

## Translating the Family Medicine Vision into Educational Programmes in Singapore

Teck Yee Wong,<sup>1</sup>*MBBS, M Med (FM)*, Seng Kwing Cheong,<sup>1</sup>*MBBS, MMed (FM), FCFP*, Gerald CH Koh,<sup>1</sup>*MBBS, MMed (FM), FCFP*, Lee Gan Goh,<sup>1</sup>*MMed (Int Med), FCFP, FRCGP*

### Abstract

The core of the Family Medicine (FM) vision is patient-centred care, requiring specific education and vocational training. We traced how FM education started and what have been achieved. FM training began in 1971 with the formation of the College of General Practitioners Singapore. Previously, training consisted of self-directed learning, lunchtime talks and examination preparation courses run by hospital specialists. Formal FM vocational training programmes in the United Kingdom and Australia provided the model for a 3-year programme in 1988. The tripartite relationship between the local university, College of Family Physicians and Ministry of Health, together with a structured training programme, contributed to its success. To date, more than 240 Family Physicians in Singapore have been awarded the Masters in Medicine (FM) degree. The Graduate Diploma in Family Medicine programme (GDFM) was introduced in 2000 for Family Physicians who wished to practice at an enhanced level. This programme has trained 194 doctors since then. Behind the scenes, the following were important developments: counterculture with a difference, tripartite stake-holding, training the trainers and learning from others. For the FM undergraduate programme, our aim is to develop the knowledge base, core values and roles of the Family Physician. Sustaining the value of Family Medicine as a career choice is the enduring vision.

*Ann Acad Med Singapore* 2008;37:421-5

**Key words:** Development, History, Medical education

### Introduction

The core of the Family Medicine (FM) vision is patient-centred care, requiring specific education and vocational training.<sup>1</sup> Modern day FM began its existence as a “counterculture” to the disease-and-body-part focus of the hospital specialties in the 1960s.<sup>2</sup> This period was also the era of renaissance for the age-old discipline of General Practice. It is now a worldwide paradigm today that no doctor can really start practising FM unless one has gone through vocational training for several years.

Translating the FM “counterculture” vision into various educational programmes has been a huge challenge both worldwide and in Singapore. In this paper, we trace how FM education started in Singapore and what has been achieved in the past 36 years. This commentary attempts to answer these questions using a chronological-narrative approach. Important milestones in the development of FM educational programmes in Singapore were identified by

one of the authors (LGG) (Table 1). Information on these milestones were obtained from local medical literature and organised into a narrative commentary by the authors.

### Postgraduate FM Training

#### 1) Early Years

Family Medicine training began in 1971 with the formation of the College of General Practitioners Singapore.<sup>3-5</sup> Two sister Colleges, the Royal Australian College of General Practitioners and the Royal College of General Practitioners, were instrumental in sharing their experience in setting up a College for general practitioners.<sup>6,7</sup> The Australian College also provided support in the setting up of the College Diplomat Examination, which was first conducted in 1972.<sup>8</sup>

From the early 1970s into the early 1990s, vocational FM training consisted of self-directed learning, lunchtime talks and examination preparation courses run by hospital

---

<sup>1</sup> Department of Community, Occupational and Family Medicine, Yong Loo Lin School of Medicine, National University of Singapore, Singapore  
Address for Correspondence: Dr Wong Teck Yee, Department of Community, Occupational and Family Medicine, Yong Loo Lin School of Medicine, National University of Singapore, MD3, 16 Medical Drive, Singapore 117597.  
Email: cofwty@nus.edu.sg

