Hospital Authority Convention 2012

Medical Manpower Planning and Training

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MBBS FRACGP FHKCFP FHKAM(FAMILY MEDICINE) FFPH

Vice-President, HK Academy of Medicine
## Medical Manpower Planning / Survey

<table>
<thead>
<tr>
<th>Department of Health</th>
<th>On regular basis; aimed to collect factual information on the characteristics and employment status of registered in HK</th>
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</thead>
<tbody>
<tr>
<td>Hospital Authority</td>
<td>Based simply on organizational aspects such as service needs and budget</td>
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<td>Hong Kong Academy of Medicine</td>
<td>Aimed to advise the authorities of, and advocate for, the requirements and optimal number of specialists to meet the healthcare needs of the HK population</td>
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<tr>
<td>Food and Health Bureau</td>
<td>2011 Formed a high-level steering committee to oversee a strategic review on Healthcare Manpower and professional development</td>
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</table>
Healthcare Reform – My Health My Choice

Strategic Review on Healthcare Manpower Planning and Professional Development

- Form a high-level Steering Committee to oversee Strategic Review

- Assess manpower needs and recommend measures on supply and training

- Recommend measures for professional development, including –
  - functions and compositions of existing statutory regulatory bodies for healthcare professions
  - mechanisms for setting and assuring standards of healthcare services

My Health My Choice
Health Care Manpower Planning by Business Professionals Federation of Hong Kong (BPF)

In September 2010, the Business and Professional Federation of Hong Kong (BPF) presented a paper concerning health care manpower planning in Hong Kong.

Identified many factors influencing manpower planning and recommended a move away from planning based on past utilization trends and dominated by the profession to a more scientifically based and inclusive approach.
Medical Manpower Planning Committee (MMPC)

Hong Kong Academy of Medicine
Medical Manpower Planning Committee

The Academy started working on medical manpower planning since 1997, hoping to have regular review of the number of training posts in different specialties, and to estimate future needs of specialists.
Hong Kong Academy of Medicine
Medical Manpower Planning Committee

Members consist of representatives from:

- 15 Academy Colleges
- Department of Health
- Food & Health Bureau
- Hospital Authority
Pilot Study by
College of Orthopaedic Surgeons
(1998/99)
Pilot Study by HKCOS

Calculation approach used:

a) To identify from the Disease Profile: those diseases related to a particular specialty and add up the total volume of work involved;

b) To estimate the % on total volume of work requiring treatment by that particular specialty;
Pilot Study by HKCOS

Calculation approach used (cont’d):

c) To estimate the maximum capacity on volume of work which an individual specialist can handle;

d) To divide (b) by (c) to come up with an estimate on total number of specialists required.

\[
\text{% of total volume of work requiring treatment}
\]

\[
\text{maximum capacity on volume of work which an individual specialist can handle}
\]
Pilot Study by HKCOS

Limitations:

- hidden workload difficult to reflect;
- waiting time not convertible into actual workload;
- calculation approach not suitable for other colleges which have different skill requirements.
Factors Affecting Manpower Planning
Factors affecting manpower planning (1)

- **Dynamics of public and private interface**
  - Public – Private workforce migration
  - Reward / remuneration / recognition / Quality of Life
  - (? more public private co-operation)
  - Development of primary care; (gatekeeping role – ticket for admission to public services)
  - Distribution of workload among private and public sectors; the demand for certain types of specialists in the public sector could be affected by high cost for treatment or level of complication for certain cases which determines affordability in the private sector;
Factors affecting manpower planning (2)

**Patient culture and expectations:**
- higher public expectation for the level of medical care and treatment; (insatiable demands)
- market need or new demand for particular specialists, affecting trainees’ decision to shift towards those disciplines; (e.g. O & G)
- development of new technology or advancement of existing technology leading to increase / decrease in demand for certain specialists; (e.g. radiology, imaging)
- social and economic trends; (e.g. aesthetic medicine)
- population’s demographic (particularly ageing population and associated increase in chronic illness);
- impact of Traditional Chinese Medicine;
- medical migration? CEPA;
- medical tourism?
Factors affecting manpower planning (3)

• **Healthcare Policy**

  • distribution of resources among generalists, specialists and other healthcare workers (transfer of workload and skills to non-medical colleagues - multidisciplinary team approach);
  
  • government’s policy on funding and healthcare reform (health insurance HPS Health Protection Scheme);

  • political and academic intervention strategies to retain doctors e.g. regulation, licensing requirement;
Factors affecting manpower planning (4)

- policies made by governments in Hong Kong and Mainland on registration, determining whether the medical system would be a closed or open system – i.e. whether protection of local doctors would be enforced or mutual recognition would be allowed; CEPA
- overseas opportunities; medical brain drain
- “mobile” population from mainland who are not residing in HK but visit the place for medical treatment or delivery of babies;
Factors affecting manpower planning (5)

- **Effects of Administration in public services**
  - prospects and promotion policy in HA are factors that may affect manpower distribution;
  - international benchmarks and world trends, e.g. change in doctors’ working hours;

