

INCREASING LIFE EXPECTANCY IN SINGAPORE DURING 1969-1981

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INTRODUCTION

In an earlier paper published in the Singapore Medical Journal, we presented a description of the methodology of constructing the 1969-1971 abridged life tables for Singapore and a detailed discussion of the trends and differentials in life expectancy during the years 1956 to 1971(1). This follow-up paper will present the results of calculating another set of eight abridged life tables by sex and race for the most recent period 1979-1981. From these life tables we will proceed to study the latest improvement in the life expectancy of Singaporeans and the current differences in life expectancy among the various sex-race components of the population. We will also make an attempt to compare the position of the life expectancy of Singaporeans with that of other populations where similar data are available.

DATA AND METHODS

The statistical data employed to construct the abridged life tables are the deaths for the three years 1979 to 1981 extracted from the vital registration system (2) and the population enumerated in the latest population census conducted in June 1980(3). For Singapore it has been ascertained that it is necessary to prepare life tables for a period of three years in order to minimise the errors resulting from random deviations originating from the use of numerically small numbers in death figures. The statistics for the 1979-1981 deaths by age contained some deaths where ages have not been stated. Instead of ignoring these figures with unspecified ages, they were pro-rated to the various age groups from 0 to 85 and over so as to secure a truer picture of overall mortality level. Similar adjustments for the 1980 census population figures tabulated by age was not necessary since they do not contain persons with unspecified ages.

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The adjusted death statistics for 1979-81 and the population figures for June 1980 were employed to compute the age-specific death rates for single years 1 to 4 and for quinary age groups from 5-9 to 85 and over. In life table terminology these rates are known as the central death rates, denoted as $n^m x$, and constitute the starting point for deriving the first function of the life table known as the life table death rates, $n^q x$. It should be noted that the central death rate for age 0 has not been calculated because the $n^q x$ value for this age has been more accurately derived in a separate procedure from infant deaths and births.

The procedures used to calculate the six functions of the 1979-1981 life table — $n^q x$, l_x , n^x , $n^L x$, T_x and $o_e x$ — are exactly the same as those used in the construction of the 1969-1971 life tables. There is no need to repeat the explanation of these procedures; readers interested in this explanation may refer to my article in a previous issue of this Journal mentioned earlier. The results of our computation are laid out in full in the eight abridged life tables for the male and the female segments of the three principal races and all races combined. These life tables are shown in Tables 1 to 8.

Table 1
Abridged Life Table for All Races Males, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 $n^q x$	l_x	$d_n x$	$L_n x$	T_x	$o_e x$
0	12.58	10,000	126	9,890	684,288	68.4
1	1.00	9,874	10	9,869	674,398	68.3
2	0.62	9,864	6	9,861	664,529	67.4
3	0.53	9,858	5	9,856	654,668	66.4
4	0.57	9,853	6	9,850	644,812	65.4
5 — 9	1.30	9,847	13	49,203	634,962	64.5
10 — 14	1.80	9,834	18	49,125	585,759	59.6
15 — 19	4.34	9,816	43	48,973	536,634	54.7
20 — 24	6.03	9,773	59	48,718	487,661	49.9
25 — 29	6.43	9,714	62	48,415	438,943	45.2
30 — 34	6.38	9,652	62	48,105	390,528	40.5
35 — 39	9.98	9,590	96	47,710	342,423	35.7
40 — 44	16.12	9,494	153	47,088	294,713	31.0
45 — 49	30.04	9,341	281	46,003	247,625	26.5
50 — 54	53.43	9,060	484	44,090	201,622	22.3
55 — 59	85.16	8,576	730	41,055	157,532	18.4
60 — 64	136.02	7,846	1,067	36,563	116,477	14.8
65 — 69	200.18	6,779	1,357	30,503	79,914	11.8
70 — 74	354.72	5,422	1,923	22,303	49,411	9.1
75 — 79	392.35	3,499	1,373	14,063	27,108	7.7
80 — 84	528.82	2,126	1,124	7,820	13,045	6.1
85 & over	1,000.00	1,002	1,002	5,225	5,225	5.2

