

Life Expectancy of Thai Physicians during 1998-2002

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Previous report suggested early age at death of Thai physicians; the estimate however was not a comparable measurement with general Thai population. This information created a concern on the health status of Thai population. This study was therefore aimed to calculate life expectancy of Thai physicians and to compare with Thai population. Information on year of birth of all registered physicians and year of death of physicians who died during 1998-2002 was retrieved from the database of the Thai Medical Council and the Centre for Continuing Medical Education of Thailand. Age-specific mortality rates were computed for ages of 23-24, 25-29, and then 5-year intervals until 70 years or more. These age-specific mortality rates were used for calculation of life expectancy by using the method of abridged life table. During the year 1998-2002, there were 655 deaths among 25,501 Thai physicians. According to life table calculation, life expectancy at age 23 for Thai physicians was 63.5 years or they could live until age of 86.5 years when they started their career and those figures for Thai general population were 53.2 and 76.2 respectively. The differences between these two populations were declined in older age groups. Increased life expectancy among physicians compared to general population was also reported in other countries. A longer life span of physicians might be a result of higher socioeconomic status and low prevalence of health risk behavior.

Keywords: Life expectancy, Thai physician

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Introduction

A great number of resources have been invested to train medical students to increase numbers of physicians into health services system; very little attention was however made to maintain their health. The health of Thai physicians has not been studied before. There was only a report on an average age at death of Thai physicians during 1967-1984 and the estimate was 52.07 years¹. While it was found that life expectancy of Thai population at the similar period (1980-1985) was 63.10 years. The information created a growing concern on the health status of Thai physicians. In fact, these two different measurements, average age at death and life expectancy, were not comparable. To compare life expectancy between physicians and the population, it is necessary to have age-specific mortality rates of Thai physicians. This calculation was not possible until the Center for Continuing Medical Education (CCME) under the Thai Medical Council as the database of registered Thai physicians had been updated. This study was therefore aimed to calculate life expectancy of Thai physicians and compare with Thai population.

Method

Information on year of birth of all registered physicians and year of death of physicians who died during 1998-2002 was retrieved from the database of the Thai Medical Council and the Centre for Continuing Medical Education. Unknown years of birth were calculated by subtracting years of registration with 24

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(average age at medical graduation). Missing data on years of death were retrieved from the Department of Local Administration, Ministry of Interior.

Analyses

Age-specific mortality rates were computed for ages of 23-24, 25-29, and then 5-year intervals until finally 70 years or more. The nominators of the calculation were registered physicians who died during 1998-2002 and the denominators were population of physicians in the year 2000. These age-specific mortality rates were used for calculation of life expectancy by using the method of abridged life table as shown in appendix ². ³. Life expectancy of the Thai population during the same period was also calculated using the same techniques by using data from the National Statistics Offices.

Results

During the year 1998-2002, there were 655 deaths among 25,501 Thai physicians. Tables of age-specific mortality rates of Thai physicians and the population are presented in the appendix. According to life table calculation, life expectancy at age 23 for Thai physicians was 63.5 years or they could live until age of 86.5 years when they started their career and those figures for Thai population were 53.2 and 76.2 years respectively (Table 1). The differences between these two populations were declined in older age groups.

Discussion

The aim of this study was to calculate life expectancy of Thai physicians and compare with general population. Life expectancy of the physicians was found to be higher than the population for 10 years at the age of 23 years and then decreased to 6 years at age 60 years. Similar results related to the mortality of physicians were also reported in other populations. In the U.S., age-standardized death rates of White physicians in the U.S. were only 75 and 84 percent of population norms for males and females respectively ⁴. Data from the England and Wales during 1992-1997 supported that doctors and other professionals, such as accountants and engineers, had life expectancy at birth of 7.4 and 5.7 years longer than in unskilled social class for males (78.5 years) and females (82.8 years) respectively ⁵. A cohort study of 9,887 students who enrolled at Glasgow University between 1948 and 1968 indicated that medical students lived longer than all other graduates. ⁶ This study was not able to report separate results for male and female physicians as the number of female physicians was too low to produce estimates at high precision. The longer life span of the physicians might be due to better living condition as indicated in many studies ⁷⁻⁹. It is also possible that they have a better chance to access health services and higher knowledge about health although they are at risk to biological, chemical and physical hazard including high work load.

Table 1. Life expectancy at different age groups (years)

Life expectancy at age	Thai physicians	Thai population	Differences
23+	63.5	53.2	10.32
25+	61.6	51.4	10.20
30+	56.9	47.4	9.53
35+	52.1	43.5	8.61
40+	47.3	39.4	7.93
45+	42.8	35.2	7.53
50+	38.2	31.1	7.10
55+	33.7	27.1	6.59
60+	29.3	23.2	6.01
65+	25.6	19.7	5.96
70 or more	23.0	16.5	6.52

