Development of Health in Sri Lanka

Carlo Fonseka
Professor Emeritus, University of Kelaniya, Kelaniya, Sri Lanka.

Introduction

In 1982 *World Health Forum*, an international journal of health development published an article by Chopra titled "The Paradox of Kerala" (Chopra, 1982 3: 74-77). In 1988, it published an article by Moni Nag titled " The Kerala Formula" (Nag, 1988 9: 258-262). It so happens that the Indian State of Kerala and the State of Sri Lanka share a common paradox, to wit, high living standard indicators despite low per capita GNPs.

In Moni Nag's judgement, the formula that enabled Kerala to become the State, which has the lowest mortality and fertility rates in modern India, consisted in devoting "higher priority to social equity..... than to economic equity" (Nag, 1988). According to Nag, the equitable distribution of primary educational services throughout Kerala equipped its politically sensitised citizens to utilise the modest but equitably distributed health facilities available in Kerala, for the manifest benefit of their health. The political sensitization of the people of Kerala is credited by Nag to "the main radical party in Kerala", i.e. the Communist movement in the State (Nag, 1988).

Panikar's case study of Kerala led him to conclude firmly that given proper policies and priorities, lack of resources need not be an impediment to improvement of health status (Panikar, 1979 14: 1803-1809). Such a conclusion immediately raises a regressive question: how and why did "proper policies and priorities" come to be implemented in Kerala rather than in any other Indian State? Whatever the real explanation may be, it is interesting to explore whether the paradox of Sri Lanka also fits Nag's Kerala formula, and, if not, to try and figure out what was unique to the Sri Lankan paradox.

Setting of Context

The paradoxes of Sri Lanka and Kerala surfaced conspicuously in the 1970s on the basis of the now familiar data set out in Table 1 (Morris, 1979 chapter 06).

Table 1: Average per capita GNP and PQLI for selected areas, early 1970s

Group of countries/ Country/State	Per capita GNP US	PQLI
High-income countries (=N 38)	4,404	92
Low-income countries (=N 42)	155	40
Sri Lanka	179	82
Kerala	126	68
All India	133	43

It is relativity that invests these numbers with extraordinary significance. On the one hand, 42 low-income countries with an average per capita Gross National Product (GNP) of $ 155 had an average Physical Quality of Life Index (PQLI) of 40. On the other hand, high-income countries with an average per capita GNP of $ 4404 had an average PQLI of 92. What is more, the average per capita GNP of the other 24 countries with a PQLI in the 80s was $ 1473(Morris, 1979 chapter 06). Unsurprisingly, countries with high per capita GNPs tend to have high PQLIs. For example, Sweden with a per capita GNP of $ 7668 had a PQLI of 97 and topped the list. But United Arab Emirates, the country with the highest per capita GNP of $ 14,368 during the period, had a PQLI of only 34. Again, predictably, countries with low per capita GNPs tend to have low PQLIs, but not always. Sri Lanka provided the spectacular and almost unique exception.

Isenman (Isenman, 1980) and specially Sen (Sen, Nov.1981) were quite impressed by Sri Lanka's record of social indicators. After an econometric exercise reminiscent of grading of undergraduates for academic distinction, Sen certified: "... in terms of relation with per capita GNP, Sri Lanka's actual values of (i) life expectancy (ii) adult literacy (iii) infant mortality and (iv) fertility, all lie comfortably away from their expected values. For a poor country with incomes comparable (only a little higher) than India or Pakistan, Sri Lanka's record in providing a higher quality of life is quite remarkable". In a word, it looked as though Sri Lanka were a statistical outlier. To pose the riddle that arose in hyperbolic form: how did Sri Lanka come to achieve a (staggeringly high) PQLI of 82 for an (abysmally low) per capita GNP of $ 179? That was the question!

There have been analysts, however, who were neither impressed by Sri Lanka's record nor even wholly convinced about its reality. For example, in the pages of *The World Bank Economic Review* in the 1980s, there was an interesting dialogue on the Sri Lankan experience in growth and equity. The dialogue was about crucial issues in development economics: how living standards are affected by policies and why specific policies come to be implemented in a given place at a given time. In this dialogue, Bhalla and Glewwe roundly declared that the "... Sri Lanka's performance in terms of achievement of living standards is ... non exceptional" (Bhalla 'et al' 1986 1: 35-63), at any rate for the period 1960 to 1978 which they had subjected to an econometric scrutiny based on some large assumptions. Indeed, they went so far as to suggest that, "the conclusion pertaining to Sri Lanka's 'exceptional' status in the mid - 1970s may have resulted from a methodology which ignored the important effect of initial conditions" (Bhalla 'et al' 1986).

