

## CHAPTER 3 | WORKFORCE IN PRIMARY CARE IN MALAYSIA

Kamaliah MN<sup>1</sup>, Teng CL<sup>2</sup>, Nordin S<sup>3</sup>, Noraziah AB<sup>1</sup>, Salmiah MS<sup>1</sup>, Fauzia AM<sup>4</sup>, Normimiroslina CO<sup>5</sup>, Nadia FMG<sup>6</sup>, Farah A<sup>1</sup>, Mohd AY<sup>7</sup>

1. Family Health Development Division, 2. International Medical University, 3. Institute for Health Systems Research, National Institutes of Health 4. Klinik Kesihatan Penampang, 5. Poliklinik Komuniti Kelana Jaya, 6. Clinical Research Centre, National Institutes of Health, 7. Medical Device Bureau

**Summary: The overall primary care doctor to population ratio was 2.89 per 10000 population in 2009. The states with the highest and lowest densities per 10000 population were Wilayah Persekutuan Kuala Lumpur (5.58) and Sarawak (1.02). Overall, 2.4% of the doctors providing primary care services in Malaysia are specialists in this field and the majority of them were in the public sector. Most qualified nurses in primary care clinics were in the public sector.**

This chapter looks into the availability and distribution of doctors and nurses in the primary care setting. A primary care doctor in Malaysia is defined as any doctor who is registered with the Malaysian Medical Council (MMC) and works in a primary care clinic. Criteria for registration with the MMC are a medical degree from a recognised university and completion of housemanship training.

The overall primary care doctor to population ratio was 2.89 per 10000 population in 2009. The highest density was in Wilayah Persekutuan Kuala Lumpur at 5.58 per 10000 population and the lowest was in Sarawak at 1.02 per 10000 population. The states with a primary care doctor to population ratio lower than the national average were Perlis, Kedah, Pahang, Terengganu, Kelantan, Sabah, and Wilayah Persekutuan (WP) Labuan and Sarawak. (Table 3.1)

The overall distribution of public primary care doctors was 0.52 per 10000 population and the density for most states hovered around the national average except for Negeri Sembilan which showed the highest density of public primary care doctors at 1.11 per 10000 population. On the other hand, Sabah and Sarawak had the lowest density of public primary care doctors. Private primary care doctors outnumbered the public with a ratio of 4.6:1. The states with the highest private to public ratios were WP Kuala Lumpur (11.8:1), Penang (8.4:1) and Selangor (7.0:1). The states with the lowest private to public primary care doctors' ratios (in descending order) were Negeri Sembilan, Pahang, Kelantan, Sarawak and Perlis.

Nurses in primary care in Malaysia are made up of four categories based on their qualification whether diploma or degree (certified nurses) or certificate (community nurses, midwives and assistant nurses). Training for midwives and assistant nurses has been stopped since the late 80's and early 90's respectively; thus explaining the low numbers found in this study. The distribution of trained nursing staff in the country was heavily tilted towards the public sector in the primary care setting. A large number of private clinics employed nursing aides who are given on the job training. (Tables 3.2a and 3.2b)

Table 3.3 shows the distribution of Family Medicine Specialists (FMS) in Malaysia. There are two alternative pathways for medical officers to obtain this specialisation in Malaysia; through the University-run Masters programme or by obtaining FRACGP certification. Presently there are no specific guidelines on their specialist fees in private practice. Specialists serving in the public sector receive incentives similar to specialists in other clinical fields. This could explain the larger number of family medicine specialists in the public sector although there were fewer public clinics compared with private ones. In the public sector, 10.4% of the primary care doctors were FMS, however, in the private side there were only 0.68% FMS. Overall, 2.4% of the doctors providing primary care services in Malaysia are specialists in this field. This figure is lower than in countries such as Australia due to the differing primary care systems.<sup>1</sup> The Malaysian system allows doctors without a specialist qualification to practice as general practitioners as opposed to other countries that do not. The public sector introduced FMS in an effort to bring specialist services closer to the home and to deliver comprehensive quality primary care services. The FMS in the public sector are given the same recognition and remuneration as other clinical specialists, which is an incentive for them to remain in the public service. As FMS is a rapidly emerging specialty in Malaysia with the public sector taking a lead now, it is only a matter of time before the tide flows into the private sector once there is more demand for it from the people.

