publications as a result of distortion caused by age misreporting. Available information seem to suggest the existence of slightly higher rural fertility compared to the urban fertility. However, among the adolescent population there is no consistent pattern. Adolescents aged 15-19 recorded a differential inconsistent with the national pattern, while those aged 20-24 followed the national pattern of a higher rural fertility.

Implications of Adolescent Fertility

1. The low average age at marriage among females combined with their low contraceptive use rate may continue to guarantee a high level of fertility and a high population growth in the light of gradual reduction in the mortality rate in the country.

2. The future social and economic advancement of an adolescent female may be restricted when pregnancy forces her to drop out of school. This fear of dropping out has been singled out as one of the principal reasons why school-going adolescents resort to abortion.

3. The legal right of children born out of wedlock may also be compromised. For those born to mothers in poor urban communities their chances of being abandoned, neglected and abused are very great.

4. There is practically no available published data on pregnancy-related mortality and morbidity conditions on adolescents. It is, however, believed that such conditions in Liberia may not differ much from those found in other African countries at a similar level of socioeconomic development. These include the following:

a. The pattern of mortality and morbidity complications of early childbirth may not deviate much from the general world pattern. This is characterized by first and third trimester bleeding; severe anaemia, prolonged, difficult and obstructed labor; cephalopelvic disproportion; preeclampsia and eclampsia; prematurity, stillbirth and high perinatal mortality. The status of these conditions, however, depends on living conditions, nutrition, maternal health care and education.

b. Because abortion is still restrictive most of the adolescent pregnancies that are interrupted are done so by incompetent people under poor hygienic conditions and patients hospitalized only if serious and often fatal complications develop.

c. Induced abortion complications may constitute one of the major causes of maternal morbidity and mortality among adolescents.

d. Because of ignorance and unsatisfactory management and treatment of sexually transmitted diseases, early and late complications of gonorrhoea including infertility may be common. These include epididymitis and urethral stricture for males; salpingitis and pelvic inflammatory diseases (PID) for females; and ophthalmia and congenital syphilis for the babies.

e. Since early exposure to sexual activity is closely associated with PIDs, the sexually active adolescent is very vulnerable to these diseases.

f. Diminished sensitivity of some gonococcal strains to penicillin poses a serious threat to the containment of STDs among not only adolescents but the overall population. This condition is worsened because of the chronic nature of STDs and its unsatisfactory treatment.

ANNEX

ANNEX 1: LIBERIA, BACKGROUND DEMOGRAPHIC INFORMATION, 1950-2000

Medium Variant	1950	1960	1970	1975	1980	1985	1990	1995	2000
<u>Population by Sex</u>									
1. Total (In 000's)	855	1047	1365	1582	1871	2191	2571	3026	3564
2. Male (In 000's)	431	522	678	784	927	1086	1275	1501	1770
3. Female (In 000's)	424	525	688	798	944	1105	1296	1524	1795
<u>Age Indicators</u>									
4. Median Age	19.1	18.8	18.3	18.0	17.2	16.6	16.2	16.2	16.4
5. Dependency: Age 0-14	76.4	77.9	81.3	83.6	88.8	93.3	96.3	95.2	93.8
6. Dependency: Age 65+	6.7	5.9	5.9	5.9	6.0	6.0	6.1	6.0	5.9
7. Dependency: Total	83.1	83.8	87.1	89.5	94.8	99.3	102.4	101.2	99.7
<u>Specific Age Groups</u>									
8. Adolescents/Youth:									
15-24 (In 000's)	160	196	253	291	340	395	464	575	703
9. Women: 15-49 (In 000's)	198	242	313	360	415	477	554	660	787
10. Women: 15-19/15-49 (%).....	21.2	21.5	22.0	22.2	22.4	22.6	23.1	24.7	24.4
11. Women: 20-24/15-49 (%).....	18.7	18.6	18.5	18.9	18.8	19.1	19.1	19.1	20.3
12. Percent Urban (%)	13.0	18.6	26.0	30.4	34.9	39.5	44.0	48.2	52.1
13. Pop. Density (/SQ.KM.).....	8	9	12	14	17	20	23	27	32

Median Variant	1950-55	'60-65	'65-70	'70-75	'75-80	'80-85	'85-90	90-95	'95-2000
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Average Annual Change

14. Pop. Increase (In 000's)	17	29	35	43	58	64	76	91	108
15. Births (In 000's)	41	51	58	68	86	99	113	130	150
16. Deaths (In 000's)	24	26	27	29	32	35	37	39	42

