UN/POP/MORT/2003/6
3 September 2003

ENGLISH ONLY

WORKSHOP ON HIV/AIDS AND ADULT MORTALITY IN DEVELOPING COUNTRIES
Population Division
Department of Economic and Social Affairs
United Nations Secretariat
New York, 8-13 September 2003

ADULT MORTALITY IN THE ERA OF HIV/AIDS: LATIN AMERICA AND THE CARIBBEAN *

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A. Introduction

The decline of mortality in countries of the Americas during the last 50 years has reduced the differences of life expectancies at birth among the countries. There was only 50 years ago, that while some countries had their life expectancies around 70 years others had a rather high mortality with life expectancies at birth close to 40 years (Arriaga 1968). At the current time, from 37 countries listed by United Nations (2003) only one country (Haiti) has a life expectancy at birth under 50 years, 7 countries had life expectancies between 65 and 70 years and in 29 countries the life expectancy for both sexes is over 70 years.

Although the increase of life expectancies at birth had been a continuous process during the last 50 years, such increase of life during the 80's and 90's has not been due to similar decline of mortality in all ages. The reduction of mortality has been concentrated in particular ages, and hence the question to be asked is why there are some age segments of the population that has not reduce mortality as they should. The answer requires an analysis of causes of death.

This paper presents a short discussion of the indices form measuring the change of mortality by age segments. Then, the paper presents the results of the variation of mortality during a period starting around 1980 with an approximately 15 years of length depending on the availability of data in each country. Finally, the main causes of death in three wide age groups of the population are presented and, at the end, a special note on AIDS.

B. Indices to be used

There is not question that *life* expectancies measure properly the level of *mortality*. They tell as how many year of *life* a population will live under a particular level of *mortality* at each age. However, life expectancies should not be use for analyzing the change mortality, because they refers to *year of life*, and if we use them for detecting the change of mortality, we are detecting the change of years of life due to the change of mortality, but not the real or direct change of mortality.

It is well known that equal percent change of central mortality rates in two different life tables produce different changes of life expectancies: smaller changes of life expectancies at higher values of them. Hence, the index used in this paper is year of life expectancy lost (YLEL) which measure the years of life *not lived* by a population because of mortality. The index is defined as:

$$ {}_{u}YLEL_{x} = u - {}_{u}E_{x} $$

Where *u* is the age interval, and ${}_{u}E_{x}$ is the temporary life expectancy between ages x and x+u, which is defined as

$$ {}_{u}E_{x} = (T_{x} - T_{x+u}) / l_{x} $$

Where T_x and l_x are the known life table functions. This index can be used for calculating the YLEL due to the mortality of each particular cause of death (Arriaga 1982 and 1996).

The YLEL by causes of deaths allows to determine the causes of deaths that suppress life within an age interval, and hence the index point out the main causes of death in such age interval, not because the amount of deaths that such mortality cause produce, but because of the number of life years suppressed from the life expectancy.

In addition, the change of mortality (or tempo) also can be estimated by using the YLEL during a time interval. (Arriaga 1996) The change of the YLEL is more closely related to the change of mortality than the change of years of life measured with the life expectancy al birth.

The analysis of the mortality change was also made by decomposing the change of the life expectancy during the period of time, by the change of mortality within 4 large age groups: under age 15, 15 to 49, 50 to 64 and 65 and over. The purpose is to determine the contribution of the change of adult mortality to the change of life expectancy at birth (Arriaga 1984 and 1989).

C. Change of Mortality

1. Decomposition of the change of the life expectancy at birth by the mortality change by age.

Life expectancies increased in 19 countries of the Americas (with data information) from approximately 1980 to around 1995. The contribution of the change of mortality by age to the change of the life expectancies at birth indicates that the mortality change at young ages 0 to 14 did the largest contribution to the change of the life expectancy at birth. In general, it can be said that the contribution of the population under age 15 was larger than any other age group considered; and in most of the countries more than 50% of the total change of the life expectancies was due to the reduction of mortality in ages under 15 years in each of the sexes.

For males, the mortality change in the age group 15 to 49 was the smallest contribution to the life expectancy change, with only few exceptions. In the case of the female population, in most of the countries the smallest contribution was in the age group of 50 to 64, but if the length of each age group is considered, that is, the contribution by single age, the situation would be similar to the males. In other wards, the change of mortality in young adult population at ages 15 to 49 has produced the smallest amount of years of life to the increase of the life expectancy at birth (table 1).

However, this could be due to the fact that mortality in young adult ages is very low and hence there is not too much room for the reduction of mortality. The proper answer is obtained by analyzing the year of life expectancy lost and their relative change in each of the considered age groups.

2. Change of years of life expectancy lost

The lowest number of years of life expectancy lost (YLEL) calculated for 19 countries (See Note) is at ages under 15, and from that age, as expected, the higher the age the higher the mortality and consequently the higher YLEL for the age groups 15 to 49, 50 to 64 and 65 to 84, table 1**.**

Because the age groups have different age length it is advisable to analyze the average of YLEL per single age. By doing so, an interesting patter appears. In 1980's, males and females had the minimum average of YLEL observed in the young adult ages of 15 to 49, even lower than in ages under 15. In the 1990's women keep such a pattern, however, men change the pattern and in all considered countries, mortality produced lower YLEL at ages under 15 than at ages 15 to 49. It seems that the reduction of mortality was more evenly distributed among the age groups in the female population than among men. Although almost in all countries males were able to reduce mortality in all ages, the reduction at ages 15 to 49 not only was small but in some countries the mortality at such ages increased.

The change of mortality can be analyzed by using the relative change of YLEL (or percent change of YLEL in relation to the 1980's level), table 1. These relative changes show that there were several countries in the Americas that increased mortality among the adult ages. Males in Brazil increased mortality at ages 15 to 49, while females reduced mortality in all ages. Colombia had exactly the same

pattern as Brazil, although the reduction of mortality among females 15 to 49 was smaller than in other ages. In Costa Rica, the YLEL at ages 15 to 49 and 59 to 64 increased for males, while for females as it was expected, the higher the ages, the slower the change of mortality. In Cuba it was an increase of YLEL at oldest ages among males, but a reduction for females. Ecuador shows a similar pattern as Cuba. And finally, Puerto Rico increased the YLEL among young adult males and females.

In addition, Trinidad and Tobago only reduce mortality at ages under 15, and from that age up to old ages practically mortality did not change at all. Two countries with general low mortality , Canada and the United States of America, have similar decline of mortality although there is a difference that should be mentioned. Males and females in the U. S. A. had a similar pattern, with a relative minimum change of YLEL at ages 15 to 49, while in Canada, that particular pattern only appears among men, since females relative change decline with age.

Most of the countries of the Americas present a notorious difference among men and women. The female population in all countries, with the exception of Colombia, Puerto Rico and U. S. A. had a negative relationship between the relative reduction of YLEL and age. For males, there are several countries with a minimum relative change of YLEL is at ages 15 to 49, table 1, aspect that indicates that the slowest mortality reduction was observed at ages 15 to 49 year.

