

A Glimpse into the Past – Medicine in Singapore (Part 2)

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This is the second instalment of a series on the history of Medicine in Singapore.

1850 to 1900

Fourth-generation general hospital (GH)

In 1856, the fourth GH was built on low ground in the Kandang Kerbau (KK) district, near what are now the Rochor and Bukit Timah canals. The KK district was located in the area where the Serangoon, Selegie, Bukit Timah and Rochor roads intersected. Kandang Kerbau, Malay for “buffalo enclosure”, was named after the buffalo pens in that area. The Teochews and Hokkiens referred to the KK district as Tek Kah (“Zhu Jiao” in Mandarin), which means “below the clumps of bamboo”, because these plants grew on the hillocks in the district. One can think of the area as a medical complex, with the GH at KK and TTSH at the nearby Rumah Miskin district. For the first time, patients were admitted to the GH for childbirth and gynaecological complaints.

In the 1860s and 1870s, hospital charges were raised twice, which was roundly condemned because government servants were still receiving free medical treatment. Thus, hospital fees were revised – in February 1871, patients residing in first class wards (or officer’s wards) were charged \$2 per day, naval and mercantile seamen in second class wards (or seaman’s wards), \$1; and better-class natives in third class wards, 75 cents.

In 1872, the female ward at the GH was converted into a facility, called a Lock Hospital, for compulsory screening and treatment of women with venereal diseases.

Thong Chai Medical Institution

In 1867, a free clinic called Thong Chai Yee Say was established by Chinese migrants. The name “Thong Chai” was derived from the Chinese words *tong*, meaning “the same”, and *ji*, meaning “to help or relieve”. When Sir Cecil Clementi Smith (Colonial Secretary of the Straits Settlements from 1878 to 1884, Governor 1887 to 1893) heard that Thong Chai was assisting the poor and relieving the sick, and he praised the charitable organisation for its welfare work for the community. Sir Cecil granted Thong Chai a piece of land in Kampong Malaka (in the Wayang Street and New Market Street area) totalling 8,380 square feet so that they could build their own premises. The building was completed in 1892, and renamed Thong Chai Medical Institution.¹

General state of health in Singapore

In the rural areas, medical services (and port health) were controlled by the Director of the Government Medical Department, with a Chief Health Officer and Chief Medical Officer. In the urban areas, health services were under the Municipal Health Officer in the Municipal (City) Health Department, which had been formed by the Municipal Commission in 1887. At the time, the general state of health in Singapore was poor. Beriberi, smallpox, malaria and tuberculosis were widespread, and the maternal and infant mortality rates were also very high. In response, maternal and child health services as well as school health services were introduced, while hospital services improved.

Fifth-generation GH

In 1873, a GH was built at Sepoy Lines (the area near Outram Road today). An 1874 report of surgical cases seen in the ward for natives stated that out of the 295 cases recorded, 14 of them were fatal.² These fatal cases included fracture of skull (four), compound fracture (two), ruptured bowel (two), cut throat (two), ruptured spleen (one), fracture of ribs (one), starvation (one), and multiple injuries (one). The causes of these 295 cases were classified as homicidal (109), accidental (181) and self-inflicted (five).

Sixth-generation GH

The next GH was opened at Sepoy Lines in 1882. In 1888, a change in the law meant that compulsory screening for sexually transmitted diseases were no longer needed, so the Lock Hospital became a home for women and girls instead. In 1898, the first X-ray machine arrived in Singapore, but it was installed in the municipal office, not the Sepoy Lines GH.

Government control over spirits and liquors

Around the same time as the opening of the sixth Sepoy Lines GH in 1882, the Government became increasingly concerned about the quality of spirits and liquors that were supplied to seamen in local bars and public houses. Hence, a Government Analyst was appointed to look into this. The Government Analyst's activities were first recorded in the 1885 Annual Medical Reports of the Straits Settlements,³ with results from analytical tests carried out on food and drugs, among other things, in its main office at Hill Street. The position of Government Analyst was occupied by a medical officer until 1898, when the workload was so overwhelming that a full-time analyst had to be employed.

Victoria Street Maternity Hospital

Through the years, the Government, with cooperation of the local community and philanthropists, gradually developed medical services for the inhabitants of Singapore. A maternity hospital was built at Victoria Street in 1888, and was aptly named Victoria Street Maternity Hospital.

