Dr. P A Verghese Memorial Oration 2006

"Healthcare in Transition"

by **Padmavibhushan Dr. M S Valiathan**
National Research Professor

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It is a pleasure for me to take part in the Founder's Day Celebration of the Medical Trust Hospital and pay tribute to Dr Varghese who built this famous Institution and established its credentials for excellence in service. I remember my first meeting with Dr Varghese very clearly even though it took place more than twenty years ago when I was serving in the Sree Chitra Tirunal Institute. He said to me "I had wanted to see you because you have succeeded in building an institution of excellence in the public sector in record time. I did not think this was possible, especially in Kerala". We met on several occasions later on, when he used to tell me about his plans for the expansion and development of the Medical Trust Hospital which claimed his total attention. He honoured me by insisting that I should open a new floor of the hospital and keeping in touch with me even after I left Kerala in 1994. He was an unusual combination of a practical visionary and a human dynamo, whose contribution to health care in Kerala will always be gratefully remembered. The Medical Trust Hospital and its tradition of excellence will ever be his shining monument.

We are habitually too self critical and often fail to remember that a great deal of progress has been made in health care since independence in India. When the first Medical College was opened in Kerala in 1951, the life expectancy in India was less than 40 years and mortality from typhoid fever, pneumonia and various other infective fevers was very high. We had scourges like small pox and plague besides tuberculosis and malaria. As medical students we saw countless patients with all these diseases, but it was rarely that we saw a patient with myocardial infarction. The picture has changed dramatically today. Life expectancy has gone up to 66 at the national level and above 72 in Kerala. Infant mortality has dropped by 70%. Small pox, plague and guinea worm disease have been eliminated. Malaria has been contained at 2 million and half a million deaths from TB prevented by DOTS. India has also successfully developed an impressive network of tertiary care facilities in the urban centers and even set up ambitious targets in medical tourism. There are no less significant achievements in the growth of medical colleges and research institutions.

These successes should not however blind us to our failures which are serious. For example, the infant and maternal mortality has stagnated since 1990: life expectancy, infant mortality and mortality of under 5 year olds are worse than those of Bangladesh. World Bank says that India has 16.5% of the global population but contributes 20% of the disease burden of the world.

Disease burden not only causes physical pain, suffering and death. It has a dire impact on poverty. We all know India has no social insurance for health care in spite of recent and totally inadequate initiatives taken by the Government. Thanks to the absence of social insurance, 3.3% of the Indian population is driven into bankruptcy by out of pocket expenditure on health care. This is a vicious cycle because poverty and malnutrition predispose to illness; illness pushes the poor into hospital care and crippling expenditure, which aggravates poverty and illness. The World Bank estimates indicate that 10% of the poor sell land and assets to meet the cost of medical treatment. This is a distressing state of affairs. Moreover, while communicable diseases will continue to decline, HIV/AIDS may rise to three times the current level and thanks to this, TB currently 8.5 million would increase. The Ministry of Health adds that prenatal and under 5 years mortality may not decline and the so-called Millennium Development Goals announced for 2015 may not be achieved by that date. This needs no aggravation but it is in fact aggravated by disturbing prospects which are clearly visible on the horizon. There is plenty of evidence that cardiovascular disease and diabetes will sharply increase the official estimate is that the figures will double. Cancer incidence in the same time frame will increase by 25%. Lastly, mental health problems affecting 6.5% of the population at present is bound to increase substantially in response to the unprecedented upheavals in our social structure.

The emerging scene in health care therefore has few parallels in

diversity or magnitude. It would call for the joint effort of many classes of professionals including physicians, scientists, sociologists, technologists, managers, administrators, politicians and industrialists. Their roles are diverse because physicians are needed to provide care directly; scientists to investigate disease outbreaks, look into causation and develop remedies; sociologist to study the societal impact of the disease burden and of healthcare delivery; technologists to develop instrumentation of international standards at affordable cost; managers to ensure that the output of health care matches the inputs in terms of money and personnel; administrators to see that rules are observed and the system is free from corruption; politicians to give appropriate priority to the health sector in state policy and to manage state-centre coordination; and industry to produce drugs, instruments, devices, vaccines etc., of high quality for the Indian market. There are many other players such as the media because there is hardly anyone without a stake in health care. But their roles, varied as they are, remain complementary and they address critical issues relating to access, quality and innovation.

Access: The poor access to our primary health centres in notorious in most parts of India, Kerala may be a partial exception. The poor access may be due to wrong location; inadequate or absent staffing; and inadequate or nil equipment and supplies. The access becomes still poorer as we move up to the secondary and tertiary levels. As a result poor patients from the far flung villages are compelled to approach high cost institutions in the private sector or the tertiary level institutions. The carefully planned referral system from primary to the tertiary levels has collapsed everywhere due to a combination of poor funding, poor monitoring, mismanagement and wide spread corruption. The leakage of funds in health care in one of the Southern states is reportedly as high as 25% of the total expenditure! If the access is poor at the primary level one should be hardly surprised that it verges on nil at the tertiary level. Take for example, coronary artery disease. Fifty years ago, it was not a common disease and in any case, could not be investigated or treated with any

modern gadgets. Access for a patient even in the medical college was not a serious problem in those days. Today, the disease is rampant; investigations and treatment involve highly complex equipment and major skills in invasive cardiology and cardiac surgery. The result is of course that the access to the modern management in CAD is severely limited for the poor.