In conclusion, life expectancies at birth in the Americas have increased mainly because of the mortality decline in the population under 15. Adult population in general has reduced mortality, but not too much as it should be, particularly for males. Un some countries as Barbados, Colombia, Coat Rica, Cuba, Ecuador and Puerto Rico, mortality increased mortality in some adult ages from early 80's to mid 90's. The best way to investigate this fact is the use of causes of deaths.

D. Causes of deaths.

The main causes of deaths in the adult population fluctuate from age to age, and hence it is useful to analyze them, at least, by wide age groups. In this case, the groups are only those pertaining to the adult population; they are 15 to 49, 50 to 64 and 65 to 84. The index used in the analysis is the number of years of life expectancy lost from birth to age 84 by the mortality of selected categories of causes of deaths within each of the age groups mentioned above. The causes of deaths were grouped according to the list suggested by the Pan American Health Organization (PAHO, 2002). Because of the main interest focused in this seminar (AIDS), the categories of causes of death were aggregated in specific categories where those causes related to early life and pregnancies were no considered individually, but grouped under "other" causes. The categories of causes of deaths selected represent at least 75 per cent or more of all deaths at ages 15 to 84. These groups are:

- *Circulatory System*. All causes related to the circulatory system.
- *Neoplasm*. All types of cancers.
- *AIDS*.
- *Diabetes*. All types of diabetes.
- *Cirrhosis*. All diseases of the liver.
- *External*. All accidents, homicides and suicides.
- *Septicemia*.
- *Acute respiratory*. Pneumonias and bronchitis.

Because of limitation of space, only a summary of the results are presented in table 2. The prevalence of certain causes of death is not the same in each gender, nor the magnitude of the impact of the mortality of the causes of death on the temporary life expectancy from birth to age 85. These differences are more

notorious at young adult ages of 15 to 49 than in the other two age groups. Frequently the mortality of the principal cause category (or group of causes) among men has a larger impact on the life expectancy than similar causes among women. The five more important categories of causes of death for males and females are presented in table 2. Here in the text, only the most noticeable aspects are presented for each age group, pointing out the differences between genders.

1. Ages 15 to 49

a. Males

The largest number of YLEL in these ages is due to external causes of death. In all countries this is the principal category of causes of death, with two exceptions, (Barbados where external causes are the second important category and Jamaica, where is the 5th). Most of the countries lose from 1 to 2 years of life expectancy from birth to age 85, because external causes in these young adult ages. Brazil, Chile and Puerto Rico lose more than 2 years, and Colombia and El Salvador more than 4 years, table 2.

The group of causes producing the second impact on the life expectancy (or the second one in importance) is diseases of the circulatory system. In general among the countries is the second or third more important. It follows in importance AIDS and neoplasm; in Barbados Aids in the most important cause of death in these ages; in Puerto Rico is the second more important cause of death, producing the lost of more than one year of lie expectancy. Also in Panama AIDS is the second most important cause of death, producing a lost of more than half year of life expectancy.

Other categories of causes of death affecting notoriously these ages are in order of importance cirrhosis, acute respiratory diseases and diabetes, table 2.

b. Females

In general, the main category of causes of death for females in these young adult ages is neoplasm, and it is followed by diseases of the circulatory system and external causes. The impact of each of these three categories over the temporary life expectancy between birth and age 85, is quite similar or closer among them than the differences observed for males. The category more frequently mentioned in the forth place is acute respiratory diseases; while AIDS and diabetes share approximately the fifth main cause, table 2.

2. Ages 50 to 64

a. Males

The most important category of causes of death in this age group is diseases of the circulatory system. In all countries is the main cause, except in El Salvador where is the second principal cause (in El Salvador the main category of causes is external causes). The second most important category of death is Neoplasm, and the third external causes. Cirrhosis and Diabetes follow them, table 2.

b. Females

The first and second categories of death among females are the same as those for males, circulatory system and neoplasm. However, the third one in importance is Diabetes, followed by acute respiratory diseases, table 2.

3. Ages 65 to 84

a. Males

In all countries, without exceptions, the main categories of causes of death are those of the circulatory system. The second is neoplasm in all countries with the exception of three countries, where in two of them is the third category and in the other country is the forth. The third and forth categories of causes of death for most of the countries are acute respiratory diseases and diabetes. External causes came after them as the next important cause, table 2.

b. Females

At these old ages, the mortality by cause of death for the female population is similar to the male population, but at a lower level. The main causes are diseases of the circulatory system follow by neoplasm. The difference with the male population is that the third category of causes of death among females is diabetes and the forth is acute respiratory diseases, table 2.

E. AIDS

The impact of AIDS mortality on the length of life in most of the American countries considered here, fortunately still is small, except in few countries of the Caribbean region. In all countries with acceptable statistics, male AIDS mortality is notoriously higher than females.

Barbados is the country with the highest AIDS mortality, which impact on the temporary life expectancy from birth to age 85 is to restrains life in 1.83 and 0.54 year of life for male and females respectively in 1994. The second largest impact is found in Puerto Rico with a lost of years of life expectancy of 1.28 and 0.41 for male and females respectively in 1998, table 2 and 3. They are followed by Panama in 1997 and Trinidad and Tobago in 1994.

Out of the 19 presented countries, 14 and 10 for males and females respectively, at ages of high incidence of AIDS (from 15 to 49) AIDS is one of the 5 principal categories of causes of death. However, among males, not only external causes, circulatory diseases and neoplasm are obviously more important than AIDS, but cirrhosis if found among the 5 principal causes of deaths in 15 countries. Similarly among women, at these ages of 15 to 49, not only neoplasm, circulatory diseases and external causes of death are more important than AIDS in most of the countries, but acute respiratory diseases is one of the 5 more important categories of cases of death in 17 countries out of the 19, table 2.

One aspect that seems to be documented is that mortality from AIDS in the Americas is considerably higher for males than females, mainly when mortality of AIDS is not too high. For instance, in countries where the impact of male AIDS mortality on the temporary life expectancy is under 0.25 YLEL, the level for females is under 0.03; approximately the level for women is 1/8 of that for males. However, if the level for male mortality from AIDS is around 0.50 or higher YLEL, women level is over ¼ of the male level, table 2.

There is a reminding question: how the AIDS mortality is in countries without acceptable vital registers? In Latin America, Haiti and Honduras have been mentioned as countries with a large AIDS epidemic. For Haiti there are not registered vital or census statistics that can be analyzed, but for Honduras there is some information. A recent life table constructed in Honduras based on information from the 2001 census (with adjusted levels of deaths for ages under 10 and for adult ages after age 50) shows for female population a remarkable similar pattern of mortality to the one pertaining to a life table

for the year 1988 which was constructed several years ago based on the Coale-Demeny West life table model (Hernandez 1994), figure I. For males, the mortality in young adult ages 15 to 49 in 2001 is slightly higher that the estimated levels in 1988. Since the Cole-Demeny models did not include AIDS, given the similarity of the mortality pattern among women in Honduras in 2001 and 1988, it is likely that the AIDS mortality in Honduras for females is not too high. If the epidemic for females is not too high, it is also likely that the epidemic for males still would be low, and the probable increase of mortality among males could be due to: a) increase of external causes, b) small increase due to AIDS. The other possibility is the male mortality at ages 15 to 49 in 1988 could have been underestimated and that the real trend of mortality in those ages could have been a decline of mortality.

