



**Submission of**

**The Hong Kong College of Psychiatrists**

**to The Hong Kong Academy of Medicine**

**on Medical Manpower Planning**

April 2005

## **Introduction**

This submission is written on request of The Hong Kong Academy of Medicine (HKAM) to provide recommendation on long-term medical manpower planning in Psychiatry. In the 145<sup>th</sup> Council Meeting of the HKAM held on 17 February 2005, The Hong Kong College of Psychiatrists was requested to suggest an optimal number (or ranges of number) of specialist doctors in Psychiatry. Subsequently, a working group comprising representatives from the different sectors of the specialty was appointed by the Council of the College to deliberate on the issue and to produce a submission to the HKAM by April 2005.

## **Current psychiatric manpower and service**

At present, the main bulk of psychiatric service, training and research in Hong Kong are provided by the public sector through the seven geographical clusters of the Hospital Authority, which consist of university teaching hospitals, specialist psychiatric hospitals as well as psychiatric departments within a general hospital setting. The private sector, with less than 40 private specialists in Psychiatry, occupies a relatively small market share in overall service provision. Psychiatric service in Hong Kong has gradually evolved from a hospital-based service to one with an increasing emphasis on community care and prevention. Factors such as rising public awareness of mental health issues, increased expectation from the medical profession, the lack of a well-developed primary health care system and the development of the more labour-intensive community-oriented model of care have all contributed to the overwhelming demand for service and workload within the public sector.

In 2000, the Central Coordinating Committee in Psychiatry (COC (Psy)) of the Hospital Authority produced an estimate of manpower need of one specialist to 30,000 population (1:30,000). The estimation of this ratio took into account the then current supply of specialists, the expected demand on service, benchmarking with data from other countries as well as the needs of patients.<sup>(1)</sup> Indeed, the current specialist training system in Psychiatry in Hong Kong was designed to produce sufficient number of specialists to meet this target estimate in approximately 2011. As at 2005, the population to specialist ratio in Hong Kong stands at 1:44,202.

## **Methodological considerations**

The working group has considered a number of methods in deriving the optimal number of specialists in Psychiatry in the present exercise in manpower planning, namely:

1. Benchmarking with overseas data
2. Looking at specialist service at the ideal level for Hong Kong
3. Future biomedical developments in the specialty
4. Estimation based on prevalence of disorders
5. Projection of numbers based on existing numbers with adjustment taking into account societal factors such as changing public expectation of medical care

The working group recognises that deriving manpower estimates from local data based on the prevalence of various disorders would probably provide the most accurate estimate of manpower needs. Apart from the preliminary Shatin Community Mental Health Survey conducted in the 80s<sup>(2)</sup>, reliable and updated local data on the prevalence of mental disorders are not available, making this method difficult to implement, especially under the present time constraint.

Deriving the estimate by looking at the ideal level of specialist service is equally problematic for several reasons. First, widespread consultation and survey would be needed to generate the necessary data with considerable time and resource implication. Secondly, there is no consensus as to the exact meaning of an ideal service. From the experience of previous exercise conducted by the COC (Psy) in 2000 along similar lines, the estimates on the ideal level of specialist care varied significantly between different service units even within the same subspecialty.

Benchmarking with overseas data would appear to be the simplest method, but unadjusted alignment with data from other countries may not be appropriate as societal factors, health care system and public expectations differ significantly between different countries.

Given the present time constraint and the resources available, the working group considers the method of benchmarking to be the most applicable. However, the estimates so produced would have to be adjusted according to known differences in external environment between Hong Kong and other countries, the development of community-oriented service model and also take into account realistic projection of the existing number of specialist in Hong Kong given our training capacity.

## Medical manpower estimate

### *Population to specialist ratio in selected developed countries*

The working group reviewed the population to specialist ratio in several developed countries (table 1). While the population to specialist ratio of Singapore is similar to that of Hong Kong, the number of specialists in Psychiatry in South Korea, New Zealand, the UK and the USA are significantly larger than that of Hong Kong.