Table 1. Milestones in Singapore Family Medicine Education

1971	Formation of the College of General Practitioners, Singapore.
1972	First college examination was held.
1986	Recommendation that Family Medicine be formally taught as a discipline in the undergraduate programme in the National University of Singapore.
1987	Family Medicine taught as a formal discipline. Department of Social Medicine and Public Health (SMPH) was given the responsibility and was renamed the Department of Community, Occupational & Family Medicine.
1988	Pilot Family Medicine Vocational Program for Medical Officers: Modular course and rotating postings.
1988	First Health Manpower Development Program (HMDP) Expert in Family Medicine.
1991	Memorandum to the National University of Singapore that a degree in MMed (FM) be created was adopted.
1991	First batch of trainees selected for MMed (FM).
1993	First MMed (FM) examination with graduation of 9 out of 17 candidates.
1995	Private practitioners' stream (Programme B) of MMed (FM) was created.
1997	Graduation of first batch of Family Physicians from Programme B.
2000	Graduate Diploma in Family Medicine (GDFM) started.
2002	First GDFM examination.
2004	Study visit to Scotland sponsored by the University of Glasgow.
2005	Family Practice Register concept adopted by the Ministry of Health.
2006	The Department of Family Medicine and Continuing Care was set up in a tertiary hospital (first in Singapore).

specialist colleagues. Candidates' own practices were the self-directed "training ground". The College Diplomate examination consisted of multiple choice questions and a clinical examination of both long and short cases.<sup>8</sup> The last vocational examination was conducted in 1992.<sup>9</sup> The Diplomate training programme was superseded by the Master of Medicine (Family Medicine) [MMed (FM)] programme, which began in 1988.<sup>10</sup>

## 2) Formal Vocational Training Programme

### *i) Master of Medicine (Family Medicine) – Programme A*

The formal 3-year vocational training programme that followed the Diplomate programme was targeted at residents in the Ministry of Health. The programme was modelled after both the UK and Australian programmes.<sup>10</sup> The Director of Manpower in the Ministry of Health introduced 3-monthly rotations in hospital postings for residents under the new traineeship programme.<sup>11</sup> The first examination was held in 1993 and by 2007, a total of 252 doctors (about 10% of the total number of Family Physicians in Singapore) had successfully obtained the MMed (FM).<sup>12</sup>

The MMed (FM) was also known as Programme A

(Table 2) and consists of: (1) distance-learning programme and face-to-face workshops, (2) rotating hospital postings and (3) a 2-week advanced FM course. The examination consists of theory papers, case studies with an oral examination on them and a clinical examination with long and short clinical cases.<sup>13</sup>

The distance-learning programme, originally drawn up by the College Censors Board in the 1980s, attempts to provide the trainee with a complete knowledge base relevant to FM practice. Since 2006, the topics were grouped into 3 skills courses: (1) principles and practice; (2) communication, consultation and counselling and (3) professionalism, ethics and law.<sup>10</sup>

Specialist colleagues are invited as the domain resource persons with Family Physicians chairing the sessions. This arrangement has worked out well for almost 20 years and is still used today. The question-and-answer portions are generally well received with much interaction among the participants.

### *ii) The Private Practitioners' Stream (Programme B)*

In 1995, Programme B was set up for private practitioners who did not complete their vocational training programmes but were still keen to improve themselves vocationally. Family Physicians with at least 4 years in private practice or its equivalent (1 hospital year was considered to be equivalent to 2 private-practice years) could apply. They went through 2 years of tutorials based on the concept of portfolio learning.<sup>14,15</sup> An attendance of 80% for the FM modular course and a 5-day clinical skills refresher course are the examination requirements for candidates, who sat for the same MMed (FM) examination as those in Programme A.

### *iii) The Graduate Diploma Programme and Examination*

The Graduate Diploma in Family Medicine (GDFM) programme was introduced in 2000 for Family Physicians who wished to practise at an enhanced level. The programme consists of distance-learning programmes and face-to-face workshops similar to that of the Master's programme. The small group tutorials are reduced to 8 in 2 years compared to 80 for the Master's programme.<sup>16</sup> The GDFM examination consists of: multiple-choice questions (MCQ), key-feature problems (KFP) and objective structured clinical examination (OSCE) stations (Table 2).<sup>17</sup>

The current GDFM programme has seen a doubling of enrollment per year from about 50 to 120 in the past 2 years. This has been in response to the Ministry of Health, in consultation with the College of Family Physician, announcing the intended formation of a Family Practice Register. The GDFM or its equivalent will be the minimal requirement for entry into the Register and this is expected to be in place by 2012.<sup>18</sup>

Table 2. Comparison Between Master of Medicine (Family Medicine) [MMed (FM)] and Graduate Diploma in Family Medicine (GDFM) Programmes

