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A PERSPECTIVE ON ADOLESCENT FERTILITY IN DEVELOPING COUNTRIES: POLICY AND PROGRAM IMPLICATIONS

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Submitted by:

Patricia L. McGrath
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TABLE OF CONTENTS

I. SUMMARY

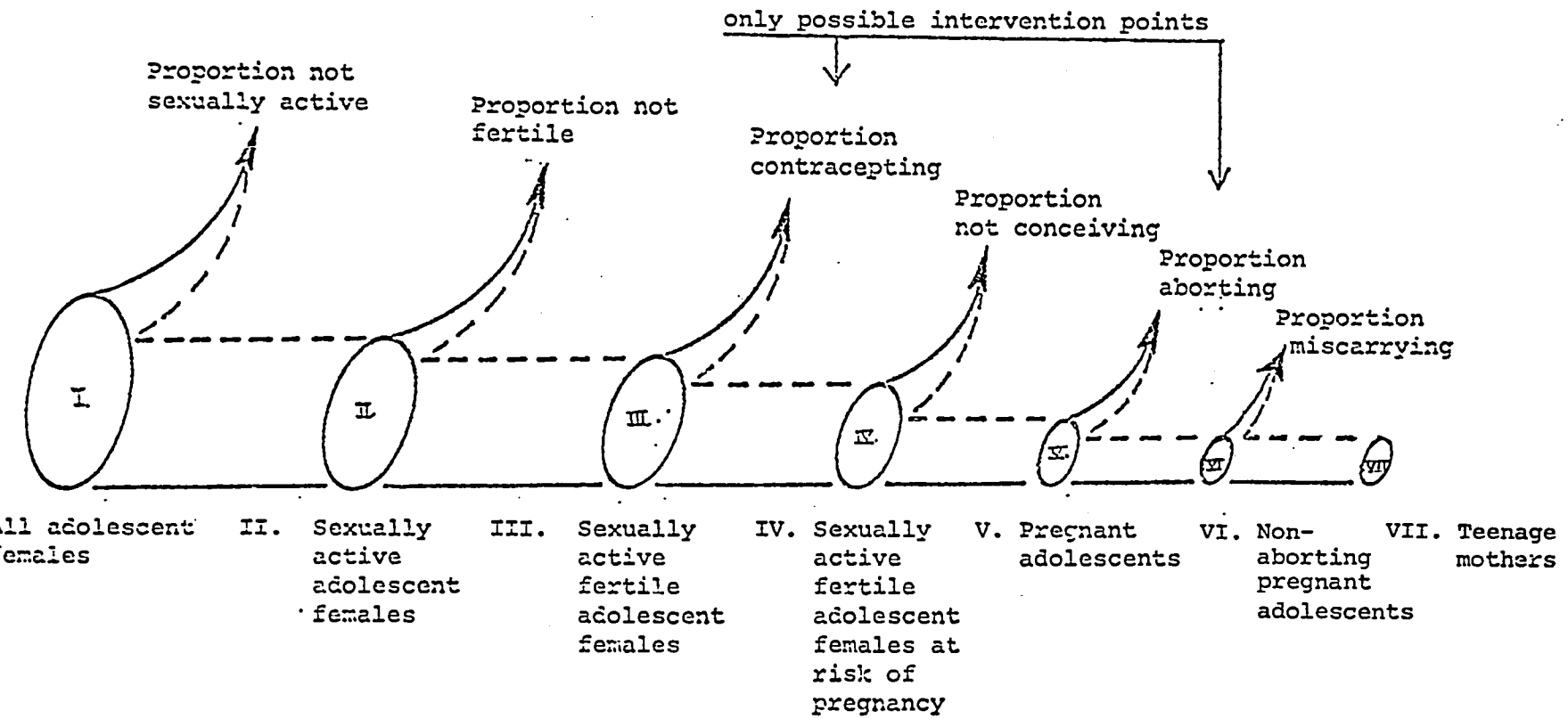
Age-specific fertility rates have documented the relative dimensions of early childbearing in most countries. Evidence from a number of developed and developing nations on the increasing share of legal and illegal abortions performed on women under age 20, and on the elevated suicide rate among adolescent mothers, suggests that many adolescent pregnancies are unintended and unwanted. The psychological, social, and economic costs of early childbearing have been most amply demonstrated in the West, but the medical and demographic costs have been documented for samples drawn from all regions, including Africa, Asia, and Latin America. In light of these unfortunate sequelae one cannot help but be discouraged by the timidity of the approach toward prevention.

Of the various factors in the etiology of unintended early childbearing, the single most important factor amenable to policy intervention is lack of teenage access to contraception and abortion services. IPPF's most recent worldwide Survey of Unmet Needs in Family Planning concludes that less than one half of individuals aged 15-19 in the developing world have access to contraceptive information or services. Safe, legal abortion is even less accessible. The manager of one family-planning clinic asserts that it is easier for adolescents to buy marijuana than contraceptives throughout the Caribbean, and facetiously proposes the appointment of drug-pushers as part-time fieldworkers (Pillai, 1977). Clearly, drastic measures are called for. But the evidence that existing family-planning services do not yet serve youth adequately does not necessarily justify the conclusion that those

services cannot serve youth adequately, and that entirely new and different service models must therefore be created.

A near-term acceleration in the decline of adolescent-fertility rates can only be achieved by improving adolescent access to existing contraceptive programs and by encouraging the extension of therapeutic abortion services to all cases of high-risk pregnancy. In light of these considerations, I recommend that the Office of Population seek to identify, through its overseas mission personnel or grantee organizations, those developing countries who are interested in and prepared to experiment with strategies to remove those barriers which currently prevent youths at risk of pregnancy from receiving services within the existing health and family-planning infrastructure. Highest priority ought to be unequivocally accorded to those proposals with greatest scope for immediate and continuing demographic impact. I recommend that secondary consideration be given to research and outreach activities which have as their immediate goal some tangible improvement in the delivery of family planning services to youth at risk of pregnancy. I recommend that little or no priority be accorded to U.S.-based conferences at which the "already-converted" may repeat themselves, to U.S.-based seminars and training programs which have no LDC follow-up, to vague research projects on various hypothesized "peculiarities" of adolescence, to sex education and curricula development, to sewing courses, or other allegedly adolescent-oriented interventions which have undoubtedly laudable intentions but little if any demonstrable impact on the phenomenon of adolescent childbearing. Too often, it seems, "adolescent-advocates" are more served by these interventions than are adolescents themselves.

FIGURE 8. ADOLESCENT FERTILITY: PATH ANALYSIS AND INTERVENTION POINTS



Conclusion: In light of the practical impossibility of promoting virginity, infertility, or miscarriage, the only feasible policy interventions would be improvement of contraception and abortion services.

II-1 EPIDEMIOLOGY

Map 1 presents a rough illustration of the geographical distribution of high, medium, and low adolescent fertility rates in LDCS. The highest rates are generally noted for West Africa and the Caribbean, which share a similar ethnic heritage and a number of similarities in social organization. However, some of the age-specific fertility rates quoted for West African countries are more than fifteen years out-of-date, and are very likely to be somewhat inaccurate, or even grossly inflated.

Map 2 relates adolescent fertility to overall fertility in all geographical areas. In a number of areas which do not have absolutely high adolescent fertility rates, teenagers nevertheless contribute a relatively large share of births because of declining fertility among older cohorts.

Figure I suggests that after steady declines in adolescent fertility rates during the 1960's, a number of Latin-American countries may be experiencing an upward surge. The latter countries as a group have a higher average per capita GNP than those countries in which adolescent fertility is still declining. The relationship between rising per capita GNP and the rate and direction of change in adolescent fertility bears further investigation.*

Figure II illustrates the continued steady decline in Asian adolescent fertility rates.

Figures I through V indicate that in the mid-1970's, adolescent fertility rates were lower than they had been a decade earlier in most countries of Asia, Africa and Latin America. This suggests that although adolescent pregnancies

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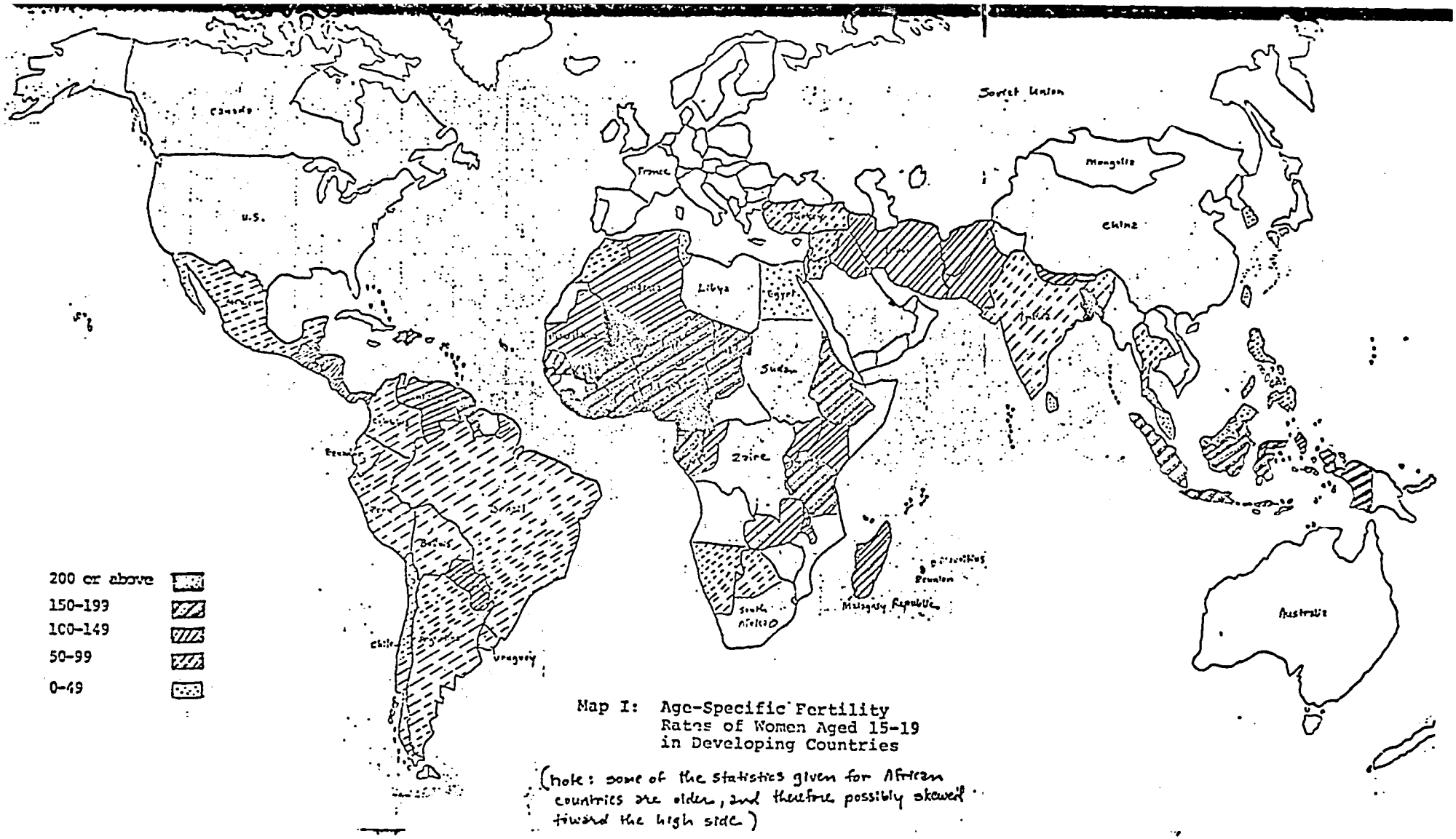
* Further details on the relationship between adolescent fertility and per capita GNP is contained in McGrath, "Adolescent Fertility Trends in Asia, Africa, and Latin America," 10/3/78.

half licked (so to speak), the data presented in Figures III and IV suggest to me that an opposite course would also have some advantages, albeit rather different ones.

If adolescent fertility is spontaneously declining most rapidly in those very countries which Dr. Kantner judged most intractable (i.e. Bangladesh, Indonesia), while it is barely declining at all in the more demographically (and economically) "progressive" countries he singled out for program consideration (i.e. Korea), it would seem to me that the conventional wisdom about where programs will achieve "the most bang for the buck" may need to be retooled. In Latin America and Asia, program interventions in areas of high teen fertility may have the advantage of working "with the trend", while interventions in areas of low teen fertility may be faced with the prospect of fighting a more difficult battle, for more limited results.

As indicated by Figure V, the paucity of data on changing adolescent fertility rates in Africa makes the evaluation of general trends impossible. In North Africa, at least, adolescent fertility rates are declining.



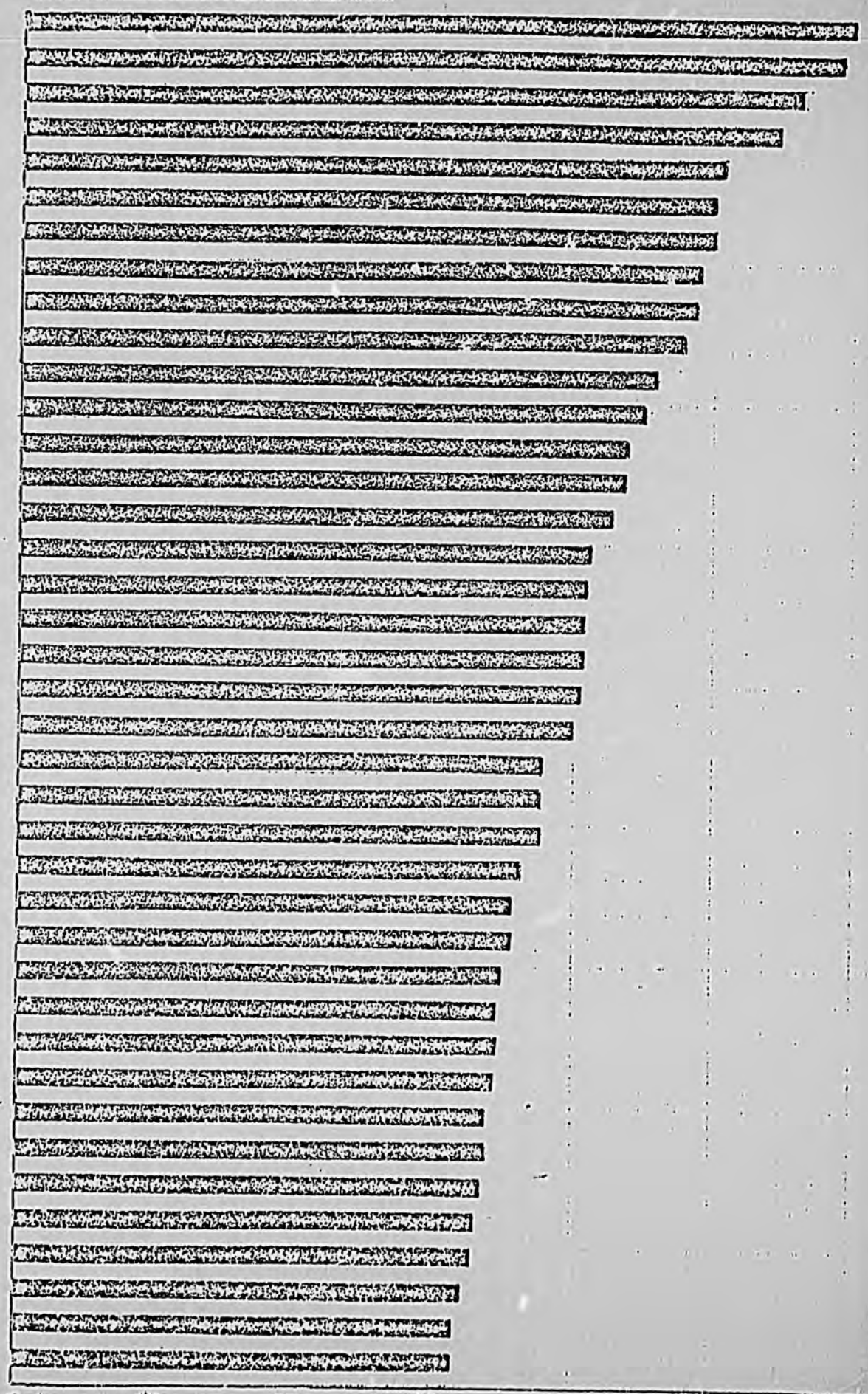
Map I: Age-Specific Fertility Rates of Women Aged 15-19 in Developing Countries

(note: some of the statistics given for African countries are older, and therefore possibly skewed toward the high side)

Source: Office of Population

FIGURE 4 : MODERATE FERTILITY IN DEVELOPING COUNTRIES – RANK ORDER FOR LATEST AVAILABLE YEAR

COUNTRY	YEAR
[illegible]	66
[illegible]	73
[illegible]	64
[illegible]	60
BANGLADESH	75
[illegible]ERIA	71
[illegible]MBIA	73
[illegible]NIN	61
[illegible]ERIA	65
[illegible]Y COAST	63
[illegible] VINCENT	64
[illegible]TS, NEVIS	74
[illegible]ECIA	60
[illegible]NZANIA	66
[illegible]ON	60
[illegible]EGAL	76
[illegible] LUCIA	63
[illegible]HIOPIA	69
[illegible]AUA	70
[illegible]AD	64
[illegible]NDURAS	74
[illegible]MINICA	70
[illegible]OGO	61
[illegible]PER VOLTA	61
[illegible]DAGASCAR	65
[illegible]URITANIA	65
[illegible] SALVADOR	73
[illegible]MINICA	68
[illegible]EPAL	76
[illegible]NGO	60
[illegible]ENYA	72
[illegible]ANDA	65
[illegible]ELIZE	71
[illegible]YCHELLES	74
[illegible]ATEMALA	73
[illegible]LAWI	71
[illegible]AQ	65
[illegible]ENADA	69
[illegible]ARAGUAY	72



BIRTHS PER 1000 WOMEN AGED 15-19

SOURCE: [illegible]

