



51931

**UNITED NATIONS**  
**ECONOMIC AND SOCIAL COUNCIL**

---



Distr.  
LIMITED

E/CN.14/POP/76  
27 November 1972

Original: ENGLISH

ECONOMIC COMMISSION FOR AFRICA

Working Group on Fertility Levels and  
Differentials in Africa, and the  
Prospects for the Future

Addis Ababa, Ethiopia, 18-22 December 1972

INTERIM REPORT ON CONDITIONS AND TRENDS OF FERTILITY IN  
THE WORLD, 1960-1965

SUMMARY OF FINDINGS

(Prepared by the United Nations Population Division)

Interim Report on Conditions and Trends of Fertility inthe World, 1960-1965SUMMARY OF FINDINGS<sup>a</sup>A. Global trends, 1960-1965

Table 2 presents a general picture of birth rates and gross reproduction rates as they can now be estimated for 1960 and for 1965 in regions throughout the world. A principal distinction is also made between presently "more developed" and "less developed" regions. 1/ Subject to more detailed variations in age structure and fertility age patterns, it can be seen that birth rates are, very roughly, 15 times the corresponding gross reproduction rates. 2/ As determined by statistical tests in the previous study, few indicators discriminate as sharply between "more developed" and "less developed" countries as does the measurement of fertility. 3/ With very few exceptions it is accurate to say that the "less developed" countries are those whose gross reproduction rate is greater than 2.0, or whose crude birth rate is greater than 30 per 1,000. Despite some changes estimated to have occurred between 1960 and 1965, this has remained essentially true. At both dates, the average birth rate of more developed regions (21 per 1,000 in 1960, and 19 in 1965) was approximately one-half that of the less developed regions (41-42, and 40-41 per 1,000, respectively). A similar observation can be made with respect to gross reproduction rates.

Between 1960 and 1965, the average birth rate of Europe had decreased from 19 to 18 per 1,000, while the gross reproduction rate held steady at 1.3. Regional changes were on a very small and scarcely perceptible scale. Only in Southern Europe, where the crude birth rate decreased from 20 to 19 per 1,000 and the gross reproduction rate from 1.3 to 1.2, was there a change in both these measures of fertility. On the whole, fertility levels no longer differ much among regions in Europe, nor do they indicate any marked trend of change.

More significant than the European decline has been the decrease of birth rates in most of the other more developed regions, namely the Union of Soviet Socialist Republics, Northern America, Temperate South America, and Australia and New Zealand. But the circumstances of the fertility decline differ among those regions. In the USSR and Chile (Temperate South America) birth rates have never before been so low, hence their decrease between 1960 and 1965 can be interpreted as an advanced phase of the

<sup>a</sup> Chapter II of Interim Report on Conditions and Trends of Fertility in the World, 1960-1965 (United Nations publication, sales No.: E.72.XIII.3)

- 1/ For this purpose, the "more developed" regions comprise Europe, the Soviet Union, Northern America, Japan, Temperate South America, and Australia and New Zealand, while the "less developed" regions comprise the rest of the World.
- 2/ This is only a rough indication of comparative magnitudes in the two measures, under average conditions at this time. Actually, the relationship is not so simple and under particular conditions the birth rate can be considerably more or less than 15 times the gross reproduction rate.
- 3/ Population Bulletin of the United Nations, No. 7 - 1963...

demographic transition. In Northern America and Oceania, on the other hand, the lowest birth rates were attained historically in the 1930s, followed by a marked rise late in the 1940s to a comparatively high level which was sustained almost throughout the 1950s. In these regions, therefore, the renewed decrease is a return to lower levels which had prevailed previously. In Temperate South America (except for Chile), relatively low birth rates were also reached in the 1930s. However, the recovery after the war and subsequent decline were less marked than in Northern America and Oceania.

The fertility level in Japan, after a remarkable decrease from the post-war "baby boom" in 1947, has settled down to a low level and remained unusually stable. Coincidentally, there is also a noteworthy homogeneity in the fertility age pattern. A social norm connected with modern reproductive mores thus appears to be firmly established in Japan. The fertility pattern can hardly be expected to change much without social upheaval, of which there is now no indication. In such an event, however, any response in the national birth rate might also be rapid. An unusual decrease in the birth rate occurred in the year 1966 because, according to certain traditions, this was popularly regarded as an "inauspicious" birth year. The decrease is probably due to the postponement of births. The 1965-1967 average in recorded birth rates remains consistent with the established level.