Table 2
Abridged Life Table for All Races Females, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 q _{n x}	l _x	d _{n x}	L _{n x}	T _x	e _x
0	11.07	10,000	111	9,905	743,464	74.3
1	1.18	9,889	12	9,882	733,559	74.2
2	0.61	9,877	6	9,874	723,677	73.3
3	0.50	9,871	5	9,869	713,803	72.3
4	0.62	9,866	6	9,863	703,934	71.3
5 — 9	1.40	9,860	14	49,265	694,071	70.4
10 — 14	1.65	9,846	16	49,190	644,806	65.5
15 — 19	2.20	9,830	22	49,095	595,616	60.6
20 — 24	2.80	9,808	27	48,973	546,521	55.7
25 — 29	3.34	9,781	33	48,823	497,548	50.9
30 — 34	4.24	9,748	41	48,638	448,725	46.0
35 — 39	6.48	9,707	63	48,378	400,087	41.2
40 — 44	9.95	9,644	96	47,980	351,709	36.5
45 — 49	17.35	9,548	166	47,325	303,729	31.8
50 — 54	29.07	9,382	273	46,228	256,404	27.3
55 — 59	47.97	9,109	437	44,453	210,176	23.1
60 — 64	75.86	8,672	658	41,715	165,723	19.1
65 — 69	118.62	8,014	951	37,693	124,008	15.5
70 — 74	187.42	7,063	1,324	32,005	86,315	12.2
75 — 79	280.27	5,739	1,608	24,675	54,310	9.5
80 — 84	422.46	4,131	1,745	16,293	29,635	7.2
85 & over	1,000.00	2,386	2,386	13,342	13,342	5.6

Table 3
Abridged Life Table for Chinese Males, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 $q_n x$	l_x	$d_n x$	$L_n x$	T_x	e_x
0	11.30	10,000	113	9,901	694,348	69.4
1	0.92	9,887	9	9,882	684,447	69.2
2	0.61	9,878	6	9,875	674,565	68.3
3	0.53	9,872	5	9,870	664,690	67.3
4	0.60	9,867	6	9,864	654,820	66.4
5 — 9	1.10	9,861	11	49,278	644,956	65.4
10 — 14	1.50	9,850	15	49,213	595,678	60.5
15 — 19	4.04	9,835	40	49,075	546,465	55.6
20 — 24	5.68	9,795	56	48,835	497,390	50.8
25 — 29	5.68	9,739	55	48,558	448,555	46.1
30 — 34	5.44	9,684	53	48,288	399,997	41.3
35 — 39	8.51	9,631	82	47,950	351,709	36.5
40 — 44	15.18	9,549	145	47,383	303,759	31.8
45 — 49	28.49	9,404	268	46,350	256,376	27.3
50 — 54	49.78	9,136	455	44,543	210,026	23.0
55 — 59	82.78	8,681	719	41,608	165,483	19.1
60 — 64	130.88	7,962	1,042	37,205	123,875	15.6
65 — 69	192.58	6,920	1,333	31,268	86,670	12.5
70 — 74	276.01	5,587	1,542	24,080	55,402	9.9
75 — 79	388.14	4,045	1,570	16,300	31,322	7.7
80 — 84	537.64	2,475	1,331	9,048	15,022	6.1
85 & over	1,000.00	1,144	1,144	5,974	5,974	5.2

