

Dr. C.W.W.
**Kannangara
Memorial
Lecture
28**

**"Medical Education and
Kannangara Philosophy"**

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13th October



**Dr. C. W. W. Kannangara
Memorial Lecture - 28**

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Professor Sujeewa Amarasena

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**Department of Research and Development
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Medical Education and Kannangara Philosophy

I feel extremely honoured and privileged to have been invited to deliver this 28th memorial lecture in the lecture series to commemorate a visionary leader, politician, philosopher and educationist late Dr. CWW Kannangara. My special appreciation goes to the Director General of the National Institute of Education and the officials of the Research Department for inviting me to deliver this memorial lecture. After reading names of the past orators of this lecture during the last 27 years starting from Prof. JE Jayasuriya whose mathematics books helped me pass the GCE O/L, I feel greatly humbled by this honour. At least two of the previous orators had been my teachers in medical school and / or during my post graduate training to become a Paediatrician. Several others had been educationists par excellence whom I have admired in my childhood. Doing justice to a great personality like late Dr. CWW Kannangara and all the past orators had been the most difficult task I have encountered in my entire academic and professional life so far. However during the next one hour I will attempt to do that and I invite you to be my judge and see whether I will do the justice to this great man who most certainly is the person who enabled me to reach the position I am in today. I will during this lecture take examples from the life of late Dr. CWW Kannangara first as an introduction to entry into the theme I am going to speak today. I chose a theme that is very topical in today's context which is **“Medical Education and Kannangara Philosophy.”**

I chose this topic, as at the time of accepting this invitation the medical education and the profession was engulfed in a conflict that has disrupted the education of 8 state medical schools of this country for several months. As at present it has gone on for

9 months with a seemingly endless disruption like in 1987 to 1990 for 3 long years. The impact of this entire conflict cannot be estimated on monetary terms but can be described.

There will be no intern medical officers by November 2018 which will affect the rural and underserved areas of the country. The post graduate training will suffer.

Duration of stay in the undergraduate course would increase by the period out of work increasing the personal and Government of Sri Lanka (GOSL) expenditure. Student will run out of “Mahapola” scholarship for an extended period of time causing financial hardships for families. This led to development of illegal private practice of medical students on a large scale.

The intakes into medical schools would get delayed significantly if the disruption goes beyond October 2017.

Quality of care in the health service will be affected. New developments in the health service would be delayed. Very importantly the traumatized mental state of the “soldiers” who are fighting the anti SAITM battle under the “Generals” of the lead organizations will also affect the quality of care within the health service for a long period of time to come. The entire medical profession in the current health service have experienced this and are well aware of the repercussions. All these happened during 1987 to 1990.

As a side issue, 120 Bhutanese students studying medicine in 3 state medical schools namely Colombo, Peradeniya and Kelaniya returned to home country on advice of their Department of Adult and Higher Education (DAHE) due to the prevailing situation. This was a state sponsored country to country arrangement earning USD 10,000.00 per year per student for the

three Faculties. Payments to Sri Lanka has been suspended. Sri Lanka international reputation has suffered for our inability to fulfil international obligations.

I believe it is happening at least partly because of a misunderstanding of CWW Kannangara's vision. Before going to describe the contradiction of the current battle to protect the so called "free education" from the vision of late Dr. CWW Kannangara, I will explain the yeomen service he rendered to mankind and humanity and how it benefitted me.

Christopher William Wijekoon Kannangara was born on 13.10.1884 and today is his 133rd birth anniversary. He was a born Christian as per the agreement between his parents at the time of their marriage. It is said that his father was never happy about having to change the religion to marry. He lost his biological mother early in his life due to a maternal death following the birth of his younger brother who also died – a neonatal death. His father had five children from the first marriage and four children from the second marriage. He was the third in the family of nine. They were all well cared for by their step mother whom he loved a lot.

He was a brilliant student at Wesleyan College, Ambalangoda when he came under observation of Father JH Darrel, then Principal of Richmond College, Galle and great mathematics teacher during the triennial prize giving. Apparently, Father Darrel remarked that he might have to bring a bullock cart to take home the prizes he won in the triennial prize giving. Father Darrel requested the Principal of the Wesleyan College to prepare him for the open competitive scholarship of Richmond College, which he won subsequently. When his father lost the job along with the pension after a service of 30 years, student Kannangara had to undergo enormous financial difficulties despite the free tuition, food and

lodging at Richmond College. He overcame this by hard work and winning almost all the possible prizes available for different subjects like Religion, Mathematics etc. During his hostel stay he also understood with experience how discriminatory and demeaning it could be when the same school treated students of three different social classes in three different ways from the food they received to the relationship the Principal and teachers had with the students of these three social classes.¹ He came first in Mathematics at the Cambridge Senior Examination in all the countries under British rule where the examination was conducted. However he lost the only available scholarship to enter London University after becoming the seventh in the merit order among 12 students who were prepared to sit the examination. He decided to study law but was persuaded by Father Darrel to stay back and serve the Alma Mater as a mathematics teacher. This led to his short career at Richmond College as a teacher where Father Darrel taught him the importance of paying back the debts he owed to the Alma Mater.

With the untimely death of Father JH Darrel during an outbreak of Typhoid fever, he decided to leave the school to pursue his studies in law. While teaching Mathematics at several schools on a part time basis to support himself financially, he completed his legal education and started practicing at the Bar in Galle. He became a reputed lawyer and then decided to get involved in social service activities and entered the legislative Council in 1923 first as the Southern province member and later as Galle district member. Even during this period he fought hard to change the education system and improve the status of teachers. He fought for higher salaries and against exploitation of teachers by the management of schools during this period.

In the State Assembly from 1931 up to 1947 as the elected member from Galle, he became one of the seven cabinet Ministers

as Education Minister and Chairperson of the sub committee on education. He along with his supporters within and outside the State Assembly, changed the history and the future direction of independent Sri Lanka by continuously fighting for an uninterrupted period of 16 years to bring in revolutionary reforms in education. The end results were amendments in the education ordinance and later the Report of the Special Committee on Education and Free Education Act. Such interventions during a period of 16 years from 1931 to 1947, when no other nation in the entire developing world and in many today's developed world has ever thought, could be considered a miracle today. Hence the appreciation of the representative of the Indian government Mr. M.S. Aney after listening to his longest speech in the State Assembly stating that if "Dr. CWW Kannangara was born in India he would be worshipped as a god by people of India."¹

Despite this he was defeated in the first Parliamentary elections of 1947 by combined forces of the UNP who opposed his education reforms and the socialist left who supported the education reforms. He was reelected as a Member of Parliament in 1952 and appointed as the Hon. Minister of Local government. He retired from politics at the age of 72 years in 1956 and worked as a member of National Education Commission as well. He was relatively well off financially at the time of entry into politics after practicing as a lawyer in 1923 but had lost lot of his earnings during the period as a Minister for 20 years and 40 years of public life in politics. GOSL in 1963 gave him a once and for all payment of Rs. 10 000.00 for his living and again in November 1965, Parliament approved a monthly living allowance of Rs. 500.00 especially for his health care expenditure on an appeal he made. It was later increased to Rs. 1000.00.¹This great son of Sri Lanka passed away on 29.09.1969 without much attention from the nation.

Efforts of the National Institute of Education (NIE) must be seen and appreciated in that light when it organizes this commemorative lecture amidst difficulties, in the memory of our great leader of education reforms in the 20th century as a visionary whose hard work brought in the most effective long term sustainable social welfare intervention to reduce poverty in this country. Those reforms have resulted in not just reducing poverty to a level where it is below 8%² of the population today but also it has had a great impact in other areas of life of people such as health care. **It is extremely important to understand that such impacts are seen in a large majority after one generation.** In fact, it is believed that universal and compulsory education of girl children in this country contributed heavily to reduction in maternal and child mortality, morbidity and improve their health.

Today every political party, every organization connected to education, every trade union in the government or private sector and every individual who has had some education would come forward to protect free education as a social welfare intervention. The entire country and political parties with allied student movements are in a vociferous dialogue always talking about free education without really giving the legend Dr. CWW Kannangara his due place in this dialogue. I have not seen or heard a single University or a student organization in this country commemorating Dr. CWW Kannangara on his birthday though all of them are vociferous fighters to protect free education. Hence today late Dr. CWW Kannangara is a forgotten person as stated by Mr. KHM Sumathipala in his book titled "History of Education in Sri Lanka 1796 to 1965".¹ I would like to add to that and say "not only he is a forgotten person today, but even his vision has been misinterpreted, misdirected, distorted and partly destroyed by children born out of free education."

Dr. CWW Kannangara had a huge vision for education through which he was expecting to build a Sri Lankan Nation bringing social equity, reduce disparities, enable economic empowerment with reduction in unemployment leading to a knowledge and skills based economy even in 1940 well before this concept came into existence in the modern world. His vision was not just “free” education which simply meant absence of the need to pay a tuition fee for schools and Universities for the courses. He had a foresight to propose reforms with far reaching repercussions in our society which was in the CWW Kannangara vision for the development and reshaping of Sri Lankan nation with goals to eliminate poverty and create a united Sri Lanka through education.

If his life story is analyzed, one could understand his learning from life experiences and encounters to develop his subsequent vision as a leader and an educationist far ahead of his time in the entire world. This strongly suggests that we need to teach and train our students to learn from our own culture, life experiences and encounters to have a solid foundation in life to become creative, independent thinkers who could propose home grown solutions and interventions to our own problems in their subsequent roles as mature adults and professionals. Has our society understood this from the life and vision of late Dr. CWW Kannangara? I think it has not.

I believe he must have realized how poverty at different stages in life could destroy the potential a young person has in achieving success in life. He must have developed the determination to work towards providing opportunities for every child with the potential to achieve the maximum they could in their lives by providing opportunities for education which did not depend on affordability. Hence his famous statement that “When this August State Assembly

could say that the education which was an inherited property of the elite and the rich in this country to be bought at a high cost became a low cost accessible right of every poor child born in the future of this country and an education which appeared to us as a closed book under a sealed cover was converted to an open letter accessible by everybody to read without any form of discrimination based on caste, race, religion and social class, it could feel proud than King Augustus who said that “Rome built with bricks was converted to a finish with marble”¹.

His stand on the use of the mother tongue for primary education to develop creative and thinking skills while stressing the importance of learning English for everybody to acquire global knowledge, communication and eliminate gaps created by the colonial regimes by promoting two social **classes of people based on Christian religion and English educated elite developed because of his own experience.**



Figure 1: Dr. CWW Kannangara with his family (Photo courtesy Mr Sanjaya Seneviratna grandson of late Dr. CWW Kannangara)

He must have missed the family in the hostel and realized the value of being with the family first as a young child and later as an adult the Minister of Education (*Fig 1*). This may have influenced him to strongly fight to set up a school within a reasonable distance from home as stipulated in the special report on education. In the same way he must have realized the importance of educating girl children. Discriminatory and bitter experiences were described by him in the State Assembly as examples that modelled his life. Fewer opportunities for scholarships must have taught him to fight for more allocations for expanding scholarship programs and concept of central schools to cater to larger number of clever children who will now get enrolled in secondary education to enter University education. **Most importantly he also learnt not to hate society but developed a determination to change the system to empower poor people.** Further, his balanced personality, perseverance and resilience were clearly evident in his subsequent career which probably developed after his school education where he participated in many sports, captained in cricket and football, acted in dramas and participated in the debating team all of which helped him to develop that determination.

Report of the special committee on education

Report of the special committee on education was tabled in 1943 and approved in the parliament in 27.05.1947. The main objective was to ensure that all children from all social backgrounds would get access and opportunities for primary and secondary education without any obstacle.³ In 1905, the literacy rate was 5%; in 1947 it was 46% with low female literacy than male literacy and today it is over 96% with a higher female literacy.