Figure 8, continued

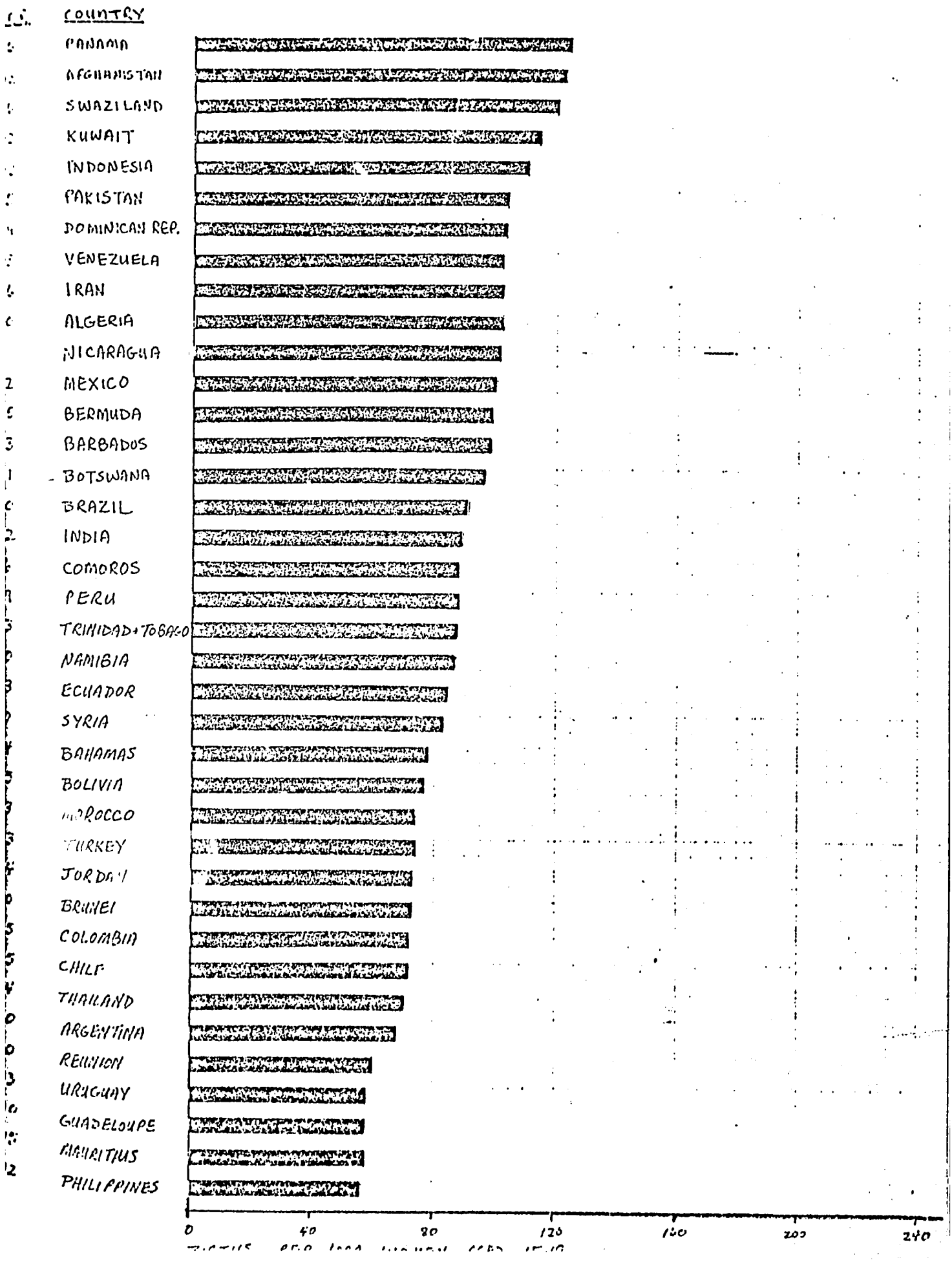
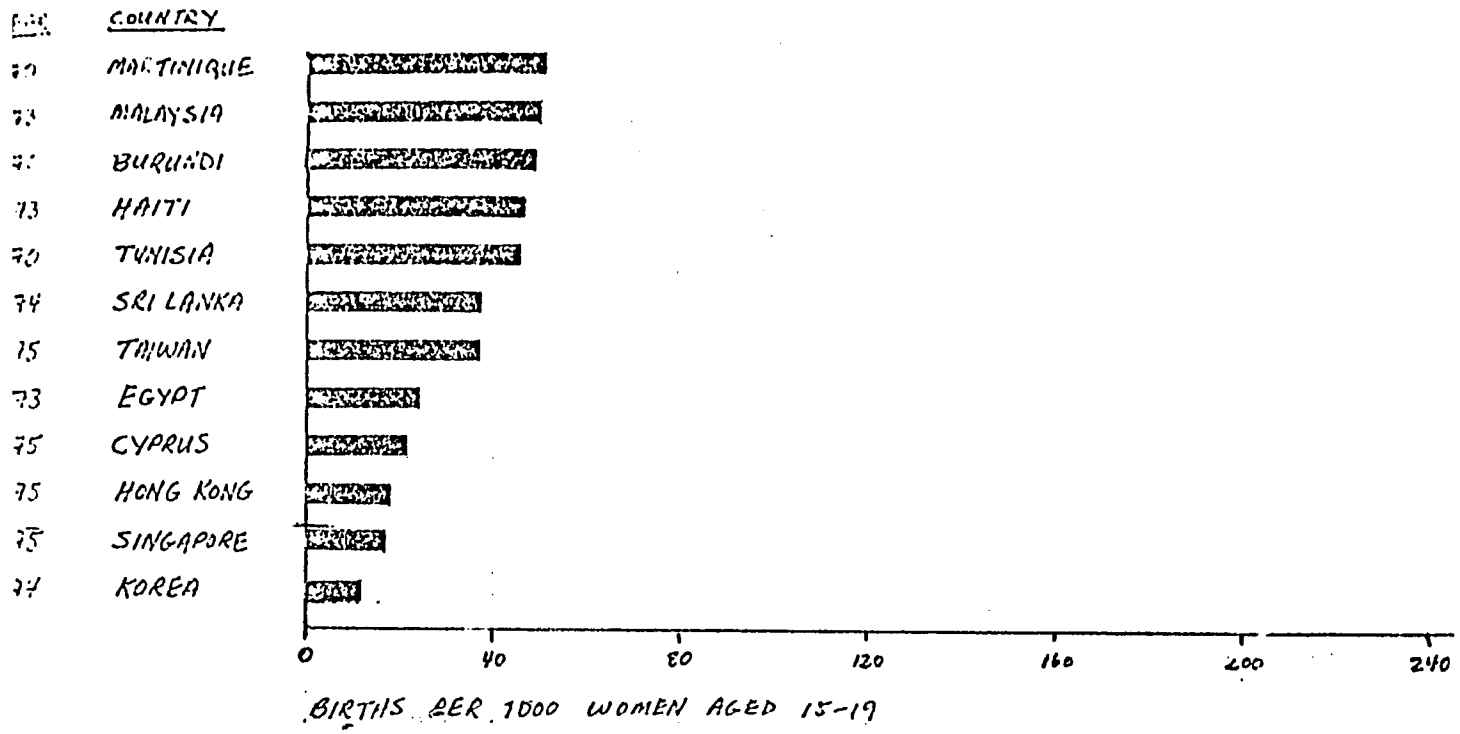
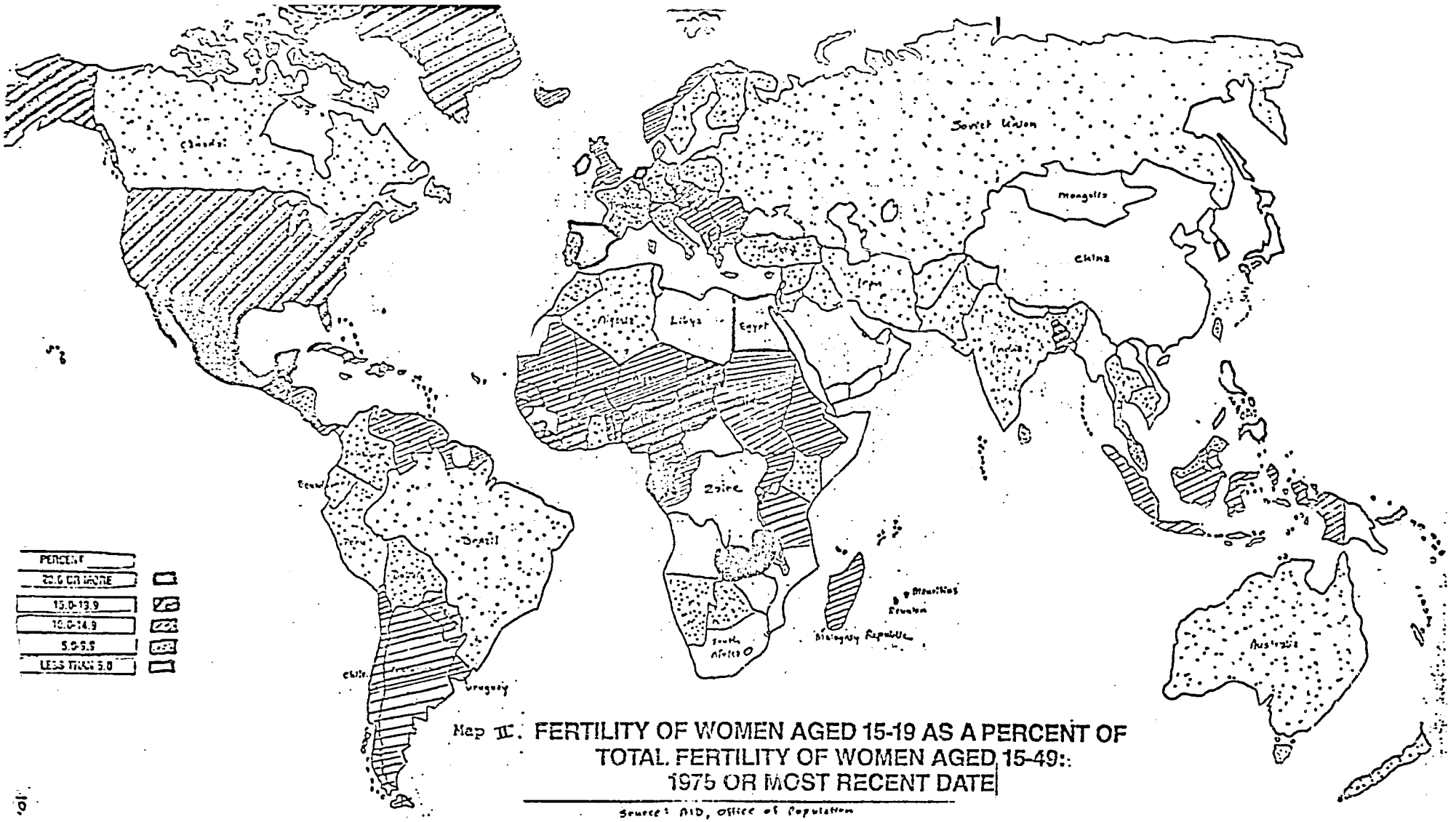


Figure 13, continued.



REPORTED RATES MAY UNDERESTIMATE ADOLESCENT FERTILITY



Map II. FERTILITY OF WOMEN AGED 15-19 AS A PERCENT OF TOTAL FERTILITY OF WOMEN AGED 15-49: 1975 OR MOST RECENT DATE

Source: AID, Office of Population

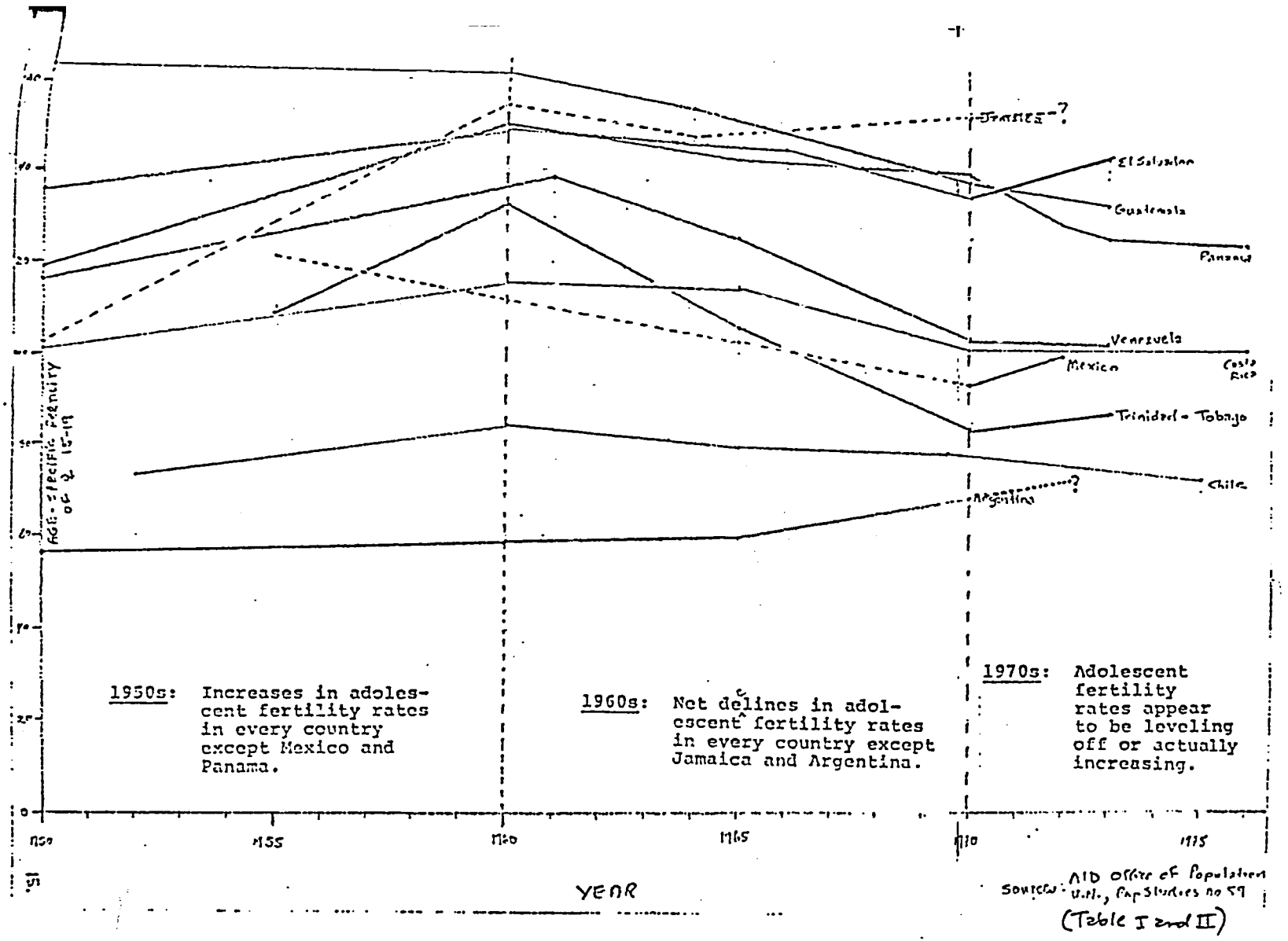
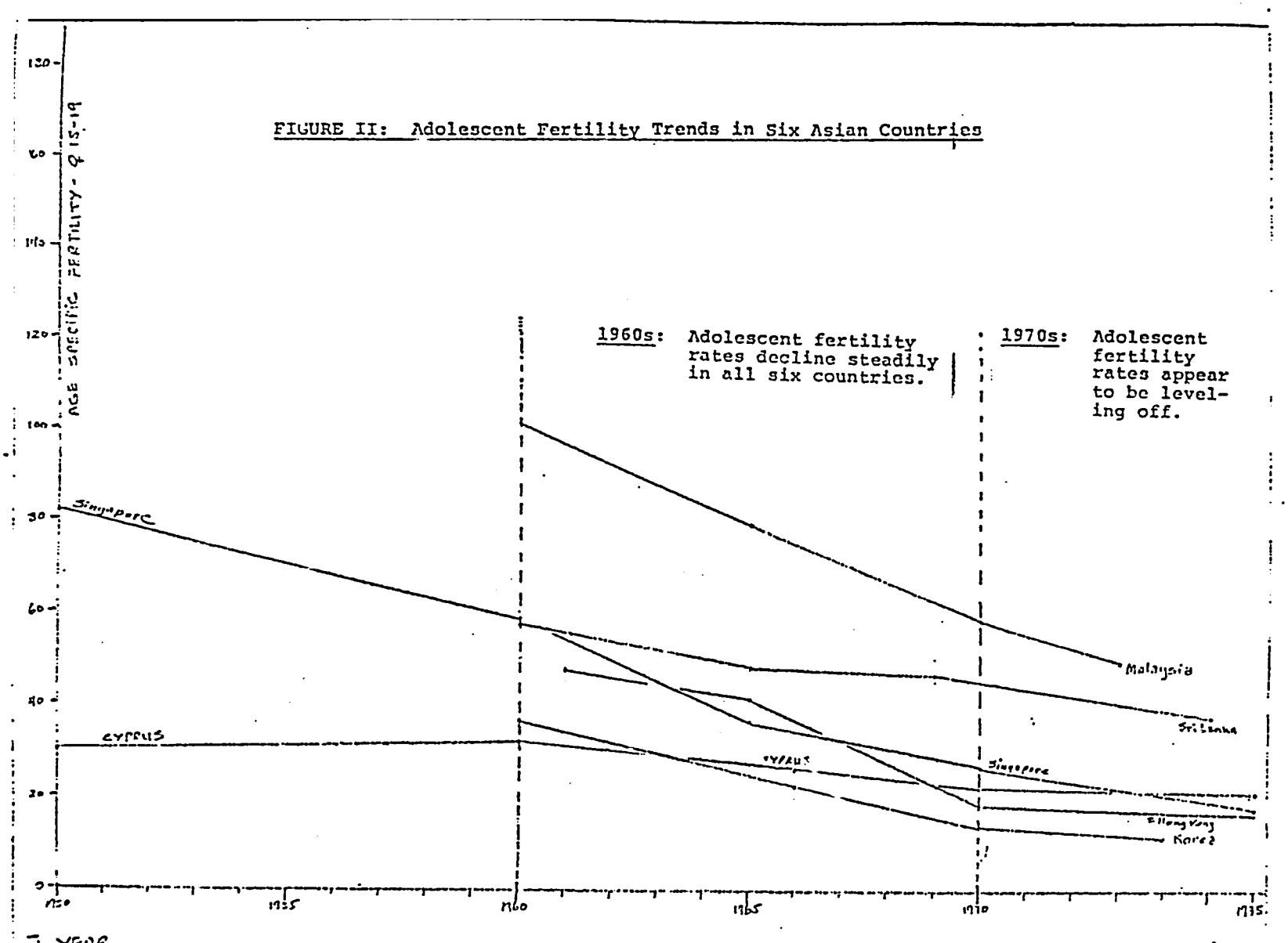
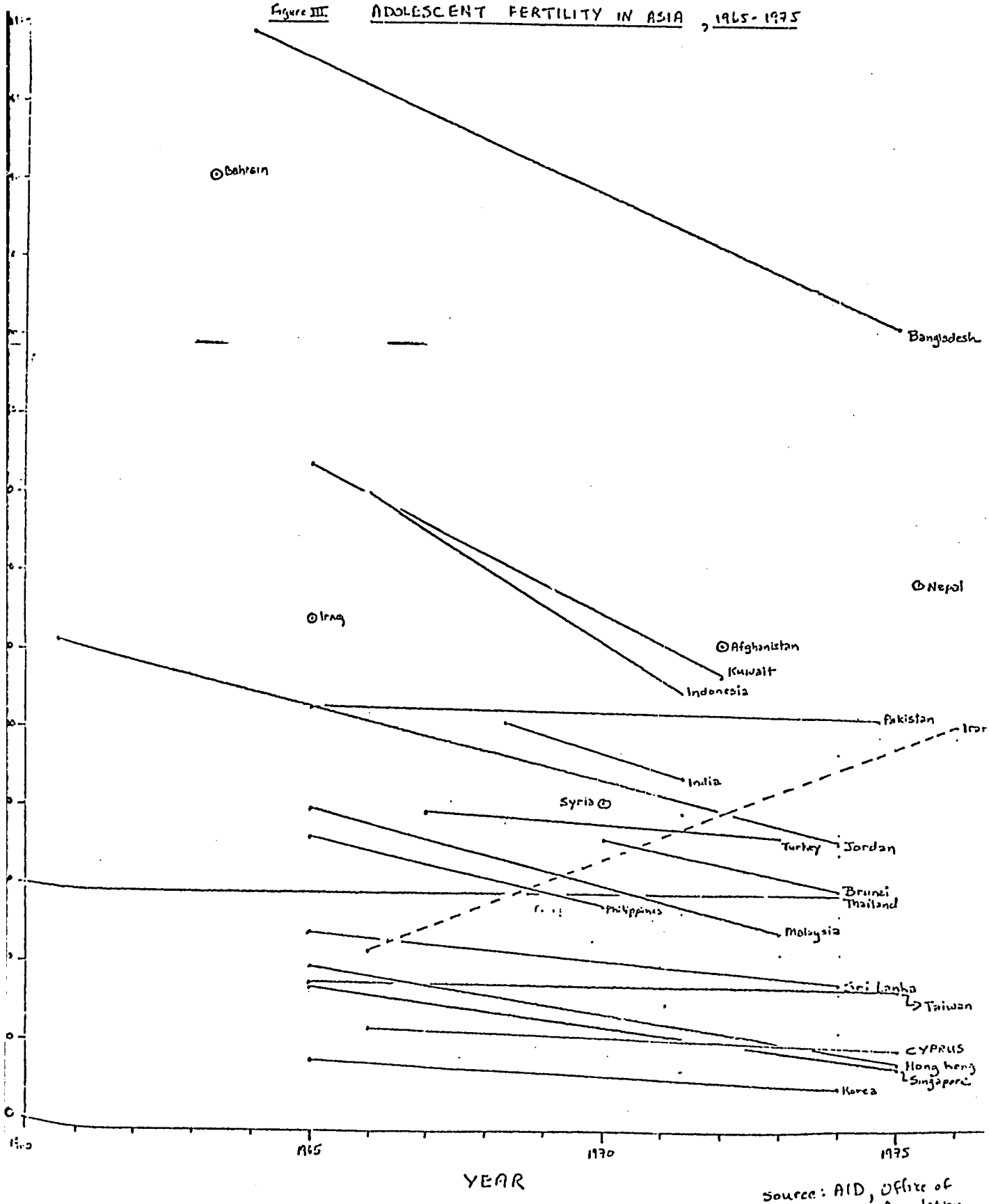

