

THE IMPORTANCE OF TRADITIONAL CHINESE MEDICINE SERVICES IN HEALTH CARE PROVISION IN CHINA

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In China Western and Traditional Chinese Medicine (TCM) have been practised alongside each other ever since Western medicine was introduced in the nineteenth century, during the Qing Dynasty. China is one of the few countries where traditional medicine has been fully integrated within the health care delivery system (WHO, 2002; WHO, 2009). TCM has its own unique and sophisticated body of theory, developed from an empirical basis in over 2,000 years of clinical experience, and documented in a set of classical texts that constitute the milestones in the development of TCM (Figure 1). TCM encompasses a number of clinical practices, including acupuncture, tuina therapy and herbal medicines. China also boasts 35 recognized categories of “Ethnic Minority Medicines”, including Tibetan medicine, Mongolia medicine and Uygur medicine (Huang Hanru 1999).

TCM used to be provided essentially as ambulatory care until the 1950s. From that time onwards, hospitals also started to provide this form of care. In the same period TCM academic training in universities was formalized and started to replace the traditional apprentice-master training model. As of 1982 the Constitution gives equal weight to the development of both traditional and Western medicine as key components of the national health policy. This is reflected in the major regulatory frameworks, including the “Doctor’s Law”, the “Pharmaceutical Law” and the legislation relating to medical service institutions. Independent regulatory mechanisms for TCM have been established. Every five years a national TCM plan, synchronized with the social and economical development plan, and integrated in the national health policy, provides guidance on strategies and approaches to develop TCM. The classical TCM literature is being digitized while a database for TCM information is being set up and methods and approaches for the protection of TCM intellectual property rights are being explored.

The supply of TCM services

Between 1998 and 2008 government expenditure for TCM has increased more than fourfold, from 1.81 billion RMB to 7.87 billion RMB (1.15 billion US\$). The share of TCM within total public health expenditure is 6.71% in 2008.¹ The health insurance schemes cover TCM diagnostic and therapeutic services. The 2010 national essential medicines list includes 102 proprietary TCM medicines and TCM therapeutic raw

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¹ See State Administration of Traditional Chinese Medicine, People’s Republic of China.

materials, along with 205 proprietary Western medicines. All three are covered through the health insurance schemes.



Figure 1: Selected milestones in the history of traditional Chinese medicine (Li Jingwei et al., 2000)

The supply of TCM services is growing: between 2004 and 2009 their number has increased from 2,610 hospitals to 3,164. This represents 15.5% of the hospitals in the country. 30,823 clinics (22% of all the clinics in China) are specialized in TCM.² The

² See China Statistical Year Book of Traditional Chinese Medicine: <http://www.satcm.gov.cn>

majority of counties thus has a TCM hospital.³ Some of these TCM hospitals and clinics specialize in one specific therapeutic approach, but the majority offers a range of TCM clinical disciplines. The national health authority requires every TCM medical record to include a double, Western and traditional Chinese diagnosis. A standardized classification and coding for TCM diagnosis (diseases and patterns) was introduced nationwide in the mid-1990s.

TCM is not only provided in dedicated institutions but also in the vast majority of so-called "Western medicine hospitals" and in many of the health centres, health stations and clinics (Table 1).⁴ Collaboration between TCM and Western medicine doctors is generally harmonious, whether they work within the same healthcare institution or in different settings. Consultations between the two categories of doctor are routine.

Table 1: TCM within health care institutions that are predominantly dedicated to Western medicine in 2008⁵

	Total (2008)	Number (%) with TCM department or services
Western Medicine hospitals	16,597	15,767 (95%)
Urban Community Health Centres	4,036	3,955 (98%)
Urban Community Health Stations	20,224	13,146 (65%)
Rural Town Clinics	39,080	29,701 (76%)
Rural Village Clinics	613,143	282,046 (46%)

In 2008, there were 253,233 registered TCM doctors and assistant doctors across the country. Registration follows a unified national examination by the national health authority that delivers a qualification certificate valid in the whole country. In addition, approximately one-third of the 866,004 village practitioners at the grassroots level in rural areas mainly practice TCM (Table 2). The licensure requirement for rural doctors is different from that for registered TCM doctors and assistant doctors. For rural doctors, the examination and licensure is organized by the local health authorities.

