

## CHAPTER IV

### BIRTHS AND DEATHS

Most underdeveloped countries, as we have seen in the previous chapters, are facing a population explosion, caused by the difference between high birth rates and low death rates. In this chapter, we shall however, consider in greater details the basic factors underlying high birth rates and low death rates, in the countries concerned.

Throughout the years, the fertility of underdeveloped countries has remained almost unchanged. The average crude birth rates range between 40-50 per thousand. Guatemala, however, has a crude birth rate of 51.7 per thousand, Costa Rica 51.4 and Venezuela, 47.1 per thousand. In Asian countries, the crude birth rates are slightly lower than the Latin American countries. India, for example, has a rate of 34.5, and Ceylon, 37.9 per thousand. The more developed areas, on the other hand, have lower crude birth rates. In Sweden, where family planning is a popular practice, the birth rate is only 14.8 per thousand. Low birth rates are also a prominent feature in other developed countries, such as United Kingdom, Belgium, and Denmark (table 5.1). Hence, the crude birth rates in the undeveloped countries are relatively high as judged by western standards.

Many factors are responsible for high birth rates. They can be listed as follows:

(1) In most developing countries, it is a common practice for women to marry young. Much evidence can be gathered in support of the fact that women usually marry before they reach puberty. According to past surveys, among women aged 20-24 years, 72 per cent were or had been married in Ceylon in 1946, and 95 per cent in India in 1951. The proportion of women ever-married in the age group 45-49 years was 99 per cent in India, and 97 per cent in Ceylon. It has been observed that in India, the man is regarded as an adult at his seventeenth birthday while the woman, at her fourteenth birthday. Hence, the Japanese people tend to marry early. Early marriages are not confined to the Asian countries alone. The people in the countries of Africa, and the Latin America usually marry at an early age too. In Egypt for instance, a figure of 99 per cent was recorded for the age group 40-49 years, in 1946. Within the age group 20-29 years, the figure was 88 per cent in Egypt. In Latin America, where fertility is equally high, many women seem to marry before reaching maturity. Available census data on the number of children borne by women show that they begin child-bearing early. Census

TABLE 5.1A

CRude Birth and Death Rates, Selected Countries 1965

	Birth Rate (per 1000 population)	Death Rate (per 1000 population)
<b>Rich Countries:</b>		
Belgium	12.7	12.8
Canada	23.3	8.1
Denmark	17.5	8.8
France	18.4	12.0
Ireland	18.7	8.5
Norway	14.9	8.6
Sweden	15.4	11.7
United Kingdom	24.6	9.5
United States	15.4	8.5
<b>Poor Countries:</b>		
Ceylon	37.9	11.0
Chile	55.0	12.8
Costa Rica	51.4	10.5
Dominican Republic	45.8	9.5
Ecuador	44.0	16.1
El Salvador	47.0	15.8
Guatemala	51.7	26.5
Honduras	41.0	11.2

**TABLE 8.3A**  
**BIRTH AND DEATH RATES, SELECTED COUNTRIES 1955**

	Birth Rate (per 1000 population)	Death Rate (per 1000 population)
India	39.5	12.7
Malaya	45.9	12.2
Mexico	45.4	13.1
Peru	39.0	9.1
Puerto Rico	54.2	7.2
Trinidad	42.8	10.2
Venezuela	47.1	10.3

Sources: UN, *Monthly Bulletin of Statistics*, XNo.7, July 1956

## GROSS MORTALITY RATES OF SELECTED COUNTRIES

	GROSS MORTALITY RATES - POPULATION				
	1980	1981	1982	1983	1984
Argentina	22.6	22.4	22.3	22.1	21.9
Bolivia	27.4	26.7	26.0	25.5	25.5
Burkina Faso	43.2	39.5	38.5	37.4	36.3
Côte d'Ivoire	49.0	48.4	47.3	45.4	42.7
France	16.5	16.8	16.6	16.7	17.6
Honduras	49.5	49.5	49.4	49.4	49.0
Hong Kong	35.2	35.0	34.2	32.9	32.1
Japan	17.6	17.2	16.9	17.1	17.7
Mexico	40.9	40.6	40.3	40.0	45.7
New Zealand	28.5	28.5	27.1	25.2	24.1
Puerto Rico	22.5	22.5	21.8	21.1	20.7
United States	20.2	20.2	20.2	20.2	20.2