AGE-SPECIFIC FERTILITY OF 15-19
YEAR
1950
1955
1960
1965
1970
1975
JAMAICA
El Salvador
Guatemala
Panama
Venezuela
Mexico
Costa Rica
Trinidad - Tobago
Chile
Argentina
1950s: Increases in adolescent fertility rates in every country except Mexico and Panama.
1960s: Net declines in adolescent fertility rates in every country except Jamaica and Argentina.
1970s: Adolescent fertility rates appear to be leveling off or actually increasing.
Source: AID Office of Population U.N., Pop Studies no 59
(Table I and II)

FIGURE II: Adolescent Fertility Trends in Six Asian Countries



Sources: U.N., A.I.D. Office of Population (Table I and II)

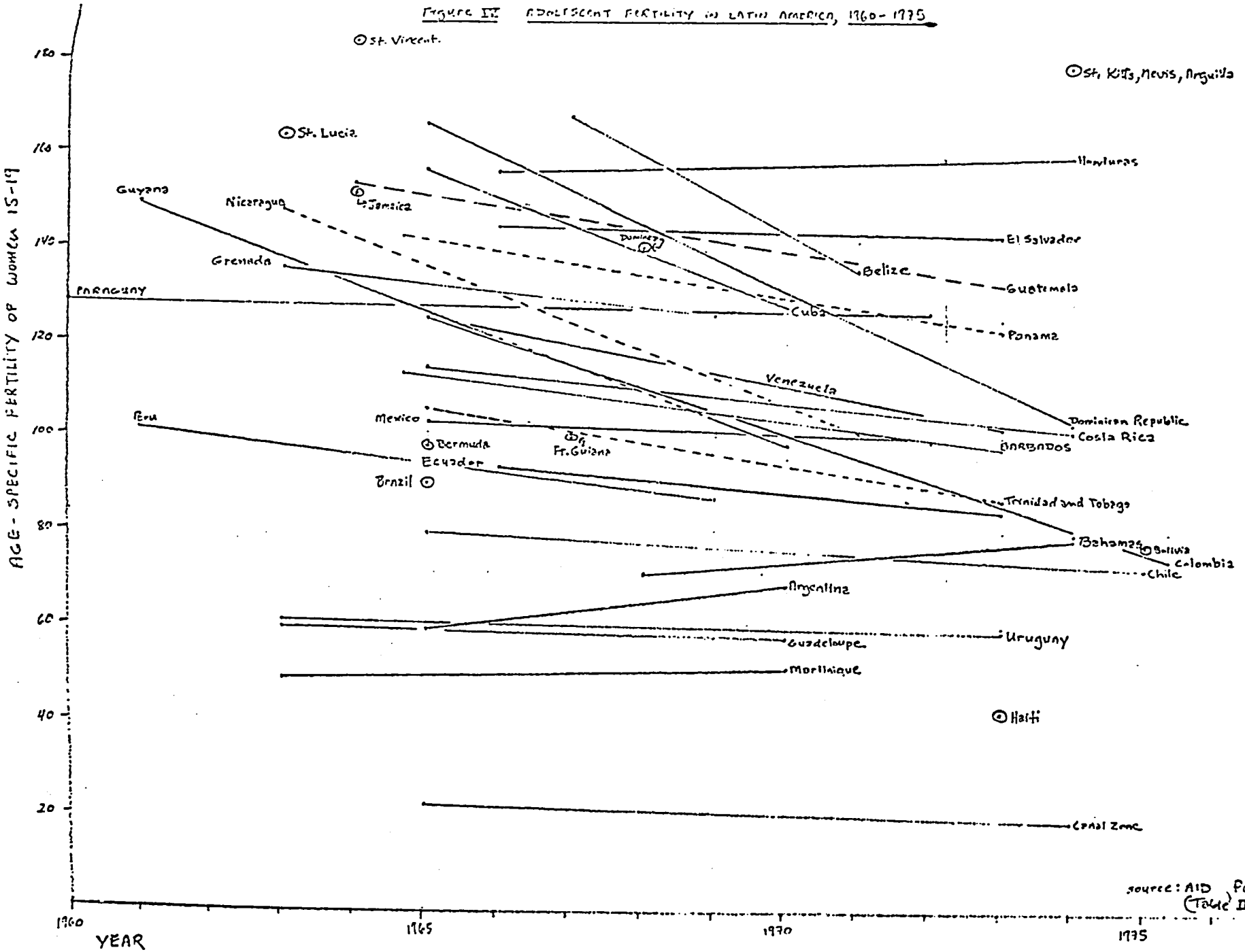
Figure III ADOLESCENT FERTILITY IN ASIA, 1965-1975



Source: AID, Office of Population

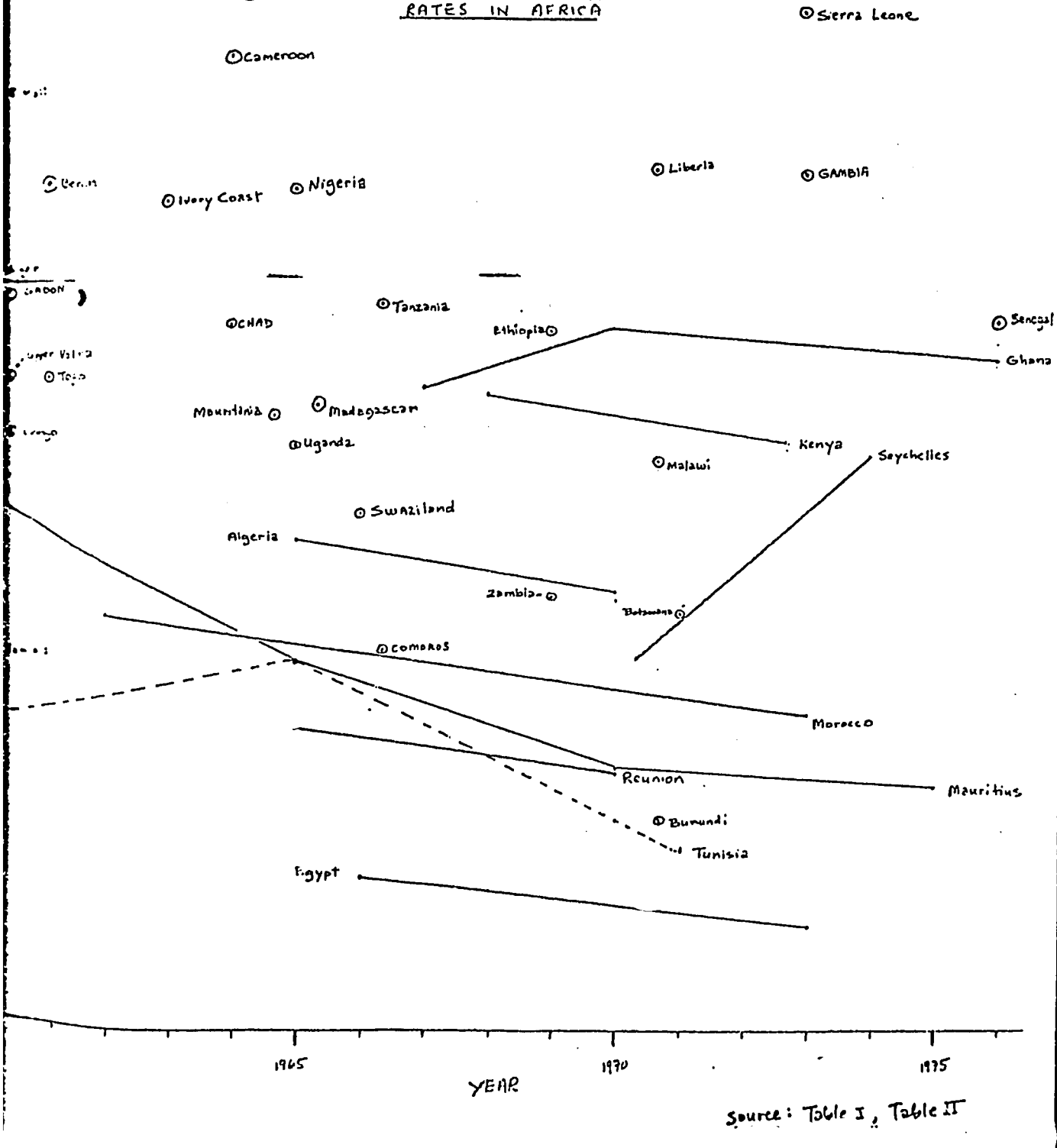
(Table II)

Figure IX ADOLESCENT FERTILITY IN LATIN AMERICA, 1960-1975



source: AID Pop Office (Table II)

Figure V ADOLESCENT FERTILITY RATES IN AFRICA



Source: Table I, Table II

TABLE 1. SUPPORTING DATA FOR FIGURES

TRENDS IN FERTILITY RATES (BIRTHS PER 1,000 WOMEN) OF WOMEN, AGED 15-19, IN SELECTED DEVELOPING COUNTRIES HAVING RELATIVELY GOOD STATISTICS

REGIONS Country	Latest Data % (year)	Previous Data % (year)	
AFRICA			
Algeria	98.4 (1969)	122.9 (1965)	
Mauritius	58.7 (1970)	85.1 (1965)	122.5 (1960)
Reunion	60.0 (1970)	70.0 (1965)	
Tunisia	48.8 (1970)	88.4 (1965)	70.1 (1960)
CARIBBEAN AND CENTRAL AMERICA			
Cuba	108.0 (1969-70)	146.1 (1965)	104.0 (1953)
Jamaica	151.0 (1970)	154.4 (1960)	102.4 (1950)
Puerto Rico	72.9 (1970)	95.9 (1960)	98.7 (1950)
Trinidad and Tobago	83.2 (1970)	132.6 (1960)	108.8 (1955)
Costa Rica	101.3 (1970)	115.3 (1960)	101.0 (1950)
El Salvador	134.3 (1970)	148.5 (1960)	135.7 (1950)
Guatemala	136.7 (1970)	161.0 (1960)	164.3 (1950)
Mexico	93.1 (1970)	111.9 (1960)	121.3 (1955)
Panama	139.0 (1970)	149.8 (1960)	119.4 (1950)
SOUTH AMERICA			
Argentina	58.9 (1965)	58.3 (1960)	55.9 (1950)
Chile	77.5 (1970)	84.4 (1960)	73.4 (1952)
Venezuela	102.4 (1970)	138.0 (1961)	116.2 (1950-51)
Surinam	111.0 (1970)	153.6 (1965)	
EAST ASIA			
Hong Kong	18.3 (1970)	41.0 (1965)	47.0 (1961)
Republic of Korea	13.0 (1970)	22.0 (1966)	36.0 (1960)
SOUTH ASIA			
Malaysia (Peninsular)	57.3 (1970)	77.1 (1965)	101.5 (1960)
Singapore	26.2 (1970)	58.2 (1960)	81.9 (1950)
Sri Lanka	46.7 (1969)	47.5 (1965)	57.7 (1960)
Cyprus	21.4 (1970)	31.8 (1960)	29.9 (1950)

Source: United Nations, Levels and trends of fertility throughout the world, 1950-1970, New York: United Nations, 1977. (Population Studies, No. 59) in James Chai, 1978.

[redacted]

1965 and Most Recent Date

(In preparing the chart, an attempt was made to obtain data for 1965 and for the most recent year during the 1970's for which data were available. Where data for 1965 were not available, those for some other year during the 1960's were used. Comparisons between the two sets of data give some measure of what has happened to fertility during the last decade when family planning programs have expanded rapidly. Where data were available for one but not both periods, only one set of rates is shown.)

Continent and Country	Year	Data Code*	15-19
AFRICA			
Algeria	1964-65	R	114
	1969-71	S	102
Benin	1961	S	197
Botswana	1971	C	95.5
Burundi	1970-71	S	49
Cameroon	1964	S	226
Chad	1964	S	162
Comoros	1966	C	87
Congo	1960-61	S	138
Egypt	1966	R	35.4
	1973	R	24.4
Ethiopia	1968-70	S	163.1
Gabon	1960-61	C	171
Gambia	1973	C	199.2
Ghana	1967	S	149
	1971	S	110
Ivory Coast	1962-64	S	192
Kenya	1966-70	S	148.1
	1972-73	S	136.8
Liberia	1970-71	S	200
Madagascar	1965-66	S	145
Malawi	1970-71	S	132
Mali	1960-61	S	219
Mauritania	1964-65	S	143
Mauritius	1965	R	85.1
	1975	R	56.6
Morocco	1962	S	96
	1973	S	74.0
Namibia	1960	C	86
Niger	1959-60	S	175
Nigeria	1965	S	195
Reunion	1965	R	70
	1970	R	60
Senegal	1976	C	165
Seychelles	1970	R	86.6
	1974	R	134.4
Sierra Leone	1973	S	236.8
Swaziland	1966	C	120
Tanzania	1966-67	C	174
Togo	1961	(?)	151
Tunisia	1965	R	82
	1971	R	39.0
Uganda	1969	C	135.3
Upper Volta	1960-61	S	151
Zambia	1969	C	100.9

	Year		15-19
AMERICA			
Argentina	1965	R	59.1
	1970	R	68.5
Bahamas	1968	R	70.4
	1974	R	78.2
Barbados	1965	R	112.9
	1973	R	97.1
Belize	1967	R	167.5
	1971	R	135.4
Bermuda	1965	R	97.5
Bolivia	1975	S	76
Brazil	1960-70	C	90.4
Canada	1965	R	47.9
	1974	R	34.7
Chile	1965	R	79.1
	1975	R	72.2
Colombia	1963-66	C	125
	1975-76	S	73
Costa Rica	1965	R	114.8
	1974	R	101.1
Cuba	1965	R	156.1
	1970	R	127.8
Dominica	1968	R	140.0
Dominican Republic	1964-66	S	166
	1974	S	103
Ecuador	1966	R	93.6
	1973	R	84.3
El Salvador	1966	R	144.3
	1973	R	142.5
French Guiana	1967	I	101.3
Greenland	1965	R	145
	1972	R	105
Grenada	1963	R	135.7
	1969	R	126.2

TABLE II

Source: Office of Population, U.S.A.I.D.