But there is no question that the sharp increase of male mortality rates at ages 10 to 14, 15 to 19 and 20 to 24 in Honduras in 2001 probably is not due to AIDS but external causes. For instance, the mortality rates from AIDS in Brazil are presented in the figure II. They show the lowest values at age 15 to 19, where practically there is not mortality from AIDS. However, the total mortality rates for Honduras at this particular age for 2001, already is higher than the estimated rate for the same age in 1988.

The comparison of the Honduran mortality pattern estimated with census data with the United Nations pattern (average of the periods 1995-00 and 2000-05) does not reject the hypothesis that the mortality from AIDS in Honduras is not too high as the case of Barbados and Puerto Rico. The comparison of the patterns for males show census mortality rates higher than the UN pattern at ages 15 to 19 and 20 to 24 where mortality from AIDS cannot be too high, figure III. After age 30, both patterns are practically the same. This fact would suggest that such increase of the census mortality at young ages 15 to 25 has to be due to external causes. El Salvador has a high mortality from external causes, as well as Guatemala. Hence it is not impossible that Honduras has also high mortality from external causes.

In the case of the females, the census mortality pattern of Honduras shows a lower mortality than the United Nations from age 5 to old ages, figure III. If the mortality from the census of Honduras and United Nations for males are so close after age 30, and if we assume that there was no sex bias in declaring deaths in de Honduran census, then, probably the United Nations level of mortality for females could be overestimated if the estimated level was based on a model for estimating AIDS deaths.

There is no question that Honduras has AIDS as any other country in the Americas, but it seems likely that Honduras around 2001 did not have a high mortality from AIDS, and the unanswered question would be at what speed the AIDS epidemic is spreading. But base on the limited information available it seems likely that the levels of AIDS mortality in Honduras could be similar to those found in Panama and/or Costa Rica.

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F. Conclusion

Adult mortality in the Americas has been reduced at slower pace than mortality at younger ages. Approximately, half of the increase of life expectancies since 1980's to around 1995 was due to the reduction of mortality under age 15 years. Mortality from diseases of the circulatory system has been reduced in all countries. Neoplasm have remain almost unchangeable, with some compensations of males reducing cancer of the trachea, bronchitis and lung but increasing prostate cancer; while females have increased cancer of trachea, bronchitis and lung, while the trends of cancer of the mama and uterus have increase in some countries and reduced in others. But the increase of AIDS, diabetes and septicemia has been detected in most of the countries. Also, acute respiratory diseases have reminded almost constant or have show slight tendency to increase (PAHO 2002).

There are not daubs that AIDS is present in all the countries of the Americas and if it not controlled properly, the epidemic could continue spreading out. Since the means for avoiding the spread of AIDS

exists (condoms) countries in the world should made aggressive advertising to let know the people of the problem that they are facing, and telling them about the possibility of having a safer sex activities with the use of condoms. Those opposing to this possible policy should be pointed out as avoiding a possible reduction of the spread of AIDS.

According to the limited information available, the mortality pattern of AIDS in the Americas (excluding the few Caribbean countries), seems to have more differences between sexes than the available models simulating the epidemics of HIV or the mortality pattern estimated for African countries. It may be useful to review such models base on available information. Probably models were developed when the period from acquiring HIV to developing AIDS was shorter than at current times. May be it would be necessary to have more than a model. One for more developed countries were drugs retarding the period from HIV infection to AIDS are available and another where such drugs are not available for everyone.

Diseases of the circulatory system and neoplasm still are more important that AIDS in the young adult population in the countries of the Americas. Furthermore, health authorities should not overlook the fact that diseases as diabetes and acute respiratory diseases such as pneumonias and bronchitis are as important as AIDS at ages 15 to 49. And furthermore, if only ages 15 and over are considered, what is left after the two principal categories of causes of death (diseases of the circulatory system and neoplasm), are diabetes, acute respiratory diseases, and some times septicemias. These causes of death restring more years of life expectancy than AIDS in the Americas.

Table 1. Contribution to the Change of Life Expectancy at Birth by the Change of Mortality at Indicated Ages, and Years of Life Expectancy Lost Within Each Selected Age Groups Because of Mortality. Selected Countries of the Americas at Indicated Years.

Contribution to the change of life expectancy at birth by the change of mortality at indicated ages

Years of life expectancy lost within each indicated age groups

Argentina 1979-81 to 1995-97			Argentina	Males				Argentina	Females			
Age	Male	Female					Relative					Relative
0-14	1.34	1.24	Age	1979-81	1995-97	Change	change	Age	1979-81	1995-97	Change	change
15-49	0.73	0.71	0-14	0.66	0.41	0.25	0.38	0-14	0.54	0.33	0.21	0.39
50-64	0.69	0.49	15-49	1.22	1.08	0.14	0.11	15-49	0.75	0.53	0.22	0.29
65+	1.29	2.46	50-64	1.57	1.28	0.28	0.18	50-64	0.76	0.62	0.14	0.18
Total	4.04	4.90	65-84	7.70	6.80	0.90	0.12	65-84	5.26	4.13	1.13	0.22

Barbados 1979-81 to 1993-95			Barbados	Males				Barbados	Females			
Age	Male	Female					Relative					Relative
0-14	1.20	1.29	Age	1979-81	1993-95	Change	change	Age	1979-81	1993-95	Change	change
15-49	-0.91	-0.25	0-14	0.47	0.23	0.24	51.53	0-14	0.43	0.18	0.25	58.27
50-64	-0.12	0.16	15-49	0.81	1.20	-0.39	-47.83	15-49	0.53	0.63	-0.10	-19.30
65+	-0.65	-0.35	50-64	1.26	1.30	-0.04	-3.37	50-64	0.86	0.81	0.06	6.54
Total	-0.49	0.85	65-84	6.58	7.44	-0.86	-13.05	65-84	5.38	5.62	-0.24	-4.51

Brazil 1979-81 to 1996-98			Brazil	Males				Brazil	Females			
Age	Male	Female					Relative					Relative
0-14	3.60	3.46	Age	1979-81	1996-98	Change	change	Age	1979-81	1996-98	Change	change
15-49	0.23	0.83	0-14	1.47	0.73	0.74	50.26	0-14	1.23	0.59	0.64	52.15
50-64	0.82	0.54	15-49	1.96	1.97	0.00	-0.23	15-49	1.05	0.76	0.29	27.40
65+	0.39	0.93	50-64	1.92	1.52	0.40	20.81	50-64	1.12	0.92	0.20	18.00
Total	5.05	5.76	65-84	8.86	8.10	0.76	8.58	65-84	6.60	5.70	0.91	13.73

Canada 1979-81 to 1995-9337

Age	Male	Female
0-14	0.50	0.37
15-49	0.69	0.41
50-64	0.87	0.47
65+	1.46	2.13
Total	3.52	3.38

Cnada Males

Age	1979-81	1995-97	Change	Relative change
0-14	0.20	0.12	0.08	41.34
15-49	0.94	0.73	0.21	22.46
50-64	1.10	0.84	0.26	23.70
65-84	6.82	5.78	1.03	15.17

Cnada Females

Age	1979-81	1995-97	Change	Relative change
0-14	0.16	0.10	0.06	38.26
15-49	0.40	0.30	0.10	24.41
50-64	0.58	0.47	0.10	17.84
65-84	4.19	3.55	0.64	15.36