Mention should also be made of southern Africa. This is a "more developed" region according to most economic indicators but, owing to the disparity of social indicators among its ethnic groups, it is "less developed" when the majority of its inhabitants are considered. The birth rate of the European minority in that region decreased between 1960 and 1965, as did the birth rates in other regions of overseas European settlement.

Generally one may conclude for the more developed regions that certain minor fertility changes have occurred during 1960-1965. The conclusion is assured because the statistics are accurate. Around 1960, fertility levels still differed significantly among those regions, being lowest in Europe and Japan, but markedly higher in Northern America, Temperate South America, the Union of Soviet Socialist Republics and Oceania. By 1965, much of that difference had vanished. In the USSR and regions of European overseas settlement, the birth rates decreased noticeably, whereas in Europe and Japan they changed only slightly; hence birth rates have become quite similar throughout those regions. The reasons for this convergence cannot be stated simply because it has proceeded from divergent previous trends. The apparent emergence of an almost uniform fertility level throughout the more developed regions is noteworthy, though it still disguises some significant differences which remain among particular countries or among important subgroups within some of the national publications.

By contrast, no assured conclusions can be drawn about recent fertility trends in the less developed regions. For most of their populations, the available data and estimates are not sufficient, or not sufficiently accurate, to permit any clear statement of trends. Nevertheless, there are some countries and regions with fairly accurate information. For instance, it is quite probably correct to say that birth rates have diminished at least slightly in many parts of Latin America. In certain countries of South and East Asia recent birth rate decreases are even better documented. It is probable that little change has occurred in birth rates elsewhere, including some of the most populous countries. But lack of sufficiently detailed

evidence means that this statement cannot be made with certainty. Despite what is known about certain countries with smaller populations, taking Asia or Africa as a whole, it is impossible to say whether or not the birth rate has changed at all between 1960 and 1965 (table 2).

These informational shortcomings are unfortunate, considering that Asia is inhabited by more than one half of the world's people. Their rapid increase causes much concern. Hence there is an understandable temptation to draw conclusions about large populations from the more specific observations made in smaller areas where the information is trustworthy. But in the better documented areas, the circumstances affecting fertility, among other developments, are likely to be special to this region, and therefore unrepresentative of the larger areas for which information is scant. Two countries alone comprise nearly two thirds of all of Asia's inhabitants, namely India and China. There are good reasons to assume that no significant change has occurred in the birth rate of India. One may be inclined to estimate a slow decrease in the birth rate of China, but there are no data to prove this conjecture.

One major area where fertility may actually be increasing is Africa, especially Middle Africa, <sup>4/</sup> probably because of improved health and other conditions. Data are lacking to verify this as a fact, and available data suggest little change, including possibly slight decreases in northern and southern Africa. Taking Africa as a whole, one may fairly conclude that the combined birth rate has hardly changed between 1960 and 1965, averaging about 47 per 1,000 in both years. This is the highest fertility level for any major world area.

South Asia comes next; and its average birth rate is estimated at 46 per 1,000 in 1960, and 45 in 1965, a very slight decrease. The data are not so accurate as to prove the extent of this possible decrease, nor whether it has occurred at all. Most certainly this decrease, if any, has not yet become large. The estimated decrease in the birth rate of the east Asian mainland (35-37 to 32-36) is almost sheer conjecture. Account was taken of social processes in China which may be conducive to the postponement of marriages and the spacing of births within them. But pertinent evidence is only a matter for speculation and not reducible to a quantitative measure. Decreasing birth rates in the region "Other East Asia" (Korea, The Ryukyu Islands and Taiwan), however, and in Hong Kong, have been observed with assurance, partly on the basis of entirely reliable vital statistics. The very unequal certainty with which

---

<sup>4/</sup> A region extending from Cameroon to Angola on the Atlantic coast and including the basin of the Congo River.

birth rates can be determined in particular areas creates difficulty in making a comparison for the combined continent of Asia with other parts of the world. 5/

The estimated decrease in the birth rate of Latin America, from 41 per 1,000 in 1960 to 40 in 1965, is derived from evidence which, also, is not very firm because of lack of reliable information about the most populous country, Brazil. However, this estimate is perhaps slightly more accurate than that for South-East Asia. In Middle America, where the 1960-1965 crude birth rate appears to have declined in about two thirds of the countries and territories, the regional rate remained constant at 43 per 1,000, being dominated by the crude birth rate of about 45 in Mexico, whose population comprises more than half the total population of this region.