Rate of Annual Change

17. Pop. Change Total(%)	1.94	2.58	2.73	2.94	3.36	3.16	3.20	3.26	3.27
18. Urban (%)	5.6	6.0	6.0	6.2	5.6	5.4	5.1	4.8	4.5
19. Rural (%)	1.3	1.7	1.7	1.7	2.0	1.7	1.7	1.7	1.7
20. Crude Birth Rate (In 000's)	45.9	45.8	45.6	46.1	49.6	48.7	47.5	46.6	45.4
21. Crude Death Rate (In 000's)	26.5	22.9	21.2	19.7	18.7	17.2	15.6	14.1	12.7

Fertility & Mortality

22. Total Fertility Rate	6.22	6.27	6.27	6.37	6.90	6.90	6.80	6.62	6.27
23. Infant Mortality Rate	176	154	143	132	122	112	103	94	85
24. Life Expectancy: Male	36.0	39.4	41.4	43.4	45.4	47.4	49.3	51.3	53.2
25. Life Expectancy: Female	39.1	42.6	44.6	46.6	48.7	50.7	52.7	54.8	56.8
26. Life Expectancy: Total	37.5	41.0	43.0	45.0	47.0	49.0	51.0	53.0	55.0

Source: United Nations: Demographic Indicators of Countries. Estimates and Projections as Assessed in 1982. New York: United Nations, 1985.

ANNEX 2: LIBERIA, GENERAL DEMOGRAPHIC MEASURES
FOR MALES AND FEMALES AGED 15-24

<u>Year</u>	<u>Measure</u>	<u>Females</u>		<u>Males</u>	
		<u>15-19</u>	<u>20-24</u>	<u>15-19</u>	<u>20-24</u>
1970 ^a	<u>Age Specific Fertility</u> <u>Rate 1000 Females</u>	230	273		
1962 ^a	Literacy Rate %	8.4	5.1	24.3	25.0
1974 ^b	Literacy Rate %	24.4	13.1	52.6	50.5
1970 ^c	<u>Urban Residents (%)</u>	30.2	31.5	36.8	43.0
1974 ^b	<u>Urban Residents (%)</u>	33.3	35.1	34.9	43.6

Sources: a) United States Bureau of the Census (1980)
b) Campbell, P.R. (1982)

ANNEX 3: SUMMARY OF FERTILITY-RELATED PROGRAMS IN LIBERIA, 1975-1982

<u>Name of Project, Location Grant Recipient</u>	<u>Funding Agency</u>	<u>Fertility-Related Objective</u>
Government of Liberia	UNFPA	To strengthen the demographic data collection and analysis system and expand an integrated maternal and child health (MCH) and family planning program, especially in the rural areas. (Initiated 1979)
Ministry of Health, Cape Mount County	UNFPA	To integrate family planning into existing MCH services, beginning in Cape Mount County and extending them to other parts of the country; to provide in-service training for field health personnel (motivation, counselling, management and distribution of contraceptive. (Initiated 1975)
Ministry of Health, Bong County	UNFPA	To assist the ministry in initiating project patterned after that in Cape Mount County i.e., to integrate MCH/FP services in existing health structure through training programs, education and information activities, improving the collections of vital statistics, extension of MCH/FP services to rural population via mobile teams etc. (Initiated 1978)
Liberia Primary Health Project	USAID	"As part of this project, Care family planning will be included in health worker training, in services delivered, and commodities donated. The proportion of Liberia's population with access to adequate medical care will be expanded to 45% from 33%. (Initiated 1982)

Annex 3 (Continued)

<u>Name of Project, Location Grant Recipient</u>	<u>Funding Agency</u>	<u>Fertility-Related Objective</u>
Ministry of Health and Social Welfare	Family Planning Inter- national Assistance (FPIA)	To help ministry "to improve and expand quality family planning services integrated within MCH programs. In addition, it will provide formal and in-service training in MCH/FP education and service delivery to medical and health personnel and to instructors at nursing schools. (August 1980 - November 1981)
National Council of Liberia Young Men's Christian Association	FPIA	To provide organization support and assistance to the YMCA "to integrate parenthood (YMCA) information and education programs into its activities." The project will also "test the possibility of using volunteer high school nurses to deliver school-based planned parenthood services, using non-prescrip- tion contraceptives. (February 1981 - January 1982)
Family Planning Association of Liberia (FPAL)	FPIA	To assist FPAL "to expand family planning motivation and services to Sinoe County, one of nine counties in Liberia. The project calls for the hiring and training of two field educators to conduct regular home visits and group meetings so as to provide family planning information to 8,383 persons in Greenville and outlying towns and villages." (January 1, 1981 - December 31, 1981)
Private Education Services/Ministry Health	Inter- national Federation for Family Life Promotion	To conduct follow-up of three Natural Family Planning of teachers' training workshops, which were attended by 61 trainees. (1980-81)