Table 4
Abridged Life Table for Chinese Females, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 q _{n x}	l _x	d _{n x}	L _{n x}	T _x	e _x
0	10.53	10,000	105	9,911	750,585	75.1
1	1.16	9,895	11	9,889	740,674	74.9
2	0.58	9,884	6	9,881	730,785	73.9
3	0.51	9,878	5	9,876	720,904	73.0
4	0.66	9,873	7	9,870	711,028	72.0
5 — 9	1.40	9,866	14	49,295	701,158	71.1
10 — 14	1.55	9,852	15	49,223	651,863	66.2
15 — 19	2.10	9,837	21	49,133	602,640	61.3
20 — 24	2.80	9,816	27	49,013	553,507	56.4
25 — 29	3.29	9,789	32	48,865	504,494	51.5
30 — 34	4.19	9,757	41	48,683	455,629	46.7
35 — 39	6.18	9,716	60	48,430	406,946	41.9
40 — 44	9.55	9,656	92	48,050	358,516	37.1
45 — 49	15.53	9,564	149	47,448	310,466	32.5
50 — 54	25.57	9,415	241	46,473	263,018	27.9
55 — 59	41.71	9,174	383	44,913	216,545	23.6
60 — 64	68.43	8,791	602	42,450	171,632	19.5
60 — 69	110.49	8,189	905	38,683	129,182	15.8
70 — 74	177.26	7,284	1,291	33,193	90,499	12.4
75 — 79	273.15	5,993	1,637	25,873	57,306	9.6
80 — 84	418.03	4,356	1,821	17,228	31,433	7.2
85 & over	1,000.00	2,535	2,535	14,205	14,205	5.6

Table 5
Abridged Life Table for Malay Males, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 $q_n x$	l_x	$d_n x$	$L_n x$	T_x	e_x
0	18.66	10,000	187	9,847	685,992	68.6
1	1.15	9,813	11	9,807	676,145	68.9
2	0.64	9,802	6	9,799	666,338	68.0
3	0.55	9,796	5	9,794	656,539	67.0
4	0.62	9,791	6	9,788	646,745	66.0
5 — 9	1.95	9,785	19	48,878	636,957	65.1
10 — 14	2.20	9,766	21	48,778	588,079	60.2
15 — 19	4.64	9,745	45	48,613	539,301	55.3
20 — 24	5.44	9,700	53	48,368	490,688	50.6
25 — 29	7.97	9,647	77	48,043	442,320	45.9
30 — 34	8.22	9,570	79	47,653	394,277	41.2
35 — 39	12.37	9,491	117	47,163	346,624	36.5
40 — 44	15.43	9,374	145	46,508	299,461	31.9
45 — 49	26.98	9,229	249	45,523	252,953	27.4
50 — 54	49.21	8,980	442	43,795	207,430	23.1
55 — 59	77.20	8,538	659	41,043	163,635	19.2
60 — 64	124.27	7,879	979	36,948	122,592	15.6
65 — 69	212.17	6,900	1,464	30,840	85,644	12.4
70 — 74	264.27	5,436	1,437	23,588	54,804	10.1
75 — 79	400.86	3,999	1,603	15,988	31,216	7.8
80 — 84	459.49	2,396	1,101	9,228	15,228	6.4
85 & over	1,000.00	1,295	1,295	6,000	6,000	4.6

Table 6
Abridged Life Table for Malay Females, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 q _{n x}	l _x	d _{n x}	L _{n x}	T _x	o _{e x}
0	13.46	10,000	135	9,886	704,652	70.5
1	1.21	9,865	12	9,858	694,766	70.4
2	0.23	9,853	2	9,852	684,908	69.5
3	0.36	9,851	4	9,849	675,056	68.5
4	0.45	9,847	4	9,845	665,207	67.6
5 — 9	1.80	9,843	18	49,170	655,362	66.6
10 — 14	2.05	9,825	20	49,075	606,192	61.7
15 — 19	2.65	9,805	26	48,960	557,117	56.8
20 — 24	3.10	9,779	30	48,820	508,157	52.0
25 — 29	3.34	9,749	33	48,663	459,337	47.1
30 — 34	4.19	9,716	41	48,478	410,674	42.3
35 — 39	8.71	9,675	84	48,165	362,195	37.5
40 — 44	11.09	9,591	106	47,690	314,031	32.7
45 — 49	24.59	9,485	233	46,843	266,341	28.1
50 — 54	44.25	9,252	409	45,238	219,498	23.7
55 — 59	73.54	8,843	650	42,590	174,260	19.7
60 — 64	123.73	8,193	1,013	38,433	131,670	16.1
65 — 69	179.17	7,180	1,286	32,685	93,237	13.0
70 — 74	278.53	5,894	1,642	25,365	60,552	10.3
75 — 79	360.02	4,252	1,531	17,433	35,187	8.3
80 — 84	496.95	2,721	1,352	10,225	17,754	6.5
85 & over	1,000.00	1,369	1,369	7,529	7,529	5.5