This is, arguably, only a euphemistic way of pronouncing their verdict that the efficacy of the direct (basic needs) approach to which is attributed Sri Lanka's PQLI of 82 is (in the old Scottish legal formula) " not proven". Briefly, Bhalla and Glewwe contend that Sri Lanka's success is "based on analyses which does not account for the initial conditions of the countries being compared" (Bhalla 'et al' 1986). Both Pyatt (Pyatt, 1987 3: 515-520) and Isenman (Isenman, 3: 521-531), with appropriate technical erudition, have commented critically on the methodological assumptions and logical basis of this interpretation. In a response to these criticisms, Glewwe and Bhalla (Bhalla, 1989), have retreated to the position that their contribution to the dialogue was really a modest one of discussing "alternative methodologies of analyzing cross- country performance in terms of living standards". What provoked their discussion however, was their perception that Sri Lanka's living standard indicators of the 1970s seemed exceptional only because in comparison with developing countries, Sri Lanka

was "relatively exceptional in 1960 and 1948 and perhaps even earlier"(Pyatt, 1987 1: 35-63). The question is: how far back need we go in order to explain Sri Lanka's relative exceptionality in 1960 and 1948? Perhaps the longer we look back the better we shall be able to understand present times.

A Historical Survey: Ancient Sri Lanka

At present, Sri Lanka is a multi-ethnic, multi-religious, multi-lingual, plural society blessed with a high PQLI, but plagued by multifarious problems – social, economical and political. Its claim to historical fame, however, is as one of Asia's oldest and essentially Buddhist civilizations. In a fit of moral remorse engendered by wreaking military havoc on the people of Kalinga, India's great Emperor Asoka (269-232 B.C) embraced Buddhism in order to lighten his burden of guilt. According to the *Mahavamsa*, the source book of Sri Lanka's early history, in the middle of the third century B.C., emperor Asoka sent his son (or brother) Mahinda to Sri Lanka with the message of Buddhism (*Mahawamsa*, Geiger's translation, 1950). The new religion received immediate royal acceptance and patronage. The requirements of women's religious education were not neglected in Sri Lanka even in those far off days. Sanghamitta, a kinswoman of Asoka, came to Sri Lanka and established the Order of Buddhist Nuns. To digress this marks the early initiation in Sri Lanka of a tradition, namely, the education of women, which necessarily improves the PQLI of a society in two ways: obviously, by increasing its literacy rate; and demonstrably, by decreasing its infant mortality rate. But to return to our historical survey; before long Buddhism assumed the character of the state religion of the Sinhalese. It also became the bedrock of their culture. As a practical way of life based on a general theory of the world, Buddhism incorporated itself into the texture of life of the Sinhalese. However imperfectly it might have been practiced, the social philosophy of Buddhism became the conventional worldly wisdom of the Sinhalese.

To turn to E.F. Schumacher (Schumacher, 1973) at this point is not to quote a Buddhist authority, but a modern economist of unconventional wisdom, who had a finely rationalized sense of what he called "Buddhist Economics". His thoughts on the subject are only too well known, but they are eminently quotable and goes straight to the heart of the matter we are considering. Defining Buddhist economics as "the systematic study of how to attain given ends with minimum means" he says: "the modern economist ..... used to measuring the 'standard of living' by the amount of annual consumption (assumes) all the time that a man who consumes more is 'better off than a man who consumes less. A Buddhist economist would consider (that) since consumption is merely a means to human well-being, the aim should be to obtain the maximum of well-being with the minimum of consumption...". Again, he perceptively observes that whereas Buddhist economics "tries to maximize human satisfactions by the optimal pattern of consumption", modern economies "tries to maximize consumption by the optimal pattern of productive effort".

To turn now to an impeccable Buddhist authority: "Buddhism does not consider material welfare as an end in itself: it is only a means to an end - a higher and nobler end. But it is a means, which is indispensable; indispensable in achieving a higher purpose of man's happiness. So Buddhism recognizes the need of certain minimum material conditions..." (Rahula, 1959, 81).

The minimum material conditions which the Buddha prescribed some 2500 years ago for the idealized society, namely, the community of Buddhist monks, were: food, clothing, shelter and medicine. In all societies the clergy lives mainly by preaching i.e. by educating the people in religion. But, of course, the educators themselves must first be educated. So, by implication, education also became a minimum material condition of the idealized society. And these minimum material conditions had to be supplied to the community of monks by the public. It is on record that by a handsome endowment of land to Mahinda and his retinue, the king (i.e. the State) assured their material security. From the earliest times, the Buddhist clergy have not devoted themselves solely to their own salvation; they have also dedicated themselves to the service of others. From their inception Buddhist temples in Sri Lanka have served as centres for the dissemination of the three Rs, to wit, reading, writing and religion. Thus there has been a tradition of literacy in the country from ancient times, and "education" rates much higher in the scale of Buddhist values than mere "wealth". To return, however, to the idealized microcosmic society of the community of Buddhist monks, it served as the model for society as a whole. With hindsight it is perhaps tempting to read into its social welfare arrangements more than in practice obtained then. Even so, the arrangements that prevailed may justly be characterized theoretically as state sponsored welfarism, based on a basic needs approach subsuming food, clothing, shelter, health care and education.

