MEDICAL MANPOWER IN SARAWAK – THE DOCTORS

V. SUPRAMANIAM

SUMMARY

200 doctors are gazetted as practising in Sarawak in 1982. 88% are males and only 12% are females. Of the 200, 65.5% are Chinese and the natives of Sarawak and Indians form 15.5% each. Nearly 30% are graduates from local universities, 44% from universities in Commonwealth countries and a few from universities in other countries. The majority of the doctors are under 40 years of age. 55 % are in government service, while 45% are in the private sector. All private practices are solo-practices except three—one each in Kuching, Sibu and Miri which are based on partnership. The number of doctors with specialist qualifications is not known as it is not essential for these qualifications to be entered in the Register. The doctor-to-population ratio in Sarawak has improved from 1:14000 in 1964 to 1:6856 in 1982. To reach the Ministry of Health's target of 1:2500 by 1990, a yearly recruitment of 58 doctors would be needed from 1983 to 1990. This would be feasible if either an admission quota to the local medical faculties for Sarawakians is implemented or more doctors are posted to serve in Sarawak.

INTRODUCTION

Doctors are in short supply in Sarawak as in other states of Malaysia. However, the shortage is compounded further by the size of the state which is nearly equal to that of the whole of Peninsular Malaysia and an unequal distribution of doctors over a widely scattered population with a poor communication network. This paper describes some characteristics of doctors in Sarawak with emphasis on the shortage of doctors.

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METHOD

The primary source of data is the gazetted list of doctors granted annual practising certificates (APC) under the Medical Act 1971 (Act 50) for the year 1982. [1] Additional source of data is the 1980 population and housing census of Malaysia. [2] The gazette list shows a few errors-incorrect addresses and non-recording of date of graduation. The Sarawak list had a Sabah doctor and the Sabah list a Sarawak doctor included and for two others, the towns were incorrect. Limitations of the primary data source to note are that the list may be incomplete as eligible doctors may not have applied for the APC due to oversight. The Article 13 (3) doctors, for all practical purposes practising as full-fledged doctors, are not included till satisfactory completion of their period of service. Doctors may run more than one clinic but in the gazette only one practice address is published and therefore a town may have a part-time clinic but it is not shown. Finally for doctors who had full registration before 1982, the place of practice recorded is that of 1981 as applications for 1982 are required to be submitted by the end of 1981. The 1982 list does not, therefore, reflect the actual place of practice in 1982.

RESULTS

200 doctors granted APC in 1982 recorded Sarawak as their place of practice. The sex and racial origin of these 200 doctors in the gazette is shown in Table I. 88% of the registered doctors are males. The sex determination of Chinese names, except those with Christian names, was a hazardous task and was assisted by a Mandarin-speaking Chinese. For the other races, 'son of or daughter of' clearly indicate the sex. The major group of doctors (65.5%) is of Chinese origin. The doctors

TABLE I
DISTRIBUTION OF DOCTORS BY RACE AND SEX

Sex	Race				Total
	Sarawak natives*	Chinese	Indians	Others	
Males	30	113	27	6	176 (88)
Females	1	18	4	1	24 (12)
Total	31 (15.5)	131 (65.5)	31 (15.5)	7 (3.5)	200 (100)

* Includes Malays from Sarawak and other states of Malaysia.

\+ Includes doctors from Sri Lanka and Bangladesh.

( ) refer to percentages.

who are natives of Sarawak (this includes Malays of Sarawak and other states of Malaysia as it was not possible to distinguish Malays from Sarawak and other states from their names) form 15.5% of the total. Indian doctors constitute 15.5%. The majority of the Indians are specialist, foreign-contract officers.

Table II gives the distribution of doctors by year of graduation with basic medical degree and countries of training. Since the early 70's the majority of the graduates have been trained locally at the University of Malaya and the National University of Malaysia. They form 38.5% of the total currently. A substantial number of doctors (44%) have been trained in Commonwealth countries. Most of the doctors trained in India are Indian citizens on short-term contracts. On the register, there are doctors trained in Korea, Republic of China, Burma, Indonesia and Hong Kong.