**Table 3.1 Number and Density of Primary Care Doctors in Malaysia by State and Sector, 2009**

STATE	SECTOR	NUMBER	PER 10000 POPULATION
Malaysia	Public	1438	
Malaysia	Private	6626	
Malaysia	Total	8064	2.89
Perlis	Public	18	
Perlis	Private	32	
Perlis	Total	50	2.11
Kedah	Public	88	
Kedah	Private	379	
Kedah	Total	467	2.4
Kedah & Perlis	Public	106	
Kedah & Perlis	Private	411	
Kedah & Perlis	Total	517	2.37
Pulau Pinang	Public	71	
Pulau Pinang	Private	596	
Pulau Pinang	Total	667	4.22
Perak	Public	156	
Perak	Private	598	
Perak	Total	754	3.11
Selangor & WP Putrajaya	Public	236	
Selangor & WP Putrajaya	Private	1652	
Selangor & WP Putrajaya	Total	1888	3.75
WP Kuala Lumpur	Public	74	
WP Kuala Lumpur	Private	876	
WP Kuala Lumpur	Total	950	5.58
Selangor & WP Putrajaya & WP Kuala Lumpur	Public	310	
Selangor & WP Putrajaya & WP Kuala Lumpur	Private	2528	
Selangor & WP Putrajaya & WP Kuala Lumpur	Total	2838	4.21
Negeri Sembilan	Public	111	
Negeri Sembilan	Private	271	
Negeri Sembilan	Total	382	3.82
Melaka	Public	56	
Melaka	Private	221	
Melaka	Total	277	3.64
Johor	Public	162	
Johor	Private	926	
Johor	Total	1088	3.33
Pahang	Public	119	
Pahang	Private	250	
Pahang	Total	369	2.43
Terengganu	Public	62	
Terengganu	Private	166	
Terengganu	Total	228	2.2
Kelantan	Public	93	
Kelantan	Private	188	
Kelantan	Total	281	1.71
Sabah & WP Labuan	Public	105	
Sabah & WP Labuan	Private	307	
Sabah & WP Labuan	Total	412	1.26
Sarawak	Public	87	
Sarawak	Private	164	
Sarawak	Total	251	1.02

**Table 3.2a Number and Density of Primary Care Nurses (Staff Nurses and Community Nurses) in Malaysia by State and Sector, 2009**

STATE	SECTOR	STAFF NURSES		COMMUNITY	
		NUMBER	PER 10000 POPULATION	NUMBER	PER 10000 POPULATION
Malaysia	Public	4661		6908	
Malaysia	Private	362		NA	
Malaysia	Total	5023	1.8	6908	2.48
Perlis	Public	147		200	
Perlis	Private	0		NA	
Perlis	Total	147	6.2	200	8.44
Kedah	Public	427		684	
Kedah	Private	0		NA	
Kedah	Total	427	2.2	684	3.52
Kedah & Perlis	Public	574		884	
Kedah & Perlis	Private	0		NA	
Kedah & Perlis	Total	574	2.63	884	4.06
Pulau Pinang	Public	201		380	
Pulau Pinang	Private	35		NA	
Pulau Pinang	Total	236	1.49	380	2.41
Perak	Public	399		609	
Perak	Private	34		NA	
Perak	Total	433	1.78	609	2.51
Selangor & WP Putrajaya	Public	479		475	
Selangor & WP Putrajaya	Private	109		NA	
Selangor & WP Putrajaya	Total	588	1.17	475	0.94
WP Kuala Lumpur	Public	122		169	
WP Kuala Lumpur	Private	35		NA	
WP Kuala Lumpur	Total	157	0.92	169	0.99
Selangor & WP Putrajaya & WP Kuala Lumpur	Public	600		644	
Selangor & WP Putrajaya & WP Kuala Lumpur	Private	144		NA	
Selangor & WP Putrajaya & WP Kuala Lumpur	Total	744	1.1	644	0.96
Negeri Sembilan	Public	329		283	
Negeri Sembilan	Private	15		NA	
Negeri Sembilan	Total	344	3.44	283	2.83
Melaka	Public	221		255	
Melaka	Private	18		NA	
Melaka	Total	239	3.14	255	3.35
Johor	Public	598		1048	
Johor	Private	36		NA	
Johor	Total	634	1.94	1048	3.21
Pahang	Public	427		303	
Pahang	Private	10		NA	
Pahang	Total	437	2.88	303	2
Terengganu	Public	349		305	
Terengganu	Private	16		NA	
Terengganu	Total	365	3.52	305	2.94
Kelantan	Public	390		727	
Kelantan	Private	8		NA	
Kelantan	Total	398	2.43	727	4.44
Sabah & WP Labuan	Public	298		504	
Sabah & WP Labuan	Private	37		NA	
Sabah & WP Labuan	Total	335	1.02	504	1.54
Sarawak	Public	276		967	
Sarawak	Private	8		NA	
Sarawak	Total	284	1.15	967	3.91

NA – not applicable

**Table 3.2b Number and Density of Primary Care Nurses (Midwives and Assistant Nurses) in Malaysia by State and Sector, 2009**