It also intended to provide those who go through secondary education opportunities for vocational training and higher education

to a limited extent in a University to be established in the future. There were opportunities for members of the elite to enter London University and go through higher education and post graduate education to some extent, but the majority of the population did not have access to primary and secondary education and speaking about higher education in universities for them had no meaning. Free education was introduced in the background of relatively low literacy in most impoverished social strata and communities. Even at this time the elite were getting educational opportunities in the British model school education system on a paid basis.

Now, let me explain briefly, how free education enabled me to be what I am today. As a young child born and bred in a village called Magalkanda, in the Beruwala electorate of Kalutara district for 14 years which had been a village where a man would be killed for 3 cents during the latter part of 19th or early 20th century, I have come up the social ladder to be the person I am today. In fact, I have seen murders almost on every Sinhala New Year day in our village until my parents decided to leave that village, after my admission to Royal College Colombo on Grade VII Jathika Navodaya Scholarship. I was able to enter Royal College, Colombo and stay in the hostel throughout my college education, receive free education, perform well, get some learning opportunities in student leadership positions and enter medical school without even sighting a tuition class at a time when tuition was very popular, if not rampant, in late seventies. Hence like most, if not all of you, I am a real beneficiary of free education introduced by late Dr. CWW Kannangara. My parents were teachers who were just able to have reasonable living standards while supporting the education of their children and their younger siblings due to the inability of their parents to do so. The free education given to my parents and me enabled us to grow out of poverty. Benefits of free education help eliminate poverty in lower social

classes which received it originally at the time of its introduction over two generations. Hence it is the most cost effective, sustainable, long term social welfare intervention to eliminate or reduce poverty in Sri Lanka. We have seen social mobility, reduction in poverty percentages transforming the low social classes in a changing country during our life time. It is worthwhile studying the “contribution of education as a single factor to eliminate poverty” even now.

Free education today

Dr. CWW Kannangara’s free education vision encompassed a single education system given in all schools free of cost of tuition fees enabling social mobility through empowerment of underprivileged masses with knowledge and skills required for employment and contribute to national development and the economy. It also encompassed a vision for a Sri Lankan nation with no difference based on religion, ethnicity, class or caste. This no longer exists with hundreds of international schools teaching, training and preparing them for London O/L, A/L with different cultural inputs, different value systems to prepare them for challenges of globalization as well as to fill the gap created by lack of access for so called “good schools” for people who could afford. The tuition culture has become so rampant now where school teachers themselves are involved; not without compromising their own commitment to teaching. It causes an ethical and a moral issue when the teacher’s own class of students are attending the tuition class of the class teacher. Sometimes his/her class students are requested or compelled to attend the class by the teacher him/herself. Ordinary people spend large sums of money especially at GCE A/L to get entry into a state University. The late Dr. CWW Kannangara was totally against this tuition culture even in the 1940s. He was totally against it for educational reasons as it destroys a child’s creativity; produces children who memorizes

knowledge to regurgitate at the examination; consumes the child's time for self-learning and extracurricular activities; and prevents him learning from home environment and activities. But all of us are guilty of doing this for our children. Tuition in its current form actually fulfils the definition of privatization of education for which no single politician or student movement is fighting against.

Today, at the end of the day free education gives us free access to a school with a desk, chair and no payment of tuition fee for services of teachers for academic learning except for a nominal school fee for extra curricular activities. For all that we did not have to pay and even today's children or their parents do not pay for these services. It does come to them at no individual cost. Does it mean it is free? There is no dispute that somebody pays the salaries of staff and teachers, somebody pays for books, furniture, uniforms, maintenance of buildings and electricity, water and consumables. The children do not pay. Parents do not directly pay these costs. It may come from Government of Sri Lanka funds, School Development Society or Old Boys Association /Old Girls Association funds in government schools for which the tax payers are paying.

There are private schools and so called international schools for which parents pay for all these services. Here, the private schools are selling a commodity or a service and people or parents of children who are utilizing that service are paying for it. Free education if interpreted in the same way, the Government is buying a commodity or a service for the people after paying money to the providers of that service. In both situations it is a traded product with no difference except in system and quality.

However in his vision, Dr. CWW Kannangara never proposed abolition of private schools but was for strict regulation of the entire education system including private schools. He clearly stated that if parents want to send their children to these schools they should

be given the choice. He understood the ability of the rich to afford education and permitted it. He must have understood that in that era where funding education was a major problem, converting all schools to state schools providing free education would have led to a crisis where quality of education in some of these schools would deteriorate. He may have wanted to avoid criticism based on that although he was actually criticized for it. He also probably understood that, there would be a percentage of wealthy population who could pay for education of their children without making it a burden on the state even at that time.

However, he did not accept the existence of two education systems with two sub cultures, two value systems leading to development of two social classes and a divided nation through two school systems public and private. He wanted a single value system developed based on over 2000 year history of Sri Lanka with a solid foundation laid down by Buddhism and other religions and associated cultures. He was a strong promoter of religious education in schools with strong reservations on conversion in religious schools at that time. What is happening now in Sri Lanka with multiplying international and private schools?

74 years after the Kannangara reforms, where free education has produced huge changes in the socio - economic status of some communities and at a time when the poorest of the poor such as children of estate workers and those living in urban slums are still not receiving benefits of even free primary and secondary education, and gap between them and rest of the society is continuing to widen, what should we do to address these gaps? Our country has not answered this question even after 74 years of education reforms. The next question gets added to this unanswered question. Should the current welfare system presently available for wider population be expanded to specific target groups by depriving some welfare measures to the privileged class? *(Fig 2)*

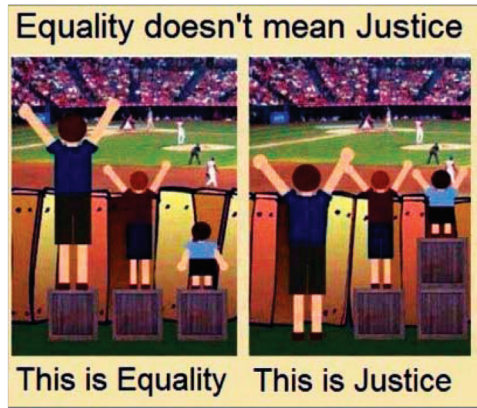


Figure 2 : Equality is not equity or justice (courtesy Internet)

This question recurs in my mind during my professional work, whenever I had to deal with a poor family whose children either are not going to school still and or have dropped out well before the age of 14 years.

What has also been described previously by Prof. AV Suraweera⁴ in delivering this memorial lecture in 2011 is expansion of private tuition culture as a replacement for the deterioration of quality and coverage of free education expected to be given in schools and to meet the competitiveness for university entry. This has resulted in parents spending massive sums of money on private tuition and a culture of cheating to meet the competitiveness for free higher educational opportunities in state universities. This has resulted in a creation of disparity in affordability of this private service for poor social classes in this country. Today the recipients of these opportunities are from this privileged class especially in medical schools where the data show that 65% grade V scholarship recipients and almost 70% of medical school entrants are from middle and upper social classes. Dr. CWW Kannangara was totally against this tuition culture even in 1940s.

What is privatization of education?

This word privatization has been misinterpreted in our society by politicians, trade unions, student movements and many others.

Privatizations is defined as a process of “transfer of assets, management, functions, and responsibilities (relating to education) presently carried out by governments or state to private actors”.⁵

This definition is very clear. Further it says there are advantages and disadvantages of privatizing education. One thing the editors have agreed is that privatization increases opportunities for education at all levels of education and especially in higher education.

Using that definition, if a transfer of that nature in the defined four areas takes place in a hospital, a school or a university it is privatization. **However, setting up a new service, school, hospital or a university that does not exist already in the possession of the government is not privatization.** Similarly if a teacher does not teach in the class of a school and requests all students to attend his/her private tuition class to learn it is privatization. If the management of a school, university or a hospital is handed over to the private sector it is privatization. If a service like dialysis in a government hospital is handed over to a private hospital it is privatization.



Figure 3: Hostels at Faculty of Medicine Galle



Figure 4: New hostel at Faculty of Medicine Galle

But, according to this definition increasing the hostel fee by 100% from Rs. 15/= per month to Rs. 30/= per month or increasing facilities fees by school to Rs.20/= from Rs. 10/= is not privatization as claimed by student movements. At the same time charging a fee for service previously provided free of charge earlier like charging 50/= cents on a stamp to receive health care is not privatization.

However, it is clear that setting up a new university by the private sector does not amount to privatization. It increases opportunities for higher education for those who qualified to enter but do not due to lack of opportunities.

Higher education in Sri Lanka must be looked at and analyzed in this light.

Higher education and medical education

The special committee report tabled by Dr. CWW Kannangara did not actually elaborate on the future directions of higher education in this country at the time. I believe as Prof. Gamini Samaranayaka has stated in a previous oration, it was intentional. The former Chairman UGC has given two reasons for this.⁶ Firstly, the country was starting from a point where the large majority of the population did not have access to primary and secondary education; addressing it was a priority. Hence, talking about University education in the committee was meaningless in that context and except for few paragraphs in the report, the whole subject was left to be dealt with on another day. Secondly, he is suggesting that country has already established the University in 1942 before the report of the special committee was presented in the State Assembly. The land dispute that was dragging on for years, delaying the University establishment has been resolved.

However, I also think there was a third reason. The special committee report made very clear recommendations on the future directions of primary and post primary education in Sri Lanka. It clearly stated that, 80% of recipients should receive general education leading to employment after 3 -5 years of secondary education; another 15% should receive advanced technical education to get employment, become trainers and teachers through technical colleges and special training schools (with SSC certificate); while the other 5% should receive another additional 2 years of secondary education after SSC, get the HSC certificate and enter university for professional education. He expected only 5% of the birth cohort to receive higher education for professional employment. I think he expected the only university to do it adequately. Hence, the report was limited on directions of higher education in Sri Lanka. There was also provision to send students to Britain for higher studies on scholarships.

So it was an unfinished agenda item intentionally deleted from recommendations due to reasons in contemporary history. It had some specific recommendations like on engineering and medical education and preparation of capable students for London University examinations through technical education/Colleges. Large numbers completing senior secondary school and qualifying to enter Universities were not foreseen at that time and hence I rename it as the unforeseen agenda of CWW Kannangara; a legacy left behind for its beneficiaries to take forward.

Current situation

At least two orators who delivered the Dr CWW Kannangara oration in 2009 and 2010 namely Professors Gamini Samaranayaka and Narada Warnasuriya have spoken on higher education as their themes. They have already highlighted the issues in higher education in Sri Lanka.⁷

These are summarized in point form.

1. Lack of opportunities in higher education. Only 8% of the birth cohort and 21% of applicants get opportunities to enroll for internal positions to pursue higher education
2. Quality of higher education is being questioned by the stakeholders including funding agencies and civil society
3. Justice and fairness in higher education
4. Standards of higher education in Sri Lanka compared to world class institutions
5. Inability to change and reform higher education

I have adopted some of these into medical education, identified similar problems and am planning to propose some solutions. To start this it is important to understand medical education in this country in historical perspective.

Medical schools

According to Wikipedia⁸ Medical schools are educational institutions for individuals specializing in the field of Medicine or a graduate school offering a study course leading to a medical degree.

All over the world this is a highly competitive field. The entry criteria, course structure, course content, teaching methods, duration of the course vary considerably. Since it is a highly competitive field, countries adopt entrance examinations such as GCE AL, MCAT and UKAT to narrow down the selection process. Some others have graduate entry programs. In USA and Canada almost all courses are for graduate entrants. The duration vary from 4 1/2 years -7 years. Different curriculum models exist namely traditional or problem based with their inherent advantages and disadvantages. On the long

term these differences have not been able to show a difference in the quality of the graduate.