Predecessors of SMA and its publications

The Straits Medical Association was set up in 1890, by a group of medical officers who saw the need for a professional body for local medical practitioners. The first issue of the *Journal of the Straits Medical Association* was published in March 1890 with Dr Max F Simon as editor. When the association was admitted as a branch of the British Medical Association, it was known as the Malaya Branch of the British Medical Association. Therefore, the *Journal of the Straits Medical Association* discontinued. It was later revived as the *Journal of the Malaya Branch of the British Medical Association* in 1904, then the *Malaya Medical Journal* in 1911, before diverging into the present day *Singapore Medical Journal* and the *Medical Journal of Malaysia*.



A Thong Chai physician performing acupuncture on a patient

1901 to 1950

Expanding existing medical institutions

In 1905, the GH expanded to accept female pauper patients from TTSH and subsequently housed female lepers and poor children. It became known as the Pauper Hospital for Women and Children.

In 1907, the first specialist – a pathologist – was appointed at the Sepoy Lines GH, and a new maternity block started receiving patients a year later. In 1909, the Government started Maternal and Child Services for the urban areas. In 1910, local girls began to receive training in midwifery so that maternity services could be conveniently brought to homes. In 1913, X-ray machines were introduced into hospital practice. In 1914, Victoria Street Maternity Hospital became a free maternity hospital for poor patients (there were about 200 births a year around that time). In 1924, the services that Victoria Street Maternity Hospital provided were moved to KK (there were 688 births that year).

Introducing new health services

The School Health Services started in 1921, while the Maternal and Child Services were extended to cover the rural areas in 1927. As better quality medical services were extended to various sectors of the Singapore population, there was also a gradual introduction of public health measures, like anti-malarial work, sewage disposal, refuse



Photo: Singapore General Hospital

Bowyer Block in the SGH campus in 1973

disposal and clean water supply. These medical and public health efforts greatly improved the locals' state of health. In 1929, a portable machine for electrocardiography was introduced at SGH. SGH established the Blood Transfusion Service under the Pathology division in 1930, and the first specialty department was set up for Ophthalmology four years later.

Seventh-generation GH

A GH began at Sepoy Lines on 29 March 1926, to coincide with the opening of the second medical school at the College of Medicine Building (look out for more information in the next part of this series). This GH, officially named Singapore General Hospital (SGH), comprised three main blocks, initially called the Upper, Middle and Lower Blocks. They were later renamed Bowyer, Stanley and Norris Blocks respectively in 1946, in memory of three physicians who had been closely associated with the hospital. (Today, only the Bowyer Block with its distinctive clock tower remains.)

Building specialised medical institutions

Other hospitals that had been built included the Middleton Hospital (in 1907) for the treatment of infectious diseases, and a hospital at Yio Chu Kang (in 1928) for lepers and mental patients (the history of the hospital at Yio Chu Kang is expanded below).

In 1907, Middleton Hospital began at Moulmein Road as a quarantine facility for cases of smallpox, cholera and plague, and buildings were later added by the Municipality until 1931. It had been named after Dr William Robert Colvin Middleton (born India 1863, died Bexhill 8 December 1921),⁴ who was its first Municipal Health



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Middleton Hospital

Officer. The Chinese knew Middleton Hospital as Or Sai or "Black Lions",⁵ because there were two black lion statues at on either side of its gate.

There was a considerable increase in the workload for the Government Analyst from 1900 to 1920. Mr JC Cowap was the Government Analyst from 1929 to 1934, and Dr M Jamieson took over from him from 1934 to 1939. In the 1920s, the Government Analyst's laboratory was called upon to carry out assays on the opium monopoly's chandoo (an extract of opium) and dross (scum that is left behind on the opium pipe's metal surface) that were sold for resmoking.

From 1929 to 1939, three important events occurred: firstly, the laboratory came under the control of the Colonial Secretariat in 1929; a forensic laboratory was established in 1932; and the entire laboratory was relocated to 1 College Road in 1939 (at the current Medical Alumni Centre). The common poisons subjected to abuse then were: caustic soda; corrosive acids; alcohol; inorganic chemicals (iodine); heavy metals (mainly arsenic and mercury); disinfectants; plant alkaloids (morphine, opium, and tuba root resin); and tar oils.

On 1 October 1924, the Pauper Hospital in the KK district was converted into a free maternity hospital, called Kandang Kerbau Hospital (KKH), led by Prof JS English (the first professor of O&G in Singapore). New blocks were later added in 1934 and 1940.