Continent and Country	Year	Data Code*	15-19
AMERICA (cont.)			
Guadeloupe	1963	R	59
	1970	R	57
Guatemala	1964	R	153.3
	1973	R	132.7
Guyana	1961	R	149.9
	1970	R	97.8
Haiti	1973	S	47
Honduras	1966	R	155.6
	1974	R	159.9
Jamaica	1964	R	146.7
Martinique	1963	R	48.4
	1970	R	50.5
Mexico	1965	R	102.6
	1972	R	99.7
Nicaragua	1963	C	147.8
	1971	C	100.8
Panama	1965	R	142
	1973	R	123.1
Panama Canal Zone	1965	R	21.9
	1974	R	19.5
Paraguay	1960	(?)	128.7
	1972	C	126
Peru	1961	S	101
	1969	S	87
Puerto Rico	1965	R	107.0
	1974	R	79.7
St. Kitts-Nevis-Anguilla	1974	R	179.9
St. Lucia	1963	R	163.7
St. Vincent	1961	R	183.8
Trinidad and Tobago	1965	R	105.2
	1973	R	86.2
United States	1965	R	71.2
	1975	R	57.6
U.S. Virgin Islands	1965	R	153.7
	1974	R	129.2
Uruguay	1963	R	60.4
	1973	R	58.9
Venezuela	1965	R	125.0
	1973	R	102.2

	Year		15-19
ASIA			
Afghanistan	1972-73	S	122.2
Bahrain	1961-66	C	240
Bangladesh	1963-65	S	276
	1975	S	203
Brunei	1970	R	73.4
	1974	R	60.6
Cyprus	1966	R	25.5
	1975	C	21.1
Gaza Strip	1969	R	35.3
	1975	R	123.2
Hong Kong	1965	R	41
	1975	R	17.8
India	1968-69	R	102.3
	1971-72	R	89
Indonesia	1964-68	S	160
	1971-72	S	110
Iran	1966	S	45
	1976	S	102
Iraq	1965	C	129
Israel	1965	R	42.2
	1975	R	44.1
Japan	1965	R	3.3
	1974	R	4.7
Jordan	1961	C	122.6
	1974	R	73.5
Kampuchea	1962	C	102
Korea South	1965	S	18.0
	1974	S	10.9
Kuwait	1965	C	166.7
	1972	R	114.4
Malaysia, West	1965	R	80.3
	1973	R	49.6
Nepal	1975-76	S	138
Pakistan	1965	S	106.1
	1974-75	S	104
Philippines	1963-67	S	74
	1968-72	S	56
Singapore	1965	R	35.9
	1975	R	17.1
Sri Lanka	1965	R	50.0
	1974	R	37.4
Syria	1970	C	83.4
Taiwan	1965	R	36
	1975	R	37
Thailand	1960-64	S	70
	1970-74	S	70
Turkey	1966-67	S	80.5
	1973	S	64

II-2 ETIOLOGY OF ADOLESCENT FERTILITY

The immediate causes of changes in the adolescent fertility rate are changes in 1) sexual activity, 2) voluntary controls over conception (i.e. contraception), 3) voluntary controls over gestation (i.e. induced abortion), 4) involuntary controls over conception (i.e. fecundity) and 5) involuntary controls over gestation (i.e. spontaneous fetal loss). Factors which affect these immediate causes (i.e. influence sexual activity) are here considered "remote" causes.

The magnitude of a change in adolescent sexual behavior should not be overestimated. Cutright (1975) presents data which seriously call into question the existence of a teenage sexual revolution in the U.S. If there is no teenage sexual revolution in the U.S., capital of the youth culture, it seems even more unlikely that there would be one in developing countries.

In developing countries, early marriage is now and traditionally has been the leading factor precipitating adolescent sexual experience and childbearing. Where age of marriage has risen, adolescent fertility rates have generally declined rather than increased.

Although increased access to contraception and abortion services can lower adolescent fertility rates, current teenage practice of contraception and utilization of abortion do not really "explain" adolescent fertility because they are higher than they ever have been. But so is fecundity higher than it ever has been -- much higher. According to Cutright, under European conditions around 1870, only 23% of girls were fully fecund on their 18th birthday, while under current conditions in the U.S. 23%

are already fecund on their 14th birthday, and 95 percent are fully fecund at age 18. (5% are never able to conceive or carry a fetus.) All reports indicate that a comparable trend is underway in developing countries (See Table III).

The earlier onset of reproductive maturity, combined with lower rates of spontaneous fetal loss, is probably the most important factor acting to retard (or possibly even reverse) the downward trend in adolescent fertility rates brought on by rising age of first marriage. Cutright (1975) demonstrates that at least 86% of the increase in teenage illegitimacy among American blacks between 1940-1971 is attributable to improved health. It seems likely that among the relatively deprived populations of developing countries, health improvements could be having a comparable impact on adolescent fertility. For white Americans, by contrast, Cutright estimates that only about 19% of the increase in teenage illegitimacy is attributable to health causes. Among populations enjoying high living standards, changes in teenage childbearing are more appropriately attributed to those rather remote psycho-social factors repeatedly mentioned in the literature.

In the interests of comprehensiveness, those remote factors are summarized below. I suspect, however, that the space they occupy here and in the published literature is excessive in light of their limited influence on adolescent populations in developing countries. Indeed, adolescent fertility appears to be even more of a "health" problem than is commonly supposed, with <u>both</u> its etiology and sequelae overwhelmingly health-related. This consideration has important policy implications. Where

Table II—Estimated Average Age at Menarche and Reported Trends in Selected Areas, 1970-1976

Author & Date	Ref. No.	Country or Region	Estimated Average Age at Menarche (in years)	Reported Trend
Ashter, 1974	19	Bangladesh	13	Decreasing
Asingba, 1974	20	Nigeria	13-15	NR
Asayama, 1974	25	Japan	13.2	Decreasing
Devadas, 1975	61	India	12.9, 14.3*	NR
Kumekpor, 1973	124	West Africa	NR	Decreasing
Massé, 1975	142	Hong Kong	12.7	Decreasing
Park, 1974	174	Republic of Korea	14.4	Decreasing
Parkes, 1975	175	Europe	12**	Decreasing
Sinnathuray, 1974	212	Malaysia	12-14	NR
Vis, 1975	246	Rural Central Africa	15-16	NR
Wicholm, 1971	248	Finland	13.2	Decreasing
Zacharias et al., 1976	260	USA	12.8	Stable

NR - Not Reported
*Urban, rural
**Fifty percent menstruating by age 12.

Source: Population Reports, Series J, Number 10

adolescent fertility is an unwelcome or unsavory topic because of its supposed relationship with immorality, the prospects for adolescent-programs might be much enhanced if that relationship were shown to be questionable or nonexistent. Contemporary adolescents are more fecund, but not necessarily any more prone to fornication than their forbears. The myth of a sexually-abstinent past is probably just that -- a myth.

More remote causes of adolescent fertility cited in the published literature are thought to affect the opportunity and impetus for adolescent sexual activity. Among these factors are:

- increased opportunity for informal social contact and courtship;
- decline in traditional social constraints on non-marital intercourse;
- increased exposure to nontraditional attitudes toward sexual behavior;
- increased peer acceptance of premarital sex;
- ignorance of the consequences of sexual activity;
- ignorance of alternatives to pregnancy;
- many other variations on the above.

Although logically these factors would appear to have some bearing on adolescent reproductive behavior, there is little conclusive evidence that they do. Moore and Caldwell report that in their survey of American states, measures of attitudes, social controls, alternatives to childbearing and motivations for pregnancy were not related to teenage illegitimacy rates. Teenagers in Jamaica and Panama, which have high adolescent fertility, are not demonstrably more ignorant, or urbanized, than those in Korea and Hong Kong.

Yet the confidence placed in such "anecdotal" armchair explanations continues -- unabated, unchallenged, untested, and unreal.

II-3. SEQUELAE OF ADOLESCENT CHILDBEARING

Table 4 indicates that compared to women aged 20-24, mothers aged 19 and younger have experienced higher maternal mortality in the U.S.A., Thailand, and Bangladesh. Table 5 indicates that teenagers delivering at 19 maternity-care-monitoring centers in Europe, Africa, Asia, and Latin America had a lower tendency to seek prenatal care than did women aged 20-24. In the same centers, it was observed that teenage mothers had a higher tendency to deliver prematurely and to experience primary and puerperal complications of labor. (See Table 6 to 11). Table 12 summarizes the medical complications of early pregnancy and childbirth reported by studies of populations in Bangladesh, Nigeria, the U.S.A., Zambia, Venezuela, Korea, Zaire, India, and Jamaica.

Figure VI indicates the elevated incidence of infant mortality experienced by children born to women under 20 in El Savador, Argentina, Brazil, Mexico, and Chile. Tables 13 to 16 indicate the elevated incidence of low birth weight, neonatal death and perinatal death experienced by infants born to teenage mothers delivering at 19 MCM centers on four continents.

Other reported risks of early sexual activity and pregnancy include carcinoma of the cervix and excessive weight gain for teenage mothers, and higher rates of morbidity, mental retardation, epilepsy, cerebral palsy, poor motor development, and various congenital abnormalities for the infants born to teenage mothers.

Table 4

MATERNAL MORTALITY BY MATERNAL AGE IN THE U.S.A., THAILAND, AND BANGLADESH

Maternal Age	USA	Thailand	Matlab Thana, Bangladesh 1968-1970
	(maternal deaths per 100,000 births)		
19 and below	11	204	860
20-24	10	154	380
25-29	13	154	520
30-34	24	209	620
35-39	41	275	480
40-44	86	474[a]	810
45 and over	234	-	b
All Ages	15	210	570

[a] 40 and above

[b] No reported deaths in small sample

Source: Eckholm, Erik and Newland, Kathleen, "Health: the Family Planning Factor," Population Reports, Series J, Number 4, March 1977.

Table 5

SUMMARY OF PERTINENT MEDICAL DATA FOR TEENAGERS AND 20-24 YEAR OLD WOMEN AT THIS DELIVERY BY GEOGRAPHIC AREA

	Teenagers			20–24 Year Olds		
	Europe	Afro-Asia	Latin America	Europe	Afro-Asia	Latin America
[illegible]ents with one [illegible]re antenatal visits	97.6	50.5	62.0	98.4	64.3	65.7
[illegible] antenatal conditions	24.5	18.3	15.9	24.5	20.6	19.3
[illegible]mia	2.2	2.9	2.1	2.1	2.7	2.4
[illegible]ampsia and [illegible]ion	4.6	6.8	4.8	3.0	7.9	4.4
[illegible]ory infection	3.2	0.3	1.1	2.5	0.6	1.5
[illegible]	14.5	6.9	7.9	16.7	9.2	10.9

Source: Omran and Omran

Finding: Women aged 20-24 attending LDC MCM centers had higher rates of antenatal conditions than did women below 20. Teenagers had a lesser tendency to seek prenatal care.

Table 6

SUMMARY OF PERTINENT OBSTETRICAL EVENTS AMONG TEENAGERS AND 20-24 YEAR OLD WOMEN AT FIRST DELIVERY BY GEOGRAPHIC AREA

	Teenagers			20–24 Year Olds		
	Europe	Afro-Asia	Latin America	Europe	Afro-Asia	Latin America
[illegible] patients delivering [illegible] 37 weeks' gestation [illegible]	11.0	17.9	7.0	7.4	13.2	6.3
[illegible] patients with [illegible] of labor						
[illegible] spontaneous	90.6	78.4	84.0	88.3	71.9	79.3
[illegible]	0.3	3.8	7.6	0.1	10.4	10.1
[illegible]	4.2	12.6	7.8	7.4	10.3	9.8
[illegible]	4.8	5.2	0.6	4.8	6.5	0.8
[illegible] patients in labor [illegible] hours or more	2.4	19.3	5.5	3.1	18.8	6.4
[illegible] patients with [illegible] complications of labor	16.9	16.7	13.3	17.5	16.7	14.3
[illegible]	1.5	3.5	1.5	1.3	2.5	2.1
[illegible] induced labor	2.4	8.6	7.2	1.8	18.6	8.4
[illegible]	12.9	4.7	4.7	14.4	4.9	3.8
[illegible] patients with [illegible] general complications	4.5	6.5	8.3	5.8	4.2	8.0

Source: Omran and Omran

Finding: Compared to women aged 20-24, teenage women attending 19 maternity-care monitoring programs exhibited: a higher tendency to deliver within 37 weeks or less; a higher rate of spontaneous labor.

Table 7. PRIMARY COMPLICATIONS OF LABOR IN TEENAGERS AND 20–24 YEAR OLD WOMEN DURING THIS DELIVERY BY AGE AND PARITY, AFRO-ASIAN CENTERS

	% Hemorrhage	Prolonged/ obstructed labor	% others	% all compli- cations
Teenagers				
Primipara *(N = 490)*	3.5	8.8	4.6	16.7
Multipara *(N = 134)*	2.2	5.9	2.2	10.4
All patients *(N = 624)*	3.2	8.0	4.2	15.4
20–24 year olds				
Primipara *(N = 1207)*	2.5	9.3	4.9	16.7
Multipara *(N = 1066)*	2.6	5.3	3.8	9.8
All patients *(N = 2273)*	2.6	7.4	4.4	14.3

Source: Omran and Omran

Finding: In seven maternity care monitoring centers located in Africa and Asia, 15.4% of pregnant teenagers experienced complications of labor, compared to 14.3% of women aged 20-24.

Table 8. PERCENT OF PREMATURE BIRTHS TO TEENAGERS AND 20–24 YEAR OLD WOMEN BY AGE, PARITY AND GEOGRAPHIC AREA

[illegible]	Primipara			Multipara			All Patients		
[illegible]	No. of patients	No. premature	%	No. of patients	No. premature	%	No. of patients	No. premature	%
[illegible]	331	41	12.4	41	6	14.6	372	47	12.6
[illegible]	490	97	19.8	134	29	21.6	624	122	19.6
[illegible] America	2343	297	12.7	738	97	13.1	3081	394	12.8
[illegible] olds									
[illegible]	1140	100	8.3	545	45	8.3	1685	145	8.6
[illegible]	1207	154	12.8	1066	125	11.7	2273	278	12.2
[illegible] America	1892	235	12.4	2856	273	9.6	4748	508	10.7

Source: Omran and Omran

Finding: Teenagers in 19 MCM centers experienced higher rates of premature delivery than did women aged 20-24.

Table 9. PERCENT OF PREMATURE BIRTHS AMONG FIRST LIVE BIRTHS TO TEENAGERS AND 20–24 YEAR OLD WOMEN BY DURATION OF PREGNANCY AND GEOGRAPHIC AREA

Teenagers			20–24 Year Olds		
	Duration of Pregnancy		Duration of Pregnancy		
Type of center	37 weeks or less	>37 weeks	37 weeks or less	>37 weeks	Type of center
Europe *(N = 331)*	75.8	5.4	68.2	3.7	Europe *(N = 1135)*
Afro-Asia *(N = 482)*	47.3	15.2	47.4	8.6	Afro-Asia *(N = 1044)*
Latin America *(N = 2328)*	62.3	9.1	70.9	8.6	Latin America *(N = 1884)*

Source: Omran and Omran

Finding: In 19 MCM centers on 4 continents, it was found that the incidence of prematurity among primaparas pregnant for more than 37 weeks was higher for teenagers than for women aged 20-24

TABLE 12. PRIMARY COMPLICATIONS OF LABOR IN TEENAGERS AND 20–24 YEAR OLD WOMEN DURING THIS DELIVERY BY AGE AND PARITY, LATIN AMERICAN CENTERS

	% Hemorrhage	Prolonged/ obstructed labor	% others	% all compli-cations
Teenagers				
Primipara *(N = 2343)*	0.9	7.2	5.2	13.3
Multipara *(N = 738)*	2.6	2.9	3.3	8.8
All patients *(N = 3081)*	1.3	6.2	4.7	12.2
20–24 year olds				
Primipara *(N = 1892)*	1.8	8.4	4.0	14.3
Multipara *(N = 2856)*	1.8	4.5	3.7	9.9
All patients *(N = 4748)*	1.8	6.0	3.8	11.7

Source: Omran and Omran

Finding: In eight Latin American maternity care monitoring centers, 12.2% of pregnant teenagers experienced complications of labor, compared to 11.7% of women aged 20-24.

Table 11. PUERPERAL COMPLICATIONS* OF LABOR IN TEENAGERS AND 20–24 YEAR OLD WOMEN DURING THIS DELIVERY BY AGE, PARITY AND GEOGRAPHIC AREA

[illegible]	Primipara		Multipara		All Patients	
[illegible]	No. of patients	% with complications	No. of patients	% with complications	No. patients	% with complications
[illegible]gers						
[illegible]se	331	4.5	41	7.3	372	4.8
[illegible]Asia	490	6.5	134	3.7	624	5.9
[illegible]America	2343	8.3	738	4.5	3081	8.4
[illegible]-24 year olds						
[illegible]	1140	5.8	545	2.0	1685	4.6
[illegible] Asia	1207	4.2	1066	4.0	2273	4.1
[illegible]America	1892	8.0	2856	4.0	4748	5.6

[illegible]ded 6 maternal deaths: 2 teenage primipara, 3 20–24 year old primipara, and 1 20–24 year old multipara

Source: Omran and Omran

Finding: Teenagers in 4 European, 7 Afro-Asian, and 8 Latin American maternity care monitoring projects experienced a higher incidence of puerperal complications of labor than women aged 20-24.

Table 2—Medical Complications of Early Pregnancy and Childbirth, Selected Studies, 1970-1975

Author, Date, & Country	Ref. No.	Study Population	Medical Complications	
			Mothers	Infants
Ashter, 1974, Bangladesh	19	NR	anemia, preeclampsia and eclampsia, toxemia, cephalopelvic disproportion, difficult and obstructed labor	prematurity, low birthweight, and stillbirth
Adagba, 1974, Nigeria	20	hospital patients under 20	higher operative rates than for older women	higher stillbirth rates than for older women
Andrews, 1975, USA	23	hospital patients aged 20 or less	preeclampsia and eclampsia, premature rupture of membranes, uterine dystocia, infections, first and/or third trimester bleeding	prematurity, asphyxia neonatorum, infections, hemolytic diseases
Chabungo, 1974, Zambia	42	hospital patients under 19	eclampsia, anemia, difficult labor	prematurity and stillbirth
Delgado [illegible] et al., 1972, Venezuela	60	hospital patients under 17	no increase in maternal complications	low birthweight
Park, 1974, Republic of Korea	174	hospital patients aged 11-19	anemia, toxemia, preeclampsia	prematurity
Pauls, 1974, Zaire	179	young hospital patients	anemia, preeclampsia and eclampsia	prematurity and low birthweight high among all deliveries
Pandere & Krishna, 1974, India	188	hospital patients aged 20 or less	anemia, toxemia, cephalopelvic disproportion, spontaneous abortion	prematurity
Pesh, 1971 & 1973, USA	191, 192	adolescent clinic patients	preeclampsia, severe anemia, third trimester bleeding	prematurity
Rajaparinesingh, 1970, Jamaica	199	mothers under 16	toxemia, hypertension, high operative rate	prematurity and low birthweight

NR = Not Reported

Source: Population Reports, J-10.