	MMed (FM) Programme A	MMed (FM) Programme B	GDFM
Entry requirements	Conditional or full registration with Singapore Medical Council	Conditional or full registration with Singapore Medical Council	Conditional or full registration with Singapore Medical Council
Clinical work	Examination criteria: 2-year hospital rotation postings and 1-year primary-care posting	Examination criteria: 6 years of general practice and in active practice	No special requirement
Distance learning	2-year FM Modular Course 8 quarterly modules of distance learning and workshops	2-year FM Modular Course 8 quarterly modules of distance learning and workshops (completed during GDFM)	2-year FM Modular Course Quarterly modules of distance learning and workshops
Tutorials	20 small group tutorials 10 clinical sessions, ward rounds 10 FM seminars	20 small group tutorials 10 clinical sessions, ward rounds 10 FM seminars	8 small group tutorials
Courses & activities	2-week advance FM course Skills courses (first 2 years)	2-week advance FM course 5-day clinical refresher course Clinic audit Skills courses (completed during GDFM)	5 skills courses Elective attachment Examination Preparation Course
Examination	<p><i>Written paper</i> 4 Questions – Modified essay, essay &amp; short-answer questions 120 multiple-choice questions Slide interpretation</p> <p><i>Oral examination</i> 5 case commentaries 1 audit project Oral interview</p> <p><i>Clinical examination</i> 2 long / 4 short cases</p>	<p><i>Written paper</i> Same as for Programme A</p> <p><i>Oral examination</i> Same as for Programme A</p> <p><i>Clinical examination</i> Same as for Programme A</p>	<p><i>Written paper</i> 100 multiple-choice questions 10 KFP (Key-Feature Problems)</p> <p><i>Clinical examination</i> 10 OSCE (Objective Structured Clinical Examination)</p>
Administration	Distance learning course – CFPS* Examination – by NUS <sup>†</sup>	Distance learning course – CFPS* Examination – by NUS <sup>†</sup>	Distance learning course – CFPS* Examination – by NUS <sup>†</sup>

\* College of Family Physicians, Singapore

† National University of Singapore

Another important programme development is the linkage between the Diploma and the Master's programme for those in Programme B. In 2006, the GDFM was recognised as an entry requirement for Programme B and those with GDFM only need to complete an additional year before being awarded the MMed (FM). This restructured programme allows one to move from the Graduate Diploma level to the Masters level after an additional year of training. However, the practice requirement of 6 years of general practice experience or equivalent remains an examination entry requirement.

### Behind The Scene

Behind the FM postgraduate programmes, several historical aspects merit chronicling:

#### i) "Counterculture" with a Difference

Singapore subscribes to the FM "counterculture" of patient-centred care. We have had good working relationships with our specialist colleagues, enlisting their help as resource persons during the face-to-face workshops in their specialty areas. This special relationship has been

crucial in capacity building of our Family Physicians. The sharing of professional values over time has allowed both parties to understand the place of person-centred and disease-centred medicine in the total care of the patient.

#### ii) The Tripartite Stake-Holding

The 3 parties – the University, the College of Family Physicians and the Ministry of Health – are represented in our postgraduate FM training programme. The College conducts the modular course and maps out the syllabus, the Ministry of Health provides the training positions for Family Physicians and the University conducts the examination and awards the degree of MMed (FM) and the GDFM. This tripartite relationship has been a key reason for the sustainability of FM training programmes in Singapore.

#### iii) Training-the-Trainers

This has been another important component of the postgraduate FM training programme. In the early years, the senior family doctors in the FM fraternity were the trainers for the initial batches of trainees. Currently, there

are enough trainers who are holders of the Masters degree. The FM programme of today would not have materialised without the dedicated efforts of our FM pioneers who provided much clinical and practical guidance.

#### *iv) Learning from Others and Sharing our Experiences*

The early years of FM development in Singapore was helped by our sister Colleges and Wonca (World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians).<sup>19</sup> Professor Wes Fabb, the first FM expert in the Ministry of Health's Health Manpower Development Program (HMDP), visited us in 1988. His advice was invaluable in helping set up the postgraduate FM vocational training programme for Singapore. Over the years, various external examiners for the Master's examinations have also contributed their expertise to help train our local examiners and trainers. In the same way, FM trainers from Vietnam,<sup>20</sup> Myanmar and Indonesia<sup>21</sup> have also visited Singapore to learn about our FM training methods and resources, in order to apply them to their own system.