- **Workforce Output**
  - number of trainers available;
  - availability of training programs and training time;
  - protected time for trainers and trainees to do training / CME;
  - burnout for specialists who had to work night shifts a lot;
  - doctors’ demographic (increasing proportion of female doctors and demand in part-time posts); near retirement age;
Factors affecting manpower planning (6)

- **Uncertainties**
  - service needs, e.g. due to new crisis or emergence of new diseases (infectious diseases);
Specific factors identified by individual colleges
• Introduction of guidelines for outpatient-based sedation had also increased the need for AN specialists in both public and private sectors;
• Extension of anaesthesia specialist role in pain medicine, resuscitation, intensive care, monitored anaesthetic, perioperative care and various hospital or health care management;
• Major issue in private sector is peak and trough of work load;
College of Community Medicine

• Manpower projections still mainly base its calculations on population;

• With the introduction of medico-tourism and the ease of travel from Mainland to Hong Kong, looking only at the size of the local population is not enough. Many non-resident patients travel to Hong Kong for treatment, increasing the demand for services as well as the difficulty in making projections;

• The demand for specialists in Administrative Medicine would be affected by the construction of new hospitals, whether in the private or public sector;

• The demand for medical specialists in Occupational Medicine, is to a large extent affected by the number and the structure of working population instead of the total population;
College of Dental Surgeons

- One major factor affecting the demand for manpower in dentistry is the majority of the services is in the private sector;
- The College had been trying to upgrade some general dentists to intermediate level to help the specialists do certain work so that the demand for specialists would not be so acute;
- The disease pattern seemed to be changing at a high rate;
College of Emergency Medicine

• Specialists in EM now work mainly in the public sector. There is a possibility of increasing demand in the private sector as private hospitals start to have A & E departments as well as increasing demand of EM specialists from budding housecall service and private medical escort service;

• Gender issue - of the EM specialists between 30 – 40 years old, one-fourth are females. Some of the specialists would leave the specialty after reaching a certain age because of burnout from long shifts;

• Nowadays, for A&E cases the time required to be spent for each consultation tend to be longer than in the past due to changing expectations from patients;
College of Family Physicians

• The demand for trained specialists would increase with the enhancement of primary care and family medicine in Hong Kong (Healthcare Reform);
• Patient Culture and values – patient shopping behavior
• Non clinical factors, e.g. job satisfaction, resignation, prestige, income, government policies, CEPA;
Factors that affect projection include consumption pattern and government policy;

There need to be an assessment of current deficit within individual hospital sand units and whether services withheld due to shortage in manpower would be re-opened by HA;

Whether private hospitals have any plans for expansion in the next 4 years - Addition of blocks/beds/services would affect the need for more specialists;

Dividing the number of deliveries by the number of specialists in the private sector might be a possible methodology for getting data;
College of Orthopedic Surgeons

- Changes within the specialty such as development of subspecialties have affected the College’s projections;
- The issue of quality was not taken into consideration in the past when calculating manpower. This has to be addressed in future;
- In the past, one specialist might handle 20 cases within a certain period of time, but this may no longer be possible or considered acceptable;
- Currently, some patients with bone fracture have to wait 2 days for treatment at hospitals because of shortage of anesthetists and not orthopedic surgeons. Such situations should not happen and should be rectified;
Paediatric orthopaedic services have to be maintained although the number of children in Hong Kong continues to drop;

Besides local children, many specialists have been treating children who were born in Hong Kong, returned to the Mainland with their Mainland parents after birth, and brought back to Hong Kong subsequently for treatment of orthopaedic problems. This was not predicted when manpower planning was done some 10 years ago [phantom population];
College of Ophthalmology

- New advances on diagnosis of prevalent diseases e.g. glaucoma;
- New advances on management, new treatment options that can now treat previously untreatable diseases e.g. macular diseases;
- New demand from mainland or medical tourism;
- Lower cost eye care availability in cities in southern part of China e.g. Shenzhen;
- Future health care financing model will have major impact also on demand e.g. people with medium size pterygium may opt for operation if covered financially.
College of Pathologists

• The subspecialties under the College would use different approach for manpower planning, some population-based, others workload-based;

• Technological advances: e.g. molecular pathology services: e.g. rapid diagnosis of infection, proper typing of cancers, selection of cancer patients for target therapy, diagnosis of genetic diseases;

• Transfusion Safety & related requirements (affect required no. of haematopathologists) as well as the need of training and requirements in cytogenetic services;

• Expected growth in overall mortality (with expected workload increase in Forensic Pathology);

• Change in consumption practice: e.g. increased coverage by medical insurance resulting in more investigations being performed.
College of Paediatricians

- Child population growth which includes both EP and NEP births, immigrants and emigrants. Projection of utilization of Hong Kong health care system by NEP is most challenging;
- Future development of the Centre of Excellence in Pediatrics in relationship with all the HA Pediatrics Department and DH, not only for HK but for South China;
- Role of paediatricians being expanded from management of acute and chronic diseases to that of promotion of optimal growth and development of all children;
- Expansion of HA and DH new service programs on MCHC, CAC, ADHD, clinical genetics and autism.
The major factor affecting manpower need for physicians is the aging population. With the number of people aged 65 or above increasing every year, cases of age-related illnesses and chronic illnesses that require specialist care have also increased greatly;