Table 7
Abridged Life Table for Indian Males, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 q _{n x}	l _x	d _{n x}	L _{n x}	T _x	e _x
0	15.27	10,000	153	9,870	653,199	65.3
1	1.22	9,847	12	9,840	643,329	65.3
2	0.32	9,835	3	9,834	633,489	64.4
3	0.65	9,832	6	9,829	623,655	63.4
4	0.32	9,826	3	9,825	613,826	62.5
5 — 9	1.05	9,823	10	49,090	604,001	61.5
10 — 14	3.54	9,813	35	48,978	554,911	56.5
15 — 19	4.99	9,778	49	48,768	505,933	51.7
20 — 24	8.41	9,729	82	48,440	457,165	47.0
25 — 29	10.20	9,647	98	47,990	408,725	42.4
30 — 34	12.72	9,549	121	47,443	360,735	37.8
35 — 39	21.08	9,428	199	46,643	313,292	33.2
40 — 44	26.79	9,229	247	45,528	266,649	28.9
45 — 49	47.02	8,982	422	43,855	221,121	24.6
50 — 54	73.73	8,560	631	41,223	177,266	20.7
55 — 59	106.24	7,929	842	37,540	136,043	17.2
60 — 64	178.92	7,087	1,268	32,265	98,503	13.9
65 — 69	252.28	5,819	1,468	25,425	66,238	11.4
70 — 74	333.72	4,351	1,452	18,125	40,813	9.4
75 — 79	415.84	2,899	1,206	11,480	22,688	7.8
80 — 84	523.69	1,693	887	6,248	11,208	6.6
85 & over	1,00.00	806	806	4,960	4,960	6.2

Table 8
Abridged Life Table for Indian Females, 1979-81

Year of age	Mortality Rate	Of 10,000 born alive		Stationary population		Average remaining life time
	Number dying per 1,000 alive at beginning of age interval	Number alive at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
x to x + 4	1,000 q _{n x}	l _x	d _{n x}	L _{n x}	T _x	e _x
0	12.66	10,000	127	9,897	701,055	70.1
1	1.97	9,873	19	9,863	691,158	70.0
2	2.08	9,854	20	9,844	681,295	69.1
3	0.70	9,834	7	9,831	671,451	68.3
4	0.33	9,827	3	9,826	661,620	67.3
5 — 9	1.10	9,824	11	49,093	651,794	66.3
10 — 14	1.95	9,813	19	49,018	602,701	61.4
15 — 19	2.00	9,794	20	48,920	553,683	56.5
20 — 24	2.45	9,774	24	48,810	504,763	51.6
25 — 29	3.79	9,750	37	48,658	455,953	46.8
30 — 34	5.78	9,713	56	48,425	407,295	41.9
35 — 39	6.88	9,657	66	48,120	358,870	37.2
40 — 44	14.20	9,591	136	47,615	310,750	32.4
45 — 49	26.74	9,455	253	46,643	263,135	27.8
50 — 54	40.08	9,202	369	45,088	216,492	23.5
55 — 59	84.93	8,833	750	42,290	171,404	19.4
60 — 64	125.63	8,083	1,015	37,878	129,114	16.0
65 — 69	217.39	7,068	1,537	31,498	91,236	12.9
70 — 74	245.88	5,531	1,360	24,255	59,738	10.8
75 — 79	380.30	4,171	1,586	16,890	35,483	8.5
80 — 84	513.29	2,585	1,327	9,608	18,593	7.2
85 & over	1,000.00	1,258	1,258	8,985	8,985	7.1

RISE IN LIFE EXPECTANCY

The life expectancy of Singapore men at birth has risen from 65.9 years in 1969-1971 to 68.4 years in 1979-1981, an increase of 2.5 years or 3.8 per cent. The Singapore women, on the other hand, have recorded an increase of 2.1 years or 2.9 per cent from 72.2 years to 74.3 years during the same thirteen-year period. As can be observed in Table 9, the improvement during the preceding sixteen-year period has been 8.9 per cent and 8.4 per cent respectively, which may be taken as a sign of the slackening in the rise in life expectancy at birth as it moves towards higher levels.