All curricula have an initial basic science course and a clinical science rotation in the curriculum of which the contents vary greatly depending on availability of training facilities. This is in inpatient, outpatient, community and simulation set ups. The proportions in combination, duration and amount of involvement and work to be done differ in different medical schools and the ideal is still not known. No research is available on that. Emergency training is specially done in simulation settings. Level of graduation and the responsibilities entrusted to them at graduation in different health systems also differ. This determines the requirement for further training in internship. For example, Emergency training for all preinterns was started in November 2014 by the Accident and Emergency Training Committee of the Ministry of Health in which I am a member. This is a need of the country and the intern training changes according to the needs of the country.

It is important to understand that as above, most contentious issues that are being debated today in the anti-private medical school /SAITM issue like entry criteria, clinical training, bed strength, number of patients required for clinical training are very controversial with no clear answers based on scientific evidence. I think different approaches would help us understand which methods would be suitable for the future of medical education in Sri Lanka. I will elaborate further on this with the model established at General Sir John Kotelawala Defence University (KDU), Faculty of Medicine (FOM).

After graduation almost all medical graduates have to get a license to practice. This is generally offered by a government or a

local government regulating body. Most regulatory bodies require character certificates, references, criminal or disciplinary background check, payment of a fee and sometimes passing a licensing examination and further training for one to two years (internship). In our country the Sri Lanka Medical Council (SLMC) is the licensing authority. In our country all these checks and balances are weak. In that sense this needs a complete overhaul to make the system more accountable to the people.

Tracking of employment status, post-graduation and quality of graduates should be done to find out the short term and long term quality, competencies and outcomes like rate of specialization to complete this quality assurance process. This is difficult, but internship tracking is done by FOMKDU.

Information on the medical schools of the world are available on Federation for Advancement of International Medical Education and Research (FAIMER)⁹, World Directory of Medical Schools (WDMS)¹⁰, last updated in 2015. FOM KDU and South Asian Institute of Technology and Medicine (SAITM) in Sri Lanka are not included in the world registry of medical schools at the moment.

The medical education in Sri Lanka

The first western medical practitioner in Sri Lanka was Dr. Samuel Green from USA who established a practice in Jaffna in 1840. He practiced in Jaffna and Eastern provinces. He also started a medical school in 1848 in Jaffna which underwent a natural death. The Green memorial hospital still remains there as an icon and there was a private medical school named North Lanka Medical College established in 1980s which also underwent an unnatural death.

The first state medical school was established in the country in 1870 in Colombo.²The objective was to produce doctors who could engage in private practice or (GP) or employ them in lower ranks of the hospitals to provide health care. This started as a 3 year course and the curriculum contained mainly practical skills and theory in general medicine and general surgery. The qualification was LMCP and it was considered a Diploma. After 4 years in 1874 the duration of the course was increased to 4 years. It received the acceptance of Royal College of Surgeons (RCS) in Edinburgh and Dublin in 1884 and then the duration of training was increased to 5 years.

Soon after this by a declaration of Her Majesty the Queen in 1887 the provisions in the part II of Medical ordinance were extended to include Ceylon as well and thereafter the doctors qualifying from this medical school were able to practice in Great Britain as well. In 1888 the qualification changed to LMS and Ceylon Medical School became an institution that could produce fully qualified doctors. However it took another 7 years to get the signature of the Governor General of Sri Lanka for this change in the medical ordinance and it could not be implemented until then.

This system went on for another 50 years until the first University in Ceylon was established in 1942 and the medical school became part of the University. It started awarding MBBS degrees. Peradeniya medical school was established in 1962. This was followed by Jaffna (1978), Ruhuna (1978), Kelaniya (1990), Sri Jayawardenapura (1990), Rajarata and Eastern University (2005) to what we have as 8 state medical schools giving access to 1200-1300 students every year. Another state medical school was established outside the UGC by KDU in 2009 exclusively to cater to military needs in which I was the Founder Dean.

There was also a program to train AMPs or AMOs for close to 126 years who served the rural areas of the country and it was stopped in 1995. However the shortage of medical officers in rural areas remains a problem in the health service.¹¹

Faculty of Medicine – University of Ruhuna

I was selected to FOM Ruhuna in 1979 for the second batch but entered the Colombo medical school to follow the Second MBBS course in June 1979. Already the first batch was following the Second MBBS course in Colombo and Peradeniya. There is a story behind this. The University of Jaffna was established in 1974. There was standardization of entry into Universities for which the Tamil population was against. They felt it was discriminatory and the UNP which was eyeing for power in 1977 elections publicly stated that they will do away with standardization. This was done and as a result the percentage of Tamil medium students entering the two medical schools increased. Something had to be done. A medical school was established in the Jaffna University in 1977 and this almost exclusively served for Tamil students. Since this was a politically suicidal move for Southern electorates, a decision was taken to establish a University in the South. Mr. Ronnie de Mel was the god father of the move. This resulted in the main campus being established in Matara. It was established as a University College with four undergraduate programmes.

Ruhuna University College established in 1978 did not have powers to grant degrees. Each course of study leading to a degree was affiliated to an established University. For example BSc Agriculture was affiliated to University of Peradeniya, BSc Science to SJU, BA Humanities and Social Sciences to Kelaniya and MBBS to

Colombo. The medical students in the first five batches were divided into two halves of 40 each and sent to Peradeniya and Colombo to follow Second MBBS course in these Faculties. They were to start the third MBBS course in Ruhuna from third year onwards. This approach was successful and in a practical definition MBBS Ruhuna was a twin degree program for 5 years with no due SLMC recognition until 1984. The staff was given a choice to select a venue for the Faculty of Medicine, Ruhuna. The limited staff in the medical school which had been recruited by this time opted for Galle. Two reasons had been cited for this selection. Firstly, the General hospital Galle (*Fig 6*) was bigger than the Base Hospital, Matara and secondly there were better schools for children of staff in Galle. By this time a decision had been taken to shift the General Hospital Galle situated at Mahamodara to Karapitiya which was popularly called JARAPITIYA then. So it came to be at Karapitiya. Infact the foundation stone was laid by Hon. Shiva Obeyesekera, then Minister of Health in 1974 (*Fig 7*).



Figure 6: Mahamodara hospital lecture hall



Fig 7: Foundation stone for Karapitiya hospital 1979



Fig 8: Teaching hospital –Karapitiya 2017

When I entered FOM UOR in 1981 to follow the rest of my course, both the Faculty and the hospital were not ready; there were six full time members in the staff, with minimal facilities to run a medical school. Yet we were educated there and some brilliant doctors were produced from the FOM Galle. So a medical Faculty was born which so far had produced 3800 doctors of whom the majority would serve the motherland by choice despite the reasons for establishing may have been political and controversial. FOM UOR has produced 3800 graduates by December 2016 and the large majority are serving the country. Today is a different era where we talk about the demand, need, quality, standards, regulatory bodies, private public partnerships, profit orientation, ownership, free education and freedom to learn and expansion of opportunities for higher education.

I also want to mention at this point the success of this decentralized approach in promoting regional development amidst difficulties. A jungle in 1981 to 1985 while I was a student at Karapitiya is a totally different township with massive economic development. The economic model of a country must support this concept even today. (Fig 8,9,10,11,12).



Fig 9: "Kadamandiya" at Karapitiya - 1979



*Fig 10:
Site of Karapitiya Medical Faculty – 1979*



Fig 11: Faculty of Medicine - Karapitiya



Fig 12: Bustling Town at Karapitiya

Faculty of Medicine - Kelaniya and Faculty of Medical Sciences Sri Jayawardenapura

The FOM Kelaniya was established for totally different reasons. It was the former NCMC, the first private medical school established in the country. Due to public / student protests this was nationalized and affiliated to University of Kelaniya (UOK). The Faculty of Medical Sciences (FOMS), University of Sri Jayawardenapura (USJU) was established again on a political decision to expand the opportunities for medical education and also to provide opportunities for higher education / degree courses in allied health sciences and hence the name. Hence apart from Colombo, Peradeniya and SJU which were established for the need to produce medical officers, Jaffna and Ruhuna were established for political reasons. The reasons underlying the setting up of FOM Rajarata University and Eastern Faculty of Health sciences were different.

These were developed because of a computer error in the Department of Examinations which made selections skewed and students from some districts like Badulla were affected with low numbers getting selected to do Medicine. There was a public outcry from the affected areas and it was raised in Parliament and investigated. A computer error was detected. When it was corrected a new situation arose which had not been there before. There were a large number of students from other districts who were previously selected to do medicine who were now losing their opportunities. Court cases were pending and it became a political issue. Hence the GOSL initially increased the intake to other medical schools but all could not be accommodated. Hence, the decision was to set up new medical schools at Rajarata and Eastern Universities. Obviously these were not decisions based on the needs and feasibility but

political decisions made to face day to day problems. Even today these Faculties of Medicine are struggling with difficulties in the recruitment of permanent staff (Staff ratio at Rajarata is 1:42 when the UGC QA guideline is 1:7) and infrastructure deficiencies. But these will get addressed one day although it may take one to two decades.

However nobody was made accountable for the computer error and the truth is that this error should never have occurred and the damage it caused to the trust placed on Examination Department is still ongoing and never repaired. This mistrust is getting worse every year with more and more cheating behaviours being exposed like students from so called well developed districts sitting the GCE A/L examination from underdeveloped districts. The incidence in 2017 regarding the Chemistry paper has highlighted the issue again. I have a personal experience about a medical student who repeatedly failed examinations in the FOM UOR who was counselled by the late Dr. DVJ Harishchandra- the well known Consultant Psychiatrist. The student ultimately admitted that somebody impersonated for him at the GCE A/L. Dr. DVJ Harishchandra reported this to the Board of the Faculty of Medicine.

Worse side is, even today there is no guarantee that the same errors, cheating behaviours, corruption will not recur in the national examination processes of Sri Lanka conducted by the Department of Examinations. We have not sealed the hole properly through a transparent process.

We must set up new medical schools based on the needs and feasibility of the country and that decision should never be taken by the political authorities alone. For example there is serious concern that once Wayamba, Moratuwa and Sabaragamuwa Faculties of Medicine come up, the Rajarata and Eastern medical

schools will suffer most with internal brain drain of their staff. That impact has never been assessed in a feasibility report. It may happen even to other medical schools although these are now relatively strong to face it and attract new staff, but the losses could be substantial. All new medical schools unless established in suburbs of Colombo will undergo a very long and difficult teething period to get standards and quality with new staff for 20 -25 years as in Ruhuna.

However, I support the concept that, if there is a need for more medical schools and doctors in the country based on the scientific evaluation, preferably these should be established in provincial cities so that the economic and development benefits of such approaches would filter to poor populations in Sri Lanka and it will not be limited to Colombo and suburbs (As it is already stated that Sri Lanka is having 3 countries within one country based on poverty and development indices).

Needs assessment in human resources requirement for health service

The needs assessment of health care work force could be done in a scientific way on both short term and long term plans. Even the long term plans are done only for a maximum period of 10 years beyond which changes are not predictable.

Factors taken into consideration to do this include demographic and epidemiological changes such as population growth, changes in specifically risk population groups such as elderly and preterm population increases, health system modifications and future directions such as development of new units, hospitals and upgrading of hospitals, creation of job opportunities with developments within

and outside the country such as BREXIT, economic growth and trends in consumers such as private sector growth, increases in staff ratios based on research and changing policies, attrition rate of staff and retirements. This information should be transferred to training institutions (Universities and training schools) and funding agencies to align health, educational and economic policies for human resource development. A margin of error of 10% in all these calculations must be allowed.