Quality: The second major failure in health care is the lack of standards, awareness and enforcement, of quality. Industry is way ahead of health care in regard to quality assurance. In spite of some efforts by NGOs, no standards exist at the national or state level for quality at the primary, secondary and tertiary levels in regard to facilities, personnel etc. Very few hospitals are even aware of the standards for laboratories and their accreditation by NABL. Needless to say no attempts have been made to develop standards for medical and surgical procedures in terms of hospital stay, complication rate, mortality etc., even though these are widely used in advanced countries which don't hesitate to put the data on the web so that public would have access to them and would develop confidence in the hospitals. The lack of any serious effort by the hospitals and medical personnel to develop and enforce standards on a voluntary basis is one of the reasons why the public in India is rapidly losing confidence in hospitals.

Innovation: No one doubts that health care owes the dramatic advances of the last fifty years to technology. The technology of health care falls into three distinct categories. Firstly, we have instruments which are used extensively at every level and at every stage. They may be analytical (auto analysers), electrophysiological (ECG, EEG), optical (endoscopes), imaging (ultrasound, CT, MRI, PET, radionuclecide) or therapeutic (linear accelerator, laser) for a vast range of applications: they may be devices used as implants (heart valve, joint prosthesis), disposables (syringe, dialyser, oxygenator, blood bag) or prosthesis

(dentures, limb prosthesis); lastly, they may be products of biotechnology including diagnostics (HIV kit), therapeutics (human insulin) or vaccines (HIV, rotavirus). Technology continues to advance all the time and we have now Space and IT (telemedicine, computers for hospital management, edusat for learning, VR for training); soon we may see nanotechnology being used for diagnosis, imaging and drug delivery, which deals with dimensions of a millionth of a centimeter!

The glittering array of technologies is however marred by the fact that India imports 90% of them at high cost. The Indian market is tiny compared to that of the US but still amounts to US $1.3 billion. We have a poor record in innovation which is the engine of technological progress. In 2003, India had 3 US patents for instruments in contrast to Japan and US which had 900 and 5000. Unfortunately the medical and technological communities as well as industry in India have not woken up to the harsh reality that increasing dependence on imports has made modern health care unaffordable to the majority of our people who are simply priced out. As India is a member of WTO and accepts intellectual property for trade, importing knowledge based products have to be paid for in cash or in kind. Unless we have intellectual property to sell or lend, we will not in a position to continue for long on buying and borrowing alone. Nor could we contemplate a scenario when 10% of our population has access to modern health care based on imported technology while 90% have little access to anything remotely modern.

A corrective strategy: We cannot stop at diagnosis, a strategy for treatment has to follow. As revamping health care for over a billion people in India where health is a state subject is a formidable task, we can hope to do no more than indicate the elements of a strategy.

To begin with, it is widely recognised even by Government committees that we cannot provide adequate access or quality in health care unless the public spending is boosted. No amount of efficiency or excellence in

administration can produce results if the budgetary allocation for health is less than 1% as has happened for several years in India. The current indications are that this may rise from the current 1.3% to 3% of the GDP during the 11th plan beginning 2007. Another sober assessment is that the State should become a purchaser, and not provider, of health care because of the painful experience of Government - run PHCs and hospitals. Indeed in states such as Karnataka and Gujarat, PHCs and even secondary level institutions are being handed over by the Government to private bodies for management. Kerala and some other states are transferring health care institutions to elected bodies at the local level. Soon PHCs and CHCs will be overseen by local bodies and autonomous District Health Authorities and their aim would be to ensure that 80% of the common ailments are dealt with satisfactorily at the village or taluk or district level. To reduce the burden of out pocket expenditure, various schemes of community health insurance are also being considered. A Government Committee has recently outlined a scheme which would provide basic health package for a payment of Rs. 150/- per capita per year; basic package plus general surgery for Rs. 310/-; and basic package plus tertiary care for Rs. 700. This is just one example of the many schemes which are under discussion and partial implementation.

What about quality? While a handful of hospitals may manage to get accreditation even from agencies in the US and Europe to attract "medical tourists", the grim fact remains that the vast majority of health care institutions have virtually no systems in place to monitor quality. This must be addressed urgently by a package of measures. Standards for facilities; hospital services such as medical records and waste disposal etc.; and personnel must be prescribed at the three levels of health care, and the standards must be updated every five years. This should be accompanied by the formation of three autonomous accreditation bodies for each state, which would inspect

and certify the institutions at the primary, secondary and tertiary level for compliance with the standards. The accreditation bodies should be independent and professional such as say, Crisil or the accreditation body for the star hotels in India because the last thing we should do would be to install an inspector raj of the Government. The accreditation bodies should also insist that hospital laboratories are approved by NABL because the lab services in hospitals are far from satisfactory at the present time. Lastly, professional associations should no longer fight shy of setting up standards for medical and surgical procedures on the lines of what their counterparts have done in the US. These standards should cover indications, hospital admissions, rate of complications, mortality etc., which should be comparable not necessarily identical to those in advanced countries. The monitoring of standards should be done at the hospital level and on a voluntary basis after "anonymising" the performing physician. This is a highly sensitive area where angels fear to tread but we need to address the issue lest the public lose their trust in the quality of professional services and resort to litigation and worse. I am persuaded that senior physicians with integrity and high repute could be found to give shape to a monitoring scheme for professional services and introduce it in stages over a 5 year period on a voluntary basis. This would be a great achievement for the medical profession, for the hospital system as a whole, and for the patients.

Lastly, we have no choice but to take vigorous steps to promote innovation by R&D in medical technology. This would call for a series of steps such as the setting up of an Instrumentation development fund; R&D projects to be funded only if they are jointly sponsored by academia and industry; technology parks to be created next to R&D laboratories; parks for components and subsystems; building a strong electronics industry with large scale chip production and a mission mode programme for medical instruments. Many of these steps were recommended by the Sikka Committee of the Indian National Science Academy in 2004 and call out for implementation.

The harvest truly is plentiful. Let us hope labourers will not be few!