The distribution of countries by region and level of the crude birth rate around 1965, as compared with the roughly analogous table 1.2 of the previous report, largely reflects the changes noted in the developed countries, in almost all of the smaller countries of Latin America with "complete" birth registration, and also in similar small countries of South East Asia and East Asia. Twenty-eight countries of the world had crude birth rates lower than 20 per 1,000 in 1965, seven more than in 1960. Four of these countries were in Europe; the other three were Australia, the Union of Soviet Socialist Republics and the United States of America. Similarly, eight countries in Latin America and eight countries in Asia had crude birth rates below 35 per 1,000 in 1965, as compared with only four and five respectively in 1960. 6/

#### B. Europe, Northern America, Oceania and the Union of Soviet Socialist Republics

The outstanding change in the countries of these regions, comprising nearly all the developed countries, was the narrowing of fertility differences among regions and countries. Decreases in fertility in the non-European countries were mainly responsible. In Australia, Canada, New Zealand, the USSR and the United States, the crude birth rate had been close to or above 25 per 1,000 at the beginning of the decade; by 1965 it had fallen substantially in all five countries and was below 20 in Australia, the USSR and the United States of America. As a result of changes in these countries and also in some European countries where fertility had been highest, only nine of the thirty-six countries in these regions had crude birth rates as high as 20 per 1,000, as compared with fifteen in 1960.

---

5/ The estimate for China being so uncertain, one may also wish to compare all-Asia and world averages when that country is omitted. Without China, the average birth rate of Asia may have been 42 in 1960 and 41 in 1965; when Japan is also excluded, it may have been 45 in 1960 and 44 in 1965; in all less developed regions combined, but not including China, the average birth rate was also 45 in 1960 and 44 in 1965. The world average without China comes to 36 in 1960 and 35 in 1965.

6/ This change is not manifested in the distribution according to the gross reproduction rate in table 4 because the intervals of the distribution are not comparable with those of table 1.3 of the previous report (See Population Bulletin of the United Nations, No. 7-1963 ..., chap. I)

The greater homogeneity of fertility patterns among the countries of these regions also manifested itself as a more uniform concentration of fertility in the younger reproductive ages. Between 1960 and 1965 the unweighted average of the proportion of gross total fertility in the ages under 30 among the countries of these regions increased from nearly 65 per cent to almost 67 per cent. In this instance, the change took place mostly in the European countries. In the non-European countries, the concentration of gross total fertility in the ages 15 to 29 had previously been markedly higher, averaging over 67 per cent in 1960, and underwent very little change during the five-year period in question.

Among the countries of Northern and Western Europe, changes in fertility were very small. A distinguishing feature of this subregion is that most of the changes that did occur in the first half of the decade were increases; these increases were followed in general by decreases in the subsequent years. In the first half of the decade, the combination of slightly increasing fertility levels and a continuing increased concentration of fertility in the younger reproductive ages resulted in higher age-specific rates, often substantially higher, in almost all countries, especially in the ages 15 to 19 and to a lesser extent also in the ages 20 to 24.

The most noteworthy development in Central Europe was the relatively abrupt decline of fertility in Poland, where the crude birth rate fell from about 23 to 17 between 1960 and 1965 and the gross reproduction rate dropped from 1.5 to 1.2 (the average for the region). Poland is one of the socialist countries of Eastern Europe (four of which belong to Central Europe and the remaining three to Southern Europe which in general had experienced an accelerated decline of fertility after the legalization of abortion in the mid-1950s. By 1960 this decline had nearly run its course in all countries except Poland and also to some extent in Romania, where the gross reproduction rate fell from 1.1 to 0.9 in the first half of the decade. In all the other countries the decline in the gross reproduction rate was no greater than 0.1. By 1968 most of these countries had shown concern over the implications of their low level of fertility and had adopted measures intended to increase fertility.

In Southern Europe the level of fertility decreased slightly as a consequence of the tapering off of declining fertility in Romania, Bulgaria and Yugoslavia and of the unexpected decline in Albania where the crude birth rate dropped from a very high 43 per 1,000 in 1960 to about 35 in 1965.