* Whilst the life expectancy at birth serves as a good indicator of the overall level of mortality and hence the general health conditions of a country, the life expectancy at age 60 has a special significance in Singapore in view of the recent attempt to raise the retirement age of em-

ployees in the public and private sectors as a means of easing the acute labour shortage. Table 9 shows that Singapore men have a life expectancy of 12.4 years at age 60 in 1956-1958, and subsequently improved to 14.0 years in 1969-1971 and to 14.8 years in 1979-1981. What it amounts to is that, assuming that both the economically active and economically inactive populations experience the same mortality level, a male worker at age 60 can expect to live for another 15 years or so. A female worker retiring at age 60 can be expected to live for much longer, about 19 years. One should avoid making the common mistake in saying that since female life expectancy at birth is 74, a woman can live another 14 years when she retires at 60. The lengthening of life expectancy at this old age, coupled with the increasing number of old people as the population ages, requires the channelling of more resources to, among other things, the health care of the aged.

Table 9
Life Expectancy of Singaporeans at Birth and at Age 60
by Sex and Race, 1956-1981

Race and Sex	1956-58	1969-71	1979-81	Increase			
				1956-71		1969-81	
				Years	%	Years	%
Males	At Birth						
All Races	60.5	65.9	68.4	5.4	8.9	2.5	3.8
Chinese	60.9	66.3	69.4	5.4	8.9	3.1	4.7
Malays	56.9	65.4	68.6	8.5	14.9	3.2	4.9
Indians	62.7	65.2	65.3	2.5	4.0	0.1	0.2
Females	At Birth						
All Races	66.6	72.2	74.3	5.6	8.4	2.1	2.9
Chinese	67.9	73.2	75.1	5.3	7.8	1.9	2.6
Malays	58.7	66.8	70.5	8.1	13.8	3.7	5.6
Indians	61.4	67.8	70.1	6.4	10.4	2.3	3.4
	At Age 60						
Males	12.4	14.0	14.8	1.6	12.9	0.8	5.7
Females	16.9	18.3	19.1	1.4	8.3	0.8	4.4

The progress made by the three main races may also be observed in Table 9. Among the males, the Malay men continued to record the greatest improvement of 3.2 years or 4.9 per cent and the Indian men the least improvement of not more than 0.1 year or 0.2 per cent. As for the Chinese men, their life expectancy at birth was raised by 3.1 years or 4.7 per cent. The continuance of the extremely slow progress made by the Indian men into the latest period seems to confirm our explanation offered in our previous article cited earlier, that is, this phenomenon is related to the erosion of the traditional custom of the Indian men to reside in Singapore as long as they are working and to return to India on termination of employment, retirement or serious ill health. This has resulted in increasingly more retired or seriously ill men among this community to remain in Singapore and caused the retardation in further improvement of their life expectancy at birth.

Moving on to the female life expectancy at birth, we see that the largest gain of 3.7 years or 5.6 per cent was also experienced by the Malay women, but it was the Chinese women who recorded the smallest improvement of 1.9 years or 2.6 per cent. The Indian women continued to experience a satisfactory progress, 2.3 years or 3.4 per cent, in their life expectancy at birth during the latest period. What is more important is that the women have conformed to the universal pattern of the shorter the mean length of life at the beginning of the period, the greater would be the possibility for future improvement.