Figure VI

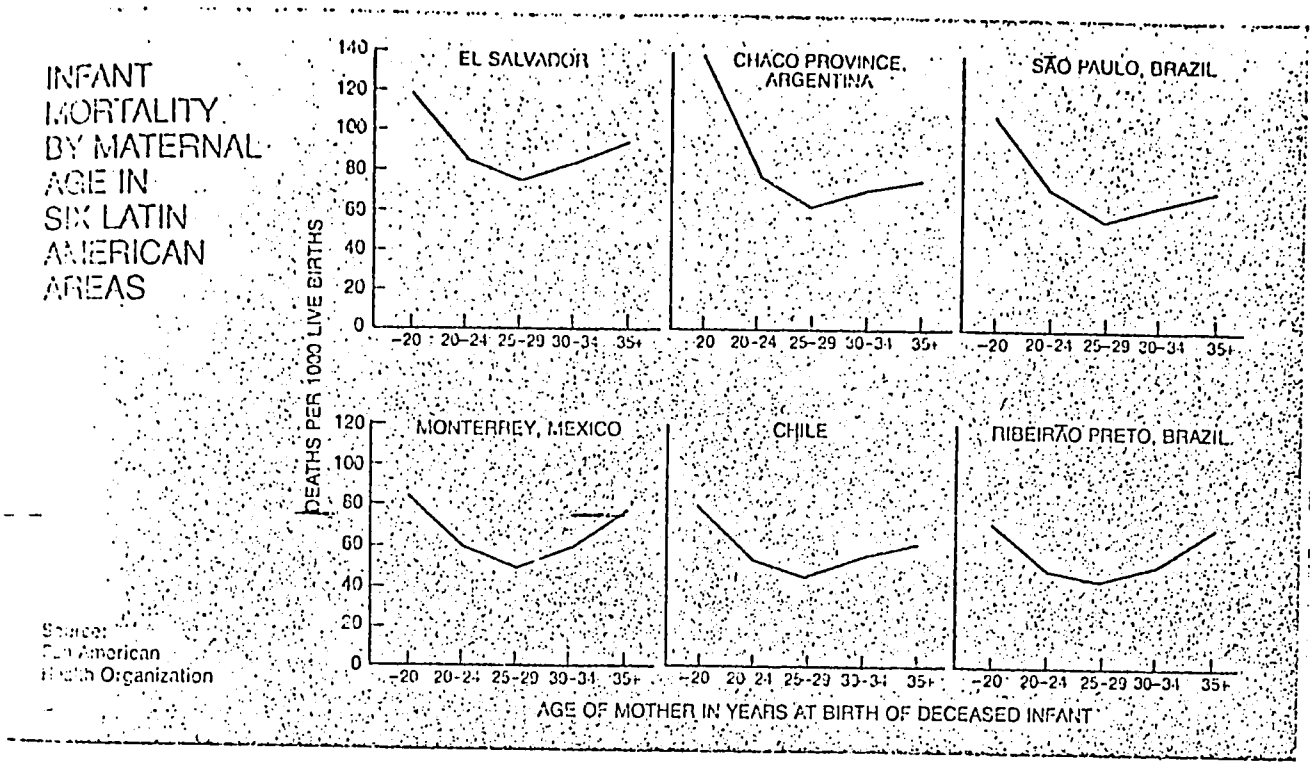


Table 13. MEAN BIRTH WEIGHT BY AGE, PARITY AND GEOGRAPHIC AREA

	Age (years)		
	18	18–19	20–24
Europe			
Primipara	3133	3162	3214
Multipara	(3506)*	3208	3305
Grandmultipara	–	–	–
Total	3157	3168	3243
Afro-Asia			
Primipara	3042	3072	3124
Multipara	3027	2998	3147
Grandmultipara	–	(3130)	(3463)
Total	3040	3050	3137
Latin America			
Primipara	3050	3069	3070
Multipara	3065	3163	3206
Grandmultipara	–	2985	3365
Total	3052	3098	3159

* *Parentheses indicate cells with less than 10 cases*

Source: Omran and Omran

Finding: In 19 MCM centers on four continents, the mean birth weight of infants born to women aged 18-24 varied directly with maternal age.

Table 14. PERCENT OF NEONATAL DEATHS AMONG INFANTS BORN TO TEENAGERS AND 20–24 YEAR OLD MOTHERS BY AGE AND GEOGRAPHIC AREA

	Primipara			Multipara			All Patients		
	No. of patients	No. neo-natal death	%	No. of patients	No. neo-natal death	%	No. of patients	No. neo-natal death	%
[illegible]	331	12	3.6	41	4	9.8	372	16	4.3
[illegible]	490	24	4.9	134	5	3.7	624	28	4.5
[illegible]erica	2343	55	2.3	738	31	4.2	3081	86	2.8
[illegible]	1140	31	2.7	545	7	1.3	1685	38	2.3
[illegible]	1207	40	3.3	1066	40	0.4	2273	80	3.5
[illegible]rica	1892	47	2.5	2856	85	2.9	4748	132	2.8

Source: Omran and Omran

Finding: In Europe, Africa, and Asia, the incidence of neonatal death was higher among infants born to teenagers than among those born to women aged 20-24. In Latin America, the incidence was identical for the two groups.

Table 15. PERCENT OF NEONATAL DEATHS AMONG FIRST ORDER DELIVERIES TO TEENAGERS AND 20–24 YEAR OLD WOMEN BY DURATION OF LABOR AND BY GEOGRAPHIC AREA

Teenagers			20–24 Year Olds		
	Duration of Labor (hrs)		Duration of Labor (hrs)		
Type of center	18 or less	>18	18 or less	>18	Type of center
Europe *(N = 331)*	2.8	— (0.0)	0.9	(0.0)	Europe *(N = 1137)*
Afro-Asia** *(N = 362)*	2.1	7.1	1.4	5.1	Afro-Asia* *(N = 1035)*
Latin America *(N = 2326)*	0.7	0.8	0.6	0.8	Latin America *(N = 1880)*

* *Number of cases is too small for analysis*
** *Duration of labor is not available for 3 African centers*

Source: Omran and Omran

Finding: Among first order deliveries in 19 MCM centers, infants born to teenagers experienced generally higher rates of neonatal death than did those born to women aged 20-24.

Table 16. PERCENT OF PERINATAL DEATHS AMONG FIRST DELIVERIES TO TEENAGERS AND 20–24 YEAR OLD WOMEN BY ANTENATAL CARE AND BY GEOGRAPHIC AREA

Teenagers			20–24 Year Olds		
	Antenatal Care		Antenatal Care		
Type of center	None	One or more visits	None	One or more visits	Type of center
Europe *(N = 330)*	(20.0)	3.4	5.3	2.6	Europe *(N = 1136)*
Afro-Asia *(N = 490)*	6.1	7.4	5.7	3.3	Afro-Asia *(N = 1047)*
Latin America *(N = 2335)*	3.0	1.9	2.8	2.0	Latin America *(N = 1884)*

Source: Omran and Omran

Finding: In MCM centers in Europe, Africa and Asia, first children born to teenagers experienced a higher incidence of perinatal death regardless of whether their mothers had experienced some antenatal care or no antenatal care. In Latin America MCM centers, first children born to teenagers experienced a slightly lower incidence of perinatal death than did the infants of women aged 20-24 if their mothers had had some antenatal care.

It is not always stressed, however, that these unfortunate medical sequelae vary with age, race, marital status, socioeconomic status, and level of prenatal care received. Roopnarinesingh (1970) found that in Trinidad, Indian and black teenage mothers differed markedly in their susceptibality to the various medical complications of early childbearing. And where teenage mothers are drawn from the less-advantaged segments of society, their obstetrical performance (and other life chances) would predictably be somewhat below par, anyway. Studies which do not control for other factors (like education, marital status, economic background) may exaggerate the effect of age on maternal and infant risk. Teenagers over age 18 who are married, well-nourished, financially secure, and professionally treated during pregnancy are probably no more likely than older women to suffer severe medical consequences. Newsletters which state that "the risk of maternal death is 60% higher for adolescent mothers" and that "infants born to adolescents have a death rate during their first year of life two to three times higher than infants born to women over 20" (see Population Institute, International Clearinghouse on Adolescent Fertility Information Summary, Nov. 1978) are therefore somewhat misleading.

The psychological impact of early motherhood can also vary tremendously with the social situation of the mother. Calderone (in Bogue, et. al. 1977) reports that in the U.S., the suicide rate among pregnant adolescents is seven times the age-specific rate of non-pregnant adolescent girls. As race, religion, socioeconomic status, and marital status are not controlled for, it is difficult to assess how much of this suicide is attributable to teenage pregnancy alone. In a Zairean study at Mama Yemo hospital, 12% of 168 teenage

mothers treated in 1973 attempted suicide and 6% succeeded in killing themselves. Senegal's Minister of Health reports seeing teenage girls in jail for infanticide. While these data suggest that teenage motherhood is a very stressful experience, they again fail to specify how much risk can be attributed to teenage motherhood alone, and how much to other predisposing factors.

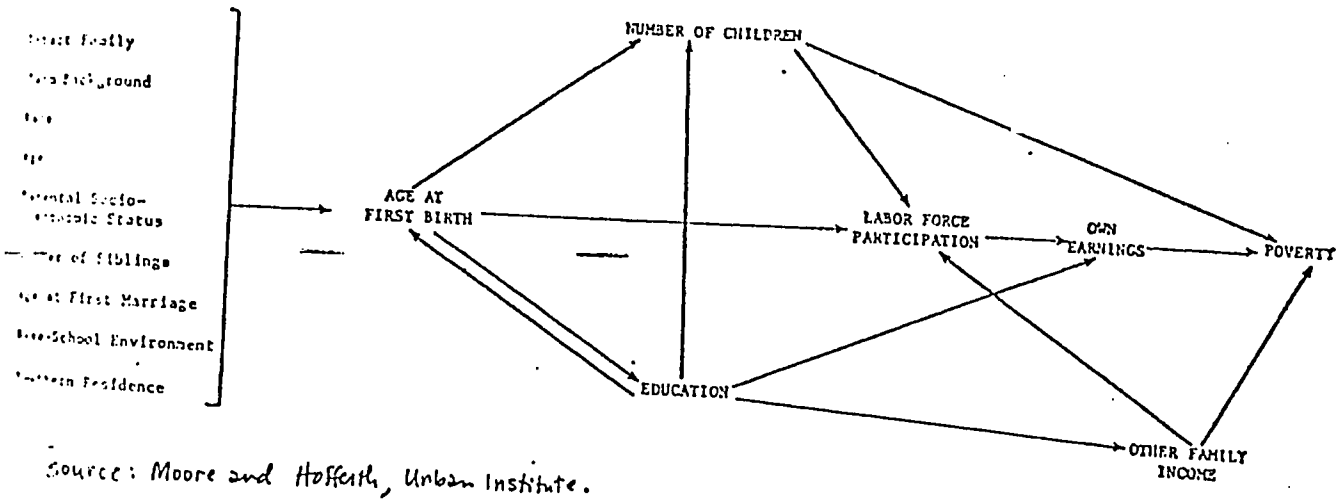
Data on the psychological costs to the child are also inconclusive. Swedish data on children born to women who were denied abortion indicate elevated risks of social pathology among unwanted children. Children born to unwed teenage mothers certainly risk being unwanted. Those born to teenage mothers who are poor or marry precipitously may also risk being weaned early, being poorly fed, receiving inadequate stimulation and socialization, living in a broken-home, and having poor school performance.

The socioeconomic consequences of early childbearing are fairly well established in the West, but somewhat less so in LDCs. In the U.S., Moore and Hofferth (1978) have demonstrated that the young mother is never able to catch up educationally or economically with her peers who delayed childbearing (see figure VII) and although teenage motherhood itself does not correlate with elevated divorce rates in the U.S., teenage marriage -- a frequent consequence of teenage pregnancy -- does correlate with elevated risk of divorce.

But the early marriages of many Islamic and Hindu societies are highly stable, and the village girl who marries early may typically come from a social background which would have precluded higher education and career earnings anyway. In LDCs, it is more likely that teenage childbearing is inversely related to female educational attainment merely because enrollment in secondary school precludes marriage. Social and legal discrimination is almost purely a function

Figure VII

Schematic Diagram of the Effects of Age at First Birth on Socioeconomic Wellbeing in the U.S.A.



Source: Moore and Hofferth, Urban Institute.

Table 17—Population Growth of Societies Which Differ in Marriage Age and Maternal Age at Reproduction, and in Number of Children per Family*

Elapsed time (years)	Population Increase (people per generation)		
	Marriage Age: 15 Yrs. per Generation: 20 Children per Family: 6	Marriage Age: 20 Yrs. per Generation: 25 Children per Family: 6	Marriage Age: 25 Yrs. per Generation: 30 Children per Family: 4
00	2	2	2
25	6	6	4
50	18	18	8
75	54	54	16
100	162	162	32
125	486	486	64
150	1458	1458	128
175	4374	4374	256
200	13122	13122	
	39366		
	118098		

*Later marriage lengthens the period between generations and slows population growth. If later marriage is accompanied by smaller family size preferences, the potential for reduced population growth is significantly increased.
SOURCE: Adapted from Ravenholt and Lyons ; in Population Reports, J:10

Adolescent fertility contributes to large family size and short intervals between generations -- two factors which fuel rapid population growth.

III. CHARACTERISTISCS OF ADOLESCENT POPULATIONS

The semi-incessant references in the professional literature to "how little is known" about adolescence seem to throw an obfuscating mystique over this life phase -- confering upon it the status of the occult and mysterious, and demanding for it the solicitous observation and analysis that only grant-hungry social scientists can bestow.

In the face of a journal literature dwelling on the various alleged pathologies of adolescence, it is important to note that adolescents are, indeed, normal human beings, exhibiting a perfectly normal distribution of intelligence, personality types, vices and virtues. They represent neither an alien species, nor an alien society, nor a particularly diseased group. Most of them do not become parents until they are older. Most of them do not commit crimes. Most of them do not need "treatment" or "help". Like Eliza Doolittle sang to a self-important Professor Higgins: "without much ado, they call all muddle through without you." For thousands of years, people survived adolescence without even knowing they had been through it.

Beyond this, every generalization about adolescence is best hedged with caveats. Half a century ago, Margaret Mead's seminal work demonstrated that "adolescence" is quite a diffent experience in different societies: tempestuous in some and quiescent in others, it is nonetheless marked by some social <u>rites de passage</u> in nearly all cultures.

Adolescence is a period of transition from childhood to adulthood, characterized by a number of physical and social developments.

These include:

- progress from the initial appearance of secondary sex characteristics to reproductive maturity
- attainment of full adult size
- beginning of sexual interests and activities
- the replacement of a dependent childhood attachment to parents with a mature adult relationship to them and to others
- formulation of personal standards and tastes
- making educational and vocational choices
- transition from economic dependence to independence

The same physical developments take place, in the same order, between the ages of 10 and 20 in all societies. The social developments, in contrast, may be accomplished in a single initiation ceremony or may be extended over a period of more than ten years. Since World War II, there has been a trend toward earlier physical maturity, but later social maturity -- a dynamic which effectively extends the transitional time period during which individuals are considered neither children nor adults. The trend toward earlier physical maturity has been noted for almost all societies in which nutrition and living standards have improved. The trend toward delayed social maturity is most evident in industrialized societies, and large cities, in which the criteria for technical expertise, intellectual maturity, or business acumen have become more demanding. In the latter "adolescence" may be difficult and more socially significant than in many simpler societies.

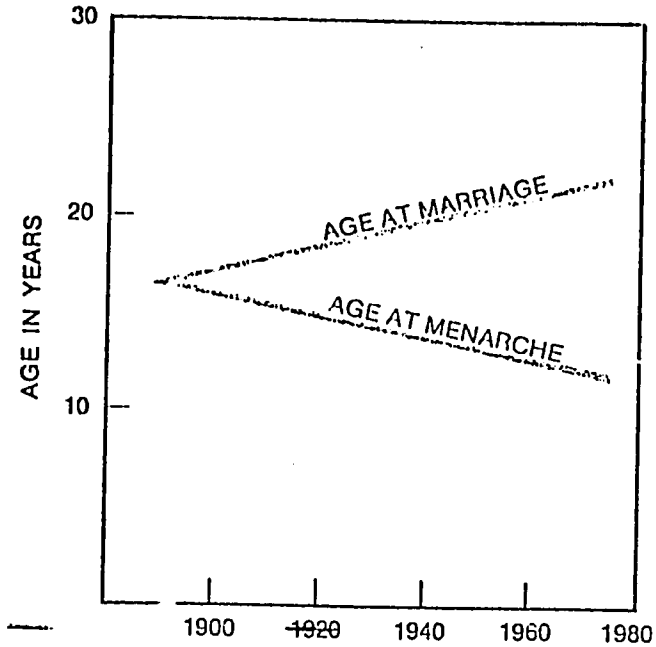


Fig. 8 Increasing gap between sexual and social adulthood, indicated by declining age at menarche and rising age at marriage.

(Source: Population Reports, 5-10)

Like "adolescence", teenage pregnancy cannot be understood within a purely biological frame of reference but should be seen primarily as a social category whose composition and implications are liable to change according to the interacting traditions, social institutions, and values.

"Society's perception of, and reponse to, illegitimacy, adoption, compulsory marriage, and abortion as outcomes of pregnancy can thus be expected to follow no uniform pattern and to represent different implications for adolescents in different social environments. Similarly, the need to provide health and social services designed to assist teenagers will vary with the extent to which the different outcomes are viewed as desirable and acknowledgeable." (WHO, Technical Report 583).

MEDICAL CHARACTERISTICS

Relative to other age groups, adolescents have been regarded as in the prime of health, not requiring any special medical care. They are thought to be too old for pediatricians, and too young for other specialists, like obstetricians and gynecologists. Yet the adolescent years are highly formative for behavior patterns, habits and activities relevant to health -- particularly risk-taking behaviors which have psychological and social consequences. Among the behavior patterns established in adolescence are: driving, smoking, sexual behavior, diet, exercise, drinking, drug use, work habits and criminal habits.

The effects of these behavior patterns are long-term and profound. Automobile accidents, cancer, pregnancy, venereal disease, anorexia nervosa, obesity, hypertension, heart disease, alcoholism, drug abuse, unemployment, delinquency, vandalism, depression and suicide can ultimately result from behavior patterns established in adolescence. In the West, accidents are the leading cause of death among teens, followed by homicide and suicide.

The important policy question is how to insulate adolescent risk-taking behavior from its consequences. In the case of adolescent childbearing, a number of suitable alternatives have already been devised and successfully implemented. They need merely to become more widely available.

DEMOGRAPHIC CHARACTERISTICS OF ADOLESCENTS

Adolescents comprise about 20-25% of the total population of developing countries. Most of them are unmarried and nonpregnant. Married status, sexual experience, and pregnancy increase with age, however, with many more 19 year-olds than 13 year-olds married and/or pregnant. The majority of teenage pregnancies occur within this older, married population. The average age of marriage is generally increasing, causing a gradual decline in adolescent fertility.