In Northern America and in Australia and New Zealand in Oceania, the crude birth rate fell from a range between slightly over 22 per 1,000 and slightly less than 27 in 1960 to a range between 19 and 23 in 1965. Roughly corresponding decreases were observed in the gross reproduction rate. Since 1965 the decreasing trend of the crude birth rate has continued in Northern America, but seems to have halted in Australia and New Zealand.

In the USSR the sharp fall in the crude birth rate from almost 25 per 1,000 to slightly over 18 between 1960 and 1965 was caused in part by the return to normal of the distorted age structure, which had caused the crude birth rate to exaggerate the prevailing level of fertility in 1960. The magnitude of the decline in the gross reproduction rate was considerably less, only from 1.4 to 1.2.

### C. Middle and South America

Middle and South America can in many ways be considered the region in which the most striking changes in fertility have been taking place since 1960. At the end of the 1950s the crude birth rate was reported or estimated to be over 40 per 1,000 in 18 of the 28 countries with a population of at least 250,000 the average rate for the region being estimated at 41 and a process of decline could be observed in only one country, Puerto Rico. Between 1960 and 1965, however, decreases of at least 4 per cent had occurred in 14 of the 15 countries (all except Mexico) with complete registration and in two more countries (Ecuador and Uruguay) with incomplete although not very deficient registration. In almost all of these countries for which the data were available, similar decreases were observed in the gross reproduction rate. The average regional crude birth rate, however, declined only from 41 to 40, in part because the observed decreases were generally very small (between 4 and 7 per cent in 11 of the 16 countries) and excluded the two countries with the largest populations (Brazil and Mexico).

Fourteen of the 16 countries with declining fertility in the first half of the decade were countries with high fertility (all except Argentina and Uruguay). It is noteworthy that in almost all of these countries with high fertility (all except Panama) the decreases continued after 1965 and even accelerated. Whereas between 1960 and 1965 decreases of over 7 per cent could be found in only five of these 14 countries with high fertility, the decreases between 1960 and the most recent date (generally 1968) were at least 10 per cent in all except one (Panama) and over 15 per cent in a total of seven countries.

Whether these changes constitute evidence that the transition from high to low fertility has already begun in Latin America is still not clear. The decreases occurred in countries that not only were smaller, but also less typically Latin American. Among the independent Latin American republics with high fertility, only six showed declining fertility and the decreases were generally smaller in magnitude. On the other hand, decreases were reported in all eight of the countries or territories comprising the region not independent. In five of these eight, the decrease between 1960 and 1968 was at least 15 per cent, as compared with only two of the six Latin American republics with decreasing fertility.

Among the 11 countries of Middle America with complete birth registration, fertility declined in all except Mexico and, since 1965, perhaps, also in Cuba. Although the crude birth rate fell impressively in the three countries of continental Middle America (Costa Rica, El Salvador and Guatemala), in general decreases were more frequent and on a larger scale in the Caribbean, especially in the six populations which are either not independent or not Latin American.

The fertility decrease in Costa Rica has attracted special attention because it may have resulted from a family planning programme officially adopted in that country in 1965. The crude birth rate had already been falling in Costa Rica, from 47.9 in 1961 to 42.3 in 1965. The provisional figure for 1968 was down to 37.2.

In the two countries of South America where fertility was already low, only small changes have been taking place. In Uruguay the crude birth rate declined from about 24 per 1,000 in 1960 to slightly over 22 in 1965 and just under 22 by 1968. In Argentina the crude birth rate decreased from almost 23 in 1960 to about 21 in 1966, but seems to have risen again, according to the provisional figure for 1967. In Chile, also in Temperate South America, the decline in the crude birth rate from almost 36 in 1962 to about 31 in 1967 may be due to family planning activities. Although an official programme had been in operation only since 1966, private activities were already functioning by that time on a significant scale. 7/

In Tropical South America the crude birth rate declined somewhat in two small non-Latin American countries, Guyana and Surinam, the only countries with complete birth registration in this subregion. Incomplete birth statistics show the crude birth rate declining continuously throughout the decade in Ecuador, from about 47 in 1960 to slightly under 40 in 1968. Also on the basis of incomplete statistics the crude birth rate appears to have been decreasing in Colombia since 1962 and very recently in Peru (only since 1966). Regarding Brazil, whose population of 81 million comprised approximately half the total population of South America, the deficient statistics unfortunately do not permit an evaluation of trends.