The compulsive force of this tradition can be sensed in the judgement of a contemporary historian who, writing in 1981 about the mid-1930s declared, "It was not always possible to restrain the impulse to social welfare by preaching the tenets of laissez faire... There were instances, moreover, when the pressures of a democratic electorate were well-nigh irresistible because of the close connection of some aspects of social reform with religion" (De Silva, 1981, 466). The tradition of state sponsored social welfare was disrupted during the period of the Portuguese occupation (1505-1658) and Dutch occupation (1658-1796) of the coastal regions of Sri Lanka. However, the Dutch inaugurated a school system in Sri Lanka, which was expanded by the British who in 1796 displaced the Dutch.

The British Rule of Sri Lanka

Having displaced the Dutch from Sri Lanka in 1796, the British gained complete administrative control of the Island in 1815. By the time their 152-year rule ended in 1948, Sri Lanka had become transformed into a welfare state on the British model. (It is pertinent to recall at this point that, in the judgement of Bhalla and Glewwe, Sri Lanka was 'relatively exceptional" with regard to social well-being even in 1948).

The transformation of Sri Lanka into a welfare state by 1948 is inextricably intertwined with its British colonial history. In this respect, at least, it looks as though Sri Lanka were, indeed, "a little bit of England". Without implicitly believing that the well-intended and socially motivated acts of individuals are the motor forces of history, it is possible to trace the evolution of the welfare state in Sri Lanka to policy recommendations made by a few British men who were clearly attempting to deploy their knowledge to the service of what they regarded as civilized values. Before considering those policy recommendations, however, the transformation of the economy of Sri Lanka that took place under British rule must be briefly sketched.

During the period of British rule Sri Lanka's economic pattern changed from that of subsistence agriculture and harvesting of (wild and cultivated) cinnamon, into an export-oriented plantation economy. Coffee was grown first and, after it declined, tea, rubber and coconuts were grown. Even today these are the important elements of the Island's economy. The cultivation of tea and rubber depended almost exclusively on immigrant labour from South India. Between 1843 and 1859, 903,557 men, women and children came over to work in the plantations. Today their descendants comprise about 6 percent of the total population. Many of them have still to be enfranchised and they do not receive food stamps, as Bhalla and Glewwe (Bhalla, 1986 1: 35-63) have noted "among the poorest workers in Sri Lanka". In the 1840s the death rate among them was reckoned to be about 250 per thousand. In the 1840s no hospitals were provided for them, either by the government or by the planters. Indeed, it was only in 1870 that, as a response to the alarmingly high death rates in certain parts of the country, a medical school was set up to train doctors for the country.

The school flourished and in 1887 its products were granted full recognition to practice even in Great Britain. From that period onwards Sri Lanka has had high quality technical know-how for planning, organizing and delivering health care to its people.

In the 1820s the economy of Sri Lanka was in trouble and a commission consisting of two men - William Colebrooke and Charles Cameron - was appointed by the British government to investigate and report on the economy and the balancing of the budget of Sri Lanka. Their report (*The Colebrooke - Cameron Papers*) was published in 1831 - 32. During the period the report was being written, the Philosophical Radicals Jeremy Bentham (1748 - 1832) and James Mill (1773 - 1836) were very much in vogue in Britain. They were much concerned with social reform and education. The Philosophical Radicals had an almost incredible faith in the unlimited remedial powers of education. Cameron, for one, was clearly an earnest Benthamite, as evidenced by the following remark in the report: "I trust I shall be pardoned for making in this place a remark which has often pressed itself upon me. That the peculiar circumstances of Ceylon, both physical and moral, seem to point it out to the British government as the fittest spot in our eastern dominions in which to plant the germ of European civilization, whence we may not unreasonably hope that it will hereafter spread over the whole of those vast territories" (Ludowyk, 1962: 168).

Cameron may well have written those words out of an oppressive sense of the white man's burden. At any rate, the recommendations in the *Colebrooke - Cameron Report*, which were implemented in due course included, among other things, the spread of English education and the institution of a Legislative Council in Sri Lanka. Clearly the Commissioners were planning to use Sri Lanka as a laboratory for an experiment in social engineering, but the British governor of Sri Lanka at that time, (1824 - 31), Sir Edward Barnes had other ideas. With unconcealed resentment he snapped: "Whatever Utopian ideas Theorists may cherish of Universal fraternity without regard to Colour, Religion or Civilization, or whatever notions, Levellers may wish to see adopted, I am definitely of opinion that this people cannot nor ought to have in any existing circumstances any greater share in the Government than they have at present" (Ludowyk, 1962:). In 1870 a Department of Public Instruction came into existence and the number of state - run schools multiplied. It is apposite to note that it was long after 1870 that Britain itself decided to finance education in Britain from public funds.

