

Ten years' GP training in China: progress and challenges

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Ten years' GP training in China: progress and challenges

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Ten years' GP training in China: progress and challenges

In 2009, China launched a program of major primary healthcare reform, with the aim of achieving universal health coverage across urban and rural areas by 2020.¹ This required a strong general practitioner (GP) workforce. Facing a critical shortage of qualified GPs [32 400 nationwide], the Chinese government set a national target of providing 2-3 GPs per 10,000 population, a total of 300,000 GPs by 2020. Efforts to achieve this goal have progressed, as illustrated by data suggesting there were 309,800 in total (2.2 GPs per 10,000 population) in 2018. We explore the progress and challenges in GP training in China over the past 10 years and its prospects for the future.

Progress and Achievement

The education of GPs has attracted significant attention from the Chinese government since 2009, with introduction of a series of new policies and GP training programs. Huge investment was made [20bn RMB, £2.2bn, \$2.8bn] during 2010-15 to promote development of the GP workforce.² In 2011, the State Council initiated a unique GP training system with multiple pathways, tailored for China's huge population and uneven distribution of resources, and accounting for existing community medical personnel.

China now has five GP training programs, each with specific aims, duration, curriculum, and targeted trainees. A new "5+3" model of residency training (5-year medical school plus 3-year GP residency) is expected to become a gold standard. The government has established 559 hospital and 1660 community training bases nationally.³ Residency training becomes mandatory for new medical graduates from 2015, with an additional requirement that GP residents should exceed 20% of total residents, meaning that numbers of GP residents are expected to continue to rise. A new Masters' degree in GP training has also been established as an extension of residency training, aiming to provide academic leaders in general practice and GP trainers for the next generation of GPs; more than 800 graduates received the Masters' between 2012-2018.³

A post-transfer program with one year's curriculum (10 month's hospital, 1 month community plus 1 month theoretical learning) offers conversion of existing primary care providers in the community to become GPs. Since 2010, this has trained 150,000 physicians and been the main approach to producing GPs over this short period.³ The rural designated undergraduate education program and assistant-GP program aim to produce qualified GPs for rural and poor areas. The former offers high school graduates free medical education on condition that they work for 3 years in rural practice; between 2010 and 2018, 73 universities have enrolled more than 50,000

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undergraduates on this scheme. Assistant GP training (the “3+2” program), starting in 2016, consists of 3-year undergraduate plus 2-year residency training and is another transitional strategy to address the shortage of GPs in undeveloped regions.

Challenges in GP training

Whilst the development of such a large number of new GPs in a short time frame is extremely impressive, many challenges remain in establishing a reliable and effective primary care workforce which can provide safe and clinically- and cost-effective primary care to a vast and varied population.

The first challenge concerns quality. China has adopted various pathways to training GPs, differing in prospective trainees, duration, curriculum and training base. However, a uniform educational blueprint and core competencies for GP trainees were not established across these training programs. In addition, although there are national requirements and standardization of each programme, variation exists across China. Significant heterogeneity in training contributes to inconsistency in GP competency and jeopardizes public trust.⁴ Furthermore, rotations in community-based clinics are short compared with hospital training; excessive exposure to hospitalized patients will not enhance the capacity of GP trainees to provide community services in future.

The GP trainer role is key in guaranteeing quality of training. However, there is a significant lack of Chinese GP trainers and their teaching ability is open to question; they are certified after only 5 days of theoretical courses and some assignments in course design. In addition, most GP trainers are hospital specialists, unfamiliar with management of common medical conditions in the community.⁵ Although some GP trainers are practicing GPs in community, their current work, dealing mainly with minor diseases, may lead to negative role modelling.

Retention is another huge challenge. Audit reveals that only 21.4% of students in a designated program were willing to work in a rural community after their 3 year employment contract,⁶ and 57.8% of surveyed GP trainees across different programs reported working as GPs after graduation.⁷ Public data in 2018 also showed there were only 156800 (50.8%) registered GPs, despite 308740 physicians being qualified as GPs. Low retention rates reflect current conditions in China’s hospital-driven system, where GPs in community health facilities have less pay, lower social status, and poorer career prospects compared with hospital doctors. This adversely influences the choice of talented medical students: in each year’s residency program recruitment, GP training positions remain unfilled while other specialties are oversubscribed, for example, only 50% of 10000 GP positions were applied for nationally in 2014.