Gross mistakes and inadequate adjustments in policies, programs and funding has had enormous adverse impacts to our country during the last 70 years. Following is an example.

When MDG targets were issued a universal package was given to be adopted and implemented in all countries. Sri Lanka also adopted it. For example our under 5 child mortality rate which was 21/1000 live births was to be reduced to 7 /1000 live births by 31.12.2015 (*Fig-13.*) General programs were implemented with funding to achieve this. We did not achieve it and fell short by a significant margin. Our rate was 9.9 per 1000 live births on the targeted date. Why did this happen? It was important to understand that Sri Lanka was different from rest of the South East Asia on epidemiological pattern of diseases. 70% of our under 5 deaths were occurring within the first 28 days of birth. Post neonatal mortality was low with good immunization coverage, good health care delivery system and good health surveillance system in the community. This was not the case in rest of South East Asia. Hence funding for the immunization program would work in a country where the immunization coverage was low but it will not have an impact in Sri Lanka.

MDG4 Status in SEA Region

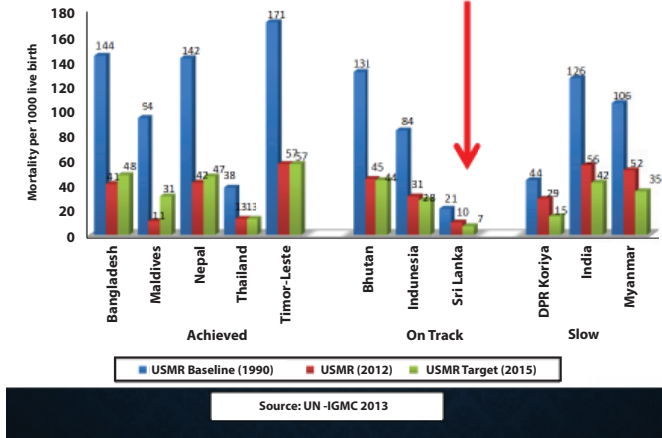


Figure 13

If newborn health was funded to reduce Neonatal Mortality Rate, we could have easily achieved MDG goal but it was not to be the case. We realized it in 2007 to 2009 period and some steps were taken to change this with an external review of newborn and maternal health. But it was too late and the impact was too small. For example biggest contribution to our NMR was preterm births, followed by congenital abnormalities. The infections, asphyxia were making small contributions. We had to do certain things to address preterm deaths, which were costly. We also had to legalize termination of pregnancy to eliminate lethal congenital abnormalities.

This is an example of the difference in demographic and epidemiological transition between us and rest of South East Asia. **This difference in the country should be taken into account when needs assessments are done based on new policies and programs. Same applies for education.**

Needs assessment

Today, in UK there are 1.3 million health workers for a population of 61million at a ratio of 22:1000. There is a chronic shortage of health work force of 4.3 million worldwide¹² (Fig-14). 57% of the countries have a skilled health work force to population ratio of less than 2.3 /1000. 44% of the countries in the world have a physician density to population ratio of less than 1/1000. Relationship between health work force and under 5 and maternal mortality rates of countries in the world is shown in Fig -15.¹² Apart from inadequate numbers, the health work force has serious deficiencies in basic knowledge and competencies.¹² This is a worldwide crisis where poor and developing countries are suffering most. Shortages of work force is a push factor for economic migration affecting all developing countries in the world including Sri Lanka unless it is addressed now. Sri Lanka is one country which could address it now than all the SAE countries due to our strong education system, if we stop fighting with each other as mono or oligopolistic providers of service, trade unions and student movements.



Fig 14

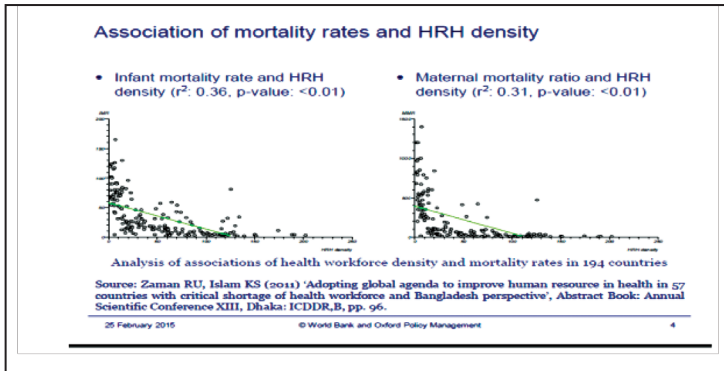


Fig 15

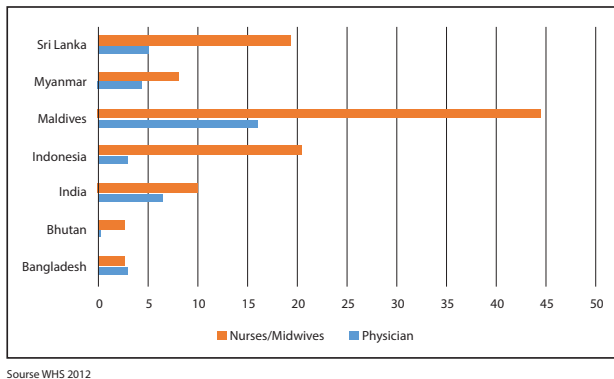


Figure 16: Total physicians and nurses/midwives per 10 000 population in the SEARC countries

Figure 16 shows the situation of nurses and doctors in the South East Asia Region. The entire region is struggling to fill the gap between the supply and demand.

Current status of physician density per population in Sri Lanka

Table 1 shows the number of physicians available in the country at the moment in five service provider categories of health care.

Table 1: Number of physicians available

Service provider	Number	Dual employment	Contribution	50%	Total
Medical officers	17960	60%	10800	5400	23360
Consultants	2100	93%	1953	977	2077
University staff	625	72%	450	225	850
Full time GPs	3090			3090	3090
Defence forces	320	60%	192	96	416
Total	24095		13395	9788	29793

*(Data with kind permission of Dr. Dilip de Silva,
Ministry of Health – personal communication)*

WHO estimates a requirement of a physician density per population ratio of 1: 400. Based on a calculation of 1:500 our medical officer requirement is 42000 for a population of 21 million. There is a gap of little over 12000 to be filled on the physician density to population ratio. Table 2 shows the current rate of production. On average Sri Lanka will produce 1280 local graduates from state medical schools, 760 foreign graduates, 188 SAIMT graduates if allowed and 60 KDU graduates at a total of 2288 a year. This is an approximate calculation. It will vary according to the number of students in each intake, pass rates, return of foreign graduates and ERPM pass rate of foreign graduates each year.

Table 2 : Number of medical undergraduates expected to graduate over the next 5 years

Institution	Number
State	6395
Overseas	3800
KDU	300
SAITM	942
Total	11437

Table 3: Predicted loss of medical work force

Category	2017	2019	2024	2040
Retirements	170	365	725	1000
Mobility	70	70	70	70
Resign/VOP	240	240	240	240
Total	480	675	1035	1310
		UOR	UOK	UORJ
		UOJ	UOSJ	EUSL

In Sri Lanka 480 doctors are lost from the service every year. The attrition of specialists is not accounted separately. Based on the above data with a 10% variation in calculation, Sri Lanka will take 12 years to saturate the physician population density ratio at 1:500 on the current rates of production and attrition. This will be in 2029. However following factors will change this scenario.

Trends of the population growth, increase in elderly population, increase in preterm births and survival to 10% like in other developed countries, changing disease patterns of these two groups, non communicable diseases, new developments in the health service, Brexit, economic growth of 12% in the private sector in a low middle income country, replacement of 1900 RMOs, attrition at a rate higher than predicted will affect this calculation. These differences should be recognized and solutions in terms of health service human resource needs identification and catering to those needs should be done now. No impact will be made by additional medical schools or increased intakes for 5 – 7 years. If the required ratio is 1:400 the need will go up to 52 500 for 21 million.

These calculations are on the requirement of basic doctors and not specialists in each specialty. Now there is an understanding and wide acceptance that the basic doctor population ratio is a very unreliable indicator to measure health service human resource

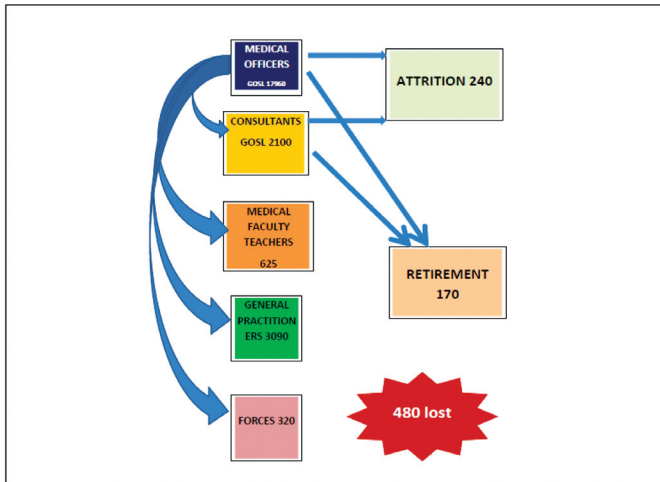


Fig 17: Loss of physicians due to retirements and attrition

needs or adequacy. However if one wishes to make that calculation, 50 000 doctors would be required from current 30 000 doctors and it will take more than 20 years to fulfil this with above described data.

Our medical school graduates are enrolled into the Ministry of Health (MOH) for internship and subsequently as grade medical officers. There is a complicated system of recruitment where all A/L parallel batches are employed together at the same time to ensure seniority in the Ministry of Health. It is determined by the same date of employment and within the batch seniority is determined by the ranking order prepared by the UGC based on the Common MCQ marks of the Final MBBS examination and the Z score of the clinical component of the Final MBBS examination. This results in a waiting time of 6 to 12 months after graduation of these doctors in a country where there is a shortage of doctors. This could be resolved with simple solutions.

To address the gap between the current need and rate of production early, either we should produce 2 000-3000 doctors per

year or import them. Increasing the output to 3 000 per year from 8 or 9 state medical schools will need more than doubling the intake per year. Some increase is possible but doubling it in every medical school is not possible. Without having adequate numbers we cannot transform our health service and improve quality although the current increase in numbers have not guaranteed an improvement in quality. This needs not only grade medical officers but also specialists, more specifically technically competent staff and better allied health workers such as nurses, MLTs, Pharmacists etc.

There is a shortage of health workers in developed countries as well. This is an area we could cater to as a country if we align our economic, development, higher education policies and fund it without sending unskilled domestic workers overseas who are our biggest foreign income earners. In addition, the loss of revenue for overseas medical education for 3 800 students (data from Central Bank / Dr. Dilip de Silva) is at least 8 billion rupees a year at a rate of 2 million per student per year. However this is estimated to be much higher than 8 billion rupees (14 billion). The cost of setting up buildings of FOM KDU was under 1.5 billion rupees.

What is the cost of medical education in Sri Lanka?

According to UGC statistics of 2016 cost of some undergraduate courses are given in Table 4.

Table 4: Cost of undergraduate courses

Course	Expenditure in SLR
Dental	819970.00
Medicine	484426.00
Engineering	341447.00
Law	145503.00
Nursing -NTS	508381.00

These cost calculations have included the recurrent expenditure only and does not include the capital costs and opportunity costs like teaching costs inside the hospitals which is free of a levy but there is loss of patient time for the health service which is an indirect cost.

What is clear from all these data is that although the opportunities for medical education have expanded with setting up of new medical schools, demand has not gone down and it appears to be growing. In this backdrop we need to study the population to medical school ratio in the world (Table 5).