#### D. Asia

Since more than one half of the world's population resides in Asia it is unfortunate that, except for Japan, data on fertility levels and trends are at best not fully reliable for all the larger countries, e.g., China, India, Indonesia, Pakistan and the Philippines. Among the more than 40 countries of Asia with a population of at least 250,000, only 10 have "complete" birth registration statistics. In three of these 10, Japan, Israel and Cyprus, fertility remained relatively stable at the low or moderate levels prevailing at the beginning of the decade. The crude birth rate in the Ryukyu Islands tapered off, after a rapid decline in the 1950s, and fell from 25 in 1960 to 22 in 1964. In the remaining six countries fertility had been relatively high in 1960. In Jordan the crude birth rate continued high, the reported rate for 1965 being about 48 per 1,000. In all the others a decline in fertility, which had already begun in the 1950s, continued in the 1960s, at a very rapid pace in Hong Kong, Singapore and Taiwan, and more moderately in Ceylon and West Malaysia.

In the Republic of Korea, apparently reliable estimates from date of birth data in the 1966 census indicate the crude birth rate fell from about 43 in 1960 to 32 in 1966.



Among the countries with declining fertility, changes in age patterns of fertility in the period 1960 to 1965 were very diverse. In some countries, Hong Kong, the Ryukyu Islands and Taiwan, sharp increases in the proportion of gross total fertility in the younger ages (20 to 29) were often reported. In other countries, however, the proportion in the younger ages (15 to 29 for Ceylon, 15 to 24 for West Malaysia and Singapore) decreased, perhaps as a result of deferred age of marriage. Even in Hong Kong the tendency of fertility to become concentrated in the younger ages appears to have reversed itself after 1965.

Judging fertility trends for the remaining countries is difficult. There are indications of decline in a few countries, such as Lebanon, but the reliability of the data remains in doubt. The decrease of the average regional crude birth rate from between 40 and 41 per 1,000 in 1960 to between 38 and 40 in 1965 rests largely upon the tenuous judgement that fertility has fallen in China.

In South-West Asia only a very slight decline can be observed. The rounding off of data largely explains the decrease in the average regional crude birth rate, from 45 to 43. The gross reproduction rate decreased only from 3.0 to 2.9. Only two countries posted declines between 1960 and 1965: Cyprus, where the crude birth rate fell from about 25 in 1960 to 24 in 1965, only to rise back again to 25 in 1968; and Israel, where the decrease in the crude birth rate was from 27 to 26. In Lebanon the incomplete registration statistics show a decline from almost 34 since 1963 to slightly under 30 in 1968.

The average crude birth rate for South Central Asia held steady at 44 per 1,000 in 1960 and 1965. Firm evidence of decline is found only in Ceylon, whose complete birth registration statistics show the crude birth rate dropping from almost 37 in 1960 to about 33 in 1965 and to slightly under 32 in 1968. Although official family planning programmes are active in Ceylon and have been for a number of years in India and Pakistan, nevertheless changes in the latter two countries have not been large enough to be seen with the deficient statistics available. The apparent increase in the Indian crude birth rate between 1960 and 1965 in Table 16 may well be because the estimates were derived by different procedures and are not strictly comparable.

In South East Asia average regional fertility may have declined slightly. The regional crude birth rate is shown as having fallen from 46 to 45 per 1,000 between 1960 and 1965 and the gross reproduction rate is estimated at 2.9 for both dates. There is no evidence of any decrease in the two largest countries, Indonesia and the Philippines. Declining fertility is found only in two small countries, Singapore and West Malaysia, the only two Asian countries with complete birth registration, and two countries with the oldest established official family planning programmes. The decrease was especially sharp in tiny Singapore where the crude birth rate dropped from about 39 per 1,000 in 1960 to around 31 in 1965 and then to slightly under 25 by 1968. In West Malaysia the decline was less pronounced, from about 41 in 1960 to somewhat under 37 in 1965 and to slightly over 35 in 1967.