Annex 3 (Continued)

<u>Name of Project, Location Grant Recipient</u>	<u>Funding Agency</u>	<u>Fertility-Related Objective</u>
FPAL	Inter- national Planned Parenthood Federation (IPPF)	The aims of FPAL are "to provide family planning information and education to all who need it and to integrate the Association's contraceptive services into the Ministry of Health's MCH/FP Services. Interest in family life education has increased and there are plans to promote family life education among adolescents and unmarried mothers, to provide family planning services in institutions of higher education, and to extend family planning services into the rural areas. (Started in 1956 and affiliated with IPPF since 1967).
FPAL	The Pathfinder Fund	To print "family planning photonovel to be used in educational system for students." (1979 - 1982)
Ministry of Health Social Welfare	The Pathfinder Fund	"To facilitate the establishment and operation of MCH/FP services in rural Liberia". (1978-1981)
Ministry of* Agriculture	Local	Provision of a course on family planning to agriculture and home economics extension workers.

Source: UNFPA (1982): Population Programs and Projects Vol 2. Inventory of Population Projects in Developing Countries Around the World 1980-81. New York. UNFPA.

*UNFPA (1978): Liberia, Report of Mission on Needs Assessment for Population Assistance. Report No. 5. New York. UNFPA

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ADOLESCENT FERTILITY IN LIBERIA: HEALTH AND SOCIAL IMPLICATIONS

Adolescence is a critical period of biological and psychological change. For Liberia's 395,000 youth, the biological upheaval is liable to coincide with social transitions and stresses. Because of their rapidly growing numbers, young persons are becoming an increasingly important segment of the sexually active population in Liberia. Yet their need for information, health care and family planning is often ignored.

The problems associated with adolescent sexual activity are critical to the welfare not only of individual adolescents but of Liberian society as a whole. This Executive Summary will survey findings in three areas of particular concern:

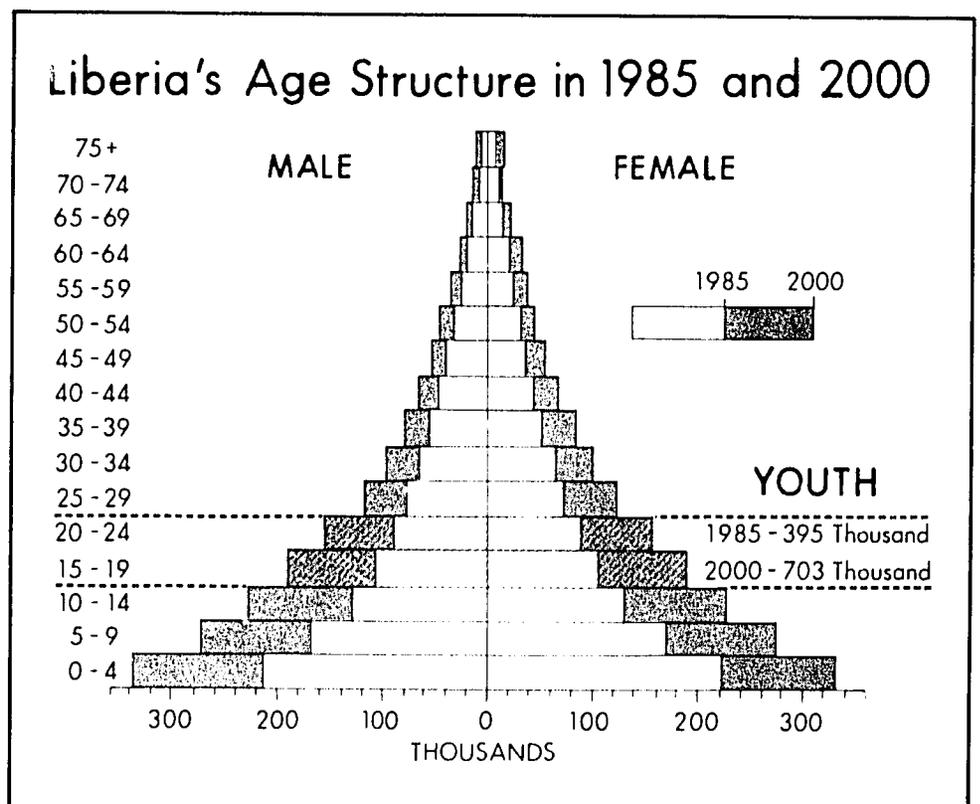
- The health risks to both mother and child resulting from adolescent pregnancy.
- The suspected high incidence of sexually transmitted diseases (STDs) among young people, a leading cause of future infertility.
- The social and economic disadvantages inflicted on young parents when faced with an unwanted pregnancy, leading to illegal abortion, dismissal from school, and other long-term adjustment problems.