At the turn of this century, English educated Sri Lankan leaders seeking ways of bettering their lot began pressing for a bigger share in the legislature. In 1924 Sri Lanka was granted "representative government" on a franchise, which allowed the vote to only 4 percent of the population, based on income, property and literacy qualifications. But the event, which proved crucial to the evolution of the welfare state in Sri Lanka, was the visit of a British Parliamentary Commission in 1927, on which all political parties were represented. The Chairman of the Commission - The Donoughmore Commission - was the Earl of Donoughmore. Its most effective and radical member was Dr. Drummond Shiels of the Labour Party. Its most epoch-making recommendation was simple enough; in the teeth of vigorously expressed opposition by the most influential political association in Sri Lanka at that time, the Ceylon National Congress, the Donoughmore Commission recommended that all males over 21 and females over 30 should be eligible to vote. By the time this recommendation came to be implemented, the first general election held under universal suffrage in Great Britain in 1929 had brought a Labour government to power. In implementing the recommendation concerning the vote, the Labour Secretary of State for the Colonies, reduced the voting age limit for females also to 21. Thus, in 1931, just two years after the United Kingdom itself had achieved universal suffrage, Sri Lanka became the first Asian country to exercise that right.

The phenomenon of an imperial government conferring universal suffrage on a colony without the consent and against the will of the most influential political association in the colony is, to say the least, odd. The oddity is resolved when it is realized that the Secretary of State for the Colonies at that time happened to be Lord Passfield, who was none other than Sidney Webb, founder of the London School of Economics. As if that were not enough, the Under-Secretary was Dr. Drummond Shiels, a Donoughmore Commissioner who could hardly suppress his contempt for the leaders of the Ceylon National Congress for demanding representative government without having grasped "the modern principle of political equality" (*Donoughmore Commission Report*, 1928: 83).

Beyond any manner of doubt it was the exercise of universal suffrage by the people of Sri Lanka that determined the shape of its welfare state. For Sri Lankans took to the use of the vote like ducks to water. They confirmed Macaulay's worst fears about the consequences of the exercise of universal suffrage: "Give votes to all and you must expect the instinct of self-interest - the same self-interest which Adam Smith counted on to work in the economic sphere of laissez faire - to lead to state interference with the inequality of incomes and prosperity" (*Economics* 10th Edition, 1976: 798).

In K.M. de Silva's judgement: ".One remarkable feature of the last phase of the transfer of power in Sri Lanka was the emergence of a rudimentary welfare state. In retrospect this would seem the inevitable effect of the pressures of a democratic electorate under universal suffrage" (De Silva 1981: 462). During this last phase which extended from 1931 to 1947, heavy expenditure was incurred by the government on health, education and food subsidies as well as on a programme of restoring irrigation works in the country's dry zone and settlement of colonists in that region. In 1947, the total expenditure on welfare absorbed 56.1 percent of the government's resources; the corresponding figure for the late 1920s had been only 16.4 percent. (De Silva 1981: 495).

The phase from 1931 to 1947 included, of course, the period of World War II. And however cynical it might sound, World War II proved good for social welfarism in Sri Lanka. And so it was for social welfarism even in Britain. For it was accompanied by a demand for massive state intervention in many spheres of social life as part of the war effort. Because of such intervention, millions of people in Britain were better fed in wartime than in peacetime (Sen, 1987: 29-30). Indeed, as Sen has observed, the expansions of life expectancy in England and Wales have been noticeably higher during the decades of the two world wars than during the peacetime decades between 1901 and 1960 (Sen, 1987). The simplest explanation of this phenomenon is that it was the outcome of government intervention in food distribution and delivery of health care during the world war decades.

As in Britain, the nutrition and the health of the masses improved during the period of World War II in Sri Lanka. The establishment of the South East Asia Command (SEAC) in Sri Lanka vastly improved the country's economy. During this period, the allied government spent something like Rs 400 million annually in Sri Lanka, which was more than the government's annual revenue at the time. In fact, Sri Lanka came out of World War II with Rs 1,260 million in blocked sterling balances - an unbelievably large fortune for a country whose annual governmental revenue was less than Rs 400 million (De Silva, 1981: 276).

The war situation forced upon the government control of the importation of rice, flour and sugar. In addition, the government adopted the policy of controlling prices and rationing essential consumer goods, mainly food and textiles, in order to combat inflation. The prices of several important food items were frozen and other food items were subsidized. These subsidies introduced as a wartime measure were continued thereafter as part of social welfare.

Another benefit that accrued to Sri Lanka from World War II was the success in the control of malaria. The SEAC forces stationed in the country waged part of the anti-malaria campaign with massive use of DDT. The programme became well established in 1946. There was a dramatic fall in the number of cases of malaria from 3,225,477 in 1942 to 1,350 521 in 1947 (De Silva, 1981: 276). In a particularly sharp exaggeration of a trend that had surfaced in the early 1940s, the crude death rate fell from 20 per thousand in 1946 to 14 per thousand in 1947. These improvements coincided with a period in which there was massive public intervention in the delivery of health care and food distribution.