Average regional fertility in East Asia is dominated by trends in China where the crude birth rate is thought to have declined from about 38 to around 35 per 1,000 between 1960 and 1965. In Japan, the country with the second largest population, fertility held steady, with the crude birth rate at around 17 per 1,000 except for the fluctuations during the three-year period centring around 1966, the "year of the fiery horse". The most notable change in Japanese fertility was the decline in abortions, presumably in preference to contraception.

Decreasing fertility in East Asia can be affirmed with assurance for only four areas. As already noted, a moderate decline of the crude birth rate in the Ryukyu Islands apparently marked the end of the transitional decline of fertility in 1964. The other three areas where fertility was relatively high at the beginning of the decade were Hong Kong, the Republic of Korea and Taiwan. In all four areas the decline observed during the 1960s has been impressively rapid.

#### E. Africa

Information about fertility in Africa is indeed far from satisfactory. Complete birth registration covers only about 6 per cent of the region's total population and is used in only four countries (Mauritius, Reunion, Tunisia and recently Algeria) plus certain minority ethnic groups elsewhere. Several other countries (Libya, Madagascar and the United Arab Republic), comprising about 12 per cent of the regional population, have birth registration statistics that are regarded as incomplete in varying degrees. For the remaining 42 countries with 82 per cent of the region's population, there is either no current information on fertility levels of the population as a whole, or at best estimates derive from sporadic sample surveys or other procedures which can provide no information on fertility trends.

Fertility is high throughout Africa. In only one country does the crude birth rate even approximate a level as low as 30 per 1,000, namely Mauritius, where fertility has been declining since 1963. However, several other countries (notably Namibia, an ethnic minority area, South Africa, Southern Rhodesia and Zambia), designated in official statistics as either "white" or "European", have crude birth rates no higher than 25 per 1,000. Furthermore, complete birth registration data on the population of Indian origin in Southern Rhodesia show the crude birth rate to have fallen from almost 40 in 1961 to less than 33 in 1965 and to between 22 and 23 by 1968.

West Africa is believed to have the highest average regional fertility rate in the world, despite the presence of some countries with only moderately high fertility. The average crude birth rate in West Africa is estimated at 50 per 1,000 and the gross reproduction rate at 3.4. In North Africa and in South and East Africa, crude birth rate fertility appears to be equally high (about 45 per 1,000 in both regions). However, this measure has generally been found to overestimate the level of fertility in Africa south of the Sahara. The more accurate gross reproduction rate estimates average fertility at 3.2 in North Africa, considerably higher than the 2.7 estimated from South and East Africa.

Official family planning programmes have been adopted in three countries of North Africa: Morocco, Tunisia and the United Arab Republic. The official statistics for Tunisia show the crude birth rate to have fallen from about 46 or 47 in 1960, to 44 in 1965, and to around 38 or 39 in 1968. Although birth registration is classified as complete in Tunisia, fluctuations in late registration leave doubt as to whether the decline is as much as recent figures indicate, and birth rates therefore are of questionable accuracy. Nearly as complete birth registration data for the United Arab Republic indicate a decline in the crude birth rate from about 43 per 1,000 in 1963, to between 41 and 42 in 1965, and to around 38 in 1968. To some extent this decline may reflect a change in age structure and perhaps also a deterioration in the quality of registration statistics because of the tense military situation. The gross reproduction rate remained constant at 3.0 in 1960 and in 1965. In Algeria the picture is confused by the massive emigration of the low fertility population of French origin, and also by the movement of Algerians between France and Algeria.

West Africa, the region where fertility is highest, is also the region about which information is most meagre. There is no basis for determining whether or not any changes in fertility have been taking place. Various surveys and censuses, often not nationwide in coverage, tend to confirm previous estimates indicating the existence of two distinct zones of differing fertility. With only a few exceptions, fertility is extremely high in the westernmost countries - i.e., in Nigeria and in countries to the west of Nigeria, such as Dahomey, Ghana, Guinea, the Ivory Coast, Mali, Niger, Togo and Upper Volta. To the east and south-east of this zone there is a belt of countries with only moderately high fertility, an belt which extends across middle Africa into sections of South and East Africa. The reason for these different patterns is not well understood.

In South and East Africa the decline of the crude birth rate in Mauritius from about 40 per 1,000 to only slightly above 30 has already been noted. The only other country with a clear indication of declining fertility is another small island, Reunion, for which complete birth registration data show the crude birth rate to have declined from somewhat over 44 in 1963 to under 43 in 1965 and to around 37 or 38 by 1967 and 1968.