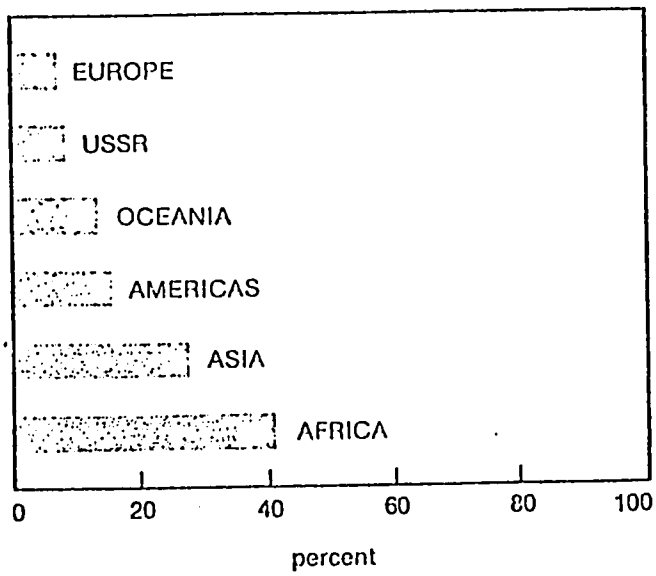


Fig.7 Percent of females aged 15-19 who are or have been married, by region, 1960-1971.
SOURCE: Adapted from United Nations, Study on the Interrelationship of the Status of Women and Family Planning

The highest adolescent fertility rates are found among recent migrants from rural to urban zones, followed by those of lifetime rural residents and then lifetime urban residents. Teenage illegitimacy, however, is often higher in cities than in rural areas. The majority of LDC teens live in rural areas.

Most pregnant teenagers in LDCs are pregnant for the first time. Only 25-30% of them have previously borne children and

fewer than 7% have experienced abortion or contraception. (See Table 18). However, reports from both developed and developing countries indicate that the incidence of induced abortion among teenagers has increased over the past 20 years in both relative and absolute terms.

Although the probability of coital relations preceding marriage has increased in some areas, unmarried adolescents* are thought to experience coitus irregularly, generally within the context a meaningful, non-casual relationship. This population exhibits a reluctance to anticipate sexual activity, prefering to hope that whatever does take place will be spontaneous, rapturous, and unexpected (IPPF/WHR). This irregular exposure to intercourse depresses the self-perceived need for contraception. Contraception is often a subject of embarrassment to both sexes, and is not usually sought until a stable relationship has been established, or until after an undesired pregnancy (or pregnancy-scare) has occurred. Adolescents often do not recognize the symptoms of pregnancy until the second trimester, when termination is even less feasible than it might have been earlier. While much emphasis has been placed on this in the literature on adolescent fertility, there is no evidence that today's adolescents are any more ignorant about sex, contraception, and pregnancy than their parents were at a comparable age. Indeed, age may be a less salient factor than experience. If other factors are controlled, experienced 18 year-olds probably know more about these topics than do sexually inexperienced 25 year olds.

* i.e., those not cohabiting

Table 18. SUMMARY OF PERTINENT CHARACTERISTICS OF TEENAGERS AND 20–24 YEAR OLD WOMEN AT THIS DELIVERY BY GEOGRAPHIC AREA

	Teenagers			20–24 Year Olds		
	Europe	Afro-Asia	Latin America	Europe	Afro-Asia	Latin America
Marital status						
% unmarried	15.9	7.2	33.6	4.6	2.4	21.6
% married	80.3	92.0	27.8	88.3	97.6	38.8
% consensual union	3.9	0.3	38.6	7.1	0.0	39.5
% multipara at this delivery	20.7	25.3	28.5	45.6	53.9	64.1
% with history of abortion	9.1	5.8	5.7	18.8	12.4	13.2
% contraceptors						
Before this delivery	17.3	6.9	6.0	29.9	19.7	18.9
After this delivery	79.7	56.3	73.0	83.3	70.9	80.6

Source, K.F. Omran and A.R. Omran, International Experience with Teenage Pregnancies: A Preliminary Report. International Fertility Research Program Conference Paper, Maternity Record Series No. 9.

PSYCHOSOCIAL CHARACTERISTICS OF ADOLESCENTS

Adolescents normally believe that their values are different from and superior to those of the adult generation. They have been exposed, by the schools and by mass media, to information and values not necessarily shared or understood by their parents and relatives. Their attitudes have been shaped by a number of post war trends, which have diminished the ability of elders to influence their activities. These trends include:

- decline of extended family patterns
- changing patterns of land inheritence and tenure
- migration and urbanization
- industrialization
- social mobility
- mobility of labor
- education
- development of a pervasive scientific attitude.

Future adult status is often heavily influenced by performance evaluations performed during adolescence. Adolescents are typically judged by school achievement; and are often anxious or depressed about various qualifying exams, entrance exams, and their career ramifications. These worries can breed discontent and malaise. Disappointing performance can foster impaired self-esteem, resentment, and social marginality, a situation in which the non-conventional behavior models promoted by the mass media "youth culture" may appear to be appealing alternatives to conventional roles. Extramarital adolescent sex and childbearing can in some cases reflect such rejection of more conventional goals. But most births to adolescents reflect traditional social and sexual norms.

Western studies attribute a number of psychological characteristics to adolescence which may or may not characterize LDC populations. These include narcissism and self-absorption, heightened concern with body image, idealism, curiosity, vulnerability, non-conformity, spontaneity, creativity, irreligiousness, independence, ambivalence toward authority and a shifting from concrete to abstract modes of thought. Program sensitivity to the inevitable cultural and geographical variation in adolescent characteristics and concerns can be enhanced by the inclusion of local adolescent personnel in decision-making and service-provision activities.

IV. INVENTORY OF EXISTING ADOLESCENT-ORIENTED FAMILY-PLANNING INTERVENTIONS IN DEVELOPING COUNTRIES

(NOTE: Further discussion of this topic can be found in two project documents previously submitted to the Office of Population, entitled "Family Planning Services to Adolescents: An Assortment of LDC Program Models", 6/30/78 and "A Preliminary Inventory of Adolescent-Oriented Family Planning Interventions in Developing Countries", 8/29/78)

Of the 91 developing countries surveyed, less than half had any adolescent-oriented family planning information and education programs and fewer than 10 percent had any contraceptive service programs oriented toward youth.

As far as I have been able to discover, there is no country in which there is a comprehensive national program aimed at reducing adolescent fertility by providing information, education, counselling, and contraceptive services to all adolescents who want and need them. Rather, there are dribs and drabs of unconnected or unevaluated pilot programs which phase in and out of existence in response to the vagaries of administrative interest, financial support, or political tolerance. Where anything at all is being done to deal with the problem--and that leaves out a lot of places--the palliatives thus far proffered appear to be more talk than action, more "counselling" than contraceptives, more in the line of audio-visual aids than IUDs. Most countries making any effort at all to curtail adolescent fertility have opted for the IEC approach.

Where adolescent-oriented sex education and information

programs are provided, but contraceptives are not provided, the reasoning seems to be that if adolescents have a better understanding of what they are not supposed to be doing, they will stop doing it. Such IEC programs are evaluated, if at all, by counting course attendance, by questionnaires, or by testing biological knowledge. There is little known about how or if they influence sexual and reproductive behavior. However, the continued incidence of pregnancy and rising incidence of abortion among adolescents in many countries seems the most revealing measure of the inadequacy of these education programs and of existing contraceptive services for teens.

TABLE 19.

AN OVERVIEW OF ADOLESCENT-ORIENTED PROGRAMS IN ASIA

Country	Age-Specific Fertility (Females 15-19)	Nature of Adolescent Programs
Bahrain	240	--
Bangladesh	203	Bangladesh Family Planning Association Training project for youth - leadership, family planning, health, etc.
Indonesia	160	Indonesia Planned Parenthood Association Training project for youth - family planning, communication skills.
Nepal	138	--
Iraq	129	--
Afghanistan	122.2	--
Kuwait	114.4	--
Pakistan	104	Population education; family life education; FPAP Youth Project recruits volunteers for IEC activities, community development and mobile clinic.
Iran	102	--
India	89	--
Syria	83.4	--
Turkey	74	--
Jordan	73.5	(FPIA is considering a proposal for a YWCA-YMCA youth information and contraceptive referral program)
Thailand	70	National Population Education Program; voluntary organizations sponsor population/family life education; Girl Guides included family planning education in vocational training program; sex education highly controversial: offered to only a few university students.
Brunei	60.6	--

TABLE 11 (cont.)

Country	Age-Specific Fertility (Female 15-19)	Nature of Adolescent Programs
Philippines	56	Family Planning Organization of the Philippines SIGLA '78 - involvement of rural, out-of-school, unemployed youth in development effort and family planning-related activities. Kapatiran-Kaunlaran Foundation, Inc. Family Life Center - youth newsletter, adolescent fertility research conducted, out-of-school youth work (Job Skills Training Assistance Program), peer educators, cultural productions. Philippine Christian University Family Planning Center for Youth. Population Center Foundation Peer Counseling Services for Urban Students.
Malaysia	49.6	Federation of Family Planning Associations of Malaysia Training sessions for youth, women, teachers; speaker's bureau. Kelantan Family Planning Association Family Life Education for Youth.
Sri Lanka	37.4	In-school population education; broadcast information services; FPASL population awareness program for youth; FPASL youth settlement IEC and CBD activities; FPASL university counselling centers; FPASL population study groups.
Taiwan	37	--
Cyprus	25.5	--
Hong Kong	17.8	Family Planning Association of Hong Kong Youth Advisory Service
Singapore	17.1	SFPA Young Workers' Project provides family life education to members of two large trade unions and to young female workers living in factory-provided hostels; SFPA organizes training camps for youth leaders.
Korea	10.9	--

The Bottom Line:

Of 23 Asian countries listed, nine are thought to have some IEC programs, and three to have some service activities which specifically involve or serve adolescents.

TABLE 20

OVERVIEW OF ADOLESCENT-ORIENTED PROGRAMS IN AFRICA

ntry	Age-Specific Fertility (15-19)	Nature of Adolescent Programs
rra Leone	236.8	Nixon Memorial Methodist Hospital Sexuality education in secondary schools.
eroon	226	Sex education program and seminars for youth leaders, teachers and educators.
	219	--
eria	200	Federation of Liberian Youth Health Education Project - training youth as peer educational outreach workers.
bia	199.2	--
in	197	--
eria	195	A number of adolescent-oriented research papers have been published.
ry Coast	192	UNFPA sex education program.
ger	175	--
zania	174	--
on	171	--
egal	165	UNFPA sex education program.
iopia	163.1	--
d	162	--
na	156	World Assembly of Youth population education seminars; a YMCA sex education and contraceptive counselling program is proposed.
go	151	--
er Volta	151	UNFPA sex education program.
agascar	145	--

TABLE 20 (cont.)

Country	Age-Specific Fertility (15-19)	Nature of Adolescent Programs
Mauritania	143	--
Congo	138	--
Kenya	136.8	Sex education curriculum developed; workshops and teacher-training available; FPA runs sex education seminars for youth in cooperation with voluntary organizations; KAP studies on adolescents available.
Uganda	135.3	--
Seychelles	134.4	--
Malawi	132	--
Swaziland	120	--
Nigeria	102	--
Zambia	100.9	There is a standard sex education course and a number of studies detailing the dimensions of pregnancy and abortion in adolescence.
Botswana	95.5	--
Comoros	87	--
Namibia	86	--
Morocco	74	Science and home economics classes provide information on reproduction, pregnancy and birth.
Reunion	60	--
Mauritius	56	--
Burundi	49	--
Tunisia	39	Population education and family planning are being integrated into the secondary school curriculum.
Egypt	24.4	Coptic Church education program has a family life component and trains youth leaders for IEC activities.

The Bottom Line:

Of the 36 countries listed, 11 are thought to have some ongoing adolescent-oriented IEC programs; 3 more IEC programs have been proposed. There are teen-oriented service programs.

TABLE 21

AN OVERVIEW OF ADOLESCENT PROGRAMS IN LATIN AMERICA

Country	Age-Specific Fertility (15-19)	Nature of Adolescent Programs
St. Vincent	183.8	An IPPF affiliate Youth Group organizes IEC activities.
Dominican Republic	166	Courses on family life and responsible parenthood are offered in school; an FPIA grant supports the development of a model family planning, sex education curriculum.
	155.6	--
Guyana	149.9	--
Jamaica	146.7	Jamaica Family Planning Association Limited Teenager Education for Family Life and Personal Relations, Mobile Unit. The Women's Bureau, Ministry of Social Security Program for Adolescent Mothers. Y.M.C.A. - Jamaica Parenting course in cooperation with youth serving agencies.
El Salvador	142.5	IPPF/WHR research project; training of youth volunteers.
Dominica	140	FPA counseling clinic
Belize	135.4	--
Guatemala	132.7	IPPF Youth Sexuality and Family Planning Survey; DA teacher-training programs.
Grenada	126.2	GPPA Youth Information Center involves teachers in after-school counselling, contraceptive referral, and provision of non-clinical contraceptives. There is also a youth newsletter.
Paraguay	126	DA teacher-training activities; Pathfinder plans to initiate an adolescent orientation and education project.
Panama	123.1	Teen multiservice center in Panama City (just opened); IFRP reviewing abortion records to determine need

TABLE 21 (cont.)

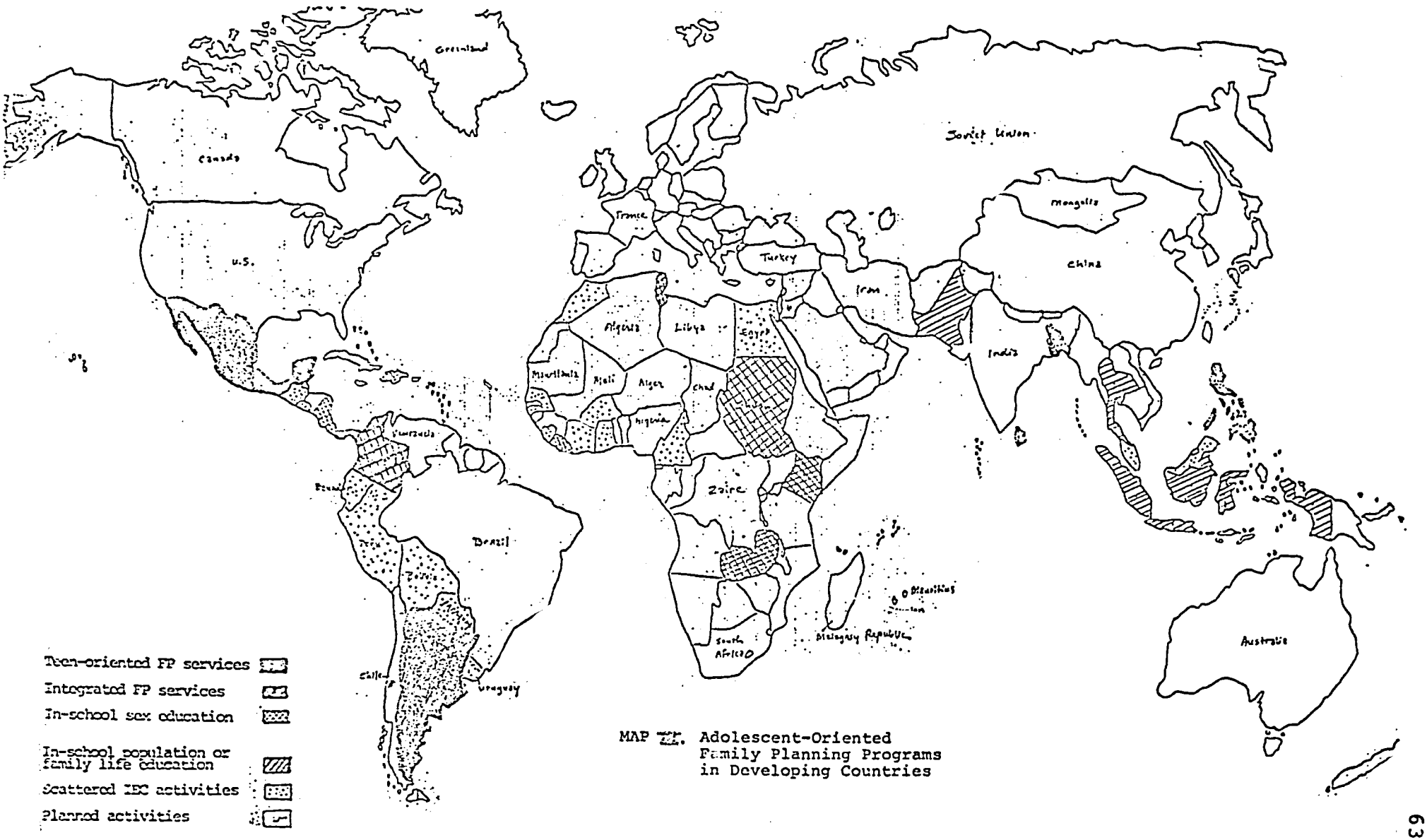
Country	Age-Specific Fertility (15-19)	Nature of Adolescent Programs
Venezuela	102.2	--
French Guiana	101.3	--
Costa Rica	101.1	National in-school sex education program; voluntary organizations provide sex education; call-in radio talk show; Population Institute radio show. FPIA proposal for Spanish Language f-p materials for youth.
Nicaragua	100.8	DA sponsored training of 1,000 educators over past two years; in-school sex education now offered to primary and secondary school students.
Mexico	99.7	Required sex education courses; Teen Multiservice Center in Mexico City.
Bermuda	97.5	Y.H.E.D. Teen Services - sexuality/ family planning education, Continuation School for Single School-Age Mothers.
Barbados	97.1	--
Brazil	90.4	--
Peru	87	IEC on family planning and responsible parenthood for adults and youths provided by a Catholic organization; seminars on family planning for social workers, teachers, and community leaders; sex education courses and radio programs provided by another voluntary organization; DA sponsored seminar for Ministry of Education.
Trinidad and Tobago	86.2	IPPF affiliate uses local youth theater to produce videotapes on aspects of sexuality.
Ecuador	84.3	Courses on family life and responsible parenthood are offered;
Bahamas	78.2	--
Bolivia	76	Vocational training program for rural migrant women offers family planning information.

TABLE 21 (cont.)

