

**HONG KONG IDEAS CENTRE**

**DEVELOPMENT OF CHINESE MEDICINE  
IN HONG KONG**

**KEY FINDINGS AND RECOMMENDATIONS**

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# DEVELOPMENT OF CHINESE MEDICINE IN HONG KONG

## KEY FINDINGS AND RECOMMENDATIONS

### I Opportunities

1. Chinese medicine (CM) services and CM products<sup>1</sup> are gaining acceptance worldwide. Many countries including US, Australia, Singapore, South Korea and Japan are investing an increasing amount of resources into develop traditional medicines, many of which are CM-based products. There is good potential in transforming CM into a high-value industry by modernization using scientific and evidence-based approaches to meet internationally accepted standards for safety, quality and efficacy.
2. In developing the CM market, **Hong Kong's strengths** include the following:
  - a) In developing CM services and education, Hong Kong has laid a good foundation in the past decade in gradually building up CM services as part of the public health system. In addition, HK's strengths include its capacity to serve as a bridge between East and West, and its high professional standard in western medical (WM) services and medical management.
  - b) In developing CM products, HK's strengths include its expertise and experience in handling re-export trade, modernized management, creditability in testing and certification (T&C), and research & development (R&D) capability in its universities and research institutes.
3. There have a number of encouraging developments in recent years, such as the growing importance of CM clinics and services in HK's medical system and the

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<sup>1</sup> In this study we have classified the Chinese medicine (CM) sector into two sub-sectors for study as follows:

1. CM services and education; and
2. CM products, which may be further classified into
  - Chinese herbal medicines (CHM 中草药); and
  - Proprietary Chinese medicines (PCM 中成药).

success of some HK companies<sup>2</sup> in becoming major players in supplying CM products to the Mainland market. We consider that a **pragmatic strategy** is for HK is to build on these successes.

4. In this light, it is our observation that there is good **potential for further development in the following areas:**

a) CM services and education

- developing patient-centred services on the basis of collaboration between CM and western medicine (WM); and
- developing CM specialist services.

b) CM products

- further expansion into the Mainland market; and
- in general:
  - adding value to our exports of Chinese herbal medicines (CHM) through testing and certification (T&C);
  - development of Proprietary Chinese medicines (PCM) as high-quality health products for the mainstream market (as distinct from the Chinatown market only);
  - development of Proprietary Chinese medicines (PCM) as drugs is an ambitious goal which can only be pursued in the long term when the conditions are ripe.

## **II Problems**

5. Generally speaking, the development of CM in the modern world faces **two issues:**

- a) reconciliation of CM treatment mechanism with the language of modern science or the principles of WM; and
- b) proof of efficacy of Chinese medicines through rigorous clinical research (as distinct from anecdotal evidence).

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<sup>2</sup> Examples include Purapharm, a HK company with manufacturing facilities in Guangxi, which is one of the six registered suppliers of CM granules on the Mainland and is now supplying about 25% of the Mainland market in CM granules; and Lee Kam Kee, another HK company with manufacturing facilities in Guangdong, who is now supplying over 50 CM-based health products via its direct sales licence in 14 cities on the Mainland.

6. As far as we are aware, Chinese medicines are being sold overseas mainly as natural health products with no or limited claims of benefits and not as drugs with efficacy claims. There is ongoing research on development of drugs from CM formulations for overseas markets but so far no major breakthrough.<sup>3</sup>
7. Apart from these general issues, HK faces other problems:
8. Where CM services and education are concerned, CM has only been given recognition as a profession in HK since about ten years ago; at present there still are a number of **traditional restrictions in the HK medical system** that are not favorable to CM development. For example, traditionally most Chinese medical practitioners (CMP) were not trained in using WM diagnostic facilities, and they have not been included in the list of professionals in the relevant codes of practice as being permitted to use WM diagnostic facilities. Also, **the absence of a CM hospital** is holding back CM development.
9. In developing CM products, there are the following problems:
  - a) Although Government has made efforts in developing Chinese medicines, these efforts are largely uncoordinated and focused on regulation rather than development. Even Government-funded research is being undertaken for the sake of research with insufficient regard to its practical value.<sup>4</sup> One of the reasons for the lack of coordination is the fact that **responsibilities for CM are scattered** among two policy bureaus (Food and Health Bureau and Commerce and Economic Development Bureau) and three executive agencies (Department of Health, Hospital Authority Chinese Medicine Limited (HACML), and Innovation and Technology Commission) in the Government.
  - b) In undertaking research and development (R&D) into Chinese medicines,