In the largest country of this region, Ethiopia, very fragmentary information is just beginning to become available. The belt of only moderately high fertility extending south-eastward from West Africa cuts across national boundaries and includes Burundi, Uganda and parts of the Democratic Republic of Congo and the United Republic of Tanzania. Fertility appears to be higher in Kenya, Rwanda and Zambia.

In four of the countries for which no nationwide information is available, reliable birth registration data for the European population show at least moderately decreasing crude birth rates somewhat similar to those reported for populations of European origin in Northern America and Oceania. This decrease was especially marked in Southern Rhodesia, where the crude birth rate fell from 27 per 1,000 in 1960 to about 18 by 1965. A substantial decrease was also noted for this population in Zambia and in Namibia. In South Africa the crude birth rate for the proportionately larger white population declined very slightly, from about 25 to somewhat below 24.

#### F. Perspectives for the future

If changes in fertility trends since 1960 have on the whole been very small, there has been a rather extraordinary change in the conditions that affect fertility. It is these changes in conditions that give significance to indications of declining fertility that have begun to appear, suggesting the possibility and creating the expectation that these new trends, however slight, may be the first manifestations of the consequences of these altered conditions.

It has long been axiomatic among students of the subject that the transition from high to low fertility in the already developed countries came about as a consequence of the social changes associated with economic and social development. Except in the case of the Union of Soviet Socialist Republics and the socialist countries of Eastern Europe, development was essentially an unplanned process generated by the interplay of market forces. Because the transformation of reproductive behaviour was not anticipated and its significance not generally perceived until after it had for the most part been accomplished, its relation to the developmental process was not studied as it occurred. Relevant details of important aspects were not observed systematically, and have been lost forever.

The precise manner in which economic and social development brings about a reduction of fertility is not well understood. There are many differences of opinion concerning which developmental factors are most crucially related to fertility change, and concerning the level of development that must be reached before a decline in fertility can be expected. In this connexion it is pertinent to mention the "threshold" hypothesis developed by the Population Division in its previous report. <sup>8/</sup> According to this hypothesis, fertility begins to decline in the course of passing through a threshold zone of development as measured by a dozen selected economic and social indicators. Depending on how broadly the limits of the threshold zone are defined, it is more or less unlikely either that fertility has begun to decline in any country situated on the under-developed side of the threshold, or that the transitional fertility decline has not been completed by any country on the developed side of the threshold.

Another related subject beginning to raise intense discussion around 1960 is whether and to what extent the initiation and rapidity of fertility decline can be influenced through officially instituted programmes of family planning. The discussion was largely academic, since at that time very few countries had even begun to experiment with population planning of this kind.

The most outstanding change during the 1960s has certainly been with respect to the conditions that affect fertility. The First United Nations Development Decade has witnessed the gathering momentum of concerted efforts towards economic and social developmental planning among the countries of the world. In an increasing number of countries the plans included provisions for family planning programmes in order to bring population growth rates more in line with the objectives of economic and social development programmes.

<sup>8/</sup> See Population Bulletin of the United Nations, No. 7 - 1963..., chap. IX.

By 1970 diverse kinds of programmes for economic and social development had been launched in almost all the less developed countries, with greatly differing prospects of success depending on local conditions and other circumstances. At the same time, approximately 30 countries with high fertility had adopted family planning programmes of one form or another and were pursuing them with varying degrees of vigour and efficiency.

As a result, the high-fertility developing countries may be viewed as a scientific laboratory for observing very clearly the changes in fertility level and the relation of these changes to varying inputs of the following hypothetical independent variables: economic and social development, and active family planning programmes.

In the coming years, one can expect that decreases in fertility will accelerate more rapidly or will become initiated earlier in those countries where the modernizing effects of economic and social development have been greatest and at the same time family planning programmes have been most efficiently implemented. Hypothetically, fertility decreases will be slower and the lag between economic and social development and fertility decline will be longer in countries where, despite intense development, family planning programmes have been either weak or altogether absent. Of great practical interest, but the most uncertain, will be the trend fertility takes in countries where vigorous, well-organized family planning programmes are working in an economic and social context that has been minimally subjected to the effects of modernizing factors.