

Postgraduate training requires urgent reforms to deal with future pandemics

Rajesh Dwivedi¹, Rakesh Kumar²

Keywords: epidemic, public health, epidemiology, para-clinical courses

Financial and Competing Interests: No conflict of interests declared

Correspondence to:

Rajesh Dwivedi
Consultant Physician &
Geriatrician
Queens Medical Centre
Derby Road
Nottingham NG7 2UH
UK

Email:

rdwids@gmail.com

Regarding crises, former US President John F. Kennedy once said: “The Chinese use two brush strokes to write the word ‘crisis’. One brush stroke stands for danger; the other for opportunity.” The current COVID-19 outbreak has cruelly exposed how unprepared the world has been to deal with such pandemics. Whilst many of our discussions have centred around scarcity of PPE (personal protective equipment), ventilators, etc, an issue of equal, if not greater, importance is to address the existing inequities in trained professionals: especially trained intensivists, doctors in infectious disease, public health, geriatricians, etc, if we are to use this opportunity to better prepare for future pandemics.

According to World Health Organisation, over 44% of WHO member states report to have less than one doctor per 1,000 population.¹ This shortage of doctors across most of the nations is similarly reflected in the number of trained specialists required for managing such outbreaks. In the US, infectious diseases is one of just two medicine subspecialties that routinely do not fill all of their training spots every year in the National Resident Matching Program (the other being nephrology).² Between 2009 and 2017, the number of programmes filling all of their adult infectious disease training positions dropped by more than 40 percent² which couldn't be happening at a worse time when antibiotic resistance has been posing ‘as big a risk as terrorism’ according to the then UK Chief Medical Officer, Dame Sally Davies. A letter to the South Africa Medical Journal in September last year, signed by 79 leading experts in the field of infectious diseases, warns that the specialty of infectious diseases (ID) is in crisis in South Africa where tuberculosis still remains the leading killer.³ At the seventh annual conference of the National Clinical Infectious Disease Society (CIDSCON) held in Nagpur in August 2017, it was revealed that India had only 50

infectious disease experts which is clearly inadequate, with only two institutions currently offering super specialisation in infectious diseases.⁴ Similarly, data from the Indian Medical Association shows the country needs more than 50,000 critical care specialists, but has just 8,350 which is approximately six critical care specialists per million of population. Given that the elderly have been especially at risk of complications from this pandemic, what this crisis has equally shown is the need for enough geriatricians to manage the frail elderly who might not all benefit from intensive care, but instead need the experience of a trained geriatrician to provide patient centred holistic care.


The United States will need more than 23,000 new geriatricians by 2030 according to the American Geriatrics Society.⁵ Similarly, South Africa has the largest population of older people in Africa (9% according to Stats SA's 2019 mid-year population report) and about 40% of the older population in South Africa is poor. Medical aid coverage rates are low, with about 80% dependent on the public health system. In the world's second most populous country, India, with demographic transition underway, the elderly population is projected to rise to 12.4% of the total population by 2026.⁶ Geriatrics is a low profile specialty that lacks visibility in academia in India and finds least favour among the medical students; geriatric care is conspicuously missing from the medical education curriculum. The situation is similar for doctors training in preventive medicine and public health in most of the developing nations as well as in some, if not most, developed nations. These specialists perform a crucial role during outbreaks as they possess a unique set of skills which are not easily transferable in a crisis situation.

We write this article when India joins the unwanted one million club of COVID-19 cases with both private and government

¹Consultant Physician in General and Geriatric Medicine, Honorary (Consultant) Assistant Professor, University of Nottingham, School of Medicine, Nottingham, UK; ²Associate Professor, Centre for Community Medicine, All India Institute of Medical Science, New Delhi, India

hospitals treating COVID-19 patients being desperately short of young specialist doctors whilst this pandemic shifts from urban to rural India. Having completed our undergraduate medical training in India, we are only too aware of the intense competition for postgraduate seats, which is equal to only around one third of the total number of undergraduate seats.⁷ There is clearly a preference for postgraduate degree courses over diplomas and clinical over non-clinical or paraclinical specialties, given job prospects but equally due to the lack of awareness of the scope of non-clinical and research orientated courses.⁸ It is hardly surprising, therefore, that doctors taking up paraclinical posts such as preventive medicine and public health decide to prepare for the next postgraduate entrance exam in order to get their preferred clinical specialties. This, in a way, defeats the purpose of their training which needs to be structured around investigation and management of epidemics and sound knowledge in both

behavioural science and research methodology in order to better control and manage such epidemics. There is a great need to improve the profile of such specialties right from undergraduate training. Whilst this is true for India, it also holds true for most of the developing and possibly for some, if not most, of the developed world as well.

An international crisis management task force within WHO should mandate and periodically monitor each nation to ensure they have achieved the minimum number of competent trained professionals in these specialties who are regularly updated in their skills. Given that changes in postgraduate training takes years, time is running out for many nations to address the inequities in healthcare workforce if we are to use this opportunity to effectively deal with future pandemics. As the US industrialist Henry Ford famously said: 'The only real mistake is the one from which we learn nothing'. 

References

- 1 World Health Organization. *The 2018 update, Global Health Workforce Statistics*. Found at https://www.who.int/gho/health_workforce/physicians_density/en/
- 2 McCarthy, M. *The Scary Shortage of Infectious Disease Doctors* (Opinion). The New York Times. 9 April 2019. Found at <https://www.nytimes.com/2019/04/09/opinion/doctors-drug-resistant-infections.html>
- 3 Medical Brief. COVID-19: SA 'would struggle' because of specialist shortage. 19 Feb 2020. Found at <https://www.medicalbrief.co.za/archives/covid-19-sa-would-struggle-because-of-specialist-shortage/>
- 4 Times News Network. *Only 2 infectious disease specialists in Nagpur*. The Times of India. 26 Aug 2017. Found at <https://timesofindia.indiatimes.com/city/nagpur/only-two-infectious-disease-specialists-in-city/articleshow/60226869.cms>
- 5 Jonathan Peterson. *Where are the doctors you will need?* AARP Bulletin. 29 April 2016. Found at <https://www.aarp.org/health/conditions-treatments/info-2016/geriatrician-geriatric-doctor-physician.html>
- 6 Das, SK. *Situation analysis of the elderly in India*. Central Statistics office, Ministry of Statistics & Programme Implementation, Government of India June 2011.
- 7 Dey, S. *10,000 more PG medical seats likely this year*. The Times of India. Times News Network. 26 Jan 2020. Found at <https://timesofindia.indiatimes.com/india/10000-more-pg-medical-seats-likely-this-year/articleshow/73624327.cms>
- 8 Babu, TA Joseph, NM. Sharmila, V, et al. *Speciality Preferences of Indian Medical Graduates and Factors Influencing Them*. *Res J Pharm Biol Chem Sci*. 2012; 3(2): 263-270