The demand for palliative care has also increased significantly;

Another factor is sub-specialisation within the specialty. Whenever a subspecialty is developed, demand for experts in that area would follow;

Technological advances have also increased the workload of specialists such as rheumatologists and respiratory physicians who take up diagnostic / therapeutic intervention procedures in their patient care.
College of Psychiatrists

• Use of the estimated ideal consultation time per patient is important in determining manpower projections;

• For the private sector, most of the specialists work on out-patient basis; difficult to obtain data for predictions
College of Radiologist

• While technological advance has led to longer life expectancy, it has in turn brought more screening and follow-up work for specialists such as oncologists. New imaging modalities (e.g. PET CT, CT coronary angiogram, CT/MR angiogram) will increase workload;

• The ratio of public to private specialists have been changing, which affects the manpower projection quite significantly;

• The College suggests taking a population-based method for manpower projection;

• Using workload projection - Counting the huge amount of x-ray / ultrasound films might be very difficult; Counting the number of CT/MRI/PET scans may be useful.
College of Surgeons

• Subspecialty development e.g. robotic surgery, and increase in inter-surgical subspecialty consultation;
• Many specialists have been doing minimally invasive procedures, endoscopy screening cosmetic surgery, urology etc;
• There is share of work with interventional radiologist, with physicians (endoscopy);
• More demand for specialty and sub-specialty on emergency call;
• Shifting of one surgical specialty to another (more children done by paediatric surgeon)
• The data for the private sector is not available and the manpower need is unclear. Internal migration form public to private sector affects manpower significantly.
Difficulties and Limitations encountered
Difficulties and Limitations (1)

- The “optimum” according to a doctor might not correspond with the “optimum” from the community’s point of view;
- Former government official in FHB – questions population increase from 5 (1990’s) to 7 million yet manpower of HA from 1900 to 5000 (31st March 2012);
- Demand is difficult to determine; there are many factors involved;
- No single ideal method/approach in conducting manpower planning: -population based / workforce based / demand based.
Difficulties and Limitations (2)

- Manpower estimate is not an exact science. It is impossible to come up with any single number that can best indicate the situation. Despite periodic updating, manpower planning was mainly projection and guessing, and it was very difficult to be exact;

- There are difficulties in making certain assumptions, e.g. the % on public-private workload re-balancing;
Difficulties and Limitations (3)

- Data are mainly hospital-based and from the public sector; no figures/information is available from the out-patient clinics and only very crude and limited information can be tapped from the private sector;

- There is uncertainty in population mobility (between HK and Mainland); further complication by CEPA
Medical Training
Medical Training – Manpower production

- Trainees are also stakeholders who may need information on manpower when they choose the field they want to pursue in, e.g. which fields have oversupply of manpower or which fields lack manpower;
- Provision of skill-based training depends on availability of training materials, and it may take time to fill the gap even if there is no shortage of manpower;
- The true value of training – payback? Apprenticeship;
- Ethics – freedom of choice
What can the Academy do?
What can the Academy do? (1)

- Coordinate the framework for specialist manpower planning of all constituent Colleges;

- Provide a platform to promote Cohesiveness and cooperation - organize discussion forums for Colleges to share methodologies and hopefully agree on common assumptions;
What can the Academy do? (2)

- Provide support for data collection and analysis, including facilitating the collection of data from private hospitals; and the conduction of manpower survey among specialists as necessary;

- Promote good practices among Colleges and programs to assure and maintain quality;
What can the Academy do? (3)

- Play the advocacy role on behalf of Colleges to the government and training sponsors; (membership of the high-level steering committee to oversee a strategic review on Healthcare Manpower and professional development of FHB)

- Set standards for services, e.g. whether certain procedures should only be conducted by certain specialists; Addressing changing professional boundaries and skill mixes and appropriate manpower deployment;
What can the Academy do? (4)

- Assist in the focus planning on specialties having problems, or potential problems, of oversupply and undersupply in manpower;

- Provide a bird’s eye view on healthcare needs or changing patterns and offer advice to the Government and HA on cross-specialty manpower issues;

- Brain drain – co-ordinate Brain share (Public – Private co-operation)?
Number of HKAM Fellows by Specialty, Age & Sex (January 2012)
## No. of HKAM Fellow (by sex, age, specialty)

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<tr>
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<th>Aged 61 and above</th>
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## No. of HKAM Fellow (by sex, age, specialty)

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2009 Health Manpower Survey on Doctors

By Department of Health
# 2009 Health Manpower Surveys on Doctors

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<tr>
<td><strong>Response Rate</strong></td>
<td>69.8% (of 11495 doctors)</td>
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<tr>
<td><strong>Active Doctors</strong></td>
<td>86.4%</td>
</tr>
<tr>
<td><strong>Inactive Doctors</strong></td>
<td>13.6%</td>
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<tr>
<td></td>
<td>[52.4% practicing overseas or in mainland; 47.6% are retired, undertaking study or working in other professions]</td>
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THANK YOU