On that momentous first day in 1924, five babies were born – three Malays, one Chinese and one Japanese.⁶ In 1930, the maternal mortality rate was about 760 per 100,000 births, while the perinatal mortality rate was above 50 per 1,000 births. By 1938, half of the 11,206 babies born in Singapore were delivered at KKH.

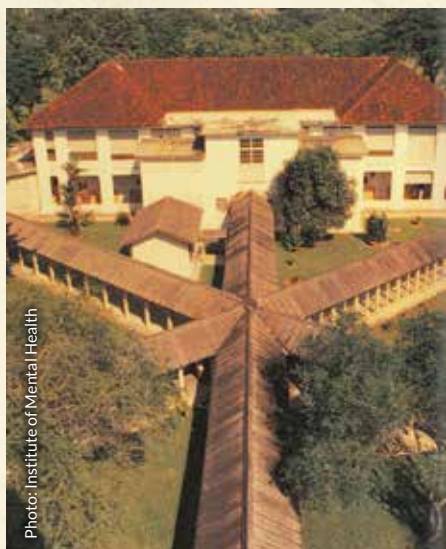


Photo: Institute of Mental Health

An aerial view of the old Woodbridge Hospital circa 1970s/1980s – the iconic long corridors linked the different blocks in the sprawling hospital grounds



Photo: Institute of Mental Health

A typical ward in the old Woodbridge Hospital – the patients wore white shirts and brown shorts in those days

In the early 19th century, mentally ill patients (then referred to as “insanes”) were kept in jail. A public outcry regarding overcrowding led to the construction of a 30-bed Insane Hospital, at the corner of Bras Basah Road and Bencoolen Street, in 1841. In May 1861, the Insane Hospital was transferred to a site near KK, and renamed the Lunatic Asylum, which had 100 beds. In 1887, the Lunatic Asylum moved to College Road and increased its capacity to 300 beds (250 for males and 50 for females). In 1887, the asylum shifted to Sepoy Lines because of a cholera outbreak.

In 1928, a Mental Hospital was built for lepers and patients with mental illness in Yio Chu Kang. It admitted 1,030 patients from the Lunatic Asylum at Sepoy Lines (and a Pasir Panjang facility that housed patients with cases of beriberi).⁷

In 1942, during the Japanese Occupation, the Mental Hospital at Yio Chu Kang was taken over, renamed Miyako Byoin, and became the Japanese Civilian and Military Hospital. In November 1944, about 600 patients were transferred to the Central Mental Hospital in Perak, but only 329 returned after the war. After the Japanese surrendered in September 1945, the British Military Administration immediately requisitioned the mental hospital (and the GH at the KK district) for military patients. The female section of the Mental Hospital became the Royal Air Force Hospital, while the male section was converted into the Japanese Prisoners-of-War Hospital. As Singapore returned to a state of normalcy after the Occupation, the Japanese and British troops were gradually evacuated from the hospital from March 1946 onwards. On 15 April 1946, three civil wards of the Mental Hospital were reopened, and then 11 more on 31 December 1946. In 1951, the Mental Hospital in Yio Chu Kang was renamed Woodbridge Hospital.⁷ ■

The next instalment of this series will continue with the early history of local medical school.

References

1. Singapore Thong Chai Medical Institution. *Our History*. Available at: <http://www.stcmi.org.sg/history.asp>. Accessed 30 July 2014.
2. Lee YK. A brief introduction to the early history of surgery in Singapore (Part 1). *Singapore Med J* 1997; 38(6):275-7.
3. Chao TC, Lo DS, Bloodworth BC. Common poisons in Singapore – past and present. *Med Sci Law* 1992; 32(2):139-47.
4. Memorial window unveiled: impressive service in Ballater Church. *Aberdeen Press and Journal* 16 July 1923. Available at: <http://freepages.genealogy.rootsweb.com/~middletonfettercairn/Stained-Glass%20Windows.htm>. Accessed 30 July 2014.
5. Chee YC. SARS@ TTSH (Part 9). *SMA News* 2003; 35(12):10.
6. Tan K, Chern S. Progress in obstetrics from 19th to 21st centuries: perspectives from KK Hospital, Singapore – the former world’s largest maternity hospital. *The Internet Journal of Gynecology and Obstetrics* 2002; 2(2).
7. Ng BY. History of psychiatry in Singapore. In: Kue EH, Ko SM, Mahendran R, Chee KT, Fones C, eds. *Psychiatry for Doctors*, 2nd ed. Singapore: National University of Singapore, 2001:6-12.



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