CRUDE BIRTH RATES OF SELECTED COUNTRIES

Crude Birth Rates Per 1000 population

	1969	1970	1971	1972	1973	1974
Singapore	40.3	33.7	36.6	36.1	34.7	32.1
Sweden	14.1	13.7	13.9	14.2	14.8	16.1
United Kingdom	16.9	17.5	17.9	18.3	18.4	18.8
United States	24.1	23.7	23.3	22.4	21.7	21.0

Source:- UN, Monthly Bulletin of Statistics January, 1986, New York

data from 1951 in India revealed that 42 per cent of all men aged 20-49 years were married and 20 per cent were widowed. The number of married men increased in 1951 while the number of widowers decreased. In 1951, 42 per cent of all men aged 20-49 years were married and 20 per cent were widowers. The number of married men increased in 1951 while the number of widowers decreased.

(2) Religious factors also play an important role in determining the level of fertility. In the case of Hindus, where the norm is still a large family, continuation continues the duty of perpetuating the family. It is largely due to the high birth rate of the Hindu community that the birth rate of India reached the level of 47 per thousand in 1950. In India, where among the Hindus, the traditional blessing to a married girl when she bound to her spouse was "Be the mother of eight sons and may your husband live long". Hence, families are large because they will be able to manage them to have more children.

(3) Birth rates are also high because traditional rural societies encourage large families. They want more children because they view children as an economic asset. Most underdeveloped countries are engaged mainly in agricultural activities.<sup>1</sup> Since capital is scarce in these countries, these labourers are therefore employed in agriculture. Children are usually put to work in the fields as an extension of the labour force. Hence, it is understandable that large families are a typical feature of underdeveloped societies.

High birth rates are thus the result of early marriage, religious beliefs, values of traditional societies, and illiteracy and ignorance.

In addition to our discussion on birth rates, we may note that India is among the few which have slightly lower birth rates, though they are still high if compared to those in the developed countries.

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<sup>1</sup>Peterson, William, op.cit., P.477

Out of the total economically active male population of 83,461 in India, in 1951, 72,535 are agricultural population. In Pakistan in 1951, out of the total of 21,200, the number of people engaged in agriculture is 18,000.

<sup>2</sup>Family planning is getting popularity today in the developing countries.

**BIRTH RATE** Fertility rates in India might be higher were it not for various factors. One of such mortality, many households are broken and there is a large number of widows, whose age is still of reproductive age. Another factor is the lack of ability to procreate. Indians cannot afford to have children during special holidays and it is the custom to go to the temples to seek their parental help for child birth, where they are not allowed to do so. In addition, the levels of living are so low that people believe that sterility - the physiological ability to have children - has been impaired. All the above factors thus explain why the birth rates are comparatively lower than those of other developing countries.

It shows any sign for birth rates in the underdeveloped countries to decline. As mentioned in table 3.18, there is an indication that they are on a decline in recent years. The table shows that the crude birth rates in Puerto Rico have fallen from 32.3 per thousand in 1959 to 26.2 per thousand in 1964. Hongkong is also beginning to control her birth rate, and has reduced her birth rates from 35.2 per thousand in 1959 to 30.0 per thousand in 1964. Birth rates are falling in many developing countries where there is a growing awareness among the people of the importance of a small family. The idea of family planning has penetrated into the minds of the masses. Moreover, the urbanisation is proceeding rapidly in many areas. In India, age at marriage is becoming higher. Median age at marriage was 15 years in 1960-61, 15.4 during 1964-65 and is believed to have increased to 16 years or even more today. Another factor which used to be a strong force in the past, is less widely observed today. In addition, the tradition of large families is losing its hold on the minds of the people. Hence, birth rates have thus been declining. But in spite of the declining trend, the birth rates in the underdeveloped countries have not reached the level attained by the west yet. So high fertility is still an identification of the developing world.

We shall next discuss death rates in the underdeveloped countries. In the past, many countries in Asia, Africa and Latin America had high death rates. An illustration, the death rates in India were as high as 30 per thousand before 1920. High death rates were caused mainly by widespread diseases. In India, at least 100 million persons were estimated to suffer from malaria annually, and about 2 million persons to die each year from direct or indirect effects of the disease. In India, malaria was also an important cause of illness and death. In Brazil, high death rates were largely the results of diarrhoea and tuberculosis. Similarly, in Puerto Rico, diarrhoea, enteritis and tuberculosis account for over one third of the total number of deaths in the country. The basic causes for high death rates can be summed up as lack of sufficient preventive health services, insufficient medical supplies, reliance on indigenous medical practices, insanitation, and poor quality and overcrowding housing.

