



## Envisioning a Healthy India

Dr Saibal Gupta

**T**HE VISION, PASSION, AND WORK of Swami Vivekananda were the major stimuli for reawakening India and inspiring the youth to struggle for independence. The methods employed in the process differed, but the goal was freedom from colonial rule. The next step was building a united healthy India as a modern nation, based on her spiritual heritage. Political freedom was not Swamiji's only concern; he was also a social philosopher concerned with developing humankind through a holistic view of the individual. To his Vedantic vision the one and the many were the same reality. There are aspects that need defining and correcting in today's India in order to fructify Swamiji's vision.

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What is the nation and what are its boundaries? India has never been politically unified except during some periods of conquest through a central authority. However, even under powerful sovereigns, the assorted races and people did not have the political perception of a single nation. This perception influenced the subcontinent's political history throughout the ages. All through, various people wanted to be a part of India—by conquest, or by trade and commerce, or as refugees, or as students, or as spiritual seekers. It is curious that amid all social upheavals a philosophical and religious bonding has always held India as an entity. This unification started in ancient times. It matured in the epic age of the Ramayana and the Mahabharata and was later consolidated during the Puranic age. The philosophical boundaries of India were uniquely defined in some Puranas. One wonders at the vision in the *Shiva Purana*—nobody knows who

the visionaries were—that placed the segments of the Goddess Sati's body from Kamakshya in the East to Hinglaj in the West, and from Kanakumari in the South to Kashmir and Nepal in the North. They had installed the boundaries of a nation not by producing a map, not through political entities, but by a philosophical and emotional bonding. Besides, there were also the twelve *vyotirlingas*, luminous symbols of Shiva, and places connected with Vishnu, which made people travel from one part of the country to another to visit them.

Secondly, what do we mean by a spiritual heritage? Is it the heritage of an emotionally bonded India? True, the bonding has always been religion, but the methods of religious living, through which an individual can realize God, have never been straitjacketed; there has always been considerable latitude to preferences and orientations to follow the numerous scriptures and saints. God realization, whatever be its intellectual and other dimensions, was the foundation of ethics in all walks of life, from the king to the lowest citizen, including physicians. That general ethical background might have had its variations and violations, but it provided a gold standard.

### **Defining Health and Its Philosophy**

The medical profession in India was noble and refined and had high ethical standards. The *Sushruta Samhita* exhorts the students: 'Above all, the aim of Ayurveda is the attainment of the ultimate truth or salvation by which the human mind realizes the identity of the individual soul with the Universal Soul and can thus rise above unhappiness, pain, and mortal destruction.'<sup>1</sup> There is no other medical tradition in the world that speaks in such a manner. The *Charaka Samhita* and the *Sushruta Samhita* were compiled in written form between 1000 and 700 BCE and their attitudinal and moral principles were

derived from Vedic literature. Ayurveda originated as a part of the Atharva Veda, and the initiation of students started with recitations from the Shrutis. Whereas some of the written texts of the Shrutis under incompetent hands underwent some distortions, those in the medical texts remained intact. Contrary to other regulations in ancient Indian society, there were no religious or caste barriers for studying medicine. The first extant compilation of the *Sushruta Samhita* was by Nagarjuna (c.150–250 CE), founder of the Madhyamika school of Buddhism. He compiled the entire *Sushruta Samhita*, organized its one hundred and twenty chapters into five books, and added his own contribution in a sixth book named 'Uttaratantra'. Any man could be a medical student, once he convinced the teacher of his moral standing and basic learning. Today we demand a science education to become a doctor. Science education was extensive in those days too: mathematics, chemistry, physics, navigation, ship building, astronomy, metallurgy, architecture, to name a few. But for medical studies moral and ethical standards were of prime importance. Education in the humanities is gradually gaining greater importance in the West today. There are universities where the humanities and science education are given equal merit for admission to medical courses, and the experience has been that such education makes better community doctors. At present a doctor in India receives practically no education in the humanities and ethics, let alone imbibing the holistic view of medicine and its practice. The result is much unhappiness with the medical profession and with doctors' attitudes. A doctor in those days knew and believed that the manifestation of the Divine is the highest in humans, and serving them is serving God.