Following the devastating malaria epidemic of 1934-35, a programme of investment in new hospitals in rural areas had been embarked upon with the emphasis on preventive medicine. These cottage and rural hospitals formed part of a very extensive infrastructure for the delivery of health care, especially maternal and child health care, at the village level.

Universal suffrage introduced in 1931 placed the responsibility for education on Sri Lankans. Free education i.e. free tuition from primary grades through university was introduced in 1945. The education of girls has not been neglected in Sri Lanka and this has had a direct bearing on the acceptance and utilization of maternity and child health services, gradual emancipation of women, delayed average age of marriage and consequent decline in fertility.

By 1947, there were 4818 schools fairly well distributed throughout the country (except in the tea plantation districts). Thus it is not surprising, as Bhalla and

Glewwe have also noted, that "in 1948 Sri Lanka enjoyed reasonably high living standards - a life expectancy of 50 years, a literacy of 58 percent and an infant mortality rate of 92 deaths per thousand" (Bhalla, 1986: 1: 35-63).

This brief excursion into history show that the "relative exceptional initial conditions" reached and kept by Sri Lanka in 1948, "were not attained by sudden flight", but precisely by a policy of "heavy reliance on direct measures to meet basic needs", as Bhalla and Glewwe have characterized that approach. Bhalla and Glewwe point that in 1960, too, Sri Lanka enjoyed "relatively exceptional initial conditions" - a life expectancy of 62 years, and infant mortality rate of 57 per thousand and a literacy rate of over 65 percent. These "initial conditions" too were the outcome of direct investment in social welfare. In 1948, J.R. Jayawardena, the Finance Minister of the first post-independence government of Sri Lanka expressed the government's commitment to social welfare: "We do not intend to stop or starve any of the progressive social and economic schemes of development such as free meals for children and subsidies on essential goods" (Jayawardane J.R. Budget Speech, 1948). In fact, about 40 percent of budgetary expenditure was devoted to these welfare measures. Benefiting from another war, (the Korean War) during which there was a sharp rise in the price of natural rubber and a favourable trade agreement with China, (the Rice-Rubber Trade Agreement) Sri Lanka maintained its social welfare measures. For example, the number of schools increased from 4818 in 1947 to 6986 in 1960 (De Silva (ed); Sri Lanka, 1977: 412).

From the foregoing considerations, one inference is inescapable: the "initial conditions" which obtained in Sri Lanka in 1948 and 1960 were almost certainly causally related to the "heavy reliance on direct measures to meet basic needs".

Appraisal

From their study of the Sri Lankan experience the minimum conclusion Bhalla and Glewwe sought to reach was that the use of the direct (basic needs) approach by Sri Lanka has not improved certain living standard indicators in an exceptional way. Their logic went like this: it is frequently claimed that by the use of the direct approach Sri Lanka achieved higher standards in life expectancy, infant mortality and literacy than comparator countries; but this claim is based on analyses which does not account for the "initial condition" of the countries being compared; when a methodology incorporating the role of the initial conditions of countries being compared is used, Sri Lanka's performance is non-exceptional; ergo: the direct approach has not improved life expectancy, infant mortality and literacy in an exceptional way. Q.E.D. The ultimate conclusion Bhalla and Glewwe are tending towards from their analysis of the Sri Lankan experience is patently clear: the indirect (economic growth) approach is superior to the direct approach in promoting economic growth and living standards. They may well be right, but their attempt to validate their faith in terms of the Sri Lankan experience strains credulity. Evidence adduced in the present paper justifies the inference that the exceptional "initial conditions" which obtained in Sri Lanka in 1948 and 1960 were themselves almost certainly the outcome of a heavy reliance on the direct approach.

The Government Intervention in Health

One of the direct public interventions was in the development of health. One aspect of the development of health was the production of doctors of high quality for the provision of health care to the generality of the people. This required public investment in high quality medical education. It is appropriate therefore, to discuss in some detail the development in medical education, in this general survey of the development of health in Sri Lanka.