Chile 1980-82 to 1995-97

Age	Male	Female
0-14	1.59	1.47
15-49	0.76	0.78
50-64	1.01	0.93
65+	0.75	1.57
Total	4.11	4.76

Chile Males

Age	1980-82	1995-97	Change	Relative change
0-14	0.53	0.23	0.30	56.88
15-49	1.33	1.14	0.18	13.81
50-64	1.50	1.07	0.43	28.68
65-84	7.85	6.85	1.00	12.76

Chile Females

Age	1980-82	1995-97	Change	Relative change
0-14	0.44	0.19	0.25	57.53
15-49	0.63	0.41	0.22	35.07
50-64	0.87	0.58	0.29	33.20
65-84	5.64	4.48	1.16	20.53

Colombia 1984-86 to 1995-97

Age	Male	Female
0-14	1.95	1.95
15-49	-0.41	0.52
50-64	0.39	0.62
65+	0.88	1.05
Total	2.81	4.14

Colombia Males

Age	1984-86	1995-97	Change	Relative change
0-14	0.92	0.54	0.38	41.58
15-49	1.89	2.21	-0.33	-17.27
50-64	1.24	1.10	0.14	11.16
65-84	7.78	6.78	1.00	12.82

Colombia Females

Age	1984-86	1995-97	Change	Relative change
0-14	0.80	0.46	0.35	43.26
15-49	0.71	0.58	0.14	19.12
50-64	0.89	0.67	0.22	24.51
65-84	6.33	5.36	0.98	15.40

Costa Rica 1980-82 to 1995-97

Age	Male	Female
0-14	0.68	0.67
15-49	-0.14	0.35
50-64	-0.03	0.32
65+	0.55	0.52
Total	1.06	1.85

Costa Rica Males

Age	1980-82	1995-97	Change	Relative change
0-14	0.41	0.28	0.13	30.86
15-49	0.94	0.96	-0.02	-2.52
50-64	0.92	0.92	-0.01	-0.95
65-84	6.57	5.99	0.59	8.93

Costa Rica Females

Age	1980-82	1995-97	Change	Relative change
0-14	0.35	0.24	0.11	32.17
15-49	0.53	0.43	0.10	19.17
50-64	0.71	0.61	0.10	14.30
65-84	4.98	4.57	0.42	8.37

Cuba 1979-81 to 1997, 96, 99

Age	Male	Female
0-14	1.30	1.09
15-49	0.16	0.61
50-64	0.04	0.17
65+	0.20	1.39
Total	1.71	3.26

Cuba Males

Age	1979-81	96,97,99	Change	Relative change
0-14	0.41	0.17	0.24	58.19
15-49	1.03	0.93	0.10	9.50
50-64	0.97	0.95	0.01	1.41
65-84	5.99	6.04	-0.05	-0.77

Cuba Females

Age	1979-81	96,97,99	Change	Relative change
0-14	0.32	0.13	0.19	58.61
15-49	0.77	0.52	0.25	32.37
50-64	0.73	0.66	0.07	9.29
65-84	4.72	4.64	0.07	1.56

Ecuador 1979-80 to 1995-97

Age	Male	Female
0-14	5.62	5.92
15-49	0.61	1.19
50-64	0.27	0.33
65+	-0.13	0.27
Total	6.36	7.71

Ecuador Males

Age	1979-80	1995-97	Change	Relative change
0-14	1.66	0.60	1.06	64.01
15-49	1.73	1.50	0.23	13.07
50-64	1.27	1.14	0.13	10.12
65-84	6.58	6.60	-0.01	-0.22

Ecuador Females

Age	1979-80	1995-97	Change	Relative change
0-14	1.56	0.52	1.04	66.92
15-49	1.15	0.70	0.45	39.38
50-64	0.91	0.77	0.14	15.27
65-84	5.53	5.22	0.31	5.63

El Salvador 1981-83 to 1997-99

Age	Male	Female
0-14	4.25	4.44
15-49	4.10	1.46
50-64	1.56	1.16
65+	2.09	2.36
Total	12.00	9.43

El Salvador Males

Age	1981-83	1997-99	Change	Relative change
0-14	1.54	0.67	0.88	56.84
15-49	4.34	2.53	1.80	41.55
50-64	2.03	1.27	0.76	37.60
65-84	9.55	6.41	3.14	32.87

El Salvador Females

Age	1981-83	1997-99	Change	Relative change
0-14	1.35	0.54	0.81	60.25
15-49	1.36	0.84	0.52	38.17
50-64	1.22	0.81	0.41	33.80
65-84	7.35	5.42	1.94	26.33

Jamaica 1980-82 to 1989-91

Age	Male	Female
0-14	1.38	1.32
15-49	0.89	0.51
50-64	0.52	0.31
65+	-0.04	-0.45
Total	2.75	1.69

Jamaica Males

Age	1980-82	1989-91	Change	Relative change
0-14	0.56	0.29	0.27	48.16
15-49	0.91	0.59	0.31	34.68
50-64	1.37	1.17	0.20	14.52
65-84	7.65	7.57	0.09	1.15

Jamaica Females

Age	1980-82	1989-91	Change	Relative change
0-14	0.50	0.25	0.25	49.79
15-49	0.68	0.53	0.15	22.54
50-64	1.11	0.98	0.14	12.18
65-84	6.19	6.04	0.15	2.44

Mexico 1979-81 to 1979-99			Mexico	Males				Mexico	Females			
Age	Male	Female					Relative					Relative
0-14	2.93	2.61	Age	1979-81	1997-99	Change	change	Age	1979-81	1997-99	Change	change
15-49	2.34	1.40	0-14	1.06	0.51	0.55	51.89	0-14	0.88	0.42	0.46	52.30
50-64	0.93	0.65	15-49	2.24	1.31	0.94	41.77	15-49	0.98	0.50	0.48	48.87
65+	-0.42	0.00	50-64	1.49	1.08	0.41	27.32	50-64	0.93	0.70	0.23	24.58
Total	5.77	4.65	65-84	6.44	6.36	0.08	1.22	65-84	5.38	5.05	0.33	6.05

Panama 1979-81 to 1996-97			Panama	Males				Panama	Females			
Age	Male	Female					Relative					Relative
0-14	1.57	1.74	Age	1979-81	1996-97	Change	change	Age	1979-81	1996-97	Change	change
15-49	0.51	0.73	0-14	0.75	0.47	0.28	37.15	0-14	0.68	0.39	0.29	42.62
50-64	0.72	0.62	15-49	1.35	1.19	0.17	12.30	15-49	0.78	0.55	0.23	29.00
65+	1.10	1.30	50-64	1.16	0.91	0.24	21.17	50-64	0.78	0.60	0.18	22.64
Total	3.90	4.39	65-84	6.79	6.06	0.73	10.70	65-84	5.10	4.30	0.80	15.67