#### **The Fellowship by Assessment Programme as "Finishing School"**

Beyond the FM vocational training programmes, the College Council saw the need for a professional development programme as a "finishing school". In 2000, a 2-year Fellowship by Assessment programme was introduced.<sup>22</sup> The entry criterion is the MMed (FM) degree. Participants have to complete a portfolio of case studies, topic reviews, teaching activities, skills course in pedagogy, medical writing and research. There is a half-yearly formative assessment and a final exit interview. Successful participants are conferred as Fellows of the College of Family Physicians of Singapore.

#### **Undergraduate Family Medicine Education**

Undergraduate FM started in 1970 as a general practice attachment of 1-week duration and was initiated between the College and the University. In 1987, a joint memorandum between the Department of Social Medicine & Public Health (SMPH) of the University and the College adopted the declaration that FM should be formally taught as an undergraduate discipline.<sup>23</sup> To reflect the inclusion of FM into the Department's teaching responsibilities, SMPH was renamed the Department of Community, Occupational and Family Medicine on 13 February 1987.

The philosophy behind the undergraduate FM education programme is to provide medical students with an awareness of the knowledge base, core values and roles that Family Physicians play in our healthcare delivery system. With a 1-week attachment in 1970,<sup>24</sup> this was increased to 2 weeks in 1987.<sup>25</sup> Since 2001, our undergraduates have a 4-week

attachment in FM – 2 spent with Family Physicians in private practice and the rest with Family Physicians in public polyclinics.<sup>26</sup> During the 4 weeks, students also gain exposure to the important roles community hospitals, palliative and domiciliary care play in our primary care system. The syllabus focuses on the principles of FM, common symptoms in FM and the practical aspects of consultation, communication and counselling.

#### **Moving into the 21<sup>st</sup> Century**

Sustaining the value of FM as a career choice in Singapore is our enduring training vision.<sup>27</sup> To achieve this, the FM training syllabus needs to transform and evolve to include a quality-focus,<sup>28</sup> chronic disease management orientation,<sup>29</sup> principles of systems management in health-care delivery<sup>30,31</sup> and pay-for-performance paradigm.<sup>32</sup> We should also explore ways to close current service gaps such as home-care, family physician hospitalist-care,<sup>33</sup> prospective medicine<sup>34</sup> and others.<sup>35,36</sup> These innovations will strengthen the FM vision of patient-centred care, improve service delivery and sustain the true meaning of being Family Physicians.<sup>37</sup>

#### **Conclusion**

FM in Singapore has evolved with the help and contributions from more developed countries. The collaboration between the University, the College of Family Physicians and the Ministry of Health and a structured training programme has ensured its success. Even though the last 36 years were challenging, sustaining the value of FM as a career choice will always be the enduring vision of training.

#### REFERENCES

1. Taylor RB. The promise of family medicine: history, leadership, and the Age of Aquarius. *J Am Board Fam Med* 2006;19:183-90.
2. Goh LG. From counterculture to integration: The Family Medicine story. *Singapore Family Physician* 2001;27:11-4.
3. Koh EK. History of the College – the early days. *Singapore Family Physician* 1987;13:53-6.
4. Tan CL. Milestones of development – 1971-1997 – College of Family Physicians Singapore. *Singapore Family Physician* 1997;23:94-6.
5. Goh LG. History of the College – present and future trends. *Singapore Family Physician* 1987;13:57-60.
6. Hunt JH. An Academic Body for GPs in Singapore. *Singapore Medical Association Newsletter* 1969;3:1.
7. Wong HS. The need for an independent college of general practitioners, Singapore. *Singapore Medical Association Newsletter* 1971:1:3-4.
8. Lim KL. The College Diplomate Examination. *Singapore Family Physician* 1987;13:102-5.
9. Lim KL. The College Diplomate Examination. *Singapore Family Physician* 1997;23:125-7.
10. Goh LG. Postgraduate Family Medicine Training Program – Ministry of Health Stream. *Singapore Family Physician* 1997;23:114-22.
11. Goh LG, Fabb W. Family Medicine development in the Asia Pacific



