INTRODUCTION
As there is wide recognition of the unique professional skills of primary care, vocational training for the discipline has evolved from a voluntary process into a mandatory universal standard in many Western countries. However, advanced Asian economies like Japan, Singapore, Taiwan, and Hong Kong have yet to follow suit. In this article, we compare the training requirements of primary care doctors in these four places with that in the Western world, discuss the drawback of the current policy in Asia, and contend that the next generation of primary care doctors should all receive compulsory vocational training for the purpose of certification.

Training in the West
Primary health care is mainly delivered by family physicians in the US and GPs in the UK. Medical graduates in the US must complete 3 years of residency in family medicine to become a family physician (a specialist in family medicine). In the UK, medical graduates are required to undertake vocational training for a minimum of 3 years in order to practice as a GP. Elsewhere, the training of family physicians in Canada is similar to that in the US while the training of GPs in Australia resembles the UK system. There is also mandatory postgraduate vocational training for all GPs in most northern European countries.

However, vocational training is still voluntary for primary care doctors in the following four advanced economies in Asia.

Training in Asia
In Japan, The Japan Primary Care Association (JPCA) provides 3 years of vocational training for family physicians following 2 years of internship. However, training is voluntary and family medicine was not even recognised as a specialty until a new category of general practice was officially created in the Japanese medical system in 2012. While the training system for the new GP specialty is now being developed in Japan, the JPCA will continue to oversee the training of family physicians in this transitional period.

There is a register of family physicians in Singapore and a specialist register of family medicine in Taiwan and Hong Kong for those who have satisfied the requirements of certification (Table 1). In Singapore, the minimum requirement for inclusion in the family physician register is 2 years of experience in family medicine and completion of a graduate diploma. Doctors have to pass the exit assessment following a minimum of 3 and 6 years of vocational training for registration as a specialist in family medicine in Taiwan and Hong Kong respectively.

Despite the availability of vocational training in these four places, participation is voluntary. Hence, the only condition for entry to primary care in Singapore, Taiwan, and Hong Kong is the statutory basic medical education, that is, the undergraduate course, and 1 year of compulsory internship under supervision. Medical graduates in Japan can serve as a family doctor in the community after 2 years of compulsory internship.

In other words, there are a mixture of non-certified GPs and trained family physicians or specialists in family medicine in the primary care setting of these four places.

SOCIAL IMPLICATIONS OF THE CURRENT POLICY IN ASIA
Equity
We are concerned that this policy fosters an elite class of primary care doctors over and above a less-skilled ‘lower class’. The problem of having two classes of primary care doctors is that information in the healthcare setting is so unevenly distributed that some better-educated patients possess far more information than others regarding the medical options and services available. Patients with lower educational background may not be able to differentiate doctors who have completed vocational training from those who have not. Whereas an ideal healthcare system should enhance equity in access to high quality primary care across different social, economic, and geographic population sectors, having two classes of primary care service disadvantages individuals in the lower social strata and fails medical doctors’ moral commitment to social justice.

Quality and safety
Some policymakers may contend that fresh graduates, on completing their internship, are sufficiently trained to provide primary care of high quality. They may further argue, as a result, that getting certified is merely optional and not obligatory for the delivery of high quality primary care. Our response is that first, denying the significance of training is grossly incongruous with the current policy in Singapore, Taiwan, and Hong Kong of having a separate register for family physicians or specialists in family medicine. Second, a review by Hindmarsh et al showed that vocationally-trained GPs are better GPs in terms of the quality of their patient care, confidence as a GP, knowledge base, and adherence to practice guidelines. A recent study in South Africa also showed that most medical graduates who had just finished their internship still felt critical gaps of skills in paediatrics, orthopaedics, and obstetrics.

There is evidence that doctors working in primary care who are neither trained nor being trained are at higher risk of complaints, and five times more likely to be required to undergo a competence programme. Over-prescription of antibiotics is also less common with certified GPs: in Hong Kong, they had significantly lower antibiotic prescribing rates when managing upper respiratory tract infections, acute bronchitis, and cough when compared with non-certified GPs. Furthermore, compulsory training can
provide opportunities for direct observation of a trainee’s performance either in an outpatient or in-hospital environment. Even though a fresh graduate over time may measure up to the standard of a certified doctor through accumulation of experience, it is important to put them under supervision when they are acquiring the skills. In short, allowing independent practice for those without vocational training poses an undue risk to patient safety.