Medicine and Culture

Medicine is an aspect of human culture. Every culture known history has included, among other things, medicine, midwifery and surgery. Culture is not genetically inherited. It is transmitted from generation to generation through education. So every culture invariably has had a system of medical education. The culture of a society is the basis of its way of surviving and thriving in the particular environment in which it is geographically located. Humans are genetically programmed to produce a culture, because cultural behaviour has survival value. Scientific medicine as we know it today, is virtually a new creation based on scientific advances of the past 200 years or so. These advances took place mainly in the Western world and "scientific medicine" has become almost synonymous to " Western medicine". The achievements of modern scientific medicine, both curative and preventive, are acknowledged by almost all knowledgeable people. Even people, who have not had the benefit of any education at all, could be expected to choose effective medicine instead of ineffective medicine, irrespective of whether it originated in the West or East. There are societies in different parts of the world with ways of life so stable that they have virtually fossilized at a given level of life expectancy, mortality and morbidity. Other societies developed new ways of adjusting to the environment, including the development of new techniques of effective medicine, which have significantly improved life expectancy and decreased morbidity. Because of the free flow of information in the modern world, people in all parts of the world become aware of effective medicine and wish to have recourse to it. The day will come when scientific medicine will be universally acknowledged as the most effective form of medicine available to humankind. Because different societies learn at different speeds, a historical time lag, necessarily ensues before different societies and even different people in a given society realize that properly practiced scientific medicine is the most reliable form of medicine available at present to humankind. The value judgement that modern scientific medicine is the most reliable form of medicine is the justification for confining this survey of the development of medical education in Sri Lanka, to developments in Western medical education in the country.

The Historical Context

A glance at the history of medicine in Sri Lanka up to 1948 is necessary to set the context for considering the development of medical education since independence was gained from the British in 1948. The introduction of Buddhism to Sri Lanka in the third century BC had a decisive influence on medicine in this country. Buddhism strongly commended the care of the sick as a meritorious act of the highest order. Under its impact even some kings like king Buddhadasa (362-400 A.C.) learnt and practiced medicine for the benefit of

the people. The very concept of hospitals has been traced to Buddhism. The form of medicine prevalent in Sri Lanka was *Ayurveda*, which included *siddha* and *unnani* and "*desiya chikitsa*"(or Sinhala *vedakama*).

The Portuguese period (1505 to 1656) and the Dutch period (1956 to 1796), saw the first contact of the people of Sri Lanka with Western medicine. But the positive influence of the Portuguese and Dutch on medicine in Sri Lanka was marginal. They built hospitals in different maritime towns of the country to serve their own citizens. On the debit side, they introduced syphilis and yaws and tobacco smoking into the country. There is evidence that the Dutch valued the system of indigenous medicine and had recourse to it on a regular basis in their hospitals. Perhaps the most important contribution of the Dutch to the developments of medical education in Sri Lanka was the key role that their lineal descendants played during the British period. As it happened, the first three principals of the Colombo Medical School were Dutch Burghers.

It was during the British period (1796-1948) that Western medicine took root in Sri Lanka. For mainly economic reasons, the British officially promoted Western medicine in Sri Lanka. When they left in 1948, the country had a comprehensive health care system and a well-developed system of medical education of international standard. What occurred in this field, since Independence is only a linear development of what was inherited from the British.

The Beginning of Education in Western Medicine

At least because the prosperity of the colony depended on the cultivation of coffee, tea, and rubber by labour intensive methods, several British Governments had been concerned about the health of the labour force. In the early 19th century, military surgeons who came to Sri Lanka with the British army taught medicine to arbitrarily selected persons on an individual basis. There was no fixed curriculum or period of training. Once a student was declared proficient by an army surgeon, he was appointed medical sub-assistant in government service. This manifestly unsatisfactory system of informal medical education gradually became unacceptable and defunct.

In 1834 Lord Bentnick had established the Bengal Medical College in Culcutta, India. His aim had been to diffuse western medical science among eastern people. In 1839, Stewart Mackenzie the Governor of Ceylon began the practice of sending small batches of Ceylonese students to Calcutta to be trained in medicine at government expense. Without having been so planned, these trainees became the nucleus of the teaching staff of the Colombo Medical School in due course (Uragoda, 1987).

Surprisingly, a private medical school appeared in Sri Lanka before a state medical school was established. In 1847, Dr Samuel F Green, a medical missionary from Massachusetts, USA, arrived in Jaffna and stayed for 20 years. In 1848, he established a private medical school at Manipay using English as the medium of instruction. His aim had been to train medical personnel to give health care to people solely in the Jaffna Peninsula. His purpose was defeated, though, because the government recruited the products of his school to serve elsewhere in the country. Thereupon, Dr Green decided to make Tamil the only medium of instruction in his school. In a mysterious way his policy of Tamil only

may have been a factor which contributed to the establishment of the Colombo Medical School by and by (Uragoda , 1987).

The Colombo Medical School

But in truth the Colombo Medical School owes its existence mainly to the "prevalence of an obstinate and loathsome disease" (yaws or parangi) in the Island in the 1860's, which had led to an alarming depopulation of the Wanni Districts. In 1867, the Governor of Ceylon, Sri Hercules Robinson appointed a one-man commission of inquiry into the matter consisting of Dr James Loos, who was colonial surgeon of the Northern Province. One of Dr Loos's recommendations for improving the general sanitary state of the country was the adoption of a plan of medical education in the country. In accordance with this recommendation the Colombo Medical School came into existence on the 1 June 1870, with Dr James Loos himself as its first Principal. It had a total academic staff of three, including Dr Loos who taught physiology and the principles and practice of medicine (Uragoda , 1987).