- Region. *Singapore Family Physician* 2001;27:31-6.
12. Goh LG. Family Medicine Convocation Ceremony 2006. *The College Mirror* 2006;32:11.
  13. Goh LG. The MMed (Family Medicine) Examination. *Singapore Family Physician* 1997;23:128-31.
  14. Cheong PY. An overview of the Family Medicine Traineeship Program (Private Practitioners Stream). *Singapore Family Physician* 1997;23:123-4.
  15. Lim JL, Chan NF, Cheong PY. Experience with portfolio-based learning in family medicine for master of medicine degree. *Singapore Med J* 1998;39:543-6.
  16. Goh LG. GDFM Examination 2004. *The College Mirror* 2004;30:8.
  17. Graduate Diploma in Family Medicine (GDFM) FAQs. *The College Mirror* 2004;30:4.
  18. College Council. Family Physician Register: College's Position on MOH Public Consultation Paper "Proposed Establishment of the Family Physician Register" Adopted by 20<sup>th</sup> Council on November 16, 2005. *The College Mirror* 2005;31:2-3.
  19. Loh WT. Development of International Relations. *Singapore Family Physician* 2001;27:28-30.
  20. Goh LG. Study Team from Vietnam. *The College Mirror* 2004;30:15.
  21. Goh LG. Indonesian FM Study Team in Singapore. *The College Mirror* 2005;31:21.
  22. Lau HC. Academic Programmes of the College of Family Physicians, Singapore. *Singapore Family Physician* 2001;27:68-71.
  23. Department of Social Medicine & Public Health, National University of Singapore and College of General Practitioners, Singapore. Memorandum on the academic recognition of the discipline of family medicine by the Faculty of Medicine, National University of Singapore. *Singapore Family Physician* 1987;13:76-84.
  24. Vaswani MH. The College and undergraduate teaching. *Singapore Family Physician* 1987;13:74-5.
  25. Hong CY, Goh LG, Chia KS. The Undergraduate Family Medicine Curriculum in the National University of Singapore. *Singapore Family Physician* 1997;23:132-4.
  26. Goh LG. Undergraduate education in Family Medicine. *Singapore Family Physician* 2001; 27:25-27.
  27. Koh EK. The College – the next 25 years. *Singapore Family Physician* 1997;23:97-100.
  28. Ng HS. Medical Errors and Patient Safety. *Singapore Family Physician* 2005;31(3). Available at: [http://www.cfps.org.sg/sfp/31/313/313\\_unit5.pdf](http://www.cfps.org.sg/sfp/31/313/313_unit5.pdf). Accessed 23 February 2007.
  29. Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving chronic illness care: translating evidence into action. *Health Aff* 2001;20:64-78.
  30. Bodenheimer T. Primary care – will it survive? *N Engl J Med* 2006;355:861-4.
  31. Goh LG. Primary care in the Asia Pacific – Making it survive. *Asia Pacific Journal of Family Medicine* 2006;5(2). Available at: [http://www.apfmj.com/afm5\\_2/afm42.htm](http://www.apfmj.com/afm5_2/afm42.htm). Accessed 23 February 2007.
  32. Rowe JW. Pay-for-performance and accountability: related themes in improving health care. *Ann Intern Med* 2006;145:695-9. Erratum in: *Ann Intern Med* 2007;146:151.
  33. Family Medicine in Canada: Vision for the Future. Canada: College of Family Physicians of Canada, 2004.
  34. Synderman R, Williams RS. Prospective medicine: the next health care transformation. *Acad Med* 2003;78:1079-84.
  35. Bush J. Future of Family Medicine Project Leadership Committee. The future of family medicine; a collaborative project of the family medicine community. *Ann Fam Med* 2004;2(Suppl 1):S3-32.
  36. FFM. Overview – Bringing about the changes in practice. Available at: <http://www.futurefamilymed.org/x26841.html>. Accessed 6 January 2007.
  37. Phillips WR. Questioning the future of Family Medicine. *Fam Med* 2004;36:664-5.