Ayurveda did not concern itself only with curative medicine, it also developed preventive

medicine—today termed positive health—which includes mental health. Physical and mental training were instruments of positive health. Meditation formed an important part of the medical curricula. A surgeon was advised to examine the patient in detail once again just before the operation, then sit in meditation to concentrate on the operation to be performed, and finally to control his own body and mind. The doctor then washed himself and entered the operation room, which had been cleaned and fumigated. The area of the patient's body to be operated on was cleaned with antiseptics. The entire process of a surgical operation was divided into three phases: *purvakarma*, *pradbanakarma*, and *pashchatkarma*, which correspond to the preoperative, operative, and postoperative care of our times. These aseptic precautions were introduced in Western medicine only in the early nineteenth century after Lord Lister. To ensure health for all citizens a king was to make provision for clean drinking water in every village, plant trees in a planned manner in villages and by roadsides, and monitor the disposal of garbage outside the village or city limits through incineration. The idea of vaccination was not present, but there were potions for preventing some diseases that we mostly do not understand today.

The curriculum of medical education included both surgery and medicine. Sushruta taught that the union of medicine and surgery makes a complete doctor. The doctor who lacked the knowledge of one of these branches was like a bird with only one wing. The interactive and multidisciplinary medical education that was then advocated is neglected today in our system more than in the West. The probable reason is the mistaken notion of the need to super-specialize in one area, or one type of surgery, which is enough to earn a lot of money. Through this blind attitude a patient is no longer seen as a complete individual, but as made of disjointed parts. This notion is

against our heritage of looking at a person, sick or otherwise, holistically, and it increases the cost of treatment and the patient's resentment as well. After qualifying as a doctor the student used to receive the final blessing and exhortation from the teacher that constitutes the oath:

Dedicate yourself entirely to helping the sick, even though this be at the cost of your own life. Never harm the sick, not even in thought. Endeavor always to perfect your knowledge. Treat no women except in the presence of their husbands. The physician should observe all the rules of good dress and good conduct. As soon as he is with a patient, he should concern himself in word and thought with nothing but the sufferer's case. He must not speak outside the house of anything that takes place in the patient's house. He must not speak to a patient of his possible death if by so doing he hurts the patient or anyone else. In the sight of the gods you are to pledge yourself to this. May the gods help you if you follow this rule. Otherwise, may the gods be against you.<sup>2</sup>

This oath from Charaka predates the Hippocratic oath by many centuries and the philosophy of its sublime text is self-revealing. 'The Arabic version of the *Sushruta Samhita* is known by the name of *Kelale-Shawshoore-al-Hindi*. It was rendered into Latin and formed the basis of European medicine till the seventeenth century' (ibid.).

How far did the ancient Indian medicine succeed cannot be answered today, as we do not have any data from those times. But we do know that in the nineteenth century, when European medicine came in contact with Indian medicine, there was not much difference between the two in the understanding and treatment of many diseases like tuberculosis, diabetes, and typhoid fever.<sup>3</sup> The Indian surgical practice was superior in many areas and operations were performed on all areas of the body except the chest. Although

India had developed aseptic surgery, there was no idea of bacteria, as the microscope was not invented or used in India. Asepsis, antisepsis, and cross-infection were understood. Emperor Ashoka in his *Girnar Edict* stated that he built hospitals for both people and animals. A century later, King Duttha Gamani of Ceylon listed among his good deeds the founding of eighteen hospitals for the poor. The diagrams and layout plans for the hospitals of those times are still available. Individual rooms were preferred, as poisons could spread from one patient to another through cross-infection. Infected patients with infectious diseases were segregated. In contrast, the earliest Greek hospitals in the temples of Aesculapius were open halls.

Another more modern comparison is the life of Dr Ignaz Semmelweiss (c.1818–65 CE). He was a practising gynaecologist who introduced asepsis in Vienna. By close observation, which in today's scientific parlance could be called the double-blind trial, he discovered the cause of childbirth fever or puerperal sepsis that claimed the lives of many mothers. He was literally chased out of Vienna because he showed that puerperal sepsis could be prevented by wearing clean gowns and by washing hands before touching a pregnant mother—he compared the incidence in his ward with that of the others. He went back to Hungary, but even there was thrown out of hospitals for propagating his conviction. Though he died as a broken man in his village, his knowledge spread and the thread was picked up by people like Louis Pasteur, in France, who discovered bacteria. But it was Lord Lister who associated them with surgical infection and introduced asepsis in surgery in the early nineteenth century. Semmelweiss would not have died as a broken man in the ethical medical practice of ancient India. Knowledge was not a personal property in India's tradition; new knowledge was an extension of

the existing knowledge and was shared by all. This is true even now—though at present intellectual property rights cheat the sick by changing one atom in a molecule of a drug and raising its price many times.

