Conflict of Interest Statement
The authors reported no conflicts of interest.

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Discussion

Presenter: Dr Nazmul Hosain

Dr Zachary Enumah (*Baltimore, Md*). Hey. Good morning, and thanks so much for that talk, Dr Hosain. Two things. One, I want to commend you on first is just the choice of your topic. If we think about the WHO building blocks for health systems, we can focus on physical infrastructure, we can focus on equipment, but also focusing on human resources in the health care workforce is important. And then I think your humility is also appreciated in your methods because it' s no small feat to physically do what you did in terms of carrying out this study. One quick question is on the slide and the point you made about some seats going unfilled. I' m wondering if you can comment or share what you think is the underlying reason? Because we could, for example, increase the number of seats for trainees. But if people are dissatisfied with training where seats are already going unfilled, then clearly, that also will not help curb the burden or this disparity in terms of the health care workforce. Thanks again.

Dr Nazmul Hosain (*Dhaka, Bangladesh*). Thank you. Thanks for your question. This is an alarming situation because we already have a scarcity of surgeons in recruitment, and then some of the seats remain vacant. One of the reasons is that, after completion of studies, cardiac surgery takes a long time to build a career. You' d have to work for a long time to develop. It' s true for any part of the world, but in the South Asia, where most of the countries are low-, middle-income countries, it becomes very difficult for the surgeons to pursue their career in this subject. They prefer other easy access. That is one reason. But at the same time, partly in our part of the world, cardiac surgery is losing the charisma it once had. Once upon a time, it was a very lucrative subject for the surgeons. But for various social and economic reasons, there has been a change, but it has to be changed again. We need more surgeons.

Unknown Speaker 1. Thank you, Dr Hosain, for doing this very important survey research. I' m a general thoracic surgeon in Chapel Hill, North Carolina, and I partner with Kamuzu Central Hospital in Lilongwe, Malawi. As emerging countries develop further, there' ll be increasing need to treat thoracic oncologic conditions. I see the CMC [inaudible] where I was actually a visiting student many years ago has a degree program, but what do you see is the future in dedicated training to thoracic surgery in the South Asia region? Will there be regionalized training programs, or will cardiac surgeons further subspecialize? What' s your vision?

Dr Hosain. Thank you. When we were trained, my degree was cardiovascular and thoracic surgery, so the trend was they' d train us all 3, cardiac, thoracic, and vascular, and after you obtain your degree, you choose which way you move. But these days, they have designated special courses for thoracic surgery separately, and they' re even starting courses for vascular surgeries as well. So right now, as I have mentioned, there is no uniformity among the nations in South Asia, the countries vary regarding the condition of the cardiac, thoracic, and vascular surgery courses being offered. But there is a trend to train the thoracic surgeons separately, as a separate entity.

Unknown Speaker 1. I' d like to suggest an opportunity for the society to participate in those thoracic surgical courses and specializations.

Dr Hosain. Yes, of course. I believe that is the primary reason for presenting this paper, although I focused on cardiac. But yes, it is true for thoracic as well. And one thing I'

d like to mention, that when I moved to my current city, Chittagong, in 2009, there was not a single cardiac surgery center, and not a single cardiac case was being performed. And, at that time, with 4 million population, Chittagong was designated as the biggest city of the world with no cardiac surgery facilities. So, I' m happy to announce that at least we got rid of that undignified title. Now we are no longer the biggest city without any cardiac surgery facilities. But well, there is a lot more we can do. I' ve been running these exchange programs. We had friends from the West, from Turkey, from India, visitors from various countries beyond borders. I' m ready and willing to do that in future. So, anybody, who want to do some exchange programs in South Asia, please feel free to contact me.

Unknown Speaker 2. Yeah. Dr Hosain, very briefly. Excellent presentation. I had a question. For countries who don' t have training programs, maybe in South America or other regions of the world, what kind of suggestions or insights do you have into how they can avoid maybe the pitfalls of open seating spots in these programs or even just in early development?

Dr Hosain. Good question. From our experience, I can tell that in Bangladesh, we started cardiothoracic surgical training programs in the 1980s and at that time, a Japanese team organized by the Japanese International Cooperation Agency came. They sent their team of cardiac surgeons, cardiologists, anesthetists, and had run approximately a 2-year-long exchange program, and that really changed the scenario. So, from zero cardiac surgery in 1980s, now we are performing more than 12,000 (cases every year). That' s not adequate. But that helped a lot. So, I think the regional countries, who have interest and common cultural basis (with South America), can be of great help for you.