Table 5: Population to medical school and physician ratio in selected countries

Country	Population in millions	Physician / Population ratio	No. of medical schools	Ratio
Sri Lanka	21	0.7:1000	8 +1without SAITM	1:0.4
Cuba	11	7.5:1000	11	1:1
Nepal	29	0.3/1000	22	1:0.8
UK	61	2.5/1000	31	1:0.5
USA	350	2.8/1000	147+30	1:0.5
Caribbean islands	31	0.2-0.4/1000	59(30+29)	1:2
Kenya	48	0.2/1000	4+1	1:0.1
Columbia	49	1.5/1000	50	1:1
Ukraine	44	3.0/1000	19	1:0.4
Australia	21	2.8/1000	19	1:0.9

I have shown the doctor population ratios and number of medical schools in some countries for information. This number varies a lot from zero in Maldives /Bhutan to 1: 1 depending on the country needs and policies. Notable here is Caribbean islands

have 30 off shore medical schools for USA which runs first two year programmes locally and send them to USA for clinical training from year 3 onwards. Despite this most developed countries have a shortage of doctors.

For all the above reasons, there is a need for at least 4-5 more medical schools in Sri Lanka. As a country it is worthwhile doing this and minimize overseas medical education especially in countries with suboptimal clinical training - for educational reasons in addition to economic reasons. This should be a policy decision made with contributions and agreement of all stakeholders. **There cannot be an organization or an institution which has the sole power or a right to make this decision like GOSL or Government Medical Officers Association (GMOA) or Interuniversity Students Federation (IUSF). Whether those medical schools should be state, private, private public partnership or corporate entities and profit oriented with sustainability are issues to be resolved during negotiations. Most certainly these issues could not to be resolved constructively in a power battle for supremacy between monopolistic trade unions and strength of governments.**

Admission system for medical schools

GCE A/L in Sri Lanka is a highly competitive University entry examination. Except in arts and management streams which are on merit, selections are based on a quota system. It is 40% based on merit, 55% based on district quota system (DQS)- district merit order based on population ratio of districts, 5% for 16 out of 25 disadvantaged administrative districts of the country. How these districts have been identified as underprivileged districts is not known and why 16 out of 25 administrative districts are included is also not known. It is well known that there are schools even in Colombo

district without adequate facilities/teachers (quality issues) to learn in biology/mathematics streams like these underprivileged districts and there are schools which are as good as any good school in Colombo or Kandy district in some of these underprivileged districts.

There is also a small number of students who enter the medical school under special category for having excelled in fields like sports and children of diplomatic service employees. Now there is a foreign quota and other foreign student's quota.

In this system there is a real and a perceived discrimination to students who perform well at GCE A/L from districts like Colombo and Kandy. In 2009 there had been 164 students who obtained 3As in GCE AL and 2 As and B with higher Z scores than other districts who could not gain entry into medical school under this system of selection.¹³ Some of them then go to other streams like Dental sciences, Veterinary science, Agriculture, Bioscience, and even Allied health sciences. They witness the other students with lower Z scores and A/L results following the medicine stream while they are compelled to study a stream that was not his or her first choice in the same University. Some others pursue their dream or goal of becoming a doctor by entering a medical school overseas and the currently contentious SAITM.

DQS is in existence for more than 40 years. This perceived discrimination due to DQS is the strongest justification to start fee levying medical schools in our country apart from shortage of doctors. DQS is an affirmative action to protect underprivileged classes and disadvantaged communities. Similar affirmative actions are there in many countries like in neighbouring India (Caste based quota system of admissions to Universities – Mandel commission report)¹⁴ and USA. University of California Davis admitted 4% of top

performers at University entrance examinations in all high schools, to promote the entry of black students conforming to Federal legislation for affirmative action.¹⁵In Sri Lanka this affirmative action of DQS was developed to cater to the needs of the disadvantaged students on the basis of inequality of the education facilities in the different districts in 1974. Such affirmative actions are always temporary but difficult to change with time are known.¹⁵

Almost all stakeholders of higher education agree that in a merit based selection system DQS of 60% is discriminatory against students from some districts. They also do not agree to do away with it completely as there are some disadvantaged communities helped by that system. They also agree on the need for modification. Nobody takes the initiative to do this change.

The arguments against DQS are very strong. It is almost 60% of the selections to all courses of study in Universities other than social sciences and humanities. It has been there for 44 years without being changed despite changes in social economic status of the country, changing poverty percentages, improving educational standards in the periphery of the country, widespread tuition culture with improved transport facilities where almost any reputed tuition master could be accessed in any part of the country, wide spread promotion of school absenteeism after fulfillment of 80% attendance regulation⁴ and promotion of tuition at school level, cheating behaviours like manipulation of the sitting district for GCE A/L examination to get undue advantages at the selection despite hard attempts by the Department of Examination and UGC to prevent it are some. Lack of a rationale to include 16/25 administrative districts as disadvantaged makes it worse. **It is also important to understand that, according to NIE data only 30% of grade V scholarships students enter University after moving to better urban**

based national schools. The DQ system is discriminatory for them. These very same arguments were brought up with the establishment of the first private medical school in 1980 and even after 27 years of nationalizing the NCMC the problem remains.

It is well known that what is introduced as temporary solutions to social problems are hard to change with time mainly due to political pressures.¹⁶ What is worse is, not even making an attempt to initiate a dialogue on this needy reform for half a century. This means a system that is undisputedly discriminatory is being continued to be protected for political reasons, causing frustration among those who miss out on courses of study of their choice after scoring high Z scores than those who ultimately get into these courses ahead of them due to geographical advantages (which is a nonacademic criterion for selection).

This disadvantage creates opportunities for fee levying higher education resulting in establishment of private medical, engineering and other higher educational institutes to provide opportunities for affected social segments. There may be business minded investors who seize the opportunity in that background. However managing that process is the responsibility of the GOSL and regulatory bodies. Protecting the vision and concept of Dr. CWW Kannangara is mandatory in managing that process. Dr. CWW Kannangara never ever proposed to abolish the large number of private schools in the country in 1943, although there were no private Universities in the country. He categorically stated to permit parents to choose a private school if they want to educate their children but he opposed having two education systems and wanted one education system to build the future Sri Lankan nation.

If you extrapolate this into the current context where there is a severe shortage of higher education opportunities in medicine

he would have said 'allow private medical schools/universities for those who could afford but could not enter due to the prevailing system but have a common curriculum to maintain standards of the medical/higher education and produce doctors/graduates who could work at grass root level to help underserved areas in this country.'

Late Dr. CWW Kannangara also understood the realities well and was very practical, when he predicted that it might take 15 to 20 years for the proposals in the report of the special commission on education to be implemented, but wanted to make a beginning in 1947. In fact it was late Mr. Baduideen Mahamud as the education minister who completed the task of having all the schools required for this country in between 1961 to 1965. It is doubtful whether our society has learnt this from the life of late Dr. CWW Kannangara that reforms take time to accomplish but one has to make a beginning.

Similarly we must now finish the unfinished and unforeseen agenda of Dr. CWW Kannangara on higher education. We are not able to provide every child who qualifies at the GCE A/L fitness test and capable to follow a higher education program an opportunity of his or her choice based on suitability and ability. If this is due to inability of the GOSL, then at least in a country that has changed directly as a result of free education policy introduced 75 years back, fee levying opportunities must be created for those who are able to afford. It is not against the vision of late Dr. CWW Kannangara. Students also should be able to change the course of study, if and when a student realizes that a particular program is not suitable for him / her. They should also be fitted in as CWW Kannangara proposed in 1940s for secondary education. This needs a social dialogue like in 1940 to 1943 for education reforms undertaken by the special committee.

North Colombo Medical College

It was during my student days the GOSL decided to allow establishment of a private medical college. It was affiliated to FOM through devious means to grant them MBBS Colombo. This proposal without transparency, backfired with subsequent criticism and caused death of the NCMC as a private medical school.

Firstly, there were 4 phases of the battle. First phase was just before the establishment of the NCMC or PMC in 1980 to the end of 1981, against the establishment of private medical colleges in the country on the concept and the impact of these on state medical schools, free education and free health.

The second phase was a court case against NCMC by medical students where Dr. Colvin R de Silva and Mr. Batty Weerakoon appeared for the medicals students. This was rejected by the judiciary.

The third phase was a silent phase when NCMC grew in stature with increased intakes, recruitments and conducting examinations. All the students of the then NCMC sat the same examinations conducted by the FOM UOC. One notable incident during this period was assaulting NCMC students who came to learn neurosurgery at NHSL Colombo by the medicals students of the FOM UOC.

The fourth phase started around July 1987, while I was the Assistant Secretary of the GMOA. Co-convenors of the Medical Students Union, Faculty of Medicine, Colombo were Dr. Ananda Wijewickrama and Dr. Ajith Amarasinghe. We led a battle to stop granting MBBS Colombo to these graduates.

General Sir John Kotelawala Defence Academy was converted to a degree awarding institution under the Ministry of Defence (MOD) in 1981. This was used as the precedence for the anti NCMC battle in 1987 subsequently under this provision. The MSU, GMOA and other civil organizations fought during 1987 to 1988 to make the NCMC a degree awarding institute and the students to get MBBS NCMC instead of MBBS Colombo.

We accepted the existence of the NCMC and fought for separation of the NCMC from UOC FOM and to make it a degree awarding institute and not for abolition and nationalization of the NCMC. This I think was an extremely reasonable demand even today.

This battle dragged on until September 1988 and we were able to reach a settlement with the newly appointed Minister of Higher education, Mr. ACS Hameed to separate the NCMC from FOMUOC. However, the political situation changed. JVP which had lost the battle on Indo Lanka accord of 1987 July, came back to Universities and took the battle over at gun point forcing then leaders of the student movement to resign by putting up banners inside the FOM Colombo and changed the slogan to nationalization. That was the point of no return to students who were eagerly waiting to start work. However it was not to be until early 1990 when the JVP leadership was eliminated. With the assumption of duties, Mr. R. Premadasa as His Excellency the President, decided to nationalize the NCMC and converted it to FOM UOK. That was how a battle that should have ended in September 1988 got dragged onto 1990. Assassination of Prof. Stanley Wijesundara by the JVP created the fear psychosis among the NCMC authorities who did not heed the justifiable demands of the genuine leadership of the student movement and the GMOA for the change to be effected. If they had given up the insistence of the MBBS Colombo for NCMC, it would have existed even today as a good private medical school.

Towards the end of 1989 to early 1990, the health system went into a crisis without doctors graduating for 3 years from Colombo while all other medical schools had one batch who had completed the final MBBS examination. The graduates from these medical schools were ready for employment. In a surprising move which was quoted to have been done during WW II, all those graduates from other medical schools in Peradeniya, Ruhuna and Jaffna with final year medical students of Colombo were employed by the Ministry of Health as interns including those who had failed the examinations from other medical schools. No standards, MBBS degree certificate or a pass certificate, competencies and knowledge were considered in making this decision. Double standards had been in existence in the medical profession of Sri Lanka for a long time. Even the SLMC supported this.

There were no minimal standards document for medical education even in a discussion and it was a time where all foreign graduates were given internship after a short period of familiarization without completing the Act 16 examination and also post intern permanent employment. Some of them still work within the MOH without passing Act 16 or ERPM examination.

Issues in medical education

There are a large number of issues in medical education that should be resolved today. I will not deal with all these as most medical schools are trying to address these with curriculum changes, changing teaching methodologies and approaches to training. I will take up three issues for discussion as I think these are very important in today's context. These are

- 1. Accountability of the medical profession to public and funders of their education**

2. **Quality of care provided by the health systems of the country**
3. **Lack of justice and fairness in selections to medical schools**

In my opinion these three issues are causing a decay in the medical profession from inside.