### **Evaluation of Ancient Indian Medicine**

Where would ancient India stand in the modern parameters of the Human Development Index (HDI) as constituted by the United Nations Development Programme (UNDP)? Prof. Amartya Sen's ideas on human development have influenced the construction of the HDI that the UNDP has been reporting for different countries of the world every year since 1990.<sup>4</sup> Not being an economist I can only quote professor S K Chatterjee: 'The UNDP translates crudely Sen's thinking into practice by replacing the capability set of an individual by his or her achieved combination of functionings.'<sup>5</sup> This has been termed by some persons as dairy farm economics to increase milk, meat, and eggs production. Since then the UNDP has introduced certain other indices to take into account other aspects of the development of a society. Prof. Chatterjee has written about indices that can be introduced by mathematically calculating Swami Vivekananda's ideas of 'holistic collective development' with Sen's 'capabilities set' approach as the true marker of human aspects of well-being in a society.

Health constitutes only a portion of the HDI, and many of the parameters are not available for ancient India, like life expectancy at birth, child mortality, nutritional status, incidence of famines and epidemics, and so on; however, there are other analysable data. To analyse and evaluate the health scenario one has to examine the *World Health Report 2002: Reducing Risks, Promoting Healthy Life*<sup>6</sup> in different affluent and not-so-affluent nations of today and extrapolate those values to known lifestyle patterns in ancient and

modern Indian life. By this method it is possible to obtain a rough estimate, and then one can add what is known of the curative medicine for a total picture, which may not be irrelevant.

However, some of the comparisons in modern parameters are possible. For example, life expectancy in ancient India probably would not be lower than 23 years old, as calculated in the India Census of 1931 before major famines and wars happened.<sup>7</sup> There were regional floods in preceding decades, though only one in Hyderabad was recorded. The life expectancy rose to 32 years in 1947, and at present it has touched almost 70 years. The curious thing in the 1931 census is that life expectancy was higher in the female than in the male population. This could be due to wars and strife killing mostly men, but the female child was probably not as much in danger as in the present situation due to female feticide.

Before evaluating the medical scenario it is pertinent to ask what the aim of medicine is. Is it only to improve the life expectancy or to increase happiness? If the happiness index is becoming increasingly important for the general evaluation of the UNDP, it is even more important for medicine. The happiness index would have been better in ancient times because medical practice was in conformity with the psychic and ethical background of the people, and equally within the reach of the poor as of the rich, including hospital treatment. The oath of Charaka does not mention monetary remuneration, unlike in the Hippocratic Oath or the code of Hammurabi; in ancient India medical teachers and practitioners were largely paid by the king and grateful donations of society. Each teacher was allotted four to six students—a far cry from our present-day crowded classes. Proximity to the teacher helped students imbibe the qualities of the teacher. There were regular symposia and discussions within a group and also with other groups; notes of these

discussions were kept and later, after confirmation, added to the body of the texts. This trend gradually declined in the second millennium of the present era, and Ayurvedic practices slowly degenerated to individual practice. The last notable contribution was around the eleventh century CE from Chakrapani Dutta, who introduced metals in the treatment of diseases.

At present India's mortality rate is a little high. But this could not have been India's position in ancient times. India had the highest share of world GDP till the middle of the Mughal period. In the first century CE it was 32.9 per cent; in 1000 CE 28.9 per cent; in the seventeenth century 24.4 per cent—while that of Europe was 23.3 per cent. The GDP dropped unbelievably to 3.8 per cent in 1952.<sup>8</sup> The living habits were healthier in the old days. Till contemporary times cooking was never done in the living quarters but in a separate well-ventilated kitchen. Today this is not possible in single-room homes of the middle-class urban dwellers or the poor rural people. Fresh vegetables and fruits formed a larger part of Indian diet, and Ayurveda had special discourses on mental and physical aspects of childcare.