Paraguay 1979-81 to 1990,91, 95			Paraguay	Males				Paraguay	Females			
Age	Male	Female					Relative					Relative
0-14	1.94	1.51	Age	1979-81	90-,91,95	Change	change	Age	1979-81	90-,91,95	Change	change
15-49	1.05	0.94	0-14	1.29	0.94	0.35	26.83	0-14	1.00	0.75	0.26	25.61
50-64	0.41	0.42	15-49	1.53	1.10	0.43	28.10	15-49	1.07	0.70	0.36	34.04
65+	0.29	0.29	50-64	0.96	0.80	0.16	16.92	50-64	0.71	0.57	0.14	19.96
Total	3.69	3.17	65-84	6.35	5.88	0.47	7.45	65-84	5.30	4.79	0.50	9.48

Puerto Rico 1979-81 to 1996-99			Puerto Rico	Males				Puerto Rico	Females			
Age	Male	Female					Relative					Relative
0-14	0.87	0.59	Age	1979-81	1996-99	Change	change	Age	1979-81	1996-99	Change	change
15-49	-1.13	-0.30	0-14	0.37	0.20	0.17	46.18	0-14	0.28	0.17	0.10	37.61
50-64	0.06	0.28	15-49	1.40	1.79	-0.39	-28.06	15-49	0.43	0.52	-0.09	-20.27
65+	0.42	1.41	50-64	1.26	1.24	0.02	1.84	50-64	0.63	0.54	0.09	13.66
Total	0.21	1.99	65-84	6.16	6.08	0.08	1.28	65-84	4.53	4.06	0.47	10.32

Dominican Replc. 1980-2 to 1996-8

Age	Male	Female
0-14	2.33	2.86
15-49	0.85	0.83
50-64	0.56	0.54
65+	0.75	1.16
Total	4.48	5.38

Dominican Republic Males

Age	1980-82	1996-98	Change	Relative change
0-14	1.22	0.80	0.43	34.90
15-49	0.97	0.64	0.32	33.33
50-64	1.09	0.88	0.21	19.15
65-84	7.17	6.40	0.78	10.84

Dominican Republic Females

Age	1980-82	1996-98	Change	Relative change
0-14	1.20	0.70	0.50	41.88
15-49	0.73	0.43	0.30	41.50
50-64	0.68	0.51	0.17	25.21
65-84	6.01	5.03	0.98	16.37

Trinidad & Tob. 1979-81 to 1993-5

Age	Male	Female
0-14	0.97	0.84
15-49	0.07	0.23
50-64	0.07	0.28
65+	0.08	0.44
Total	1.20	1.79

Trinidad & Tobago Males

Age	1979-81	1993-95	Change	Relative change
0-14	0.74	0.53	0.21	28.31
15-49	1.27	1.24	0.03	2.07
50-64	1.69	1.66	0.03	1.85
65-84	8.26	8.17	0.09	1.15

Trinidad & Tobago Females

Age	1979-81	1993-95	Change	Relative change
0-14	0.57	0.40	0.17	29.23
15-49	0.80	0.73	0.07	8.77
50-64	1.26	1.17	0.10	7.78
65-84	6.83	6.45	0.38	5.50

U. S. A. 1979-81 to 1996-98

Age	Male	Female
0-14	0.61	0.51
15-49	0.66	0.27
50-64	0.99	0.35
65+	1.18	0.60
Total	3.44	1.74

U. S. A. Males

Age	1979-81	1996-98	Change	Relative change
0-14	0.26	0.15	0.11	42.46
15-49	1.20	0.97	0.23	19.23
50-64	1.28	0.95	0.33	25.81
65-84	7.10	5.94	1.16	16.33

U. S. A. Females

Age	1979-81	1996-98	Change	Relative change
0-14	0.20	0.12	0.09	43.41
15-49	0.50	0.43	0.07	13.23
50-64	0.69	0.58	0.11	15.41
65-84	4.44	4.09	0.35	7.98

Venezuela 1979-81 to 1996-97

Age	Male	Female
0-14	1.20	1.24
15-49	0.66	0.95
50-64	0.63	0.71
65+	1.35	1.84
Total	3.83	4.74

Venezuela Males

Age	1979-81	1996-97	Change	Relative change
0-14	0.79	0.56	0.22	28.48
15-49	1.72	1.56	0.17	9.73
50-64	1.40	1.19	0.21	15.03
65-84	7.16	6.48	0.68	9.54

Venezuela Females

Age	1979-81	1996-97	Change	Relative change
0-14	0.67	0.46	0.21	31.35
15-49	0.91	0.60	0.31	33.58
50-64	0.94	0.74	0.19	20.52
65-84	5.80	5.02	0.79	13.57

Table 2. Year of Life Expectancy Lost Between Birth and age 85, Because of the Mortality at Indicated Causes of Death and Age Groups, by Sex

Males	Age Groups						Females	Age Groups				
Argentina	15-49		50-64		65-84			15-49		50-64		65-84	
	External	0.85	Circulatory	1.78	Circulatory	2.02	Neoplasm	0.42	Circulatory	0.76	Circulatory	1.51
	Circulatory	0.78	Neoplasm	0.69	Neoplasm	0.69	Circulatory	0.41	Neoplasm	0.56	Neoplasm	0.48
	Neoplasm	0.26	External	0.20	Acute Resp.	0.18	External	0.20	Diabetes	0.10	Diabetes	0.16
	AIDS	0.26	Cirrhosis	0.16	Diabetes	0.17	AIDS	0.09	Septicemia	0.06	Acute Resp.	0.12
	Cirrhosis	0.10	Diabetes	0.13	Septicemia	0.13	Septicemia	0.06	Acute Resp.	0.05	Septicemia	0.11
Barbados	15-49		50-64		65-84			15-49		50-64		65-84	
	AIDS	1.29	Circulatory	1.37	Circulatory	2.00	Neoplasm	0.52	Circulatory	0.93	Circulatory	1.89
	External	1.03	Neoplasm	0.68	Neoplasm	1.06	AIDS	0.45	Neoplasm	0.74	Diabetes	0.75
	Circulatory	0.51	AIDS	0.42	Diabetes	0.55	Circulatory	0.42	Diabetes	0.47	Neoplasm	0.69
	Neoplasm	0.19	Diabetes	0.41	Acute Resp.	0.14	External	0.23	Acute Resp.	0.09	Acute Resp.	0.09
	Cirrhosis	0.19	External	0.28	Cirrhosis	0.13	Acute Resp.	0.16	Cirrhosis	0.08	Septicemia	0.08
Brazil	15-49		50-64		65-84			15-49		50-64		65-84	
	External	2.61	Circulatory	1.85	Circulatory	2.13	Circulatory	0.67	Circulatory	1.31	Circulatory	1.99
	Circulatory	0.91	Neoplasm	0.46	Neoplasm	0.56	External	0.39	Neoplasm	0.51	Neoplasm	0.41
	AIDS	0.40	External	0.36	Acute Resp.	0.29	Neoplasm	0.38	Diabetes	0.23	Diabetes	0.32
	Cirrhosis	0.31	Cirrhosis	0.24	Diabetes	0.20	AIDS	0.16	Acute Resp.	0.13	Acute Resp.	0.23
	Neoplasm	0.19	Diabetes	0.19	External	0.12	Acute Resp.	0.12	External	0.08	Septicemia	0.06
Canada	15-49		50-64		65-84			15-49		50-64		65-84	
	External	1.03	Circulatory	1.08	Circulatory	1.69	Neoplasm	0.33	Neoplasm	0.75	Circulatory	1.07
	Circulatory	0.32	Neoplasm	0.86	Neoplasm	1.11	External	0.29	Circulatory	0.38	Neoplasm	0.75
	Neoplasm	0.20	External	0.19	Acute Resp.	0.17	Circulatory	0.12	External	0.07	Acute Resp.	0.11
	AIDS	0.20	Cirrhosis	0.10	Diabetes	0.14	Acute Resp.	0.02	Diabetes	0.05	Diabetes	0.11
	Cirrhosis	0.04	Diabetes	0.09	External	0.09	AIDS	0.02	Acute Resp.	0.04	External	0.05
Chile	15-49		50-64		65-84			15-49		50-64		65-84	
	External	2.13	Circulatory	0.96	Circulatory	1.63	Neoplasm	0.36	Neoplasm	0.52	Circulatory	1.23
	Circulatory	0.34	Neoplasm	0.58	Neoplasm	0.86	External	0.33	Circulatory	0.49	Neoplasm	0.57
	Cirrhosis	0.30	External	0.57	Acute Resp.	0.51	Circulatory	0.19	Cirrhosis	0.17	Acute Resp.	0.36