DIFFERENTIALS IN LIFE EXPECTANCY

The differences in the recent speed of progress in the life expectancy at birth recorded by the various sex-race

components of the population have resulted in some changes in the present position regarding differentials in life expectancy at birth between the two sexes as well as among the three principal races. In the latest period 1979-1981 the Singapore women were experiencing a life expectancy at birth of 74.3 years, which was 5.9 years or 8.6 per cent higher than the 68.4 years recorded by the Singapore men. An examination of the figures given in Table 10 reveals that this gap between the sexes is now much smaller than before, having been narrowed from 9.6 per cent a decade ago in 1969-1971 and from 10.1 per cent about two decades ago in 1956-1958. By and large, this narrowing of the sex differential may be attributed to the faster improvement in life expectancy at birth among the Singapore men in recent years.

The figures in Table 10 also give an idea of the sex differential in life expectancy at birth among the three main races. In 1979-1981 the Chinese women were experiencing a life expectancy at birth of 75.1 years, some 5.7 years or 8.2 per cent longer than the 69.4 years recorded by the Chinese men. This gap has been narrowing in the last two decades or so. The Malay women also experienced a longer life expectancy at birth than that of the Malay men, 70.5 years and 68.6 years respectively. But there is a distinct difference in that the gap has always been somewhat smaller, 2.8 per cent in 1979-1981, 2.1 per cent in 1969-1971, and 3.2 per cent in 1956-1958. Besides, there appears to be no clear-cut narrowing or widening of this gap during the period under consideration.

A more interesting pattern of sex differential in life expectancy at birth was exhibited by the Indians. As mentioned in our previous article, the lower life expectancy at birth recorded by the Indian women in Singapore in the early period 1956-1958 was consistent with similar

Table 10
Sex Differential Life Expectancy of Singaporeans
at Birth by Race, 1956-1981

Race	Males	Females	Difference (F-M)	
			Years	% of Males
1979-81				
All Races	68.4	74.3	5.9	8.6
Chinese	69.4	75.1	5.7	8.2
Malays	68.6	70.5	1.9	2.8
Indians	65.3	70.1	4.8	7.4
1969-71				
All Races	65.9	72.2	6.3	9.6
Chinese	66.3	73.2	6.9	10.4
Malays	65.4	66.8	1.4	2.1
Indians	65.2	67.8	2.6	4.0
1956-58				
All Races	60.5	66.6	6.1	10.1
Chinese	60.9	67.9	7.0	11.5
Malays	56.9	58.7	1.8	3.2
Indians	62.7	61.4	-1.3	- 2.1

tendencies observed among peoples from the Indian sub-continent and Sri Lanka. We also hypothesized that the higher female life expectancy at birth that was seen to have occurred among the Indians in the period 1969-1971 seemed to indicate that the emergence of the universal phenomenon of higher female life expectancy would take place as mortality improves to a level equivalent to life expectancy at birth around the midsixties. This is now confirmed by the continuation of the normal sex differential in the latest period 1979-1981 when the Indian women were in fact experiencing a life expectancy of 70.1 years which was 4.8 years or 7.4 per cent longer than that of their male counterparts.

An idea of the latest differentials in life expectancy at birth among the three major races in Singapore is also underlined by the figures shown in Table 10. In the period 1979-1981 the Chinese women in Singapore were enjoying the longest life expectancy at birth amounting to 75.1 years, which was clearly ahead of the Malay women and the Indian women with 70.5 years and 70.1 years respectively. The Chinese men also enjoyed the longest life expectancy of 69.4 years, but not very far ahead of the 68.6 years experienced by the Malay men. The more important feature is that the Indian men were experiencing much shorter life expectancy at birth, 65.4 years.

CONCLUSION

In this follow-up paper we have examined the further progress made by the principal race-sex components of the population in lengthening their expectation of life during the period 1969 to 1981. By the latest period 1979-1981, the life expectancy at birth in Singapore has reached the fairly high levels of 68.4 years in the case of women and 74.3 years in the case of men. The average of these two figures will give the longevity of Singaporeans as 71.4 years, which is fairly comparable to the 73.1 years experienced by the people of the United Kingdom in 1977-1979. It remains to be emphasized that the increase in longevity should not be confused with increase in the life span which may be defined as the limit beyond which human life does not extend, even under the most favourable circumstances.

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