In 2008 there were approximately 3.9 practitioners of TCM per 10,000 inhabitants in China, with ratios skewed in favor of urban areas. Policy makers in China consider this to be insufficient in order to guarantee access. There is also evidence that, particularly at the grass-roots level, the clinical skills of TCM doctors remain a matter of concern (Zhang Qi *et al.*, 2008; Li Wei *et al.*, 2009).

Over the last decade, the Chinese Government has combined several strategies to improve access (Li Wei *et al.* 2009; Li Chang-ming *et al.* 2009). These include: establishing basic requirements for TCM healthcare facilities at community level; enhancing the training of TCM practitioners for community services; practicing a policy in which junior TCM doctors in urban hospitals should work 1-2 years in rural healthcare facilities to support TCM

³ See the Year Book of Traditional Chinese Medicine of China in 2009, Traditional Chinese Medicine Publishing House, Beijing, February 2010.

⁴ *Ivi.*

⁵ See China Statistical Year Book of Health: <http://www.moh.gov.cn>

services; the "10,000 doctors in high-level hospitals to support low-level hospitals in rural areas" programme; and outreach to people living in remote areas, including the "on horse-back" and combined health and postal mobile service.

In the meantime the production of TCM practitioners has increased, both in term of numbers and in terms of level of qualification. TCM universities deliver bachelor, master and PhD degrees. The basic evaluation criteria for traditional Chinese and Western medicine students are the same, but the teaching contents are different. TCM students receive a combination of TCM and Western medicine training, with traditional Chinese medicine making up 60-70% of the theoretical curriculum and 50% of the clinical curriculum. Conversely, students of Western medicine spend about 1/20 of total study-time on traditional Chinese medicine.

The quality of training has been addressed through the Government's "three in one" training model for TCM. The three components of the program are: in-depth study of the TCM classics; study of the practice of famous TCM masters; and enhanced training of clinical knowledge and skills. A degree program for master-apprentice learning encourages building on the positive side of traditional training patterns. Some reports show the progress on implementation of these approaches (Nie Haiyang *et al.*, 2009; Wang Yulai *et al.* 2009). Between 2004 and 2008 the number of students studying TCM at university level has nearly doubled (Table 3). It is therefore reasonable to expect a considerable growth in the number of TCM doctors and assistant doctors over the coming years.

Table 2: Health care practitioners in China in 2008⁶

	TCM	Western medicine	Combination, mainly TCM
Registered doctors and assistant doctors	253,233	2,082,258	
Registered pharmacists and assistant pharmacists	88,673*	330,525*	
Village practitioners		604,466	261,538

*excluding those working in pharmaceutical companies and retail shops.

Table 3: Students enrolled in university level TCM courses, 2004-2008

	2004	2006	2008
TCM universities	186,029 students on campus in 42 universities	230,810 students on campus in 44 universities	409,038 students on campus in 47 universities
TCM courses in Western medical universities	25,097 students on campus in 54 universities	42,586 students on campus in 62 universities	27,848 students on campus in 81 universities
TCM courses in non-medical universities	16,236 students on campus in 74 universities	24,080 students on campus in 91 universities	13,560 students on campus in 128 universities
Total TCM students on campus	227,362	297,476	450,446

⁶ *Ivi.*

Since the 1950s, innovation in TCM has been enhanced. There are now 388 top level laboratories, 103 research stations with defined research projects, and 133 healthcare centres that function as reference for specific diseases. In 2008, the Government invested approximately USD 500 million to 16 selected TCM clinical research bases, focusing on the prevention and treatment of specific diseases (Yang Longhui *et al.* 2008).



Left: pharmacy of a traditional Chinese medicine hospital, China.

Below: Shuguang Hospital, a 1.300 bed hospital fully dedicated to TCM, is affiliated to Shanghai University of Chinese Medicine, Shanghai, China.



Uptake of TCM services

Surveys from the National Monitoring Center for Quality of TCM Healthcare Service show that a considerable proportion of people choose traditional Chinese medicine or a combination of traditional and Western medicine (Table 4) (PRC 2009).