	Neoplasm	0.21	Cirrhosis	0.52	Cirrhosis	0.26	Acute Resp.	0.06	Acute Resp.	0.11	Diabetes	0.20
	Acute Resp.	0.16	Acute Resp.	0.25	External	0.26	Cirrhosis	0.06	External	0.10	Cirrhosis	0.12
Colombia	15-49		50-64		65-84		15-49		50-64		65-84	
	External	4.24	Circulatory	1.35	Circulatory	2.03	External	0.46	Circulatory	0.98	Circulatory	2.02
	Circulatory	0.47	External	0.59	Neoplasm	0.61	Circulatory	0.38	Neoplasm	0.52	Neoplasm	0.53
	AIDS	0.20	Neoplasm	0.44	Acute Resp.	0.21	Neoplasm	0.34	Diabetes	0.18	Diabetes	0.26
	Neoplasm	0.18	Diabetes	0.14	External	0.19	Acute Resp.	0.06	External	0.09	Acute Resp.	0.20
	Acute Resp.	0.08	Acute Resp.	0.10	Diabetes	0.17	Diabetes	0.05	Acute Resp.	0.08	External	0.07
Costa Rica	15-49		50-64		65-84		15-49		50-64		65-84	
	External	1.34	Circulatory	1.06	Circulatory	1.75	Neoplasm	0.46	Circulatory	0.71	Circulatory	1.50
	Circulatory	0.41	Neoplasm	0.56	Neoplasm	0.85	Circulatory	0.24	Neoplasm	0.61	Neoplasm	0.62
	Neoplasm	0.24	External	0.39	Acute Resp.	0.21	External	0.21	Diabetes	0.14	Acute Resp.	0.18
	AIDS	0.21	Cirrhosis	0.26	External	0.20	Acute Resp.	0.05	Cirrhosis	0.12	Diabetes	0.18
	Cirrhosis	0.20	Acute Resp.	0.10	Diabetes	0.12	Cirrhosis	0.05	External	0.07	Cirrhosis	0.10
Cuba	15-49		50-64		65-84		15-49		50-64		65-84	
	External	1.37	Circulatory	1.37	Circulatory	2.03	Neoplasm	0.44	Circulatory	0.90	Circulatory	1.86
	Circulatory	0.57	Neoplasm	0.58	Neoplasm	0.82	External	0.44	Neoplasm	0.63	Neoplasm	0.55
	Neoplasm	0.26	External	0.35	Acute Resp.	0.32	Circulatory	0.33	Diabetes	0.15	Acute Resp.	0.26
	Acute Resp.	0.11	Acute Resp.	0.15	External	0.22	Acute Resp.	0.10	Acute Resp.	0.13	Diabetes	0.20
	Cirrhosis	0.08	Cirrhosis	0.11	Diabetes	0.10	Diabetes	0.06	External	0.12	External	0.15
Ecuador	15-49		50-64		65-84		15-49		50-64		65-84	
	External	1.78	Circulatory	0.99	Circulatory	1.48	Circulatory	0.46	Circulatory	0.76	Circulatory	1.30
	Circulatory	0.61	External	0.43	Neoplasm	0.63	Neoplasm	0.40	Neoplasm	0.59	Neoplasm	0.64
	Cirrhosis	0.21	Neoplasm	0.39	Acute Resp.	0.31	External	0.29	Diabetes	0.30	Diabetes	0.42
	Neoplasm	0.19	Cirrhosis	0.32	Diabetes	0.26	Acute Resp.	0.10	Cirrhosis	0.12	Acute Resp.	0.28
	Acute Resp.	0.15	Diabetes	0.25	Cirrhosis	0.19	Diabetes	0.08	Acute Resp.	0.10	Cirrhosis	0.11
El Salvador	15-49		50-64		65-84		15-49		50-64		65-84	
	External	4.01	External	0.72	Circulatory	1.12	External	0.63	Circulatory	0.65	Circulatory	1.31
	Circulatory	0.42	Circulatory	0.65	Acute Resp.	0.34	Neoplasm	0.46	Neoplasm	0.46	Neoplasm	0.43
	AIDS	0.33	Cirrhosis	0.21	External	0.33	Circulatory	0.40	Diabetes	0.25	Acute Resp.	0.42
	Cirrhosis	0.33	Neoplasm	0.18	Neoplasm	0.30	Acute Resp.	0.15	Acute Resp.	0.16	Diabetes	0.31
	Acute Resp.	0.23	Acute Resp.	0.18	Diabetes	0.15	AIDS	0.11	External	0.15	Septicemia	0.15