Demographic Profile of Youth in Liberia

- The 395,000 youth aged 15-24 in Liberia are about 18 percent of the total population.
- The number of youth is growing at a faster rate than Liberia's overall population. If current trends continue, by the year 2000 the proportion of 15-24 year-olds in the total population will

increase to almost 20 percent and their number will almost double to 703,000.

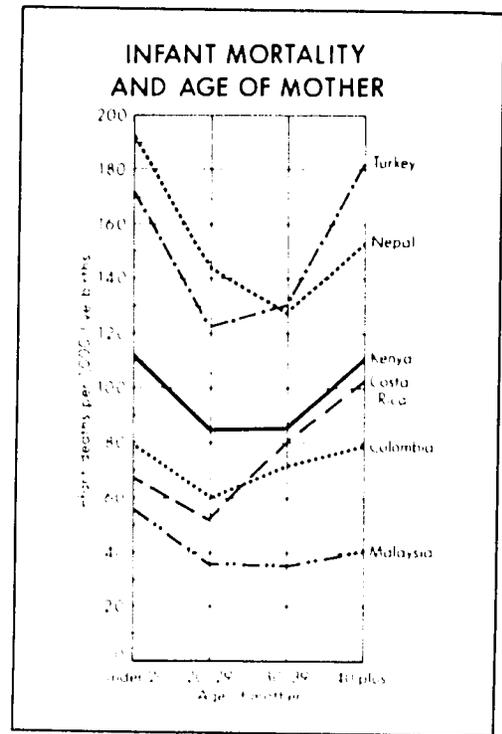
- Liberia's adolescent fertility level is one of the highest in the world. In 1970, the latest year for which data are available, teenagers alone accounted for over 17 percent of the country's births.



Source: United Nations, 1982 Assessment.

Health Risks of Early Pregnancy

- Maternity-related complications are among the leading causes of death and sickness for women aged 15-24 in Africa, especially in the younger ages. The risks of early pregnancy include anemia, bleeding, toxemia, difficult labor, and urinary and bowel complications. Sometimes infertility results.
- Although the actual level of maternal mortality and morbidity in Liberia is unknown, it is believed to be high and aggravated by the high incidence of parasitic and other infectious diseases. Only a third of the population, residing mainly in the urban and surrounding areas, have access to any form of modern medical services.
- Early pregnancy also poses health risks to the child. The infants of teenagers suffer higher mortality than those of older mothers. They also have higher rates of premature birth and low birth weight, both of which may contribute to mental and physical handicaps. The risk to the child is compounded if the young mother continues to have more children.
- The medical risks of pregnancy are aggravated for those who are unmarried because most unmarried mothers have no support and must contend with social disapproval. These women are more likely to lose their babies than married women.
- While certain medical risks are inherent in teenage pregnancy, most of the complications could be substantially reduced if proper medical care is made available early. But prenatal services are inadequate in Liberia, and even when they are available, many adolescents do not take advantage of them early enough.



Source: Population Information Program, Johns Hopkins University, 1984.

- Some adolescents drop out of clinic care or do not seek it at all because of intimidation and embarrassment. Adult-oriented obstetric and gynecological care often fails to address the special emotional and psychosocial problems of young adolescents who are most in need of these services.

Increase in Adolescent Pregnancies

- Adolescents will continue to account for a high proportion of Liberia's total fertility. Forty-two percent of the country's women of childbearing age are 15 to 24 years old. This proportion will grow to 45 percent by the year 2000.
- Improvements in health conditions have resulted in a steady decline in the age of menarche (bringing earlier sexual maturity) and reduced adolescent subfecundity.
- Despite a gradual increase in marriage age over the years, Liberian women still marry very early in life. In 1974, which provided the latest census data available, 41 percent of women aged 15-19 and 75 percent aged 20-24 were

already married.