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<sup>3</sup> We understand that up to now no drug based on CM formulation has completed all phases of clinical trials required for approval of US Food and Health Administration (FDA). For example, Professor Tommy YC Cheng of Yale University and his partners have been researching into PHY 906 with more than US\$ 20M funding since 1999 and has yet to obtain FDA approval for the drug. PHY 906 is a 4-herb Chinese traditional formulation with a history of over 1500 years of human use. It is developed to enhance the therapeutic effects of cancer chemotherapy and is at present in Clinical Trial Phase II. [Sources: Dr Daniel Sze, Secretariat of Consortium for Globalization of Chinese medicine; <http://phytoceutica.com>]

<sup>4</sup> An example is the development of CHM standards by Government. Feedback from various sources indicates that the 60 standards developed are too high to be of practical application. In other words, while this project may be of scientific value, it is of little direct benefit to the export of Chinese medicines.

HK is also hampered by the fact that it has **no CM hospital, its small patient base, its small local market and lack of significant investor interest at this stage.**

- c) Given that the Mainland is the world's largest producer of CM products as well as the largest consumer market, HK is heavily dependent on the Mainland in developing such products. However, there has been **insufficient collaboration with the Mainland.** For example, HK's registration system for proprietary Chinese Medicines (PCM) is not compatible with the Mainland system, making it necessary for a manufacturer to meet two sets of registration requirements if he wants to sell his product in the two adjacent markets.

### **III Recommendations**

- 10. To maximize these opportunities and to overcome the problems, we would like to make the following recommendations for the consideration of the parties concerned.

#### **Recommendation 1 - To foster the establishment of a CM-based hospital**

- 11. The absence of a CM-based hospital in HK is hindering the development of CM in HK. Without a CM-based hospital, problems are being experienced in the provision of comprehensive **services to patients, training of Chinese medical practitioners (CMP)** and the development of **clinical research in CM.** The establishment of a CM-based hospital would address these shortfalls.
- 12. To be able to serve the functions as described above and to fit into the local hospital landscape, the future CM-based hospital should have the following features:
  - a) It should be **closely associated with the local university(s)** such that it can function as a focal point for teaching, research and clinical studies.
  - b) The CM-based hospital may provide **specialist services** in areas where CM has proven to be particularly effective and where there is relatively heavy demand from the public. Specialist services which may be considered include dermatology, oncology, women health, post-stroke

rehabilitation and chronic diseases. Reference can be drawn from the success case of Kotzting Clinic in Germany which specializes in chronic diseases.<sup>5</sup>

- c) It should not be a pure CM hospital, but a CM-based hospital with **Western medicine (WM) involvement**. The benefits of involving Western medical practitioners (WMP) include the following:
- It will help meet the requirement under section 4(c) of the Hospitals, Nursing Homes and Maternity Homes Registration Ordinance, Cap. 165 that a hospital must be “under the charge of a person who is either a qualified medical practitioner (i.e. WMP) or a registered nurse and who is resident in the hospital”.
  - It will help overcome some of the practical problems posed by the restrictions on CMPs in HK, such as not being permitted to use WM diagnostic facilities and not allowed to sign death certificates.
  - Also, the involvement of WMPs will facilitate the provision of more comprehensive care to patients.
- d) Like many other hospitals in HK, the CM-based hospital **should not provide an Accident and Emergency Department**. After all, accident and emergency is not one of the relative strengths of CM.
- e) The CM-based hospital may take the form of a public, hospital, a private hospital, or a Public-Private Partnership.
13. The establishment of the CM/WM Cancer Rehab Centre with 110 hospital beds by the HK Anti-cancer Society in 2009 is a positive although small step in this direction. Within this Cancer Rehab Centre the HK Anti-cancer Society is collaborating with Baptist University to provide a CM clinic. At present inpatients at the Rehab Centre may make use of CM and/or WM services.
14. Kwong Wah Hospital’s plan to provide a CM Building as part of its redevelopment project (expected to take place from 2011 to 2019) is another positive development.