The number of doctors registered have increased over the years from 2% soon after the Second World War to 34.5% for the period 1975-79. Only two doctors who graduated during the pre-war years are on the register. If it is assumed that the

TABLE II
DISTRIBUTION OF DOCTORS BY COUNTRY AND YEAR OF GRADUATION WITH BASIC DEGREE

Year (Age)	Country								Total
	Malaysia	S'pore	Australia	Canada	UK	India	Taiwan	Others	
1935-1939 (68-72)		2							2
1940-1944 (63-67)		0							0
1945-1949 (58-62)		0				2		2	4(2.0)
1950-1954 (53-57)		2				2		1	5(2.5)
1955-1959 (48-52)		1			3	4		1	9(4.5)
1960-1964 (43-47)		4	4		1	2	1	3	15(7.5)
1965-1969 (38-42)		2	8	3	5	7	0	3	28(14.0)
1970-1974 (33-37)	20	4	3	9	4	5	11	0	56(28.0)
1975-1979 (28-32)	47	4	3	0	2	5	4	4	69(34.5)
1980 (27)	10	0	1	0	0	0	0	0	11
Unknown	0	0	0	0	0	0	0	1	1
Total	77 (38.5)	19 (9.5)	19 (9.5)	12 (6.0)	15 (7.5)	27 (13.5)	16 (8.0)	15 (7.5)	200 (100)

( ) Percentage

TABLE III
DISTRIBUTION OF DOCTORS BY TYPE AND PLACE OF PRACTICE (PERCENTAGES IN BRACKETS) AND DOCTOR: POPULATION RATIO

Division	Government Doctors	Private Doctors	Total	Doctor: Pop. Ratio
First	57	38	95 (47.5)	5980
Second	7	1	8 (4.0)	20461
Third	16	23	39 (19.5)	5663
Fourth	16	20	36 (18.0)	5811
Fifth	4	1	5 (2.5)	9191
Sixth	7	4	11 (5.5)	10563
Seventh	5	1	6 (3.0)	10988
Total	112 (56)	88 (44)	200 (100)	

average age of graduation of a doctor is 26, the ages of the doctors, as of 1981, is shown in Table II. Only two are beyond 60 years of age. The majority of the doctors are under 40.

Table III shows the distribution of doctors by type and place of practice. 56% of doctors on the register are in government service either with the Ministry of Defence (only six doctors) or Health. The rest of the doctors are in private practice or working for private enterprises such as Shell in Lutong. The distribution of doctors in both government and private sector in the seven divisions of Sarawak are unequal as shown in Table III. Kuching, in the the division, has the largest concentration of government doctors and private practitioners, followed by Sibu in the third division. The Sarawak General Hospital in Kuching has 33 doctors, besides house officers on the staff. The doctor-to-population ratio in the division varies from 1:5663 to 1:20461. This unequal ratio partly arises because vast areas are thinly populated to have a cost-effective health facility with doctors. The flying doctor service, which started in September 1973, caters partly to these small populations in rural areas on a monthly basis, now once in two months due to the austerity drive. [3]

The ratio of doctor-to-population is shown in Table IV. In 1964 (the year following formation of Malaysia), Sarawak had 1 doctor for 14000 population. Peninsular Malaysia and Sabah had

TABLE IV
DOCTOR: POPULATION RATIOS

Year	Peninsular Malaysia	Sabah	Sarawak	Malaysia	Reference
1964	1:6000	1:13100	1:14000		15
1970	1:4100	1:7900	1:11100		16
1975	1:5600	1:7650	1:8420		17,18
1980			1:7925	1:4321	19
1982	1:3390	1:8645	1:6856	1:3739	
1983				1:3600	9
1990				1:2500	9

better ratios. This position continued till 1975. Sarawak, over the years, managed to recruit more doctors and its present doctor-to -population ratio is 1:6856, reduced to more than half the population served in 1964. It has overtaken Sabah too but way behind Peninsular Malaysia's 1:3390.

All private practitioners are single-handed ones except for three partnerships—one each in Kuching, Sibu and Miri. No private hospitals have been set up in Kuching todate thought there is talk of it. [4]

The exact number of specialists could not be ascertained from the register as registration of higher qualifications is not compulsary at the moment. Only a few have registered their postgraduate qualification.