- While significant family pressure is exerted on couples to bear children during the first year of marriage, traditional methods of birth regulation are declining. As young wives become more urbanized and better educated, they are generally less inclined to undergo long periods of sexual abstinence in order to space births.
- Because the use of modern contraceptives is very low, the combination of a growing adolescent population, earlier sexual maturity, young marriages and a decline in traditional birth spacing has made a dramatic impact on Liberia's birthrate.

Pregnancy Among the Unmarried

- Preliminary findings of a 1984 study of unmarried young people aged 14-21 in Monrovia show that 69 percent of the women and 82 percent of the men have already engaged in sexual relations.
- This survey, virtually the only one available on premarital sexual activity in Liberia, suggests that contraceptive use is low. Of those who are sexually active, only 35 percent of the women and 19 percent of the men are using contraception.
- The high incidence of sexual activity and low contraceptive use rates have resulted in a strikingly high percentage of pregnancies among unmarried Liberian youth. Over half of the sexually active young women in the Monrovia study became pregnant. While pregnancies had occurred to 42 percent of the students surveyed, the proportion of women out of school who became pregnant was 67 percent.

Preventing Illegal Abortion

- Abortion laws are restrictive in Liberia. Although there is little information on the incidence of legal or illegal abortion among adolescents, clandestine abortions are believed to be a serious problem and may constitute one of the major causes of adolescent maternal morbidity and mortality in the country.
- The Monrovia study showed that over half of the students and a third of the nonstudents aged 14-21 who became pregnant outside marriage resorted to induced abortion.
- Available data from other countries similar to Liberia also demonstrate that the incidence of illegal abortion is very high and growing among the adolescent population. Because legal abortions are severely restricted, there is an increasing demand for the services of unqualified abortionists who usually operate under poor hygienic conditions. The patients are sent to hospitals only when serious and often fatal complications develop.
- The complications resulting from backstreet abortions have serious public health implications because they contribute not only to the tragic loss of human lives, but they also tie down a considerable proportion of already overstretched medical staffs and facilities.

MARRIAGE AND FERTILITY RATES						
Country	Year	ALL MARRIED WOMEN		WOMEN AGED 15-19		
		Total Fertility Rate (TFR)	Mean Age at Marriage	Fertility Rate Per 1,000	Contribution (%) to TFR	Percent Ever-Married
Liberia	1970-74	7	-	231	17	41
Nigeria	1980-81	6	17	127	11	44
Kenya	1977-78	8	18	168	11	28
Lesotho	1977	6	18	102	9	32
Ghana	1979-80	7	19	136	11	31
Sierra Leone	1970s	6	16	212	19	72
Senegal	1978	7	16	197	14	59

Source: Benjamin Gyepi-Garbrah, Pathfinder Fund, 1984.

Social Consequences of Early Pregnancy

- Early childbearing is strongly associated with lower social and occupational mobility for both the adolescent parent and the child. Pregnancy interrupts schooling, usually permanently, which in turn compromises future job opportunities. The fear that this will happen often makes pregnant students resort to criminal abortion.
- The problems associated with early childbirth are multiplied if the mother is poor or unmarried. The poor or unwed mother is herself likely to suffer from malnutrition, sickness and lack of learning. Her physical and intellectual development may be retarded. Early pregnancy increases the risk that this pattern will be repeated in the next generation.
- The influence of the traditional extended family system, which used to care for the needs of children born in or out of wedlock, is declining. Unwanted children, particularly in urban communities, are increasingly neglected and abandoned.
- Despite the drawbacks, many women find they have no alternative to early marriage and childbearing. Although educational attainment has increased since the 1960s, the general level of education and literacy in Liberia remains low and the gap between the sexes persists, with males benefiting the most. Only half of the primary school age girls in Liberia are enrolled in school and only 11 percent of secondary school age girls are enrolled. Women's labor force participation is less than half that of men, even in the younger ages.