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<sup>5</sup> The Kotzting Clinic is a joint project with Beijing Traditional CM University. With 84 beds, this CM hospital specializes in chronic diseases and is staffed by 9 CMPs and 6 WMPs. The hospital is popular, with a waiting time of three months for prospective inpatients and the maximum stay of inpatients is generally limited to four weeks.

**Recommendation 2 - To encourage a CM element in the four private hospitals on earmarked sites**

15. In Recommendation 1 we have explained the **need** for and the merits of a CM-based hospital in HK. Government's plan to release four sites for private hospital development offers an **opportunity** for this proposal to be implemented.
16. In December 2009 Government invited expressions of interest from the private sector to develop hospitals on four earmarked sites in Wong Chuk Hang, Tai Po, Tung Chung and Tseung Kwan O. In his Policy Address delivered in October 2009, the Chief Executive said that these private hospitals "may provide traditional Chinese medicine services."
17. Land being a scarce resource in HK, it is of concern that **once the four sites are released, the opportunity would be lost** at least for some years to come. We would therefore urge Government to make the best use of this opportunity. To encourage the provision of CM services at the four sites, we recommend that Government should:
  - a) initiate discussions with prospective tenderers on the possibility of providing a CM-based hospital or, in the very least, the incorporation of a CM element in the future hospital; and
  - b) provide incentive to prospective tenderers by, for example, giving extra credits to tender proposals according to the scale/quality of the CM services to be provided.
18. There may be concern that the inclusion of a CM element will affect the financial viability of the future hospital projects. Considering the increasing popularity of the public and private sector CM clinics in Hong Kong, this may be an over worry. In any case, any viability concerns should be addressed by our proposal not to make CM element a mandatory element but merely a feature attracting additional credits in the future tender exercises.

**Recommendation 3 - To promote patient-centered services, employing CM or WM as appropriate**

19. In recent years there have been considerable developments in HK in the area of CM/WM collaboration. We consider this to be an area with strong growth potential for the reasons below:
- a) Given that CM and WM have their relative strengths, there has been already considerable **demand from patients** for CM and WM services at the same time. For example, the Chairman of the Hospital Authority was recently reported in the media as saying that most HA cancer patients are consulting CMPs at the same time.
  - b) At present many WM patients consult CMPs in private without the knowledge of their WMPs, and vice versa. This carries considerable risks for the patients. **To reduce such risks, there is a need** for the practice to be formalized and the medical practitioners kept fully in the picture.
  - c) **Government policy has been supportive** of CM/WM collaboration. Hospital Authority Chinese Medicine Limited (HACML) has been trying out with different models of collaboration between CMPs and WMPs, conducting research into interactions between CM/WM treatment/medicines and sponsoring certificate programs for WMPs to enhance their awareness and knowledge of CM.
  - d) HK is already renowned for its **world-class WM services and its modernized medical management**. These will give HK an advantage in offering CM/WM services to the market.
20. At present WM/CM collaboration in HK is taking different forms. We do not think there is any need at this stage to seek any standardization or uniformity. What we think is important is that **promotion of CM/WM collaboration in whatever form should be guided by the “patient-centered” principle**. Possible forms that may be considered include the following:
- a) Using mainly WM methods for diagnosis and monitoring as being relatively efficient, and using either CM or WM or both depending on the needs and preference of the patient.