Recommendations for Future Development

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3 Defining the precise role of GPs in the Chinese health system is extremely important:⁸
4 like GP training in UK and Australia, it will guide the educational blueprint and help to
5 outline the core competencies of GP. The curriculum should be redesigned towards a
6 more community-based schedule and reflect the real work of community health care.
7 This requires a large cohort of qualified GP trainers in the community, and effective
8 GP trainer-training programs need to be developed based on local GPs' learning needs.
9 Although the government relies on the Chinese Medical Doctor Association to lead
10 the national standardization, it is worth considering establishing an independent
11 agency, akin to a national specialty board of GPs in Western countries,⁹ to provide
12 academic development for GP training, accreditation and regular assessment of
13 training programs, certification of GP trainers, and organization of specialty board
14 examinations, so as to produce homogeneous GPs across institutions and different
15 training programs.
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23 The past decade has seen an impressive rise in GP numbers but a slow development
24 of supporting conditions such as salary, social status, promotion and healthcare
25 system reform, leading to poor retention for GP graduates. Clearly, the attractiveness
26 of the specialty needs to be further improved. Reducing the salary gap between GPs
27 and hospital specialists should be top priority; as well as opportunities for academic
28 research, teaching, and private business. Academic leadership should be enhanced by
29 forming academic groups, supporting academic GPs, and making dedicated research
30 funds available for primary care.³ Ultimately, training more GPs cannot be considered
31 as a solution in isolation within the health system, its success as a strategy to improve
32 healthcare quality, access, and sustainability will depend on fundamental and wide-
33 reaching reforms. Recognizing the substantial cost-saving impact of primary care on
34 healthcare systems, these should include consideration of a gatekeeper role for GPs
35 and compulsory patient registration,¹¹ and transformation of the existing hospital-
36 centred healthcare system to one based on primary care.¹²
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44 With the new goal of training additional 400,000 GPs over a 10-year period announced
45 by the Chinese State Council in 2018, sustained action should be taken to enhance the
46 quality of training programs and GP retention based on the past 10-years' experience.
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51 Competing interests

52 We have read and understood BJGP policy on declaration of interests and declare the
53 following interests: BH and JS are both general practitioners working in the NHS. The
54 authors have declared no competing interests.
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Ethical approval

Ethical approval was not required or sought in the writing of this article.

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Contributors

Chuan Zou is a Chinese General Practitioner and GP trainer in the department of general practice in Chengdu fifth people's hospital, Chengdu university of TCM in China. He wrote the article and modified all drafts.

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All authors approved the final manuscript.

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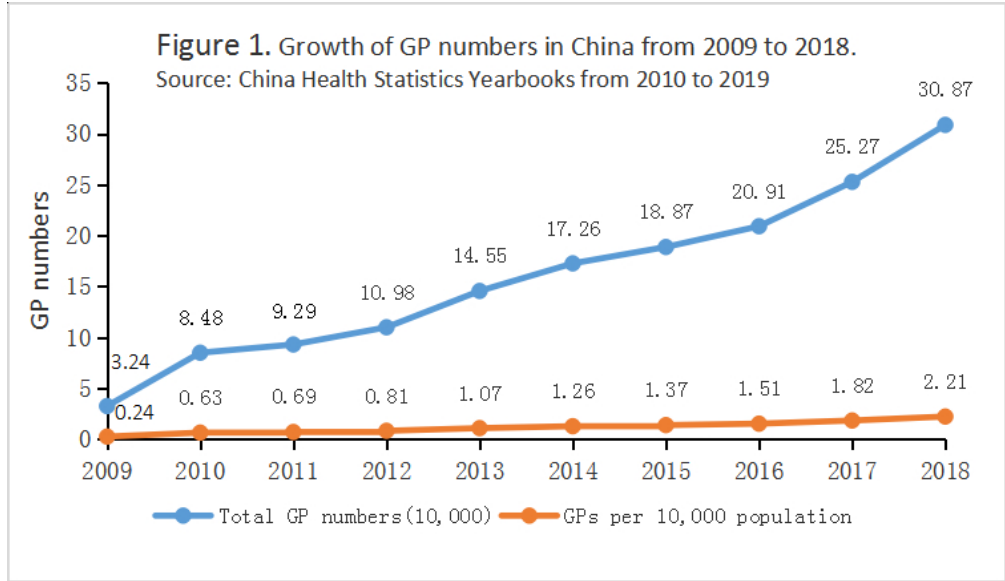


Figure 1 Growth of GPs workforce in China from 2009 to 2018