The clue to the humble origin of the Colombo Medical School is to be found in the first prospectus of the school published in 1870. "The Ceylon Medical School", it says "was designed to impart to Native youths of this Island a practical sound and safe knowledge of Medicine and Surgery such as, will enable them to engage in private practice or fill subordinate posts in the public service". The entry requirements to the School (apart from the ability to pay £ 2 per person, which could be waived only by the Governor), were, (i) the ability to read and write English and Sinhalese or Tamil and (ii) a knowledge of arithmetic, including Vulgar fractions. The medium of instruction in the school was - and has been for 128 years - English. Since 1970, however, the ability to read and write English has not been an entry requirement for medical education in Sri Lanka.

The School commenced with some 25 students, but when the final examination was held three years later only six qualified. As Charles Kaleb Colton once said, "Examinations are formidable even to the best prepared, for the greatest fool may ask more than the wisest man can answer." In fact examinations in medical schools in Sri Lanka have always been formidable. That no doubt, is one reason why our medical graduates have consistently performed well at examinations in the world of international medicine.

The institution, which began as "an elementary school" in 1870, was raised to the dignity of a "College" ten years later. In 1884 the course offered by the School was extended to one of five years. The standard of medical knowledge of the finished products of the School was by then considered to be high as those of the provincial medical schools in Great Britain. In 1887 Queen Victoria and her Privy Council granted full recognition to licentiates of the School who were there by granted the privilege of practicing medicine in Great Britain. This privilege prevailed until the 1970s when it was withdrawn (Uragoda , 1987).

In 1892, women were admitted to the School for the first time. In that year, of a total of 14 students only three were women. When the School celebrated its centenary in 1970, the ratio of women to men was 1:2. In recent times roughly equal numbers of women and men have gained admission to medical faculties in Sri Lanka.

Up to about 1885 there had been no well organized system of clinical training. Students had "walked the wards" and learnt what they could from the consultant staff. In the early years, medical education in Sri Lanka appears to have consisted largely in compulsorily attending lectures. During their medical course the students had to attend a total of 420 lectures (for the First Professional Examination); 850 lectures (for the Second Professional Examination); and 980 lecturers (for the Final Professional Examination). In addition they had to attend "a course of 12 lectures on insanity at the Lunatic Asylum" (Fonseka, 1970). Most modern medical students if lectured to at that rate would become permanent inmates of the lunatic Asylum!

University Status

The Colombo Medical School flourished. The buildings, which made up the School in its early days exist no more. All that remains of the early landmarks is the Koch Memorial Clock Tower erected in 1881 to perpetuate the memory of Dr Edwin Lawson Koch, the second principal of the School. The year 1942 was a major turning point in the development of medical education in Sri Lanka. In that year, the Colombo Medical School acquired university status, being incorporated in the University of Ceylon as its Faculty of Medicine. On being so incorporated the Diploma of Licentiate in Medicine & Surgery (LMS) became converted into the degree of MBBS. When the Colombo Medical School opened in 1870 it had an academic staff of three. In 1970, it had 14 departments of study with a total academic staff of 67- an increase of over 2000% in 100 years. This seems an astronomical increase until it is realized that whereas in 1870 there was one teacher for every eight students, in 1970 there was one teacher for every 14 students. This represents a decrease of nearly 100% in the single most important factor in a field of study, which requires close hands on training under the direct guidance of teachers.

In 1938, the Medical College established a Dental School at the Dental Institute in Colombo. The School opened with six students who were all medically qualified men. The School closed down in 1939 and was revived in 1943 after the establishment of the University of Ceylon. In 1954 it was transferred to Peradeniya.

The Peradeniya Medical Faculty

In 1962 the University of Ceylon set up a medical school in its Peradeniya Campus. The staff of the Peradeniya Medical School was initially drawn from the Colombo Medical School. In 1967, the two Schools were completely separated from each other by the creation of two independent universities, one in Colombo and the other in Peradeniya. The Paredeniya Medical School has been in existence for over 35 years and must be regarded as the single most significant development in medical education in Sri Lanka since Independence. At first its curriculum was simply a duplicate of that of its mother faculty in Colombo. However, as Arsecularatne has comprehensively documented, "from its very inception, due both to collective enthusiasm as well as to individual initiatives, the Peradeniya Medical School implemented several important innovations, most of which were based on the desirability for greater orientation of medical education to the health needs of Sri Lanka and, more generally, to the changing ethos of higher education in the country" (Arsecularatne, (eds) K. M. De Silva G. H.

Peiries: 1995). It adopted new measures related to teaching skills, methods and fields of study and research, assessment of student performance and staff-student relations. It set up a Medical Education Unit, which has facilitated improvements in the processes of teaching and learning medicine in the country as a whole. Its products have distinguished themselves in various fields of medical research.