1. Accountability

First issue is unaccountability of the graduating students for the funding system of their education and the general public (who are funding their education). This is reflected in many ways. Firstly annually on average 240 leave the country as per statistics of the MOH. It is also reflected in the reluctance of doctors to serve in rural areas and difficult terrain in the country. Lack of adherence to work ethics in a self-regulated working environment where there is no sign in or sign out system also reflect this. Any attempt to change this is resisted by a strong monopolistic trade union. Frequent disruptions to the service by trade union actions with no consideration to accountability is also reflecting this. **No medical school in this country despite modernizing curricula had been able to change the attitudes of their graduates to address these.**

2. Quality of graduates and health care

Second issue is quality of the medical graduate produced by any of the state medical schools in the country. There is a perception in civil society about poor quality based on their general behavior that doctors are poor in communication skills and are money minded. This is probably not based on inadequate competencies as most medical schools are assessing their student's core competencies extremely

carefully prior to graduation. Most academics agree that kindness, empathy, politeness, behavior, etiquette, social responsibility expected from the doctors are not shown by present day doctors. Why this is so is being debated within the academic community. Most academics believe that this aspect of poor quality is due to bad selection purely based on one criterion which is GCEA/LZ score and they cannot change it within the training of the medical schools. The tip of the iceberg is demonstrated with following examples.

The medical officer who was convicted for murder of a garment worker after rape in Negombo Hospital was a graduate from Kelaniya University. He studied in one of the best national schools of the country. I was involved in filing a case against a medical officer and his wife for employing a 9 year old girl as a domestic servant. The girl child was severely physically abused and ran away from hospital quarters where she was for 18 months. The case went for a settlement with wife pleading guilty and had a suspended jail sentence for 5 years and paid compensation of Rs. 500,000.00. The Attorney General released the doctor from prosecution. That doctor was a graduate of Colombo medical school and an old boy of the best school in the country. I also knew another Colombo graduate who raped a domestic employee and the case was pending. This person also had a case against him for stealing the mobile phone of a consultant of the Ministry of Health.

All of you probably remember the incident at Karapitiya where medical students assaulted the nurses and midwives who followed the Diploma course in Human Lactation Management which included a pregnant nurse. All of them have graduated now and work as doctors. I also know a graduate of our Faculty who killed the overseer of the Hospital as he was a UNPer as a political assassination. The doctor was also killed by the security forces in 1989.

The specialist doctor who was caught for taking a bribe to accept reports of a particular laboratory at Kuliypitiya is a graduate of Karapitiya who topped the batch. His registration was suspended by SLMC for six months for previous misconduct few days before the incident. He was widely known for professional misconduct for more than a decade. As a student, most of his batch mates think he was a good student who changed after graduation.

There are two categories of doctors who should be identified separately on this. One category has these unwanted tendencies even before entry into medical schools and the other category which changes after entry or graduation. A good selection system should be able to identify the most in the first category and GCEA/L Z score alone will not do that.¹⁷

Another important issue is cheating behaviours of medical students/university students. This had been studied in some depth by many universities in the world.^{18,19} There is no difference in the gender, social class, country, selection system on that. What has been clearly demonstrated is that cheating behaviours persist unless remedial and corrective action is taken which includes punitive action. Research on actions to be taken had shown that most academics (41%) want students who cheat expelled from the course/university while there is less support for other forms of remedial action such as counselling, mentoring, and reprimanding.²⁰

Hence quality assurance in medical graduates is a process dependent on a large number of factors from selection, training, monitoring to graduate tracking on a long term basis with feedback from consumers and health care industry. All over the world medical schools are struggling to improve quality.

3. Lack of fairness and justice in the selection to medical schools

60% of admissions to medical school on a non academic criterion following open competitive examination is clearly discriminatory. Shear number of students missing out with 3As at A/L is unacceptably high. This system going on for 44 years as affirmative action, while schools with poor facilities are not limited to certain districts has become unacceptable today. It has also led to distribution of merit students to one medical school predominantly and whether that promotes competitiveness is questionable. Further there is a widespread belief especially among academics, that selection purely on GCE A/L Z score to medical schools where graduates are dealing with human lives is not the right approach for the future. The need for an Aptitude Test has been stressed.²¹ Arguments to retain the Z score is because other systems such as interviews could be more biased than the Z score while admitting that even the current system is manipulated. **However until we are able to make a change of the selection system, the merit quota could be gradually increased by 4-5% each year up to about 80% from 40% giving enough time of 8-10 years for political and educational authorities to bridge the gaps and disparities in between schools and districts. Such a proposal cannot be resisted by any organization.**

Do we have evidence to change the model?

As a country we have limited information based on research on the selection system and academic performance but not on long term outcomes. I have perused the published research on this by Professors Lalitha Mendis, Nilanthi de Silva, SP Lamabadusuriya, A Pathmeswaran , SN Hewage. There are large number of publications on this internationally.^{22,23,24,25,26,27,28,29,30,31,32,33,34,35,36}

Prof. SP Lamabadusuriya et. al found that the performance of the students who enter medical school on the first attempt is better than second and third timers and second timers perform better than third timers. MBBS performance over 5 years was worse in third attempt entrants. They recommended that MBBS entry should be limited to two attempts. This has been confirmed by others mentioned above in several follow up studies from 1994/95 intakes to 2006 /2007 intakes. This has been a consistent finding in these studies. Other important findings are about students with better English scores at placement test which has shown a direct relationship with English results at GCE A/L. They perform better in the academic sphere. The third finding is the better performance by those students who enter the medical school with high aggregate marks in 1994/95 cohorts and high Z scores in 2006/2007 cohorts.

Prof. Lalitha Mendis in delivering, Prof Nandadasa Kodagoda memorial oration in 2004 stated the impact of changing the DQS to a merit based system completely. She pointed out that if the merit quota is increased to 80% all students who qualify to enter on the district merit order would gain entry into medical schools along with other who miss out despite having better A/L results.³⁷ So a gradual annual increase of merit quota to 80% is justifiable.

Based on these findings and international comparisons some recommendations had been made by the above researchers. Only flaw in these studies is researchers using the word outcome as good doctors based on academic performance which has no agreement nationally or internationally. But what has been measured is performance at first, second and final examination passes, honours and failures. Better academic performance does not indicate whether a doctor is good or not good. However, if a doctor is not academically competent he/she is not likely to become a good doctor. Other attributes of a person

would decide whether he or she would be a good doctor more than academic competencies after graduation. Our inability to measure these attributes to select the better students, lack of reliable tools acceptable to academic community and civil society to do so, difficulties in implementing a change, managing a change process and lack of a courageous leadership to manage that process is a challenge.

A different model; KDU

I will now move into the home grown model at KDU we adopted and discuss some features in detail how it works differently. It is wonderful to realize how accidents create history. I got involved in the development of KDU as its founder Dean. There was a letter from Vice Chancellor of KDU Major General Milinda Peiris USP, VSP, ndc, psc to Dean requesting support and advice to set up a medical school at KDU to fulfil the medical officer shortage of the three forces. The letter had been forwarded through VC and prior contact has been made with Dr. Ranjana Seneviratna who had served the army as a surgeon. He had facilitated the visit. There was a meeting with Heads of Department with the KDU team. I was not a Head of Department by that time and was not invited for the meeting.

However, Prof. Thilak Weerasuriya, then Dean of the FOMUOR had thought that my presence would be good to have more inputs since I had lot of experience in development of courses and institutions. I have had lot of experience in development work of the FOMUOR. By this time, I was also the Principal Coordinator for the Allied Health Science Degree Programme (AHSDP) of the FOM Galle. I was heading this development very successfully in the first years of establishment. It was an unexpected telephone call to attend an informal luncheon meeting with the KDU team, while I was on my way home for lunch. There I met Vice Chancellor, Deputy Vice

Chancellor/academic, Registrar and Deputy Registrar of the KDU with our Dean and Dr. Ranjana Seneviratna. We discussed the topic of setting up a medical school for the KDU.

What transpired in this initial meeting is given below. Triforces medical services have a severe shortage of MOO which had not been filled since 1950. Their health services are dependent on public health services and it is difficult to request for priority for service personnel and families over civilians, after the conclusion of the war. They should have independent health service for all the soldiers and their families. Then only the soldiers will commit fully for the duty. Further there are UN duties to be undertaken and each contingent of 1000 soldiers needed 4 MOO and a consultant for attachment. They had less than 20 doctors in the Army and it was worse with AF and Navy. They were running with volunteers. Recruitment drive from public health system has failed miserably for more than 40 years. This included failed attempts at recruiting medical students. Health Ministry has time to time released doctors to work at Army, Navy and Air Force hospitals. But there were issues related to commitment and discipline. There were limited options for them to address the problem. So a policy decision was made by Ministry of Defence hierarchy to set up a medical school to address this deficiency. On calculation there was a need for 600 doctors in the triforces at that time. Current recruitment pace will take at least 60 years to fill the gap. India, Pakistan, Bangladesh and even Afghanistan have military medical schools.

There is a work force of almost 300 000 people in the three services and maintaining them in a country without a war is costly in financial terms. In addition, triforces have committed to look after their families' health as well. This amounted to looking after almost one million people.

Bangladesh is the country which has sent the largest number of peace keeping troops to the UN and a large percentage of the maintenance cost of the Army is coming from this revenue. They could maintain a large Army. As every person and every item is paid for in UN peace keeping operations, this revenue is significant. Further, in the past, the Sri Lankan troops were requested to be a peace enforcement force rather than a peace keeping force which is paid at a higher level. It is not possible to send troops to these UN operations without fulfilling the requirements and this need for medical force in each contingent were mandatory. Such a need cannot be filled with civilian doctors. Hence medical officers specially trained for Army, Navy and Air force was necessary. Their proposal was to send 25 medical cadets from 2010 for two years to FOM UOR and train them until the completion of Second MBBS examination in 2012. The KDU will then set up the medical school to absorb them to the third year which was similar to the establishment of FOM UOR. This request had been rejected by FOM UOC when KDU sought our support.

All of us agreed to support the project and a plan was proposed. The original decision was to take a batch of 25 cadets in 2010 and send them to FOMUOR to train for two years. During this period the FOM KDU would be built. The cadets would be returning to KDU for clinical training at hospitals in Colombo and tri forces hospitals. I saw the dangers of the plan in advance. My immediate reaction was

“No, if you want to do this, do it in 2009 while the armed forces are very popular in July 2009 and any request would be granted. By the time of July 2010 that popularity would wane and the political situation would change and it would be difficult to support this”.

The team realized this and there was very limited time. Immediately I drafted the letter that should be sent to Vice

Chancellor UOR who will then forward it to Dean and the Faculty Board and this letter was sent in a day signed by Secretary Ministry of Defence (MOD). The letter was approved by the next FB without any opposition except for few questions on the need for KDU to have a medical school. Then it was approved by the UOR Senate and a MOU was signed between UOR and KDU. Students were taken into medical faculty by 30.09 2009.

I was appointed the Founder Dean of the FOM KDU and I shifted the work place on sabbatical leave. FOM was set up. One of the best medical schools designed for that purpose was built within the KDU with a modern clinical skills laboratory. I spent my sabbatical leave there without an additional salary on a small allowance. When I left after 2 years the first building was ready for occupation for the 3rd batch for the first year itself on time. I also sacrificed a large percentage of my private practice during this period for this project. I completed the project proposals on KDU Teaching Hospital before departure. This is the best designed Teaching Hospital of the country with 704 beds.