After the second World War, however, there was a headlong mortality decline in the underdeveloped countries. The average crude death rates of most of them are now less than 20 per thousand. In Argentina, the death rate was 3.3 per thousand in 1959 (Table 3.2A). The corresponding figure was 7.1 per thousand in Puerto Rico 9.7 per thousand in Venezuela, 9.9 per thousand in Ceylon, and 8.0 per thousand. Infant mortality, however, has similar trend. In Ceylon, infant death rates fell from 141 per thousand live births in 1946 to 71 per thousand in 1953. Infant mortality rate in Malaya was 93 per thousand live birth in 1950, and it dropped sharply to 48 per thousand in 1953. The general mortality rates are so low that they are comparable to those in more developed countries. For instance in 1953 the death rates were 9.2 per thousand in Trinidad and Tobago as compared to 9.5 per thousand in the United States (table 3.2B). Hence, the United Nations experts reported that the "present mortality trends in many underdeveloped areas have reduced the gap with western experience to a point where even divergent or qualitative comparisons of death rates are often invalid."<sup>5</sup>

These death rates, even though they are already low, continue to decline further in the early 1960's. In Mexico, the crude death rate was 11.7 per thousand in 1959, 11.5 in 1960, 10.8 in 1961 and 1962, 10.7 in 1963, and 10.3 per thousand in 1964. Another case is Singapore. Her death rates were 16.5 per thousand in 1959, 6.3 in 1960, 6.0 in 1961, 5.9 in 1962, 5.8 in 1963, and 5.7 per thousand in 1964. (table 3.2C) The other developing countries are also facing the same trend as they improve their public health measures. A writer thus claims, "the most important demographic feature of an underdeveloped country, and indeed perhaps the most decisive characteristic altogether is that it can remain backward in every other respect and yet match the death rate of the most advanced countries."<sup>6</sup>

<sup>4</sup>This postwar mortality decline represents a third major era of international mortality transitions. The first great period of mortality decline occurred between the late nineteenth century and early twentieth century in industrial countries. The second great period we experience by Eastern and Southern Europe. Compared to the earlier periods, the present decline is more rapid. See chapter 3.

<sup>5</sup>See Malaya Statistical Bulletin of the States of Malaya, February, 1956, Kuala Lumpur.

<sup>6</sup>United Nations, Proceedings of the World Population Conference, 1954, P. 37

<sup>7</sup>Rutherford, William, op.cit., p. 467

## TABLE 8.21

**CHANGES IN CRUDE DEATH RATES 1935-39 to 1955-59  
LATIN AMERICA, ASIA AND AFRICA**

Population	1935-39	1955-59	Change
<b>Latin America:</b>			
Argentina	11.6	9.3	3.3
Barbados	20.6	10.5	10.1
British Guiana	21.3	10.9	10.9
Chile	23.7	12.5	11.2
Costa Rica	20.0	9.6	10.4
El Salvador	21.1	13.2	7.9
Guatemala	26.5	19.9	6.6
Jamaica	16.6	9.4	7.2
Mexico	23.5	12.5	10.8
Puerto Rico	19.0	7.1	11.9
Trinidad & Tobago	16.6	9.6	7.0
Venezuela	17.9	9.7	8.2
<b>Asia:</b>			
Ceylon	24.5	9.9	14.6
Cyprus	14.4	6.2	8.2
Federation of Malaya	20.8	11.3	9.5
Hongkong	29.1	7.6	21.5
Japan	17.4	7.8	9.6
Singapore	22.1	7.5	14.8
Taiwan	20.2	8.0	12.2

TABLE 2.21

~~TABLE 2.21~~  
POPULATION GROWTH RATES 1950-59 to 1965-69  
LATIN AMERICA; ASIA AND AFRICA

Population	1950-59	1965-69	Change
<b>Africa</b>			
Cape Verde Islands	28.7	18.7	10.5
Mauritius	27.5	12.0	15.5

Sources: UN, Demographic Yearbook, 1954 and 1961.