Sexually Transmitted Diseases

- Sexually transmitted diseases (STDs) are a leading cause of miscarriage, infertility among both men and women, and blindness in newborns.
- While there has been a reduction in the incidence of many STDs, a recent increase in some strains, which are insensitive to penicillin and other antibiotics, poses a serious threat to adolescent health.
- There are no detailed published data on STDs in Liberia. But Liberia's report to the AFRO Intercountry Workshop on STDs stated that the "incidence of gonorrhea in the country is high and increasing rapidly," and that other STDs are a problem.
- The health problem is exacerbated by the chronic nature of sexually transmitted diseases, and complicated in countries like Liberia where most cases are treated by unqualified druggists or practitioners outside approved clinics.
- Because of inadequate treatment and general ignorance about STDs, their complications (including infertility) are believed to be common. The social and economic impact of STDs in terms of lost productivity, missed school days and human suffering is substantial. They are a drain on health care resources.

Family Planning Education and Services

- It is not known how many adolescents are contraceptive users, but overall use of modern contraception is believed to be negligible.
- There are no large scale services geared to the special family planning needs of adolescents. While contraceptive services are theoretically available to all women, including both married and unmarried adolescents, in practice these services are largely limited to older adults in urban areas where government hospitals are located.
- Because of ignorance and embarrassment few adolescents actually take advantage of what limited family planning services might be available.
- Non-pregnant adolescents are discouraged from visiting family planning clinics because they are part of the maternal child health program.
- The Family Planning Association of Liberia has, since 1975, attempted to address the special information needs of adolescents in and out of school through its educational outreach program, the Responsible Parenthood Campaign. However, because of financial constraints and shortage of staff, the campaign has a very limited geographical range.
- Government involvement in population education is minimal, with no organized population education program within the country's school system.

Additional copies of this Executive Summary and the study upon which it is based, *Adolescent Fertility in Liberia*, by Benjamin Gyepi-Garbrah, may be obtained from The Pathfinder Fund, 1330 Boylston Street, Chestnut Hill (Boston), Massachusetts 02167, U.S.A. or The Pathfinder Fund Africa Regional Office, P.O. Box 48147, Nairobi, Kenya.

POLICY CONSIDERATIONS AND QUESTIONS

Conducting Needed Research

- Countrywide data on fertility, contraceptive use, abortion, sexually transmitted diseases and maternal mortality and morbidity are virtually nonexistent for Liberia, particularly concerning adolescents.

QUESTION: SHOULD ADDITIONAL RESEARCH BE SUPPORTED TO GAIN BETTER KNOWLEDGE ABOUT ADOLESCENT SEXUAL BEHAVIOR, HEALTH RISKS OF EARLY PREGNANCY, ABORTION MORTALITY, ETC.?

Preventing Early Pregnancies

- The existing pattern of early pregnancy and childbirth in Liberia has serious public health implications, including high maternal and infant mortality, high rates of pregnancy complications and problems with future infertility.

QUESTION: WHAT STEPS CAN BE TAKEN TO ENCOURAGE LATER CHILDBEARING?

Providing Family Planning Education and Services

- In most cases adolescents do not receive family planning services, reproductive health education or adolescent-oriented prenatal and postnatal health services.

QUESTION: SHOULD CLINICS AND OTHER CONTRACEPTIVE PROVIDERS HAVE SPECIAL PROGRAMS TO REACH CERTAIN GROUPS OF ADOLESCENTS, SUCH AS STUDENTS OR YOUNG MARRIEDS?

Distributing Contraceptives

- Adolescents are generally aware of contraceptive methods but very few use them.

QUESTION: HOW CAN CONTRACEPTIVES BE MADE MORE ACCESSIBLE TO ADOLESCENTS?

Offering an Alternative to Abortion

- Making contraceptives easily available to sexually active adolescents who want to control their fertility offers them a choice other than illegal abortion.

QUESTION: SHOULD FAMILY PLANNING OUTREACH PROGRAMS BE INITIATED IN AREAS WHERE THE INCIDENCE OF ILLEGAL ABORTION IS HIGH?

Stopping the Spread of STDs

- Many contraceptives (such as condoms and spermicides) provide mechanical and chemical barriers to the spread of sexually transmitted diseases.

QUESTION: SHOULD THE PUBLIC HEALTH CAMPAIGN AGAINST STDs INCLUDE CONTRACEPTIVE ADVICE AND SERVICES?

Giving Adolescents the Knowledge to Protect Their Health

- Because most adolescents are not taught sex education and family life education, they are often misinformed about their own reproductive health, STDs, and the risks of early pregnancy.

QUESTION: SHOULD PROGRAMS OFFERING SEX EDUCATION AND FAMILY LIFE EDUCATION BE EXPANDED TO REACH ALL ADOLESCENTS, BOTH IN AND OUT OF SCHOOL?