In 2008 the 3,115 TCM hospitals accounted for 13% of all hospital admissions in China, with an average of 2,744 admissions per hospital and a hospitalization rate of 6.5 per thousand inhabitants per year. TCM hospitals also perform 279 million outpatient consultations, which corresponds to 18% of all out-patient services in hospitals. 79% of services provided by TCM doctors involve the distribution of herbal medicines. Among the non-medicine therapies, acupuncture is the most frequent choice, followed by Tuina and physiotherapy.

These hospital data, however, underestimate the importance of TCM within health care services uptake in China. Table 5 shows that TCM accounts for approximately 40% of therapeutic prescriptions at the primary, grass-roots level, slightly more in urban than in rural areas. Most TCM prescriptions are for proprietary TCM medicines, particularly in urban areas.

Table 4: Therapeutic prescriptions at primary, grass-roots level in rural and urban areas in 2009

	Rural areas	Urban areas
Proprietary Western medicines	62.7%	58.7%
TCM	37.3%	41.3%
Of which proprietary TCM medicines	60.9%	75.5%
Of which TCM raw materials	30.1%	12.7%
Of which other	6.7%	7.4%

Source: National Monitoring Center for Quality of TCM Healthcare Services.

Much of the demand for TCM services is for chronic and non-communicable diseases. In 2008 the top 5 reasons for admission to TCM hospitals were cerebrovascular accidents, intervertebral disc displacement, hemorrhoids, ischemic heart disease and essential hypertension. Reliance on TCM for health maintenance - including chronic disease prevention, and treatment and rehabilitation focusing on primary health care - is increasingly popular. It is supported by the Government and given the strong cultural roots of TCM, the prospects for integration of TCM health maintenance in daily life are promising (Cao Qifeng *et al.*, 2009). TCM has a long history closely linked to Chinese culture with its holistic view of human body and its emphasis on maintaining/and restoring functional balance of the human body as a whole. From the early introduction of primary health care in the 1960s Chinese society has seen traditional and Western medicine develop side-by-side. For users this means that rather than a sharp distinction, there is a continuity between what both approaches have to offer, in terms of treatment as well as in terms of prevention and health maintenance.

Prospects

TCM plays a key role in China's response to the health needs and expectations of its population. In 2009 China's State Council promulgated a guideline on TCM development. The guideline stresses equal weight given to TCM and Western medicine; coordination of service delivery, health maintenance, research, education, industry and culture; and Government support and mobilization of social resources to promote the development of TCM (State Council of PRC, 2009). The strategy emphasizes the TCM development plan and coordination mechanisms which imply increased financial and policy support from government. The provision of TCM services will be enhanced by reforms of the insurance policy, regulatory measures and improved intellectual property protection. NGOs and the private sector are actively encouraged to invest in TCM.

The integration of TCM services is to be guided by "four combinations": improving TCM knowledge and skills and improving herbal medicines; improving the quality of human resource and access to service facilities; generalizing standardized high-level accreditation while making allowance for special local situations and constraints; and lastly, ensuring a balance between the heritage of tradition and the contribution of innovation, there is an attempt to preserve the value added by TCM while actively utilizing modern science and technology to improve TCM.

This is not done only with regard to the domestic health care market. While TCM has a prominent role within China (for example, the sale of Chinese Material Medica in 2009 accounted for 30% of domestic medicine market), its use in the rest of the world is rapidly expanding (Eisenberg *et al.*, 1998; Thomas *et al.* 2001), and the export of Chinese Material Medica has been increasing in the last decade: US\$520 million in 1999, US\$720 million in 2004 and US\$1.46 billion in 2009 respectively.

Traditional Chinese Medicine in China is far from a marginal activity referring to the past. Rather, it is a major component of China's health care system in terms of supply and uptake of services, in terms of expenditure, and in terms of meeting the expectations of the population. The degree of integration of TCM in the overall national health care delivery system perhaps makes it easier to quantify its importance within health care delivery system than in countries which arrangements are less formal. The globalization of the various conceptions of medicine - conventional, traditional, complementary/alternative - adds urgency to the documentation of their weight in the system.

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