- b) Another possible form is using WM for treatment and CM for rehabilitation or relief, which is already popular among patients in HK.
21. This recommendation relating to patient-centred services on the basis of CM/WM collaboration may attract **criticism from “purist” CMPs and WMPs** from both ends of the spectrum. Some may object out of a lack of trust in the other discipline. Others may have market share considerations.
22. We would like to point out that patient-centred services based on CM/WM collaboration is **supported by market demand and is already a trend that HK cannot afford to ignore.** After all, both CM and WM have their own relative strengths and limitations in diagnosing and treating patients. If HK is to hold back on CM/WM collaboration, we would be frustrating demand from patients and missing an opportunity for development.
23. Nevertheless, to address the concerns of these stakeholders, it would be prudent for the Government **to adopt a step-by-step incrementalist approach** in developing patient-centred services based on CM/WM collaboration by, for example:
- a) putting on trial different forms of collaboration at this stage and not narrowing itself down to any one option;
  - b) encouraging more studies into CM/WM interactions; and
  - c) providing incentives to WMPs to learn more about CM and vice versa.

**Recommendation 4 - To give priority to health check and management as a patient-centred CM/WM service**

24. This recommendation is put forward as a sub-set of Recommendation 3. The idea here is to use WM methods for health check to screen out patients with serious or urgent diseases for early treatment, and to use CM methods to manage the health of patients with no major diseases but who nevertheless want to improve their health. In fact, with good health management and disease prevention, the need for hospitalization will be reduced and overall medical costs may be lowered. We consider that there is growth potential in CM/WM health check and management for the following reasons:

- a) With an aging population, growing affluence and greater health consciousness, there will be **increasing demand** for health check and management.
- b) The use of WM methods for health check and CM for health management make use of the relative strengths of both WM and CM and involve **relatively low risk**.

**Recommendation 5 - To foster the development of specialist CM services and education**

25. Development of specialist CM services and education is recommended for the following reasons:

- a) **Patient demand** is such that most people use CM services for certain particular conditions/diseases such as chronic diseases, elderly ailments, health management, etc
- b) The current situation in HK is such that the major **service providers are already providing “specialist” services**. For example, while general services such as internal medicine and acupuncture are provided by all 14 Hospital Authority Chinese Medicine Limited (HACML) clinics, “specialist” services are provided at a limited number of these clinics such as shown below:
  - gynecology – 10 clinics
  - geriatric medicine – 5 clinics
  - pediatrics – 3 clinics
  - allergic diseases – 2 clinics
  - rheumatology – 1 clinic
  - dermatology – 7 clinics
- c) Development of specialist education and services will help attract **higher-caliber lecturers as well as students** to the study of CM and upgrade services to the public.

26. If WM experience is a guide, the development of specialist CM services and education would involve the setting up a statutory body to supervise and accredit post-graduate education and specialist training, and the designation of training posts for specialists in public hospitals and clinics.

27. There may be objections on the grounds that CM development in HK is still at an early stage and is not ready for formal specialist qualifications yet. Some objections may cite the example of WMPs: the first HK university-trained WMPs graduated in the 19<sup>th</sup> century and it was only in 1993 that HK first provided its own specialist WM training; in comparison, the first HK university-trained CMPs graduated in 2003 and this is only 2010. However, provided the development of specialist CM education is beneficial to the public and the sector, it should not be held back by such considerations. As a matter of fact, the history of CM in HK went back centuries ago: for example, the Tung Wah Hospital was set up as a CM hospital in 1872. Moreover, in formalizing CM development in recent years, HK has been building on the experience and expertise of the Mainland and not starting from scratch.

#### **Recommendation 6 - To give priority to acupuncture as a specialist area**

28. This recommendation is put forward as a sub-set of Recommendation 5. Of the specialist areas in CM, we consider acupuncture to have the strongest growth potential in the short term. The reasons are given below:
- a) There is substantial **internationally recognized research and clinical trials** that confirm the safety of acupuncture and indicate that it is effective for relief of pain and treatment of insomnia and depressive disorders.
  - b) At present acupuncture is **widely accepted in the West**, as witnessed by the fact it is covered by many insurance schemes in Europe, US and Canada.
29. In HK acupuncture is popular not only as a service provided at CM clinics but also already made **available to inpatients of many public WM hospitals**.

#### **Recommendation 7 - To promote the value-added export of Chinese herbal medicines (CHM)**

30. Some HK companies are already taking steps to add value to the exports of Chinese medicines to overseas markets by having Chinese herbal medicines (CHM) produced in Good Agricultural Practice (GAP) farms, processed in Good Manufacturing Practice (GMP) facilities, and tested and certified (T&C) in HK labs.