**COSTS OF TRAINING**

Policymakers may point to the costs of providing compulsory training for all primary care doctors. While both hospital-based and community-based training may incur costs in direct clinical supervision, preparation for teaching, administration, and infrastructures, trainees also provide services such as delivering patient care and teaching medical students or junior residents. Lesko et al showed that in 2010, the median net cost of training a primary care doctor in the US amounted to about US$18,310 per year. As it costs about US$497,000 in 2010 to train a medical graduate in the US, a mere further 3.7% of investment for each year of vocational training is sufficient to nurture them into competent family physicians.

In return, a well-established primary care system can provide not only higher quality of care but also better value for money. Krael et al showed that in the US, for each 1% increase in certified primary care doctors, there was a decrease of 503 hospital admissions, 2968 visits to emergency departments and 512 surgeries. The analysis of the Australian Bettering the Evaluation and Care of Health Programme data found that graduates of the Royal Australian College of General Practitioners training programme cost the government AUS$64.1 (US$57.2) per consultation compared to AUS$76.6 (US$68.3) for non-graduates. In other words, vocational training can help save the costs of primary care by 16.7% in Australia. Although there are no similar figures for Asian countries yet, it appears that compulsory training for primary care doctors is a long-term investment that can yield substantial future savings for the entire healthcare system. Policy makers in Asia cannot be so short-sighted as to look at the costs of training alone.

**THE WAY FORWARD**

With a view to safeguarding people’s right to life, it is imperative for a society to provide affordable, accessible, and equitable high-quality primary care that all patients can trust and value. To achieve this, experience in the Western world shows that one of the keys is to provide universal compulsory training for all primary care doctors. It is now time to define the roles of primary care doctors within the Asian context and reach consensus with all the local stakeholders on the length and the scope of training. Although, like the West, exemption may be granted to current primary care doctors with certain experience in the transitional period, the next generation of all primary care doctors should achieve the same local standard through vocational training and certification. While policy makers in Asia should start early the political process to mobilise action, global organisations such as World Organization of National Colleges Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) and local professional colleges and associations should join hands to advocate for change.

**Table 1. Training requirements of certification in some examples of western countries and advanced economies in Asia**

<table>
<thead>
<tr>
<th>Country</th>
<th>Allowed to practice unsupervised in primary care without certification</th>
<th>Minimum training requirements for certification</th>
<th>Professional body for family medicine/general practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>No</td>
<td>3 years of vocational training following 1 year of internship for RACGP and 4 years for ACRRM</td>
<td>Royal Australian College of General Practitioners (RACGP) and Australian College of Rural and Remote Medicine (ACRRM)</td>
</tr>
<tr>
<td>Canada</td>
<td>No</td>
<td>2 years of vocational training</td>
<td>The College of Family Physicians of Canada</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Yes [after 1 year of internship]</td>
<td>6 years of vocational training following 1 year of internship</td>
<td>The Hong Kong College of Family Physicians</td>
</tr>
<tr>
<td>Japan</td>
<td>Yes [after 2 years of internship]</td>
<td>3 years of vocational training, following 2 years of internship</td>
<td>Japan Primary Care Association</td>
</tr>
<tr>
<td>Singapore</td>
<td>Yes [after 1 year of internship]</td>
<td>2 years of experience in family medicine following 1 year of internship and completion of a graduate diploma in family medicine</td>
<td>College of Family Physicians Singapore</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Yes [after 1 year of internship]</td>
<td>3 years of vocational training following 1 year of internship</td>
<td>Taiwan Association of Family Medicine</td>
</tr>
<tr>
<td>UK</td>
<td>No</td>
<td>3 years of vocational training following 2 years of foundation programme</td>
<td>Royal College of General Practitioners</td>
</tr>
<tr>
<td>US</td>
<td>No</td>
<td>3 years of vocational training</td>
<td>American Academy of Family Physicians</td>
</tr>
</tbody>
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