## TABLE 2.28

## BIRTH AND DEATH RATES OF SELECTED UNDERDEVELOPED AREAS; 1950

	Rates per 1000 Population		
	Birth	Death	Natural Increase
Africa:			
Chad	52.49	20.9	31.5
Rwanda	45.2	14.1	31.1
Mauritius	40.8	11.8	29.0
Latin America:			
Costa Rica	38.7	9.0	29.7
El Salvador	47.5	18.5	33.9
Guatemala	48.7	21.5	27.4
Mexico	44.5	12.5	32.0
British Honduras	48.8	9.5	37.5
Jamaica	38.1	8.8	29.3
Trinidad and Tobago	37.6	9.2	28.4
Venezuela	45.8	10.0	35.8
British Guiana	44.5	10.1	34.4
Asia:			
Taiwan	41.7	7.6	34.1
Malaya	43.2	11.0	32.2
Aden Colony	59.2	18.1	28.1
Hongkong	53.8	7.5	51.3
Singapore	42.0	7.0	35.0
Europe:			
Bulgaria	17.9	7.9	10.0

## TABLE 6.1B

## BIRTH AND DEATH RATES OF SELECTED EASTERN EUROPEAN AREAS, 1959

	Rates per 1000 Population		
	Birth	Death	Natural Increase
Hungary	16.1	9.9	6.2
Poland	26.2	8.4	17.8
Portugal	25.7	10.2	15.5
Romania	21.8	8.7	12.9
Spain	21.9	8.7	13.2
Yugoslavia	25.9	9.2	14.8
USSR	26.3	7.2	19.1
USA	24.5	9.5	14.8

Sources: Peterson, William, Population, New York, 1961 P.474

TABLE 3.20

## CRUDE DEATH RATES OF SELECTED COUNTRIES

	Crude Death Rates per 1000 population					
	1969	1970	1971	1972	1973	1974
Australia	8.9	8.6	8.5	8.2	8.7	9.0
Canada	8.0	7.8	7.7	7.7	7.8	7.6
China (Taiwan)	7.2	6.9	6.7	6.4	6.1	5.7
Costa Rica	9.0	8.6	7.9	8.5	8.5	8.8
Denmark	9.3	9.5	9.4	9.8	9.8	9.9
El Salvador	12.6	11.4	11.3	11.5	10.9	10.4
Hongkong	6.8	6.2	5.9	6.0	5.5	4.9
Japan	7.5	7.6	7.4	7.5	7.0	6.9
Mexico	11.7	11.5	10.8	10.8	10.7	10.3
New Zealand	9.1	8.8	9.0	9.9	8.8	8.8
Puerto Rico	6.8	6.7	6.8	6.7	6.9	7.1
Singapore	6.5	6.3	6.0	5.9	5.8	5.7
Sweden	9.5	10.0	9.8	10.2	10.1	10.0
United Kingdom	11.7	11.5	12.0	11.9	12.2	11.3
United States	9.4	9.5	9.3	9.5	9.6	9.4

Sources: UN, Monthly Bulletin of Statistics, January 1966, New York

The introduction of public health measures was the sole factor that had caused a sudden fall in death rates recent years. Since it is not possible for us to examine every death control measure taken, we would confine ourselves only to a single important measure - Malaria Control.

Malaria control has a striking effect on mortality. In Ceylon, where high death rates, at one time, prevailed, a precipitous decline depended essentially on a single factor - DDT, an especially powerful insecticide developed during the Second World War. DDT helps to eliminate malaria, the principal cause of death. As a consequence of the use of DDT, death rates thus declined - from about 20 to less than 13 per thousand in Ceylon. From 1946-49, the reported malaria morbidity rate was reduced by 77.5 per cent, resulting therefore in a decline of death rates of about 32.5 per cent. Moreover, it has been estimated that death rates in Ceylon fell off by more than one-half in nine years, as a result of wide-spread malaria campaigns. The amazing success of Ceylon was subsequently reported in the other parts of the underdeveloped circle. In India, the incidence of malaria had fallen from 75 million cases in 1953 to 4 million cases in 1959, while the deaths caused by malaria fell from 600,000 in 1953 to 10,000 in 1959. The decline, which has resulted from malaria control, can also be found in countries of Africa and Latin America. The mortality rates fell from 25 per thousand to less than 15 per thousand in Mauritius, from over 14 per thousand to 10 per thousand in Sardinia, and from 16 per thousand to 14 per thousand in Venezuela.

It is thus clear that the present mortality decline is not attributable primarily to the improvement in economic conditions as in the case of the industrial countries, but rather to the product of vigorous public health measures.<sup>8</sup>

The direct result of the fall in death rates is easily noticeable. Men can now live longer. The expectation of life at birth has therefore been raised in many developing countries. In Mexico, life expectancy was below 40 in 1940, but with the application of health preventive and curative policies, it increased to 50 in 1954. In Taiwan, it rose from 43 to 63 in the period of 20 years, while Ceylon had a gain of 16 years in a period of 8 years - that is, from 44 in 1946 to 60 in 1954, a dramatic example of an increase in life expectancy. In certain cases, the life expectancy in the developing countries is on a par with the most developed nations.