**Table 1: Comparison of population specialist ratio in different countries**

Country	Hong Kong	Singapore	South Korea	New Zealand	UK	USA
Population to specialist ratio	44,202	40,384	19,500 (2002 estimate)	11,087	16,836*	8,652*
Population to doctor ratio	678	654	830	385	256	379

\* Excluding subspecialties

The relatively small number of specialist in Psychiatry in Singapore is likely to be related to the country's under-developed system of psychiatric care, which is based on a single large psychiatric institution as well as societal factors unique to Singapore. On the other hand, South Korea is developing rapidly and is highly urbanised. The national community care movement aims at an increase of maximum community care capacity from 4.7% in 2003 to 72.2% in 2011 of its population in need of community care.<sup>(3)</sup> From the data, it is clear that in developed countries, medical manpower in Psychiatry is at least four times greater than that of Hong Kong.

### *Population to specialist ratio of other specialties in Hong Kong*

The population to specialist ratio of major specialties in Hong Kong as compared to the UK, New Zealand and the USA is shown in Table 2.

**Table 2: Population to specialist ratio of major specialties in Hong Kong**

Specialty	Population per specialist in Hong Kong	Population per specialist in the UK	Population per specialist in New Zealand	Population per specialist in the USA
Internal Medicine	43,642*	26,489	6,970	1,823
General Surgery	20,522	21,423	20,874	8,337
Paediatrics	15,888	19,801	20,768	4,430
Orthopaedics and Traumatology	27,917	22,914	22,235	13,742
Obstetrics and Gynaecology	20,584	23,736	20,874	7,965

\* Excluding subspecialties (1:7390 including subspecialties)

It can be seen that the population to specialist ratios of most of the major specialties in Hong Kong are comparable to those of developed countries.

### ***Psychiatric manpower estimation***

After reviewing the available data, the working group believes that a revision of the previous manpower estimate of 1:30,000 is necessary as it is clear that the manpower ratio in Psychiatry in Hong Kong significantly lags behind that of all major specialties, all of which are equivalent to or exceed those of developed countries. There is no evidence to suggest that the prevalence and disease burden of mental disorders in Hong Kong would be any less than that of Western developed countries. In fact, given the unique socio-economic environment in Hong Kong such as income disparity between the rich and the poor, overcrowding living condition and an ageing population, the disease burden of mental disorders is likely to be greater. With the expected increase in our population as well as increased expectation including early intervention from the general public, the demand for psychiatric service is likely to increase significantly in the future. In addition, the increased emphasis in community care in Psychiatry and the introduction of treatment guidelines are also factors that may contribute to a significantly increased demand for psychiatric medical manpower in the future. As a matter of fact, there is continuous increase in utilization of the HA psychiatric services despite the bed reduction programme and the budgetary constraint over the past years<sup>(4)</sup> (Table 3).

**Table 3**

<b>Year</b>	<b>HK Population</b>	<b>No. of Psychiatric Beds</b>	<b>No. of Psychiatric Outpatient Attendances</b>
98-99	6,687,200	5,133	400,152
99-00	6,720,700	5,395	432,046
00-01	6,665,000	5,324	471,228
01-02	6,724,900	4,796	511,127
02-03	6,787,000	4,928	549,133

### ***Psychiatric manpower in the UK***

Because of the similarity in health care system (with the notable exception of the UK's well-developed primary care system) and training between Hong Kong and the UK, the working group decides to benchmark our estimate with that of the UK. The population to specialist ratio for Psychiatry in the UK, excluding subspecialties, stands at 1:16,836 (with 3,540 registered specialists). As there are approximately 2,597 registered specialists in the UK in various psychiatric subspecialties as at March 2005, the total number of psychiatrists in the UK should be approximately 6,137, giving an actual population to specialist ratio of 1:9712 (Table 4). It is important to note that the primary care system of the UK is far better developed than that of Hong Kong and that a large number of psychiatric patients are being cared for in the UK at the primary care level. This implies that an even larger number of psychiatrists may be needed in Hong Kong because of our under-developed primary care system, if direct benchmarking with the UK is to be implemented.