Appendix

Calculation of life table

- $M(x)$ = Central death rate at age x
 n = Range of age group
 $q(x)$ = Probability of death at age x
 $l(x)$ = Number of survivors to age x
 $d(x)$ = Death number at age x
 $L(x)$ = Number of person-years lived at age x
 $T(x)$ = Number of person-years lived after age x
 $e(x)$ = Life expectancy at age x

note: $q = 1.00$ for the last age group
 $l = 100,000$ for the first age group

$${}_nq_x = 2{}_nM_x / 2 + {}_nM_x$$

$${}_nd_x = {}_nq_x \times l_x$$

$$l_{x+n} = l_x - {}_nd_x$$

$$L_x = n / 2 \times [(l_{x+n} + l_x)]$$

$$T_x = \sum_x L_x$$

$$e_x = T_x / l_x$$

Life table of Thai physicians

Age group	M	q	l	d	L	T	e
23+	0.0007	0.0014	100,000.0	135.7	199,864.3	6,354,866.4	63.5
25+	0.0009	0.0047	99,864.3	472.3	498,140.6	6,155,002.2	61.6
30+	0.0005	0.0027	99,392.0	264.3	496,299.2	5,656,861.5	56.9
35+	0.0010	0.0050	99,127.7	500.1	494,388.2	5,160,562.4	52.1
40+	0.0020	0.0098	98,627.6	962.2	490,732.4	4,666,174.2	47.3
45+	0.0021	0.0106	97,665.4	1,033.9	485,742.0	4,175,441.8	42.8
50+	0.0028	0.0139	96,631.4	1,344.5	479,795.9	3,689,699.7	38.2
55+	0.0036	0.0179	95,286.9	1,703.5	472,175.7	3,209,903.8	33.7
60+	0.0101	0.0495	93,583.4	4,628.4	456,345.9	2,737,728.1	29.3
65+	0.0195	0.0932	88,955.0	8,288.2	424,054.4	2,281,382.3	25.6
70++	0.0434	1.0000	80,666.8	80,666.8	1,857,327.9	1,857,327.9	23.0

Life table of Thai population

Age group	M	q	l	d	L	T	e
23+	0.0020	0.0039	100,000	393.8	199,606.2	5,323,130.4	53.2
25+	0.0039	0.0191	99,606	1,899.6	493,282.1	5,123,524.1	51.4
30+	0.0047	0.0231	97,707	2,256.2	482,892.6	4,630,242.0	47.4
35+	0.0045	0.0222	95,450	2,123.7	471,942.8	4,147,349.4	43.5
40+	0.0045	0.0222	93,327	2,075.4	461,444.9	3,675,406.7	39.4
45+	0.0052	0.0257	91,251	2,345.6	450,392.3	3,213,961.8	35.2
50+	0.0070	0.0343	88,906	3,048.6	436,906.8	2,763,569.5	31.1
55+	0.0091	0.0446	85,857	3,831.4	419,706.7	2,326,662.7	27.1
60+	0.0134	0.0647	82,026	5,303.3	396,869.7	1,906,956.0	23.2
65+	0.0201	0.0958	76,722	7,346.3	365,245.7	1,510,086.2	19.7
70++	0.0606	1.0000	69,376	69,376.0	1,144,840.5	1,144,840.5	16.5

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อายุคาดเฉลี่ยของแพทย์ไทย พ.ศ. 2541-2545

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รายงานก่อนหน้านี้กล่าวว่าแพทย์ไทยเสียชีวิตก่อนวัยอันควรเมื่อเทียบกับประชากรทั่วไป แต่ตัวเลขดังกล่าวไม่ได้มาจากการเปรียบเทียบที่เหมาะสม ข้อมูลนี้ก่อให้เกิดความกังวลต่อสภาวะสุขภาพของแพทย์ไทย การศึกษานี้มีวัตถุประสงค์เพื่อคำนวณอายุคาดเฉลี่ยของแพทย์ไทยและเทียบกับประชากรทั่วไป ผู้วิจัยค้นคว้าข้อมูลปีเกิดและปีที่แพทย์ไทยเสียชีวิตระหว่างปี 2541-2545 จากฐานข้อมูลของแพทยสภาและศูนย์การศึกษาต่อเนื่องของแพทย์ แล้วคำนวณอัตราการตายเฉพาะกลุ่มอายุต่างๆ คือ 23-24, 25-29, ช่วงละ 5 ปี ไปจนอายุมากกว่าหรือเท่ากับ 70 ปี แล้วใช้สูตรนี้คำนวณอายุคาดเฉลี่ยของแพทย์ไทยโดยวิธีตารางชีพ จากข้อมูลปี 2541-2545 มีแพทย์เสียชีวิต 655 คนจากแพทย์ไทยทั้งสิ้น 25,501 คน ตารางอัตราการตายเฉพาะกลุ่มอายุต่าง ๆ ของแพทย์ไทยและประชากรไทยแสดงในภาคผนวก จากการคำนวณตารางชีพ อายุคาดเฉลี่ยของแพทย์ไทย ณ อายุ 23 ปี เท่ากับ 63.5 ปี หมายความว่าเมื่อเริ่มต้นทำงานเป็นแพทย์ เขาจะมีอายุไปถึง 86.5 ปี ในขณะที่ประชากรไทยตัวเลขเป็น 53.2 และ 76.2 ปีตามลำดับ ความแตกต่างระหว่างแพทย์กับประชากรทั่วไปนี้น้อยลงเมื่ออายุเพิ่มขึ้น อายุคาดเฉลี่ยของแพทย์ที่ยาวนานกว่าประชากรทั่วไปก็มีรายงานในประเทศอื่น ๆ ด้วยเช่นกัน จากผลการศึกษานี้อาจเป็นผลจากการที่แพทย์มีเศรษฐกิจฐานะสูงกว่าและมีพฤติกรรมเสี่ยงน้อยกว่า