<sup>8</sup> Before the introduction of public health measures, death rates in the underdeveloped countries had already been falling. The causes of decline were on one hand, not spectacular. The two main causes of the decline were on one hand, the introduction of modern administration, better roads, better, and eliminated local warfare, and, on the other hand, the introduction of modern transportation and communication that helped to eliminate local famines and spread trading in foodstuffs. However, future decline is expected to have resulted from the spread of individual medical attention, and from the increase in the number of doctors and hospitals.

Life expectancy at birth in Puerto Rico, as compared to 69.8 in the United States.

In general, however, the life expectancy in the underdeveloped countries is still below the level prevalent in the most advanced countries (table 7). It is 57.6 in Venezuela, 51.2 in El Salvador, 49.7 in Bolivia, and 50.8 in Congo. Mali, an extreme case, has an average life expectancy of 26. On the contrary, the corresponding figure is 75.4 in Sweden, 72.9 in Norway, 71.2 in England and Wales, and 68.0 in Soviet Union.

In our analysis of births and deaths, we have thus discovered that in the underdeveloped countries, birth rates are comparatively stable while death rates are falling rapidly. High birth rates persist simply because the people are unable to limit their family size (as the idea of birth control has not been widespread yet). On the other hand, death rates are declining because steps are being taken to promote public health.

TABLE 4

EXPECTATION OF LIFE AT BIRTH, 1950-51, OF POPULATIONS\* COMBINED STATES

Population	Years	Expectation of life at birth
Japan	1950	67.8
South Africa (whites)	1950-52	67.6
Hungary	1950	67.2
Finland	1951-55	66.6
Ireland	1950-52	65.8
Poland	1950	65.6
Austria	1949-51	64.4
Taiwan	1950-50	63.4
Portugal	1957-58	62.4
Panama	1952-54	61.8
Trinidad and Tobago	1957	61.6
Spain	1950	61.2
Ceylon	1954	59.8
Malaysia	1952-54	59.1
New Zealand (New Zealand)	1955-57	59.0
Venezuela	1950-51	57.6
Jamaica	1950-52	57.3
Guadeloupe & Martinique	1951-55	57.3
Federation of Malaya	1950-52	57.0
Costa Rica	1950-51	56.8
South Africa (Africans)	1950-52	55.3
Chile	1952	51.8

TABLE 4

## EXPECTATION OF LIFE AT BIRTH, 1950-59, FOR POPULATIONS, CONTINUED SIXTEEN

Population	Years	Expectation of life at birth
Sweden	1959	78.4
Norway	1951-55	72.9
Netherlands	1953-55	72.4
Israel	1959	72.1
Denmark	1951-55	71.2
England and Wales	1960	71.2
New Zealand	1955-57	70.8
France	1960	70.5
Canada	1955-57	70.2
Australia	1953-55	70.0
United States	1959	69.8
Czechoslovakia	1959	69.8
Northern Ireland	1959-60	69.7
Puerto Rico	1959-61	69.5
West Germany	1953-60	69.5
Scotland	1960	69.2
Ryukyu Island	1955-57	68.9
Switzerland	1948-55	68.6
East Germany	1955-58	63.4
Alta and Goss	1957-59	63.3
USSR	1958-59	62.5
Italy	1956-57	61.9

TABLE 4

## ESTIMATION OF LIFE EXPECTANCY, 1950-55, OR POPULATIONS, COMBINED SITES

Population	Years	Expectation of life at birth
El Salvador	1949-51	51.2
Haiti	1951-53	51.0
Peru	1951-53	50.6
Bolivia	1949-51	49.7
Southern Rhodesia	1953-55	48.5
Turkey (provincial capitals)	1950-51	48.2
Southern Africa (colonial)	1950-52	46.5
Cambodia	1950-52	43.8
Guatemala	1949-51	43.6
Zanzibar	1953	42.8
Pemba	1953	40.3
Congo (Leopoldville)	1950-52	38.8
Federation of Northern Rhodesia	1950	37.0
Senegal	1957	37.0
Ivory Coast	1953-55	35.0
Haiti	1950	32.6
Central African Republic	1956	32.0
All	1957	26.0