31. While the **private sector has to lead** in pursuing these initiatives, Government can facilitate or assist this trade by strengthening the capability of HK's testing and certification (T&C) sector. At present, the testing and certification (T&C) sector in respect of Chinese medicines is small and technically limited: we understand from industry sources that only a few commercial labs are engaged in testing Chinese medicines, and while they are competent in their work when they are given standards and methodologies, most of them are not capable of developing standards and methodologies.
32. **To strengthen the capability of HK's testing and certification (T&C) sector,** it is recommended that
- a) Government should coordinate the development of quality standards and methodologies and pass on the technology to the commercial labs. To facilitate export in CHMs, the quality standards to be developed should be set at a level which is meaningful in medical terms, attainable by the industry and affordable to the consumer.
  - b) Government should seek recognition of accredited labs in HK by the regulatory authorities in the export markets.

**Recommendation 8 - To foster the development of Proprietary Chinese medicines (PCM)**

33. Proprietary Chinese medicines (PCM) can be developed for export in one of two forms:
- a) as health products with no or limited claims of beneficial effects; or
  - b) as drugs with efficacy claims.
34. At present, Proprietary Chinese medicines (PCM) are being sold to other markets mainly in the former form, i.e. as natural health products. There have been positive developments in recent years in adding value to these health products by meeting the quality standards of the export markets.<sup>6</sup> **Further**

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<sup>6</sup> For example, Purapharm, a HK company, obtained certification under the US Pharmacopoeia - Dietary Supplement Verification Program (USP-DSVP) for its lingzhi-based CM product ONCO-Z to be exported to the US market as a quality-certified health product in 2009.

**development of such value-added health products is therefore a realistic short-term goal** and more R&D and testing and certification (T&C) support for the industry will be beneficial.

35. On the other hand, the development of Proprietary Chinese medicines (PCM) as drugs with efficacy claims is a challenging process requiring high-quality R&D (to explain CM treatment mechanism in the language of modern science), extensive clinical evidence (to prove efficacy) and heavy investment. While the R&D in Chinese medicines undertaken by the local universities in HK are of an internationally recognized standard, most of the research results are not commercialized. Also, HK faces the problems of no CM hospital, small patient base, small local market and little investor interest. To overcome some of these hurdles, it is necessary for HK to seek greater cooperation and collaboration with the Mainland. In any case, **development of Proprietary Chinese medicines (PCM) as drugs can only be pursued as a long-term goal.**
36. While the private sector has to lead in developing Proprietary Chinese medicines (PCM), Government can facilitate such developments by:
- a) fostering the establishment a **CM-based hospital** to facilitate research;
  - b) fostering **greater cooperation between the universities and the industry** to harness R&D efforts into projects that will directly benefit the industry; and
  - c) **seeking collaboration with the Mainland for HK** particularly in R&D.

### **Recommendations 9 - Greater collaboration and cooperation with the Mainland**

37. Given that the Mainland is the world's largest producer of Chinese medicines as well as the largest consumer market, HK is heavily dependent on the Mainland in developing Chinese medicines. For export of CM products to the Mainland, HK enjoys tariff-free access under the Mainland/HK Closer Economic Partnership Arrangement (CEPA). In CM services, obviously there are more experienced practitioners in the Mainland. We recommend that HK should seek greater collaboration and cooperation with the Mainland in a number of

areas as discussed below:

- a) harmonization of standards and registration requirements for Chinese medicines with the Mainland;
- b) greater collaboration in R&D; and
- c) bringing in more renowned CMPs from the Mainland.