### ***Medicine in India: The Colonial Era***

The introduction of modern medicine from the West was a boon to India. It matched the scientific and humanistic traditions of our yesteryear in the teachers and practitioners seen by my generation. Ayurveda had declined in the hands of untrained practitioners. Some knowledge and fragments of ancient books were available to some who earned by the standards of those days—cures did happen but without any rationality. There were very few institutions and the field was cluttered by soothsayers, magicians, astrologers, and home remedies passed down through generations. There were only a few pockets of ancient surgery left in this vast country and some of that amazed

the surgeons from Europe—like the operation of rhinoplasty, plastic surgery to reconstruct the nose, or couching operation for cataract, operations that were described in the *Sushruta Samhita* and practised the world over. The practitioners were often ignorant of the rationality of the procedures. As the colonial governance settled and the need for education—particularly medical education in view of the prevalence of diseases—emerged, the Medical College at Calcutta was established in 1835, followed shortly at Bombay and Madras. Out of five students in the first batch at Calcutta, Madhusudan Gupta performed the first dissection of a dead body in India after a gap of nearly two thousand years, and the event was celebrated by a gun salute from the Fort William at Calcutta! He also was familiar with the surgical discipline of ancient India, edited an English translation of the *Sushruta Samhita*, and knew that Sushruta advocated dissections of human bodies, which was discontinued by the Buddhists during the time of Ashoka the Great.<sup>9</sup>

This first step was followed by continued progress, and medical schools and colleges opened through government as well as private efforts. A larger portion of the hospitals had free beds and provided free treatment, though there also was a small number of paying beds and private cabins. Doctors passing out of medical colleges enjoyed social prestige and respect. Initially the government being dubious about the ability of Indians to imbibe scientific education curtailed the curriculum to *Materia Medica* and *Therapeutics*, to thus produce a class of assistant surgeons that could treat common ailments; but as Indians began to excel, the course was gradually extended. Some of them went to England and passed the examination at the Royal College—the first one to pass the examination of the Fellowship of the Royal College of Surgeons was given a public welcome at the Howrah railway

station and paraded through the city on an elephant. Other doctors opened private clinics and nursing homes in urban and semi-urban areas, and the magic of modern medicine spread. As in general education so in medicine, belying the low estimate of the British, brilliant Indian doctors emerged over the next hundred years, occupying teaching and research positions and making important contributions to medical science. The colonial phase of modern medicine was more or less in line with people's expectations, which included largely free treatment and low expenditure when needed. The doctors were also more humanistic, in line with the ideals of many geniuses who adorned that period.

### **Modern Medicine in India**

India emerged from colonialism through great upheavals and with massive movements of its population, death, hunger, war, and famines. All segments of the country were not equally affected, but the poor and the tribal suffered the most. The social ethics on which India built and won freedom went through severe trauma. Value systems altered and development proceeded slowly. Before society could consolidate its political and economic systems, the call came from the rich G8 nations for liberalization and the opening of economies. There was no way to avoid it but to swim with the current. The socialist ideology of the Nehru era had to be abandoned, as the average rate of growth in GDP from 1950s to 1980s was 3.5 per cent, while per capita income growth averaged only 1.3 per cent per year, which was 10 and 13 per cent in China and Taiwan respectively. With economic liberalization money entered India in a fast-growing stream, enriching the top 1 per cent of the population to Western standards, and a trickle-down effect that benefited another 9 per cent. The rest, 90 per cent of the population, remained more or less the same,

with half of them below the poverty line.

During this process two things happened in the medical field. On one side, modern technology became available and many lifesaving items became tax-free. The health industry became a profitable venture and investment grew rapidly in private medical care, bringing technology to everyone's doorstep. But on the flip side, both state and central governments withdrew rather rapidly from totally free treatment due to rising costs. Even if only 10 per cent could pay for medical treatment—that meant 120 million people roughly—it was a huge market for private medical care. Medical insurance was introduced, though the system is so faulty that only 3 per cent of the population is insured, and that too inadequately. The mechanism for private-public partnership was introduced, but it did not fill the void for common people. Some protection was given to government employees.