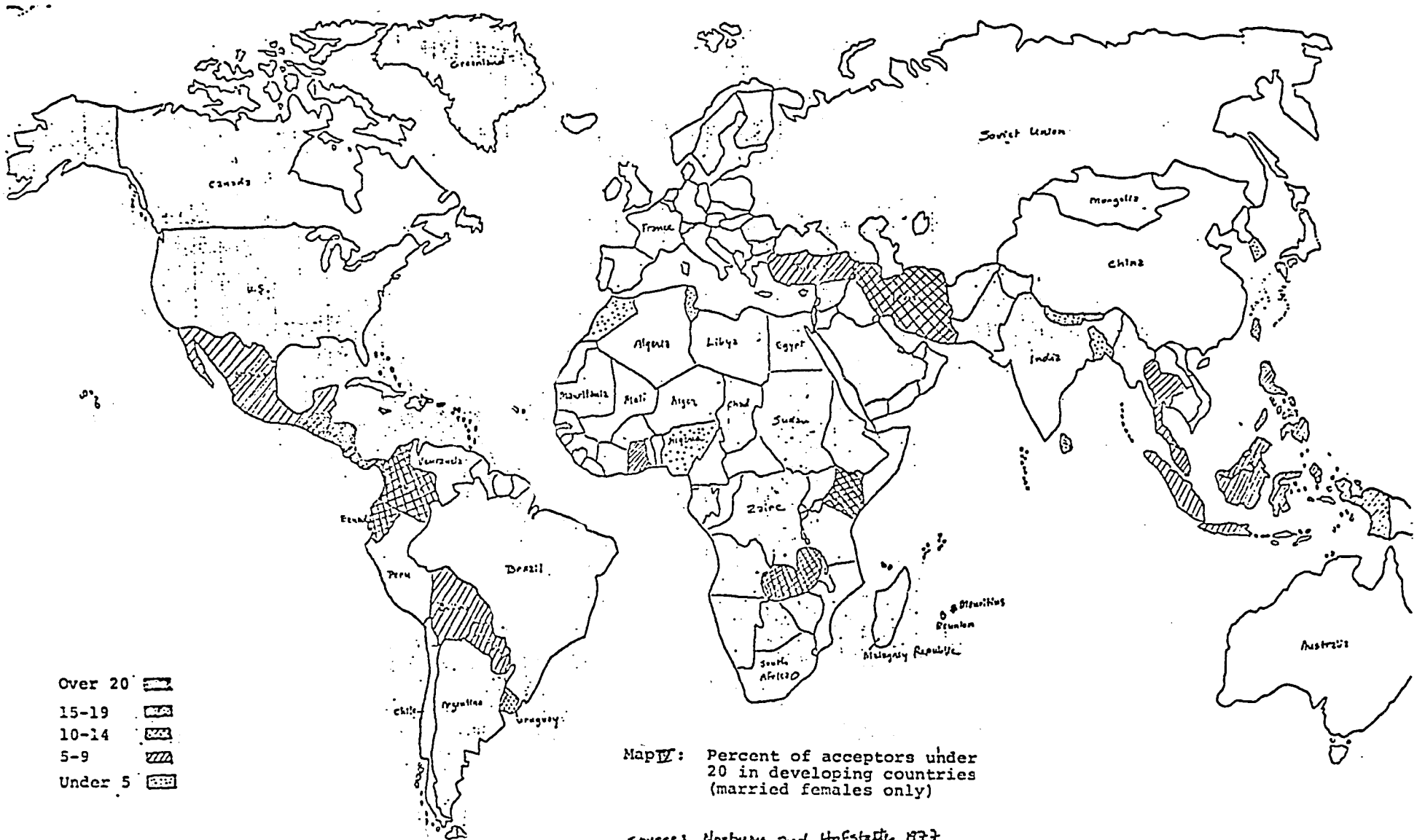
ntry	Age-Specific Fertility (15-19)	Nature of Adolescent Programs
lombia	73	IPPF/WHR Research Project; regional center for adolescent research, counselling and services proposed Pro-Familia offers rap sessions for teens.
ile	72.2	(Pathfinder has proposed education and service activities in Santiago.)
gentina	68.5	Family planning clinics operating within universities; IPPF has produced two teen-oriented films.
guay	58.9	IPPF affiliate has collaborative activities with several youth groups.
adeloupe	57	
rtinique	50.5	
iti	47	The Centre d'Hygiene Familial produces sex education and family planning materials for students and teachers, as well as a radio show on hygiene.

e Bottom Line

f the 32 Latin American countries listed, 21 have some adolescent-ented programs, and four sponsor some adolescent-oriented service ograms.



MAP [illegible]. Adolescent-Oriented Family Planning Programs in Developing Countries



Map IV: Percent of acceptors under 20 in developing countries (married females only)

Source: Nortman and Hofstatter, 1977
IPPF/WHR Overview, 1977

TABLE 22

A COMPARISON OF THE SHARE OF BIRTHS TO WOMEN UNDER 20

AND THE SHARE OF CONTRACEPTIVE ACCEPTORS UNDER 20 IN DEVELOPING COUNTRIES

(i.e. Data presented in Map [illegible] and Map [illegible])

ountry	% of all Births to Women Under 20	% of Contraceptive Acceptors Under 20*
olivia	5.7	8.0
olombia	8.6	10.0
osta Rica	23.0	18.3 (1)
ominica	12.4	18.0
ominican Republic	10.8	10.0 IUD 18.5 O.C.
cuador	7.6	9.0
l Salvador	18.3	9.2
renada	13.6	24.0
atemala	11.6	19.0
onduras	11.8	18.0
maica	17.0 (2)	35.0 (3)
exico	7.6	11.0
anama	23.0	17.0
araguay	10.1	7.0
t. Kitts, Nevis, Anguilla	27.7	18.0
t. Lucia	12.6	28.0
t. Vincent	13.9	27.0
uguay	11.0	13.0
atin American Average	12.6	16.86
angladesh	15.4	4.6
ong Kong	3.2	5.1
donesia	10.7	7.1
pan	8.0	15.0 IUD 12.1 O.C.
orea	1.5	-
alaysia	9.1	8.4
ilippines	5.0	4.4
ingapore	4.1	- (4)
i Lanka	5.1	2.5
aiwan	6.5	4.1 O.C. 1.2 IUD

igures cited for contraceptive acceptors are, in some cases, for only e program, or include only married acceptors.

(1) It is estimated that 30-40% of illegal abortions are performed on adolescents.

(2) Conflicting estimates range up to 33%

(3) 52.2% of abortions are performed on adolescents.

(4) Between 1973-1975, the % of abortions to teens doubled.

TABLE 22 (cont.)

Country	% of all Births to Women Under 20	% of Contraceptive Acceptors Under 20*
Thailand	7.2	7.5 O.C.(5)
Turkey	6.5	4.8 IUD 5.1 IUD
Asian Average	6.02	6.30
Ghana	17.0	5.0 O.C. 2.0 IUD
Kenya	9.0	10.1 O.C.(6)
Nigeria	17.8	2.6
Morocco	5.0	3.7 O.C. 2.8 IUD
Tunisia	3.3	2.2(4)
Zambia	27.1	10-19
African Average	13.2	5.36

* Between 1973-1975, the % of abortions to teens doubled
* 17.8% of patients treated for abortion are under 20
* According to Kigondu of the Kenya FPA, there is an alarming increase in rate of illegal abortions to teens.

V. OBSTACLES TO THE DELIVERY OF SERVICES TO ADOLESCENTS

Bogue (1975) lists 25 major obstacles to the success of family planning programs. Many of the same obstacles, and an additional number of unique ones, impede the provision of family planning services to youth. These impediments include:

1. Limited access to f-p services for the young, unmarried, nulliparous and/or male
2. Limited awareness of existing f-p services among the young, unmarried, or nulliparous
3. Aesthetic objections to coitus-specific contraceptives
4. Medical objections to the pill and IUD
5. Lack of leadership awareness that youths need f-p information and services
6. Inadequate communication between partners about sex and contraception
7. Shyness about all sex-related matters
8. Few career alternatives or non-maternal status roles for women
9. High cultural valuation placed on early demonstration of fertility
10. High infant mortality
11. Fatalistic attitudes/limited control of one's future
12. High son preference
13. Fears about infidelity and promiscuity
14. Ignorance of the advantages of family planning
15. Ignorance of the medical, social, and demographic costs of early childbearing
16. Cultural denial of adolescent sexuality
17. Fear that contraceptives or clinic attendance will be discovered by parents
18. Reluctance to have sexual activity appear planned
19. Hesitation to confide in socially-distant adult service providers

20. Perception of f-p as a female responsibility in cultures where women are discouraged from developing independent capabilities for decision-making. After a village survey in countries of Asia, Africa, and Latin America, Perdita Huston concludes that,

    "Male dominance of women's lives is the largest single barrier to effective population efforts. Alone, women are nearly powerless to accept available services. They must be supported and encouraged by the men who influence, or control, their lives."

    Psychiatrist P. Tighe also writes that,

    "The culturally reinforced expectations of deriving a major component of her new identity from close relationship with a loved man is deleterious to a girls's independently seeking contraception. This kind of independence - to plan for making love is still a threat to the male and still produces the accusation of promiscuity in the girl."

21. Legal restrictions on the medical treatment of minors without parental consent

22. Legal restrictions on the sale or advertisement of contraceptives

23. Legal restrictions on abortion

24. Administrative practices or attitudes which discourage the provision of services to youth. (For instance, an internal IPPF document summarizing affiliated FPA Projects and Programs for 1977 lists all youth activities under "demand creation". Youth is not listed at all among the "special groups" receiving f-p services from FPAs. Yet IPPF, ironically, has been publicizing via its Survey of Unmet Needs that 50% of youth lack access to f-p information or services!)

25. Sexual inexperience, poverty, and ignorance combine to lower adolescent's perceived need for contraception

26. Aversion to pelvic examination

27. Moral and religious objections to contraception or abortion

28. Moral ambivalence or shame about sexual activity discourages planning for it

IPPF 1977: ASSOCIATION PROJECTS AND PROGRAMMES (grant receiving associations excluding Europe)

SERVICE DELIVERY			DEMAND CREATION			ORGANISATIONAL			NON-PRIORITY		
Delivery Systems			DIRECT			Volunteers/Decentralisation/ Fundraising					
			Youth								
ity Based			Activities for in-school			Volunteer involvement	9		Clinic services	72	
tion	58		youth	36		Decentralisation	15		Other services, eg. Pop.		
ted projects:			Activities for out-of-			Fundraising	17		VD, pregnancy tests, etc.	13	
n networks	25		school youth	38				41	Fieldwork I&E support	37	
nity Development	15		Activities by youth						Routine publicity	53	
l welfare	8		volunteers	13		Training			Audio-visual aid production	22	
ition	6		Sex or population training			Volunteers	21		Library/information		
ntry	3		for teachers and youth			IEC Personnel	7		centre	16	
health clinics	4		leaders	21		Management	9		Other, eg FPA week	23	
l groups':			Promotion of sex education	16		CBD, special project	2		Family planning training:		
ntry	4				124	Technical	11		non-association staff	36	
l/poor	10							50	association-staff	31	
s	3								Management supervision	8	
ent	3										316
		139	Opinion leaders		64	Planning/Evaluation/ Research					
Methods and						Planning	5				
			Community Education		56	Evaluation	27				
						Field trials	10				
ification	69		Other			Social science research	11				
overs	56					Communication of					
ns - studies	4		Male responsibility	7		experience	2				
- law reforms	2		Research	5				55			
- services	4										
ility - services	48				12						
- research	2										
		185	INDIRECT								
Availability of			Women's status								
			Studying	4							
ts on governments	4		Campaigning	1							
d availability	6		Development projects	14							
		10			19						
			Other								
			Cooperation with other agencies for 'minimum needs'	3							
			Legal reform	2							
			Child health	1							
			Evaluation of minimum demand strategies	1							
					7						
		334			282			146			316

Note: "Youth" is not listed under "Special Groups" for service delivery. It is only listed under "Demand Creation". What is the point of creating demand if one has no intention of satisfying it?

VI. RECOMMENDED STRATEGIES, POLICY GUIDELINES, AND PRIORITY COUNTRIES

For purposes of policy, it is recommended that teenage pregnancy and childbearing be viewed as the sometimes unanticipated result of teenage sexual activity, rather than as the result of conscious or unconscious desires for pregnancy, or of psychological traits which may or may not be characteristic of and peculiar to adolescence. A serious policy-oriented analysis of adolescent-fertility must place heavy emphasis on the manipulation of more objective conditions (i.e. contraceptive alternatives to pregnancy) not necessarily because of a belief that the "causes of teenage pregnancy" are thereby being eradicated, but because, as James Wilson has pointed out, "behavior is easier to change than attitudes, and becuase the only instruments society has by which to alter behavior in the short run require it to assume that people act in response to the costs and benefits of alternative courses of action."

VI-1. RESEARCH

The "causal" orientation of social science research has too frequently, forced the policy analyst to operate within an intellectual framework that makes it difficult or impossible to develop reasonable policy alternatives. The intellectual process of explanation is not the same as that of policy analysis, and can lead to quite different results.

Much of the current research on adolescent fertility has little policy value because it derives from an intellectual paradigm that draws attention to those features of social life least accessible to policy intervention. Knowing that family backgrounds, deep-seated attitudes, friendship patterns, or media images affect behavior does not help government change them or behavior in any systematic fashion. And even if government could do these things, the cost would be prohibitive--not only financially, because the programs would have be be directed at everyone instead of just those at risk, but also in terms of those fundamental human values that would be jeopardized if government posessed the capacity to direct the inner life of the family or to mold the mental state of its citizens. (Wilson, 1975)

Moreover, the preoccupation of researchers with the social causes of adolescent fertility has contributed to the perception that adolescents are radically different from "normal" people--that they are the utterly indifferent to the costs and rewards of their activities and are responding only to deep passions, fleeting impulses, or uncontrollable social forces. I suggest that despite hypothetical needs to impress peers, or to prove masculinity or femininity, the costs of childbearing do

enter into the teenage behavioral calculus--just as the cost of cars is an important factor in predicting automotive purchases, even though individual model choices may be influenced by the same psychological factors mentioned above.

Instead of searching for the causes of adolescent fertility and then searching for ways to alleviate those causes, we must consider what interventions are feasible for a community or government, and then try to discover, by experimentation and observation, which of those things will produce, at acceptable costs, desirable reductions in the level of adolescent childbearing.

I propose that for the purposes of developing policy, "explanatory" research be abandoned, and action research, i.e. experimental or controlled studies of the effectiveness of particular programs or policies, be expanded. Research documenting need in particular countries may also be of utility in consciousness-raising. The following types of research projects might be considered:

- needs assessment in Africa. Detailed case studies of teenage mothers from a small sample of African clinics should be compiled.. Questionnaires on the incidence of teenage pregnancy and abortion should be sent to a sampling of hospitals, and questionnaires on the incidence of school drop-out or expulsion for pregnancy should be sent to a sample of school administrators. FPAs should be asked for information on the ages of f-p acceptors.
- In all regions, action research is needed to test the effectiveness of various kinds of youth-oriented

outreach which can be employed by existing health and family planning programs.

- Survey research on community attitudes might help program planners more accurately assess the maximum acceptable level of youth-oriented family planning activities in a given locale. Survey research in the U.S., for instance, has revealed that although there is widespread disapproval of premarital sexual activity, most people support, for practical reasons, the provision of contraceptives to those in need of them.
- The registration, classification, and evaluation of existing services related directly and indirectly to adolescent pregnancy and abortion. This would be a cross-cultural survey concentrating on the evaluation of different models of adolescent health services in terms of consumer satisfaction, outcome, effectiveness and cost efficiency.

VI-2. F-P SERVICES FOR YOUTH

The use of established facilities in new ways which will be attractive to youth has been recommended by such international organizations as WHO, IPPF, and UNFPA. According to Richard Lincoln (in Bogue, 1977), the number of adolescents in U.S. family planning clinics quintupled in just a few years, merely because the barriers to access were removed. No other adolescent-specific intervention strategy has comparable potential. Community-health, MCH, FPA, NGO, and commercial networks are already in place, providing valued services in culturally-acceptable ways. They already have cadres of trained professionals, buildings, budgets, and vehicles. More importantly, they usually have community support and official recognition. They could conceivably serve sexually-active adolescents in an immediate, cost-effective, and non-controversial manner, by improving the accessibility, confidentiality, and affordability of their f-p programs, and by making a special effort to attract youth in need of f-p services. These provisions could arguably enhance program appeal not only to youth, but to all categories of potential acceptors. The following innovations might be adapted to various local conditions:

- Expand staff to include volunteer (or paid) peer counsellors, motivators, and/or paramedical personnel of both sexes. A number of studies have indicated that most adolescents learn about sex from their peers. Other studies indicate that adolescents have shied away from f-p services because of the age-gap and social distance they perceive to exist between themselves and service providers. The use of peer personnel can bridge this barrier at low cost, by involving youth in serving themselves. The active involvement of

youth in decision-making can help promote staff sensitivity to youth needs and perceptions, and help maintain staff commitment. Volunteers and paramedics of both sexes can help clients of both sexes feel at ease, and can in particular help diminish female anxiety about having pelvic examinations performed by male doctors

- Sensitize existing staff on the importance of warm, supportive, non-judgmental behavior.
- To maximize privacy and minimize anxiety about "exposure", set aside special evening or weekend sessions for youth.
- To eliminate the "stigma" of visiting a f-p clinic, integrate f-p services with other valued services like pregnancy testing; prenatal care; treatment of infertility, V.D., tuberculosis, anemia, etc; cervical smears, employment and sports physicals, etc.
- Sponsor conscientious follow-up of all pregnancy tests.
- Offer sliding-scale fees or free services for youth.
- Sponsor special outreach for the newly engaged or recently married. Such couples might be sent a letter of congratulations which invites them to visit the f-p program.
- Sponsor special follow-up sessions to give support and reinforcement to new acceptors who may suffer side-effects and need to have their method re-evaluated. The importance of maintaining contact and commitment has been demonstrated in a St. Paul, Minnesota project which succeeded in dramatically reducing

adolescent childbearing, without reliance on abortion, in a non-middle class sample (Brann, 1977).

When a mother is given prenatal and perinatal care, it may well be useful for her eldest daughter (particularly if she is in or approaching early adolescence) to accompany her. In this way, the daughter can grasp the importance of such care for herself later on and can establish contacts with the health services; at the same time, a basis is provided for health discussions between mother and daughter afterwards (WHO, 1975)

FPAs and health programs could develop pilot projects or link-up programs for adolescents with on-going youth programs, women's clubs, civic organizations, or schools.

Health ministries and FPAs might consider various ways of increasing the availability of such conventional, non-prescriptive contraceptives as condoms and spermicides, which in combination offer good protection and simultaneously overcome a number of obstacles to effective contraceptive practice by teens. Condoms have no frightening side effects; are portable; are often free or inexpensive; do not require daily motivation; do not require medical supervision; do not interfere with endocrinological or metabolic maturation processes; can be marketed by innumerable commercial outlets; help prevent venereal disease and cervical cancer and, perhaps most importantly, do not require the female to admit interest in or planning for sexual activity.