Newer Medical Schools

Between the years 1978 and 1992 new medical faculties came into existence in Jaffna, Ruhuna, Kelaniya and Sri Jayewardenepura. A private medical school - the North Colombo Medical College - came into operation in 1981, took in eight successive batches of students, and produced about 800 doctors. Its infrastructure provided the physical basis for the Faculty of Medicine of the University of Kelaniya. Paradoxically these four new medical schools came into being during the worst period of political and social unrest since Independence. In a vital sense they are all still struggling to be born, being plagued by inadequacies of trained teaching staff and facilities. The main purpose they have served up to date was to have made medical education available to a much greater number of students than ever before. In 1977 the total intake of students to all medical faculties in Sri Lanka was 240; in 1996 the total intake was 889 (Arsecularatne, (eds) K. M. De Silva G. H. Peiries: 1995).

Postgraduate Medical Education

The diploma of LMS or the degree of MBBS did not entitle holders to higher posts in the Medical Department. Licentiates and graduates of our medical schools therefore sought higher British medical qualifications. Locally qualified doctors were required to obtain a British postgraduate medical qualification before they were promoted. This practice continued until 1973 when the government accepted a recommendation of an advisory committee that local postgraduate qualifications obtained after a specified programme of training should replace foreign postgraduate qualifications. Accordingly the Institute of Postgraduate Training was established in 1976, which became transformed into the Postgraduate Institute of Medicine (PGIM) in 1980. This is affiliated to the University of Colombo. Recognition of foreign postgraduate qualifications for purpose of career advancement was abolished with effect from 1 January 1980.

Appraisal of the Development of Medical Education

Looking back on the development of western medical education in Sri Lanka as a whole, it is legitimate to ask, "What has it achieved?" Those who know what international standards of medical education are, have freely conceded that from its inception the level of academic attainment among the products of the medical educational system in Sri Lanka has been high. For example, concerning the degree of Doctor of Medicine (MD) awarded in Sri Lanka, Lord Rosenheiym, President of the 450-years-old Royal College of Physicians of London said in 1967: "Your MD is awarded on the results of a very searching examination and having acted as external examiner here on two occasions, I hold your MD in very high regard.. It is, in fact, of a standard very similar to our London membership" (i.e. MRCP), (Fonseka, 1970).

Considering the modest investment in research that has been made, what the products of our system of medical education have contributed to the advancement of medical science has been significant. Particularly after medical education ceased to be a function of a government department and became largely a university responsibility in 1942, a fair amount of original research of high quality has been done, especially during the past three or four decades.

The Future

Given the rate at which medical science and technology is changing, it is no longer possible for medical schools to produce doctors who on graduation will posses the knowledge, skills and attitudes required for the efficient practice of medicine, surgery, midwifery, paediatrics and psychiatry. Therefore, what modern medical schools attempt to do is to ensure that newly qualified doctors are equipped with the elements of the science and art of medicine to discharge the responsibilities of an intern i.e. a pre-registration house officer. This requires the definition of a core curriculum, which spells out in detail the requirements that must be satisfied before a newly qualified doctor can safely commence internship training. In 1997 the six medical faculties in the country commenced work on formulating a national core medical curriculum.

In 1995 the Colombo Medical School celebrated its 125th anniversary. Its prestige and maturity enabled it to embark with confidence upon innovative global developments in medical education designed to equip doctors to practice scientific medicine competently in the 21st century. The Colombo Medical School has already begun to implement an innovation, which represent a fundamental reorientation of the education the school had imparted for well over a century. The mother of all Medical Faculties in Sri Lanka has shown the way to the future development of health in Sri Lanka.

Conclusions

In a sense, it was Morris D Morris who triggered off this inquiry into the atypical development of health in Sri Lanka by devising the PQLI. And he, indeed, spoke wisely when he divined that " some countries whether by design, by force of circumstances, or by accident have employed policies that have been atypical in their effects" (Morris, 1979: chapter 06). The Sri Lankan experience is in consonance with his intuition in every detail. Sri Lanka's high PQLI is the outcome partly of a historically inherited design (a tradition of a basic needs approach). It was partly of force of circumstances (imperatives of World War II) and partly of accident (undesigned presence in the British Colonial Office around 1930 of Sydney Webb who decided to confer universal suffrage on the people of Sri Lanka). All of these shared a basic common feature: they promoted direct government intervention on behalf of the common weal.

And of all of them the last - universal suffrage - was perhaps the most decisive factor, for it gave the people of Sri Lanka an instrument of great power with which to shape their destiny. That Sri Lanka should have acquired universal suffrage almost by accident is wholly appropriate. For it was not for nothing that form Sri Lanka's ancient Arabic name " *Serendip*", Horace Walpole in 1754 coined the word "serendipity" to describe "the faculty of making happy and unexpected discoveries by accident" (Concise Oxford Dictionary, eds. 7th 960).

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