Recruitment of medical students to KDU

KDU has a totally different system for selection of cadet officers and this was adopted with some modifications to select the medical cadets.³⁸ Firstly, applications are called from suitable candidates with a Z score above the lowest cut off for medicine in the island (normally Kilinochchi 0.7) and other physical characteristics. Then at my level I will short list only the students with a cut off above a Z score of 1.0. Then at the Registrar level those without physical characteristics would be excluded (Height/Chest circumference). A medical test is held and height, weight and chest circumference are measured at the first interview. Some are excluded at this point.

Then is a comprehensive assessment of suitability based on Z score (20), English language command (10) and Sports achievement (20), Leadership skills /extracurricular activities (20), cadet sergeant/ President scout (10) Interview performance (20) (general knowledge-5, personality and bearing -10, presentation -5). A certain number of candidates with the highest marks are then called for the second test.

Second is an Officer Qualification Test (OQT) - theory and a Practical test of English, General Knowledge, Psychological pass or fail test, IQ tests, subject specific test-biology or mathematics. Then there are practical tests- PT test, observation psychometric test, leadership skills test individual and group and an impromptu speech.

A group selected on highest aggregate marks of both days will then be subjected to an interview by a panel comprising the Defense Secretary, Three Forces Commanders, a Public Administration Representative, VC, and Dean with Registrar. Marks are given on the basis of this interview as well. Those with highest aggregate marks on all three days are selected to follow the medical course at KDU. There is an intelligence service screening test and two guarantors should sign a bond with the Ministry of Defence (5 million).

We did a study comparing a volunteer group of GCE A/L qualified Ruhuna students and 25 cadets of KDU in the first batch. Ruhuna students came higher in GCE A/L Z score and English knowledge but scored lower in general knowledge, IQ and impromptu speech. Differences were significant.³⁹

During the training all military medical students go through a strict routine of physical training, military training and English teaching inside the camp under supervision of military officers and instructors in addition to medical course work. They had a disciplined daily routine from waking up at 5.00 am to dinner and compulsory

study hours in the evening in a supervised good learning environment with all facilities provided to develop professionalism. In an outcome that surprised many of us, one candidate from KDU with a lower Z score than many FOM UOR students topped the batch with a first class and 3 distinctions. Comparatively, KDU students had a high percentage of honours rate and a pass rate in that year compared to FOM UOR. I believe the difference was due to selection and discipline.

Medical cadets of KDU are employed by respective forces. They get a salary as Second Lieutenants in the Army or in an equivalent rank in other two forces. They also get education and training. They get computers, uniforms, meals etc. However, money is deducted from their salary for meals, computers and everything other than tuition. They are bonded for 17 years- 5 years during cadetship and 12 years after graduation. They need permission of the Commanders to leave even after completion of 12 year service. It was hypothesized that once used to the life style of forces and disciplined in that period of training and employment, they are unlikely to leave even after 12 years. Of course bonds would be extended, if postgraduate studies are pursued within that period. Three forces get the doctors suitable for their service in that process.

KDU has now produced 3 batches of doctors (25 each) who are serving the forces and all 3 forces are relieved to a greater extent from the shortage of medical officers. KDU has also evaluated through feedback by consultants of the health service the quality of their graduates as interns. This is the only medical school in the country which does it.⁴⁰ The feedback on attitudes, punctuality, behavior, politeness, empathy had been excellent. The only grading slightly lower had been on emergency training and this is a weakness in all medicals schools. Now it is being addressed by the MOH.

South Asian Institute of Technology and Medicine (SAITM)

SAITM started as the South Asian Institute of Technology and Management and changed its name from management to medicine after establishing a fee levying medical school under its wings. This was done with the total patronage of the then government in power. A single owner funded the establishment of the institute. The intakes into medical school which started in 2008 has been going on up to 2017. All medical students unions of the state medical schools, GMOA and IUSF have been protesting against it since inception for various reasons. However, not a single state University Faculty of Medicine or a single Faculty of Medicine Teachers Association has protested until January 2017. Protest of students have been at a lower scale with no disruptions to their education. The GMOA also protested without strikes to disrupt the public health services. But this escalated to a higher level from January 2017 when students of all 8 state medical schools boycotted classes in protest. However, this was in total contrast to what took place in 1987. In 1987 the students of the FOM Colombo decided to boycott classes after a secret ballot and not a single student opposed it. The demand was to separate NCMC from FOM UOC. This time students were just forced to go on strike by their union leaders and IUSF. No student was allowed to speak a word against it.

The GMOA resorted to strongest trade union action time to time from January 2017. Their demand was different initially. MSUs and IUSF demanded nationalization of SAITM or abolition which means a closure. They started boycotting classes just before the judgment of the Court of Appeal was given on 31.01.2017. The GMOA demand was not to give provisional registration despite the order of the Court of Appeal. The main basis is SLMC inspection team report that stated the clinical training facilities were inadequate and hence the standards are poor. In addition, the methods adopted by SAITM

authorities in establishing the medical school were also unacceptable to them. Now the GMOA and SLMC have appealed to the Supreme Court to quash the decision of the Court of Appeal.

What is the crisis in medical education?

In my opinion the crisis in medical education today is lack of understanding of Kannangara philosophy by educated beneficiaries of his reforms. This conflict is about controversies surrounding the current and future higher education policy of our country. As you could see it is a very complex issue with ramifications around many areas of education policies, health policies and economic policies of this Country on which there is no general consensus at all. The only policy decision we must reach consensus on is the role of non-state sector partners in higher education in Sri Lanka. This cannot be “no role” as more students are in non- state fee levying higher educational institutions (more than 75 000) today than in state Universities. Disagreement is only on medical education by IUSF and MSUs in reality, whereas in all other disciplines the role is accepted. The GMOA position on this is not clear.

All other disputed factors are controversies where there is no consensus or general agreement based on scientific evidence from across the world. This includes entry criteria which are highly variable globally but fixed in Sri Lanka on an unscientific political basis. The minimum standards defined by the World Federation of Medical Education²⁹ is having a range and is guided more by principles than fixed rules. Bed strength and patient load on which the current anti SAITM battle is staged has no consensus across the world. There are very good medical schools which have more simulated training than actual patient contact due to lack of access for privacy and patient independence / rights in the developed countries and Eastern Europe. Some of them are recognized by the SLMC. The Indian Medical

Council advocates a 300 bed hospital with a bed occupancy rate of 70% for an annual intake of 150 students at the start but to go up to 470 beds for 100 students. Same for Malaysian Medical Council is 500 beds with reasonable bed occupancy and turn over. One could see that all issues on which the current anti SAIMT battle is raging are very controversial in the global scenario except on the role of the non - state sector in medical education and fee levying on which there is global consensus except in Sri Lanka.

However, the right to make decisions on medical education in this country cannot be vested in one or two stakeholders. Politicizing that process will take this country in a destructive path as seen today and it will take our country backwards in human development indices in the long run. All parties fighting this battle on SAIMT must understand this.

Suggesting that non state sector partners should not have a role in medical education in isolation in this country cannot hold ground, as there is not a single protest on the large number of students going overseas to study medicine. It would be far better for these students to study medicine in Sri Lanka under a well regulated training programme under home conditions. Sri Lanka with a better education system could be a better educational hub than all other countries in South East Asia and can even earn foreign currency in this scenario. Yet, we are sending students to countries like India, Bangladesh, Pakistan and Nepal at a high cost of several billion rupees a year. Whether we like it or not, education in that context should be available as a commodity for those who can afford but do not have opportunities in state Universities despite showing capabilities to learn at the GCE A/L fitness test. Other funding mechanisms such as bank loans to buy now and pay later could be negotiated for those who cannot afford, yet capable without

opportunities. Today I am not poor purely because of higher education and I understand the need for higher education to eliminate poverty and hunger. Today the free education programme developed by the late Dr. CWW Kannangara has become a “civilization” established to eliminate poverty and hunger of poor people like the irrigation systems of ancient Sri Lanka to eliminate hunger.

To reach consensus on this and work beyond the consensus, all stakeholders must negotiate the issue among them as equal partners without using power to bargain and use scientific data to generate a constructive dialogue. The stakeholders/partners should be GOSL, SLMC, Universities/FOMs and members of the elected student unions, political party representatives, trade unions, academics and even public interest groups. There cannot be an organization with exclusive rights to decide on this and nobody shall have veto power. Roles must be clear for each partner. For example, a regulatory body like the SLMC must not dictate policy to a government but advice how to maintain standards of medical education institutions using the same yardsticks for both private and public sector.

As stated by Coonam this is not privatization and will create opportunities for those without opportunities. It will also address the current negative aspects of the education system like DQS and discrimination based on underprivileged quota if these are to stay.

What is the most important lesson taught by late Dr. CWW Kannangara on this?

He was able to change the entire education system in this country for the betterment of this nation to march forward past all our neighbours by fighting courageously for more than two decades, proposing changes, implementing and managing the change as the

Minister of Education against all odds with colonial governments and their white officials, religious oppositions with vested interests Old Boys' Associations which opposed free education to effect these changes. He had to fight tactfully with very strong members of the State Assembly in doing so. If some of us and our leaders had part of his courage and perseverance in this knowledge based society with excellent communication tools, we could have done differently to effect the required changes in the 21st century education system.

My interpretation of current crisis

Now, it must be clear to all of you that SAIM is not the disease and the disease is in the education system. SAIM is only a clinical feature like fever in the disease of the education system or its treatment like Paracetamol. The issue of private medical education had been debated now close to 40 years since 1980 or before. Ever since the famous quote of CWWK on making education free – “making it an open letter accessible to all without allowing the rich people to inherit education as their property”, education has been expanding. Since the introduction of free education and free university education it has gone on. The opportunities for primary and secondary education have expanded quickly and this has resulted in an imbalance of service provision for higher education for the need. This should be addressed by revisiting CWW Kannangara vision 74 years after it was tabled in the State Assembly. We have misunderstood this vision and misinterpreted his mission statement, philosophy and misdirected the program and activities to distort his vision. Sadly, it is being done by children who benefitted or getting benefitted from his own education reforms much to the disadvantage of people who need it most again converting it to an inherited property of the new generation of rich and privileged people who became rich purely

because of CWW Kannangara. Most certainly if the new generation of educated rich elite is now preventing expansion of welfare towards selected target populations like estate workers or urban slum communities to bring equity, indirectly by demanding more allocations for elite and preventing the rich who could afford from spending on higher education, it will happen. **That is my reading and understanding of the anti SAIMM battle.**

Therefore, solutions must be proposed for the disease of the education system in the form of reforms without putting all the blame on SAIMM and its patrons calling it privatization. If not, the education system of this country will deteriorate much to the disappointment of all of us and we will all seek a different education system for our children and grandchildren while poor people suffer in the degraded and outdated education system. They are the very people late Dr. CWW Kannangara wanted to protect and promote in our society through free education.

The most dangerous outcome of a win for the anti SAIMM battle would be to prevent the emergence of a dialogue on the need for reforms to suit the 21st century education system in Sri Lanka, one hundred years after late Dr. CWW Kannangara revolution.

Proposals

1. Set up a statutory body like NIE for health as National Health Commission to generate and collect evidence to reform all aspects related to National Health Service including work force needs. This will help us bring in reforms at least every ten years. If not the health system will get out dated. This should be an independent body with professionals from multiple disciplines including health and economics. It must be responsible directly to Head of state and Parliament. All stakeholders including patient rights groups could make representations to this body.

