

## CHAPTER 1 | OVERVIEW ON HOSPITALS AND SPECIALISTS SERVICES IN MALAYSIA

Lim TO<sup>1</sup>, Sivasampu S<sup>1</sup>, Ariza Z<sup>1</sup>, Nabilah MK<sup>1</sup>

*1. Clinical Research Centre, Ministry of Health*

The Malaysian healthcare system consists of both public and private sector hospitals. This is the first in series of technical report reviewing current characteristic and trend in the number, composition, and distribution of hospitals, selected services, human workforce i.e. doctors/ specialists' ratio and highly advanced medical devices.

For the year 2008-2009 there were a total of 334 hospitals that provided acute care services with a density of 0.12 hospitals per 10000 population. The majority of the hospitals and beds in Malaysia are concentrated in the State of Selangor & Federal Territories of Wilayah Persekutuan Putrajaya, Wilayah Persekutuan Kuala Lumpur (WPKL) and the State of Johor. A significant number of hospitals in the above locations were tertiary hospitals. Perlis was the only state that had no private hospitals. If enumerated separately, both the Federal Territories of WP Putrajaya and WP Labuan are being served entirely by the public sector.

Private hospitals have been proliferating over the past decade and contributed to about 60% of the Malaysian hospital population. However, hospital care in Malaysia is still heavily dominated by the public sector i.e. Ministry of Health being the largest healthcare provider. Approximately 75% of all hospital beds and 71% of the total hospital admissions were reported in the public sector.

Despite an increase in the number of public and private hospitals providing services, specifically pediatric and maternal services, the number of specialists is still significantly inadequate when compared with other developed countries or MOH's own projected target.

This report has also demonstrated that about 60% of specialized services, namely intensive care (ICU) and paediatric intensive care (PICU) were being provided by the public sector. More than 86% of the Neonatal Intensive Care Unit (NICU) beds were found in the public sector.

There are 538 Haemodialysis (HD) centres in Malaysia. The private sector provides 42.4% HD services, followed by Non Governmental Organization (NGO) contributing 31% and the public sector at 26.6%. The total number of haemodialysis centres in Malaysia increased by 222% from 167 in 2000 to 538 in 2009. However, 37% of peritoneal dialysis services were provided by public sector.

A study on the burden of disease using disability-adjusted life years (DALY) in 2004 showed that the five leading diseases in Malaysia were ischaemic heart disease followed by mental illness, cerebrovascular disease/stroke, road traffic injuries and cancers. Under the 10th Malaysian Plan, the Ministry of Health has prioritised the development of cardiac, emergency and oncology services for the nation. In Malaysia, 51 hospitals which provide cardiac services are equipped with coronary care units (CCU). There is however inequity in the distribution of this service, as they are mainly concentrated in the urban areas. The same scenario is evident for oncology and emergency medicine.

The ratio of doctors in hospitals (excluding housemen) to population is 1:1870. Seventy four percent of these doctors are serving in the public hospitals with 26% in the private hospitals. The highest densities of doctors are in WPKL with 19.81 per 10000 population. It must be pointed out that WPKL has the largest public hospitals, including Hospital Kuala Lumpur, University Malaya Medical Centre and Pusat Perubatan Universiti Kebangsaan Malaysia.

The Ministry of Health has invested heavily in developing the capacity and capability of human workforce. This is especially so for our specialists services. There were 2,836 specialists working in the MOH hospitals, 703 specialists in the universities setting and 2,692 specialists in the private sector. Details of specialists other than those reported in the chapters are available in Appendix 2 and 3.

Only one fifth of the cardiologists (32) were working in the public sector. There were 57 oncologists in the country and this equates to an oncologist: population ratio of 2: per million populations, with half of them in the public sector and the entire regional centre. Ironically, in the field of Emergency Medicine, all 84 specialists were found to be working in the public sector.

There were 785 surgeons in this country of which the largest surgical subspecialist group was the urologist (n=91). However, breast and endocrine surgeons were the smallest subspecialty with only 9 such subspecialists in this country. There were 644 anesthesiologists in Malaysia, resulting in an anesthesiologist to population ratio of 1:42,000 population. The surgical-based specialists per anaesthetists to anesthesiologist ratio were 4:1 showing a relative shortage of anesthesiologists.

Problems that affect the MOH workforce include shortage of skilled personnel, movement of health professionals from the public sector to the private sector, inadequate expertise in some critical areas, and difficulty in placement and retention of doctors and nurses in more remote areas. Apart from continuous staff shortages, the government recognizes that the misdistribution of health personnel continues to pose problems, including imbalance distribution in rural areas such as the States of Sabah and Sarawak.

There were a total of 505,270 deliveries in Malaysia in 2009 with 105,291 of it being Caesarean Sections (CS). Meanwhile the O&G specialists in public facilities had a higher workload with 1,303.72 deliveries per O&G specialist compared with 326.17 deliveries per specialist in the private facilities. The rising trend of CS rate was more evident in the private sector.

Visits ratio to the Emergency Medicine and Trauma department (2,523 visits per 10000 populations) in our country was far higher than the ratios reported in developed countries. Malaysia does not have adequate number of Emergency and Trauma departments to cater for the needs of its population. Existing departments were also burdened by over utilization of their services.

Malaysia only has 4.52 CT scanners per million population compared to Canada, which has 12.8 CT scanners per million population. For MRI units, Malaysia has 2.9 per million population while Canada has 6.8 per million population. The number of CT scans performed per unit of CT scan available was 3,324, while the ratio for MRI scans was 1,815 activities per unit of MRI machine.