Jamaica	15-49		50-64		65-84		15-49		50-64		65-84	
	Circulatory	0.67	Circulatory	1.70	Circulatory	2.46	Neoplasm	0.65	Circulatory	1.39	Circulatory	2.21
	Neoplasm	0.38	Neoplasm	0.86	Neoplasm	0.93	Circulatory	0.58	Neoplasm	0.83	Diabetes	0.95
	Diabetes	0.17	Diabetes	0.46	Diabetes	0.61	Diabetes	0.18	Diabetes	0.80	Neoplasm	0.63
	Acute Resp.	0.14	Acute Resp.	0.18	Acute Resp.	0.24	Acute Resp.	0.12	Acute Resp.	0.10	Acute Resp.	0.15
	External	0.12	Cirrhosis	0.11	Cirrhosis	0.05	Cirrhosis	0.02	Septicemia	0.03	Septicemia	0.02
Mexico	15-49		50-64		65-84		15-49		50-64		65-84	
	External	1.51	Circulatory	0.80	Circulatory	1.34	Neoplasm	0.33	Diabetes	0.60	Circulatory	1.28
	Cirrhosis	0.58	Cirrhosis	0.57	Diabetes	0.56	Circulatory	0.24	Circulatory	0.57	Diabetes	0.75
	Circulatory	0.38	Diabetes	0.52	Neoplasm	0.45	External	0.21	Neoplasm	0.40	Neoplasm	0.37
	AIDS	0.23	External	0.32	Cirrhosis	0.29	Diabetes	0.15	Cirrhosis	0.17	Acute Resp.	0.21
	Diabetes	0.19	Neoplasm	0.27	Acute Resp.	0.25	Cirrhosis	0.09	Acute Resp.	0.08	Cirrhosis	0.15
Panama	15-49		50-64		65-84		15-49		50-64		65-84	
	External	1.59	Circulatory	0.96	Circulatory	1.69	Neoplasm	0.41	Circulatory	0.62	Circulatory	1.40
	AIDS	0.62	Neoplasm	0.45	Neoplasm	0.70	Circulatory	0.25	Neoplasm	0.52	Neoplasm	0.50
	Circulatory	0.36	External	0.34	Diabetes	0.25	External	0.23	Diabetes	0.24	Diabetes	0.37
	Neoplasm	0.15	Diabetes	0.16	Acute Resp.	0.22	AIDS	0.22	Acute Resp.	0.08	Acute Resp.	0.13
	Acute Resp.	0.07	Cirrhosis	0.13	External	0.20	Diabetes	0.07	External	0.06	External	0.08
Paraguay	15-49		50-64		65-84		15-49		50-64		65-84	
	External	1.20	Circulatory	1.37	Circulatory	2.46	Neoplasm	0.43	Circulatory	0.99	Circulatory	2.22
	Circulatory	0.51	Neoplasm	0.22	Neoplasm	0.39	Circulatory	0.40	Neoplasm	0.41	Neoplasm	0.38
	Neoplasm	0.16	External	0.19	Acute Resp.	0.18	External	0.22	Diabetes	0.15	Diabetes	0.33
	Acute Resp.	0.08	Diabetes	0.11	Diabetes	0.18	Acute Resp.	0.07	External	0.05	Acute Resp.	0.15
	Cirrhosis	0.06	Cirrhosis	0.10	External	0.10	Septicemia	0.06	Acute Resp.	0.05	External	0.04
Puerto Rico	15-49		50-64		65-84		15-49		50-64		65-84	
	External	2.32	Circulatory	1.23	Circulatory	1.43	AIDS	0.36	Circulatory	0.61	Circulatory	1.24
	AIDS	1.11	Neoplasm	0.41	Neoplasm	0.54	Neoplasm	0.29	Neoplasm	0.42	Diabetes	0.45
	Circulatory	0.54	Cirrhosis	0.37	Diabetes	0.38	External	0.28	Diabetes	0.28	Neoplasm	0.38
	Cirrhosis	0.26	Diabetes	0.35	Acute Resp.	0.22	Circulatory	0.25	Acute Resp.	0.08	Acute Resp.	0.18
	Neoplasm	0.18	External	0.31	Cirrhosis	0.13	Acute Resp.	0.09	Cirrhosis	0.07	Septicemia	0.07

Dominican Republic	15-49		50-64		65-84		15-49		50-64		65-84			
	External	0.61	Circulatory	1.31	Circulatory	2.23	Circulatory	0.33	Circulatory	0.74	Circulatory	2.11		
	Circulatory	0.38	Neoplasm	0.27	Neoplasm	0.60	Neoplasm	0.19	Neoplasm	0.30	Neoplasm	0.39		
	AIDS	0.28	Cirrhosis	0.23	Cirrhosis	0.27	AIDS	0.18	Diabetes	0.16	Diabetes	0.36		
	Cirrhosis	0.09	External	0.23	Diabetes	0.24	External	0.13	Cirrhosis	0.13	Cirrhosis	0.21		
	Neoplasm	0.07	Diabetes	0.18	Acute Resp.	0.17	Diabetes	0.05	External	0.04	Acute Resp.	0.14		
Trinidad and Tobago	15-49		50-64		65-84		15-49		50-64		65-84			
	External	1.31	Circulatory	2.30	Circulatory	2.35	Circulatory	0.58	Circulatory	1.67	Circulatory	2.29		
	Circulatory	0.72	Diabetes	1.05	Diabetes	0.69	Neoplasm	0.45	Diabetes	0.97	Diabetes	0.92		
	AIDS	0.56	Neoplasm	0.42	Neoplasm	0.64	External	0.32	Neoplasm	0.55	Neoplasm	0.45		
	Diabetes	0.25	External	0.34	Acute Resp.	0.23	Diabetes	0.27	Acute Resp.	0.13	Acute Resp.	0.20		
	Acute Resp.	0.22	Acute Resp.	0.17	External	0.10	AIDS	0.23	External	0.08	External	0.05		
U. S. A.	15-49		50-64		65-84		15-49		50-64		65-84			
	External	1.35	Circulatory	1.36	Circulatory	1.79	External	0.41	Neoplasm	0.73	Circulatory	1.30		
	Circulatory	0.54	Neoplasm	0.76	Neoplasm	0.99	Neoplasm	0.32	Circulatory	0.64	Neoplasm	0.74		
	AIDS	0.29	External	0.20	External	0.10	Circulatory	0.25	Diabetes	0.10	Acute Resp.	0.16		
	Neoplasm	0.21	Diabetes	0.12	Diabetes	0.13	AIDS	0.08	Acute Resp.	0.08	Diabetes	0.14		
	Cirrhosis	0.10	Cirrhosis	0.11	Cirrhosis	0.05	Acute Resp.	0.05	External	0.08	External	0.05		
Venezuela	15-49		50-64		65-84		15-49		50-64		65-84			
	External	1.91	Circulatory	1.66	Circulatory	2.07	Neoplasm	0.47	Circulatory	1.03	Circulatory	1.87		
	Circulatory	0.66	Neoplasm	0.47	Neoplasm	0.59	Circulatory	0.44	Neoplasm	0.61	Neoplasm	0.51		
	AIDS	0.23	External	0.34	Diabetes	0.27	External	0.29	Diabetes	0.28	Diabetes	0.38		
	Neoplasm	0.22	Diabetes	0.28	Acute Resp.	0.16	Diabetes	0.08	Acute Resp.	0.08	Acute Resp.	0.15		
	Cirrhosis	0.13	Cirrhosis	0.21	External	0.14	Acute Resp.	0.07	External	0.06	Cirrhosis	0.05		

Table 3. Years of Life Expectancy Lost (YLEL) between Ages 0 to 85, Because of AIDS Mortality in Selected Countries and Years, by Sex.

Country	Years	Male	Female	Country	Years	Male	Female
Argentina	1995-97	0.29	0.10	Ecuador	1995-97	0.08	0.01
Barbados	1993-95	1.83	0.54	El Salvador	1997-99	0.41	0.14
Brazil	1996-98	0.46	0.19	Mexico	1997-99	0.27	0.04
Canada	1995-97	0.23	0.02	Panama	1996-97	0.81	0.28
Chile	1995-97	0.16	0.02	Paraguay	1990,91,95	0.06	0.01
Colombia	1995-97	0.23	0.03	Puerto Rico	1996-99	1.28	0.41
Cost Rica	1993-95	0.24	0.03	Trin. & Tobago	1993-95	0.77	0.29
Cuba	1996,97,99	0.04	0.02	U. S. A.	1996-98	0.34	0.10
Dominican Rep.	1006-98	0.43	0.26	Venazuela	1996-97	0.26	0.04

Note. Jamaica is not included because the information for 1989-91 did not clasified AIDS
The data pertain to the average of iundicated years.