2. Revamp the SLMC set up in 1926 to broad base the representation on the lines of GMC UK to suit the modern era, to strengthen licensing process and continuous monitoring of the medical schools and the profession. This needs long overdue amendments to the Medical Ordinance which is outdated.
3. In streamlining this process, the SLMC must use same yardsticks to ensure quality and standards for all medical graduates from all medical schools. It cannot change based on state, foreign, private or profit orientation although I agree that massive profit orientation will compromise quality.
4. Both regulatory bodies SLMC and UGC should agree on a common set of criteria for quality assurance and to assess standards. Different GCE A/L standard or a minimum results or Z scores, different criteria to assess standards and quality in the two institutions would lead to conflicts. Application of standards should be equal to all medical schools.
5. We must design a new system for selection to medical schools based on currently available evidence which should definitely include an interview, aptitude test and a psychometric assessment at a specific point of time in the future. If we cannot agree on it then, we must do research to generate the evidence or to find a new system prospectively. Although urgent a change cannot be made overnight but initiating a process is urgent. Avoiding bias is extremely important and it could be done.
6. Adopt some positive features of KDU/Nurses Training Schools model into state medical schools as below.
 - 6.1. Select the students on the same process like now including DQ system. No change and no resistance is expected.

- 6.2. Employ them into Ministry of Health at the entry as student doctors like student nurses. It is better if the duration of service is included for pension. No resistance is expected. If one opts out of employment, to be in the current system it also could be done. However they become junior at the time of seeking employment in the MOH.
- 6.3. The allocation of the Ministry of Higher Education to medical schools should be transferred to MOH. Since the money is from the GOSL no resistance is expected.
- 6.4. Right now about Rs. 480,000.00 is spent per student by the GOSL per year for medical education. Mahapola is 60,000.00 per year. Every student gets an account opened in a state bank and MOH deposits Rs. 45,000.00 per month to the students account. Then there is a standing order to deduct Rs. 40,000.00 and credit it to University account for student tuition. If needed this allowance component could be increased by the MOH.
- 6.5. Student doctors should be bonded for a service period. No repayment except from the service. This could be shorter if they serve remote areas. If one wants to leave they could pay the bond and go. If they opt out of scheme, they will be junior at the time point in employment. Bonded period could be five years or decided by the service requirement. It could be extended for postgraduate training.
- 6.6. This will minimize external brain drain and they will become accountable for the funding agency which is GOSL or people.

- 6.7. Internship should be included in the curriculum soon after the graduation in a previously arranged manner to combine internship into medical curriculum and start internship soon after the results. This should be given 5 year notice unless there is agreement from all medical schools to be implemented immediately. This will prevent illegal private practices and minimize ability to earn money as an unregistered doctor. A quota system for each medical school from each province could be given.
7. Internship appointment must be given to previously designated hospitals for each FOM using a quota system based on analysis of ranking order and preferences of graduates over the last 5 to 10 years. Post intern appointments based on ranking order must be retained.
8. There should be more medical schools in the country including possible fee levying medical schools because of the need. Private public dialogue is a useless debate in a country where there are limited positions for free higher education when others qualifying at AL must find alternatives and there is no restriction on overseas higher education which drains the national economy.
9. Increase the merit quota by 5% each year until it reaches 80% and keep 20% for all other disadvantaged groups and special category admissions until a new system for selection evolves with time and research evidence. DQS should be abolished by adopting a modified University of California Davis system to suit Sri Lanka. Firstly all schools with GCE A/L Science and Mathematics stream should be identified. Secondly all such schools sending the students regularly to Medicine and Engineering should be excluded. Rest could be divided into two

categories. One group would be schools which send students to other streams of science undergraduate courses on a regular basis. Second category would be schools which never send students to any stream or University at all for the last 5 years. These three categories of schools are there in all 25 administrative districts. This third category of schools should be given an opportunity to send the top few performers (1-5) to all other courses other than medicine and engineering. The second category of schools must be given opportunity to send the top performer (1) to medicine and engineering. This should be accommodated within the 20% of disadvantaged group for affirmative action. It could also be done by giving those underprivileged schools in every district a quota from this 20%. Impact of this could be seen by analyzing one GCE A/L cohort without implementation with available data on a research basis.

10. Reintroduce the leadership training programme. This was a well thought out programme by the former government. It was developed by university academics with military input at KDU. I contributed two modules on how to face ragging and dealing with student unions alone and another module on interpersonal relationships with Prof Chandani Hewage. This third module was very popular on dealing with love affairs, substance abusing friends, colleagues with psychiatric and personality problems etc. The programme was evaluated by an independent team and was rated good or excellent by over 90% of students. If I knew so much about CWW Kannangara, certainly another module on CWW Kannangara and history of free education would have been introduced. It should be introduced into school curriculum and university curricula as an essential module for every course of study.

Conclusion

It is possible to change the system for better but we need courageous leaders with vision, perseverance and creativity. People and communities could be changed. Believe it and do not lose hope.

References

1. History of education in Sri Lanka 1796-1965, KHM Sumathipala, Education publication Department.
2. Poverty has fallen in Sri Lanka but Fiscal, Growth, and Inclusion challenges Need to Be Tackled to Sustain Progress; World Bank Report on Sri Lanka, February 2016.
3. Report of the Special Committee on Education, Ceylon: November 1943 Ceylon Government Press, Colombo.
4. CWW Kannangara commemorative lecture, AV Suraweera 2011.
5. Coomans & Hallo de Wolf, 'Privatization of Education and the Right to Education' in de Feyter & Gomez, Privatization and Human Rights in the age of Globalisation, 2005.
6. Problems and challenges of University education in Sri Lanka : Prof Gamini Samaranyaka CWW Kannangara commemorative lecture 2010.
7. Legacy of Kannangara in the current context : Role of the state in higher education; Prof Narada Warnasuriya, CWW Kannangara commemorative lecture 2008.
8. Medical school, Wikipedia, the free encyclopedia Wikipaedia https://en.wikipedia.org/wiki/Medical_school.
9. **FAIMER | International Medical Education Programs**<http://www.faimer.org/research/programs.html>
10. **World Directory of Medical Schools** <http://www.wdoms.org>
11. The assistant medical officer in Sri Lanka : midlevel health worker in decline; Vijitha de Silva et al Journal of Interprofessional Care, <http://informahealthcare.com/jic>.ISSN 1356-1820, published on line 9th May 2013.
12. Initial findings of health workers survey in Timor Leste Xia Ohui Hou and Rashid Zaman : Oxford policy management unit and World bank, 2015

13. UGC Admission Division.
14. Mandal Commission; https://en.wikipedia.org/wiki/Mandal_Commission
15. Affirmative action: Psychological data and the policy debates. FJ Crosby, A Iyer, S Clayton, RA Downing - American Psychologist, 2003.
16. Kalev A, Dobbin F, Kelly E. Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies. American sociological review. 2006 Aug;71(4):589-617.
17. Glick SM. Cheating at medical school: Schools need a culture that simply makes dishonest behaviour unacceptable. BMJ: British Medical Journal. 2001 Feb 3;322(7281):250.
18. Batool S, Abbas A, Naeemi Z. Cheating behavior among undergraduate students. International Journal of Business and Social Science 2011;2(3):246-54.
19. Glick SM. Cheating at medical school: Schools need a culture that simply makes dishonest behaviour unacceptable. BMJ: British Medical Journal. 2001 Feb 3;322(7281):250.
20. Marsden H, Carroll M, Neill JT. Who cheats at university? A self-report study of dishonest academic behaviours in a sample of Australian university students. Australian Journal of Psychology. 2005 May 1;57(1):1-0.
21. Mendis L, Ponnampereuma G. Selection criteria towards competent and caring doctors. Ceylon Medical Journal. 2011 Mar 28;56(1).
22. De Silva NR, Pathmeswaran A, De Silva HJ. Selection of students for admission to a medical school in Sri Lanka. Ceylon Medical Journal. 2011 Aug 12;49(3).
23. De Silva NR, Pathmeswaran A, de Silva N, et al. Admission to medical school in Sri Lanka: Predictive validity of selection criteria. *Ceylon Medical Journal* 2006; **51**:17-21.
24. Rajapaksa L. Selection for admission to medical school in Sri Lanka. Ceylon Medical Journal 2004; **49**:147.
25. Mettananda DS, Wickramasinghe VP, Kudulugoda J, Lamabadusuriya SP, Ajanthan R, Kottahachchi D. Suitability of selection criteria as a measure of outcome of medical graduates: University of Colombo. Ceylon Journal of Medical Science. 2008 Oct 23;49(1).
26. McManus IC, Powis DA, Wakeford R, Ferguson E, James D, Richards P. Intellectual aptitude tests and A levels for selecting UK school leaver entrants for medical school. Bmj. 2005 Sep 8;331(7516):555-9.

27. Julian ER. Validity of the Medical College Admission Test for predicting medical school performance. *Academic Medicine*. 2005 Oct 1;80(10):910-7.
28. McManus IC, Powis DA, Wakeford R, Ferguson E, James D, Richards P. Intellectual aptitude tests and A levels for selecting UK school leaver entrants for medical school. *Bmj*. 2005 Sep 8;331(7516):555-9.
29. Prediction of students performance on Licensing examination Using Age ,Race , Sex, Undergraduate GPAS, and MCAT Scores: Veloski A jon, *Academic Medicine*: October 2000 Vol 75 Issue 10 pp. 28 -30.
30. The ability of the multiple mini-interview to predict preclerkship performance in medical school Eva KW Reiter HI Rosenfield J Norman GR.
31. The interview in the admission process Edwards JC Johnson EK Molidor JB.
32. Undergraduate Institutional MACT scores as predictors of USMLE Step 1 Performance.
33. Predicting clinical performance: Does the Medical College Admission Test Predict clinical reasoning skills? A longitudinal study employing the medical council of Canada clinical reasoning examination, *Academic Medicine* vol 80 No 10 October supplement 2005.
34. Factors associate with success in medical school : a systematic review of the literature E Ferguson et al *BMJ* 2002 324 ; 952-957.
35. Validity of the medical college admission test for predicting medical school performance.
36. A new seletion system to recruit general practice registrtras ; preliminary finding s froma validation study *BMJ* 2005 330;711.
37. Prof Nandadasa Kodagoda Oration; Lalitha Mendis; 2004.
38. Cadet officer selection scheme KDU.
39. Comparison of admission criteria between military cadet students and civilian medical students in Sri Lanka: Amarasena TSD, Peiris MP, Jayawardena AJPM Published in abstract in international medical education conference IMU Malaysia 2011.
40. Analysis of feedback on KDU medical graduates from supervising consultants Unpublished personal communication, Dr Namal Wijesinghe, KDU.

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About the speaker

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He also pioneered the development of the Allied Health Development Degree Programme in Faculty of Medicine, University of Ruhuna as the founder Principal Coordinator from 2008 to 2009. He also was the founder Dean of the Faculty of Medicine, General Sir John Kotelawela Defence University from 2009 to 2011.

He won one of the Ten Outstanding Young Persons (TOYP) award in 1999 for contribution to children, peace and human rights.

He was awarded several fellowships to many countries for further training and has been an invited speaker in many national and international conferences.

His research interest and publications had been on breast feeding, child abuse, newborn screening, reducing neonatal morbidity and mortality. He contributed heavily to development and expansion of the newborn screening for congenital hypothyroidism in Sri Lanka to prevent mental retardation in these children from 2010.

He was also the President of the Perinatal Society of Sri Lanka in 2007/2008, President of the Sri Lanka College of Paediatricians in 2014/2015. He is currently working as a Technical Advisory Group member on newborn and maternal health to the Regional Director of the World Health Organization – South East Asia Region. He is also an executive committee member of the Councils of Asia Pacific Paediatric Association and South Asia Paediatric Association. He was also the Assistant Secretary of the GMOA from February 1986 to June 1988 and Secretary of the GMOA from January 1990 to November 1990.

He is known in the medical profession as a courageous, outspoken person thinking differently.