In virtually every society, early sexual encounters are male-initiated. "Double-standard" traditions which view premarital male use of contraceptive as appropriate, considerate, and responsible, typically view premarital female use of contraceptives as inappropriate and immoral. Cutright (in Zackler and Brandstadt, 1975) reports that in 1971,(in spite of nearly a decade of pill use, the introducation of the IUD, and nearly 100% awareness, that female methods of contraception were available from pharmacists, physicians, and clinics), sexually active teenage girls in the U.S. reported overwhelming reliance on male protection. Campus surveys have revealed that the condom is the most popular method. A U.S. feasibility study done by Arnold and Cogswell in which free condoms were distributed through commercial outlets resulted in an increase in condom use during last intercourse from 20% to 91%. The researchers concluded that 1) condoms are acceptable to adolescents in a magnitude not previously appreciated; 2) adolescent males will accept a sizeable share of the burden in pregnancy prevention, if given the opportunity; and 3) commercial outlets like barber shops and pool halls can have an important role in contraceptive distribution programs.

If it is found to be impossible, for various administrative or political reasons, to provide services for youth within the existing infrastructure, then the consideration of specifically youth-oriented interventions is warranted. I suspect, however, that few societies that refuse to serve youth in existing frameworks will be willing to extend contraceptive services in an exclusively youth-oriented facility. Prior to the planning and implementation of new programs a thorough investigation of their relative costs, potential acceptability, effectiveness, efficiency, and manpower needs should be undertaken.

VI-3 ABORTION SERVICES

Abortion is a controversial issue in many developing countries, but its availability as a backup measure is probably essential for effective control of adolescent fertility at the present time. Informational pamphlets describing the toll of illegal abortions, the problems of illegitimacy, and the social and medical benefits of permitting abortion in all cases of high-risk pregnancy should be disseminated among policy makers and medical societies.

Evidence indicates that the same women who are least likely to be effective contraceptors (the young, the inexperienced, the nulliparous) are more likely than other women to seek abortion when it is available. Cutright (in Zackler and Brandstadt, 1975) points out that the declines in the illegitimacy rates of New York and California have been attributed to the availability of abortion services rather than contraceptive services. Brann, (1977) reports that the adolescent fertility rate of Bergen County, New Jersey is less than one-seventh the national average as a result of granting easy access to abortion to a sexually active adolescent population which does not wish to bear children. Similar declines have taken place in Czechoslovakia, Poland, Japan, and Hungary. In Hungary, illegitimacy rates were cut by 50% in only 6-8 years. There is no evidence from any <u>large</u> population that such a decline in illegitimacy can be achieved with a contraception-only program.

However, abortion services should not take the place of contraceptive programs. Some people will not use abortion even when it is available, but will use contraception. Moreover, repeated abortion is a costly and dangerous substitute for

contraception. Small projects (like those cited by Brann, 1977) have demonstrated that teenage contraceptive failure rates and drop out rates can be lowered.

VI-4 LEGAL REFORMS

A number of legal measures can help lower adolescent fertility rates, including:

- Raising the legal minimum age of marriage. In areas where there is little childbearing out-of-wedlock, this measure, if enforced, can effectively lower the incidence of teenage childbearing. Inasmuch as fertility regulation is still not widely practiced in Africa, raising the legal age of marriage would appear to be an important policy measure by which governments might reduce adolescent fertility.
- Legal assignment of paternity and financial responsibility in all cases of illegitimate birth. During the years that Norway assigned paternity in 100% of illegitimacy cases, illegitimacy declined.
- Compulsory pre-marital family planning counselling. Most adolescent childbearing takes place within marriage. Therefore compulsory pre-marital family planning counselling, as mandated in the Philippines, is an effective way to influence adolescents who are about to be married. Compulsory premarital counselling has also been instituted in California.
- Liberalized access to abortion. Abortion has been successfully used by adolescents in the U.S., the U.K., Eastern Europe, Japan and Korea to curtail childbearing.

VI-5. INFORMATION AND COMMUNICATION

The purpose of I.E.C activities is to neutralize opposition and advertise programs. In all probability, the strategies employed in the last two decades to legitimize and promote national family-planning programs can be repeated or adapted to do the same for adolescent programs.

Legitimating activities:

The well established health-risks and consequences of adolescent childbearing can play a key role in the ligitimization process, the ultimate objective of which is to create a favorable climate of political and intellectual opinion for adolescent programs. Outreach emphasis on humanitarian concerns seems most likely to elicit symphathetic support from such official agenices as health departments, welfare departments, and education departments. Subsequently, the support of medical organizations, women's groups, church groups, lawyers and local political leaders can be sought. NGO's can often locate influential citizens who are willing to give talks in support of adolescent programs. Short films documenting a variety of successful adolescent programs in various LDC settings would be most useful in this consciousness-raising effort. Regional or country-specific pamphlets detailing the local dimensions and costs of early childbearing could also serve, as the Kantner-Zelnick study served in the U.S., as an important rationale for supporting youth-oriented programs.

Where feasible, a central clearinghouse for local and regional consciousness-raising can be useful: In the U.S., a Consortium on Early Childbearing was formed for this purpose. Five years after its inception, about 250 communities had set up

programs for teenage mothers--a growth rate of almost one per week. The consortium sponsored meetings to inform school systems and other community organizations of the adolescent fertility problem and what other communities were doing about it. Efforts were made to stimulate articles in leading newspapers, magazines and journals, aimed at reaching leadership and professional audiences. Among the ripple effects which the consortium set in motion were reform of school policies toward pregnancy and of health department policies requiring parental consent before treating minors.

Promotion of Service Programs:

U.S. research has demonstrated that one of the threshold conditions for encouraging teen use of available services is making these services visible by utilizing networks relevant to young people. These studies indicate that youth can be reached best through informal channels--radio spots, comic books, leaflets, underground newspapers, T-shirt and movie messages, youth centers, snack bars, record stores, films, telephone hotlines, Q/A columns in popular newspapers and magazines and peer counselling programs. The following is a sample of some easily replicable efforts to reach youth with family planning messages:

Radio

In Sri Lanka and the U.S., pop stars present messages on responsible sexuality via short radio spots. In Indonesia, the home economics association has established a popular radio request show. Postcards are left in places where young people congregate which they can use to request their favorite music as well as to post questions about personal problems which are answered on the radio show. This program reaches a wide

audience with information on responsible sexual behavior at modest cost.

Comics

In the Philippines and Mexico, comic books and fotonovelas have become a successful outreach vehicle. In Mexico fotonovelas now far outsell other story magazines and best-seller books.

Peer Counselling

In Manila and many U.S. cities, peer-counselling hotlines have succeeded in reaching a wide audience at low cost. Within 8 years after the first U.S. hotlines appeared, over 1400 hotline programs were serving over 300,000 callers per week (Vadies in Bogue,1977) Hotlines can have a multiplier effect, extending the scope of other community service agencies. They maintain anonymity and confidentiality, and leave the recognition of the need for help and the definition of the problem up to the client. Their utility is limited, however, to urban areas with good telephone services.

Male Outreach

In many societies, girls typically socialize with, date, and marry men a few years older than themselves. Thus, in many cases teenage girls risk impregnation by men who are themselves no longer teenagers. In Trinidad and Tobago, for instance, women under age 20 were responsible for one out of every five births in 1973, but men under twenty fathered only one baby out of every hundred live births, or 7% of the babies born to teenage girls (IPPF/WHR News, Vol IV, No. 6). In recognition of this age factor, more outreach about the costs of early childbearing and the importance of taking responsibility for sexual behavior, needs to be directed at men, and at older men in particular.

Female Outreach

In cultures where most information received by women comes from other women, the role of women's organizations in outreach is central. For most male-dominated rural areas, it is probably the most practical means of reaching women (Huston, 1978).

VI.-6 EDUCATION

There is reason to believe that schools do not "reach" --either literally or figuratively, the adolescent population at risk of pregnancy. According to U.N. predictions, by 1985 375 million young people in Africa, Asia, and Latin America will be without formal schooling. Even those adolescents who attend school apparently derive most of their sexual information and attitudes from their peers.

In-school sex education has not produced any appreciable drop in adolescent fertility in Sweden, Costa Rica, or the District of Columbia. Cutright has examined such evidence as is available and concluded that in-school sex education programs do not increase control over illegitimacy among the students exposed to them. Ryde-Blomqvist (1974) cities Illinois and California studies which found that sex education and family life programs did not meet the needs of the students. Goldsmith et.al. (1972) found that knowledge of sexual topics, the birth process, and birth control methods was not related to exposure to sex education courses nor to discussions with parents, but did correlate quite closely with age. Because schools address both sexually active and inactive students, what few sex ed courses there are must be geared to the lowest-common-denominator of acceptability. Contraceptive information is rarely communicated, and the "at-risk" population is inevitably "under-served."

Moreover, even if educational programs could be demonstrated to have some tangible beneficial effect, the tremendous effort required to implement them would probably be disproportionate to the result achieved.

Education authorities are much less enthusiastic than health authorities to address the problem of adolescent fertility. In Kenya, the much-advertised sex education curriculum developed by the National Christian Council has still not been approved by the Ministry of Education for implementation. The reasons for this foot-dragging are deep-seated and will not be easily overcome. Schools, more than any other institution, are perceived as a vehicle for the communication of cultural ideals. Sex, and particularly premarital sex, is not generally considered a cultural ideal, and straightforward information on how to manage it will not be communicated in that milieu willingly or well. More target-specific approaches can probably achieve better results at lower cost. Those educational approaches should aim to inform youths at risk of pregnancy about the locally available family planning programs. Informing young people about contraception while ignoring the circumstances which make it difficult for them to obtain it is like an expensive ad campaign for a car model that isn't off the drawing board.

VI-7. Priority Countries

Table 24 attempts to accord priority to countries simultaneously demonstrating a mix of high adolescent fertility, receptivity to initiatives in this area, and demonstrated capability to manage youth programs. Five of the factors selected for consideration relate to need, two relate to receptivity and three to capability. One point was awarded for each of the following:

Need:	Teen fertility over 80. Teen fertility over 100 Share of births to teens exceeds 15% Majority of teens are married. Abortions to teens a recognized problem.
Receptivity:	Nortman and Hofstatter population policy Type B: family planning considered a human right. Nortman and Hofstatter population policy Type A: anti-natalist policy and respect for family planning as a human right.
Capability:	Existing family planning services for teens. National in-school IEC programs. Scattered NGO IEC programs.

The following is "priority countries" received at least five out of the possible ten points:

Bangladesh
Pakistan
Indonesia
Liberia
Kenya
Nigeria
Senegal
Ghana
El Salvador
Guatemala
Panama
Dominican Republic
Costa Rica
Nicaragua
Mexico

This model unfortunately over-weighs need factors (for which objective indicators are available) and under-weighs considerations of receptivity, which are difficult to quantify. It is highly unlikely, for example, that Pakistan would currently welcome any initiatives aimed at curtailing early childbearing. On the other hand, the Sudan is apparently interested in adolescent-oriented activities, but is not listed on the table because little quantitative data on the dimensions of Sudanese adolescent fertility are available. The Philippines already hosts a number of interesting adolescent programs, but does not make the "priority" list because its indices of "need" are so low.

For this reason, I recommend that AID missions assess the level of local interest in youth-oriented programs, and that their recommendations take precedence in the determination of priority countries. Adolescent fertility projects, however, should be judged on their own merit, and not supported merely because they propose to serve a needy and/or receptive population.

Region	Country	Teen Fertility Over 80	Teen Fertility Over 100	% Births to Teens Over 15	Majority Teens Married	Abortions to Teens a Recog. Problem	Receptivity	Capabi
ASIA								
*8 pts.	Bangladesh	x	x	x	x		x	xx
*5	Indonesia	x	x				x	x
*6	Pakistan	x	x		x		x	x
4	Nepal	x	x		x		x	
3	Iran	x	x				x	
3	India	x			x		x	
AFRICA								
4 pts.	Sierra Leone	x	x	x				
4	Cameroon	x	x	x				
4	Mali	x	x		x		x	
*6	Liberia	x	x	x			x	x
4	Gambia	x	x	x			x	
3	Benin	x	x				x	
*5	Nigeria	x	x	x		x	x	
4	Ivory Coast	x	x	x				
3	Niger	x	x		x			
4	Tanzania	x	x		x		x	
3	Gabon	x	x	x				
*5	Senegal	x	x				xx	
2	Ethiopia	x	x					
4	Chad	x	x	x	x			
*5	Ghana	x	x				xx	
3	Togo	x	x				x	
2	Upper Volta	x	x					
2	Madagascar	x	x					
2	Mauritania	x	x					
2	Congo	x	x					
*6	Kenya	x	x				xx	x
3	Uganda	x	x				x	
2	Seychelles	x	x					
2	Malawi	x	x					
2	Swaziland	x	x					

Region	Country	Teen Fertility Over 80	Teen Fertility Over 100	% Births to Teens Over 15	Majority Teens Married	Abortions to Teens a Recog. Problem	Receptivity	Capabili
AFRICA (cont.)								
2 pts.	Algeria	x					x	
3	Zambia	x				x	x	
3	Botswana	x					xx	
1	Comoros	x						
1	Namibia	x						
LATIN AMERICA								
3	St. Vincent	x	x					
3	St. Kitts, Nevis, Anguilla	x	x	x				
2	St. Lucia	x	x					
3	Honduras	x	x				x	
2	Guyana	x	x					
4	Jamaica	x	x				xx	
*5	El Salvador	x	x				xx	x
3	Dominica	x	x					x
2	Belize	x	x					
*5	Guatemala	x	x				xx	x
4	Grenada	x	x					xx
4	Paraguay	x	x				x	x
*5	Panama	x	x				x	xx
*5	Dominican Rep.	x	x				xx	x
3	Venezuela	x	x				x	
2	French Guiana	x	x					
*6	Costa Rica	x	x			x	x	xx
*5	Nicaragua	x	x				x	xx
*5	Mexico	x					xx	xx
4	Bermuda	x		x				xx
4	Barbados	x		x			xx	
2	Brazil	x					x	
3	Peru	x					x	x
4	Trinidad and Tobago	x					xx	x
3	Ecuador	x					x	x

VI. REFERENCES

Arnold, Ch. B. and B.E. Cogswell
1971 "A Condom Distribution Programme for Adolescents: the Findings of a Feasibility Study." Amer. Jour. Publ. Hlth. 61: 739-750.

Bogue, D.J.
1975 Twenty-five Communication Obstacles to the Success of Family Planning Programs. University of Chicago Community and Family Study Center, Media Monograph II.

Bogue, D.J. and K. Oettinger, M. Thompson, and P. Morse
1977 Adolescent Fertility. The Proceedings of an International Conference. University of Chicago, Community and Family Study Center.

Brann, E.A.
1977 "Strategies for the Prevention of Adolescent Pregnancy" Atlanta: Center for Disease Control.

Calderone, M.S.
1977 "Sex Education: Formal and Nonformal Systems" in Bogue, 1977 op.cit.

Chui, J.W.
2978 "Policies and Programmes on Adolescent Fertility in Developing Countries: An Integrated Approach." New York: UNFPA.

Cutright P.
1972 "The teenage sexual revolution and the myth of an abstinent past." Family Planning Perspectives. 4(1) 24-31.

1975a "The Rise of Teenage Illegitimacy in the United States: 1940-1971". In J. Zackler and W. Brandstadt, The Teenage Pregnant Girl. Springfield, Illinois: Charles C. Thomas.

1975b "Teenage Illegitimacy: The Prospect for Deliberate Change" in Zackler and Brandstadt, op. cit.

Goldsmith, S. and M. Gabrielson, I. Gabrielson, V. Mathews, and L. Potts
1972 "Teenagers, Sex, and Contraception", Family Planning Perspectives. 4(1): 32-38

Huston, Perdita
1978 Message from the Village, New York: Epoch B Foundation.

IPPF/WHR
1976 News Service, Vol. IV., No. 6

1977 Overview 1976, Contraceptive Services of the Family Planning Programs of the Western Hemisphere. New York.

Kantner, J. and M. Zelnik
1972 Sexuality, Contraception and Pregnancy Among Young Unwed Females in the United States. In C. Westoff and R. Park, eds., Demographic and Social Aspects of Population Growth. Washington, D.C., Government Printing Office.

1973 Sex and Contraception Among Unmarried Teenagers. In C. Westoff, ed. Toward the End of Growth. Englewood Cliffs, N.J.: Prentice Hall.

Lincoln, R.
1977 "Strategies of Intervention". In Bogue, 1977, op.cit.

Mead, M. and M. Wolfenstein (eds.)
1955 Childhood in Contemporary Cultures, Chicago: The University of Chicago Press.

Moore, K. and S. Hofferth
1978 The Consequences of Age at First Childbirth. Washington, D.C., The Urban Institute

Nortman, D. and E. Hofstatter
1978 Population and Family Planning Programs. New York: The Population Council.

Omran, K.F. and A.R. Omran
1977 "International Experience with Teenage Pregnancies: A Preliminary Report". Paper presented at the First International Conference of the Society of Gynaecology and Obstetrics of Nigeria, October, 1977.

Pauls, F.
1974 "The Adolescent and Pregnancy in Zaire". Paper presented at the WHO meeting on Pregnancy and Abortion in Adolescence, Geneva.

Pillai, N.
1977 Caribbean Adolescent Contraception: the law, polemics, and other issues. New York, IPPF/WHR.

Population Reports

1976 "Adolescent Fertility-Risks and Consequences". July 1976.

Puffer, R. and C. Serrano
1975 "Teenage Pregnancies: High Risk for Infants: in P. Piotrow, Mothers Too Soon, Draper World Population Fund Report, No. 1, Autumn.

Rooparinesingh, S.
1975 "Teenage Pregnancy in Trinidad". West Indian Medical Journal, 27:129.

Ryde-Blomqvist, E.
1975 "Contraception in Adolescence - a Review of the Literature", paper presented at the WHO Consultation on Contraception in Adolescence. Geneva, September, 1975.

Tighe, P.
1975 "The Social Psychiatric View of Female Adolescent Contraception", in Zackler and Brandstadt, op. cit.

Vadies, G.
1977 "Peer Counselling Model, in Bogue, 1977, op. cit.

Wilson, J.Q.
1975 Thinking About Crime. New York: Random House.

World Health Organization

1965 Health Problems of Adolescence. Geneva: Technical Report Series No. 308

1974 Pregnancy and Abortion in Adolescence: report of a WHO meeting. Geneva, June 1974: Technical Report Series No. 583

1976 Consultation on contraception in adolescence. Geneva, September, 1975.