DISCUSSION

The majority of the 200 doctors serving in Sarawak are permanent residents of the state. The private practitioners are all permanent residents, unlike in Peninsular Malaysia where non-residents can practice in any state. Non-resident doctors serve in Federal government hospitals and in health establishments only, except under very special circumstances.

The male to female population of Sarawak is 1.008:1 based on the 1980 census and the ratio of male to female doctor nowhere reflects this ratio. This may be a result of too few female candidates interested in medicine, few meet the criteria for admission or a policy to restrict the number of female candidates (assumptions only). Whatever the reason or reasons, the universities current admissions of women for medicine are far below 50%, thought it is likely to rise in the near future. In the United Kingdom, women make up about 50% of all admissions to medical schools and this was achieved after a prolonged struggle.

Admissions steadily rose only over the last 30 years. [5] The racial imbalance is a known fact which is due course will be rectified under the new economic policy [6] by the current intakes of increased Bumiputra candidates for medicine in our Universities. The natives of Sarawak too, are expected to benefit from this policy.

Sarawak's doctors, most locally trained, are still a very young and active group with the majority being under 40 years of age. The numbers trained overseas have dropped steeply since 1975.

The number of doctors serving the 1982 estimated population of 1371.1 thousand is 200 i.e., a ratio of 1:6856 population. This doctor-to-population ratio is one of the methods used to estimate the number of doctors required to serve a community though other methods such as "the number of doctors employed in 'closed' systems of care such as the military, a percentage of the gross national product and various mathematical models based on either the demand for medical services (current use ratio projected to the future) or the needs (idealized) for services" are available. All these methods have value and all have shortcomings too. [7] In Malaysia, the doctor-to-population ratio is the commonly used method of estimating requirements. Unfortunately, the ideal ratio of doctor-to-population is not a fixed ratio and depends on economic or political considerations or both. [8] The Ministry of Health is working towards a 1:2500 ratio by the year 1990. [9] To meet this target Malaysia would need 6902 doctors for an estimated population of 17254.7 thousand in 1990 (annual growth rate of 2.3%) and for Sarawak alone, 663 doctors for an estimated population of 1657.6 thousand in 1990 (annual growth rate 2.4%), assuming no losses through death, retirement and migration. In 1982, 3847 doctors in Malaysia were granted APC and therefore by 1990, 3055 additional doctors need to be added to the pool i.e., an average of 382 doctors from 1983 yearly till 1990. As for Sarawak, an annual increase of 58 doctors is required. This figure may be feasible for Malaysia as a whole taking into consideration the output from all three local and overseas Universities. Sarawak may, however, have difficulties unless a special admission quota is given to it or more doctors are posted to Sarawak. The proposal for a fourth medical faculty in Sarawak made by the Malaysian Medical Association [10] should be seriously considered not only to help to meet this target but to improve on it through shortage of qualified staff is a problem which need to be solved first. The University Hospital in Petaling Jaya is now experiencing an acute shortage of doctors at all levels. [11]

Specialists are a 'rare-breed' in Sarawak. Local Sarawakians have only specialised in the popular fields of general medicine, surgery, paediatrics and obstetrics and gynaecology. The para-clinical specialities such as anaesthesiology, radiology, pathology and other clinical specialities as ophthalmology are run by foreign contract doctors. Unfortunately, there are very few local Sarawakians interested in these fields. One suggested short-term solution is the employment of specialists in private practice in government hospitals [9].

The shortage of doctors and, especially, specialists will be with us for some time and there are no easy and quick solutions. The President of MMA has suggested the employment of doctor-spouses about 40 of whom should be immediately available, and also conducting postgraduate training and examinations locally. This would enable the trainees to provide continuous service to the Malaysian public. [12] As a temporary measure, the government has been using senior hospital assistants (HA) to assist doctors in screening of patients, in setting up of intravenous drips and other tasks. This, of course, is under the direct supervision of doctors. They have done a commendable job. In Sarawak, the HA anaesthetist has shown to be capable with no excess anaesthesia-related mortality or morbidity. In fact a call for the creation of medical aides working directly under the supervision of the doctor has been made by the MMA in 1980 [13] and again recently to overcome the shortage of doctors [14] and HAs are eminently suited to assist them under supervision.

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