Therefore, what is wrong with modern medicine as it is practised in India? The growth of medical science so far has occurred in the West parallel to the growth of other aspects of society. Progress in medicine since World War II has been explosive, but almost all of it in the West and with a corresponding increase in the costs. The harmony between social consciousness and economy on one hand, and medical practice on the other, which has been described in ancient India, exists only in the West to a varying extent. In plain words, a society that can spend money for research can also pay for its utilization, as products are costly in accordance with the economy and are protected by international laws. This is apparent in the cost of drugs and instrumentation. And though many of them are not superior or more useful than what already existed, their aggressive marketing in the Third World succeeds in selling them. Untested drugs are often pushed in the market to pre-empt competitors, which

sometimes produces disasters as in the case of thalidomide babies in the West. And such drugs are now pushed to the Third World. An example is ketamine hydrochloride, a drug used in anaesthesia but later found to be a potent narcotic, which can be administered orally, by nasal spray, or by injection, and can cause death; it is now being manufactured in India and pushed back to the West, where the demand for narcotics is high—a boomerang of the present-day small world.

In India the top 10 per cent of the population can pay for part of modern scientific treatments, according to the technology that has been installed in India. The next 40 per cent does not have access to scientific treatment but to a compromised version of it. Below that, the treatment of the poor is often a matter of consolation. Such a wide variation in the standards of treatment affects both the rich and the poor—even the rich do not know whether the treatment they obtain is appropriate in a particular situation, since very few have knowledge of the extent of possibilities in modern medicine.

There is one thing, we can affirm, that is outpacing the spectacular growth of science, and this thing is corruption. Corruption in government institutions is unfortunately almost accepted, but even private institutions suffer from corruption of a different kind. It is the competition for the market share and consequent maximization of profit that drives such trends; and there is no regulatory authority. Costs are determined by market forces. The competition among medical businesses in cities is unhealthy. An outline of that war is not possible in this article, but in brief the present scenario shows unnecessary investigations, unnecessarily expensive treatment, lack of transparency to patients and relatives, the grabbing of patients and costs unscrupulously by all concerned in the supply chain management, in which the patient is the fodder—this is with

apologies to a large number of honest medical practitioners who have rejected corporate pressure and do whatever they can by themselves, sometimes leaving the big cities.

The cost of treatment is a problem in affluent countries too. In the US the last presidential election was practically decided by those who were outside the health care net. By strong laws and governance a conveyor belt system of medicine takes care of the majority of people, though frustratingly. In India we have no medical governance, and though we have some laws they are not governed by medical science but by other factors. India's knowledge industry in medicine, which was growing in the late colonial era and after independence till the 1980s, has stopped growing and industries are up for sale. There are a few exceptions, of course.

### **Looking at the Future**

What can be done for the future of medical science, which not only cures but heals? Swami Vivekananda did not say much on the curative aspects of medical science in isolation from a total human development. The depth of his compassion for the sick was however revealed during a plague epidemic that occurred in Calcutta in 1898, when he even thought of selling the land of Belur Math for financing the relief work. That first line in the oath of Charaka comes alive in the picture of Nivedita sitting on the floor of a hut, crying with a child's dead body on her lap, oblivious of the danger.

But for us the task is how an equitable healthy India is possible in future? It is not an easy task, because a healthy India first needs a healthy political and economic life, which of course needs a healthy collective mind, as Swami Vivekananda wanted. Only then can the health sector become better. The top priority is to supply safe drinking water and electricity to every village and urban

home in India. With that more than half of the diseases would be eradicated. It would be expensive, but not more than the money stashed in foreign banks, if it can be recovered.

With greater attention and investment in agriculture, procurement, storage without wastage, and distribution of foodgrains food scarcity can be lessened, and in consequence more diseases can be eliminated. If corruption could be eliminated, India would have better nutrition in all segments of society. Every child should be immunized against all infectious diseases at birth, and this should be free of cost. The protocol exists, but lamentably not its implementation. Holistic and collective development is the only means that can encourage healthy habits.

Private medicine is not bad in itself, but profit-motive without responsibility is wrong. Famous medical institutions in the developed world had their beginning through charity. Nowadays it is often seen that giving donations to charities in India is a means to avoid tax. Money is more easily available to religious institutions, but they can reach only a few. People should take the initiative to build medical institutions for the common good. These institutions will be able to draw many unselfish persons to participate in such activities. Then modern medicine will be within the reach of all people. Success in cooperative effort is one of the proposed extended indices of the HDI.<sup>10</sup>

It is obvious that developing a healthy India is a utopian dream without human development producing the basic development of society. No less utopian is the hope that a golden day will dawn when we shall become so rich that we can have everything we desire. That day never comes, only strife increases. The India that now perceives herself as politically one needs a different kind of awakening.



*(References on page 42)*