STATE	SECTOR	MIDWIVES		ASSISTANT NURSES	
		NUMBER	PER 10000 POPULATION	NUMBER	PER 10000 POPULATION
Malaysia	Public	274		482	
Malaysia	Private	NA		NA	
Malaysia	Total	274	0.1	482	0.17
Perlis	Public	7		5	
Perlis	Private	NA		NA	
Perlis	Total	7	0.3	5	0.21
Kedah	Public	21		39	
Kedah	Private	NA		NA	
Kedah	Total	21	0.11	39	0.2
Kedah & Perlis	Public	27		44	
Kedah & Perlis	Private	NA		NA	
Kedah & Perlis	Total	27	0.12	44	0.2
Pulau Pinang	Public	8		13	
Pulau Pinang	Private	NA		NA	
Pulau Pinang	Total	8	0.05	13	0.08
Perak	Public	17		46	
Perak	Private	NA		NA	
Perak	Total	17	0.07	46	0.19
Selangor & WP Putrajaya	Public	24		44	
Selangor & WP Putrajaya	Private	NA		NA	
Selangor & WP Putrajaya	Total	24	0.05	44	0.09
WP Kuala Lumpur	Public	NA		9	
WP Kuala Lumpur	Private	NA		NA	
WP Kuala Lumpur	Total	NA	0	9	0.05
Selangor & WP Putrajaya & WP Kuala Lumpur	Public	24		53	
Selangor & WP Putrajaya & WP Kuala Lumpur	Private	NA		NA	
Selangor & WP Putrajaya & WP Kuala Lumpur	Total	24	0.04	53	0.08
Negeri Sembilan	Public	12		17	
Negeri Sembilan	Private	NA		NA	
Negeri Sembilan	Total	12	0.12	17	0.17
Melaka	Public	2		10	
Melaka	Private	NA		NA	
Melaka	Total	2	0.03	10	0.13
Johor	Public	53		70	
Johor	Private	NA		NA	
Johor	Total	53	0.16	70	0.21
Pahang	Public	12		29	
Pahang	Private	NA		NA	
Pahang	Total	12	0.08	29	0.19
Terengganu	Public	23		23	
Terengganu	Private	NA		NA	
Terengganu	Total	23	0.22	23	0.22
Kelantan	Public	63		63	
Kelantan	Private	NA		NA	
Kelantan	Total	63	0.38	63	0.38
Sabah & WP Labuan	Public	32		111	
Sabah & WP Labuan	Private	NA		NA	
Sabah & WP Labuan	Total	32	0.1	111	0.34
Sarawak	Public	NA		2	
Sarawak	Private	NA		NA	
Sarawak	Total	NA	0	2	0.01

NA – not applicable

**Table 3.3 Number and Distribution of Family Medicine Specialists in Malaysia by State and Sector, 2009**

STATE	SECTOR	NUMBER	PER 10000 POPULATION
Malaysia	Public	149	
Malaysia	Private	45	
Malaysia	Total	194	0.07
Perlis	Public	3	
Perlis	Private	0	
Perlis	Total	3	0.12
Kedah	Public	12	
Kedah	Private	0	
Kedah	Total	12	0.06
Kedah & Perlis	Public	15	
Kedah & Perlis	Private	0	
Kedah & Perlis	Total	15	0.07
Pulau Pinang	Public	13	
Pulau Pinang	Private	6	
Pulau Pinang	Total	19	0.12
Perak	Public	9	
Perak	Private	16	
Perak	Total	25	0.1
Selangor & WP Putrajaya	Public	23	
Selangor & WP Putrajaya	Private	3	
Selangor & WP Putrajaya	Total	26	0.05
WP Kuala Lumpur	Public	11	
WP Kuala Lumpur	Private	6	
WP Kuala Lumpur	Total	17	0.1
Selangor & WP Putrajaya & WP Kuala Lumpur	Public	34	
Selangor & WP Putrajaya & WP Kuala Lumpur	Private	9	
Selangor & WP Putrajaya & WP Kuala Lumpur	Total	43	0.06
Negeri Sembilan	Public	11	
Negeri Sembilan	Private	2	
Negeri Sembilan	Total	13	0.13
Melaka	Public	4	
Melaka	Private	1	
Melaka	Total	5	0.06
Johor	Public	14	
Johor	Private	7	
Johor	Total	21	0.06
Pahang	Public	15	
Pahang	Private	1	
Pahang	Total	16	0.1
Terengganu	Public	14	
Terengganu	Private	1	
Terengganu	Total	15	0.13
Kelantan	Public	10	
Kelantan	Private	1	
Kelantan	Total	11	0.07
Sabah & WP Labuan	Public	7	
Sabah & WP Labuan	Private	0	
Sabah & WP Labuan	Total	7	0.02
Sarawak	Public	3	
Sarawak	Private	1	
Sarawak	Total	4	0.02

**Limitations:**

- The estimated number of doctors was calculated based on the total number of doctors practicing in each clinic in the country. As doctors may practice in more than one clinic, the figures presented here could be an overestimation of the true picture especially for the private sector.
- The number of Family Medicine Specialists was based on a list of verified names of specialists; thus each individual was only counted once.

**Reference**

1. Britt H, Miller GC, Charles J, et al. General practice activity in Australia, 2008–09. General practice series no. 25. Cat. no. GEP 25. Canberra: AIHW.