### **Harmonization of standards and registration requirements**

38. Every country or area has its own standards for health products and drugs in order to protect its own citizens. HK has set up its own registration system with its own standards for Chinese medicines, which is **not compatible** with that on the Mainland. As the result of this incompatibility:
- a) a HK manufacturer who wants to access the Mainland market as well is required **to meet two sets of registration requirements**; and
  - b) some manufacturers are more interested in getting their products tested and registered in the Mainland than in HK, because HK's market is too small to be worthwhile. This has **discouraged testing and certification (T&C) and R&D activities** being carried out in HK
39. If HK's standards and registration are harmonized with the Mainland, the whole landscape will be changed. Manufacturers will have the incentive to obtain testing and registration in HK for access to the Mainland market. HK may be able to attract investment to this sector. It is therefore recommended that **Government should discuss harmonization** with the Mainland authorities.

### **Greater collaboration in R&D**

40. In undertaking R&D in Chinese medicine, while the quality of the research of our universities is of a high standard, R&D in HK is hampered by the lack of a CM hospital, our small patient base and our small local market. Moreover, although the Mainland is a major potential market for Proprietary Chinese medicines (PCM) from HK, clinical research conducted in HK is not yet recognized by the Mainland authorities.

41. It would therefore be beneficial for HK to work more closely with the Mainland in R&D in Chinese medicine. Some of the goals in this area include seeking Mainland recognition for clinical research conducted in HK, and greater participation in Mainland R&D projects, such as serving as one of the multi-centres for large scale clinical research projects.

### **Bringing in renowned CMPs from the Mainland**

42. In its 2009 Policy Address, the Government said it would “further consider allowing more **renowned Chinese medicine practitioners from the Mainland** to join clinical teaching and research programmes in Hong Kong”. This proposal has our support.
43. HK already has a mechanism called the Limited Registration scheme under the CM Ordinance whereby six designated institutions in HK (5 universities and HA) may apply for CMPs with the appropriate qualifications and experience to be brought in to HK to be engaged in clinical teaching and/or research for the institutions. At present there are about 80 CMPs working in HK under such limited registration. Bringing in more renowned CMPs under the scheme to practice and teach in specialist clinics will help enhance the quality of local CM services and education, and possibly draw overseas patients, making HK a platform for introducing CM to the world.

### **Recommendation 10 - To set up a high-level committee to steer CM development**

44. We recommend that that Government should **set up a high-level steering committee** with the following objectives:
- a) to assume **overall coordination** among the bureaus, departments, universities, research institutes, quasi-government organizations and other stakeholders; and
  - b) to map out a **coherent strategy** for the development of Chinese medicine in order to maximize the benefit of its development efforts.
45. Reasons for this recommendation are given below:

- a) At present responsibilities for CM are assumed by two policy bureaus and three executive agencies in the Government. While matters related to CM services are coordinated by the Food and Health Bureau, there is **no single cross bureau/agency coordinator** for matters related to CM products. Although we do have a CM Council, the focus of its work is on regulation and not development.
- b) Although Government has done considerable work and Jockey Club has made a donation of \$500M for the development of Chinese medicine in HK, the HK community is not reaping the full benefits of these efforts. This is because much of the work done, especially in the area of CM products, is scattered rather than coordinated, and there is **a lack of a coherent strategy** to maximize the benefits of these efforts.
46. In recommending a high-level steering committee, we are **not advocating** that Government should adopt an aggressive strategy or to pour in additional resources to develop CM (in any case the HK Jockey Club Institute of Chinese Medicine (JCICM) has only used about 20% of its \$500M donation up to end 2009). We are **only advocating** that, after ten years of development, Government should take stock of the situation, identify what is feasible and already being done well, where the bottlenecks are, pull together its scattered efforts and harness these efforts towards a coherent strategy to facilitate the further development of CM for the healthcare benefits of the community as well as for nurturing it as an industry.
47. We have to reiterate that in making our recommendation, we see **Government essentially as a facilitator and not a player**. **Private sector initiative** from the stakeholders involved will be no less important than Government effort. This point is well demonstrated in the success stories of such enterprising companies as Purapharm and Lee Kam Kee in the Mainland and overseas markets. It is noteworthy that Mr Bernard C. Chan (HK politician and businessman whose family owns a hospital in Thailand) was recently reported as saying that the development of medical tourism in Thailand was largely due to private sector initiative rather than Government assistance.
48. With public guidance, private initiative and support by the Mainland, there is good potential for the sustainable development of CM as an economic sector in HK.