Figure I. Mortality rates by age and sex, Honduras, 1988 and 2001

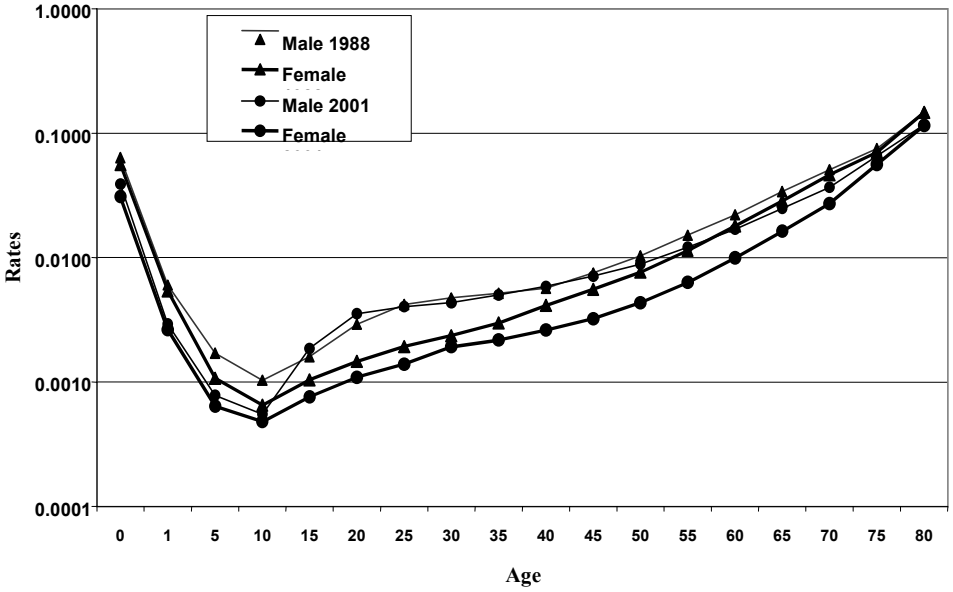


Figure II. AIDS mortality rates by age and sex, Brazil, 1996-1998

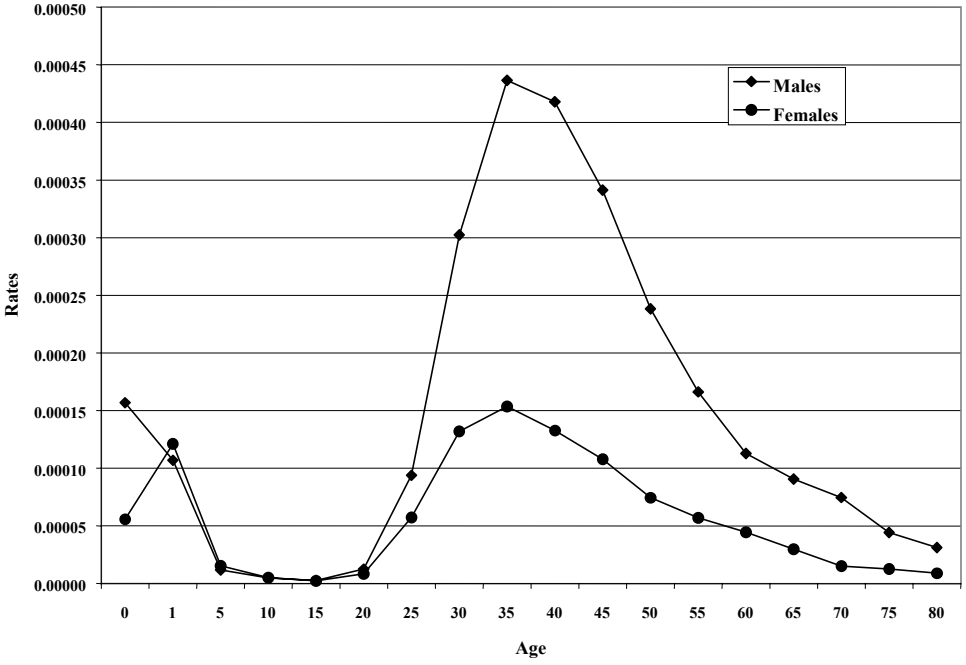
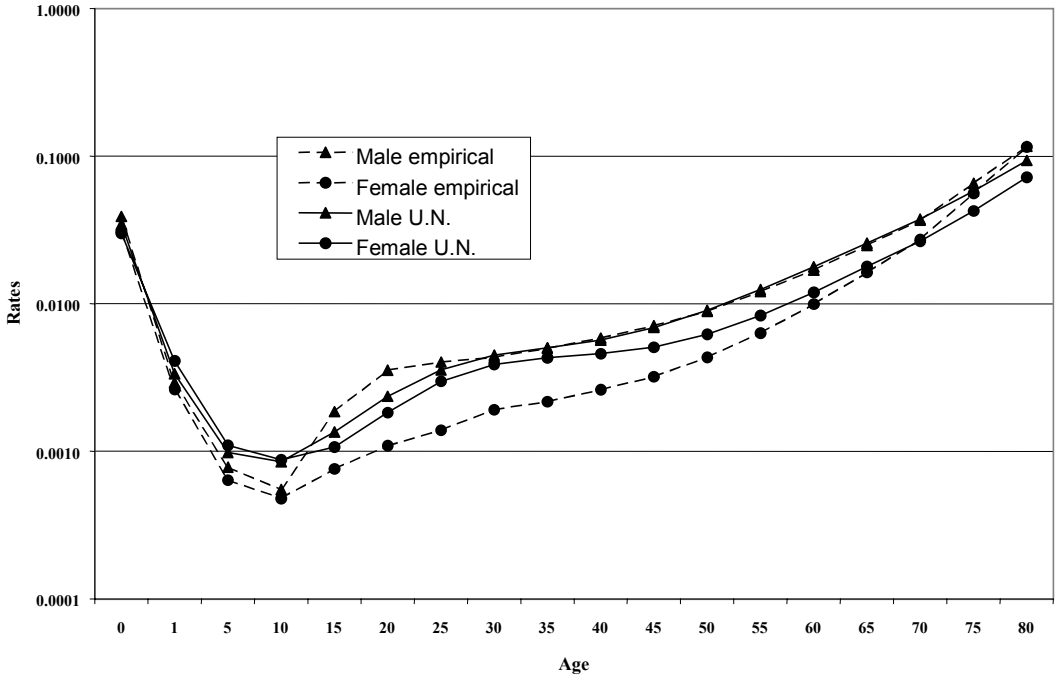


Figure III. Comparison of mortality rates by age and sex, Honduras, 2001



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Note

The information used in this paper comes from different sources.

Life Tables. The 1980's life tables were obtained from two sources: United Nation and the U.S. Bureau of the Census, International Programs Center.

Some of the life tables for 1990's were obtained from the U.S. Bureau of the census. Other were calculated by the author using the population projection program RUP developed by the U.S. Bureau of the census and data on registered deaths from the Pan American Health Organization. The life tables made by the author, were obtained by using one of the options of the program RUP. The selected option projects the population by using vital statistics. The out put of the projection provides life tables made with the population projection and the vital statistics used in the population projection.

Data by causes of death are from the Pan American Health Organization.