**Table 4 : Registered Specialist Psychiatrist in UK as at March 2005**

Specialist	No.
General Psychiatry	3,540 (58%)
Child & Adolescent Psychiatry	940 (15%)
Old Age Psychiatry	688 (11%)
Forensic Psychiatry	330 (5%)
Psychiatry of Learning Disability	338 (6%)
Psychotherapy	272 (4%)
Others	29 (1%)
Total	6,137* (100%)

\*may include psychiatrist with double registration

### ***The Hong Kong Training Scheme***

The Hong Kong Training Scheme in Psychiatry consists of three years of General Psychiatric Training and a subsequent three years of Higher Psychiatric Training.<sup>(5)</sup> The College Education Committee organized two accreditation exercises in 1995 and 1998. An interim accreditation exercise was also conducted in 2001 by adopting revised eligibility criteria for psychiatric trainers to facilitate professional training in psychiatry. The third accreditation exercise was a joint accreditation held in 2002 with the Royal College of Psychiatrists of the United Kingdom (UK). With the development of psychiatric services and addition of new units, thirteen training sites in the seven training centres are now approved for professional training in psychiatry in Hong Kong. A total of 71 psychiatric trainers with special interest in general adult psychiatry, psychogeriatrics, child and adolescent psychiatry, psychiatric rehabilitation, consultative-liaison psychiatry, mental handicaps, substance misuse, forensic psychiatry, psychotherapy, and psychopharmacology are recognized. Hong Kong is the only training scheme outside UK where the entire three-year training course is recognized for both the Part I and Part II examinations for the MRCPsych. (Table 5)

**Table 5: Summary of Training Posts Approved by the Hong Kong College of Psychiatrists as at March 2005**

Subspecialty	No. of Junior Training Posts Approved	No. of Senior Training Posts Approved
General Adult	74	71
Rehabilitation	10	10
Consultation-Liaison	8	9
Psychogeriatric	19	19
Child and Adolescent	16	15
Forensic	4	4
Mental Handicaps	6	6
Psychotherapy	2	2
Total	139	136

### ***Manpower projection and time frame of implementation***

After considering the above and taking into account the maximum number of specialist that can be trained by our existing training system, the working group decides to recommend a range of population to specialist ratio of **1:16,000-19,000** that includes the development of psychiatric subspecialties for the Hong Kong Academy of Medicine to consider. Calculating at the proposed range of the above manpower estimate and assuming a population of 8,000,000 in Hong Kong by 2020, a total of 460 ± 40 specialists in Psychiatry would be required to achieve the target number.

The existing psychiatric specialist manpower in Hong Kong stands at 156 (1:44,202) (Table 6). Assuming Fellows above 60 will all retire by 2020, there will be 144 psychiatric specialists in active practice.

**Table 6 : Psychiatric Specialists in Hong Kong as at March 2005**

Age	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Total
Male	6	31	27	21	18	12	4	6	125
Female	4	12	6	3	0	4	2	0	31
Total	10	43	33	24	18	16	6	6	156

There are a total of 138 (71 Junior trainees and 67 senior trainees) trainees in the Hong Kong Training Scheme (Table 7). Assuming they all become psychiatric specialists by 2020, it will add up to a total of 282 psychiatric specialists in the territory.

**Table 7 : Psychiatric Trainees in Hong Kong as at March 2005**

	Junior Trainees	Senior Trainees	Total
Male	43	47	90
Female	28	20	48
Total	71	67	138

Using the median target estimate number of 460 specialists in Psychiatry by 2020, additional 178 trainees need to be recruited by 2014, ie about 22 new trainee recruits annually from 2006. Assuming the proposed level of continuous growth in the number of trainees successfully completing specialist training and taking into account attrition rate in training and manpower wastage due to retirement, emigration and death, it is envisaged that target estimate can be produced within 15-20 years for better provision of psychiatric specialists to the Community of Hong Kong.

## **References**

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- (5) Lo CW (2003) The Hong Kong College of Psychiatrists. In Pursuit of Excellence – The first 10 years HKAM Press 119-120.

## **Appendix**

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